MALAYSIAN INVESTMENT DEVELOPMENT AUTHORITY

Crafting the Future

2019 Malaysia Investment Performance Report

MIDA

MALAYSIAN INVESTMENT DEVELOPMENT AUTHORITY

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Year in Review: 2019

"Even with the global economy in a fragile position, I believe that strong policy frameworks and robust institutions would allow almost all developing countries to deliver broad-based growth that reduces poverty and allows shared prosperity," Mr David Malpass, World Bank Group President

Source: An excerpt from his speech at McGill University, Montreal, Quebec, Canada, 7 October 2019

1.1 A Word from MIDA

Toughening Up

Trade and geopolitical tensions overshadowed the global economy in 2019, weighing on sentiments and spilling into weaker growth, as well as a drop in global investments. Malaysia's economy was not spared, with exports being impacted. However, despite the challenges, the country managed to capitalise on its competitiveness to attract FDI while at the same time, encouraging domestic businesses to invest in the country's economic future

Global Economic Growth

Lingering times

Global economic growth was at its weakest in 2019– comparable to the global financial crisis 10 years ago– as the two-year ongoing trade dispute between the USA and People`s Republic of China (PRC) triggered sharp movements in global equity markets, a decline in global oil prices, and higher capital outflow from emerging economies.The protracted period of high trade tensions is exacerbating an ongoing cyclical slowdown in global economic activity. The International Monetary Fund (IMF) has cut its growth forecasts for the global economy for 2019 and 2020. In its October 2019 update to the World Economic Outlook, the IMF revised the growth forecast for 2019 to three per cent, 0.3 percentage points lower than its April 2019 forecast. While growth is set to pick up to 3.4 per cent in 2020, it remains below the earlier forecast in April 2019 of 3.6 per cent.

The World Bank, in its Global Economic Prospects report published in January 2020, estimated that the continued weakness in global trade and investment dragged growth lower across the board in 2019. It estimated emerging markets and developing economies to have weaker-than-expected growth of 3.5 per cent in 2019, with the USA's economic growth revised to a weaker-than-expected 2.3 per cent, the Euro area and Japan to 1.1 per cent and PRC to 6.1 per cent.The IMF noted that the pace of global economic activity remains weak, with momentum in manufacturing activity substantially slower and to levels not seen since the global financial crisis. The future of the global trading system and international cooperation has also come into question as uncertainty increased over rising trade and geopolitical tensions. This has in turn, taken a toll on business confidence, investment decisions, and global trade.

Trade growth has also slowed down, reflecting a drop in global imports PRC and East Asia as well as emerging market economies under stress. Alongside the downturn to global trade, there was also a drop in global investment in line with the reduced import growth, reflecting cyclical factors, the steep downturn in investment in stressed economies, and the impact of increased trade tensions on business sentiment in the manufacturing sector.

On a regional basis, FDI flows to Europe and developing Asia declined, while flows remained unchanged in North America and increased in Africa, Latin America and the Caribbean and transition economies. The impact from the 2017 tax reform implemented by the USA that reduced its investments overseas, and weighed on global FDI in 2018, appears to have diminished in 2019.

According to the United Nations Conference on Trade and Development's (UNCTAD), Global Investments Trends Monitor Issue No. 33, FDI flows to developed countries decreased by a further six per cent to an estimated US$643 billion and remained at historically low levels. Although FDI to the USA remained stable at US$251 billion, FDI to the European Union fell by 15 per cent to US$305 billion. For developing economies, flows remained unchanged at an estimated US$695 billion, with FDI increasing 16 per cent in Latin America and the Caribbean and three per cent in Africa. Developing Asia saw flows decline by six per cent to an estimated US$473 billion, which still accounted for one-third of global FDI, while flows to transition economies rose by two-thirds to US$57 billion.

For developing Asia, the overall decline was driven by a 21 per cent drop in investment in East Asia. Investments to Hong Kong, PRC almost halved to US$55 billion as divestments continued through the year. Flows to the Republic of Korea (ROK) also saw a decline of 46 per cent to US$7.8 billion, attributed to trade tensions and investment policy changes. Inflows to PRC remained stable at US$140 billion. Southeast Asia remained developing Asia's growth engine, absorbing an estimated US$177 billion in FDI flows, which is a 19 per cent increase from 2018. Singapore was the biggest FDI host country in the region, with flows growing 42 per cent to US$110 billion driven by deals in the information and communication sector. Investments into Indonesia rose 12 per cent to US$24 billion with significant flows going into wholesale and retail trade (including the digital economy) and manufacturing.

Malaysia's Foreign Direct Investment vis-a-vis Global Investments Scenario

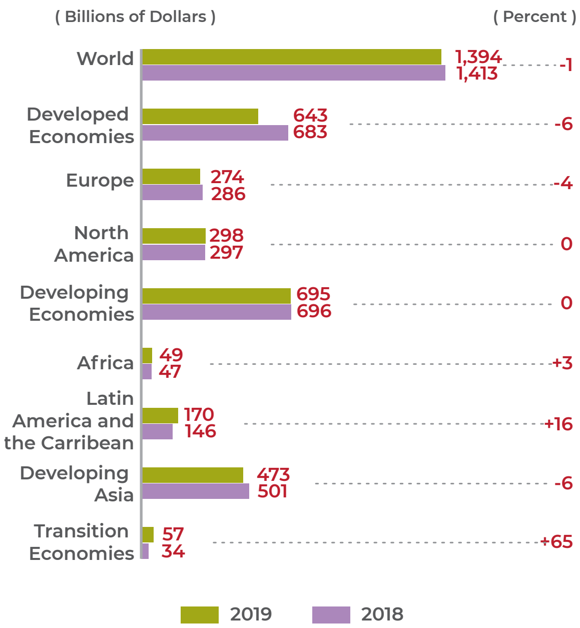
A lacklustre performance

UNCTAD's Global Investment Trends Monitor Issue No.33 further points out that, global FDI growth for 2019 was flat at US$1.39 trillion, a one per cent decline from the revised US$1.41 trillion recorded in 2018 due to weaker macroeconomic performance and policy uncertainty for investors, including trade tensions. The underlying trend was up five per cent, and was a marginal change that represented a continuation of the stagnation of FDI flows observed over the decade.

Against this backdrop, Malaysia's FDI flows started off strongly in 2019, when FDI for the first quarter registered RM21.7 billion– from RM11.2 billion in the same quarter of 2018– as a result of capitalising on Malaysia's competitiveness within the global supply chain and also business relocations arising from the US-PRC trade spat. FDI for the fourth quarter improved to RM3.7 billion compared to the third quarter's RM2.9 billion and was mainly channelled into the construction sector as well as the wholesale and retail trade sub-sector of the services sector.

The total stock of FDI in the country rose to RM691.6 billion as of the end of 2019, a rise of 9.6 per cent compared to RM631.2 billion in 2018. FDI is an important contributor to the economic growth and the Government has been proactive in

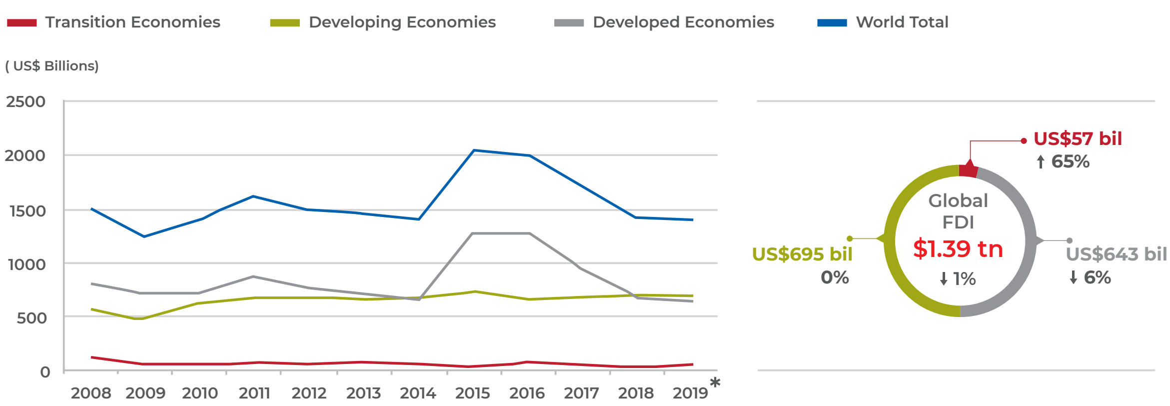
FDI Inflows by Regions, 2018 - 2019*



*Preliminary Estimates

Source: UNCTAD

FDI Inflows: Global and by Group of Economies, 2008 - 2019*



*Preliminary Estimates

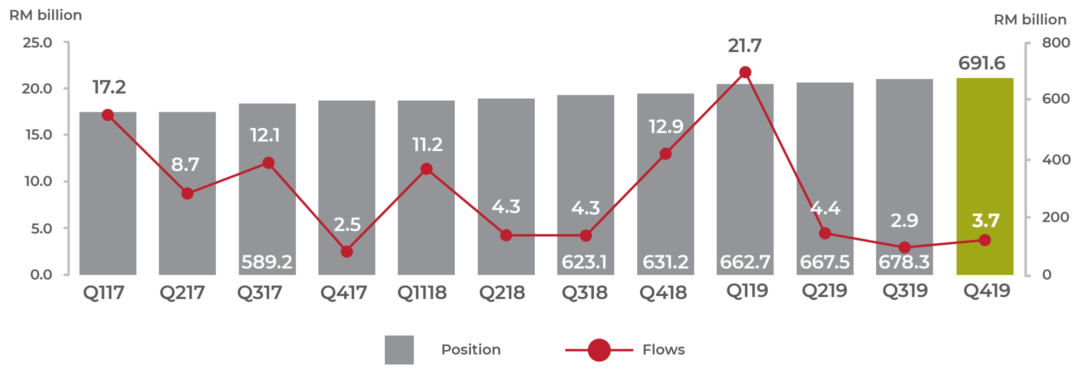
Source: UNCTAD

encouraging growth based on productivity, innovation and shared prosperity in order for wages to continue rising. FDI also plays an important role in supporting Malaysia's move to become a high-income technology-based economy.

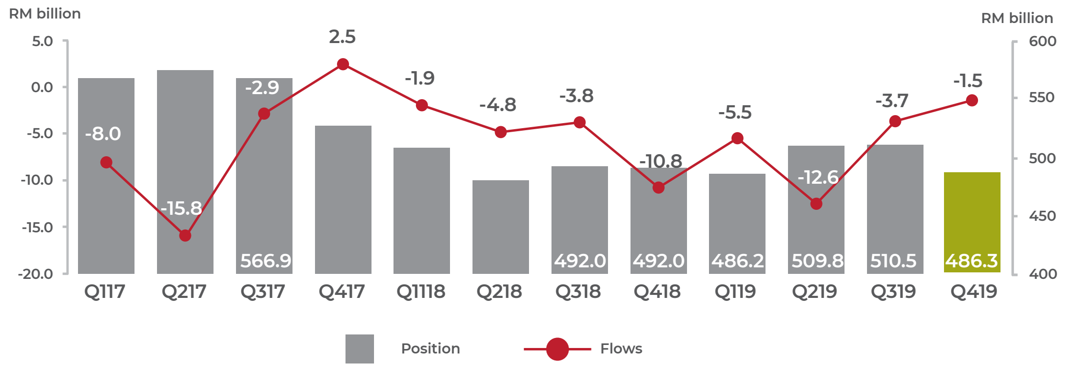
Total direct investments abroad (DIA) stood at RM486.3 billion as of the fourth quarter of 2019. Malaysian companies mainly invested in the services sector, with the financial services and in particular insurance and takaful activities being the main contributor to DIA at 44.3 per cent. Other contributors included mining and quarrying as well as agriculture. By destination, DIA was mostly channelled to Singapore and Indonesia.

Malaysia`s Foreign Direct Investment (FDI) and Direct Investment Abroad (DIA), Q1 2017 - Q4 2019

Foreign Direct Investment (FDI)



Direct Investment Abroad (DIA)



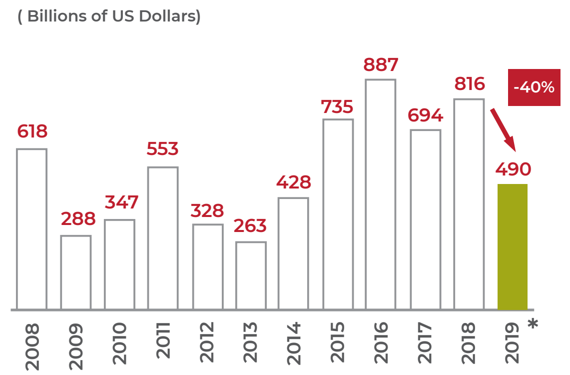
Source: DOSM

The total stock of FDI in the country rose to RM691.6 billion as of the end of 2019, a rise of 9.6 per cent compared to RM631.2 billion in 2018.

Global cross border M&As and greenfield projects slide

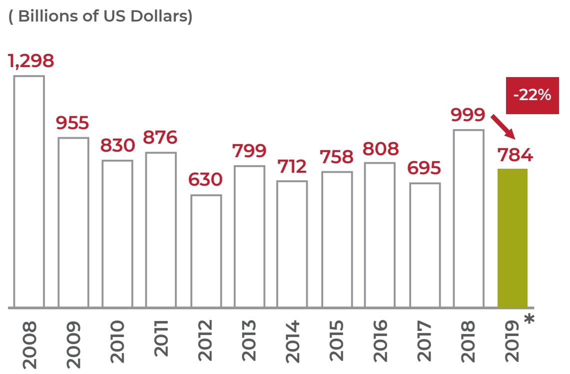
The 40 per cent decline of cross border M&As in 2019, which was down to US$490 billion, marked its lowest level since 2014. Contributing factors include a lukewarm Eurozone growth and Brexit; which led to M&A sales slipping by almost 50 per cent to US$190 billion. Global cross border M&As were hardest hit in the services sector (-56% to US$207 billion), followed by the manufacturing sector (-19% to US$249 billion), and the primary sector (-14% to US$34 billion). The decline in values was also caused by lower megadeal numbers– 30 megadeals above US$5 billion in 2019, as compared to 39 in 2018.

Value of Cross Border M&As, 2008 - 2019



Source: UNCTAD M&As Cross Border Database 2008 - 2019

Value of Announced Greenfield Investment Projects, 2008 - 2019*



Source: UNCTAD Based on information from The Financial Times, fDI Markets
**Preliminary Estimates*

Announced greenfield projects also took a 22 per cent tumble in 2019 and is another factor that could hamper future trends; alongside concerns of changing protectionist policies and rising geopolitical risks.

Press Worthy International Rankings

Continual reforms and a commitment to restore the country's fiscal health has helped Malaysia boost its competitiveness rankings throughout 2019, with the country holding its own as a global investment destination. A case-in-point is that Malaysia's institutional reforms have helped the nation improve its global ranking to 12 from 15 out of 190 countries surveyed in the World Bank's Ease of Doing Business 2020 report, the best showing since 2015. The country also improved one spot to rank as the fourth easiest place to do business in Asia after Singapore, Hong Kong, and South Korea. It also outranked more economically advanced countries such as Germany (22nd), Canada (23rd), Japan (29th), France (32nd) and Switzerland (36th).

Another notable ranking is the World Bank's Worldwide Governance Indicators (WGI) for 2018, where Malaysia was also ranked among the best improved economies; the WGI measures institutional quality across 214 countries by accounting for six dimensions namely, accountability, political stability, government effectiveness, regulatory quality, rule of law, and corruption. With the exception of regulatory quality, which was unchanged, Malaysia improved in all the other dimensions on wide-ranging institutional reforms carried out by the Government.

As for global competitiveness, the World Economic Forum's 2019 Global Competitiveness Report placed Malaysia 27th among 141 countries in the overall Global Competitiveness Index (GCI) score. Although the country slid two notches, it remains ahead of the PRC, which came in at 28th. Malaysia was crowned second in ASEAN after Singapore in terms of the GCI score, with Thailand– which ranked 40th globally– coming in third in ASEAN, while Indonesia took fourth place in ASEAN and 50th globally.

The Malaysian Government's endeavours to strengthen the IP framework critical to an innovation-led economy supported by robust patent, trademark, copyright, and trade secrets protection also paid off, as the nation was awarded the second place in Southeast Asia by the US Chamber of Commerce's Global Innovation Policy Centre's seventh annual Intellectual Property (IP) index.

CEOWORLD Magazine also named Malaysia as the world's best country to invest in or do business for 2019 out of 67 countries the publication evaluated based on 11 factors. All weigh equally, and they are, corruption, freedom (personal, trade, and monetary), workforce, investor protection, infrastructure, taxes, quality of life, red tape, and technological readiness.

In so far as conducive manufacturing conditions go, Cushman & Wakefield's Manufacturing Risk Index 2019 placed Malaysia in the 6-to-10 spots for overall baseline scenario while the country was in the 1-to-5 spots in the cost-competitiveness scenario.

A Challenging 2019

The World Bank has maintained Malaysia's economic growth outlook at 4.6 per cent in 2019 on sustained private consumption growth driven by stable labour market conditions. This is not far off from the Government's revised forecast for 2019 growth at 4.7 per cent announced during the tabling of Budget 2020 in October 2019. The original forecast for 2019 growth, as announced during the tabling of Budget 2019, was 4.9 per cent.

However, uncertain global market conditions due to trade tensions and softening demand for electrical and electronics products over the near-term will weigh on the country's exports performance. For 2019, exports amounted to RM986.4 billion, a 1.7 per cent decline compared to the previous year while imports totalled RM849.0 billion, a contraction of 3.5 per cent. Total trade was down 2.5 per cent to RM1.8 trillion.

Bank Negara noted in its announcement that Malaysia's economic growth in 2019 expanded by 4.3 per cent, due to a sharp economic slowdown in the fourth quarter, which was brought on by supply chain disruptions owing to the US-PRC trade war, and its negative impacts on the tourism industry.

In its fourth quarter 2019 bulletin, Bank Negara highlighted that the services and manufacturing sectors were the main contributors among economic sectors, growing by 6.1 per cent and 3.0 per cent respectively in the fourth quarter. The mining sector contracted by 2.5 per cent on maintenance work to oil fields that affected production while the construction sector recovered 1.0 per cent during the quarter. The recovery was mainly attributable to the turnaround in the residential sub-sector, supported by affordable housing activities.

Domestic demand driven by private consumption, which increased to 8.1 per cent (compared to 3.5% in the third quarter) on positive income and stable employment, supported growth. Going down to the granular level, private consumption was supported by sustained spending on necessities, such as food and transportation, and leisure-related expenditure, such as restaurants and hotels, and recreational services. Public consumption expanded by 1.3 per cent (from third quarter's 1.0%) supported by higher growth in emoluments while spending on suppliers and services continued to decline, albeit at a smaller pace.

Headline inflation as measured by the Consumer Price Index decreased to 1.0 per cent in the fourth quarter mainly reflecting the lapse in the impact of the SST implementation. Fuel inflation continued to have a negative contribution to inflation, as domestic retail fuel price ceilings were maintained. Core inflation, excluding the impact of consumption tax policy changes, was steady at 1.4 per cent while demand-driven inflationary pressures remained broadly stable and contained on the absence of excessive wage pressure and spare capacity in capital stock.

Labour market conditions continued to be supportive of economic activities, with both employment growth and the unemployment rate being stable at 2.2 per cent and 3.2 per cent respectively. Private sector wage growth was mostly driven by services wage growth (4.2%), while wages in manufacturing saw moderate growth (3.3%) in the fourth quarter.

Overview of Investments Approved in 2019

There was a 1.7 per cent increase in private investments to the manufacturing, services and primary sectors totalling RM207.87 billion in 2019 compared to 2018, which saw RM204.36 billion.

Of the total, domestic direct investments (DDI) contributed 60.4 per cent or RM125.49 billion, while foreign direct investment (FDI) accounted for the remaining 39.6 per cent or RM82.38 billion. The ratio of DDI to FDI reflects the Government's aspirations for domestic investments to assume the role of driving Malaysia's investment agenda. These investments funded 5,140 projects and is expected to create 124,443 employment opportunities.

Sustained Manufacturing Investments

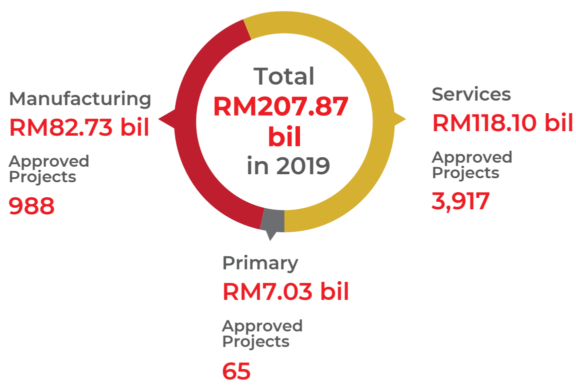
Malaysia continues to draw healthy levels of investments into the manufacturing sector given its convenient location in the region, good infrastructure, intellectual property protection, skilled workers and stable politics. The sector, which contributed RM82.73 billion from 988 projects in 2019, compared with RM87.38 billion from 721 projects in 2018, continues to fuel the country's development and growth. These projects are expected to generate 78,606 employment opportunities.

Foreign investments took up the lion's share with RM53.90 billion or 65.1 per cent of the total investments, and were evenly balanced between new, and expansion/diversification projects. New projects accounted for 50.5 per cent or RM27.23 billion of investments while 49.5 per cent or RM26.67 billion were for expansion/ diversification projects. The bulk of the investments were concentrated in the electrical and electronic products sub-sector at RM21.79 billion, followed by paper, printing and publishing (RM9.69 billion), non-metallic mineral products (RM4.31 billion), rubber products (RM3.02 billion), machinery and equipment (RM2.88 billion), chemical and chemical products (RM2.65 billion), scientific and measuring equipment (RM2.41 billion), transport technology (RM1.55 billion) and food manufacturing (RM1.31 billion).

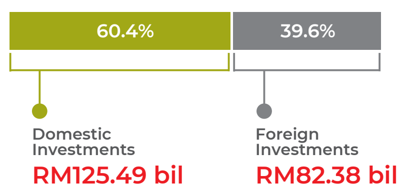
The PRC was Malaysia's largest source of FDI for 2019: at RM15.30 billion, followed by the USA (RM14.23 billion), Singapore (RM5.61 billion), Taiwan (RM5.24 billion), and Japan (RM3.79 billion).

Overall Private Investments in Malaysia for 2019

Investments in Approved Projects by Sectors



Domestic vs Foreign Approved Investments



Domestic investments accounted for 34.9 per cent or RM28.84 billion of total investments and were mostly focused on new projects. These projects garnered RM17.98 billion or 62.3 per cent of the domestic investments, with the remaining 37.7 per cent or RM10.86 billion recorded for expansion/ diversification projects. The industry that garnered the most interest from domestic investors was transport technology with RM6.50 billion, followed by electronics and electrical products (RM3.86 billion), non-metallic mineral products (RM2.55 billion), food manufacturing (RM2.49 billion), chemical and chemical products (RM2.10 billion), petroleum products (including petrochemicals) (RM2.07 billion), machinery and equipment (RM1.58 billion), rubber products (RM1.56 billion), plastic products (RM1.55 billion), fabricated metal products (RM1.35 billion) and paper, printing and publishing (RM1.07 billion).

Services Still Drawing in the Investments

The sector as a whole has maintained its position as the largest contributor to approved investments in 2019 at more than half of the country's total investments. Approved investments from 4,087 projects reaped RM118.10 billion compared with RM106.07 billion and 4,234 projects recorded in 2018.

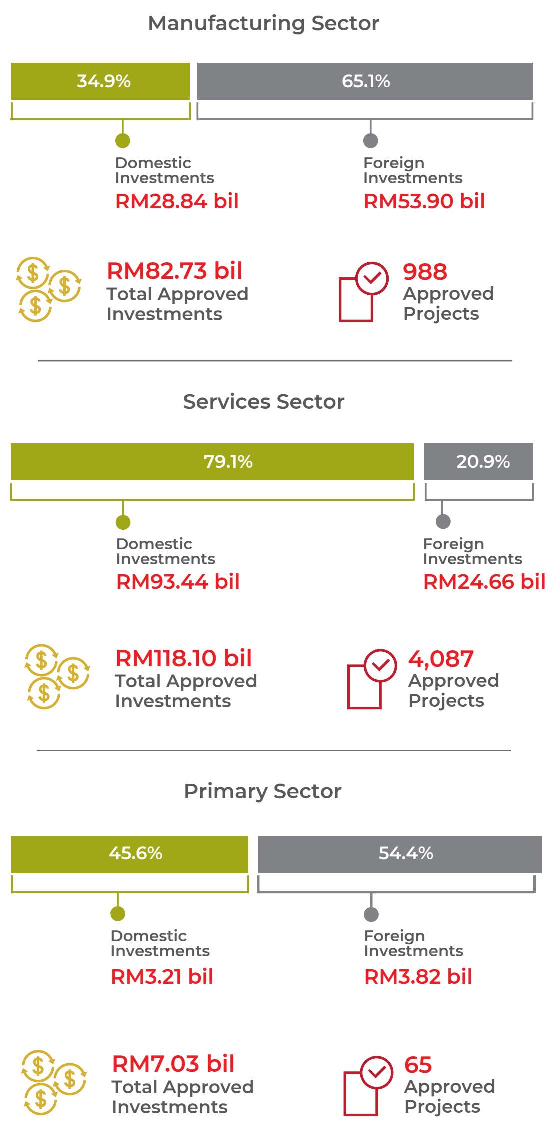
These projects are expected to generate 44,811 employment opportunities. Of the total, 79.1 per cent or RM93.44 billion were from domestic sources and the balance 20.9 per cent or RM24.66 billion were foreign investments. Foreign investments in the services sector showed a significant increase of 53.4 per cent in 2019 from RM16.08 billion in 2018.

The bulk of approved investments in the services sector were from the real estate sub-sector at RM40.85 billion, followed by utilities (RM32.58 billion), global establishments (RM11.75 billion), distributive trade (RM11.70 billion), and support services (RM5.66 billion). Collectively, these five sub-sectors contributed 88.6 per cent to approved investments in the sector in 2019.

Mining Attracts Primary Sector Investors

The primary sector witnessed a total of 65 approved projects in 2019 with investments of RM7.03 billion, a reduction of 35.5 per cent from RM10.91 billion in 2018. Of these, RM3.82 billion (54.4%) was derived from foreign investments, while domestic investments contributed RM3.21 billion (45.6%). These investments are expected to provide 1,026 potential job opportunities. Contributing 38 projects, the mining sub-sector came out tops with approved investments worth RM6.60 billion. Plantation and commodities followed with investments of RM291.40 million, while the agriculture sub-sector accounted for the rest.

Domestic vs Foreign Investments by Sectors for 2019



Private Investments (GFCF)

Malaysia's private investments in 2019 as measured through Gross Fixed Capital Formation (GFCF) stood at RM251.98 billion compared to the RM245.71 billion recorded in 2018, an increase of 2.6 per cent.

Based on the incremental total growth from 2018 to 2019, Malaysia is certainly on track to achieve the 11MP's revised target for average real private investment growth of 6.1 per cent by the year 2020.

Together with APEC 2020

The Asia-Pacific Economic Cooperation (APEC), is a regional economic forum of 21 members, established in 1989. Its formation leverages on the growing interdependence of the Asia-Pacific region, with the primary goal of promoting free trade and sustainable development among Pacific Rim economies.

Malaysia is one of the founding members of APEC, alongside 11 other economies, namely Australia, Brunei Darussalam, Canada, Indonesia, Japan, the Republic of Korea, New Zealand, the Philippines, Singapore, Thailand and the United States. The People's Republic of China, Hong Kong SAR and Chinese Taipei joined in 1991, followed by Mexico and Papua New Guinea in 1993. Chile acceded in 1994, and in 1998, Peru, Russia and Vietnam joined, taking the full membership to 21.

Malaysia's hosting of the Asia-Pacific Economic Cooperation (APEC) 2020 comes at an opportune time for the country to help shape the goals defining the Asia Pacific region's trade and investment agenda, and take stock of the Bogor Declaration agreed upon by APEC members at the Bogor, Indonesia meeting in 1994 that called for free and open trade and investment in the region by 2020.

The theme for APEC Malaysia 2020, "Optimising Human Potential towards a Future of Shared Prosperity", not only underscores the Government's Shared Prosperity Vision 2030 goals, but is also cognisant of the many socio-economic issues that have cropped up in recent years all over the world, and particularly in the Asia Pacific region.

This year's theme emphasises the need to improve the narrative of trade and investment for the region; more inclusive economic participation through the digital economy and technology and; driving innovative sustainability. The theme draws on the Government's experience in shaping policy for the country over the past year as it moves to tackle domestic socio-economic issues. The Government hopes that APEC members will use the summit as a platform to push for initiatives that are more inclusive, and that trade and investment can move beyond wealth and job creation, to a more holistic approach ensuring social wellbeing.

This will be the second time that Malaysia is hosting the summit in 22 years. The Government will be organising 120 meetings of various levels across the country involving 16,000 delegates throughout the year. MIDA as Malaysia's Investment Promotion Agency will facilitate companies in business matching among the economies, organise capacity building programmes, and use this platform to promote Malaysia to the world.

Malaysia continues to view APEC as a relevant forum for countries in the region to bring issues of trade and investment to the table for discussion. The 21 members of APEC together exert a significant influence across global markets, commanding sixty per cent of global GDP and almost fifty per cent of global trade. To emphasise how far the region has come in terms of trade, member nations, through cooperation, have reduced average tariffs from seventeen per cent to five per cent today.

For Malaysia, besides the temporary benefits that the economy, especially the tourism and hospitality industry, can receive from hosting the summit, there are the long-lasting benefits of advancing the interests of Malaysian businesses in an important regional forum as well as promoting trade and investment relations with regional partners. APEC continues to be important to Malaysia as members account for eighty per cent of the country's total trade, and seventy per cent of foreign direct investment in the manufacturing sector, while some 40.0 per cent of jobs created are directly attributable to activities linked to exports.

The APEC Summit in November will mark an important milestone for the forum as members work towards more inclusive goals for their citizens and the region. Malaysia's role will be significant as it takes the lead as the summit organiser in drafting plans beyond 2020, to ensure the forum's continued relevance and significance.

ECRL: Enhanced Infrastructure for Vital Growth

On 12 April 2019, the Prime Minister's office announced the resumption of the ECRL (East Coast Rail Link) project and the signing of a Supplementary Agreement (SA) between Malaysia Rail Link Sdn. Bhd. (MRLSB) and the China Communications Construction Company Ltd. (CCCC). The SA was signed with the intent to improve the ECRL deal as a significant economic project for the country in achieving balanced development between the West and the East Coasts of Peninsular Malaysia by bridging the economic gap through its development and operations.

The ECRL and KTM lines

The 640-kilometre ECRL will be a catalyst for a number of Economic Accelerator Projects (EAPs) once this railway connecting Peninsular Malaysia's East Coast with its West Coast is completed. The ECRL is intended to create a "land bridge" between Port Klang and Kuantan Port, thus increasing Malaysia's international trade activities by facilitating cargo travel between the coasts, while allowing alternative maritime trade entry carrying both cargo as well as passenger traffic.

The new 20-station rail link will pass through Kelantan, Terengganu, Pahang, Negeri Sembilan, Putrajaya, and Selangor; originating from Kota Bharu, and terminating at Port Klang. It is expected to reduce the travel time between Kota Bharu and Putrajaya to approximately four hours. The ECRL will interchange with various other rail services, including Express Rail Link (ERL), Mass Rapid Transit 2 (MRT2), and Keretapi Tanah Melayu Berhad (KTMB).

The EAPs include the development of infrastructure for investors to set up their projects. It will consist of industrial parks in both the East and West Coasts; logistics hubs at transport interchanges to promote connectivity and transportation of goods; and transit-oriented development (TOD) projects at selected stations to promote new development and to support the growth of industrial parks.

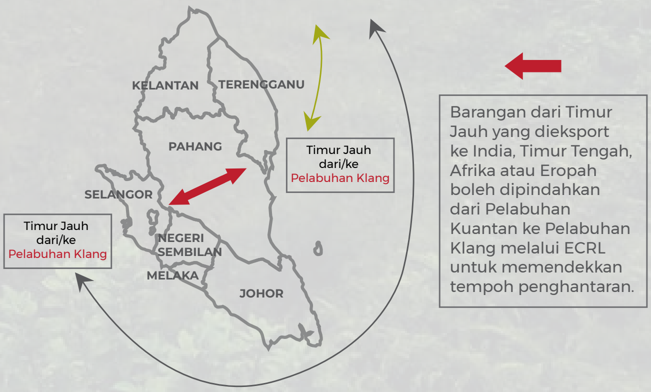
Acknowledging the economic benefits of the ECRL, and the traffic volumes of the rail freight that can be achieved by increasing economic activity along the ECRL corridor; Malaysian Investment Development Authority (MIDA) and CCCC signed a Memorandum Of Understanding (MOU) on 25 April 2019 in Beijing to enhance cooperation in the development of industrial parks, infrastructure, logistic hubs, and transit-oriented-development along the ECRL corridor.

The MoU signing was witnessed by the Honourable Prime Minister Tun Dr Mahathir Mohamad and Li Keqiang, Premier of the State Council of the People's Republic of China (PRC). CCCC will be involved in the development of the EAPs; and economic growth along the ECRL corridor will be the launch-pad for a broad spectrum of investments and job opportunities. This complements MIDA's role in attracting quality investments by encouraging the development of infrastructure to support Malaysia`s manufacturing and services ecosystems.

MIDA, together with CCCC, will promote the EAP by inviting prospective local and international investors to invest in the various EAP projects. MIDA will also leverage on its vast overseas network, including three offices in PRC, namely Beijing, Shanghai™ and Guangzhou, to promote the EAPs to investors from China and beyond.

A dedicated team within MIDA has been established to promote, facilitate and monitor the implementation of the EAP. Moving forward, the team will engage and strategise various action plans covering promotional activities and engagements with relevant stakeholders, including domestic industries. To date, MIDA has conducted more than 80 engagements with various stakeholders including respective State Governments, Ministries and Agencies, business chambers as well as developers to ensure the progress and success of the ECRL.

The EAP infrastructure is designed to stimulate the growth of commercial, logistics, import and export, as well as tourism development activities along the proposed alignment. As a result, EAP development must be kept in line with ECRL's development, and requires close cooperation, coordination, and collaboration with respective State and Federal Government agencies. Together, the ECRL and EAP projects are envisaged to accelerate development through improved access to economic centres between the East Coast and Klang Valley for manufacturers, suppliers, service providers, consumers, tourists, and the rakyat.



1.2 MIDA`s Initiatives

Reinvigorating Malaysia`s Investments

Malaysia has a diversified economy with a manufacturing sector that plays an important role in the global supply chain while domestic activities are well represented by the services sector that in the past two decades has become more visible. To maintain this competitive edge, MIDA, as the country's principal investment promotion agency, continues to facilitate investments from both domestic and foreign investors that develop and sustain the country's key industries and sectors

Investment Strategies and Initiatives

The tale of Malaysia's economic transformation

When Malaysia was formed in 1963, the economy was still largely agrarian-based with a reliance mostly on rubber and mining activities centred on tin. Oil-palm cultivation was encouraged from the early 1960s as a way to diversify out of rubber and tin; and MIDA was formed in 1967, just as Malaysia started to industrialise by venturing into manufacturing activities in the electrical and electronic space.

Between 1957 and 2005, Malaysia's economic output as measured through GDP grew 6.5 per cent annually, with its performance peaking from the early 1980s to the mid-1990s, when GDP averaged almost eight per cent annually. Elevated levels of foreign and domestic private investment played a significant role in the modernisation and diversification of the economy. Today, Malaysia is considered an upper middle-income country with a well-diversified economy based on services and manufacturing. The trend over the decades has been one where the growth of the economy has lifted the incomes of the people, improving the lives of individuals and households and reducing the poverty rate.

Central to the transformation of the Malaysian economy were the five-year economic development plans. It began with the First Malayan Five-Year Plan, implemented from 1955 just before Malaya became independent, with the Second Malayan Five-Year Plan being implemented as the Federation of Malaysia was formed– which included Sabah and Sarawak. From 1966 onwards, these economic development plans have been titled Malaysia Plans; with the current one being the Eleventh Malaysia Plan, which runs from 2016 to 2020.

The share of the manufacturing sector of the economy grew from the 1970s to the early 2000s, with more Malaysians being employed in the various manufacturing sub-sectors. At the same time, as the economy grew through manufacturing activities, which were mostly geared towards exports, the more domestic-oriented services sector grew too as a result of rising prosperity. Today, the country is one of the world's largest exporters of semiconductor components and devices, electrical goods, solar panels, and information and communication technology products.

The once-dominant agriculture sector of the economy shrank as value-added activities in manufacturing and services took central stage. The proportion of Malaysians working in agriculture fell to 12.5 per cent in 2015 from 52.8 per cent in 1970. While manufacturing remains an important sector of the economy, employment in the services sector has picked up faster since 2000, which points towards increased diversification not just of the economy in general, but also of the services sector in particular.

> "Oil-palm cultivation was encouraged from the early 1960s as a way to diversify out of rubber and tin; and MIDA was formed in 1967, just as Malaysia started to industrialise by venturing into manufacturing activities in the electrical and electronic space."

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The major challenges

As an organisation that's more than half a century old, MIDA's priority has remained unchanged; that is to ensure the nation achieves its goals and aspirations, as it creates wealth that translates to tangible benefits country-wide. Based on Chapter 8 of the Eleventh Malaysia Plan– Re-engineering economic growth for greater prosperity– the Government has been on a fortified track to strengthen and enhance the country's domestic investments through MIDA; Malaysia's principal investment promotion agency which places much emphasis on domestic investments by engaging and facilitating with more domestic companies.

Malaysia, which relies on trade and investment as important growth drivers, has a range of promotion strategies and initiatives to encourage domestic investments that act as catalysts for the expansion of the manufacturing and services sectors. MIDA engages with domestic companies to facilitate their investments that include both new and expansion projects while adoption of technologies related to Industry 4.0 is emphasised in these investments in order for these companies to move up the value chain.

Locally, there is a focus on domestic small-medium enterprises (SMEs)– where such investments are concerned– as 98.5 per cent of business establishments are SMEs, which contribute around 40 per cent to economic output, and employ two-thirds of all workers in Malaysia. In light of this, the Government remains committed to channel its concerted efforts, in the form of targeted programmes and initiatives to help local SMEs to boost their growth, performance and sustainability. These businesses need to stay competitive and resilient by upgrading their capacity and capability to produce high-quality products and services at competitive prices through the adoption of technology, acquiring new skillsets, more strategic marketing and promotion and proper financial management.

The Domestic Investment Agenda

MIDA outreach efforts and initiatives include the establishment in 2018 of the Domestic Investment Coordination Platform (DICP) that assists inventors, creators, and techno-preneurs of local companies, including SMEs, through strategic collaborations and joint ventures with financial institutions, equity firms, and technology providers to help them bridge or narrow their financial and technology gaps.

The DICP provides a range of advisory services and types of facilitations that includes business match-making, access to sources of capital (debt and equity), assisting in initial public offering as well as coordinating and arranging for mergers and acquisitions, divestments, and takeovers. To-date, over 200 manufacturing, services, and plantation companies and 50 strategic technology and funding partners such as equity and venture capital firms, corporate finance advisory firms, Government agencies, and real estate investment trusts have used the platform.

The Domestic Investment Strategic Fund (DISF) under MIDA is another avenue for local companies in targeted industries to upgrade their technology and human capital capabilities while the Automation Capital Allowance (Automation CA) introduced in Budget 2015 benefits them through tax incentives for automation and machine upgrading.

"The DICP provides a range of advisory services and types of facilitations that includes business match-making, access to sources of capital (debt and equity), assisting in initial public offering as well as coordinating and arranging for mergers and acquisitions, divestments, and takeovers."

MIDA also supports Government Linked Investment Companies (GLICs) and Government Linked Companies (GLCs) to invest more in identifying responsible and innovative local companies, especially in the high-growth sectors. These close engagements with local conglomerates will promote strong business linkages and idea sharing across the board. In addition, MIDA organised a series of supply chain conferences to develop local-based supply chains for MNCs, and also established a dedicated SME Investment Desk within MIDA's Kuala Lumpur headquarters and its 12 state offices, to strengthen the agency's prowess in facilitating domestic investments.

The SME Investment Desk is specially targeted at SMEs, and the desk is used as a conduit to provide information on financing assistance and development programmes available to such businesses. There have been thousands of such engagements organised through roundtable meetings, networking sessions, and outreach programmes.

Regular domestic investment seminars and forums on industrial parks are also held where information on automation technology, talent development, funding assistance and market access are shared.

Domestic champions

There are many success stories stemming from these initiatives and programmes, among which is Globetronics Technology Berhad, an integrated-circuit maker founded in 1991 and listed on Bursa Malaysia. The company currently has manufacturing facilities in multiple sites across the country.

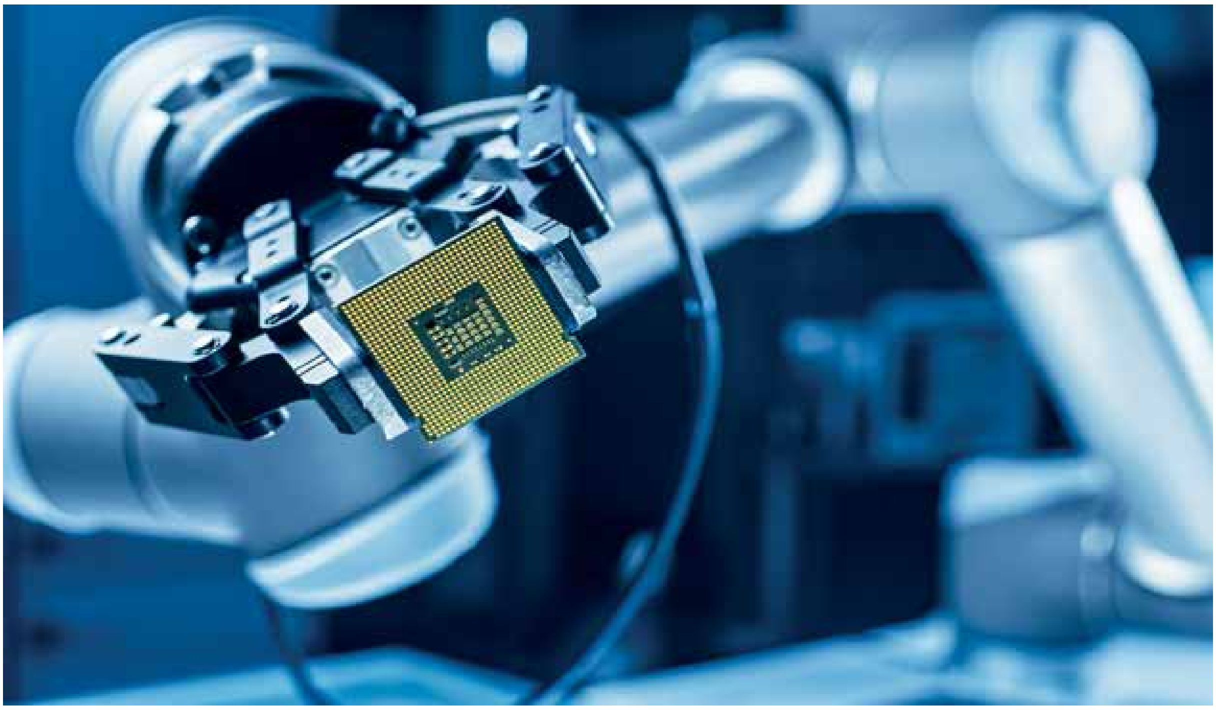
H.H Precision Mould Sdn Bhd, a plastic injection mould-making specialist, is another success story in the manufacturing sector. It has seen steady growth since its founding in 1985 through tax-deduction grants that the company received from the Government in the 1980s. Today, the company is a one-stop centre for precision moulded products across the value chain.

Elektro Serve (Malaysia) Sdn. Bhd., a power-generating equipment maker, was a DISF recipient in 2018. Among the areas the company specialises in are integrated load-testing facilities for high-voltage (HV) electrical motors, HV generators and pumps that are used in the oil and gas industry.

It is not just in the manufacturing sector that incentives have helped Passion Republic Sdn. Bhd., a homegrown animation studio, has produced digital content for leading companies such as Sony, Microsoft Games, Warner Game Brooch and Square Enix. MIDA is assisting by helping the company build up its Research & Development (R&D) capabilities through the expansion of its studio, building research and development capabilities and offering content in the gaming industry.

Need for technology adoption

The future is about technology, of how people's lives, workplace and leisure are being transformed by the Fourth Industrial Revolution (4IR) driven by the digital revolution and IoT.



Malaysia's key economic sectors and industries need to transform too through the adoption of these technologies or risk lagging behind. Hence to bolster and promote the adoption of current technologies through Industry 4.0 in all subsectors of the manufacturing sector, the National Policy on Industry 4.0 was unveiled on 31 October 2018 to encourage investment into technologies that can ensure domestic companies maintain their competitiveness.

The Government has also encouraged more investment into technology through dishing out generous incentives in Budget 2019 and Budget 2020; such as allocating RM550 million in matching grants to 1,000 manufacturing and 1,000 services companies. The Automation Capital Allowance (Automation CA) has also been extended to 2023, and it now includes the services sector too. The ACA will give, on a matching basis, up to RM2 million per company. One-Stop Digital Enhancement Centres have also been established across the country to facilitate access to financing and capacity building of SMEs in line with the 4IR.

The future is also about fostering research and development, as well as innovation– both of which are critical to Malaysia's aspirations to be the preferred manufacturing hub. Stronger ties between the private sector and public research institutes and universities are encouraged with a focus on translating such collaborations into innovations that can be commercialised.

In the days to come, Malaysia needs to witness more strategic collaborations in a triple helix model that emphasises the interactions and networking between universities, the Government and industries. For this to come to fruition, each entity should maintain a strong primacy in its original field of expertise as follows:

- Universities remain the main source of knowledge production,
- Industries are primary vehicles of commercialisation, and
- The Government retains its regulatory role

Strategic Planning & Policy Advocacy

MIDA has been advocating policy changes on an ongoing basis. As the principal promotion agency, MIDA works with other Government agencies on a range of initiatives to ensure Malaysia remains competitive. These initiatives focused on measures to better optimise the use of resources in helping the manufacturing and services sectors, understanding the readiness of manufacturing and services businesses for technology adoption and helping draft a new industrial master plan.

1 Aligning Incentives to Productivity

As the nation's principal Investment Promotion Agency (IPA), MIDA fully supports the Malaysia Productivity Blueprint (MPB), launched on 8 May 2017. MIDA spearheaded one of the national initiatives under the MPB to embed productivity targets for enterprises into disbursement processes of grants, tax incentives and soft loans that are tied to key performance indices and milestones. This initiative is applicable for both manufacturing and services sectors.

For the manufacturing sector, MIDA initiated an 11-month study starting from January 2019, 'Study on Productivity-Linked Incentives for Manufacturing Sector in Malaysia', to measure productivity in relation to investment incentives. The study was a joint effort with the Ministry of Economic Affairs (MEA), Malaysia Productivity Corporation (MPC), Department of Statistics Malaysia (DOSM) and other relevant ministries and agencies. Over the course of the January to November 2019 study, two stakeholder engagement sessions were held with the public and private sectors, with 26 relevant ministries and agencies participating in the first session, and 32 industry associations, business chambers and manufacturers participating in the second. The comprehensive findings and recommendations, including the proposed guidelines for both Government agencies and industries, will be implemented by MIDA in the first quarter of 2020, followed by other relevant agencies by the second quarter.

MIDA has also embarked on an in-house study since 2017 on the diversified services sector to obtain insights and analyse labour productivity and growth levels. The study involved engagements with various stakeholders, ranging from relevant agencies such as the MEA, MPC and DOSM as well as key services companies -- towards ensuring sound policy formulation. MIDA expects the study to be completed and implemented by the first quarter of 2020.

2 Streamlining Cost-benefit Analysis (CBA) Module Among IPAs: Streamlined Module for IPAs

Following a decision by the Government on 8 May 2019, all current mechanism/procedures for investments' evaluations and approvals have been streamlined. This decision also includes enhancing the National Committee on Investments – refer to box article on page 70 on Enhancing the National Committee on Investments (NCI).

MIDA took the lead by organising two cost-benefit analysis (CBA) workshops with other investment promotion agencies (IPAs) in October and November 2019. The IPAs involved were the Northern Corridor Implementation Authority (NCIA), East Coast Economic Region Development Council (ECERDC), Sabah Economic Development and Investment Authority (SEDIA), Bioeconomy Corporation Sdn. Bhd., Halal Development Corporation (HDC), Iskandar Regional Development Authority (IRDA), Malaysia Digital Economy Corporation (MDEC), Regional Corridor Development Authority (RECODA), InvestKL Corporation together with representatives from the Ministry of Agriculture and Agro-based Industry (MOA).

The outcomes of the workshops were presented at the National Committee on Investments I (NCI I) (co-chaired by MOF and MITI Ministers) on 30 January 2020.

3 Industry4FWRD Readiness Assessment and Intervention Fund

Industry4WRD: National Policy on Industry 4.0, which was released in October 2018 serves as the framework for manufacturing and manufacturing-related services (MRS) on their Industry 4.0 journey. The framework involves two components; the Industry4WRD Readiness Assessment to help companies understand their capabilities and gaps, in order for them to prepare possible strategies; and plans to move towards Industry 4.0, as well as an Industry4WRD Intervention Fund.

As of 31 December 2019, 508 small-medium enterprises (SMEs) out of 849 applications have been selected for the assessment. Of the SMEs selected, 140 have undergone on-site assessments, while 64 have had their assessment reports endorsed by the Industry4WRD Readiness Assessment Technical Committee, of which MIDA is a member. The assessing bodies are SIRIM Berhad, Malaysia Automotive Robotics and IoT Institute (MARii), and MIMOS Berhad.

MIDA, the agency tasked as the implementing agency of the Industry4WRD Intervention Fund, has also set up the guidelines and procedures on its website for SMEs who want to apply for the fund after completing the assessment. As of 31 December 2019, MIDA has received more than 30 applications, which will be deliberated at the Ministry of International Trade and Industry's Industry4WRD Intervention Fund Approval Committee.

Moving forward, MIDA is also working together with the MEA to formulate the National Policy Framework for the Fourth Industrial Revolution (4IR) to chart Malaysia's Digital Transformation in the non-manufacturing sectors which includes services and primary industries. This ongoing project will further support the country's aspiration to enhance the social well-being of the rakyat.

4 Extension of Automation Capital Allowance (Automation CA)

The Government has been steadfast in its efforts to encourage quick adoption of automation among manufacturers, particularly from labour-intensive industries such as rubber products, plastics, wood, furniture, and textiles that are highly reliant on low-skilled foreign labour.

To boost the adoption of automation in the manufacturing sector, the Automation Capital Allowance (Automation CA), which has been in existence since 2015, was extended to 2023, as announced in Budget 2020 (see Budget 2020 - MIDA's Perspective on page 118-123). Since its launch, MIDA has organised more than 50 outreach programmes throughout the country with the collaboration of Government agencies, industry associations, business chambers, and other relevant stakeholders.

As of 31 December 2019, 245 manufacturers have benefited from the Automation CA incentive with total investments worth more than RM430 million; all towards automating their manufacturing operations and processes. As a result of this incentive, overall production volumes have increased by approximately 180 per cent on average, with a quality improvement of 60 per cent on average. This has also resulted in cost savings due to the reduction of 53 per cent unskilled positions. Without investments in the automation activities, these manufacturers would have had to hire approximately more than 3,600 unskilled workers.

5 Towards a New Industrial Blueprint

The term of the Third Industrial Master Plan– which is the economic blueprint mapping out Malaysia's growth strategy from 2006-2020– is almost at an end, and another blueprint, the New Industrial Master Plan (New IMP), is being formulated for the next growth phase from 2021-2030.

MIDA is working closely with the MITI and MEA to draft national policies for the manufacturing and services sectors under the New IMP, which will be in line with the Shared Prosperity Vision 2030 (SPV2030) and will include the needs and requirements of the business community and investors. The focus will be on frontier-technology and sophisticated industries, building competitiveness for investment and trade, promoting sustainable and inclusive industrial development, developing talent to meet industry needs, and strengthening the ecosystem.

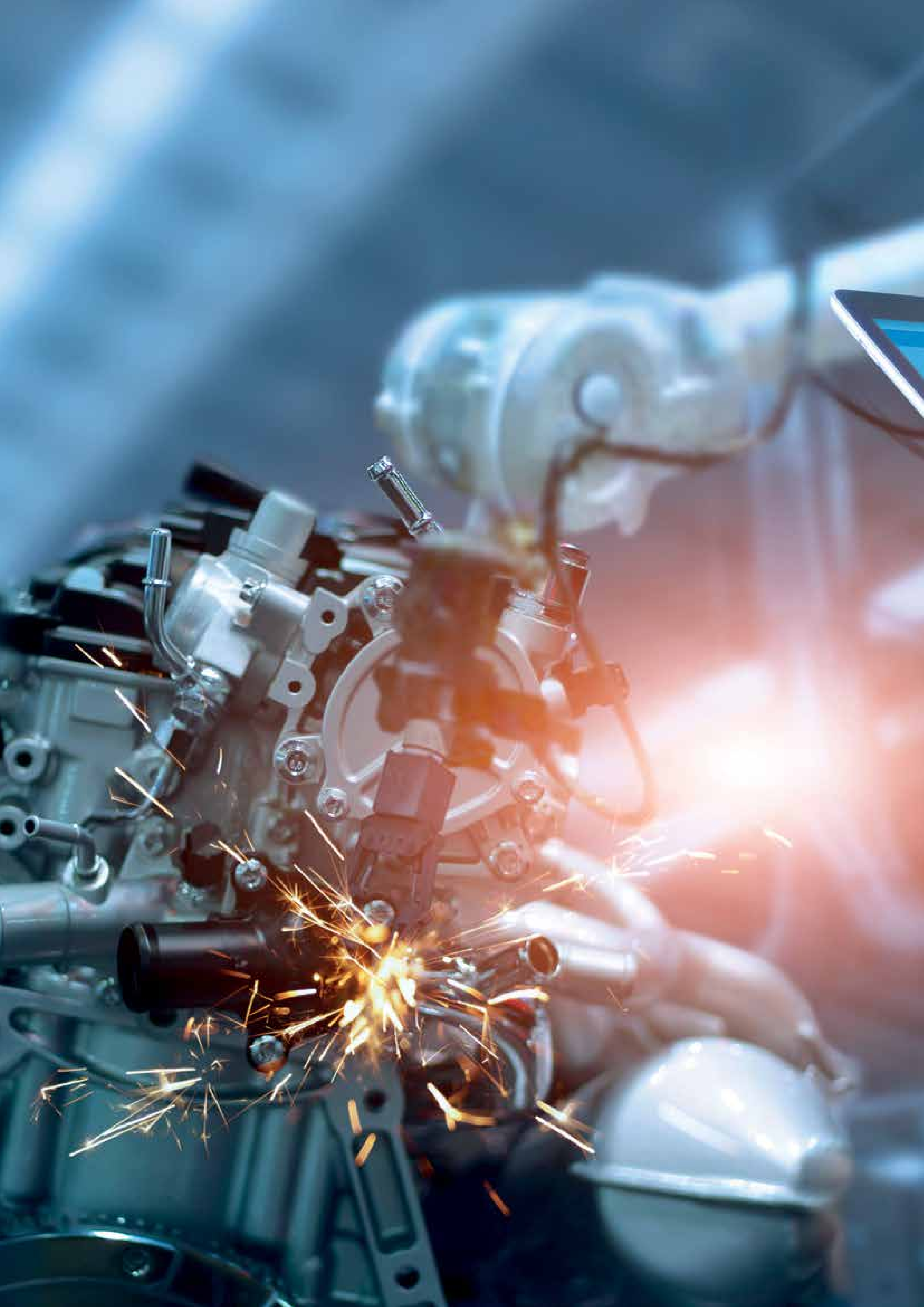
6 Compliance to International Tax Practices

MIDA has also been working closely with the MOF and the Inland Revenue Board to ensure Malaysia's tax regime is in compliance with the Organisation for Economic Co-operation and Development's (OECD) Forum on Harmful Tax Practices (FHTP).

Malaysia has also taken measures to address issues raised in FHTP requirements for the services sector such as those for green technology and R&D. To underscore the commitment in addressing possible issues arising from aggressive tax planning and tax avoidance by the multinational entities, the Government successfully completed another review on its Principal Hub incentive with the issuance of its gazette order on 19 February 2019.

Moving forward, Malaysia will continue to monitor and review other facilities to reduce tax leakages, avoid profit shifting among countries, and provide a more competitive tax environment for investors in Malaysia.

"MIDA has also been working closely with the Ministry of Finance and the Inland Revenue Board to ensure Malaysia's tax regime is in compliance with the Organisation for Economic Co-operation and Development's (OECD) Forum on Harmful Tax Practices (FHTP)."



2

Performance of the Manufacturing Sector

A notable feature of the sluggish growth in 2019 is the sharp and geographically broad-based slowdown in manufacturing and global trade. A few factors are driving this. Higher tariffs and prolonged uncertainty surrounding trade policy have dented investment and demand for capital goods, which are heavily traded

Source: IMF World Economic Outlook October 2019 update

2.1 Summary of Performance

On Raising Manufacturing

Shadowed by global economic uncertainty, Malaysia's manufacturing sector exhibited a slightly off-charted performance compared to 2018. The industry however displayed stronger high quality job creation numbers, especially in managerial, technical and supervisory roles. As a demonstration of the Government's clear commitment to encourage and reform the investment processes, several sectors have doubled their investment figures or shown even stronger growth

Given its importance in areas such as export revenue and job creation, and its heavyweight influence in product innovation, increasing productivity and global trade, there is no denying the importance of the manufacturing sector for both developed and emerging economies.

Globally, the manufacturing industry has been negatively affected by the trade conflict between the USA and PRC, with economists arguing that this could continue until at least the first quarter of 2020. Brexit is also likely a contributor to the continuing global economic slowdown. The World Trade Organisation (WTO) has also slashed its global trade growth forecast for the end of 2019 to 1.2 per cent, from its projection of 2.6 per cent earlier in April 2019.

According to Deloitte's 2020 Manufacturing Outlook, manufacturing trends that have been gaining traction include the rise of advanced technologies associated with the Fourth Industrial Revolution (Industry 4.0), such as artificial intelligence (AI), cloud computing, advanced analytics, robotics and additive manufacturing. Sustainability is also high in the minds of global manufacturers, as is the adoption of the ‘circular economy’.

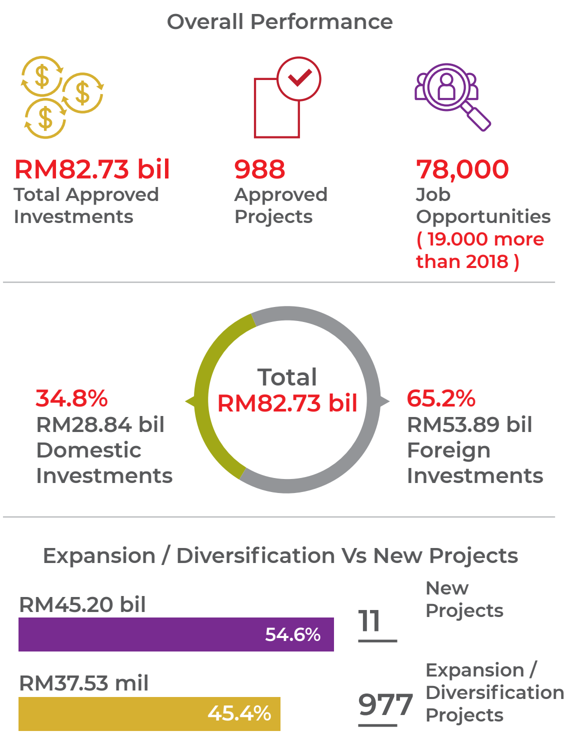
The manufacturing sector is an important sector in the Malaysian economy, contributing more than 20 per cent to the nation’s GDP over the last five years. Given its importance, it is not surprising that the Government has undertaken several steps in Budget 2020 to encourage investment into the sector (refer to pages 118-123 for more details). For instance, the electrical and electronic products (E&E) industry’s Special Investment Tax Allowance of 50 per cent is designed to encourage E&E companies to further reinvest in Malaysia.

Existing and prospective investors should note that the Government is committed to expediting the decision-making and approvals process of investment projects, as well as mitigating regulatory costs, while revamping the relevant taxation legislation surrounding investment incentives. Additionally, funding has been allocated to both foreign and domestic investors, with the aim to attract high-quality investments that will upgrade the level of the sector’s technological base and uplift its position in the global value chain.

Not as Bleak

Despite a dismal year, Malaysia attracted healthy levels of investments into the manufacturing sector. In 2019, Malaysia recorded a total of RM82.73 billion in investments in the manufacturing sector from 988 projects approved, or 39.8 per cent of the total investments across all economic sectors. This is a slight dip of 5.3 per cent from 2018’s figure of RM87.38 billion. Of these, FDI made up nearly two-thirds of total investments, amounting to RM53.89 billion (65.1%), while RM28.84 billion or 34.9 per cent were domestic investments. Overall, new projects made up 54.7 per cent of the total projects approved with investments of RM45.20 billion, while expansion/diversification projects accounted for the remaining 45.3 per cent with investments of RM37.53 billion. These 988 projects are expected to generate 78,606 employment opportunities, or 19,312 more than 2018’s figure of 59,294.

Key Highlights of the Manufacturing Sector for 2019



Foreign Investments Dominate

Foreign investments were evenly balanced between new and expansion/diversification projects in 2019. New projects accounted for 50.5 per cent or RM27.23 billion of investments, while 49.5 per cent or RM26.67 billion were for expansion/diversification projects. The bulk of FDI was concentrated in the E&E products industry (RM21.79 billion, over double that of 2018), followed by paper, printing and publishing (RM9.69 billion, nearly double 2018's figure of RM4.99 billion), non-metallic mineral products, machinery and equipment (M&E) (RM2.88 billion), chemical and chemical products (RM2.65 billion), scientific and measuring equipment (RM2.41 billion), transport technology (RM1.55 billion), and food manufacturing (RM1.31 billion). PRC was Malaysia's largest source of FDI for 2019 at RM15.30 billion, followed by the USA (RM14.23 billion, or over four times 2018's investments of RM3.15 billion), Singapore (RM5.61 billion), Taiwan (RM5.24 billion), and Japan (RM3.79 billion).

Domestic Optimism for New Projects

Meanwhile, in 2019, domestic investments were mostly focused on new projects. These projects were worth RM17.98 billion or 62.3 per cent of domestic investments, with the remaining 37.7 per cent or RM10.86 billion going into expansion/diversification projects. The industry that garnered the most interest from domestic investors was transport technology with RM6.50 billion, which is over six times 2018's investments worth RM1.22 billion. This was followed by E&E products (RM3.87 billion), non-metallic mineral products (RM2.55 billion), food manufacturing (RM2.49 billion, nearly double that of 2018's figure of RM1.29 billion), chemical and chemical products (RM2.10 billion), petroleum products (including petrochemicals) (RM2.07 billion), M&E (RM1.58 billion), rubber products (RM1.56 billion), plastic products (RM1.54 billion), fabricated metal products (RM1.35 billion), and paper, printing and publishing (RM1.07 billion).

Approved Foreign vs Domestic Investments in the Manufacturing Sector for 2019

Approved Foreign Investments

RM27.23 bil — 50.5% — New Projects

RM26.67 bil — 49.5% — Expansion / Diversification Projects

Largest Sources of FDI

RM15.30 bil
China

RM14.23 bil
USA

RM5.61 bil
Singapore

RM5.24 bil
Taiwan

RM3.79 bil
Japan

Approved Domestic Investments

RM17.98 bil — 62.3% — New Projects

RM10.86 bil — 37.7% — Expansion / Diversification Projects

Most Interest From Domestic Investors

RM6.50 bil
Transport Equipment
(1.2 bil or 12 times more than 2018)

RM3.86 bil
Electronics & Electrical Products

RM2.55 bil
Non-Metallic Mineral Products

Top Performing Industries In 2019

RM25.65 bil
Electronics And Electrical Products
(11.2 bil more than 2018)

RMM10.75 bil
Paper, Printing and Publishing
(Almost Double 2018's Investments)

RM6.86 bil
Non-Metallic Mineral Products
(RM4.46 bil more than 2018 or 286% higher)

RM8.05 bil
Transport Equipment

RM4.75 bil
Chemicals and Chemical Products

RM4.58 bil
Rubber Products

RM4.46 bil
Machinery and Equipment

RM3.80 bil
Food Manufacturing

These 8 Industries Accounted for
RM68.90 bil / 83.3%
of Total Investments approved

Industry Scorecard

The E&E products industry recorded the highest investments approved in 2019 (RM25.66 billion), a noteworthy increase over the RM14.48 billion recorded in 2018. This was followed by paper, printing and publishing (RM10.75 billion, or approximately double 2018's investments), transport technology (RM8.05 billion), non-metallic mineral products (RM6.86 billion, or 181 per cent more than 2018's figure), chemicals and chemical products (RM4.75 billion), rubber products (RM4.58 billion), M&E (RM4.46 billion) and food manufacturing (RM3.80 billion). These eight industries accounted for RM68.91 billion or 83.3 per cent of total investments approved.

Investments of RM1 billion and Above

A total of 18 projects with investments of at least RM1 billion or more were approved in the manufacturing sector with total investments of RM40.94 billion and contributing 49.5 per cent of total investments approved. These 18 projects were in E&E products (six projects worth RM18.09 billion), paper, printing and publishing (four projects worth RM7.71 billion), transport technology (two projects totalling RM4.10 billion), non-mineral products (two projects worth RM3.85 billion), rubber products (one project worth RM2.89 billion), M&E (one project worth RM1.79 billion), scientific and measuring equipment (one project worth RM1.51 billion), and petroleum products (including petrochemicals) (one project worth RM1.0 billion). In comparison, a total of 16 projects with investments of at least RM1 billion or more were approved in 2018 with total investments of RM57.74 billion and contributed 66.1 per cent of the total investments approved.

Investments of RM100 million and Above

In 2019, there were 108 projects approved in the manufacturing sector which recorded investments of at least RM100 million or more, or 27 projects more than 2018. Total investments in these projects amounted to RM66.58 billion or 80.5 per cent of the total investments approved.

A Dip in Capital Intensity (CIPE)

The capital intensity (as measured by capital investment per employee, CIPE) of projects approved in the manufacturing sector in 2019 was RM1,052,497, a reduction of 28.6 per cent from the RM1,473,600 in 2018. The industry with the highest CIPE ratio was natural gas (RM4,140,449), followed by petroleum products (including petrochemicals) (RM2,891,146), and non-metallic mineral products (RM2,091,164).

Still a Major Export Earner

Malaysia's manufacturing sector will continue to be a major contributor to the nation’s export earnings. Malaysia’s favourable investment climate makes it an attractive investment location for serving global and regional markets. In 2019, a total of 365 export-oriented projects were approved that proposed to export at least 80 per cent of their output. The projects involved investments of RM33.16 billion, of which foreign investments made a clear majority, being worth RM24.58 billion or 74.1 per cent, while domestic investments made up the remaining RM8.58 billion or 25.9 per cent. The main industries with export-oriented projects were E&E products (RM13.36 billion across 108 projects), paper, printing and publishing (RM5.61 billion in 12 projects), and non-metallic mineral products (RM3.35 billion in 19 projects).

The Talent Spread

The projects approved in 2019 are expected to create employment opportunities for 78,606 people. Of these, 27,843 (35.4%) are in managerial, technical and supervisory roles, while 9,545 (12.1%) are skilled workers. Meanwhile 50,763 or 64.6 per cent of the jobs created are for sales and clerical, plant/machine operators, and assemblers and others. Most of the employment opportunities created are in the E&E products (22,936 jobs), followed by rubber products (7,122 jobs), and paper, printing and publishing (6,587 jobs).

The Government also continues to grant approvals for expatriate posts, particularly for managerial and technical positions in Malaysian as well as foreign-owned companies. A total of 1,167 expatriate posts were approved in 2019, of which 271 were key posts that could be permanently filled by foreigners. The remaining 896 were term posts, generally granted for three to five years, where Malaysians are trained to eventually take over the posts.

Job Opportunities in the Manufacturing Sector for 2019

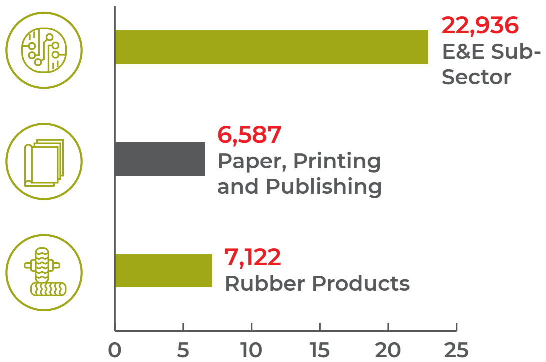
78,606
Job Opportunities

12.1%
9,545 are skilled workers

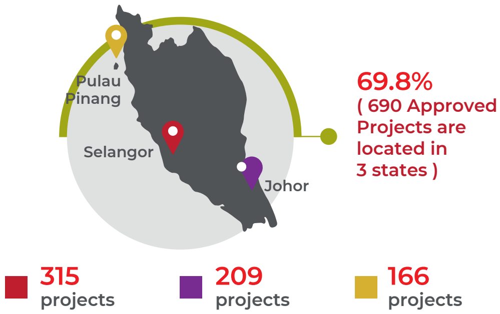
35.4%
27,843 are in Managerial, Technical and Supervisory

64.6%
50,763 of the Jobs Created are for Sales and Clerical, Plant/Machine Operators and Atssemblers and

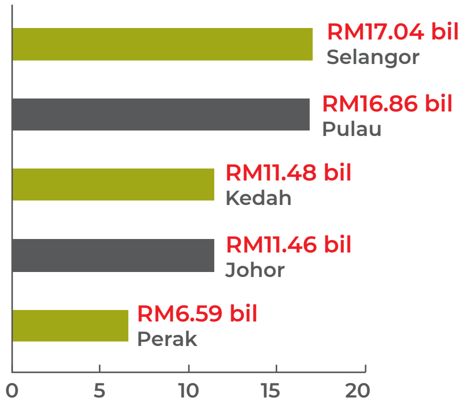
Sub-sectors with Most Jobs Opportunities



Approved Projects by Location In the Manufacturing Sector for 2019



These 5 states contributed **76.7%** of the total investments approved



Approved Projects

As with 2018, a majority of projects approved were for Selangor (315 projects), Johor (209 projects) and Pulau Pinang (166 projects). A total of 690 or 69.8 per cent of the projects approved were located in these three states. In terms of value, Selangor (RM17.04 billion) received the largest investments, followed by Pulau Pinang (RM16.86 billion), Kedah (RM11.48 billion), Johor (RM11.46 billion), and Perak (RM6.59 billion). These five states contributed 76.7 per cent of the total investments approved in 2019.

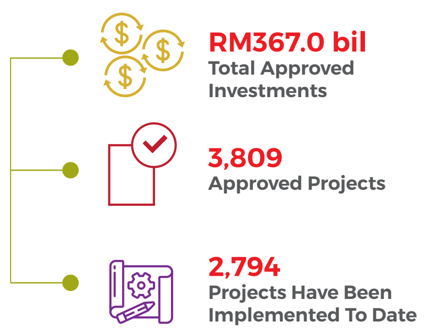
The two largest investments were in Pulau Pinang and Kedah, both expansion projects by the same foreign-owned company in E&E products (RM5.10 billion each). Meanwhile, in Selangor, the largest investments were from a new project in E&E products (RM3.38 billion). Investments also surged in Perak, led by an expansion project from a majority foreign-owned company in transport technology (RM2.60 billion).

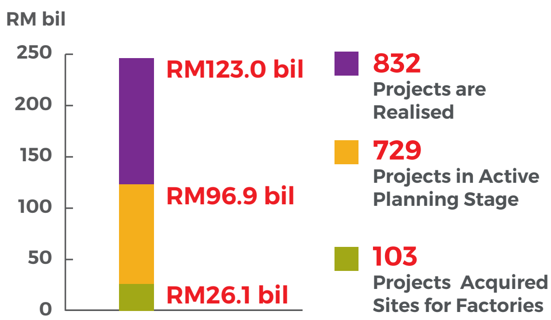
Implemented Manufacturing Projects

The addition of the 988 projects in 2019 brings the total number of manufacturing projects approved during the five-year period (2015 - 2019) to 3,809 projects. Approximately 2,794 of these projects have been implemented to date, with 2,593 projects having started operations, and 201 projects still undergoing factory construction and machinery installation. Total capital investments in these 2,794 projects amounted to RM208.52 billion. Meanwhile, another 103 projects with investments of RM26.11 billion have acquired sites for factories, while 729 other projects worth RM96.92 billion are in the active planning stage. When these 832 other projects are realised, their total investments will come up to RM123.01 billion. The majority of projects implemented during this five-year period came from E&E products, M&E, fabricated metal products, chemical and chemical products, and food manufacturing. Selangor has the largest number of implemented projects to date, followed by Johor, Pulau Pinang, Kedah and Perak.

Implemented Manufacturing Projects (2015-2019)

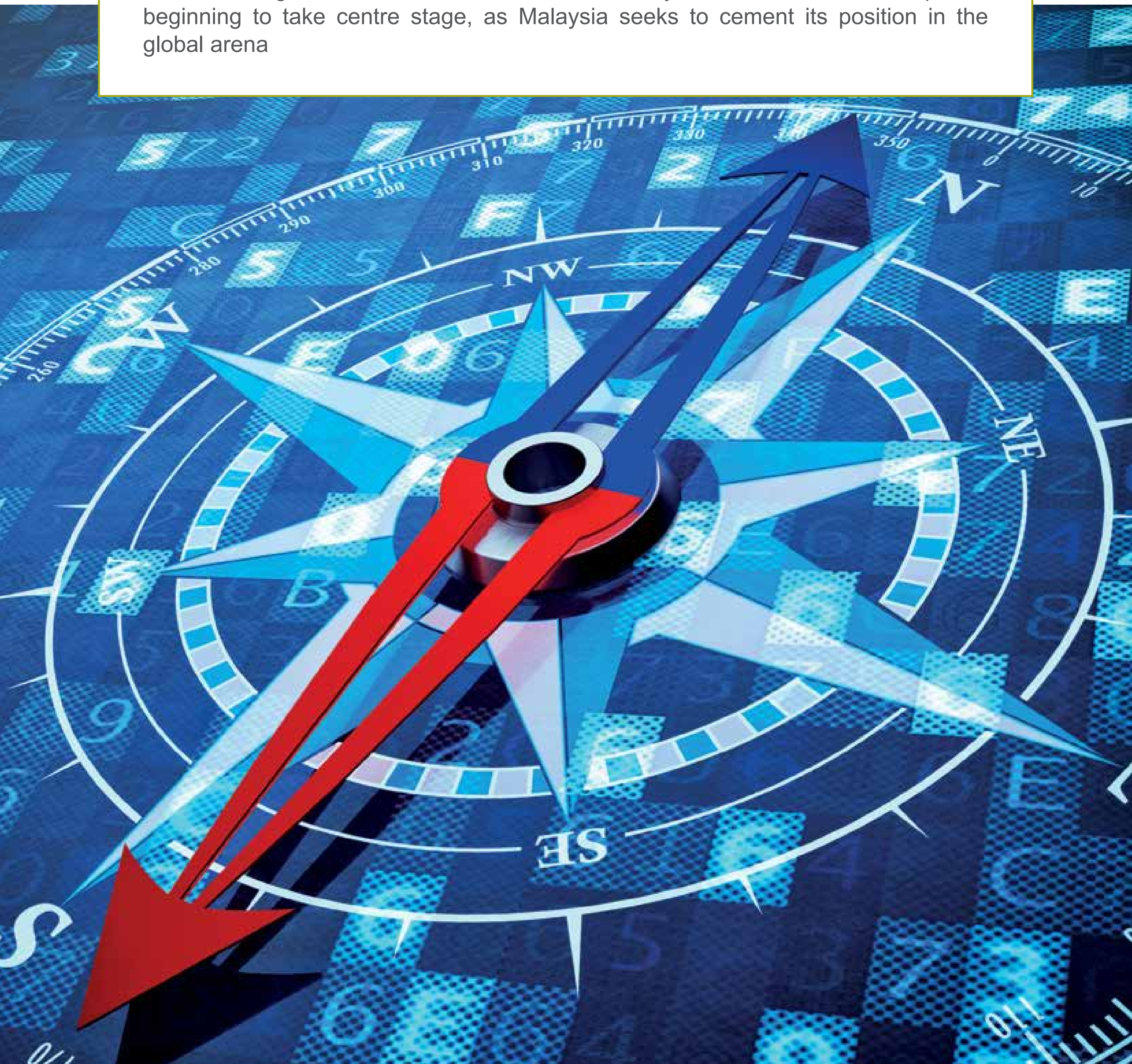
Implemented Manufacturing Projects (2015-2019)





Industry Journeys

Cutting-edge technology and Industry 4.0 adoption continue to drive Malaysia's manufacturing industries, with the 'circular economy' and sustainable development beginning to take centre stage, as Malaysia seeks to cement its position in the global arena



Electrical and Electronic Products

The electrical and electronic products (E&E) industry is the single largest contributor to the manufacturing sector, and was the country's largest export earner in 2019, with exports totalling RM372.67 billion or 44.7 per cent of all manufacturing goods exported. Over the past few decades, the E&E industry has successfully attracted large amounts of foreign investment, and in the process has paved the way to generate vast numbers of jobs for Malaysians.

The 2018/2019 Economic Impact Survey report by the Malaysian American Electronics Industry (MAEI) notes that Malaysia's E&E sector is well equipped to compete on the world stage; being the seventh largest E&E exporter in the world with more than 100,000 jobs being created in this sector.

Malaysia's top five export destinations in 2019 were Singapore, Hong Kong, the USA, PRC and Japan, with Singapore accounting for the lion's share of 16.2 per cent of all E&E exports, amounting to RM60.42 billion.

It is heartening to note that the country's local manufacturers recognise the need to embrace Industry 4.0, and the importance of investing in digitisation to propel and sustain their competitiveness in today's rapidly-evolving global technological landscape. On its part, the Government is encouraging the adoption of smart manufacturing to ensure economic growth and high-value business activities, as underscored by Malaysia's Industry4WRD policy announced by YAB Prime Minister Tun Dr Mahathir Mohamad on October 2018.

Prospective investors looking to invest in the country are encouraged to assist Malaysian manufacturers with financing and expertise, especially in the vibrant electronics manufacturing ecosystem; which is a reference point for other manufacturing industries such as precision engineering and oil & gas. The semiconductor industry is one of the best examples of smart manufacturing, largely because the industry is farther along in its ability to inform, control and automate.

In addition to the ongoing efforts by the Government and industry stakeholders to scale up the industry's technological transformation, much priority is also being placed on sustaining a fuller top talent pipeline aligned to match the industry's growing needs. The focus is on raising interest in the Science, Technology, Engineering and Mathematics (STEM) fields among the younger generations. These talents support the development of the E&E industry, with innovation and human ingenuity being vital cornerstones in ensuring its continued growth.

At the forefront of Malaysia's E&E industry is the semiconductor sub-sector, which is one of the most advanced sub-sectors in terms of manufacturing, data collection and even its demand for top engineering talents. The nation has long-standing experience and expertise in manufacturing semiconductor devices, which are essentially components of electronic circuits that can be found in just about every electrical device from smartphones and computers to coffee machines.

To realise higher margins, semiconductor companies globally make large provisions for Research and Development (R&D) initiatives to improve their manufacturing processes, which will in turn drive down production costs. As such, globally, both R&D spending and profit margins are expected to expand over the next few years. Potential investors can take comfort in knowing that experts anticipate a relatively rosy outlook for semiconductors in the near future. Gartner and Statista, for example, predict that global semiconductor sales revenue will grow at a Compound Annual Growth Rate (CAGR) of 6.17 per cent and hit US$503 billion in 2020.

Potential areas of investment in the industry include R&D into new innovations that enhance the industry's value chain, the development of a pool of product design talents, and the training of employees with the capability to address issues such as Intellectual Property (IP) protection, licensing and R&D spending.

In recognition of how important innovation and design activities are to spur the growth of the industry, MIDA continues to encourage companies to undertake design and development (D&D) activities in the E&E industry.

A total of 157 E&E projects with investments of RM25.66 billion were approved in 2019. Of the total, 42 were new projects with investments otf RM7.09 billion (27.6%) while 115 were expansion/diversification projects with investments amounting to RM18.57 billion (72.4%). These projects are expected to bring about 22,936 employment opportunities in the E&E industry.

Foreign entities accounted for the bulk of the total investments with RM21.79 billion or 84.9 per cent while domestic investments amounted to RM3.87 billion or 15.1 per cent. Existing E&E companies in Malaysia continued to expand and diversify their operations, a testimony of their continued confidence in the country's investment environment.

The major sources of foreign investments in this industry were from the USA, Taiwan, Singapore, PRC and Japan. Investments approved were mainly in the electronic components, consumer electronics, industrial electronics, electrical components and electrical appliances sub-sectors.

Electronic Components

Electronic components formed the largest share of investments in the E&E sub-sector at 54 per cent. A total of 45 projects with investments amounting to RM13.91 billion were approved in 2019. The projects approved were for the production of electronic components such as transistors, Light Emitting Diodes (LEDs), microcontrollers, semiconductor devices, and printed circuit board (PCB) assemblies.

The sub-sector was largely driven by foreign investments. Of the total investments approved in the electronic components sub-sector, foreign investments amounted to RM13.27 billion or 95.4 per cent of the total while domestic investments totalled RM637.23 million or 4.6 per cent. Projects in this sub-sector are expected to generate 6,448 jobs.

Consumer Electronics

There were 28 projects approved for consumer electronics in 2019 with investments amounting to RM6.18 billion. Core activities of this sub-sector include speaker units, amplifiers for speakers, speaker systems, chess clocks, and Bluetooth devices. Activities in the sub-sector are expected to create 4,111 jobs.

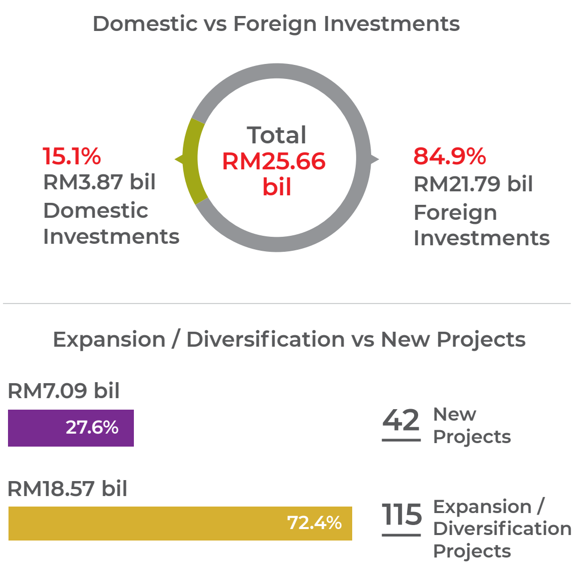
Industrial Electronics

A total of 37 projects were approved for industrial electronics with investments of RM2.39 billion in 2019, of which foreign investments totalled RM2.22 billion and domestic investments totalled RM163.55 million. These projects are expected to create up to 7,041 job opportunities.

Electrical Components

There were 21 projects approved under this sub-sector in 2019, with total investments of RM2 billion. In this sub-sector, foreign investments amounted to RM1.10 billion (55%) while domestic investments totalled RM902.40 million (45%). Investments in this sub-sector is expected to create 2,384 job opportunities.

Approved E&E Investments for 2019



Electrical Appliances

The electrical appliances sub-sector saw 12 projects approved in 2019 with investments totalling RM666.88 million. This sub-sector is mainly dominated by FDI with investments amounting to RM603.87 million or 90.6 per cent, while domestic investments totalled RM63.01 million or 9.4 per cent. These projects are expected to generate employment opportunities for 1,579 people.

Approved E&E Investments by Sub-Sector for 2019

E&E Sub-Sectors	Total Approved Investments	Approved Projects	Job Opportunities
Electronic Components	RM13.91 bil	45	6,448
Consumer Electronics	RM6.18 bil	28	4,111
Industrial Electronics	RM2.39 bil	37	7,041
Electrical Components	RM2 bil	21	2,384
Electrical Appliances	RM666.88 mil	12	1,579
Total	RM25.66 bil	157	22,936

Intel Malaysia was the first offshore site for Intel Corporation, with more than RM22 billion invested since 1972. Today, Intel Malaysia employs more than 10,000 employees including the country's largest design and development (D&D) centre, and one of only two shared services hubs supporting HR, Finance, Procurement, IT, and Supply Chain operations for Intel sites globally. Intel Malaysia is also largest assembly and test manufacturing site that produces Intel's latest products utilising smart manufacturing techniques.

Over the next 15 years, Intel will invest RM10 billion to bring the latest advanced assembly and test technology to Malaysia, marking a new milestone in the company's 48-year history of investing and partnering in Malaysia. As part of this investment, Intel is planning to start operation of a new state-of-the-art factory later this year.

A new project by US-owned Micron Memory Malaysia Sdn. Bhd., involves the development and manufacturing of solid state drives (SSD), memory integrated circuits (ICs) and memory modules. Micron expects to have a workforce of over 1,000 team members as they ramp toward a full launch of its Pulau Pinang facilities.

An expansion by Plexus Manufacturing Sdn. Bhd. to manufacture and re-manufacture printed circuit boards (PCBs) and fully complete products for microprocessor applications, industrial telecommunications and medical devices. This additional investment would create up to 4,333 new job opportunities.

Transport Technology

Rail

The rail sub-sector is made up of companies who engage in rail design, manufacturing and assembly, as well as maintenance, repair and overhaul (MRO) activities. Over 30 businesses are involved in the design, manufacture and assembly of rail-related products in the country, with more than 40 other local companies that undertake MRO. Most major rail operators, such as Keretapi Tanah Melayu Berhad and Rapid Rail Sdn. Bhd., conduct the bulk of their MRO activities in-house.

With 25,000 workers currently employed in rail-related activities, the sub-sector aims to employ 68,000 by 2030. The revival of the East Coast Rail Link (ECRL), a 640 km project linking Port Klang in Selangor to Kota Bharu in Kelantan that has received the go-ahead after being stalled/suspended, is expected to employ a workforce that is 70 per cent local, thus opening up more job opportunities for about 23,000 Malaysians.

Other than ECRL, other rail projects such as the Light Rail Transit 3, Mass Rapid Transit 2 and phase 2 of the Klang Valley Double Track have also resumed after the Government undertook various cost-cutting measures. The High Speed Rail (HSR) project linking Malaysia and Singapore is slated to go ahead and will be announced in May 2020 after Singapore agreed to suspend its construction in September 2018.

The Government's vision for the Malaysian rail sub-sector is that by 2030, the industry will be a strong and sustainable business, capable of satisfying the demands of national rail transportation. It also hopes that Malaysia can become a competitive global industry player that optimises the use of indigenous resources and technologies. Thus, the Government supports these initiatives and will assist local companies to advance to the next level by way of advanced technology transfers.

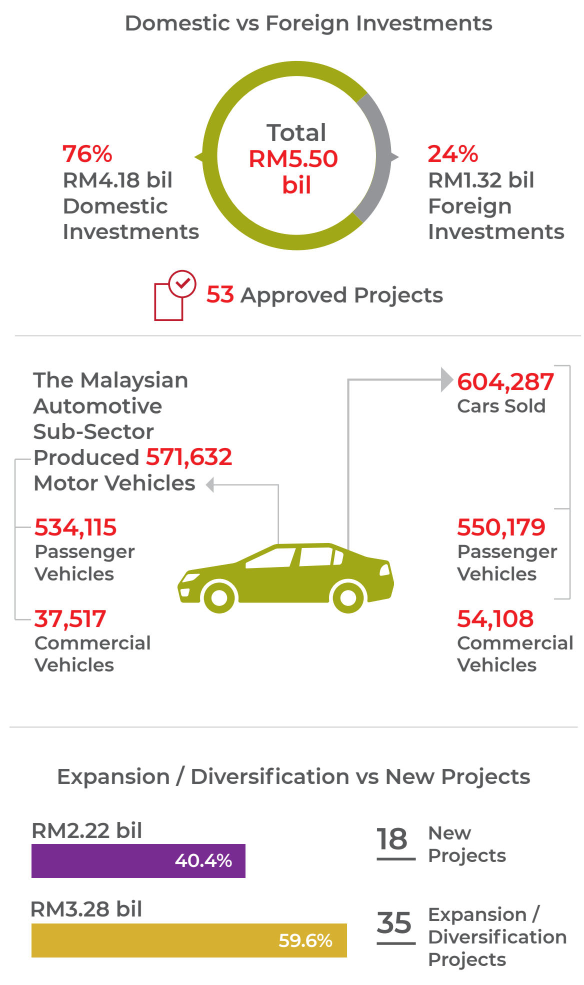
Two projects approved in 2019 were expansion projects by wholly Malaysian-owned companies with investments worth RM115 million. SMH Rail Sdn. Bhd. manufactures locomotives and wagons for the local and export markets, whereas Protech Master Coach Sdn Bhd undertakes the design, development, assembly and manufacture of monorail coaches, electromechanical systems and rolling stock for rail.

Automotive

The National Automotive Policy (NAP) was first introduced in 2006 to transform and integrate the industry into the increasingly-competitive regional and global industry network. The 2009 NAP review aimed to further enhance the industry's capabilities and competitiveness, by creating a more conducive investment environment. The last NAP review in 2014 focused on developing Malaysia as a hub for energy efficient vehicle (EEV) production. This included strategies and measures to strengthen the entire value chain of the automotive industry, as well as an emphasis on environmental conservation, high-income job creation, technology transfer, and the creation of new economic opportunities for local companies.

Malaysia's automotive industry encompasses the production of motor vehicles; namely, passenger vehicles, commercial vehicles, motorcycles, and scooters, as well as automotive parts and components. The automotive sub-sector is part of a complete ecosystem that covers the resource, primary, manufacturing, supporting services, and after-sales sectors.

Approved Investments in the Automotive Industry for 2019



Throughout 2019, the Malaysian automotive sub-sector produced 571,632 motor vehicles. This figure is further broken down to 534,115 passenger vehicles and 37,517 commercial vehicles. A total of 604,287 motor vehicles were sold, comprising 550,179 passenger vehicles and 54,108 commercial vehicles.

The automotive industry saw a total of 53 approved projects with investments worth RM5.50 billion. DDI made a significant contribution of 76 per cent of investments, totalling RM4.18 billion, with FDI being worth RM1.32 billion, or 24 per cent. The approved projects are expected to result in 3,467 jobs. Of the total projects approved, there were 18 new projects worth RM2.22 billion or 40.4 per cent of the total investments, with 35 expansion/diversification projects that brought in RM3.28 billion or 59.6 per cent of the total.

Malaysia's first national car company, Perusahaan Otomobil Nasional Sdn. Bhd. (PROTON), expanded its activities into the manufacturing and assembly of EEVs and related components at its new facility in Tanjung Malim, Perak. This expansion project kicked off in the fourth quarter of 2019 with investments totalling RM2.6 billion. PROTON's introduction of new EEV products is scheduled to be implemented in several phases from 2019 until 2023.

The expansion project, a collaboration between PROTON and PRC-based Zhejiang Geely Holding Group Co. Ltd (Geely), will focus on manufacturing new models equipped with modern technologies such as an energy-efficient powertrain, internationally-recognised safety systems and advanced connectivity features. Meanwhile, existing models will be upgraded with a refreshed design and updated technical specifications to attract customers and enhance their ownership experience. This project will create an additional 766 employment opportunities in R&D and manufacturing operations.

The ongoing strategic partnership between DRB-Hicom and Geely in PROTON has been a win-win arrangement for all stakeholders, in terms of achieving economies of scale, operational efficiency, investment optimisation, as well as knowledge and technology transfer.

The most recent NAP 2020 was formulated to enhance NAP 2014, and to continually develop the domestic automotive sector and its whole ecosystem in order to realise the National Automotive Vision.

The NAP 2020 review's primary goals are to develop the NxGV technology ecosystem to make Malaysia the regional hub for NxGV production; to expand the industry's participation in the MaaS sector; to inculcate Industry 4.0 adoption within the industry; to ensure the whole ecosystem gains the benefits of NxGV implementation; and to reduce vehicle carbon emissions by improving Malaysian vehicular fuel efficiency by 2025.

NAP 2020

Next Generation Vehicle (NxGV)

A vehicle with EEV status and having achieved at least Level 3 automation (conditional automation)

Mobility as a Service (MaaS)

A concept of integrating types of transport services to a centralised mobility service portal

Industry 4.0

The use of Industry 4.0 -related technology applications especially AI, Big Data, and IoT will enable the of implementation NxGV and MaaS

Given the latest review's objective to enhance Malaysia's automotive industry in the era of digital industrial transformation, prospective investors into this industry should take note of specific incentives related to its proposed measures that are applicable to the relevant projects.

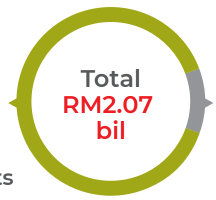
Aerospace

The Malaysian aerospace industry has been growing at an average of five per cent over the past 10 years, and churning out high-skilled jobs, with the most important area being that for MRO activities.

Under the National Aerospace Industry Blueprint 2030, the Government envisions the country to be the top aerospace nation in Southeast Asia by being an integral part of the global market by 2030, with a total revenue of RM55.2 billion and the creation of more than 32,000 high-income jobs (the industry currently employs 24,500 high-skilled workers). The blueprint projects revenues of RM20.4 billion for MRO, RM21.2 billion for aero-manufacturing, and RM13.6 billion for engineering and design services by 2030. The Government has identified the industry as one of the '3+2' strategic sectors with high-growth potential.

Approved Investments in the Aerospace Industry for 2019

Domestic vs Foreign Investments



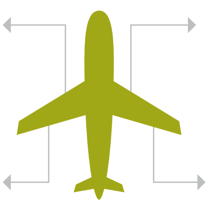
89%
RM1.85 bil
Domestic Investments

11%
RM226.57 mil
Foreign Investments

7
Approved Projects

582
Job Opportunities

More than 200 Aerospace Companies in Malaysia, Including



130
Companies Involved in MRO Activities

33
Companies in Aero-Manufacturing

53
Companies in Education and Training

11
Companies in Systems Integration

Malaysia is home to 130 companies involved in MRO activities, 33 companies in aero-manufacturing, 53 companies in education and training, and 11 companies in systems integration as well as engineering and design. These companies comprise both international and local industry players, demonstrating the strong market demand that has accelerated the industry's value chain's development. Local companies including SME Aerospace, CTRM Aero Composite, Airod, and Asia AeroTechnics have demonstrated their ability to meet and even exceed global OEMs' stringent demands, successfully embedding themselves in the global aerospace supply chain.

With Boeing's forecast of 44,040 new airplane deliveries (worth US$6.8 billion) by 2038 globally, there are plenty of opportunities for Malaysian aerospace players to capitalise on, as 17,390 of those deliveries will originate from manufacturers in Asia Pacific. It is forecasted that by 2031, Asia Pacific will be the biggest airline market in the world, receiving nearly a third of all new jet deliveries. MRO spending in the region is expected to grow at a rate of 5.3 per cent CAGR, well above the global average of 3.9 per cent. Given this, it is estimated that by 2030, the global market share for MRO will be worth US$116 billion. Thus, Malaysia is well-positioned to capitalise from Southeast Asia's dynamic regional aerospace market, which has been gaining prominence.

Within Asia Pacific, the third-party MRO market is dominated by engine and component MRO, due to the fact that airlines tend to keep their line and heavy maintenance work in-house. Malaysia's MRO sub-sector's turnover has grown from RM4.3 billion in 2009 to RM6.6 billion in 2018.

A total of seven projects were approved in the aerospace sub-sector in 2019, bringing in investments worth RM2.07 billion. Foreign investments amounted to RM226.57 million or 11 per cent of the total. The majority of RM1.85 billion or 89 per cent of these investments came from domestic investors. The approved projects are expected to generate 582 new jobs. All approved projects were for companies in the aerospace manufacturing sub-sector supplying Tier 1 and Tier 2 companies.One of the significant projects approved was a new project by a wholly-Malaysian-owned company in collaboration with its technology partner in Italy, with investments worth RM1.61 billion to provide system integrations for the space industry and satellite assembly for the public/government sectors, telecommunication companies, and space satellite operators.

MIDA approved an expansion project in 2019 for Airfoil Services Sdn. Bhd. (ASSB), which is an equal partnership between MTU and Lufthansa Technik to undertake MRO activities for low-pressure turbine (LPT) and high-pressure compressor (HPC) blades for a variety of engine types. This expansion will increase ASSB's facility by 5,200 square meters and will increase its current repair capacity from 650,000 to 900,000 parts per year by 2020. This development underlines its shareholders' commitment to increasing its footprint in Malaysia. The project is expected to eventually provide 169 high-income employment opportunities for Malaysians. Additionally, the company is planning to add another 200 jobs over the next three years, increasing the workforce to around 700 employees. Through its internally-developed apprentice program, ASSB took on 124 local apprentices in 2018.

> Malaysia's MRO sub-sector's turnover has grown from RM4.3 billion in 2009 to RM6.6 billion in 2018.

Malaysian aerospace companies engage in the global aircraft industry through off-set arrangements and joint ventures or strategic partnerships with MNCs. Potential investors in this arena can consider working with local industry players to build their in-house capabilities and reduce their dependence on foreign technical know-how and export market support, as well as invest into their infrastructural capabilities, which includes setting up and maintaining a highly-skilled workforce. To enhance the workforce and ensure that new knowledge and skills are passed on, MIDA encourages human capital development efforts by creating links between the industry and academia. At present, over 30 Malaysian educational institutions offer related aviation courses at the diploma and degree levels to produce industry-ready graduates for the industry. These include Universiti Putra Malaysia, UniKL, Universiti Teknologi Malaysia, and University Tun Hussein Onn Malaysia, among others.

Shipbuilding and Ship Repair

Shipbuilding and ship repairing (SBSR) is a strategic industry in Malaysia that the Government supports through the Industrial Master Plans, the Malaysia Shipbuilding/Ship Repair Industry Strategic Plan 2020 (SBSR 2020), and the Malaysia Shipping Master Plan 2017-2022. SBSR encompasses the manufacture of a variety of ships as well as ship repairing activities, including designing, converting and upgrading vessels, and the manufacture of marine equipment.

Malaysia is globally recognised for its wide range of offshore and onshore facilities and vessels offering conversion services as well as LNG vessel repair and dry docking. The approximately 100 shipyards located nationwide are capable of producing vessels with lengths of up to 120 metres, as well as the repair of vessels up to 450,000 deadweight tonnage (DWT), with ship lift capability of up to 50,000 DWT.

Most of the shipyards located around Sibu and Miri in Sarawak specialise in building and repairing small- to medium-sized vessels such as tugboats, offshore support vessels (OSVs), barges, anchor handlers, and passenger boats. Over in Peninsular Malaysia, the shipyards in the West Coast focus on building and repairing naval/patrol vessels, and fabricating offshore structures, whereas those in the East Coast concentrate on fishing vessels.

The export of marine transport equipment declined to RM952.2 million in 2019 compared to RM1.3 billion in 2018, a significant drop of 36 per cent. Maritime transport equipment such as light vessels, dredgers, floating docks, and cargo ships were mainly exported to Thailand, Singapore, Qatar, Indonesia, Australia, New Zealand, and the USA.

There were four projects approved in the SBSR industry in 2019, with total investments amounting to RM357.20 million, of which two were new projects with investments of RM303 million and the other two were expansion projects. All four projects are wholly Malaysian-owned projects and are expected to create 91 new jobs. Investments in the industry were driven by demand for defence, security and commercial vessels.

Gading Marine Industry Sdn. Bhd. (formerly known as Gading Marine Engineering (M) Sdn. Bhd.) has a notable project with investments of RM203 million to build state-of-the-art marine-certified vessels for the nation's defence/marine security sector.

For reasons of sustainability and compatibility, the domestic SBSR industry is preparing to adopt Industry 4.0 in their business models. The Government is focussing on technological advancements in ship design to encourage value-added in SBSR activities. As such, several strategies have been put forward, which include strengthening the framework to prepare a tech-savvy workforce. The establishment of the Asia Marine Design Centre (AMDeC) aims to heighten the national SBSR industry, by spearheading the development and enhancement of marine design capabilities.

MIDA has been actively engaging with the Association of Marine Industries of Malaysia (AMIM) for SBSR policy review proposals. MIDA is also a permanent member in the Advisory Council under the National Shipping and Port Council (NSPC), established by the Ministry of Transport, with the objective of enhancing Malaysia's maritime transport sector. Prospective investors can be rest assured that MIDA will continue to collaborate with the relevant Government agencies, industry players and international counterparts, to provide the necessary supporting infrastructure and further facilitate investments into the industry.

The outlook for the SBSR industry is optimistic, considering the recovery in O&G production and offshore drilling projects. The Petronas Activity Outlook 2020-2022 reveals a steady demand for OSVs in the form of anchor-handling tug supply boats, with nearly 150 vessels needed across all weight categories, 70 fast crew boats, 56 platform/straight supply vessels, and 30 landing craft tanks, among others. Another growth area includes the building of fishing vessels, where the export market share surged over 10 per cent in 2019.

Machinery and Metal Industry

Machinery and Equipment

Due to its cross-cutting linkages with the primary, manufacturing, and services sectors, the machinery and equipment (M&E) industry is key to driving Malaysia's economic and technological development and advancement. It does so by providing essential and highly-sophisticated technology for use in the creation of many innovative products that integrate electronics, advanced materials and software.

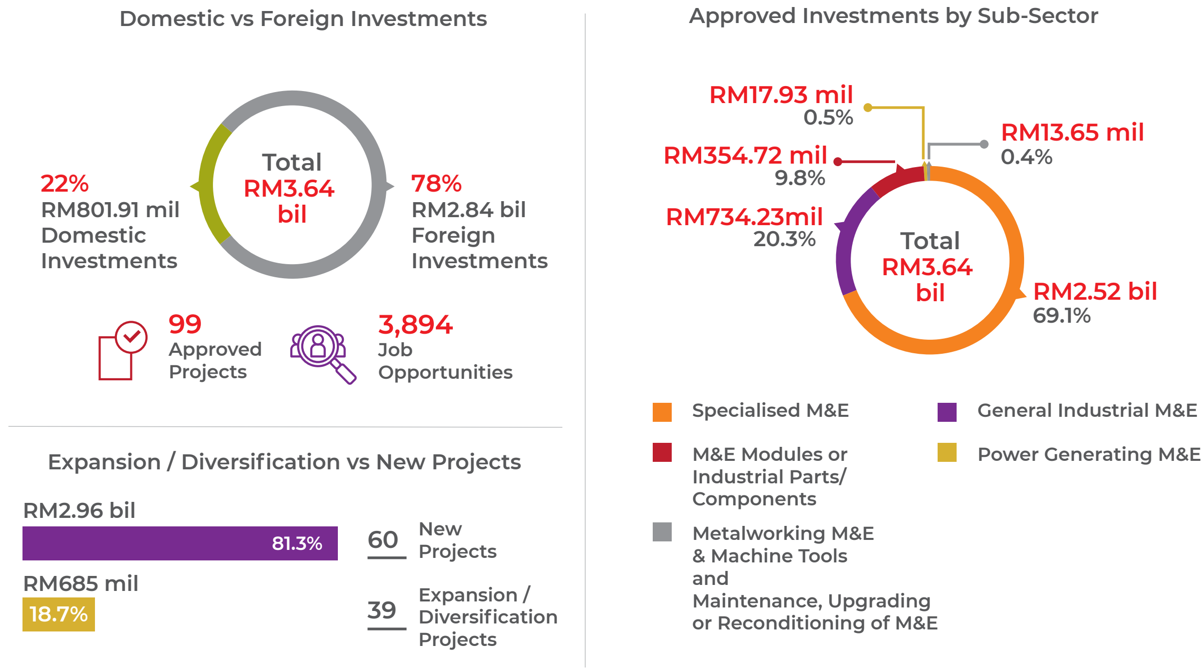
The M&E industry has developed to an advanced stage over the years, and attained global recognition among manufacturers of specialised process and automation equipment, particularly for the E&E industry in the ASEAN region. It is dominated by SMEs that provide customised products and offer end-to-end manufacturing, from the initial design and development phase through to distribution and logistics. These total solution providers cater to the strong demand of industries here and abroad.

Malaysia is also home to several of the larger industry players, with 120 major companies based in the country that are capable of producing advanced fully-automated handling systems, incorporating intelligent robotics and Machine-to-Machine (M2M) communication. In fact, several world-renowned global companies in this industry, such as Vitrox, SRM Integration, Visdynamics and Walta Group, started out (and are still present) in Malaysia.

The 11MP selected the M&E industry as one of the '3+2' catalytic sub-sectors under the manufacturing sector. Given this, the Government is continually improving its strategy to further propagate its growth, especially when it comes to widening the use of advanced technology. This is in line with the commitment to technological innovation displayed by economies such as the USA, Europe, Japan, and Taiwan, which has allowed them to remain global leaders in the M&E marketplace. Industry 4.0-related technologies such as IoT and smart manufacturing have led to higher productivity, efficiency and sustainability among these global economies, and will likewise achieve the same goals in Malaysia.

Malaysian M&E companies are increasingly transforming themselves from being mere contract manufacturers to becoming Original Equipment Manufacturers (OEMs) in their own right, by investing heavily in R&D, engineering design, innovation and system integration. With their enhanced capabilities and greater involvement in higher-value-added activities throughout the ecosystem, Malaysian companies have achieved international recognition, empowering them to integrate themselves better into the global supply chain and cementing Malaysia's place in the global economy.

Investments in Projects Approved in Machinery & Equipment (M&E) Industry by Sub-Sector for 2019



A total of 99 M&E projects were approved in 2019, injecting investments valued at RM3.64 billion. Of these, 60 were for new projects worth RM2.96 billion representing 81.3 per cent of the total investments received, while 39 were for expansion/diversification projects with investments amounting to RM685 million or 18.7 per cent. The majority of investment inflows of 78 per cent or RM2.84 billion came from foreign sources, and domestic investments comprised the rest at RM801.91 million or 22 per cent. These projects are expected to provide employment for 3,894 people.

The specialised M&E for specific industries sub-sector was the biggest contributor of investments for 2019. It saw an influx of RM2.52 billion in 31 projects, of which 19 were new projects with RM 2.09 billion representing 82.9 per cent of total value and 12 expansion/diversification projects with a total investment of RM433.80 million comprising 17.1 per cent. Investments in this sub-sector were mainly driven by FDIs with investments totalling RM2.19 billion or 86.9 per cent, while domestic investments amounted to RM331.21 milion or 13.1 per cent of the total value of investments.

The general industrial M&E sub-sector ranked second in terms of investments approved for the same period. A total of 45 projects with investments of RM734.23 million was approved, comprising 30 new projects with investments of RM586.36 million or 79.9 per cent of the value and 15 expansion/diversification projects with investments totalling RM147.87 million or 20.1 per cent of the total value. Domestic investments in this sub-sector amounted to RM305.39 million or 41.6 per cent of the sub-sector's total while foreign investments totalled RM428.84 million or 58.4 per cent.

The investments approved in the machinery/equipment modules or industrial parts/components sub-sector came in third with investments registered at RM354.72 million. It comprised nine new projects with investments of RM266.38 million or 75.1 per cent of the total value and another 10 expansion/diversification projects with investments totalling RM88.34 million or 24.9 per cent of the value of investments in the sub-sector. Investments from foreign sources amounted to RM211.25 million or 59.6 per cent while domestic investments totalled RM143.47 million or 40.4 per cent.

The investments approved in the power generating M&E sub-sector came in fourth with investments registered at RM17.93 million. It comprised one new project with investments of RM10.15 million or 56.6 per cent of investments in the sub-sector, and another expansion/diversification project with investments totalling RM7.78 million or 43.4 per cent of investments in the sub-sector. Investments from foreign sources amounted to RM3.28 million or 18.3 per cent while domestic investments dominated the sub-sector at RM14.65 million or 81.7 per cent.

Two projects came from both the metalworking and machine tools, and upgrading or reconditioning M&E sub-sectors, generating investments valued at RM13.65 million with the majority of it being DDI.

One of the significant new projects in the M&E industry is by Eng Teknologi Sdn. Bhd., a wholly Malaysian-owned company to switch over and adopt smart manufacturing processes in place of its labour-intensive operations. The three-year project will focus on reducing its pool of unskilled foreign staff by half, and to increase the number of its local technical and highly-skilled workers. The investment valued at RM161 million will see a significant increase in the proportion of managerial, technical and supervisory staff from 26 per cent to 42 per cent. The total percentage of local manpower will also jump significantly from 38 per cent to 80 per cent when the project is fully implemented.

The project will focus on production automation via digital shop floor management and automation, smart quality assurance, and smart warehousing. Business processes involving HR, finance, planning, IT, and quality assurance will also be integrated and digitised. The whole factory will be integrated into a single-sign-on platform to reduce non-productive processes, optimise data, and empower decision making. Through this project, existing local manpower will be upskilled to allow for the adoption of Industry 4.0 technologies such as M2M communication, predictive maintenance, supply chain management, and data management. The purpose of this modernisation is to enable the production of new high-products for use in autonomous ('self-driving') vehicles, the semiconductor space, and optics.

Another significant new project is EDA Malaysia Industries Sdn. Bhd., a dynamic and experienced Italian-based engineering company with investments of RM28.95 million. The company focusses on the production of burn-in systems, burn-in service, and burn-in boards for semiconductor devices and electronic products, and will address the requirements of the front-end semiconductor industries such as ST Micro, ON Semi, Analog Devices and Infineon. The company plans to invest in R&D and D&D, with 21 per cent of employees dedicated to various R&D and D&D activities, and to collaborate with universities by giving the universities the opportunity to move from theory to practice by providing them with industry-relevant experience.

Engineering Supporting Industry

Over the years, Malaysia's engineering supporting industry (ESI) has proven itself a dynamic and resilient one, fully capable of providing the vital support that the growth of the manufacturing and services sectors' needs. In this regard, ESI can be regarded as the 'mother' of all other industries, as it serves as the fundamental base for their growth.

ESI has continued to grow in tandem with the country's economic development. Malaysia is recognised globally for its capabilities, consistent production quality, and fast and reliable delivery across a diverse range of engineering activities, especially when it comes to precision machining and fabrication.

The current economic climate, coupled with the rise of countries within the Southeast Asian region that have an abundance of low-cost, low-skill labour, poses a challenge to Malaysian ESI industry players. Retaining their competitive edge involves the production of high-value-added products and integrated services, with a focus on low-volume and high-mixed products, and an emphasis on D&D, stringent quality assurance, and on-time delivery. By doing so, ESI companies can compete in niche market segments that have better margins requiring the use of more technologically-advanced processes.

To that end, Malaysian ESI companies are encouraged to enhance their capabilities and capacities towards a higher-end value chain in the ecosystem, by providing total manufacturing solutions for high-technology industries such as semiconductor, M&E, medical, O&G and aerospace, so that Malaysia can achieve its aspiration to become the world's preferred location for global outsourcing.

There were 55 ESI projects approved in 2019, amounting to RM870.36 million in investments. 32 were new projects valued at RM626.64 million or 72 per cent of total investments, with the remaining 23 expansion/diversification projects bringing in total investments of RM243.72 million or 28 per cent. DDI totalled RM558.90 million or 64.2 per cent of all investments into the industry, and FDI came up to RM311.46 million or 35.8 per cent of total investments, with 2,019 jobs expected to be created.

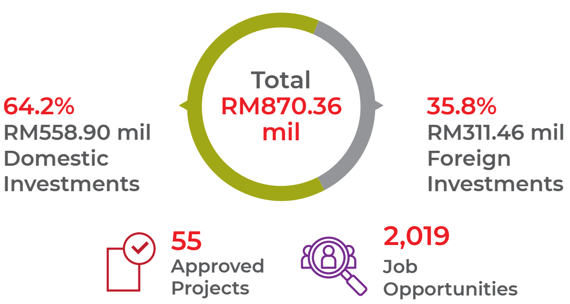
The moulds, tools and dies sub-sectors were from 16 projects with total investments of RM240.56 million. There were 11 new projects with investments of RM211.85 million or 88.1 per cent of the total value of investments in the sub-sector and five were on expansion/diversification projects with investments totalling RM28.71 million or 11.9 per cent of the total value of investments in the sub-sector. FDI amounted to RM141.06 million or 58.6 per cent of investments, while DDI totalled RM99.50 million or 41.4 per cent of investments.

The machining sub-sector came in next with investments valued at RM341.65 million from 27 projects. 14 were from new projects with investments of RM196.93 million comprising 57.6 per cent of total investments in the sub-sector and 13 were for expansion/diversification projects with investments totalling RM144.72 million or 42.4 per cent of investments in the sub-sector. FDI amounted to RM36.91 million or 10.8 per cent of investments while DDI totalled RM304.74 million or 89.2 per cent of investments.

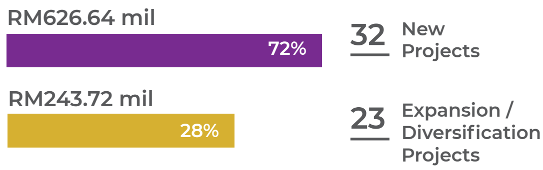
The surface engineering sub-sector's seven projects had investments totalling RM166.74 million. These comprised six new projects with investments of RM147.86 million or 88.7 per cent of investment and one expansion/diversification project with investments totalling RM18.88 million or 11.3 per cent. FDI came up to RM133.38 million or 80 per cent of investments in the sub-sector while DDI totalled RM33.36 million or 20 per cent of investments in the sub-sector.

Approved Investments in Engineering Supporting Industry by Sub-Sector for 2019

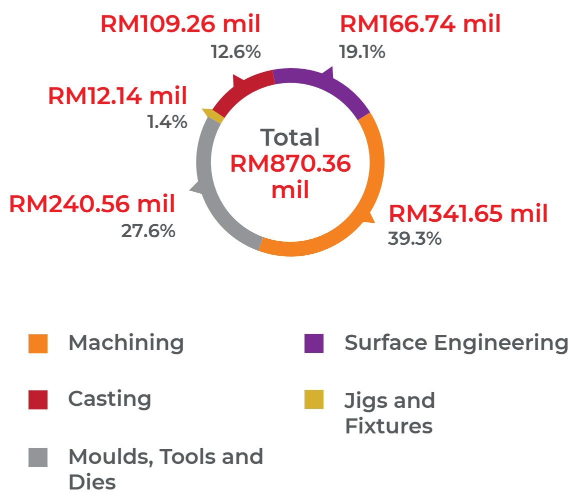
Domestic vs Foreign Investments



Expansion / Diversification vs New Projects



Total Investments by Sub-Sector



The casting sub-sector saw investments of RM109.26 million for four expansion/diversification projects and one new project, all coming from domestic sources. Meanwhile, the jigs and fixtures sub-sector witnessed investments of RM12.14 million for one expansion/diversification project.

ESI continues to be a significant sector, reflected by the considerable number of investments approved in 2019. About 70 per cent of projects approved involved in complex products to support high-technology industries such as medical devices, aerospace and semiconductor. The projects approved signify that the industry is moving towards producing higher-technology and high-value-added products.

Investments via non-equity modes – meaning the outsourcing of machinery operations to third parties – of international production is currently on a rising trend, with Malaysia's ESI companies positioning themselves to become 'One Stop Centres' by offering total solutions to their customers and providing end-to-end manufacturing processes and services. Industry players are gearing themselves to get their products internationally certified, so that they can supply their parts and components to the global marketplaces of the O&G, aerospace, medical and solar/photovoltaic industries.

In order to secure a larger share of the rapidly-growing global outsourcing market, the number of total manufacturing solution providers needs to increase, especially from the high-technology industries. In addition, the consolidation and rationalising of Malaysian ESI companies will enable them to become bigger to support the growth of the Malaysian manufacturing sector, which is moving towards high-technology, capital-intensive and high-value-added activities.

Basic Metal Products

The basic metal products industry is crucial to several major economic sectors, especially construction and a number of manufacturing sub-sectors such as M&E, E&E, and the transport equipment industry. The basic metal products industry covers the entire supply chain, from upstream to midstream to downstream activities. It involves both ferrous (for example iron and steel) as well as non-ferrous metals. The industry's current focus is mostly on Malaysia's infrastructure needs, with production being dominated by long products such as bars and wire rods.

PRC continues to be the largest single consumer, at almost half of the global steel production; although that demand is expected to slow down in 2020. However, demand from the rest of the world is estimated to increase. For Malaysian producers, the reduction by PRC of up to 150 million metric tonnes capacity by 2020 as well as the termination of outdated induction furnaces in 2017, has allowed them to regain some market share, as can be seen from the setting up of several blast furnace facilities in Malaysia, with the local sourcing of steel products/materials by various downstream industries picking up.

PRC steel companies have also been focussing their investments in ASEAN, in particular Malaysia, Indonesia and the Philippines. If these steel projects were to be fully implemented, an estimated additional capacity of more than 50 million tonnes of new crude steel production will be added in the region. This will have a significant long-term impact on the ASEAN steel industry.

Prospective investors looking to fuel the future development of this industry in Malaysia should shift their focus to the missing links in the ecosystem of both ferrous and non-ferrous metal products. For ferrous metal products, that focus will be on the development of upstream and midstream products such as metal powder, larger shapes or sections, seamless steel pipes and ferroalloys. In terms of non-ferrous metal products, there is much room for growth, with vast opportunities and many prospects for the development of upstream, midstream and downstream projects such copper, brass, silver, zinc, and others.

Currently, many projects in the non-ferrous sector focus mainly on aluminium, given the number of existing aluminium smelting companies in the country. Prospective investors may wish to consider the manufacturing of aluminium-related products for aircraft components, the marine and transportation industry, the automotive industry, high-strength aluminium alloys, and F&B, among others.

The Government will continue to develop the industry by providing favourable incentives and facilitations to support the ecosystem. It will also formulate and implement strategies that improve economies of scale, in light of the relatively-small domestic market and the competition from the larger existing industry players in the ASEAN region, especially from those in Vietnam, Thailand and Indonesia.

There were ten projects approved in 2019 involving the manufacture of basic metal products with investments totalled RM694.41 million. Of these, five were new projects with investments amounting to RM415.24 million (59.8%) and the remaining were for expansion/diversification projects involving investments of RM279.17 million (40.2%). These projects are expected to generate 1,417 employment opportunities. One of the more prominent projects approved is a Silicon-Valley-based materials company which will invest RM13.50 million into metal additive manufacturing (AM) capabilities at its main manufacturing facility in Pulau Pinang. The company is a pioneer in the ASEAN region and provides integrated solutions for AM, including metal powder manufacturing, characterisation, 3D printing, and post-processing. The company offers a variety of additive manufacturing alloy powders through the use of its state-of-the-art gas atomisation equipment. Its Pulau Pinang facility is the sole facility in ASEAN equipped with two Hot Isostatic Pressing (HIP) units, which adopt high-temperature, high-pressure processes that provide further densification, defect elimination, and stress relief to printed parts for post-processing activities; HIP is a requirement for aerospace and medical implant parts manufacturing. Also being EN/AS 9100 certified in aerospace, the company will continue to invest heavily in R&D and D&D to stay ahead of its competition.

Fabricated Metal Products

Generally, the fabricated metal products industry is a mature one in Malaysia, dominated by SME players that normally undertake simple metal fabrication. It involves specific processes such as bending, welding and assembling activities, and contributes significantly to the manufacturing and services sectors.

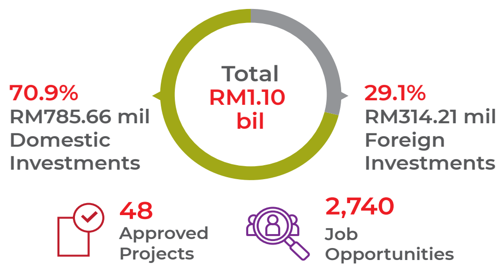
The Four Categories of Fabricated Metal Products

In addition to the above, the industry encompasses the manufacturing of other products such as tanks, drums, metal boxes, tin cans, metal furniture & fixtures, wire & wire products, and household wares.

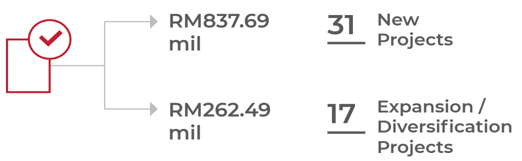
A total of 48 projects were approved in 2019 for the manufacture of fabricated metal products with investments totalling RM1.10 billion. Domestic investments amounted to RM785.66 million comprising 70.9 per cent of the value of investments in the industry, while foreign investments totalled RM314.21 million or 29.1 per cent. Of the 48 projects approved, 31 were new projects valued at RM837.69 million and 17 were for expansion/diversification projects valued at RM262.19 million. The approved projects are expected to generate 2,740 employment opportunities.

Approved Investments in the Fabricated Metal Products Industry for 2019

Domestic vs Foreign Investments



Expansion / Diversification vs New Projects



Textiles and Apparels

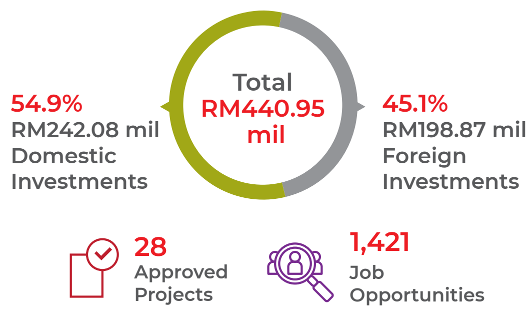
Globally, the textile and apparels industry's growth was around US$920 billion in 2018, and is projected to grow at a CAGR of approximately 4.4 per cent to reach approximately US$1.2 billion by 2024. Meanwhile, the apparel market is expected to grow at a CAGR of 4.3 per cent between 2010 and 2023. While all segments within the apparel market are expected to do well, growing by more than 20 per cent between 2018 and 2023, the 'clothing accessories and other clothes' segment is likely to be the best-performing, as it is expected to grow by 32 per cent, reaching US$283 billion in 2023.

The textile and apparels industry is an ever-growing market, with key competitors being PRC, the European Union, the USA, and India. PRC is the world's leading producer and exporter of both raw textiles and garments. The USA is the leading producer and exporter of raw cotton, as well as being the top importer of raw textiles and garments. The textile and apparels industry of the European Union has Germany, Spain, France, Italy, and Portugal at the forefront with a value of over 20 per cent of the global textile and apparels industry, and is currently valued at more than US$160 billion. India is the third-largest textile manufacturer, and holds an export value of more than US$30 billion. India is responsible for more than six per cent of the total textile production globally and is valued at approximately US$150 billion.

Overall for 2019, a total of 28 projects were approved in the textiles and apparels industries, with investments totalling RM440.95 million creating 1,421 job opportunities. DDI led the way with RM242.08 million or 54.9 per cent, with foreign investment amounting to RM198.87 million or 45.1 per cent.

Approved Investments in the Textiles and Apparels Industry for 2019

Domestic vs Foreign Investments



The industry mainly exports garments and fabrics to the USA and the European region. In 2019, textile exports contributed RM15.82 billion to the national economy, which was lower than imports (RM18.66 billion). The USA was the leading export market, followed by PRC and Japan.

A notable new project approved in 2019 was from Pro Industrial Sdn. Bhd., a company that specialises in manufacturing various types of fibre; namely, solid recycled polyester staple fibre. The wholly Malaysian-owned company brought in a total investment of RM67.1 million, which is expected to create 68 employment opportunities.

The Two Main Sub-Sectors in Textiles and Apparels Industry

Textiles
Covers upstream primary textiles and activities such as polymerisation, spinning, weaving, knitting, and wet processing

Apparels divided Into:

Clothing, including garments and clothing accessories (labels, button, zippers, packaging)

Leather, which is used to make a variety of articles, including footwear, automobile seats, clothing, bags, book bindings, fashion accessories, and furniture

Footwear, including boots, shoes, sandals, slippers, and clogs

Another significant project approved worth RM57.4 million was from a wholly Malaysian-owned company, Blueberry Industries Sdn. Bhd. The company is currently producing knitted fabrics and performs the bleaching, dyeing and finishing of textiles fabrics. The company expanded its factory to produce made-up garments (sweaters, T-shirt, pants etc.), cut piece fabric printing, and textiles fabric printing. With the new expansion, the company aims to create 377 employment opportunities in Batu Pahat, Johor.

The continuing importance of the textile and apparels industry to Malaysia is highlighted in the country's Third Industrial Master Plan (IMP3) and the future New IMP, which identified industrial and technical textiles, functional fabrics, high-end fabrics, and ethnic fabrics as growth categories. The IMP3 highlights the improvement of product quality, maintenance of reasonable price levels, and expanded export-oriented marketing.

Furthermore, the textile and apparels industry in Malaysia benefits from low import duties on industrial goods, membership of the Association of Southeast Asian Nations (ASEAN), and bilateral trade agreements with the EU, Chile, India, New Zealand, Pakistan, and Turkey. That said, Malaysia faces increased competition from lower-cost competitors in countries such as Bangladesh and Cambodia. The industry is highly dependent on the importing of raw materials, particularly for the manufacture of fabric.

Malaysia’s textile and apparels industry needs aggressive marketing in order to continue growing. They will have to cope with issues related to technology; a dependence on foreign labour and import of raw materials; automation; and modernisation.

This industry still lacks expertise in marketing its own products and brand names, continues to depend on contract manufacturing, and suffers from a lack of design houses and textiles/fashion hubs, a lack of design and development activities, and a lack of a skilled workforce in technical textiles. Beyond that, most manufacturers have limited financial resources and technical competency. It is difficult for SMEs to be innovative with product development, to promote and market their own products, to engage in R&D, and to adopt Industry 4.0 technology. Various incentives have been introduced under Budget 2020 to help industries in accelerating Industry 4.0 adoption.

On 29 October 2019, The Federation of Malaysian Fashion, Textiles and Apparels (FMFTA) was launched in MIDA with the theme Fashion and Technology Shaping the Future, in line with the Government’s initiative to accelerate the adoption of Industry 4.0. The elements of technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), Digital printing, cloud computing, and system integration have impacted both the front end as well as the back end of the textiles and apparels industry.

The formation of the FMFTA will help current and future entrepreneurs to enhance the industry. The FMFTA will function as a 'one-stop centre' for the industry, and aims to increase domestic investment, double exports, and bringing Malaysia's brand image to the world.

Another growth area for the industry is in smart textiles, where advancements in wireless technologies and the rising demand for connectivity are driving demand. Smart textiles are fabrics capable of interacting with the environment, with the ability to react to physical, thermal, mechanical, electrical, and chemical stimuli. As such, smart textiles include components such as sensors, actuators and fabrics, made using materials such as optical fibres, metals and conductive polymers.

Malaysia's digital transformation will further open up opportunities for completely new and efficient business models, which can lead to more innovative and enhanced products, as well as higher productivity and increased growth. Industry players can now make full use of advanced technologies, such as robotics, automation in the spinning and weaving processes, computerised knitting machinery, nanotechnology in dyeing, printing, and finishing processes, and Computer Aided Design (CAD) or Computer Aided Manufacturing (CAM) in the apparel manufacturing process.

The Government will continue to emphasise the need for the industry to move towards higher value-added products and activities, by encouraging greater quality investments and building a stronger and more comprehensive ecosystem, focussing on fostering talent, skills and innovation. To benefit from Industry 4.0, enhance productivity and quality, prospective investors are encouraged to take advantage of MIDA's facilities, such as the matching grant under the Domestic Investment Strategic Fund, Automation Capital Allowance (Autmation CA), Smart Automation Matching Grant, and Industry4WRD Intervention Fund.

Building Technology

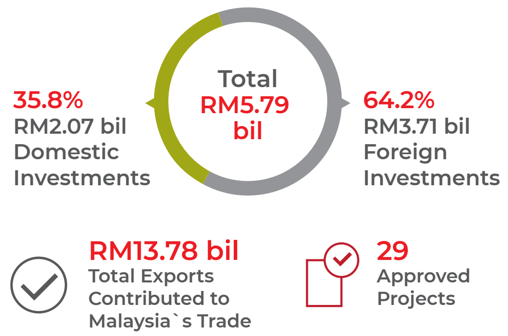
Non-Metallic Mineral Products

The non-metallic mineral products industry is classified into five sub-sectors; namely, glass, cement and concrete, ceramics, Industrialised Building System (IBS), and other non-metallic mineral-based.

In 2019, there were 29 non-metallic mineral projects approved with total investments worth RM5.79 billion. Of the total, DDI amounted to RM 2.07 billion or 35.8 per cent, while FDI formed the majority of investments totalling RM3.71 billion or 64.2 per cent.

Approved Investments in Non-Metallic Mineral Products Industry for 2019

Domestic vs Foreign Investments



Most of the investment approved from the industry were from the production of glass and glass products (six projects) with total investments of RM2.9 billion and the balance were from other sub-sectors, such as the production of IBS components and modular products, cements, ceramics and clay-based activities, and other non-metallic mineral products.

Based on 2019's trade performance, the total exports of this industry charted RM13.78 billion while imports recorded a lower figure of RM11.49 billion.

A notable project approved in 2019 was from a PRC-based company with total investments worth RM2.37 billion providing 1,150 job opportunities. This project is one of the largest facilities in Malaysia producing float glass and photovoltaic glass, and is located in Kota Kinabalu, Sabah.

The Schaefer Kalk (Malaysia) Sdn. Bhd. expansion is also another significant project approved in 2019. The diverse production facilities use locally-sourced limestone and produces many grades of calcium oxides, calcium hydroxides and precipitated calcium carbonates. These facilities represent a total investment of over RM400 million, with a current work force of 118 employees. It is a wholly German-owned family company and subsidiary of Schaefer Kalk Beteilungs GmbH.

Industrialised Building System (IBS)

The Malaysian Government has been continually encouraging the construction industry to use IBS, which is an important part of the nation's sustainable construction initiative. IBS was introduced to Malaysia as a solution to issues related to over-dependence on foreign workers, increasing demand for affordable accommodation, and improving the image, quality and productivity of the construction industry. IBS is one of the targeted sectors for the manufacturing-related construction industry, transforming it in the face of global competition.

Under the 11MP, the Ministry of Works, through the Construction Industry Development Board (CIDB), has developed the Construction Industry Transformation Programme (CITP). The CITP aims to make Malaysia's construction industry robust and globally competitive, with an extensive emphasis being placed on environmental sustainability.

The CITP, which sets important strategic goals and milestones to bring Malaysia's construction industry to the next level, highlights four strategic thrusts (refer to CITP chart below).

The construction industry is crucial to the Malaysian economy and its growth. This industry currently contributes four per cent to the Malaysian GDP and is expected to contribute 5.5 per cent to the Malaysian GDP up to 2020. It is expected to grow at 10.3 per cent per year, outpacing Malaysia's overall economy which is expected to grow annually at a steady rate of five to six per cent per year.

According to the IBS Compliance and Implementation Report for Government Projects (January – July 2019) produced by the Implementation Coordination Unit of the Prime Minister's Department, IBS implementation in public-sector projects had reached a level of 86.6 per cent, while private-sector implementation is around the 40 per cent mark, as compared with 14 per cent in 2014.

Private-sector construction activities led the way with RM19.6 billion or 54.3 per cent worth of total construction work done in 2019, with public-sector construction activities valued at RM16.5 billion or 45.7 per cent.

CITP Chart

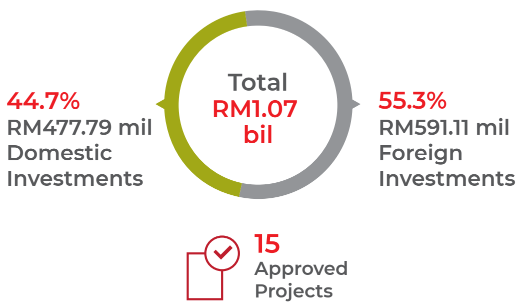
	Where We Are Today	What We Aspire to Be
Quality, Safety & Professionalism	**Limited emphasis on quality and assessments;** with limited safety awareness as well as added regulatory contraints within the industry	**Quality, safety and professionalism** to be ingrained in industry culture
Environmental Sustainability	Prevalence of **construction practices that are inefficient** and risk harming the environment	Malaysia's environmentally sustainable construction to be a **model for the emerging world**
Productivity	Largely low-skilled construction workforce, **with the industry highly dependant on low skilled foreign workers** Industry productivity levels is one of the lowest in the economy **and as compared with developed economies,** with slow uptake on technology and modern practices	Productivity of the industry is more than doubled, **matched by higher wages**
Internationalisation	Malaysian construction players **yet to emerge as real contenders** on the global stage, and facing decline in local market share	Malaysian champions **to lead the charge and globally**

The Government has identified four major priority drivers in the construction industry; namely, public transport, roads, public housing, and water infrastructure. In particular, there is a highly-concentrated focus on the country's rail system, including the East Coast Rail Link (ECRL) and the Johor Bahru - Singapore Rapid Transit System (RTS) Link.

Prospective investors should also take note of the many new or revived projects such as the Bandar Malaysia township, the upgrading of airports, the Carey Island development to make Port Klang a maritime centre and cargo logistics hub, and new sports facilities, among others. These projects will also open up opportunities for Malaysian architect firms to further upskill and build their capacity.

Approved Investments in the Industrialised Building System (IBS) Industry for 2019

Domestic vs Foreign Investments



* Figures are included in the Non-Metallic totals

In 2019, 15 projects have been approved with total investments worth RM1.07 billion. Of these, DDI amounted to RM477.79 million, or 44.7 per cent of total investments, while FDI slightly edged ahead with investments totalling RM591.11 million or 55.3 per cent.

Among the projects approved in 2019 was an expansion project by CGPV Industrial Building System Sdn. Bhd. (CGPV IBS) with total investments worth RM285 million. CGPV IBS is wholly-owned by Country Gardens Pacific View Sdn. Bhd., a joint venture company between Country Garden Holdings and Esplanade 88, which provides a wide range of IBS components such as pre-stressed planks, hollow core planks, load-bearing wall panels etc., with a prefabricated rate of over 70 per cent. This company adopted IBS as a major solution for its massive development, to ensure a safe and constant supply of high-quality building components for the Forest City project. CGPV IBS also uses advanced technology with state-of-art automated carousel production lines, and MIS integrated with BIM and MES.

IJM IBS Sdn. Bhd. was established in 2018 to spearhead the IBS business, by offering state-of-the-art building solutions via smart manufacturing. IJM IBS offers end-to-end precast building solutions, covering designing, costing, fabrication, delivery, and onsite installation. Its Bestari Jaya smart manufacturing plant is equipped with advanced high-precision European robotic manufacturing systems, capable of delivering greater design flexibility to produce customisable precast concrete components, such as wall panels, columns, beams, and other architectural elements to meet the ever-changing demands from designers. The full integration of Building Information Modelling (BIM) in its IBS ecosystem is an example of the realisation of Industry 4.0-related technologies. With an investment of up to RM190 million and up to 150 new job opportunities for a high-skilled workforce, the project aims to boost productivity and accelerate the achievement of the national agenda of transforming the construction industry.

"With an investment of up to RM190 million and up to 150 new job opportunities for a high-skilled workforce, the project aims to boost productivity and accelerate the achievement of the national agenda of transforming the construction industry."

The Government has outlined several initiatives under Budget 2020 to increase the adoption of IBS and to improve the digital infrastructure of the country, to develop the Integrated Digital Delivery platform for the construction industry, and promote the use of BIM, which is an intelligent 3D model-based process that gives architecture, engineering, and construction professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure which will help the construction industry in preparing for Industry 4.0.

These initiatives include the Smart Automation Matching Grant which will benefit companies that plans to automate their manufacturing processes for higher production rates and increased productivity, more efficient use of materials, and better product quality; IP development to encourage companies to increase their investments in innovation and inventions, as well as to drive the commercialisation of IP from local R&D activities and foster more post-R&D activities; the Automation Capital Allowance (Automation CA) which encourages manufacturing companies, especially those in labour-intensive industries, to engage in innovative and productive activities; and the Domestic Investment Strategic Fund to cater for expenditures incurred for in training, R&D, licensing or purchasing of new/high technology, international standards/ certificates, and modernisation and upgrading activities. It is also envisaged that they will increase the demand and supply of IBS products and modular system/ components, strengthen the ecosystems, as well as help to foster higher adoption of IBS in the country.

Medical Technology

Medical Devices

The medical devices industry comprises a wide spectrum of products, ranging from simple tongue depressors to complex programmable pacemakers and CT scanners. The production of equipment such as stents, orthopaedic implantable devices, electro-medical, therapeutic, and monitoring devices are expected to have a positive impact on the Malaysian economy. Further, the industry has been designated as one of the ‘3+2’ high-growth sub-sectors under the 11MP. Alongside the other high-growth sub-sectors, the medical devices industry is expected to re-energise manufacturing in Malaysia, through the production of high complexity, high-technology and high-value-added products.

The industry’s growth has been a result of the ever-developing medical technology landscape, the use of software as a differentiator in medical devices, as well as the design, development and manufacturing of patient-portable and smaller medical devices, among other factors.

Prospective investors will note that Malaysia is well-positioned to be the hub of medical devices manufacturing in Asia, as it has a solid ecosystem of strong supporting industries, as well as global conformity-assessment bodies that are already present in the country. Industry players number over 200 manufacturers, which include MNCs and world-class supporting companies. From being a simple producer of medical gloves in the 1980s, Malaysia’s medical devices industry has developed to the point of manufacturing complex medical products such as 3D-printed, patient-specific implants and heart valves.

To assist the future-proofing of Malaysian medical devices companies, MIDA leverages various networking platforms, such as the Malaysia Medical

Device Expo held from 15-17 October 2019. In conjunction with the expo, MIDA organised a panel session on "Revolutionising Medical Technology". The session brought together several speakers who shared their perspectives on moving towards innovative devices as well as identifying investment opportunities in the industry. The expo was an ideal platform for manufacturers and entrepreneurs to stay updated on current issues and forge mutually-beneficial collaborations.

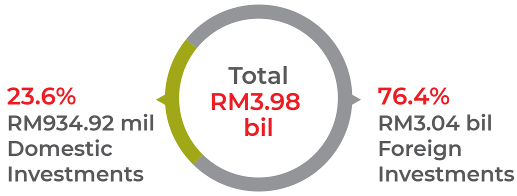
The Government established the Medical Device Investment Advisory Panel (MDIAP) to assist the industry's growth and development, by providing strategic initiatives to promote the growth of the medical device industry in Malaysia in line with the 11MP. The objective of the MDIAP is to strengthen the position of Malaysian-based companies in the industry's global supply chain.

A total of 31 projects with investments worth RM3.98 billion were approved in 2019 for the medical devices industry. There were eight new projects with investments of RM1.66 billion (41.7%) and 23 expansion/diversification projects amounting to RM2.32 billion (58.3%) in investments. Foreign investments played a major role, bringing in investments worth RM3.04 billion or 76.4 per cent of the total, while domestic investments totalled RM934.92 million or 23.6 per cent of the total. These projects are expected to generate 7,074 new jobs. Of the total projects approved, 18 projects were for the manufacturing of high-end and high-value-added medical products.

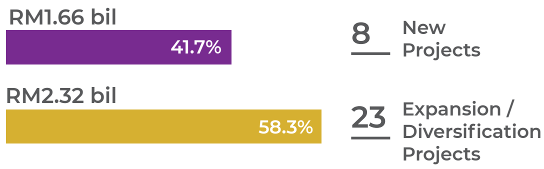
Among notable projects approved was a new investment in Batu Kawan by the UK-based Smith+Nephew, a leading global medical technology business established over 160 years ago. The facility will support Smith+Nephew's Orthopaedics franchise, which has been growing strongly in the Asia Pacific region. Products earmarked to be manufactured include knee and hip implants. The new plant will give Smith+Nephew's manufacturing network a much-needed boost in capacity to keep up with its growing sales and ensure that it continues to meet the needs of its customers.

Approved Investments in the Medical Devices Industry for 2019

Domestic vs Foreign Investments



Expansion / Diversification vs New Projects



Another approved investment was an expansion project to manufacture medical lenses by Visco Technology Sdn. Bhd., a Taiwanese-owned company. With estimated investments of RM820 million, the project is expected to generate 529 job opportunities. This world-class, high-technology project will feature extensive R&D, technology transfer and the adoption of smart manufacturing. It is also expected to create a positive impact in developing the medical devices ecosystem in Malaysia by providing new business opportunities for local vendors to supply equipment, machinery, machine tools, packaging materials, and services such as biocompatibility testing.

Pharmaceuticals

Malaysia is home to several globally-significant pharmaceutical companies, with a line-up that includes Pharmaniaga, Duopharma Biotech, Kotra Pharma, Hovid, and Xepa-Soul Pattinson. Pharmaceutical products from these and other industry players are accepted worldwide, particularly in Pharmaceutical Inspection Convention and Pharmaceutical Inspection Cooperation/Scheme (PIC/S) member countries, as Malaysia is itself a member of PIC/S.

The Malaysian pharmaceutical industry has been undergoing steady, constant growth over the past decade, as manufacturers demonstrate their capabilities and production capacity to produce pharmaceuticals in dosage forms such as sterile preparations, injectables and time-release medications. The Government, having recognised the industry's importance and potential, has targeted it as an economic engine of growth. Primary pharmaceutical products produced in Malaysia include a range of prescription medications, over-the-counter (OTC) products, traditional medicines and health/food supplements.

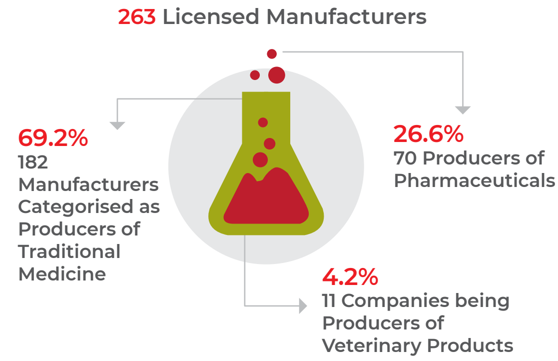
There were 263 manufacturers in 2019 that were licensed by the Drug Control Authority (DCA) under the Ministry of Health (MOH), with 69.2 per cent or 182 of these manufacturers categorised into producers of traditional medicine, 26.6 per cent or 70 being producers of pharmaceuticals and 4.2 per cent or 11 companies being producers of veterinary products.

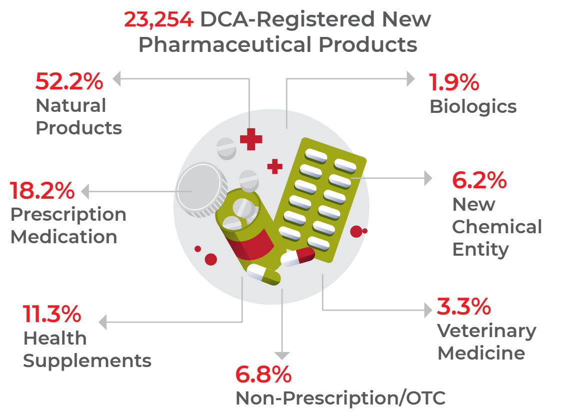
In 2019, a total of 23,254 new pharmaceutical products are DCA-registered, including natural products (52.2%), prescription medication (18.2%), health supplements (11.3%), non-prescription/OTC (6.8%), new chemical entity (6.2%), veterinary medicine (3.3%) and biologics (1.9%). Of all the registered pharmaceutical products in 2019, more than half were natural products, as opposed to synthetic products created in laboratories. Blessed with rich biodiversity and home to some of the world's oldest rainforests, more than 2,000 plants with potential medicinal value can be found in Malaysia. Due to its sheer abundance of raw materials, Malaysia has a competitive edge against its global counterparts when it comes to developing its herbal pharmaceutical industry.

A total of ten projects with investments of RM212.91 million were approved for the pharmaceutical industry in 2019. Of these, four were new projects with investments of RM59 million or 27.7 per cent of the total, with six expansion/diversification projects worth RM153.88 million or 72.3 per cent of the total. Foreign investments made up 59 per cent or RM124.79 million while domestic investments made up the remaining 41 per cent or RM88.12 million. The projects approved were are expected to result in 186 new jobs.

Of these approved projects, there were six projects by a Malaysian company producing natural products and health supplements. There was also an expansion project by a foreign-owned company with investments of RM116.85 million to produce drug substance and drug formulation products. The project is a significant contributor towards the Government's aspiration to further develop the Malaysian biopharmaceutical industry ecosystem.

The Malaysian Pharmaceutical Industry Scenario in 2019





The pharmaceutical industry in Malaysia has shifted its focus towards producing medicinal herbal products. The rising cost of healthcare makes the herbal industry, which is making a significant impact in the industry, a substitute for getting Western-based health treatments.

Biotechnology (including Bionexus Projects)

Biotechnology, the field of technology that harnesses various biological processes to develop technologies and products, is especially critical in developing a circular economy; as the move away from a linear economy is key for sustainable development. The European Commission defines the circular economy as one where 'the value of products and materials is maintained for as long as possible, waste and resource use are minimised, and resources are kept within the economy when the product has reached the end of its life, to be used again and again to create further value'. Such a description resonates with the observation of Antoine-Laurent Lavoisier, an 18th-century French chemist and father of modern chemistry that "nothing is lost, nothing is created, and everything is transformed".

The Government, having recognised biotechnology as one of the strategic sectors to drive the economy, launched the National Biotechnology Policy (NBP) in 2005. A lot of achievements have been made since the NBP's introduction in term of job creation and FDI.

In 2019, there were two new projects with investments of RM26.57 million and two expansion/diversification projects amounting to RM6.59 million in investments by Malaysian-owned companies. These projects are expected to generate 40 new jobs.

The biotechnology industry in Malaysia has progressed from a reliance on traditional applications to the development of technologies for the sustainable production of green, renewable, non-toxic and cost-competitive products. As more industries move towards the adoption of the circular economy, the biotechnology industry's future prospects appear to be limitless. In particular, harnessing biotechnology in the circular economy leads to longer and better product lifecycles, increased compostability and the development or discovery of new materials.

Many foreign companies view Malaysia as their preferred investment destination to undertake biotechnology-related projects, such as the production of bio-plastic resins, bio-epoxies and polyhydroxyalkanoates biodegradable polymers, particularly due to the availability of recyclable resources as inputs. These projects point towards the growing importance of the global biotechnology industry.

Food Technology

Palm Biomass

The International Energy Agency (IEA) predicts that by 2035, fossil fuel use will decrease due to rapidly-depleting reserves and growing concerns about environmental degradation as well as greenhouse gas emissions. IEA projected that global energy demand for renewable energy will be significantly influenced by emerging economies like PRC and India, accounting for 90 per cent of net energy demand growth by 2035. These projections indicate that there will likely be a growing and significant demand for alternative sources of low-cost, non-polluting, and renewable energy in the future, in order to supplement fossil fuels and ensure environmental sustainability. This will lead to a growth stimulus of the renewable energy industry, especially in energy produced from biomass sources.

Malaysia's biomass supply, generally speaking, is derived from four main sources; namely, agricultural waste, oil palm waste, wood waste, and municipal waste. It is estimated that Malaysia produces a total of 168 million tonnes of biomass annually such as timber husk, oil palm waste and coconut trunk fibre, among others. Because of this abundance of biomass supply, the Government sees huge potential in the industry, especially when it comes to the manufacturing and renewable energy sectors.

Malaysia is the second-largest producer and exporter of palm oil worldwide, accounting for 31 per cent of global output. The Malaysian Palm Oil Board (MPOB) recorded that in 2018 Malaysia had a total of 5.89 million hectares of oil palm plantations estimated to produce a total of 94.7 million tonnes of biomass. These biomass consist of oil palm fronds (OPF), oil palm trunk (OPT), empty fruit bunches (EFB), mesocarp fibres, palm kernel shells and palm oil mill effluent (POME). These oil palm biomass components all have different potential uses, such as fuel for electricity generation, biochemical products, fertiliser, and biofuel. In Malaysia, most implemented palm biomass projects concentrate on the production of pellet, activated carbon, fibreboard, animal feed, methane, and organic compost.

While Malaysia is one of the largest producers of palm oil in the world, it has yet to take its rightful place among the leading producers of biomass and biogas in the region. It is estimated that Malaysia has the potential to produce more than 2400MW of biomass and 410MW of biogas. However, based on Sustainable Energy Development Authority's 2019 data, the country has only managed to produce 70.65MW of biomass and 102.76MW of biogas.

There are several challenges that the industry needs to overcome in order to perform to its full potential, many of which are logistical in nature. The biomass source materials are often located at areas inaccessible to the national grid or not connected to the high-voltage transmission grid. Biomass power generation projects are perceived as providing only minimal marginal returns and considered as high-risk investments. Inadequate financing options is yet another concern, and so is the unfavourable feed-in tariff (FIT) scheme's long-term prospects, due to increasing costs. Prospective investors who are able to help local industry players cope with these challenges will find themselves in high demand.

A total of 14 projects with investments of RM1.14 billion was approved in 2019 for the production of palm biomass-based products. Foreign investments dominated the industry, bringing in RM952.67 million, or 83.5 per cent of the total. These investments are expected to generate a total of 675 employment opportunities.

A significant project approved was a wholly foreign-owned company that will produce EFB pellets, with a proposed investment of RM191.10 million and will provide 109 job opportunities.

Agro-food and Food Processing

The agro-food industry continues to be an important component of the manufacturing sector. Major sub-sectors in the agro-food industry include livestock farming, fisheries, and fruits & vegetables with significant linkages to the country's food processing sub-sectors. Besides the major subsectors, apiculture, floriculture and ornamental fish farming are also significant to the industry.

The Government is encouraging industry players to innovate and adopt more advanced technology in their operations. Aside from boosting agricultural productivity, increasing self-sufficiency, and reducing their dependence on imported agricultural products, such advanced technologies would also allow businesses to increase profitability, as well as lead to more efficient, safer and more environmentally-friendly production processes.

A total of nine projects worth RM135.08 million were approved in 2019. These approved projects were all from domestic sources and are expected to provide 407 employment opportunities.

Food Processing

Agricultural products form an important base for the country's food processing sub-sector, where various value-added activities involving such products are used, such as the manufacturing of cocoa and chocolate products, livestock products, aquatic products, cereals & cereal products, and processed fruits & vegetables.

Food manufacturers are increasingly ensuring that their products are enriched with functional ingredients such as vitamins and antioxidants, minerals, fibre, protein, and others to adapt to these changing trends as the concept of living a healthy lifestyle becomes more popular worldwide, with healthy and nutritional foods continuing to rise in demand.

A substantial range of food products are now available that are low-calorie, low-fat, gluten/allergen-free, as well as low-sugar/sugarless, or 'all of the above'. The desire for healthier lifestyles is leading more health-conscious consumers to choose such food options.

The food processing sub-sector plays an important role as Malaysia moves steadily towards building a more diversified economy, with the next wave of business and investment opportunities being in high-value food product manufacturing. To stay competitive, food manufacturers are constantly seeking to find faster and more efficient ways to meet consumer demands, moving towards more automated, flexible and efficient operations.

Malaysia's food processing sub-sector companies are continuously modernising their facilities through investing in robotic assembly lines, precision engineering and computer-controlled processes. This move to adopt technology is seen as a key competitive differentiator that can help companies to face the challenges of becoming more efficient and cost-effective.

In line with the Government initiatives to encourage food companies to embrace automation, smart manufacturing and Industry 4.0, MIDA organised various awareness and outreach programmes in 2019 in support of Government initiatives to encourage industry players to embrace automation, smart manufacturing, and Industry 4.0. These workshops included information on the Automation Capital Allowance (Automation CA) held in the Central and Southern regions of Peninsular Malaysia, as well as Sabah and Sarawak, to provide awareness and knowledge to industry players on ACA and other available investment incentives. These workshops assisted industry players to understand global markets and the rapid changes in technology.

Malaysia continues to be a focal point for halal products, where demand has grown. Being a pioneer in the industry, the country has both the capacity and the competitive advantage that derives from having a complete halal ecosystem including infrastructure, halal talent expertise, global data reference, and government support. Potential investors are encouraged to leverage these advantages, particularly in the food industry.

The Government continues to encourage capacity development of local manufacturers and service providers in the halal industry by ensuring also that the governance of all things halal continues to play an important role through certification and development of the ecosystem.

The country's halal industry is backed by an open economy with a well-developed physical and institutional infrastructure. There is also a dynamic halal certification standard that currently houses 13 halal and halal-related standards covering food products, cosmetics, pharmaceuticals and logistics.

The halal certification standard can be regarded as an extension of the existing standards in manufacturing and related services sectors such as the Good Manufacturing Practice (GMP), Hazard Analysis and Critical Control Points (HACCP), and Food Safety Standards (FS2200). With globally-recognised halal certification and standards, local industry players may leverage on the existing reputation as a testimonial for their products and services being at par with global standards, adhering to the halal principles of not just being permissible according to Islamic law, but also be in line with other global values such as using ethically-sourced materials, being hygienic and environmentally-friendly, and observing safe manufacturing practices, as well as producing nutritionally balanced products.

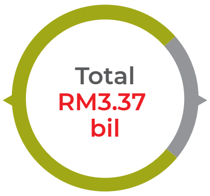
Halal industry players are urged to utilise new technologies related to Industry 4.0 that have the potential to provide many benefits towards the expansion of the industries to improve production capabilities through automated manufacturing processes and real-time data collection.

In 2019, there were 87 food processing and beverage projects totalling RM3.37 billion in investments approved. Domestic investments made up 77.7 per cent of these investments and were valued at RM2.62 billion, while foreign investments stood at RM754.78 million or 22.3 per cent of the total. The 61 new and 26 expansion/diversification projects resulted in employment opportunities for 5,139 people.

Of the approved projects, other food products such as ready-to-eat meals contributed 22 per cent of the investments. This was followed by chocolate and sugar confectioneries with 16 per cent, food ingredients at 14 per cent, seafood products with seven per cent, cereals and flour-based products with six per cent, dairy products at four per cent, fruit and vegetable products at one per cent while animal feed, beverages and processed meat products each contributed 10 per cent.

Approved Investments in the Food Processing Sub-Sector for 2019

Domestic vs Foreign Investments



77.7%
RM2.62 bil
Domestic Investments

22.3%
RM754.78 mil
Foreign Investments

87
Approved Projects

5,139
Job Opportunities

Expansion / Diversification vs New Projects

61 New Projects

26 Expansion / Diversification Projects

Significant projects approved in the sub-sector included an expansion project by a wholly Malaysian-owned company to produce sugar-mixed products, as well as an expansion project by a majority foreign-owned company from Japan to produce monosodium glutamate, canned coffee beverages, flavoured salt, compound food flavour enhancers, hydrolysed vegetable protein powder, soya sauce powder and blended seasonings, low calorie sweeteners, and soya bean sauce.

Palm Oil Products

Palm-oil refining in Malaysia began in the early 1970s in response to the Government's call for increased industrialisation and the emergence of refineries marked the introduction of a wide range of processed palm oil products. Today, the country is an important player in the exports of edible oils and fats, being the second-largest global palm oil producer and exporter.

Palm oil is an enabler for a wide range of manufacturing processes due to its lower costs, while there is low to no consumer health risks. Found in almost half of the food products available from supermarket shelves to the local mom-and-pop grocer, it contains the richest source of natural tocotrienols – antioxidants – which exhibit anti-inflammatory, cholesterol-lowering, cancer-preventive, radioprotective, and neuroprotective properties. Palm oil also consists of a balanced proportion of unsaturated and saturated fatty acids. However, when consumed, it behaves more like a monounsaturated fat and has no adverse impact on blood cholesterol levels.

The industry is a significant contributor to the country's economic growth. In 2018, exports of oil palm products contributed RM67.5 billion (US$16.05 billion) in revenue to the national economy, with India being the largest importer of Malaysian palm oil, followed by the European Union and PRC.

The industry faces several daunting challenges. Chief among them is demand, as major importers such as India may scale back due to higher import duties, a weaker currency and a credit crunch. Additionally, since 4 September 2019, India has imposed a five per cent safeguard duty on RBD palm olein and RBD palm oil under the India-Malaysia Comprehensive Economic Co-operation Agreement, increasing the import duty to 50 per cent for 180 days (six months) on significant imports of these products to the country.

Negative publicity surrounding the industry remains a challenge, especially where oil-palm plantations and the environment is concerned. This includes the anti-palm oil lobby in the European Union that has negatively impacted the industry by making it challenging to promote palm oil as a healthy alternative vegetable oil.

However, investors should take heart that the Government is committed to promote and grow the industry. MIDA will continue to participate in various awareness and outreach programmes for palm oil and palm oil-related products as the Government is committed to promoting and growing the industry. For instance, MIDA delivered an overall perspective of the Malaysian palm oil industry to overseas participants at the 39th Palm Oil Familiarisation Programme organised by the Malaysian Palm Oil Board (MPOB) from 23 to 26 September 2019. MIDA also participated in the MPOB International Palm Oil Congress and Exhibition 2019 held from 19 to 21 November 2019 in Kuala Lumpur.

In 2019, a total of 17 projects with investment totalling RM697.47 million were approved in the oil palm products industry, with 11 new projects and six expansion/diversification projects. Domestic investments totalled RM145.68 million (20.9%), with foreign investments amounting to RM551.79 million (79.1%).

Among the projects approved were the production of palm-pressed mesocarp oil (red palm oil), animal feed ingredients from palm oil-based products, such as palm stearin beads, blended vegetable waxes, blended waxes, palmitic/stearic acids and other value-added products. These projects involved an investment of RM649.38 million and is expected to create 279 employment opportunities.

The Government actively promotes sustainable and good agricultural practices as part of the United Nations' Sustainable Development Goals (SDGs). This includes integrating the circular economy concept into the palm oil industry to help optimise the usage of raw materials and minimise wastage from production, emissions, and energy inefficiency. In order to attain this, materials that are commonly underutilised in the current linear economy should be reduced, reused and recycled. Embracing this model will not only help in addressing the environmental issues that negatively impact the industry, but also the ever-present concern of raw material supply.

Biofuels, alternative fuels derived from fats such as vegetable oil, animal fat and recycled cooking grease that can replace regular diesel, is another important component of the palm-oil industry, with Malaysia having abundant raw materials for first-generation biofuel production. First-generation biofuels are made out of food crops such as palm, rapeseed, soy bean, and sunflower oils. Alternatives to virgin palm oil, used cooking oil, palm fatty acid distillate, palm oil methyl ester, and algae then lead to the production of second-generation biofuels, also known as advanced biofuels. Non-food crops such as lignocellulosic feedstocks, industrial waste and residue streams, can also be used to produce these biofuels.

The development of biofuels has been streamlined ever since the Malaysian Biofuels Industry Act 2007 was introduced, which led to clearer licensing and regulation of the biofuels industry. According to the MPOB, there are more than 20 companies in operations, with a total installed capacity of 2.1 million tonnes per year.

In support of biofuels, the Ministry of Primary Industries (MPI) implemented the mandatory B10 programme on 1 February 2019 for the transport industry. MPI has also mandated from 1 July 2019 the compulsory use of the biodiesel B7 programme for industrial purposes. Prospective investors can therefore consider investing in Malaysian companies that are operating in this space. The market for biofuels in some segments of Southeast Asia are still under-developed and currently, production is below the country's installed capacity. With an increase in user acceptance, this will soon change the country's biofuel scenario. MIDA welcomes all new quality investments by actively promoting the utilisation of palm oil in the country.

Chemicals and Advanced Materials

Chemicals and Chemical Products

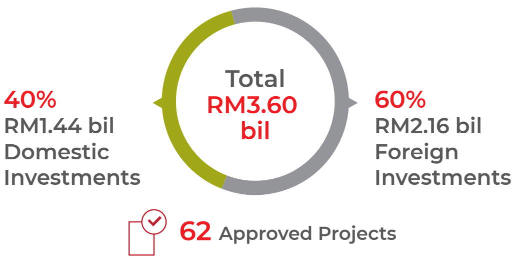
Chemicals and chemical products are vital to the nation's economy, as they are often used as raw materials in the manufacturing of various finished goods, such as E&E, plastics products, agriculture, and the building industry – especially as construction materials. Therefore, the chemicals and chemical products industry in Malaysia contributes significantly towards the economy, as well as a major portion of the country's manufacturing and overall investment landscape. The industry consists of sub-sectors such as agricultural chemicals, fertilisers, industrial gases, inorganic chemicals, paint, and printing ink, among others.

The industry remains as one of the country's top three major exporters of products, with RM57.0 billion worth of exports, and is ranked third, after E&E and petroleum products (including petrochemicals).

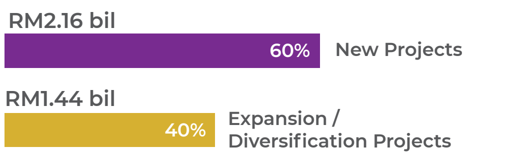
A total of RM3.60 billion for 62 projects was invested in the chemicals and chemical products industry in 2019. Of this, 60 per cent valued at RM2.16 billion was placed in new investments and the remainder (40%) or RM1.44 billion was for expansion/diversification projects. As in previous years, FDI remains a major contributor, at 60 per cent or RM2.16 billion, with DDI accounting for 40 per cent and amounting to RM1.44 billion of total investments for the sector.

Approved Investments in the Chemicals and Chemical Products Industry for 2019

Domestic vs Foreign Investments



Expansion / Diversification Vs New Projects



A notable new project received in 2019 was by the Top Glove Group to produce synthetic latex in support of its core glove business. Leading this project is the group's subsidiary, Top Synthetic Rubber Sdn. Bhd. This project is expected to bring in more than RM600 million worth of investments and provide 180 employment opportunities. The plant in Kuala Langat, Selangor, will be constructed in three phases. The first phase of the plant is expected to be operational in 2022, and when the final phase of the project is completed in 2025, the plant's total annual production capacity will be at 200,000 metric tonnes (MT). By setting up this plant, the group will be able to reduce the need for synthetic latex from overseas suppliers.

Top Glove Group is the first Malaysian company that has ventured into production of synthetic latex, which involves advanced technology. Malaysia is home to four of the world's biggest glove manufacturing companies and produces 63 per cent of the global supply. Glove producers in Malaysia remains highly reliant on synthetic latex imports from foreign countries such as Republic of Korea, Japan, Taiwan, PRC, and Thailand, which this project is aimed to mitigate.

The industry also witnessed 28 expansion/diversification projects, with some notable investments being made by companies such as OCIM Sdn. Bhd. and Synthomer Sdn. Bhd. to produce polycrystalline silicone and synthetic rubber, respectively. These projects will go hand-in-hand with the various industry ecosystems, particularly with regards to the rubber industry, when it comes to glove production.

In 2019, Malaysia witnessed the launch of Norman Process Oils Malaysia Plant Sdn. Bhd., a subsidiary Russian company Orgkhim Biochemical Holding, which specialises in the development and manufacture of "green chemistry" products. The plant produces non-carcinogenic ("green") rubber process oils for tires, synthetic rubbers and rubber compounds.

The new plant uses patented technology that Orgkhim has been implementing for more than 10 years to produce the Norman product line of "green" oils for tyres, synthetic rubbers and rubber mixtures. This unique technology developed in the company's own research centre allows petrochemical products to be purified of dangerous carcinogens. The cost of construction amounted to US$59.2 mil with a capacity of 70,000 MT per year. The plant will occupy 2.83 hectares at Tanjung Langsat Port, providing job opportunities to people around the region and becoming one of the largest taxpayers with 79 new jobs being created during construction and plant operation. The products will be sold throughout Southeast Asia and the Asia Pacific region.

The industry also witnessed an expansion/ diversification project by Baerlocher (M) Sdn. Bhd. with investments of more than RM40 million. The company expanded its Seremban site with an additional production line for metal stearates with a capacity of 10,000 tonnes/year, a new warehouse and an office facility. The investment is aimed at increasing sustainability in the plastics sector with innovative solutions and state-of-the-art efficiency. Given that the chemicals and chemical products industry and the petrochemical products (including petrochemicals) industry have close links to each other, the implementation of Pengerang's Refinery and Petrochemical Integrated Development (RAPID) projects is expected to encourage faster growth of spin-off industries over the next decade.

In order to move up to the next level, chemicals and chemical products manufacturers need to demonstrate their intention to improve public confidence and trust in their ability to safely manage chemicals, by voluntarily adhering to Responsible Care practices. Through this, the companies can help ensure that chemicals are produced and used in ways that minimise risks vis-à-vis human health and the environment. This will help position Malaysia as a globally-compliant nation when it comes to handling chemicals from end-to-end, as this could be a key factor that attracts more FDI.

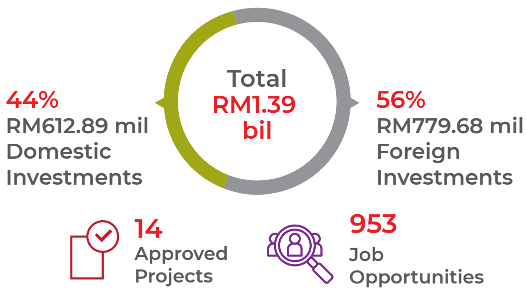
Petroleum Products (Including Petrochemicals)

The Malaysian petroleum products and petrochemicals industry is 45 years old, with strong foundations that have helped shape the industry to its current state. Coupled with matured supporting industries, good infrastructure, and a multilingual workforce, and with Petroliam Nasional Berhad (PETRONAS) as the industry's custodian, Malaysia has a distinct advantage in spearheading the development of the industry, which has made a significant contribution to the country's growth as well as the Government's revenue. Prominent petrochemical companies present in Malaysia include BASF, Lotte Chemical Titan, Toray Group, Idemitsu, Kaneka, Polyplastics, Dairen, and Eternal Materials.

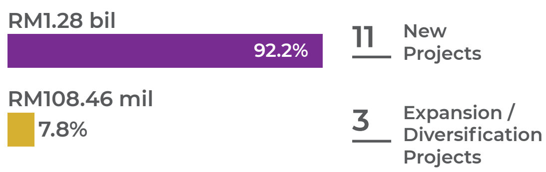
There were 14 projects approved in 2019 with investments worth RM1.39 billion providing 953 new employment opportunities. The approved projects comprised 11 new projects with investments amounting to RM1.28 billion (92.2%), with the remaining three expansion/diversification projects making up RM108.46 million (7.8%). FDI accounted for RM779.68 million or 56 per cent of the total, while RM612.89 million or 44 per cent came from domestic sources.

Approved Investments in the Petroleum Products (Including Petrochemicals) Industry for 2019

Domestic vs Foreign Investments



Expansion / Diversification vs New Projects



The construction of the country's seventh crude oil refinery plant by ATB Sdn. Bhd. ("ATB") was approved at Pontian, Johor. ATB is owned by Vitol, the world's largest independent energy solutions provider. ATB plans to invest RM575.2 million into the refinery across two phases, with operations expected to commence by the third quarter of 2020. The company will process up to 70,000 barrels per day (bpd) of imported crude oil, with all of its finished products meant for export.

This project will provide job opportunities to about 32 Malaysians with a budgeted local spend of RM8 million per year, and is targeted to contribute RM4.1 billion in export revenue during its first year of commercial operation.

Another approved refinery project was undertaken by TMM Engineering Services Sdn. Bhd., a wholly-Malaysian-owned company previously involved in pipeline engineering, pipe laying, maintenance, and inspection services. The company's proposed project is an unconventional refinery project using syngas instead of crude oil, particularly in its use of carbon dioxide and hydrogen as its feedstock to produce synthetic petroleum products at Kemaman, Terengganu. The company will be using the German 'Fisher-Tropsch Reactor' technology, with investments worth RM52.2 million.

Meanwhile, a renowned global resin player had its capacity expansion project approved to produce compounded polyacetal resins and compounding of polyphenylene sulphide at its existing location in Gebeng Industrial Estate, Pahang. Established in the 1990s, Polyplastics Asia Pacific Sdn. Bhd. is a wholly-owned subsidiary of Polyplastics Co. Ltd, Japan, and will be pumping in additional investments of RM88 million, creating 20 new employment opportunities on top of its existing 375 personnel. The project will begin commercial operations in the first quarter of 2020. The increase in compound production capacity will not only benefit customers in the Asia Pacific region, but also strengthen supply in response to growing demand in the European and American markets.

With a total investment of US$27 billion, the Pengerang Integrated Complex (PIC) has successfully started up its refinery, cracker and petrochemical facilities in the last quarter of 2019. The refinery has a capacity of 300,000 bpd, and will produce a range of refined petroleum products, including petrol and diesel that meet Euro 5 fuel specifications. Additionally, the refinery will provide feedstock for the integrated petrochemical complex, which has the capacity to produce 3.3 million tonnes per annum of petrochemical products, including differentiated and specialty chemicals. The refinery and selected petrochemical plants are owned and operated by PRefChem, a strategic alliance between PETRONAS and Saudi Aramco, through an equal partnership in two joint venture companies.

With the ban on single-use plastics following the launch of the Roadmap Towards Zero Single-Use Plastics 2018-2030 launched on 17 October 2018, Malaysia is now proposing a circular economy roadmap for plastic to be introduced in 2020. The roadmap, to be spearheaded by MESTECC, aims to provide a policy direction to all stakeholders in taking a unified and collective approach.

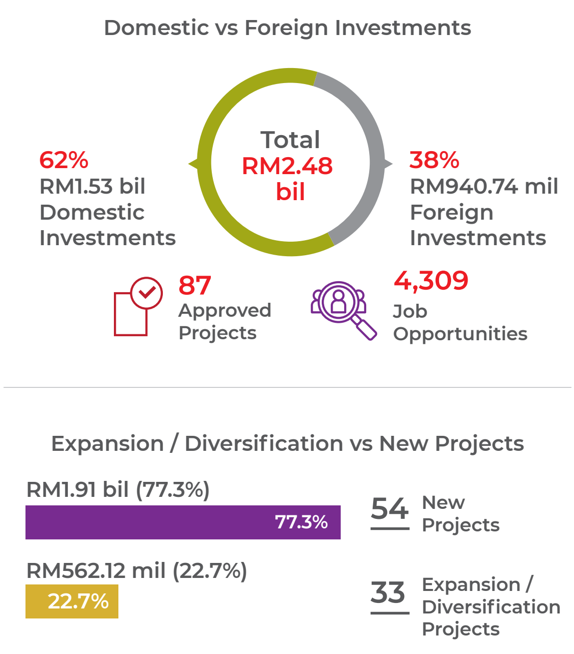
Malaysia maintains a strong foothold in the production of basic petrochemicals. For players to stay competitive and future-proof in this cyclical industry, they should focus on developing these basic petrochemicals into specialty petrochemicals, to create a complete value chain of more advanced finished products. By establishing a more efficient ecosystem that connects other currently-unlinked industries, Malaysia could reduce its dependency on imported raw/intermediate petrochemicals. This in turn would benefit local companies by improving quality and reducing production times, as well as possessing the edge to be self-sustaining in times of global economic adversity.

Plastics Products

The plastic products industry in Malaysia is well-established and supports the growth of many other important manufacturing industries, such as E&E, automotive, aerospace, medical devices and food packaging industries, through the supply of plastic parts and components, plastic packaging materials, as well as various high-performance plastics. In Asia, Malaysia is recognised as a top exporter of plastic packaging materials and currently features more than 1,500 manufacturing projects in the industry, with investments valued at over RM18 billion. These projects have resulted in more than 103,000 employment opportunities nationwide.

The industry showed steady growth in 2019, with approved investments worth RM2.48 billion from 87 projects as compared to a total of RM1.85 billion from 60 projects in 2018. The year in review saw a large contribution from DDI totalling RM1.53 billion, which covered 62 per cent of the total investments, and investments of RM940.74 million or 38 per cent from FDI. The approved investments comprised 54 new projects amounting to RM1.91 billion (77.3%) and 33 expansion/diversification projects amounting to RM562.12 million (22.7%). These projects are expected to generate a total of 4,309 new jobs opportunities to the nation.

Approved Investments in the Plastic Products Industry for 2019



Two Industry 4.0-focussed expansion projects from Plasform Sdn. Bhd. and Triplus Industry Sdn. Bhd. were recorded in 2019. These companies were part of the "First Step to Injection Moulding 4.0", a one-year pilot programme initiated by the Malaysian Plastics Manufacturers Association (MPMA) back in September 2017.

In October 2019, UNITED CAPS Kulim Sdn. Bhd. conducted the official inauguration of its manufacturing plant in Kulim, Kedah. It is a wholly-owned company of UNITED CAPS, Luxembourg, an international manufacturer of caps and closures. This marks its first facility outside of Europe. The plant in Malaysia is a smart manufacturing plant, designed to be fully-automated with minimum human intervention in its production lines. It positions UNITED CAPS as a global player in the Asian market in keeping with its 'Close to You' strategy. The company's plastic caps, closures, and scoops project was approved with investments amounting to RM122 million.

Given RAPID's positive progress, opportunities for plastics manufacturers to expand and develop their products for a higher-end, more sophisticated clientele will soon open up, by consuming the downstream plastic resin produced, such as polyethylene and polypropylene.

Additionally, due to the general misunderstanding that plastic (especially single-use plastic products) is harmful to the environment, industry players have been pressured to diversify their product offerings. There is significant scope for prospective investors to provide such companies financing and expertise to embrace adaptable business models that are more receptive to changing business environments, as well as adopt automation and smart concepts and technologies in their manufacturing processes in order to increase productivity and competitiveness.

As Malaysia marches on towards becoming a developed nation, sustainable waste management has become more of a priority. As of 2018, a total of 55 plastic recycling projects were in operation with total investments of RM713.9 million. These projects created 3,341 jobs. In addition, 12 recycling projects were approved in 2019 with investments amounting to RM815.5 million and are expected to create 614 additional employment opportunities. These projects were approved based on their commitment to completely obtain their raw materials from local sources.

Malaysia is committed to promoting sustainable development in line with the SDGs; part of this commitment involves environmental protection, and ensuring a better quality of life for people. To ensure that the country does not become a dumping ground for plastics waste, MIDA will continue to work with the relevant Government authorities so that a robust, effective regulatory framework for the recycling of plastics can be implemented.

This became more of an issue for Malaysia when PRC restricted the importation of plastic waste in 2018. As plastic waste exporters, especially from developed nations, struggled to find other places to export their waste, Malaysia became among the top destinations for plastics scrap exporters in Southeast Asia. Malaysia needs to develop and establish its own national waste collection criteria and standards.

Global demand for plastic products is expected to reach approximately 334 million MT by 2020. A majority of the demand will be from the transportation industry, particularly in the automotive and aerospace sub-sectors. The increasing reliance on plastics in place of traditional materials in industries such as automotive, construction, aerospace, and medical will further drive the need for a more efficient and lean compounding technology.

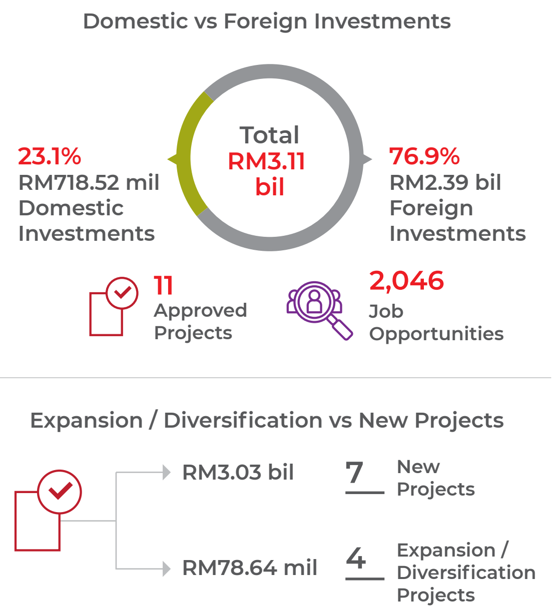
Rubber Products

Malaysia is ranked fifth in the world for natural rubber (NR) production, and Malaysian rubber products are exported to more than 190 countries. The industry consists of tyres and tyre-related products, latex products, as well as industrial and general rubber products.

During the first three quarters of 2019, rubber production rose by 8.4 per cent to 601 thousand tonnes from 554.3 thousand tonnes in corresponding period of 2018. NR made up 80 per cent of the total production of rubber with 479.8 thousand tonnes, while synthetic rubber (SR) accounted for 20 per cent of rubber production.

In 2019, the export of rubber products amounted to RM25.63 billion, primarily to the USA and Europe. Malaysia is one of the largest exporters of rubber products, accounting for a 55 per cent share of global total exports.The rubber products industry had 11 projects approved in 2019, with a total investment of RM3.11 billion. FDI contributed a total investment of RM2.39 billion (76.9%) while DDI contributed a total of RM718.52 million (23.1%). These approved investments comprised seven new projects amounting to RM3.03 billion and four expansion/diversification projects worth RM78.64 million. It is expected that 2,046 new job opportunities will be created from these investments.

Approved Investments in the Rubber Industry for 2019



As part of L'Isolante K-Flex, a leading global manufacturer of elastomeric insulation systems from Italy, K-Flex Malaysia Sdn. Bhd. (K-Flex) is committed to provide high-end rubber products to various industries such as solar energy, O&G, sound insulation, and damping. K-Flex's new project will produce bonded shredded elastomeric foam, which is a raw material for high-end rubber products. With a total project cost of RM66.93 million, this project will provide 20 job opportunities.

Another notable project approved in 2019 was from Doshin Rubber Products (M) Sdn. Bhd., a producer of rubber products for use in the marine and railway industries. The RM41.4 million project, located in Klang, Selangor, will also establish its Rubber Engineering and Development Centre to provide research findings in material development, design of new and novel anti-seismic components, and new production methods that optimise component properties, enabling the centre to offer wide technical support.

Another high-technology project worth mentioning is from Momixx Malaysia Sdn. Bhd. (formerly known as Integrated Formwork Systems Sdn. Bhd.), a producer of silicone elastomer. Catering for future needs in 5G technology, Momixx is committed to producing products for use as raw material in telecommunications and the automotive industry. The company will be operating in Perai, Pulau Pinang and is expected to bring in more than RM15.5 million worth of investments. It will also provide new employment opportunities to 20 Malaysians, eight of which will be in science and technology.

Maxtrek Tyre Manufacturing (Malaysia) Sdn. Bhd. is a company with a two-phase project approved in 2018. The first phase involved an investment of RM1.46 billion, while the second phase will bring in investments worth RM600 million. Maxtrek carried out a ground-breaking ceremony in June 2019 for its car and truck tyres plant in the Malaysia-PRC Kuantan Industrial Park in Kuantan. The state-of-the-art plant is Maxtrek's first investment outside of PRC, designed to produce six million car and light truck tyres and 500,000 truck/bus tyres annually.

Looking ahead, industry players must begin to adapt and adopt greater automation so that they can increase efficiency and productivity, thus reducing their reliance on foreign workers. In addition, the industry as a whole must continually innovate and add value to its products in order to better compete in the global market, given the economic volatility caused by the USA-PRC trade war and currency fluctuations.

The Malaysian Rubber Export Promotion Council (MREPC) established a fund for automation and green technology to encourage the industry to adopt automation and green technology. The RM20 million allocation fund was launched by Minister of Primary Industries, YB Teresa Kok, in August 2019. This fund covers automation and green technology such as renewable energy in the form of solar and biomass, and the recycling and harvesting of water, and extraction of ground water. Through this fund, rubber industry players will benefit by improving their production lines and manufacture higher-efficiency rubber products.

The importance of the rubber industry can be seen in the four promotional activities undertaken by MIDA's Chemical and Advanced Materials Division in 2019. Firstly, MIDA participated as a speaker and an exhibitor in the Malaysian Rubber Products Manufacturers' Association 2019 held from 21 - 22 June 2019 at Top Glove Tower, Setia Alam. On 8 October 2019, MIDA was one of the speakers in the seminar "Incentives for Rubber Products Industry" organised by MREPC, which aimed to provide information on the current incentives available for the rubber product manufacturers especially for SMEs. On 22 November 2019, MRPMA again invited MIDA to be a speaker in the seminar entitled "Rubber Manufacturing Sector: Taking on Opportunities of Industry 4.0". And finally, MIDA attended The Global Rubber Conference 2019, held from 12 – 14 December 2019 in Hainan, PRC. The conference was attended by more than 500 executives and 25 internationally-renowned industry experts.

Oleochemicals

With a projected market that will reach US$28.6 billion in value by 2025, demand for oleochemicals is driven by various consumer applications such as personal care and household products, as well as F&B. Malaysia, which specialises in the production of basic oleochemicals such as fatty acids, fatty alcohol, methyl esters and glycerine, benefits from an abundant supply of palm oil and palm kernel oil for downstream production in the oleochemicals industry.

In 2019, Malaysia recorded 4.49 million hectares of palm oil area, accounting for 28 per cent of global palm oil production and 33 per cent of global exports after Indonesia. The industry has over time progressed towards producing a few other oleochemical derivatives such as fatty esters, fatty amines, soap noodles, metallic soaps, and palm-based constituents. Basic and derivative oleochemicals are subsequently used as inputs in a plethora of products, including detergents, surfactants, shampoos, soaps, cosmetics, pharmaceutical products, plastics, and food additives. Currently, there are more than 21 oleochemical plants operating in Malaysia, which produced approximately 2.68 million tonnes of oleochemicals in 2019.

In contrast to fossil-based chemicals, oleochemicals are naturally biodegradable, because most of the hydrocarbon moieties are even-numbered carbon chains and are aliphatic or linear in nature. Hence, they are easily digested by microorganisms.

A total of 12 projects were approved in the oleochemicals industry in 2019, with investments of RM918.08 million. Domestic investors dominated the industry, with investments amounting to RM552.99 million (60.2%), while FDI amounted to RM365.09 million (39.8%). Of these approved projects, seven were new projects while the rest focused on expansion/ diversification, leading to the creation of 471 new job opportunities.

One notable investment that has been approved was a RM200 million project undertaken by IOI Acidchem Sdn. Bhd. to expand its production capacity by 30 per cent, or an additional 120,000 MT per annum by 2021.

IOI Acidchem Sdn. Bhd. is a leading local company principally involved in the manufacturing and sale of palm-based oleochemical and derivative products. It sells to customers in over 80 countries worldwide and its broad range of versatile products are used in a wide variety of applications including the manufacturing of detergents, surfactants, shampoos, soaps, cosmetics, pharmaceutical products, food additives, and plastics.

Another notable project is a diversification project by Evyap Sabun Malaysia Sdn. Bhd. with investments worth RM106.80 million. Evyap's diversification will provide Malaysian with 15 new employment opportunities. Evyap will use specialty chemicals internally as well as across other industries of personal care, food and industrial applications.

Given growing demand for oleochemical fatty acids in the pharmaceutical and food industries, the market is expected to undergo immense growth. With oleochemicals being one of the country's catalytic industries, there is a need for the industry to move up the value chain, from producing basic oleochemicals to derivatives/specialties that have broad applications, excellent product performance, and are value-added, safe for human use, environmentally-friendly, and biodegradable. New players should consider other strategies than the production of basic oleochemicals. Opportunities for development of products directly from palm and palm kernel oils, without having to go through basic oleochemicals, will be possible with new manufacturing technology.

Investors can also consider the market segment for specialty oleochemicals, for which there is very little product availability. The MPOB has spearheaded industry R&D efforts to concentrate mainly on end-products instead of basic olechemicals. For instance, MPOB has conducted R&D into palm-based polyol and polyurethane, methyl ester sulphonate, cosmetics and personal care products, and palm-based esterquat. Given this concerted effort, industry players are encouraged to leverage new technologies to produce oleochemical derivatives/specialties and to forge smart partnerships with foreign companies that possess the relevant technology.

Wood-based Industry

Wood and Wood Products & Furniture and Fixtures

Over the past 20 years, Malaysia's wood-based industry has become one of the most important industries in the country, encompassing the production of sawn timber, veneer, panel products (plywood, particleboard, chipboard, and fibreboard), mouldings, and builder joinery and carpentry (BJC), as well as furniture and furniture components.

With approximately 3,500 mills in operation, the industry provides employment to about 240,000 workers. According to the MPI, as of November 2019, wooden furniture companies contributed RM8.2 billion to Malaysia's wood and furniture's total exports of RM20.4 billion; whereas plywood's total export value as at RM3.1 billion.

In 2018, wooden furniture contributed RM7.9 billion of total exports, with plywood exports coming in second at RM4.6 billion. The total export value decreased by 3.8 per cent from the previous year to RM23.2 billion as a result of the global economic slowdown and thus slower demand from key markets; the USA-PRC trade dispute; the USA's economic sanctions on Iran, a key medium-density fibreboard importer; political instability in the Middle East; and slower growth in the domestic construction industry.

Malaysia`s timber and timber products are exported to more than 170 countries, with Japan, the USA, India, ROK, PRC, and Australia being the major destinations. The total export value of the industry from 2014 to 2018 reached RM110.5 billion, with wooden furniture (33.5%), plywood (21.2%), and sawn timber (15.2%) being the main exported products.

Launched in 2009, the National Timber Industry Policy (NATIP) 2009-2020 aims to rebalance the proportion of companies involved in the production of upstream products (such as veneer, plywood and sawn timber) and companies that emphasise value-added downstream activities (design, development, and production of wooden furniture, engineered wood/timber moulding, etc.) at a ratio of 60:40. The policy also aims for the industry's total exports value to reach RM25 billion by 2020.

On a regional level, investors and industry players have expressed interest in Sabah's potential for this industry. For instance, during MIDA's seminar on the "New Era of Manufacturing for Furniture & Wood-Based Industry" held on 23 January 2018 in Kota Kinabalu, at least three West Malaysian companies intended to leverage resources available in Sabah, as well as expand their operations in the state. MIDA arranged discussions between these companies and Yayasan Sabah, Palm Oil Industrial Cluster Lahad Datu and Sabah Softwood Berhad.

A total of 34 projects were approved with investments of RM707.75 million in the wood and wood products industry in 2019, of which 23 were new investments amounting to RM612.32 million (86.5%) and 11 were expansion/diversification projects with investments of RM95.43 million (13.5%). Domestic investments accounted for RM300.35 million (42.4%), while foreign investments totalled RM407.4 million (57.6%). These projects are expected to create 1,649 employment opportunities.

A notable new project approved is one by a wholly Malaysian-owned company investing RM84.42 million to manufacture finger joints, mouldings and graded sawn timber. Another approved investment is a new project from a wholly foreign-owned company, with investments amounting to RM40.31 million to manufacture particleboards.

The furniture sub-sector recorded investments amounting to RM623.55 million in 40 projects in 2019. Of these, 31 were new projects with investments of RM596.9 million (95.7%) while the remaining were for expansion/diversification projects worth RM26.65 million (4.3%). Domestic and foreign investments amounted to RM179.5 million (28.8%) and RM444.02 million (71.2%) respectively. It is expected that the above approved investment projects will generate a total of 3,671 job opportunities.

Some significant projects that were approved in 2019 include a wholly foreign-owned company with an investment of RM108 million which plans to undertake the production of wooden furniture in Johor. Another noteworthy project approved is for the manufacture of wooden furniture and parts by a majority foreign-owned company with an investment of RM68.60 million.

Paper, Printing and Publishing

Malaysia's paper industry has been around since the 1960s but has mostly been relegated to the background as local paper companies lack the capability to expand their business. However, the industry's prospects may be about to change as MIDA has received a large number of interest from PRC paper companies wishing to establish their business in the country since 2018. MIDA has received applications from among the top 10 paper companies in PRC that contributed the most to the industry's total investment value in 2019. It is estimated that Malaysia's paper production capacity could jump by 395 per cent from the involvement of these companies.

Despite depending on recovered paper as raw material, PRC paper companies will incorporate good manufacturing practices; they will adopt some Industry 4.0 elements and environmentally-friendly practices in their operations. It is expected that the waste water and solid waste produced by the companies will be further treated according to government standards, eventually practising a zero-waste policy by either burning them or turning them into usable items that can contribute to the circular economy.

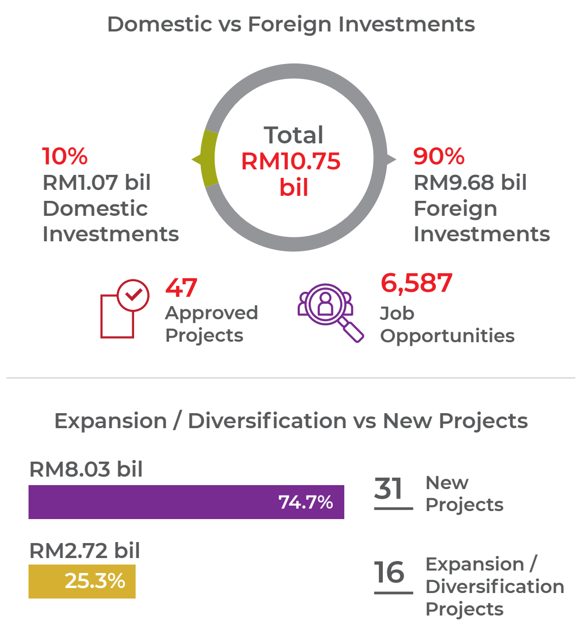
In Malaysia,the production of paper is dominated by packaging papers such as kraft paper, testliner and medium paper. Those products are produced by all the major paper companies; namely, GS Paper & Packaging Sdn. Bhd., Muda Paper Mills Sdn. Bhd., and Pascorp Paper Industries Sdn. Bhd. Apart from virgin pulp and wastepaper, paper can also be produced through the use of biomass. To date, Eco Palm Paper Sdn. Bhd. is the only company in operation to produce paper from empty fruit bunches (EFB). In 2019, a manufacturing license was granted to another company to produce pulp and paper products from EFB, with a total proposed investment amounting to RM84.4 million. Paper production via biomass has garnered significant interest from PRC pulp and paper companies. With oil palm plantations spanning 5.8 million hectares, Malaysia has a comparative advantage in producing paper from EFB. In light of this, improving the EFB-based paper production technologies and paper quality will require additional studies and research.

A total of 47 projects were approved with investments of RM10.75 billion in 2019. These projects are expected to provide 6,587 employment opportunities. Of these, 16 were expansion/diversification projects with investments of RM2.72 billion making up 25.3 per cent of the total, while 31 were new projects with investments of RM8.03 billion or 74.7 per cent of total. Foreign investments amounted to 90 percent of the total or RM9.68 billion, while RM1.07 billion or 10 per cent were contributed by domestic investments.

The approval given to the paper products sub-sector accounted for 96.7 per cent or RM10.39 billion of total investments in this industry, while the balance of RM364.43 million (3.3%) came from the printing and publishing sub-sector. Major investments were contributed by foreign-owned companies engaging in paper-milling activities, with total investments of RM10.1 billion which accounted for 96.8 per cent of the total investments in the paper products sub-sector.

Although paper manufacturing in Malaysia is already highly-automated, there are still many potential areas for upgrading/modernisation. Compared to their global competitors, most Malaysian paper manufacturers' technologies are outdated; reducing their competitiveness in the global market. Local players are thus encouraged to upgrade and explore new and emerging technologies in order to sustain their operations. Industry players should take advantage of both the Automation Capital Allowance (Automation CA) incentive and Industry4WRD initiatives to upgrade their machinery and equipment.

Approved Investments in the Paper, Printing and Publishing Industry for 2019



Enhancing the National Committee on Investment (NCI)

To cut red tape and bureaucracy, which are often major stumbling blocks for any endeavour, including investments, MIDA established the NCI in May 2010 as a single platform to approve investments in the manufacturing sector, and selected industries in the services sector.

The NCI is helmed by the Chairman of MIDA with senior officials from the Ministry of Finance (MOF), Ministry of International Trade and Industry (MITI), Ministry of Economic Affairs (MEA), Inland Revenue Board (IRB), and Bank Negara Malaysia (BNM) sitting in as permanent members who deliberate on investment project proposals for the country, and make decisions in real-time. This measure has been effective for securing targeted projects in an expedient manner.

On 8 May 2019, the NCI was empowered as the 'Sole Approving Committee for Investments', in accordance with a Government decision to ensure that investors have a transparent and obstacle-free process when applying for licensing and investment incentives. In the past, there were redundant efforts by multiple government agencies, which not only wasted resources and effort, but also stirred confusion among investors. All these led to unhealthy competition among the various investment promotion agencies (IPAs).

The new and enhanced NCI makes decisions under the Industrial Coordination Act (ICA) 1975, Petroleum Development Act (PDA) 1974, Promotion of Investments Act (PIA) 1986, Income Tax Act (ITA) 1967, Customs Act 1967, and Sales Tax Act 2018. The Committee will also deliberate and approve investment projects by other IPAs in the Regional Corridors, Halal Industry Development Corporation (HDC), Malaysia Digital Economy Corporation Sdn. Bhd. (MDEC), Malaysian Bioeconomy Development Corporation Sdn. Bhd. (Bioeconomy), and the Ministry of Agriculture and Agro-based Industry (MOA).

To strengthen and quicken the decision-making process, the NCI is now co-chaired by MITI and MOF. NCI meetings will still be held weekly whereby once a month, the meeting will be co-chaired by the MOF and MITI Ministers, while at other times, the meetings will be co-chaired by the Secretary-General of Treasury and the Chairman of MIDA. The committee will also discuss proposals and counteractive measures on issues at the federal and state levels which pertain to approved investment projects; and make recommendations to the Government on revisions of existing incentives, or the establishing of new ones.

It is envisaged that the newly-empowered NCI will lead to more collaborations among IPAs, with MIDA taking up the torch as the single national window for investments. Furthermore, it could prove to be an impetus for MIDA to serve its stakeholders better, in its quest to solicit investments dollars for Malaysia.

SPM Go-Live

As a way of providing efficient and transparent services to investors, MIDA developed an integrated e-MIDA Enterprise Transformation System (e-TRANS) to improve its service delivery system's efficiency and effectiveness. This is in line with MIDA's transformation and the Service Sector Blueprint under the provisions of the 11MP. Among other things, e-TRANS aims to bring about a strong, stable, and secure ICT infrastructure to meet business expectations, as well as to implement effective IT governance to support MIDA's core functions.

The introduction of this system kicked off with the MIDA Confirmation Letter, or Surat Pengesahan MIDA (SPM), which was previously a sub-module under the Jawatankuasa Pengecualian Cukai (JPC) online system, and went live on 30 September 2019 at https://investmalaysia.mida.gov.my

SPM is a confirmation letter issued by MIDA to eligible companies to confirm the status of the company for the purpose of claiming import duty and/or sales tax exemption from the Royal Malaysian Customs Department (RMCD).

Eligible companies may apply for the SPM from MIDA and subsequently submit the letter to RMCD, together with the list of machinery, equipment, spare parts, prime movers, container trailers, specialised tools, components, materials, or specialised consumable goods to be imported or purchased for permission to claim for the exemption. These companies include:

- Pengilang dalam Kawasan Utama Kastam (PCA)
- Syarikat yang terlibat dalam perniagaan perhotelan
- Pengendali pengangkutan
- Syarikat penyelenggaraan, pembaikan dan baik pulih (MRO) aeroangkasa

This new enhanced system provides a more efficient and effective environment for the stakeholders. It will also improve MIDA's evaluation process and delivery system, by consolidating all current processes with regards to applications for manufacturing licenses, incentives, and import duty and sales tax exemptions.

Other modules under the JPC online system; that is, applications for import duty and/or sales tax exemption on machinery, equipment, sample materials, prototypes, raw materials, and/or components, will be gradually incorporated into the system.


72%
54%
72%
54%
96%
82%

3

Performance of the Services Sector

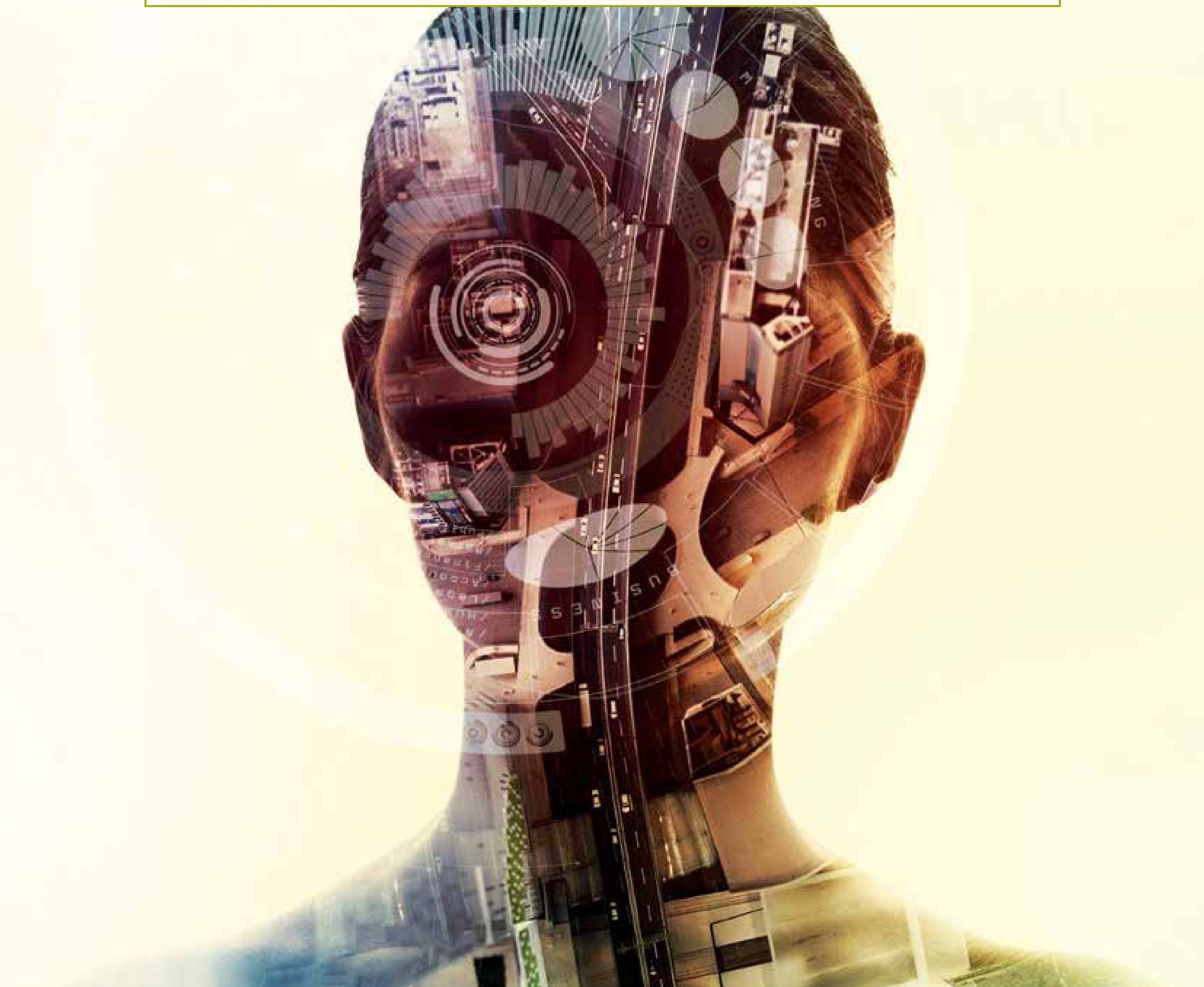
Malaysia's services sectors employ over 60 per cent of its workforce and account for over half of its GDP, making services a major contributor to the country's economic growth, productivity, and earnings. Open and well-regulated services markets also facilitate access to information, skills, technology, funding, and enable the movement of skilled labour across borders

Source: OECD Economic Surveys, Malaysia, July 2019

3.1 Summary of Performance

Poised to Lead

The services sector shines again in 2019 as it takes the leading lane in the country's race for approved investments. Maintaining a sterling growth momentum of 11.3 per cent this year, the sector is poised for bigger things given the important role that it will play in both the 12th and 13th Malaysia Plans, towards achieving the Shared Prosperity Vision 2030



The global economic outlook in 2019 was challenging, with the United States-China trade dispute and Brexit weighing on market sentiment. As a result of so much uncertainty, growth momentum slowed as investors generally held back. The October 2019 update of the IMF's World Economic Outlook forecasts global growth at 3.0 per cent as momentum slows across the board and pick up to 3.4 per cent in 2020.

However, dismal sentiments aside, there were a few bright spots, with the services sector at the global level holding up despite the continued slowdown since early 2018 of global manufacturing activity.

The global scenario notwithstanding, Malaysia's diversified services sector grew at a faster rate of 6.1 per cent in the fourth quarter of 2019, as compared to 5.9 percent, in the preceding quarter. The services sector accounts for more than 55 per cent of the Malaysian economy and is one of the top two contributors to growth, the other being the manufacturing sector. There were several key factors at play that drove the sector's growth, namely; firm consumer-related spending, particularly in the food and beverages and accommodation sub-sector, as well as motor vehicles; higher fee-based income in the finance and insurance sub-sectors; continued demand for data communication services in the information and communication sub-sector and; steady air passenger traffic and port-related activities in the transport and storage sub-sector.

Moving beyond 2019, it is anticipated that Malaysia's first quarter growth in 2020 may be adversely affected by the Covid-19 outbreak. The impact would most likely be felt in the tourism-and its related industries. The magnitude of the ripple-effect to the Malaysian economy, including the services sector, will depend on the length of the outbreak, and the effectiveness of ensuing policy-responses by the governing authorities. In taking steps to address this issue, MIDA is working hand-in-hand with the Ministry of Finance to formulate an effectual stimulus package to alleviate the negative repercussions of the outbreak to the nation's economy.

In terms of investment approvals, the services sector contributed the largest portion to the Malaysian economy in 2019, as it accounted for more than half of the total approved investments. A total of RM118.10 billion worth of investments was approved for this sector, which translates to a 11.3 per cent increase from the approvals recorded in 2018, which stood at RM106.07 billion. There were 4,087 approved services projects that are expected to generate 44,811 job opportunities. The bulk of these services projects, chalking up to 74.9 per cent are located in Selangor, Kuala Lumpur, Pulau Pinang, Johor and Sabah.

Total Approved Investments in the Services Sector for 2019

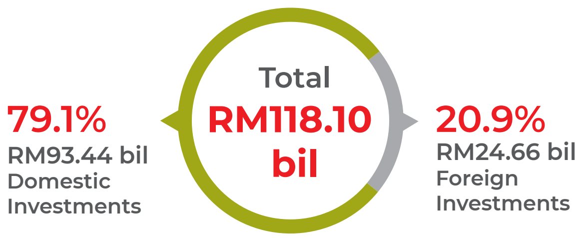
RM118.10 bil
Total Approved Projects

4,087
Approved Projects

44,811
Job Opportunities

11.3%
The Sector's Growth in 2019, Compared to 2018

Domestic vs Foreign Investments

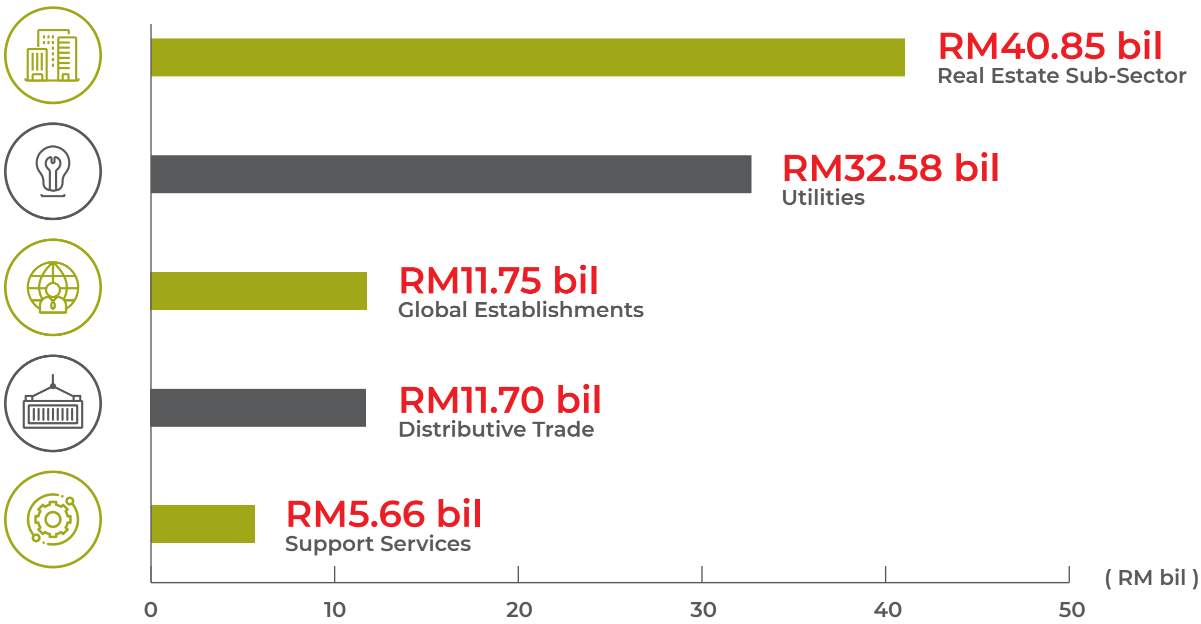


There are ample business opportunities in Malaysia's highly diversified services-based economy for investors. For the year 2019, the top five contributors of approved investments in the services sector were the real estate sub-sector (RM40.85 billion), utilities (RM32.58 billion), global establishments (RM11.75 billion), distributive trade (RM11.70 billion) and support services (RM5.66 billion). Collectively, these five sub-sectors represent 88.6 per cent of approved investments in the services sector during the period. The highest growth in terms of approved investments were recorded for utilities, distributive trade and global establishment sub-sectors.

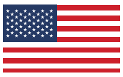
Malaysian companies contributed most of the approved investments in the services sector at 79.1 per cent of the total amounting to RM93.44 billion, with foreign sources making up the balance of 20.9 per cent with approved investments of RM24.66 billion. Although approved investments in the services sector were dominated by domestic investments, it is noteworthy that foreign investments have increased by a significant 53.4 per cent; from RM16.08 billion in 2018 to RM24.66 billion in 2019.

This underscores the mounting interest among foreign investors to use Malaysia as a base for their global footprint in the region. Among the major sources of foreign investments channelling investment dollars to the services sector include the USA, Japan, Mauritius, Singapore, and PRC. Together, these five countries contributed a significant 89.6 per cent to the nation's foreign investments towards the sector.

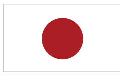
Top Five Sub-Sectors of Services in 2019



Major Sources of Foreign Investments in the Services Sector for 2019



The USA



Japan

Mauritius

Singapore

PRC

These 5 Countries Contributed a Significant **89.6%** to the Nation's Foreign Investments Towards the Sector

Several sub-sectors recorded a decline in approved investments. Among them were the MSC status which faced a temporary freeze on incentive approvals due to compliance of the Forum on Harmful Tax Practices (FHTP) requirements. Elsewhere, other identified sub-sectors dealt with a slide from the higher rungs of previously high-valued investment projects approved in 2018.

The Malaysian Government will continue to focus on promoting the services sub-sectors, encouraging investments in relatively high value-added activities that are marketable, have high-knowledge intensity and linkages with the rest of the economy, as well as have the potential to generate high-income jobs. This will enable the overall services sector to move up the value chain and, thereby providing strong linkages to other main economic sectors namely, Green Technology, Integrated Logistics Services, and R&D and Design activities.

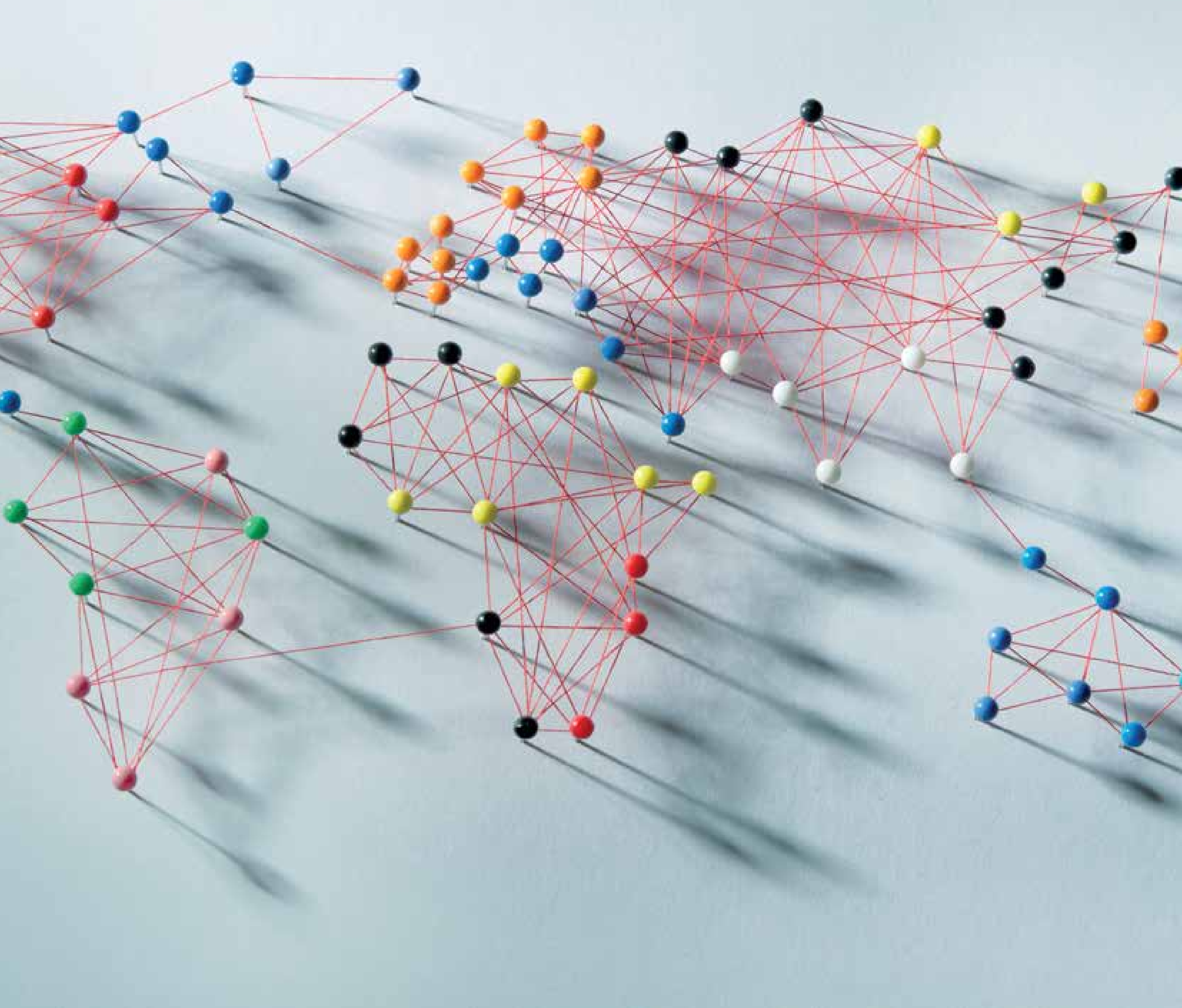
Given its importance to the nation's coffers, the services sector also plays a prominent role in the Shared Prosperity Vision 2030, which is a commitment to have the country achieve sustainable growth with enhanced prosperity and ironed-out socioeconomic disparities over the periods of the 12th and 13th Malaysia Plans, spanning through the years 2021 through to 2030. All its aforementioned traits translate to the services sector being poised to play a significant role over the next decade, as the country restructures its economy to be more progressive, knowledge-based and high valued with the entire community participating at every level.

"Given its importance to the nation's coffers, the services sector also plays a prominent role in the Shared Prosperity Vision 2030, which is a commitment to have the country achieve sustainable growth with enhanced prosperity and ironed-out socioeconomic disparities over the periods of the 12th and 13th Malaysia Plans, spanning through the years 2021 through to 2030."

3.2 Performance of the Services Sub-Sectors

A Vantage Point

Improved incentives have attracted many more businesses to establish their hubs in Malaysia, making it a beacon for future investments. Increasing local appetite for digital consumerism and the burgeoning outlook of digital disruptions presents investment opportunities, as well in many ancillary areas of the economy



Global Establishments

Principal Hubs: Bigger Bait

Principal Hub 2.0 (PH2.0) is the improved incentive scheme that was rolled out in October 2019 to attract more multinational companies (MNCs), both local and foreign, to invest in Malaysia as their regional or global operations hub.

Under the improved PH scheme, now known as PH2.0, companies with existing operations in Malaysia can further leverage their presence here by using their base to manage their regional or global businesses as they will be able to enjoy a concessionary 10 per cent tax rate on their operations in Malaysia, replacing the previous scheme that incentivised only incremental income.

While eligibility conditions for the scheme have been tightened, certain criteria have been relaxed to support companies as they expand their business operations. For example, under PH 2.0, companies need not serve a minimum number of countries, thereby appealing to more local companies whose businesses are more focussed on the Malaysian market. Companies are instead required to serve a minimum number of network companies, which encourages them to strengthen and expand their supply chain.

To ensure that the country's talent pool is enhanced, there is a requirement to provide more high-value jobs including opportunities such as internships, training and collaboration with local institutions.

The PH scheme continues to be a highly successful platform for the economy to move up the value chain by incentivising companies to move their operations base to Malaysia, which in turn has led to the creation of more knowledge-based jobs for Malaysians, particularly in key economic sectors such as E&E, aerospace, O&G, chemicals and, food and beverage. By locating and expanding their regional or global operations to the country, MNCs and local conglomerates will also increase the utilisation of local support services, thereby strengthening the role of local companies in the ecosystem of those sectors.

In addition to the competitive tax incentives, Malaysia has a relatively low cost of living, good availability of skills, solid infrastructure, as well as established regional trade agreements and logistics connections. Malaysia has much to attract MNCs and local conglomerates to establish their operations hubs here. The Economist Intelligence Unit's (EIU) Business Environment Rankings, placed Malaysia seventh in Asia in 2019, just behind Japan but ahead of The Republic of Korea. Expatriates also consider Kuala Lumpur as a livable city with the EIU ranking Malaysia roughly in line with Beijing or Shanghai on that metric.

Principal hub projects approved

Since the introduction of the PH incentive scheme in 2015, MIDA has approved a total of 36 PH projects, with these companies committed to spend RM RM47.25 billion in addition to utilising local ancillary services worth RM5.82 billion and creating 2,932 high-value jobs in sectors such as E&E, aerospace, O&G, chemicals and information technology.

In the period from 2015 until 31 December 2019, a total of 18 Principal Hub projects have been realised, incurring investments of RM7.08 billion and creating 1,792 high value jobs; of which at least 50 per cent are for Malaysians. These Principal Hub companies have significantly exceeded their commitments within the first year of their operations. Several other approved projects are expected to begin implementation in 2020.

Approved Principal Hub Projects Since 2015 (As at December 2019)

36
Approved Principal Hubs

RM47.25 bil
Business Spending

RM5.82 bil
Local Ancillary Services

2,932
High Value Jobs

Regional / Representative Offices (ROs/REs)

The preliminary phase of a foreign company wanting to coordinate and support their operations in the Asia Pacific region in Malaysia is the setting up of a forward base, which could either be a Regional Office or a Representative Office (ROs/REs). Information gathering, and feasibility studies on local investment opportunities are usually undertaken as initial steps before a bigger commitment is made.

The establishment of these REs and ROs in Malaysia typically serve as a first base for their regional operations, whilst coordinating business activities for their parent companies in preparation for a long term commitment.

A total of 168 new REs/ ROs were approved between January to December 2019 with a total investment of RM277.63 million. This is expected to create 554 jobs, with employment opportunities for 406 Malaysians. Of the 168 REs/ROs approved, 96 projects (57%) were REs while 72 projects (43%) were ROs. Companies from 32 different countries were amongst the REs/ROs investments approved, including Japan, PRC, Singapore, Hong Kong SAR, Germany, the United Kingdom, France, the Republic of Korea, USA and Australia. The highest numbers of REs/ROs approved were from Singapore with 27 approvals. This was followed by Japan (25), the United Kingdom (14), France (13), Hong Kong SAR (12), Australia (10), Germany (8), the USA (8) and PRC (7). The approved projects were from the machinery and engineering support, oil and gas, E&E, chemical, medical devices, as well as, IT and software sub-sectors.

Logistics in the Digital Economy

All Systems Go

The advent of e-commerce has empowered consumers, who are fast becoming accustomed to digital services. Today's online consumers not only have high expectations on quality and flexibility of services; they also place complex, and varied orders. Hence, for the logistics industry, going digital is not an option.

Approved REs / ROs Projects for 2019

168
New REs/ ROs Approved Projects

RM277.63 mil
Total Approved Investments

554
Job Opportunities

A boon for the industry is that digital transformation comes paired with important social and environmental benefits because it increases efficiency, and cuts down energy consumption and emissions.

The Government through MIDA recognises the logistics industry as a critical link that connects nodes and fulfills the needs of businesses and people and therefore, has expanded the logistics incentive scheme under the Integrated Logistics Services (ILS) incentive to encourage logistics companies to adopt technology in their operations. The main goal is to position Malaysia as a regional e-Fulfilment hub.

> "Companies from 32 different countries were amongst the REs/ROs investments approved, including the USA, Japan, PRC, Singapore, Hong Kong SAR, Germany, the United Kingdom, France, the Republic of Korea, and Australia."

Integrated Logistics Services (ILS)

To expand the scope and complement the double-digit growth of e-Commerce in the country, a second round of incentives for ILS providers was introduced and announced in 2017.

ILS providers offer services such as warehousing, transportation, freight forwarding, distribution, and supply chain management. Growth has been robust and is expected to continue over the years. Of the ILS approvals in 2019, eight were domestic companies with investments totalling RM841.98 million with expected employment opportunities for 1,486 Malaysians.

Current approved ILS projects indicate that there is a trend among Malaysian logistics companies to move towards integrated operations, ICT-driven innovation to support e-commerce, and providing specialised logistics services to support various industrial sectors such as the O&G and petrochemical industries.

Examples of noteworthy progress made by Malaysian companies in ILS projects include Air-Marine Cargo Agency Sdn. Bhd. (AMCA) and Integrated Cold Chain Logistics Sdn. Bhd. (ICCL), both of which had their projects approved in 2019.

Approved ILS Projects for 2019

8
Approved Projects

RM841.98 mil
Total Approved Investments

1,486
Job Opportunities

Air-Marine Cargo Agency is a third-party logistics service provider established in 1986 in Bintulu, Sarawak specialising in providing heavy load transportation services, as well as servicing O&G clients such as Sapura Kencana Petroleum Berhad, Petroliam Nasional Berhad and Murphy Oil Corporation. AMCA has taken advantage of the ILS incentive to expand the company's operations by providing its specialised logistics services to local O&G players as well as internationally to Singapore, Indonesia, and the Philippines. Under its expansion project, AMCA will invest RM114.71 million and create 273 new employment opportunities for Malaysians.

AMCA also provides other outsourcing services such as offshore module load-out and ultra-heavy movements, jacking and skidding using conventional/hydraulic skid systems, heavy lift cranes and engineered support, and strand jack solutions. The logistics outfit possesses modern capabilities in special vehicles such as the self-propelled modular transporter (SPMT); a state-of-the-art machine that few logistics companies have, which is mainly used for the lifting and transportation of oversized objects in projects related to liquefied natural gas (LNG).

ICCL is a total logistics company offering full supply chain management services based in Bukit Minyak, Penang. The company began its operations in 2006 and is now recognised as one of the most prominent cold chain logistics service providers specialising in warehousing and distribution services.

ICCL is making strides in adopting automation and other Industry 4.0-related technologies in order to provide customers with higher levels of service. To that end, ICCL is investing RM58.53 million for more value-added services in its Warehouse Management System as well as their newly purchased Automated Storage & Retrieval System.

International Integrated Logistics Services (IILS)

An IILS is a status granted to a logistics company that is capable of providing integrated and seamless logistics services (door-to-door) along the logistics value chain as a single entity on a regional or global scale. Customs Agent Licenses are issued to qualified IILS companies.

In 2019, a total of 29 companies were approved IILS status with investments totalling RM244.66 million and 1,185 employment opportunities created. From the approvals, only one was a foreign company (from PRC).

Business Services

Professional Services: Upping the Ante

Business and Professional Services has been recognised as one of the value-added sectors that encompasses highly distinctive industries that cover a diverse range of high value services such as engineering, legal, architectural, advertising and accounting services.

These industries with distinct policies and strategies across the sub-sector, have huge potential in generating significant economic growth and job creation, raising productivity and enhancing competitiveness, all of which will contribute to the increase of services exports and investment dollars for Malaysia.

ICT Services Fun-Filled Futures

The announcement in November 2019 by Sony Interactive Entertainment Worldwide Studios (SIE Worldwide Studios) of plans to set up a studio in Malaysia is an important milestone of MIDA and MDEC's continuous engagement with the multinational powerhouse. The studio, which will be part of the Sony family of global studios developing worldwide exclusive titles for the PlayStation universe, marks the continued growth of the ICT industry– a creative and vibrant industry that runs the gamut of Digital Content and Cybersecurity.

Besides being its first studio outside of its US base, the establishment is expected to create at least RM15 million in outsourcing opportunities for games development to Malaysian companies, which in turn will create opportunities for them to become part of the global games-development value chain. This breakthrough speaks volumes of a booming gaming industry that is poised to grow, and to set Malaysia on track to be the Game Hub for the region.

Other beneficiaries of games development outsourcing will be local tertiary institutes of education that offer courses such as game software development, game art and design as well as game programming. The likes of Universiti Tunku Abdul Rahman, Limkokwing University of Creative Technology, and Management and Science University that offer such courses will see their graduates becoming more employable.

SIE Worldwide Studios promises to open up over 100 direct job opportunities within the creative field, and together with more local talent specialising in game design, will position Malaysia as the preferred outsourcing location for high value-added games development activities. Other benefits include the transfer of technology and know-how as this is SIE Worldwide Studios' first high-end technology and production centre outside the United States, which will make the country among the first to receive proprietary toolkits, middleware and production knowledge such as facial animation capture and game engines.

Aside from the focus on games development, the Government has also allocated RM10 million in Budget 2019 to develop electronics sports (eSports), a fast-growing competitive arena using video games that was also included as a medal event at the 2019 SEA Games in the Philippines. The eSports segment of the gaming industry, championed by the Ministry of Youth and Sports aspires for Malaysia to be the region's eSports hub, is expected to witness global revenue chalk US$1.5 billion by 2020. In 2018 in Malaysia, the gaming industry alone contributed

US$100 million to its coffers, and is predicted to show an annual growth rate (CAGR 2018-2023) of 10.9 per cent, which will result in a market volume of US$168 million by 2023.

Research and Development

Rejuvenating R&D

A key driver for the country to realise its ambition to become an innovation-driven and value-creating economy is by channelling much of its energies on Research and Development (R&D) initiatives. At the macroeconomic level, apart from enhancing the competitiveness of existing industries, R&D lays down a firm foundation for Malaysia to develop new capabilities in industries of the future. At the enterprise levels, R&D investments can stimulate innovations in product offerings and production processes. These innovations can in turn raise productivity, thereby supporting sustainable economic growth.

Innovation is no longer a sporadic undertaking by select countries; it is instead a global effort in today's increasingly competitive and rapidly changing business climate. For Malaysia, the shifting landscape poses many challenges to the Government, industries, universities, research institutes, and the entire Science, Technology and Innovation (STI) ecosystem. Hence, to remain relevant and competitive, Malaysia must chart a path for continuous innovation by fostering strong and resilient partnerships through connectivity and inter-dependence among stakeholders.

According to the Global Innovation Index (GII) 2019 report, Malaysia's R&D achievements are in line with expectations for its level of development. The country has retained its 35th position out of 129 economies, and remains among the middle-income economies that are bridging the innovation divide, strengthened by its top rank in sub-indicators such as high-tech net exports and creative goods exports.

Government-industry-academia Synergy

As the principal investment promotion agency of the country, MIDA acts as a catalyst to ensure that Malaysia's industrial landscape and future sustainability is aligned to the rapidly evolving world of technology. As such, collaborations between the manufacturing sector and Malaysia's research institutions remain a priority for R&D. The Government continues to shoulder its support with these efforts, paving the way for research carried out by universities and other tertiary institutes to be commercialised, thereby spurring economic growth.

The private sectors, including SMEs, have much to gain from adopting an innovation mindset, in order to thrust their ideas to the next level, and to produce new or improved products, by means of innovative processes, services or solutions. This is critical for businesses to stay ahead of the curve, and to contribute to the nation's growth. However, some of Malaysia's larger private sectors and SMEs are hampered by the lack of impetus, time and resources to embark on in house R&D, and adopting technology and innovation.

Thus, by forging strong linkages and collaborations among the public and private sector, research organisations, and industry-specific research institutes, as well as the Government offering various incentives, the R&D industry will be re-energised and reinvigorated; the benefits of innovation will then translate across the industrial value chain. Academia and industry have many synergies to leverage upon, and their ties should lead to higher research value, which will be converted to commercialisation and further economic growth.

By the same token, MIDA continues to offer much support towards collaborations between industry, research institutes and academia and, to demonstrate this has organised the 'Innovation Pitch and Business Matching 2019' with University Malaysia Perlis and

Malaysian Technology Development Corporation, which is an initiative to further promote and develop R&D activities, as well as to strengthen industry capabilities in innovation.

The establishment of Collaborative Research in Engineering, Science and Technology (CREST) in 2012 is one of the examples of the Government's initiatives to accelerate collaboration in research, design and development activities and stimulate research and development (R&D) innovation in E&E sector through a structured platform.

A Steady Framework

The Government continually supports the enhancement of the R&D framework through various incentives and financial assistance; the latest of which were announced in Budget 2020, with the objective of intensifying R&D in the public sector, promoting commercialisation of R&D from the public sector including research universities, promoting intellectual property, and courting more students into the fields of Science, Technology, Engineering and Mathematics (STEM).

To this end, MIDA offers tax incentives to manufacturers with in-house R&D facilities or research service providers. The types of incentives offered include R&D status, R&D Company, Contract R&D Company, and In-house R&D. The incentives available are in the form of Investment Tax Allowance (ITA) or Pioneer Status (PS).

To further invigorate R&D activities, the customers of recipients of R&D status approvals are eligible to claim for double deductions on payments of their services directly through the Inland Board Revenue (IRB). This is an effective way to help companies market their R&D services, and also to pitch in to the R&D ecosystem as a whole.

Another effective measure local companies should embrace for long-term competitiveness and sustainability is to take ownership of their Intellectual Property (IP) rights. IP is vital in helping companies create, protect, and monetise their products and services. To bolster innovation, creativity and entrepreneurship, the Government in October announced during the tabling of Budget 2020, the Intellectual Property Development Incentive. The main intent is to court domestic companies to increase their investments in R&D innovation, and to encourage IP exploitation as, according to the Intellectual Property Corporation of Malaysia, only 15 per cent of IP in Malaysia are owned by local companies vis-à-vis the situation in Japan, where 80 per cent of IP rights are held by local companies.

The announced incentive allows companies who are eligible to get a full exemption on income tax for up to 10 years qualifying IP income derived from patent and copyright software of qualifying activities. The Government views support for such companies as integral to the long-term competitiveness and sustainability of the economy.

This incentive is also consistent with the minimum standards under the Base Erosion and Profit Shifting (BEPS) Action 5. The income tax exemption will be calculated based on the modified nexus approach under the Forum on Harmful Tax Practices FHTP, which is part of the OECD.

Investments in the R&D Industry

1995 – 2019					
Type of R&D	Number	Employment	Domestic Investment (RM mil)	Foreign Investment (RM mil)	Total Capital Investment (RM mil)
R&D Contract	79	1,528	394.34	207.32	601.66
R&D Company	30	631	87.65	109.96	197.61
R&D In-house	61	3,403	709.48	1,237.62	1,947.10
R&D Status	23	1,167	149.33	130.86	280.19
Total	193	6,729	1,340.80	1,685.76	3,026.56

R&D Progress

In 2019, eight projects involved in R&D were approved; two companies are involved in in-house R&D, one has been approved as an R&D Contract company and the rest being given R&D status. Total investments in these projects amounted to RM57.10 million, comprising domestic investments of RM11.45 million and foreign investments of RM45.65 million. A total of 125 employment opportunities are expected to be created by these projects. This brings the total number of approved projects for incentives under the Promotion of Investment Act, 1986 to undertake research and development activities, to 193 with a total of RM3.03 billion in capital investments, generating 6,729 high-tech job opportunities.

MIDA also awarded one university-linked company R&D Status in 2019 tallying up to six all together; enabling the clients of these companies to enjoy double-deduction on R&D expenditure. It is a tax-efficient way to invest in R&D whereby industry partners can access university expertise while allowing academia to produce more research with higher commercial potential.

One of the notable R&D projects is by Volume Research & Development Sdn. Bhd., which was incorporated to undertake R&D activities in the fields of robotics, industrial engineering and computer science. The area of R&D projects undertaken are in line with the national policy on Industry4.0. Located in Sarawak, this project will provide high income job opportunities to the locals with 15 per cent of the highly skilled employees expected to earn RM5,000 per month.

"MIDA also awarded one university-linked company R&D Status in 2019 tallying up to six all together; enabling the clients of these companies to enjoy double-deduction on R&D expenditure."

Green Technology

Sustainable Economic Growth

The drastic rise in global energy demand mainly from India, PRC, and other Asian countries– which together accounted for two-thirds of the increase– is largely driven by the improvements of living standards. Thankfully though, as the world heeds the call of 'more energy' and 'less carbon', the fastest growing source of energy generation is said to be Renewable Energy (RE)– which makes up half of the growth in global energy supplies. It is anticipated that RE will not only be the largest source of power by 2040, but also a cheaper alternative to coal and gas in most regions by 2030.

Set against this global backdrop, the Malaysian Government is cognisant of the role of RE in sustainable economic growth, and has thus forged ahead with the Renewable Energy Transition Roadmap (RETR) 2035 which calls for RE sources to be 20 per cent of the national power mix by 2025, from the current two per cent in 2018. In fact, in 2019, Malaysia achieved a 33 per cent reduction in greenhouse gas (GHG) emissions, and is on track to meet the Paris Agreement pledge, which is a reduction of 45 per cent of GHG emissions by 2030 in relation to its 2005 GDP.

The RETR is in addition to the Green Technology Master Plan (2017-2030), which is a strategy to implement sustainable economic development in the face of global climate change. It is part of Malaysia's commitment to the 17-point Sustainable Development Goals conceived by the United Nations in 2015 and now embedded within the country's long-term plans under the Shared Prosperity Vision 2030.

The RETR will explore the possible strategies and action plan for implementation by the Sustainable Energy Development Authority (SEDA) Malaysia and supported by the Ministry of Energy, Science, Technology, Environment and Climate Change to reach the 2025 target. Some of these plans include peer-to-peer energy trading, options for fully sourcing from RE electricity and forming a RE certificate market.

To further support green technology, the Government in October 2019, during the Budget 2020 announcement, extended the Green Investment Tax Allowance (GITA) for the purchase of green technology assets and Green Income Tax Exemption (GITE) on the use of green technology services. This will further encourage investments in green technology either for commercialisation or private consumption, enabling Malaysia to become a major green technology innovator and producer in the global market.

Renewable Energy

Renewable energy (RE) is defined as power (electricity, steam, heat and chilled water) generated or produced from renewable resources such as solar, biomass, biogas, mini-hydro and geothermal energy. In Malaysia, solar energy projects are the most widespread RE alternative due to the lower cost of photovoltaic (PV) equipment and, easier financing for green projects. Although the uptake was not as promising initially, things have taken a positive turn since the revision of the Net Energy Metering (NEM) conditions, effective 1 January 2019– a move that has resulted in a threefold increase within nine months in year 2019 as compared to the period 2016 to 2018. The game changer was the improvisation of the NEM policy towards a 'fair trading' concept which allows the excess solar PV generated energy to be exported back to the grid on a "one-on-one" offset basis.

Approved RE Projects for 2019

Totals

350
Approved Projects

RM3.78 bil
Approved Investments

761
Job Opportunities

Breakdown by Type of Renewable Energy

Type of Renewable Energy (RE)	Approved Projects	Approved Investment (RM mil)	Job Opportunities
Solar	330	2,104.50	508
Mini-hydro	6	1,517.45	130
Biogas	13	149.33	118
Biomass	1	6.58	5

In terms of RE projects approved, in 2019, a total of 350 projects were approved with total investments of RM 3.78 billion, of which 88.5 per cent was contributed by domestic investments and 11.5 per cent by foreign investments. Solar energy projects made up the bulk with 330 projects amounting to RM2.10 billion comprising of 314 solar self-consumption projects worth RM413.35 million and 16 large scale solar projects valued at RM1.69 billion. In that period, six mini-hydro projects worth RM1.52 billion were also approved, while the remaining approved projects were made up of 13 biogas projects worth RM149.33 million, and one biomass project worth RM6.58 million. In total, 761 employment opportunities were created from RE projects.

Two noteworthy projects approved in 2019 were the world's first mini-hydro green sukuk projects constructed by Telekosang Hydro One Sdn. Bhd. and Telekosang Hydro Two Sdn. Bhd. respectively to develop 24MW and 16MW small hydropower plants located in Tenom, Sabah under Feed-in Tariff scheme with investments of RM587.50 million.

With the extension of GITA and GITE to 2023, the Government anticipates continuous interest in the commercialisation of green technology to intensify. Businesses implementing solar PV projects can also apply for a rebate of two per cent per annum on interest/profit rate (limited to the first seven years only) for each loan/financing and 60 per cent Government guarantee on green technology cost under the Green Technology Financing Scheme (GTFS) 2.0.

> "Although the uptake was not as promising initially, things have taken a positive turn since the revision of the Net Energy Metering (NEM) conditions, effective 1 January 2019– a move that has resulted in a threefold increase within nine months in year 2019 as compared to the period 2016 to 2018."

Approved Energy Efficient Projects for 2019

75
New Energy Efficient Projects

RM536.44 mil
Total Approved Investments

148
Job Opportunities

Domestic vs Foreign Investments

Energy Efficiency

As part of the Government's drive to ensure sustainable economic development, the National Energy Efficiency Action Plan 2016-2025 was initiated to encourage the adoption of energy efficiency in the public and private sectors through reducing electricity demand growth by eight per cent over the 10-year period with a total reduction of GHG emissions of 38 million tonnes of carbon dioxide equivalent.

This initiative saw a total of 75 energy efficient projects take off in 2019 by the industrial and commercial sector, with a total of RM536.44 million investments approved. Foreign sources contributed most of the investments amounting to RM367.58 million of total investments approved, while RM168.86 million was contributed by domestic investors. In total, 148 employment opportunities were created.

Green Services
Untapped Opportunities

Malaysia sees lots of potential for green technology service providers, those who render the services related to RE, energy efficiency, electric vehicles (EV) support services, for example, services for EV charging stations, operation of EV charging stations and maintenance, repair and overhaul of EV; green buildings, green data centres, green certification and verification, and green townships.

In 2019, a total of 12 green services projects were approved with investments amounting to RM31.67 million. Of these investments, domestic investors made up the bulk with RM29.69 million with the remainder from foreign investors. Most of the green services projects were involved in RE, energy efficiency and green buildings. These green services projects will create job opportunities for 74 employees.

In support of these service providers, the Government introduced new incentives under Budget 2020 for solar leasing businesses with a 70 per cent income tax exemption for a period of up to 10 years to further spur the growth of electricity generation from solar sources in the country.

Oil and Gas Services and Equipment
Fueling Up

Oil and gas (O&G) continue to be important sources of Malaysia's energy mix as well as an important sector of the economy, contributing 20 per cent to annual GDP. The sector includes the services and manufacture of machinery and equipment (M&E) for the upstream of the supply chain covering exploration and production, midstream activities such as transportation and storage as well as maintenance of M&E.

In Southeast Asia, overall energy demand has grown by more than 80 per cent, with much of this demand met by the doubling of fossil-fuel use. According to the International Energy Agency's Southeast Asia Energy Outlook 2019 report, oil is the largest element in the regional energy mix with coal, largely for power generation, growing fast. The report noted that this has underpinned the region's development and industrial growth, but has also made air pollution a major risk to public health and driven up energy-related carbon dioxide emissions.

The report also painted a scenario that explores the implications of announced policy targets as well as existing energy policies among the countries of the region should overall energy demand grows by 60 per cent to 2040, assuming the region's economy more than doubles in size over the same period and another 120 million are added to the population concentrated in urban areas.

Despite the potential growth outlook, industry activities continued to be dictated by global oil and gas prices, with oil prices fluctuating due to the high degree of volatility and risks associated with supply and demand as well as geopolitical concerns. All operators continued to be cost-conscious while ensuring growth and sustainability. To mitigate the uncertainties, domestic O&G players have been differentiating themselves by providing innovative services and solutions through technology. MIDA has also encouraged oil and gas services providers to adopt digitalisation through the provision of incentives and facilities related to automation or Industry 4.0 initiatives.

Among the areas where there is high potential for diversification and growth is in the turnaround (TA), mostly labour-intensive engineering activities for onshore facilities comprising mainly mechanical work and other discipline-specific activities such as electrical, instrumentation, inspection and rotating equipment maintenance. Adoption of digitalisation, big-data and Internet of Things will ensure more efficient operations and reduce shutdowns as well as also addressing safety and environmental concerns. Pengerang Integrated Complex is set to undergo TA in 2023 while there are 54 existing petrochemical plants where activities will significantly increase.

Given the drive towards more value-added services through adoption of Industry 4.0 technologies, investments in the oil and gas services industry have potential to grow with service providers offering solutions for operational efficiency and maintenance of aged machinery, as well as taking advantage of the strategic location for seaborne energy trade, to become regional oil trading and storage hub players with the help of MIDA.

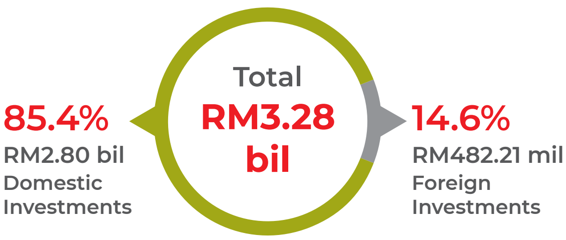
Approved Oil and Gas Projects for 2019

13
Approved Projects

RM3.28 bil
Total Approved Investments

972
Job Opportunities

Domestic vs Foreign Investments



For 2019, the industry recorded a total of 13 projects approved with investments of RM3.28 billion. Domestic direct investment totalling RM2.80 billion contributed the lion's share, with foreign investments totalling RM482.21 million. These projects generated a total of 972 job opportunities. Five of the approved projects were for the midstream terminal storage of natural gas and petroleum products worth RM2.40 billion, three were projects for upstream O&G services worth RM67.77 million, four project for O&G machinery and equipment worth RM88.05 million and one project for O&G equipment maintenance, repair and overhaul (MRO) worth RM729.11 million. The MRO project involves the establishment of an integrated MRO centre for the oil, gas, petrochemical and power generation industries at the Bintulu Integrated Energy Hub, Sarawak.

Healthcare Services

Health Tourism on the Go

Demand for private healthcare has grown exponentially in Malaysia, where reasonably priced medical treatment, quality medical attention and accessibility together with steady economic growth has helped fuel demand from both the country's increasingly affluent middle class and medical tourists.

The positive outlook and the need for quality facilities are investment opportunities as there were 369 healthcare facilities in 2018 compared to 306 in 2013, a growth of 20.5 per cent. In 2019, five new and two expansion projects for private healthcare facilities have been approved with a total investment of RM338.15 million with 772 high-value jobs expected to be created. The Government continues to do its part by providing incentives to help attract investments in private medical facilities that will provide high quality medical care.

While domestic investments led the way in the industry, there has been increasing international interest with companies from Japan, Republic of Korea (ROK), and the Middle East with an eye to expanding in the booming Southeast Asian healthcare market exploring options to acquire, manage or enter into joint ventures with existing local players.

Examples of such deals, both concluded in September 2019 are, Malaysia's Hong Leong Financial Group Berhad, together with Fort Worth, US-based private equity firm TPG Capital which bought over 17 Columbia Asia hospitals in Malaysia, Indonesia and Vietnam for RM5.01 billion. Another example is IHH Healthcare Berhad (injected with a 16% equity by Mitsui & Co. Ltd.) a leading hospital operator, which bought the country sovereign wealth fund - Khazanah Nasional Berhad's direct stake in Prince Court Medical Centre for RM1.02 billion.

Health Travel

Medical tourism has become a big business in Malaysia, where in terms of revenue, the cumulative aggregated growth rate from 2015-2018 averaged

17.0 per cent. In 2018, there were 1.2 million medical tourists generating RM1.5 billion in hospital receipts and contributing RM6.4 billion to the economy.

The Malaysia Healthcare Travel Council (MHTC) targeted about 1.5 million international healthcare tourists for 2019 with a total of RM1.8 billion in hospital receipts. MHTC, the agency under the Ministry of Finance (MOF) tasked with promoting medical tourism to the country, is also targeting two million medical tourists in 2020, with hospital receipts to surpass RM2.0 billion and total economic impact of RM8.0 billion.

MHTC launched the Malaysia Year of Healthcare Travel 2020 (MyHT2020) campaign in November 2019, which coincides with the national Visit Malaysia 2020 campaign, to raise Malaysia's profile as a reputable global healthcare travel destination and to market the country as an Asian hub for fertility and cardiology.

Recognising the importance of medical tourism and its potential economic impact, the Government announced in October during the tabling of Budget 2020 that an allocation of RM25.0 million has been made to strengthen Malaysia's position as the preferred destination for health tourism in ASEAN for oncology, cardiology and fertility treatments.

Medical tourism is well-developed in Malaysia, where the country's excellence in this area has garnered it several accolades, including the Asia Pacific Healthcare and Medical Tourism Award 2019, as well as being ranked first in the "Best Healthcare in the World" category of the 2019 International Living Annual Global Retirement Index .

Healthcare services is also undergoing digital transformation to better serve patients. Electronic Medical Records (EMR), which facilitates the transfer and sharing of patient information, will be gradually implemented by the Ministry of Health (MOH) over a period of five years for all government hospitals and clinics at an estimated cost of RM1.5 billion. Of the 145 government hospitals, 35 of them are already equipped with the Hospital Information System (HIS), whereas 118 of 1,703 government clinics have Clinical Information Systems (CIS).

To ensure efficiency, the Government is also urging private healthcare providers to invest on technology such as big data, cloud technology and shared-services facilities as these technologies offer new opportunities for growth such as in-patient monitoring, e-prescribing system and wearable devices. Private healthcare providers are encouraged to automate and provide procedures through robotic surgery and other remote services which may also be eligible for the Accelerated Capital Allowance.

Besides incentives, MIDA presses on with its own healthcare industry initiatives and advocacy by working together with MHTC, MOH, Malaysia Productivity Corporation (MPC), and Association of Private Hospitals of Malaysia (APHM) to support healthcare investments through events such as Insight 2019, Medical Travel Market Intelligence, ASEAN Healthcare Transformation Summit and the APHM.

Education Services

A good education remains the mainstay for any economy to realise its aspirations to become a developed economy, as embodied in the Shared Prosperity Vision 2030 (SPV2030), which also envisages citizens enjoying high income. The education services sector in the country strives to provide the skills and the knowledge that is required in the face of ever-growing demand.

The sector reflects the diversity of the country's society. Besides a sprawling government-aided public education system, Malaysia is no stranger to private education, which has grown in leaps and bounds in response to demand. To put things in perspective, there are now more than 210,000 Malaysian students enrolled at the primary and secondary levels of private and international schools while there are more than 4.7 million Malaysians enrolled in the public- school system from pre-school to secondary levels. There are also more than 500,000 students enrolled at public universities and another 600,000 registered with private Higher Learning Institutions (HLIs).

Private higher education has grown in recent decades and has supported the need for human capital as the economy expanded. Compared to the 20 public universities, there are currently 446 private HLIs as at November 2019. Tertiary-level enrolment rates have also risen for Malaysians aged 17 to 23 over the past 40 years to approximately 44 per cent, compared with only 14 per cent in the 1970s and 1980s.

Exporting Education

Malaysia is currently ranked the 11th largest exporter of education in the world, according to the British-Malaysian Chamber of Commerce Report 2018/2019 and is positioning itself among Asia's top higher-education hubs with a target recruitment of 200,000 international students by 2020.

The Government continues to intensify efforts to transform the country into a knowledge hub through forging partnerships among local institutes of higher learning with foreign institutions.

This will create education opportunities that will benefit local children as well as attract international students. The education sub-sectors that have been earmarked to spearhead the internationalisation development of the education industry in Malaysia are international/private schools, technical and vocational education and training (TVET) and private higher education institutions.

Empowering Human Capital

The Government's strategic focus on human capital in the Shared Prosperity Vision 2030 underlines its commitment to produce more skilled workers in the future to ensure greater employment opportunities for them upon graduation.

> "Malaysia is currently ranked the 11th largest exporter of education in the world, according to the British-Malaysian Chamber of Commerce Report 2018/2019 and is positioning itself among as Asia's top higher-education hubs with a target recruitment of 200,000 international students by 2020."

With the allocation of RM64.1 billion in Budget 2020, the Government will be able to roll out the necessary actions to meet the SPV2030 objectives and support initiatives for the education system from pre-school to tertiary institutes of learning and includes an emphasis on TVET. In efforts to make TVET mainstream, the Government has also increased the allocation from RM5.7 billion in 2019 to RM5.9 billion in 2020.

Closing the Skills Gap

TVET is an important focus for Malaysia. The Eleventh Malaysia Plan aims for a workforce of 1.5 million by 2020, of which 60 per cent is expected to be TVET graduates. TVET plays a pivotal role in providing hands-on training within a school-based education, and provides apprenticeships to supplement the tertiary education. MIDA calls upon private investors and industry players to boost TVET capability through the dedicated engagement with Industry Lead Bodies such as Malaysia Digital Economy Corporation (MDEC), Malaysia Plastics Manufacturers Association and the Malaysian Association of Hotels. Student will get to experience industry best practises and skilling courses which are in demand in the digital age and technology.

There exists a general mismatch between the skills of graduating students and the requirements of

industry, leading to their unemployability. MIDA'S call to narrow the skills gap between the existing TVET syllabus and what is actually relevant in the current industry environment has seen many companies stepping forward, one such example being Muehlbauer Technologies, a German-based company that donated RM200,000 worth of automation integrated systems known as the Beckhoff mock-up units as well as providing 40 hours of training from its Melaka operations to the students of Universiti Malaysia Pahang, Universiti Teknikal Malaysia Melaka, Universiti Tun Hussein Onn Malaysia and the German Malaysian Institute. MIDA continues to encourage companies to invest in talent and technology to improve productivity and capability, become future-proof by contributing to the upskilling of the human capital.

A total of 453 private education projects were approved with investments of RM469.32 million in 2019. The projects ranged from elementary education centres, private schools, to colleges and universities. Domestic investments contributed 74.0 per cent or RM347.72 million of the total value of investments, with 26.0 per cent amounting to RM121.60 million contributed by foreign investments. These projects are expected to create 2,320 high-value education-related jobs.

Hospitality (Tourism and Hotels)

The tourism industry remains an important contributor to the economy, with a total of RM66.1 billion in tourist receipts for January - September 2019 from 20.1 million tourist arrivals. The target for 2019 was 28.1 million foreign tourists and RM92.2 billion in spending, making tourism the third most important foreign-income contributor to the economy.

Tourism Performance Report (January - September 2019)

Expenditure Components (Value)

Shopping RM23,282.9 mil	Medical RM2,447.4 mil
Accomodation RM14,287.2 mil	Entertainment RM2,315.1 mil
F&B RM7,937.4 mil	Domestic Airfares RM1,190.6 mil
Local Transportation RM5,159.3 mil	Fuel RM661.4 mil
International Airfares by Local Airlines RM4,630.1 mil	Sports * (N /C)
On-site Tours RM3,505.7 mil	Others RM727.6 mil

Source: Malaysia Tourism Performance Report January - September 2019

Top 5 Countries of Tourist Arrivals (January - September 2019)

Rank	Tourist Arrivals	Total Expenditure	Per Capita Expenditure	Average Stay
1	Singapore 7,868,775	Singapore RM16,334.1 mil	Saudi Arabia RM11,394.4	Saudi Arabia 10.7 nights
2	Indonesia 2,792,776	PRC RM12,797.9 mil	PRC RM5,301.5	Netherlands 9.5 nights
3	PRC 2,413,956	Indonesia RM8,798.7 mil	The UK RM5,245.7	France 9.4 nights
4	Thailand 1,442,224	Thailand RM2,814.8 mil	Canada RM4,839.8	The UK 9.3 nights
5	Brunei 929,789	India RM2,467.3 mil	Taiwan RM4,760.7	The USA 8.3 nights

Source: Malaysia Tourism Performance Report January - September 2019

By country of origin, the top 10 countries of tourist arrivals from January - September 2019 were from Singapore (7,868,775), Indonesia (2,792,776), PRC (2,413,956), Thailand (1,442,224), Brunei (929,789), India (539,167), ROK (508,080), Vietnam (323,393), Japan (321,283) and Taiwan (304,273).

Visit Malaysia 2020

The Visit Malaysia 2020 (VM2020) campaign is the latest iteration of the Visit Malaysia campaigns that have been run periodically since 1990 when the first Visit Malaysia Year was organised with the theme "Fascinating Malaysia. Year of Festivals".

VM2020's theme is "Visit Truly Asia Malaysia", which seeks to bring out the rich kaleidoscope of the country's multicultural society and showcase what it has to offer.

Besides promoting the diversity of cultures, the emphasis this time around is also on sustainable tourism as well as an immersive experience in the arts and culture of Malaysia. This emphasis is in line with the National Ecotourism Plan 2016-2025 and the National Culture Policy while sustainable tourism is in line with calls to mitigate the negative effects of tourism, including to the environment and society, by providing direct benefits to the community through the tourism industry.

The Government is targeting 30 million international tourist arrivals and RM100 billion in tourist receipts from the VM2020 campaign.

Malaysia continues to garner industry accolades, winning three Pacific Asia Travel Association gold awards in 2019 and awards for medical tourism with the likes of the Malaysia Healthcare Travel Council (MHTC), TMC Fertility and Thomson Hospital Kota Damansara acknowledged for their excellent care and services.

The Government continues to support the hospitality and tourism industry with various grants, loans and tax incentives to attract investors. Support also comes from the RM1 billion Tourism Infrastructure Loan Fund that was set up to provide financial assistance to new and existing companies involved in tourism-related activities and services. There is also GAMELAN Malaysia, a RM5 million matching grant launched in 2019 to support tourism promotion and marketing programmes.

The National Tourism Policy has set down strategies for the period of 2020-2030 to maximise tourism potential and requirements for the adoption of digital technology to enhance the efficiency of the industry.

In terms of investments, 61 hotels and tourism-related projects were approved in 2019 with total investments of RM3.93 billion, mostly originating from domestic investors. Of the total, 13 are for expansion and refurbishment of facilities, expected to create additional 462 employment opportunities. Another 48 new projects are expected to create 4,383 new job opportunities.

Other Services

Real Estate

The real estate sub-sector continues to feel the impact of an oversupply of residential units. Over a five-year period between 2014 and the end of 2018, the number of unsold completed residential units grew from 11,816 units to more than 45,000 units by the end of 2018 translating to a rise of 281 per cent over the period. According to the National Property Information Centre (NAPIC) records, the value of residential overhang snowballed by a massive 635 per cent, due to the escalation of property prices.

While there was some revival of the residential property market segment in 2019 based on the number of units transacted despite elevated prices, demand remains soft. This is reflective of weaker demand for properties in the higher-priced segments. Recognising this, the Government and private developers are building more properties within the affordable price range.

One initiative to solve the overhang in residential properties as well as meet demand for housing was the National Home Ownership Campaign 2019 (HOC 2019) held from Jan 1 to June 30, 2019. HOC 2019 was extended to the end of 2019 and during this period, Malaysian home buyers could enjoy stamp duty waivers and developers also offered home buyers a minimum ten per cent price discount.

Despite the lower value of investments approved, the number of real estate projects approved increased to 1,279 projects in 2019 from 968 projects in 2018. Such a trend implies that real estate developers are refocusing on smaller-scale projects. The Government, as part of the National Housing Policy 2.0, will continue to actively review related policies to further support and stabilise the local housing market. The real estate sub-sector comprising the residential property segment continues to be the largest contributor to approved investments in the services sector. In 2019, the sub-sector recorded approved investments of RM40.85 billion, primarily from domestic sources.

Utilities

The utilities sub-sector covers energy and water utilities services. Energy services encompass power generation, transmission, and distribution of electricity by Tenaga Nasional Berhad (TNB), Syarikat SESCO Bhd. (SESCO) and Sabah Electricity Sdn. Bhd. (SESB). While, water utilities services include those provided by Suruhanjaya Perkhidmatan Air Negara (SPAN) and Pengurusan Aset Air Berhad (PAAB).

In 2019, the sub-sector registered RM32.58 billion approved investments and emerged as the second largest contributor to approved investments in the services sector, after real estate.

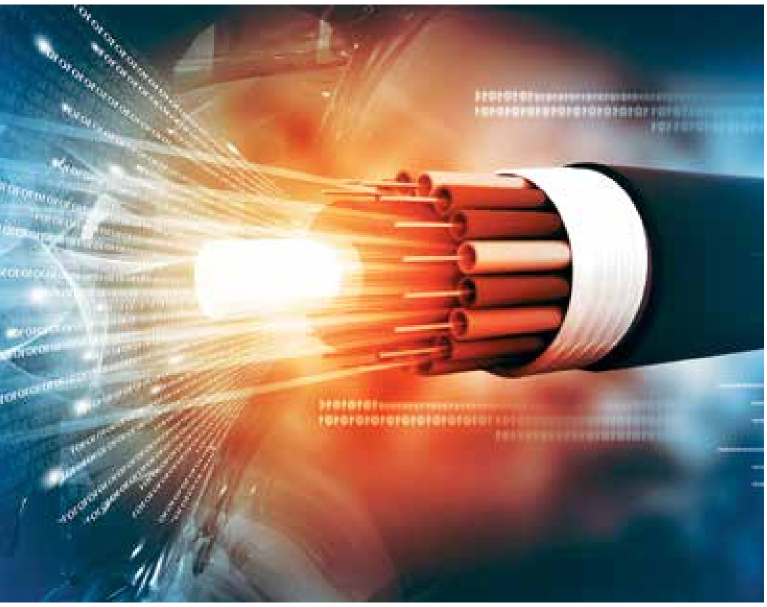
Distributive Trade

Distributive Trade covers wholesale and retail trade; hypermarkets and supermarkets, department stores and direct selling, franchising which is regulated under the Ministry of Domestic Trade and Consumer Affairs and other distributive trade projects approved under the Petroleum Development Act 1974.

This sub-sector is among the top five contributors to approved investments during the period with RM11.70 billion representing 10 per cent out of the total approvals in the services sector. It also registered a 61.2 per cent growth, as compared to RM7.26 billion recorded in 2018. Foreign sources made up the bulk (90.0%) of investments with most of them concentrated in wholesale and retail trade. The total 1,136 approved projects will generate more than 30,000 employment opportunities, making it the largest employer within the services sector.

Financial Services

The financial services sub-sector is made up of the banking, insurance and capital markets (fund management, investment advisory, financial planning, venture capital and brokerage).



Approved investments in 2019 amounted to RM4.14 billion compared to the RM9.69 billion recorded in 2018. Domestic sources contributed the lion's share of RM3.42 billion while foreign investments totalled RM718 million with 119 high-value jobs created in this sub-sector during the period.

The banking segment continued to be the largest contributor to the sub-sector with investments amounting to RM2.63 billion, mainly attributed to conventional banking activities. Investments in insurance and capital markets totaled RM1.51 billion and RM11.3 million respectively.

Telecommunications

The telecommunications sub-sector covers activities related to communications and multimedia (telecommunications, postal and broadcasting) regulated by the Malaysian Communications and Multimedia Commission (MCMC).

The Government's roll-out of the National Fiberisation and Connectivity Plan over a five-year period from 2019 to 2023 is intended to increase broadband speeds further and to widen access to broadband in rural areas.

Broadband subscriptions in Malaysia have almost doubled over the last five years to reach 39.4 million in 2018 . In supporting this agenda, Malaysia is also in the process of going through the assignments of frequency bands for 5G which, when completed, MCMC expects commercial deployment of these networks to begin by the third quarter of 2020.

A total of RM4.98 billion investments were approved in the period of January to September 2019. These investments were driven by domestic sources.

Transport

The Government unveiled the transport sub-sector's National Transport Policy 2019-2030 (NTP) in 2019 that sets out to be a critical enabler of Malaysia's socioeconomic development.

A number of previously stalled transport projects have also been revived, such as the East Coast Rail Link

(ECRL), a 640km project linking Port Klang to Kota Bharu, Kelantan, at the cost of RM44 billion, 32.8 per cent lower than the original cost of RM65.5 billion price tag. Other rail projects such as the Light Rail Transit 3, Mass Rapid Transit 2 and the second phase of the Klang Valley Double Track have also resumed after cost-cutting measures.

The sub-sector will continue to play a significant role in improving economic opportunities and provide greater accessibility throughout the country. The recently unveiled NTP will further strengthen national transport infrastructure and provide sustainable development of the national transport system.

The transport sub-sector consists of maritime transport; aviation, which includes airport infrastructure and maintenance, repair and refurbishment, and highway construction and maintenance. In 2019, a total of eight aviation-related projects were approved with investments worth RM481.40 million, of which RM411.40 million came from domestic sources.

Multimedia Super Corridor (MSC) Status Companies

MSC Malaysia status is an initiative providing eligible local and foreign technology companies with a wide range of incentives, rights and privileges to support them as they grow their business.

This status is granted by the Government through the Malaysia Digital Economy Corporation and originally was part of the support pillar for the objectives of Vision 2020, a holistic initiative to transform Malaysia's economy and society to one that is forward-thinking and knowledge-based. Today, the MSC Malaysia status is also about helping to drive the country towards digital adoption, digital entrepreneurship and innovation.

As of December 2019, there are 2,911 active companies with the MSC Malaysia status, while revenue generated since its inception in 1996 to Q3 2019 stands at RM513.6 billion with 180,926 jobs created as of Q3 2019.

Due to enhancements of the MSC Malaysia status package to comply with the requirements under the Forum on Harmful Tax Practices, no approvals for the status were recorded from January to December 2019.

> "A number of previously stalled transport projects have also been revived, such as the East Coast Rail Link (ECRL), a 640km project linking Port Klang to Kota Bharu, Kelantan, at the cost of RM44 billion, 32.8 per cent lower than the original cost of RM65.5 billion price tag."

What's Up 2020?

As the world dives headlong into the Fourth Industrial Revolution, there is no stopping technology, hence organisations everywhere, especially manufacturers as engines of economic growth, should be equipped and empowered to benefit from it, or risk obsolescence.

Given the manufacturing sector's imperative to be globally competitive and move up the value chain, there is a need to adopt technology that can make the manufacturing process efficient, speedy and flexible. This will then pave the way to faster economic growth, better productivity, higher skilled and better paying jobs, capacity to innovate and position the country as a destination for smart manufacturing investments.

While technology adoption brings benefits, it also comes with challenges and risks, such as security and privacy concerns, job losses and gaps in terms of accessibility. The key is to identify what the country's manufacturing sector needs are, and how to leverage and align these needs, in order for industry to move forward and grow sustainably.

Among the technology trends where jobs are being created, artificial intelligence (AI) stands out as it is considered the core technology of the Fourth Industrial Revolution that binds together the separate processes through the Internet of Things (IoT), while providing tailored applications and services.

For faster and more efficient connectivity, telecommunications players are already laying the groundwork for the fifth generation (5G) of mobile internet connectivity boasting super-fast speeds and more stable connections. 5G promises more affordable data plans, higher speed and capacity, and improved coverage that will help businesses relying on IoT and smart machines. One area set to benefit is in network slicing or Network Function Virtualisation in which business-critical systems can stay agile over mobile internet as network services are developed by software to speed up services. Other areas that can benefit from 5G include eHealth, security systems and remote investigations.

Autonomous things, which uses AI to automate previously human functions, of which the best known are autonomous vehicles, is a trend that will continue to grow from the use in controlled environments across land, sea and air to more uncontrolled public spaces. As autonomous things of varying degrees of autonomy are deployed in larger numbers, measures such as laws and infrastructure as well as social attitudes will need to be changed to accommodate it.

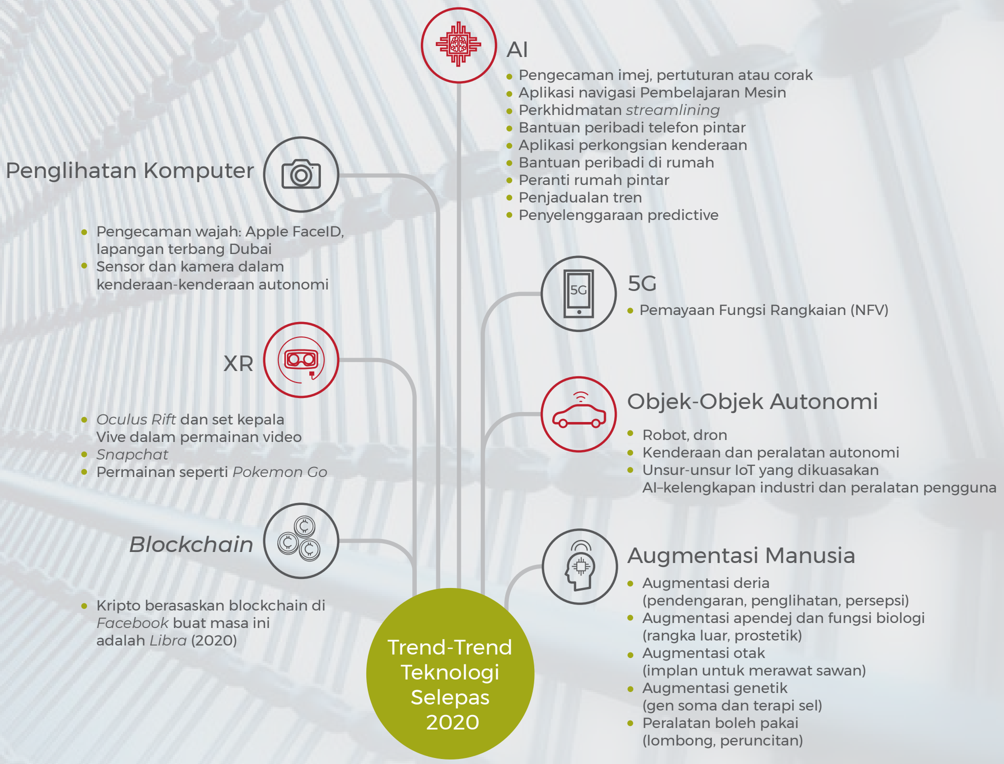
Breakthroughs in AI and genomics will see new applications of human augmentation, which is technology deployed to enhance human capabilities and capacity, throughout 2020 in predictive healthcare for more personalised and effective treatment, which will lead to better health outcomes.

Its two broad categories, the physical and the cognitive, exploit more than computers and applications, because they include bioengineering factors. In healthcare, for example, the transformation is happening at an unprecedented rate, as wearables capture and predict data to accurately treat health issues.

Throughout 2020, computer vision, which involves systems that identify items, places, objects or people from visual images collected by cameras or sensors, will be rolled out for multiple uses such as for autonomous cars to navigate around danger, production lines to detect defective products or equipment failures, and for security camera alerts to eliminate 24/7 monitoring.

Beyond 2020, extended reality, which is the creation of new and emerging for-immersive digital experiences either through virtual reality (VR), augmented reality (AR) and mixed reality, is expected to play bigger roles from being limited to just the world of entertainment and gaming. In particular, VR and AR will become more prevalent in training and simulation as well as customer interactions.

The possibilities and benefits offered by these technological trends are endless as there are ample opportunities to grow and deliver the right service at the right time while businesses must be prepared to adapt it into operations.



4

Performance of the Primary Sector

Energy prices are expected to average almost 15 per cent lower in 2019 than in 2018 (a substantial downward revision from April) and continue to decline in 2020. Non-energy prices are projected to decline five per cent in 2019 (a smaller downward revision from April) and stabilise in 2020. The outlook for commodity prices, especially oil and metals, is vulnerable to a larger-than-expected slowdown in global growth, particularly in emerging markets and developing economies (EMDEs)

Source: World Bank Commodity Markets Outlook, October 2019 update

4.1 Overview and Performance of the Primary Sector

Primary Sector Jottings

Here's how Malaysia's primary sector– featuring the agriculture, mining, plantation and commodities sub-sectors– fared in 2019 set against a global backdrop of sliding commodities price indexes

The demand for major commodities was sluggish in the third quarter of 2019 due to a deteriorating global macroeconomic environment, which included a severe slowdown of manufacturing, trade, output growth, and trade tensions. Amid concerns of this sharper-than-expected downturn, coupled with the dampening on oil demand, price indexes of almost 60 per cent of commodities dived globally.

In Malaysia, the global scenario has impacted the primary sector's exports as well as companies engaged in industry-related activities. The primary sector witnessed a total of 65 approved projects in 2019, with investments of RM7.03 billion, a reduction of 35.6 percent from RM10.91 billion in 2018. Of these, RM3.82 billion (54.3%) was derived from foreign investments, while domestic investments contributed RM3.21 billion (45.7%). These investments are expected to provide 1,026 potential job opportunities.

Agriculture

The agriculture sub-sector, which encompasses crops, livestock, agriculture and deep sea fishing, had nine projects approved with a total of RM135.08 million in investments recorded throughout 2019. This was a two-fold increase from the RM68.84 million approved in 2018. These projects are expected to create 407 employment opportunities. All the approved projects were from domestic sources, with two notable projects being a durian plantation in Pahang (RM73.33 million) and a king oyster mushroom production centre in Negeri Sembilan (RM28.30 million).

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Mining

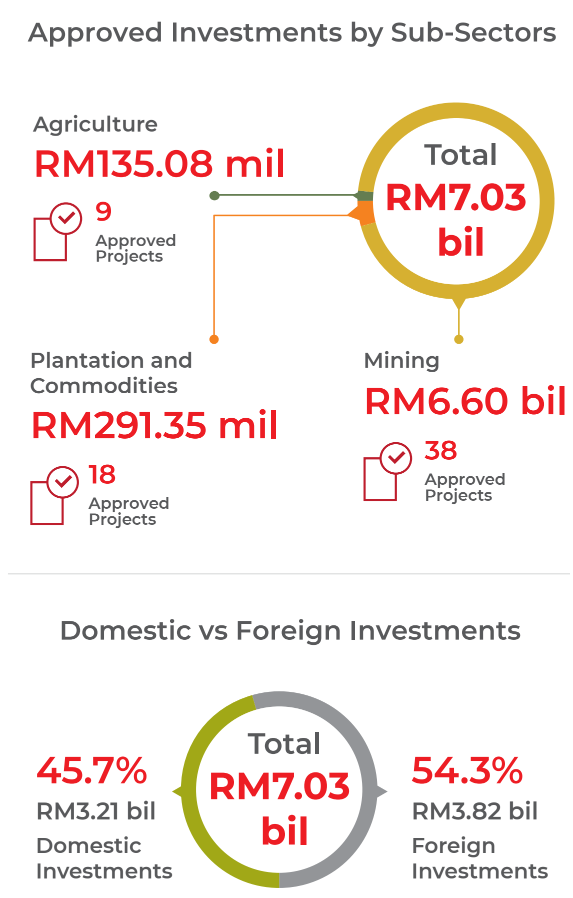
Investments in the mining sub-sector comprise oil and gas exploration and mining in other minerals. A total of 38 projects were approved in 2019 with investments of RM6.60 billion, contributing 93.9 per cent to the total investments in the primary sector. A total of RM3.82 billion or 57.9 per cent of the investments came from foreign sources, while domestic investments totalled RM2.78 billion or 42.1 per cent. These projects are expected to create 106 potential jobs. East Malaysia recorded 26 oil and gas development projects, which contributed investments worth RM3.51 billion.

Plantation and Commodities

The mainstay oil palm and rubber sub-sector recorded investments of RM291.35 million for 18 approved projects from domestic sources in 2019. These projects are expected to generate 513 jobs. Most of the approved projects, which will contribute RM222.93 million, are from rubber replanting & new planting.

The primary sector is bracing for a slower growth in 2020, given its links to global commodity demand and its price indexes. The oil palm industry is expected to moderate from 7.7 per cent in 2019 to 5.5 per cent growth in 2020 due to labour shortages, low crude palm oil (CPO) prices and high production costs whilst the mining sector is also projected to slow from 0.6 per cent growth in 2019 to 0.3 per cent supported by stable gas production for domestic downstream industry and exports of liquefied natural gas (LNG).

Performance of the Primary Sector for 2019



5

Collaborations Towards Attracting Quality Investments

As the principal IPA for Malaysia, MIDA collaborates with various other IPAs and Government agencies, in order to drive a greater and more comprehensive level of investment into the nation both directly and indirectly

Malaysia Digital Economy Corporation (MDEC) Collaborations

MDEC, a government agency under the purview of the Ministry of Communications and Multimedia Malaysia, has been entrusted to lead Malaysia's digital economy forward. The Government views the digital economy as vital to its continued growth, and intends to position the nation as the preferred digital hub in Asia. MIDA has worked closely with MDEC to accelerate the growth of the digital economy. Over the years, MIDA has been a member in various MDEC approval committees; namely the MSC Approval Committee, the Digital Content Fund Approval Committee, and the Global Technology Fund Approval Committee, to deliberate the potential investment projects of tech-based companies.

MIDA and MDEC also assist companies planning to invest in Malaysia, as well as facilitate the implementation of their projects, by providing information regarding investment opportunities and facilitating companies looking for joint-venture partners. Among the quality projects under the purview of MIDA and MDEC are data centre projects. In particular, the Data Centre Task Force was established allowing MIDA and MDEC to come up with strategies that foster greater investment to Malaysia, and position Malaysia as a strategic regional hub that supports global MNCs.

On 8 November 2019, Sony Interactive Entertainment Worldwide Studios announced the establishment of its Sony Interactive Malaysia Studio, the first Sony Interactive Entertainment expansion project outside of the USA. This announcement is one of the results of MIDA's and MDEC's continual engagement with multinational powerhouses.

As the member of the National E-Commerce Council (NeCC) which implements the National E-Commerce Strategic Roadmap (NESR), MIDA has been entrusted to transform Malaysia into an e-fulfilment hub. MDEC, as the joint secretariat of NESR with MITI, acts as the driver and overseer of the digital economy. In that role, MIDA and MDEC co-organised a seminar with the theme "Investment Opportunities in the E-Commerce Fulfilment Industry Seminar 2019" held on 10 July 2019, which was attended by over 350 participants from various fields. The seminar, which took place at MITI, aimed to position Malaysia as an e-fulfilment hub, focusing on leveraging greater integration across the industry to support its rapid growth.

Moving forward, MIDA will continue to engage with MDEC and play an active role in creating initiatives to further spur Malaysia's digital economy.

Collaborative Research in Engineering, Science and Technology (CREST) Collaborations

CREST is a permanent member for the Post-School Finishing Program In IC Design (PSFP-IC), which is a short-term collaboration platform between the Government, agencies, industry players, and academia to cater to industry needs. This programme aims to develop the readiness of IC design engineers so that they can meet industry demands and requirements by 2021.

YB Dr. Ong Kian Ming, Deputy Minister of MITI, conducted a working visit to Pulau Pinang from 4 to 6 September 2019, which was organised by MIDA and CREST, allowing academia and industry to come together and showcase the results of their collaborative research.

R&D and Technology Adoption

MIDA and ITRI, Taiwan's largest – and one of the world's leading – high-tech applied research institutions, signed an MoU on 7 May 2018 to collaborate on various shared areas of interest; in particular, to facilitate joint projects, undertake applied research, training, and attachment programs, and exchanging technical information and expertise in industrial technology.

MIDA and SIRIM visited ITRI in Taiwan on 24 July 2019 to work closely together on enhancing R&D in Malaysia, and identifying suitable projects/programmes that could be undertaken with regards to Machinery & Equipment, Medical Devices, and Sustainable Production.

In addition, MIDA and ITRI jointly hosted the "Technology Talk and Smart Collaboration" event on 21 November 2019 at MIDA. The event aimed to further promote economic cooperation in trade, investments and SME development, particularly in the fields of smart manufacturing, Industry 4.0, Internet of Things, and Circular Economy. The event also featured a panel session by SIRIM Berhad, Technology Park Malaysia (TPM), MIMOS Berhad, Malaysian Technology Development Corporation Sdn. Bhd. (MTDC), and Inari Amertron Berhad that shared their perspectives on smart manufacturing and Industry 4.0 initiatives, including their call for smart collaborations with industry players.

Industry4wrd Nationwide Outreach Programmes

Launched by Malaysia's Prime Minister, YAB Tun Dr. Mahathir Mohamad, on 31 October 2018, Industry4WRD is Malaysia's call for the digital transformation of the manufacturing sector and its related services, by helping companies to embrace Industry 4.0 in a systematic and comprehensive manner. MITI and various other agencies have worked together to promote and create awareness regarding Industry4WRD initiatives and incentives among industry players, particularly SMEs.

In 2019, MIDA participated as a speaker at nine outreach programmes during Industry 4.0 roadshows to provide information on incentives to facilitate the adoption of Industry 4.0 technology among industry players. The outreach programmes served as an effective communication channel between the Government and industry players that were specially set up to prepare and disseminate useful information on Industry 4.0, which can bring significant changes to industry players. Thus, these programmes focus on preparing the future workforce and assisting SMEs to understand and initiate the changes needed for their business operations.

MIDA also assisted MITI in organising the Industry 4WRD Summit which was held on 30-31 October 2019 at MITEC. Aside from participating as one of the speakers, MIDA also provided consultation to participants at its booth during the summit. The Industry4WRD Summit was held to update business communities on the latest development in Industry4WRD initiatives, and encourage the adoption of Industry 4.0, especially among SMEs.

Innovation Pitch and Business Matching 2019

To further encourage R&D innovation and commercialisation, MIDA has collaborated with University Malaysia Perlis (UniMAP) and the Malaysian Technology Development Corporation (MTDC) to organise Innovation Pitch & Business Matching 2019, which was themed 'Innovation for the Future of Malaysia', on 5 August 2019 at MIDA.

The event is a platform for technologists, scientists and researchers from universities to promote their inventions, innovations and research outputs to potential investors and industry players.

This collaboration is part of MIDA's continual efforts to drive stronger R&D linkages between industry players, universities, and research institutions. By strengthening the innovation and R&D ecosystem, MIDA hopes to develop a conducive environment to foster trust among all stakeholders, and assist local companies in marketing their R&D services to clients.

Malaysia Automotive Robotics and IoT Institute (MARii) Collaborations

The year 2019 was another challenging and volatile year for the local automotive industry. Besides the global economic slowdown and uncertainties, the Malaysian automotive industry also faced several domestic issues which dampened business confidence and overall consumer sentiment.

Through its Transportation Technology division, MIDA had initiated several consultation sessions with industry stakeholders, especially vehicle manufacturers, in order to collate input with regards to the NAP review, as well as to identify and resolve some of the issues that were raised; namely, slow approval processes, as well as uncertain policies and guidelines.

The consultation sessions were organised in collaboration with MITI together with other relevant government stakeholders such as Ministry of Finance (MOF), Royal Malaysian Customs Department (RMCD) and MARii. Based on the consultation sessions, several action plans have been undertaken to speed up approval processes and provide more clarity to industry players with regards to the existing policies and guidelines.

Beside these engagements, as a member of the Automotive Business Development Committee, MIDA also participated in the visit to Tokyo Motorshow 2019. The visit aimed to gather relevant information and ideas for benchmarking purposes, particularly with regards to the latest technology related to the future of transportation in Malaysia.

Moving forward, MIDA looks forward to continue its engagement and collaboration with all relevant stakeholders, especially when it comes to promoting greater development and investment of automotive-related projects into Malaysia.

"Besides the global economic slowdown and uncertainties, the Malaysian automotive industry also faced several domestic issues which dampened business confidence and overall consumer sentiment."

6

Going Forward

“I hope that the year 2020 will be a meaningful one for all of us. May it be the starting point for Malaysia to achieve great success and that by 2030 we can become a developed nation." Tun Dr Mahathir Mohamad

Source: The Star, 7 January 2020

6.1 Outlook for Investments

Forward Days

Rigorous efforts are being aligned domestically amid projections of a modest investment growth in 2020 set on a precarious global economic outlook tightrope. To augment Malaysia's socio-economic sustainability in an increasingly digital world, the Government races on to encourage automation and digitalisation through various incentives and measures to fortify Malaysia's holistic participation in 4IR; and charts new courses to harness economic opportunities, improve human capital, ensure inclusivity, and revitalise public institutions and public finances

As the world steps into its final year of the decade, several organisations have predicted a less than enthusiastic global outlook in the coming days. The World Bank's January 2020 Global Economics Prospects Report, for one, suggests that the world economy is poised for a modest rebound, but a fragile outlook in 2020, should everything go right. It cites the exceptional mounting of global debt, and the prolonged slowdown of productivity growth as the two other trends that loom over the feeble recovery.

Meanwhile, the Organisation for Economic Co-operation and Development's (OECD) Economic Outlook Report, which was released in November 2019, chimed in on a similar note. Predicting an unstable outlook, the report highlights that global GDP slid to 2.9 per cent in 2019– from 3.5 per cent in 2018– to register its lowest annual rate to-date since the financial crisis. Post 2019, the OECD anticipates global GDP to hover between 2.9 to 3.0 per cent in 2020 and 2021. Global issues surrounding trade conflict, weak business investment, and recurring political uncertainty could impose greater risks on the world economy.

Along this tangent, the GDP growth for economic heavyweights PRC, and the USA, is projected to edge down; for the USA, from 2.3 per cent in 2019 to 2.0 per cent in 2020 and 2021; and for PRC, from 6.2 per cent in 2019, to 5.7 per cent in 2020, followed by a low of 5.5 per cent in 2021 due to its brakes on expansion. Japan's growth is forecasted at 0.6 per cent in 2020, while other emerging markets and developing economies (EMDEs) are expected to experience imbalanced, but modest recoveries, below potential growth rates.

Based on the OECD report, business activity survey measures, especially in the manufacturing sector in 2019, have continued to decline with global indicators of output and new orders tumbling to their lowest levels in seven years. The service sector output, which has been steadier due to consumer spending, is also signalling softer developments. A similar trend is also reported with global trade volume growth for goods and services, as it is estimated to have slowed to 1.2 per cent in 2019 – which marks its weakest rate since 2009. Over 2020 to 2021, the OECD predicts a lukewarm recovery; around 1.5 per cent in 2020, and 2.25 per cent in 2021, on the back of stabilised trade in Asia.

OECD Economic Outlook Projections

Real GDP growth

Percent, year-on-year. Arrows indicate the direction of revisions since the September 2019 interim Economic Outlook

	2019	2020	2021		2019	2020	2021
World	2.9 →	2.9 ↓	3.0	G20	3.1 →	3.2 →	3.3
Australia	1.7 →	2.3 ↑	2.3	Argentina	-3.0 ↓	-1.7 ↑	0.7
Canada	1.5 →	1.6 →	1.7	Brazil	0.8 →	1.7 →	1.8
Euro area	1.2 ↑	1.1 ↑	1.2	China	6.2 ↑	5.7 →	5.5
Germany	0.6 ↑	0.4 ↓	0.9	India	5.8 ↓	6.2 ↓	6.4
France	1.3 →	1.2 →	1.2	Indonesia	5.0 →	5.0 →	5.1
Italy	0.2 ↑	0.4 →	0.5	Mexico	0.2 ↓	1.2 ↓	1.6
Japan	1.0 →	0.6 →	0.7	Russia	1.1 ↑	1.6 →	1.4
Korea	2.0 ↓	2.3 →	2.3	Saudi Arabia	0.2 ↓	1.4 ↓	1.4
United Kingdom	1.2 ↑	1.0 ↑	1.2	South Africa	0.5 →	1.2 ↑	1.3
United States	2.3 ↓	2.0 →	2.0	Turkey	0.3 ↑	3.0 ↑	3.2

↓ downward by 0.3 pp and more ↓ downward by less than 0.3 pp → no change ↑ upward by less than 0.3 pp ↑ upward by 0.3 pp and more

Notes: Difference in percentage points on rounded figures. The European Union is a a full member of the G20, but G20 aggregate only includes countries that are members in their own right. Fiscal years starting in April.

Source: OECD Economic Outlook 106 database, and OECD calculations.

On a brighter note, the prospects for FDI flows into developing Asia in 2019 are "cautiously optimistic", as noted in UNCTAD's World Investment Report 2019; this is due to a constructive economic outlook, backed by the consistent efforts of several major economies seeking a better investment climate. Since the value of announced greenfield investment projects doubled across Asia in 2018, there is hope for continued FDI growth potential. However, UNCTAD cautions that global trade tensions could affect investor sentiment, and give way to investment diversions.

In the organisation's latest January 2020 report, the Global Investment Trend Monitor No 33, UNCTAD predicts global FDI flows to rise moderately in 2020, due to the modest growth of the global economy, which has been on the mend from its slackest performance since 2009. Corporate earnings are expected to stay up, and hopes of easing trade tensions emerge. Globally and across some large emerging economies, GDP growth, gross fixed capital formation (GFCF), and trade are predicted to rise. These positive macroeconomic conditions could prove as incentives for MNEs to resume investments in productive assets. Nevertheless, the high debt accumulation of emerging and developing economies, geopolitical risks, growing protectionist policies, and the slowing down of global announced greenfield projects (down by 22 per cent in 2019) have been identified as compelling risks that could temper expectations.

Going forward, to stem the risks of weaker global growth prospects and outcomes, and to avoid long-term stagnation, the OECD has urged nations to raise future growth and living standards, reduce policy uncertainty, rethink fiscal policy, and act vigorously to address challenges raised by digitalisation and climate change. All these initiatives demand bolder policy actions to address the high levels of uncertainty in the business community, and to tackle fundamental changes within the global economy. Governments must collaborate to boost investments, and to establish fair international rules on taxation and trade; policy makers should also step up and lead the transition to cleaner energy in an increasingly digital world, for future sustainability.

Despite the challenging global outlook, and the downward revision of Malaysia's GDP growth from 4.6 per cent to 4.5 per cent by the World Bank, there is confidence that the country's solid fundamentals will support the economy, which is expected to grow at a marginally faster pace of 0.1 per cent in 2020 to 4.8 per cent. Key factors that lend weight to the nation's on-track growth are: a well-diversified economy, low and stable inflation, strong and trusted public institutions, a healthy labour market, and a comfortable current account surplus. However, the Economic Outlook 2019/20 report by the Ministry of Finance warns that despite the anticipated expansion, external uncertainties could dent growth prospects.

At the forefront of the nation's economic growth is the services sector– which accounts for about 58 per cent of Malaysia's GDP– with the manufacturing sector coming in just after. The former is projected to expand from 6.1 per cent in 2019 to 6.2 per cent in 2020. The growth will be primarily driven by the wholesale & retail trade, information & communications and finance & insurance sub-sectors as a result of robust household spending. The manufacturing sector though, is slated to grow at a slower pace due to the E&E sector's down cycle; but prospects are better in the second-half, bolstered by a more promising semiconductor outlook.

Elsewhere, Malaysia's private investment– which has been earmarked as a leading growth driver in 2020– is expected to gain traction in 2020, in light of the recommencement of infrastructure projects coupled with ongoing capital spending in services and manufacturing sectors.

Rigorous Efforts at Home

Malaysia has instituted several reforms to ensure a more sustainable and equitable long term economic growth since mid-2018. Following these reforms, the Shared Prosperity Vision 2030 (SPV 2030) was officially announced on 5 October 2019. The three main goals under the SPV 2030 agenda are: to address income and wealth inequality, to create a more progressive and participatory high-value economy, and to position Malaysia as one of Asia's leading economic pillars.

With the end of the Eleventh Malaysia Plan (2016-2020) in sight, MIDA has been working with the Ministry of Economic Affairs (MEA) and the Ministry of International Trade and Industry (MITI) to formulate the Twelfth Malaysia Plan (12MP) (2021-2025), as well as the New Industrial Master Plan (2021-2030) (New IMP) to ensure that both embody the essence of the SPV 2030. In doing its part to minimise external risks, and to crystallise the SPV 2030's objective, the Government will set measures to harness economic opportunities, improve human capital, ensure inclusivity, and revitalise public institutions and public finances.

Malaysia has also made strides towards embracing the Fourth Industrial Revolution (4IR) to ensure that the manufacturing sector continues to be competitive in terms of productivity, innovation, and talent while creating the jobs needed for sustained growth. The Industry4WRD initiative was launched in 2018 as a catalyst to support the manufacturing and manufacturing-related services (MRS) sectors transition into Industry 4.0 successfully. This drive for digital adoption was carried into the recent Budget 2020, when the Government announced additional facilities to further encourage automation and digitalisation among companies through the extension of Automation Capital Allowance (Automation CA) for the services sector, on top of the Smart Automation matching grants for 1,000 manufacturing and 1,000 services companies. Moving forward, the Government will continue to expand the scope of 4IR, beyond manufacturing and MRS for a holistic digital adoption nationwide, by all stakeholders– both from the private and public sector.

The country's adoption of Industry 4.0 will also be smoothened by the debut of the fifth-generation cellular network (5G) and help drive the Digital Free Trade Zone (DFTZ) as a cross-border e-commerce hub. The 5G technology is also expected to transform the nation's Information and Communication Sector, and foster a competitive market for home broadband services, on top of improving coverage and network quality.

This progress will further galvanise Malaysia's participation in the 4IR– enabling the industry to embrace technologies such as artificial intelligence (AI), robotics, virtual reality, big data analytics (BDA), Internet of Things (IoT), and software engineering. By harnessing these technologies, the Digital Free Trade Zone (DFTZ)– Malaysia's hive of the digital economy– should be further ingrained into cross-border e-commerce activities, and e-fulfilment hubs to enhance exports.

To further push the SPV2030 agenda's core aspirations, Malaysia, as the host of the Asia-Pacific Economic Cooperation (APEC) 2020 forum (see box article on page 14-15), will lead discussions on the region's emerging issues by charting new goals for APEC. MITI, as the national secretariat for APEC 2020, will humanise this forum by pushing initiatives for inclusive development.

"Malaysia has also made strides towards embracing the Fourth Industrial Revolution (4IR) to ensure that the manufacturing sector continues to be competitive in terms of productivity, innovation, and talent while creating the jobs needed for sustained growth."

6.2 Investment Promotion Strategy for 2020

Cranking up Promotions

As a nation aspiring to attain a developed economy status, Malaysia faces the challenge of dealing with barriers to productivity, innovation and shared prosperity to remain resilient. MIDA, as the nation's leading investment promotion agency, in its contribution towards the realisation of this aspiration, is shifting all promotional efforts into high gear to secure foreign investment dollars critical to the country's coffers

The uncertainties surrounding the US-PRC trade spat, an impending US presidential election and a disjointed European Union are cited as factors that weigh on the 2020 outlook. The signing of a phase one trade deal between the USA and PRC in mid-January 2020 has eased off tensions temporarily while helping to lift market sentiments on Malaysia, with analysts predicting that exports and imports will likely see a muted recovery. The upside for the country is that even though the USA and PRC are significant influencers of Malaysia's economy directly, and indirectly, the diversification of export products and its destinations in recent years has cushioned the impact on the country's external front.

Being a trading nation, Malaysia's economy is not completely shielded from the impact of external headwinds but it has remained resilient largely due to the economic policies and reforms implemented by the Government. The economy was one of the few that saw a faster pick-up in GDP growth in the second quarter of 2019 (4.9%) compared to the first quarter (4.7%), while Fitch Solutions Macro Research predicted that FDI flows will likely pick up at the end of 2019 on the resumption of the RM44 billion East Coast Rail Link (ECRL), and several PRC-backed infrastructure projects, and as the country becomes a beneficiary of companies relocating away from PRC due to the trade spat.

However, like most middle-income nations, Malaysia faces headlong challenges– arising from barriers to productivity, innovation and shared prosperity– that could impact the nation's aspirations towards becoming a truly developed economy. Efforts to attract FDI must be sustained in synchrony as such investments are critical to economic growth. MIDA continues to position Malaysia as a hub for high-technology industries and global services while reinvigorating domestic investment by formulating industry- and country-specific strategies to attract investments. It also continues to foster partnerships with other IPAs and stakeholders such as the chambers of commerce, banks, and foreign business councils for the purpose of achieving common goals.

In order for these key strategies to succeed, MIDA has initiated a series of FDI Promotion Programmes in 2020 to accelerate the investment promotion activities both locally and abroad. The agency has lined up six trade and investment missions to be led by the MITI Minister or Deputy Minister to the USA, Europe, PRC, Japan and Republic of Korea, Saudi Arabia and United Arab Emirates (UAE), and India. Various working visits to PRC, Indonesia, Singapore, New Zealand, and Switzerland have also been earmarked to follow after these trade and investment missions.

To enhance investment promotion efforts, industry divisions within MIDA will be organising 29 Specific Project Missions (SPM) to targeted cities overseas. The focussed outcomes of the SPM will be based on high profile leads, new projects, Fortune 500, Global unicorns, existing companies planning to reinvest and leads generated from representative office/regional office projects.

MIDA's Overseas offices have also planned for 21 flagship programmes jointly organised with prominent local partners for outreach and promotional efforts to the overseas market.

MIDA's Strategic Investment Agenda

Strategy 1:
Seek new sources of investment opportunities

- Leverage on megatrend developments, Industry 4.0, the Digital Economy and e-commerce
- Target demographics of Asia's fast-growing Gen-Y population

Strategy 2:
Target niche technologies

- Target niche products, technologies and services
- Identify gaps and complete the value chain

Strategy 3:
Drive existing companies to reinvest

- Identify opportunities for reinvestment into high value added products and activities
- Transform Malaysian companies into global players

MIDA's Take on Budget 2020

Aside looking out for the well-being of the B40 group and maintaining fiscal discipline, Budget 2020 features planned initiatives to embrace inclusivity, navigate Malaysia towards its digital transformation, and to enhance Malaysia's competitiveness as a preferred foreign investment destination. The budget unveils attractive investment incentives, and tax allowances and exemptions, for stakeholders and investors of the manufacturing and services sector alike

Malaysia's Budget 2020, themed "Driving Growth and Equitable Outcomes Towards Shared Prosperity", was announced by the the Minister of Finance, Lim Guan Eng on 11 October 2019. The comprehensive Budget is anchored on four thrusts, and focusses on initiatives to embrace inclusivity, steering the country towards digital transformation, and enhancing Malaysia's competitiveness as the preferred spot for foreign investments. It is also intended to support the well-being of the B40 group and maintain fiscal discipline. MITI, together with its agencies including MIDA, are currently drafting the New IMP to chart the growth of the manufacturing and services industries post 2020. Furthermore, the implementation of various planned initiatives under Budget 2020 will set the foundation to improve national competitiveness, raise productivity, prioritise investments in strategic sectors, reenergise export-led industrialisation, and encourage entrepreneurship.

Budget 2020's Four Thrusts

1. Driving Economic Growth in the New Economy and Digital Era
2. Investing in Malaysians: Levelling Up Human Capital
3. Creating a United, Inclusive and Equitable Society
4. Revitalisation of Public Institutions and Finances

Manufacturing Sector :

Manufacturing Boosters

Under the First Thrust, which is 'Driving Economic Growth in the New Economy and Digital Era', seven initiatives and incentives have been announced to 'Make Malaysia the Preferred Destination for Investment'.

The Key Takeaways: Eight Initiatives and Incentives

	Initiatives / Incentives	Features	Benefits to target audience
1	**Strengthening of the National Committee on Investment (NCI)** ** Agreed at the Cabinet meeting on 8 May 2019*	• The preceding NCI to be empowered as the Sole Approving Committee for incentives • The Enhanced NCI to be co-chaired by MOF and MITI	• Strengthen the governance of the committee • Faster decision making of investment projects • Expedient approval of targeted projects
2	**Comprehensive review and revamp of the Promotion Investment Act 1986, Special Incentives Package and incentives under the Income Tax Act 1967**	• Expected to be ready by 2021	• Address tax leakages • Reduce existing tax gaps • Explore new sources of revenue • Study the taxation of the digital economy • Review the effectiveness of tax incentives provided by the law

(...continued on the next page)

Initiatives / Incentives	Features	Benefits to target audience
3 **Customised Packaged Investment Incentives for foreign investments in Malaysia**	• RM 1 billion Government-allocated incentives annually over five years • Targeted to attract Fortune 500 and global unicorns in the high-tech, manufacturing, creative, and new economy sectors	• Attract new quality investments from foreign investors • Encourage existing foreign MNCs to take risks and move up the value chain • Generate additional economic activities to support SMEs • Create 150,000 high quality jobs over the next five years • Strengthen the local manufacturing and service ecosystems
4 **Customised Packaged Investment Incentives to upgrade Malaysia's best and most promising businesses**	• RM 1 billion allocated incentives annually over five years	• Enable local SMEs and MNCs to upgrade their technological capabilities to be more competitive internationally, scale up the value chain, and participate in the global ecosystem and supply chain • Strengthen local supply chain ecosystem • Create additional 100,000 high quality jobs for Malaysians over the next five years.
5 **Enhancement of post-approval investment monitoring and realisation to ensure that close attention is paid to resolving implementation issues on a timely basis.**	• RM10 million allocation	• Create convenience for investors to obtain approvals to implement their projects, and contribute to Malaysia's economic growth • In line with the Government's aspiration to establish a One Stop Centre to cut the red tape in obtaining investment approvals in Malaysia • Assist MIDA to improve the timeline for businesses and investors to invest in Malaysia • Reduce unnecessary regulatory costs • Reduce delays in getting business approvals
6 **Special Investment Tax Allowance of 50 per cent for the E&E Industry**	• Aimed at companies in the E&E sector that have exhausted their Reinvestment Allowances for 15 consecutive years for reinvestment projects	• Encourage further reinvestments in Malaysia • Enhance Malaysia's competitiveness in the international marketplace
7 **Extension of Automation Capital Allowances (Automation CA) to 2023**		• Encourage more companies to automate their processes • Reduce dependencies on unskilled foreign workers • Boost production and profit margins by substituting highly-paid workers for advanced equipment and software • Pave the way for Malaysia's road to technological transformation
8 **Smart Automation Matching Grant for 1000 Manufacturing and 1000 Services Companies**	• The grant will be given on a matching basis up to RM2 million per company	• Encourage business process automation • Achieve higher productivity

Accelerating the digital economy

The traditional manufacturing and services industries must transform themselves by adopting digitalisation. This adoption will accelerate their progress and that of their industries. At the same time, it will improve consumer-facing services, boost efficiency and give them a wider reach for their goods and services.

To fast-track their digital transformation, the Government has allocated RM550 million for Smart Automation matching grants to 1,000 manufacturing and 1,000 services companies for automating their business processes. This initiative will benefit companies that plan to automate their manufacturing process, and reap higher production rates and increased productivity, through the efficient utilisation of materials, to realise superior product quality.

Services Sector :
Keeping the Momentum

The services sector made a sizeable contribution of more than 50 per cent towards the Malaysian economy in 2018, and the growth momentum has been maintained. To propel the sector forwards, the Government allocated through Budget 2020 for various facilities, aimed at strengthening the country's foothold in strategic services activities, and to drive productivity through automation.

Sustainable green future

The nation's green agenda will receive continued support towards the development of green industries and the adoption of green technology through the extension of Malaysia's green technology incentives and the implementation of the Energy Performance Contract (EPC).

Malaysia remains optimistic that in the long run, these initiatives will contribute towards reducing the nation’s Green House Gas (GHG) emission intensity to 45 per cent by 2030, as committed under the climate change action plan in the Nationally Determined Contribution (NDC) of the Paris Agreement.

Reinforcing long term innovation

Historically, Malaysia's IP applications and approvals have been dominated by foreign players. The IP Development Incentive announced under Budget 2020 is timely, as its introduction should encourage companies, particularly local companies, to increase their investments in R&D, innovation and to encourage IP exploitation. By subscribing to this package, companies will be eligible for income tax exemptions of 100 per cent, for up to 10 years, on the qualifying IP income derived from the patent and copyright software of qualifying activities. This incentive is parallel to the minimum standards under the Base

Green Technology Incentives

Initiatives / Incentives	Benefits to target audience
1 **Extension of Green Investment Tax Allowance (GITA) and the Green Income Tax Exemption (GITE) to 2023**	• Encourage the purchase of green tech assets and the usage of green tech services • Under the extended GITE scheme, companies certified by the Sustainable Energy Development Authority (SEDA) which undertake solar leasing projects are now eligible for 70 per cent income tax exemptions for up to 10 years
2 **Accelerate the Implementation of the Energy Performance Contract (EPC)**	• Increase readiness of the public and private sectors to step up and play a critical role in Malaysia’s green agenda • Encourage further public sector energy efficiency initiatives for government buildings such as, hospitals and education institutions

Erosion and Profit Shifting (BEPS) Action 5, and the the computation of the income tax exemption will be based on the Modified Nexus Approach under the Forum on Harmful Tax Practices (FHTP), Organisation for Economic Co-operation & Development (OECD).

Malaysia on the travel map

The Government announced several tourism-related incentive packages in conjunction with Visit Malaysia Year 2020; all of which are tied to the country's aspiration to be the tourism destination of choice in the region. These packages are meant to serve as catalysts to increase tourists arrivals, and therefore contribute to the country's exports of services and economic growth.

Empowering services companies through automation and digitalisation

The Government through MITI launched Industry4WRD, the national policy on Industry 4.0 in 2018, to help Malaysian manufacturing companies succeed in the 4IR era. The launch underscores the country's commitment to facilitate the implementation of Industry 4.0 related activities in a systematic and comprehensive manner. In order to keep the momentum going, the Government has announced additional schemes to further support the automation and digitalisation agenda of companies in the services sector.

As the principal government agency charged with promoting investments, MIDA is committed to working closely with the various stakeholders, including the relevant ministries, agencies, investors, and academia, to accelerate the transformation of Malaysia to that of an advanced nation with inclusive growth and sustainable development.

> "The Government announced several tourism-related incentive packages in conjunction with Visit Malaysia Year 2020; all of which are tied to the country's aspiration to be the tourism destination of choice in the region."

Incentives to Support the Automation and Digitalisation of the Services Sector

Initaitives / Incentives	Features	Benefits to target audience
1 **Automation Capital Allowance (Automation CA) for the services sector**	• First introduced in the National Budget 2015 to encourage automation in the manufacturing sector • Under Budget 2020, the ACA has been expanded to services companies • Automation Capital Allowance (Automation CA) of 200 per cent on the first RM2 million expenditure incurred for the year of assessment 2020 until the year of assessment 2023	• Encourage automation in the services sector

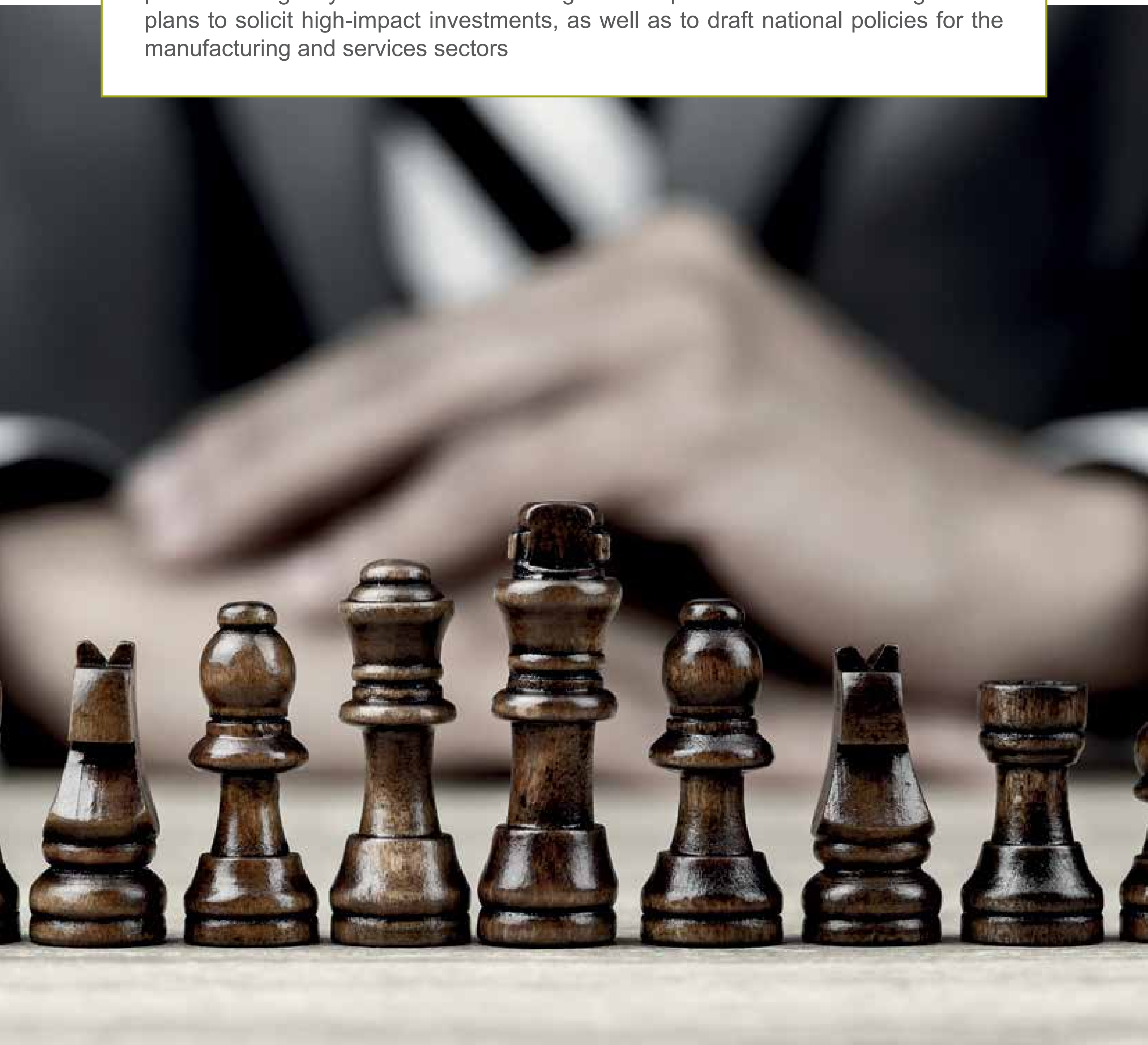
Incentives to Boost Tourism

Initiatives / Incentives	Features	Benefits to target audience
1 **Tax exemptions for International Theme Parks**	• Tax exemption of 100 per cent on statutory income for 5 years OR • Investment Tax Allowance of 100 per cent on qualifying capital expenditure incurred within 5 years, which can be set-off against up to 70 per cent of statutory income	• Encourage new foreign investments of such parks • Position Malaysia as home to more international-level theme parks
2 **Tax exemption for Integrated Tourism/Sports Tourism**	• Additional activities to be eligible for incentive packages under tourism projects (i.e. tax exemption of 70 per cent of statutory income for five years OR Investment Tax Allowance of 60 per cent on qualifying capital expenditure incurred within five years	• Encourage investments in Integrated Tourism/Sports Tourism
3 **Tax exemptions for International Sport, Recreational and Conferences**	• Income tax exemption of 100 per cent on statutory income for organisers of international sports, recreational events and conferences • Claimants must host at least 500 foreign participants annually	• Increase number of foreign tourists • Generate revenue through the patronage and consumption of local accommodations, food and beverage, ticket sales, sponsorships, media rights, services, and other ancillary services

6.4 Preparation for 12MP and New IMP

All Geared

MIDA has been appointed to help formulate two of Malaysia's upcoming crucial plans. The agency will lend its knowledge and expertise to devise strategies and plans to solicit high-impact investments, as well as to draft national policies for the manufacturing and services sectors



The 12MP and New IMP will align to the basic principles of the Shared Prosperity Vision 2030 (SPV 2030) aimed at realising Malaysia's national agenda to achieve sustainable growth, alongside fair and equitable distribution across income groups, ethnicities, regions, and supply chains. Both the 12 MP and the New IMP will form the basis to translate the SPV 2030's vision into a concrete implementation plan with measurable objectives.

This is done by outlining strategic directions that will invigorate the activities of the Malaysian business community, as well as investors, through the understanding of their needs and requirements. These policies and strategic directions will be defined under the 12th Malaysia Master Plan (12MP) and the New Industrial Master Plan (New IMP).

MIDA's vast industrial experience and its reputable relationships with captains of industries both make a solid case for the agency to contribute to the formulation of strategies and plans to attract high impact investments to drive product complexity – especially in the electrical and electronic, machinery and equipment, chemical, medical device, and aerospace industries as well as modern services that will generate new employment opportunities for Malaysians

"MIDA's vast industrial experience and its reputable relationships with captains of industries both make a solid case for the agency to contribute to the formulation of strategies and plans to attract high impact investments."

12th Malaysia Master Plan (12MP) and the New Industrial Master Plan (New IMP)

12th Malaysia Master Plan (12MP) (2021 – 2025)

- Malaysia is reaching the end of its Eleventh Malaysia Plan (11MP), hence the 12MP is being formulated under the purview of the MEA to ensure a more inclusive and meaningful development of the nation
- The 12MP outlines a five-year strategic direction and implementation framework to set the way forward for the national development agenda, which focusses on three main dimensions namely: Economic Empowerment, Environmental Sustainability, and Social Re-engineering

New Industrial Master Plan (New IMP) (2021-2030)

- MIDA is working together with MITI and other agencies on the New IMP for the years 2021 to 2030; which is a continuation of the former IMP3 strategies (2006-2020)
- The New IMP aims to further strengthen the industrial ecosystem in the country and it covers eight core areas namely, manufacturing, services, investment, trade, and technology, productivity, standards, and talent

The Talent Game Plan

Malaysia needs more skilled workers in order for the economy to move further up the value chain. Concurrently, there is also a need to create opportunities for the country's youth and women, reduce dependency on low- or unskilled foreign labour while ensuring that Malaysian workers can adapt to the wave of automation already happening throughout the economy.

To put things in perspective, last year, a total of 2.02 million foreigners received approvals to work in the country, of which 7.0 per cent were expatriates. As to-date, Malaysia is home to 1.9 million recorded foreign workers, although it is understood that the figure could be double that if unregistered workers are included.

These figures support the fact that laborious field work remains a challenge for SMEs even as they make strides towards high-tech industries and automation– especially with the uptake of new projects. In 2019, there were 4,887 projects approved by the Government with investments amounting to RM204.1 billion. These projects translate to jobs for 127,780 people, with more than half in the services sector, 45.7 per cent for the manufacturing sector, and 1.3 per cent for the primary sector.

In doing its part to broaden Malaysia's talent pool, the Ministry of Education ushered in 173,000 university graduates to the workforce. While another 45,702 candidates were from TVETs, and 421,706 were secondary school leavers, of which only 60 per cent continued tertiary education.

To reduce the foreign worker influx, and to bridge the gap for technical-skilled workers highlighted by Federation of Malaysian Manufacturers (FMM) members, a two-year apprenticeship programme known as the MIDA-SLDN Apprenticeship Programme was launched involving MIDA, FMM and the Ministry of Education (MOE).

The first batch of 25 students from the programme, in which MIDA had helped placed for practical training in five companies, graduated in February 2019. The September 2019 intake witnessed the programme grow to 76 students, 20 participating companies and 10 vocational colleges. This batch will graduate in 2021.

Owing to the programme’s success and the growing number of enquiries for vocational skills, MIDA plans to continuously promote it by working with ministries and agencies such as the Ministry of Agriculture, Ministry of Rural Development, Ministry of Works, Ministry of Youth and Sports, and Ministry of Defence.

MIDA remains on a charted course to promote investments in industry as part of its pivotal drive to adapt to technological changes. A total of RM20 million was allocated in 2019 to upskill or reskill Malaysians in integrated circuit (IC) designing with the aim to increase the pool of skilled IC designers and support the development of the industry.

To complement these talent initiatives, last year, MIDA undertook studies of the chemical and petrochemical; pharmaceutical and medical devices; and electrical and electronics (E&E) industries to better comprehend the human capital challenges faced by these industries. The objective of the three industrial studies is to identify the critical occupational list (COL) particular to each industry. For example, the COL for the pharmaceutical industry is concentrated in science and engineering, whereas for the chemical and petrochemical industry, there is a need for skilled machinery operators.

With the E&E industry's ecosystems attracting more investments, especially in sub-sectors such as avionics, medical and scientific equipment, MIDA has taken steps to ensure that the the nation's talent pipeline does not dry out by linking industry and academia– such as the collaboration between Muehlbauer Technologies Sdn Bhd, and a number of tertiary institutes signed at the beginning of 2019 that included a donation of automation integrated systems to help familiarise lecturers and students with the latest technologies.

MIDA has also been instrumental in organising a series of collaborations between industry and academia by initiating public engagement programmes such as in steel with Alliance Steel Sdn Bhd, semiconductor with ST Microelectronics, textile with MPV Sdn Bhd, and E&E with Winstron.

Besides collaborations, matchmaking and information-sharing sessions have also been carried out nationwide to connect private companies and academia. In October 2019, MIDA and Universiti Teknikal Malaysia Melaka organised the inaugural International Conference on Smart Community & Industry (ICSCI) 2019 in Melaka.

On a broader scale, MIDA, taking into consideration that Malaysia is one of the largest semiconductor producers globally, continues to promote investments in the industry as the country's main driver for technological changes. By allotting RM20 million in 2019 to provide upskilling and reskilling of Malaysians in IC designing, MIDA aims to increase the pool of Malaysia's skilled IC designers, and to support the development of the industry.

MIDA continues to go the extra mile to share pertinent information on smart manufacturing and Industry 4.0 technologies while assisting the private sector in their plans to adopt these technologies.

Appendix 1: Approved Manufacturing Projects, 2019 and 2018

	2019			2018		
	NEW	EXPANSION/ DIVERSIFICATION	TOTAL	NEW	EXPANSION/ DIVERSIFICATION	TOTAL
Number	535	453	**988**	386	335	**721**
Potential Employment	47,000	31,606	**78,606**	36,455	22,839	**59,294**
Total Capital Investment (RM million)*	45,203.4	37,529.1	**82,732.5**	61,791.4	25,584.3	**87,375.6**
- Domestic (RM million)	17,977.3	10,863.4	**28,840.7**	21,458.6	7,894.9	**29,353.5**
- Foreign (RM million)	27,226.1	26,665.8	**53,891.9**	40,332.8	17,689.3	**58,022.1**

Appendix 2: New Manufacturing Projects Approved by Size of Capital Investment, 2019 and 2018

SIZE OF CAPITAL INVESTMENT	2019					2018				
	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Less than RM 2.5 million	20	451	29.6	1.4	**30.9**	21	433	26.6	0.5	**27.1**
RM 2.5 million - < RM 5.0 million	50	1,872	158.1	31.2	**189.3**	33	1,253	108.5	10.6	**119.2**
RM 5.0 million - < RM 10.0 million	116	4,157	682.5	181.5	**864.0**	69	2,718	401.7	121.5	**523.2**
RM10.0 million - < RM 50.0 million	241	15,134	3,378.1	1,985.7	**5,363.8**	184	13,335	2,753.8	1,445.3	**4,199.1**
RM50.0 million - < RM100.0 million	50	5,657	2,060.6	1,499.6	**3,560.1**	33	4,606	999.2	1,274.8	**2,274.0**
RM100.0 million - < RM500.0 million	37	8,454	2,860.0	4,556.4	**7,416.4**	32	5,199	2,694.3	3,689.2	**6,383.6**
RM500.0 million - < RM 1.0 billion	10	3,310	4,564.9	2,355.8	**6,920.7**	2	555	761.6	449.5	**1,211.1**
RM 1.0 billion and above	11	7,965	4,243.6	16,614.5	**20,858.1**	12	8,356	13,712.8	33,341.3	**47,054.1**
TOTAL	**535**	**47,000**	**17,977.3**	**27,226.1**	**45,203.4**	**386**	**36,455**	**21,458.6**	**40,332.8**	**61,791.4**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided

Appendix 3: Approved Manufacturing Projects by Industry, 2019 and 2018

INDUSTRY	2019					2018				
	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Electrical and Electronic Products	157	22,936	3,866.1	21,793.5	**25,659.6**	56	11,180	467.1	10,712.6	**11,179.6**
Paper, Printing & Publishing	47	6,587	1,067.8	9,687.1	**10,754.9**	30	2,923	449.1	4,987.2	**5,436.4**
Transport Equipment****	66	4,276	6,499.1	1,547.3	**8,046.4**	61	3,787	1,217.9	691.8	**1,909.6**
Non-Metallic Mineral Products*******	44	3,279	2,551.7	4,305.2	**6,856.9**	39	2,665	718.1	1,725.2	**2,443.3**
Chemical & Chemical Products**	88	2,880	2,103.3	2,648.6	**4,751.9**	68	2,390	564.0	4,436.1	**5,000.1**
Rubber Products***	27	7,122	1,562.1	3,018.5	**4,580.5**	21	6,351	1,547.2	3,053.4	**4,600.6**
Machinery & Equipment	103	4,559	1,581.1	2,880.9	**4,461.9**	88	3,689	1,508.8	904.5	**2,413.3**
Food Manufacturing*****	98	5,065	2,490.0	1,306.6	**3,796.6**	63	4,888	1,293.6	514.8	**1,808.4**
Petroleum Products (Inc. Petrochemicals)	19	1,095	2,066.8	1,099.0	**3,165.8**	23	1,487	13,810.2	19,084.5	**32,894.7**
Scientific & Measuring Equipment	14	1,998	110.3	2,409.4	**2,519.8**	22	1,560	83.7	488.2	**571.9**
Plastic Products	90	4,309	1,537.7	941.5	**2,479.2**	61	2,841	682.2	1,182.0	**1,864.2**
Fabricated Metal Products	104	4,759	1,345.5	625.7	**1,971.2**	86	4,978	1,160.6	641.9	**1,802.5**
Wood & Wood Products******	34	1,649	300.4	407.4	**707.7**	31	1,805	332.1	211.4	**543.4**
Basic Metal Products	10	1,417	263.3	431.1	**694.4**	25	4,998	4,658.2	8,476.3	**13,134.5**
Natural Gas	1	153	506.8	126.7	**633.5**	0.0	0.0	0.0	0.0	**0.0**
Furniture & Fixtures	40	3,671	179.5	444.0	**623.6**	20	1,886	112.6	442.9	**555.5**
Textiles & Textile Products	28	1,421	242.1	198.9	**440.9**	18	1,170	566.3	284.7	**851.0**
Beverages & Tobacco	6	477	274.1	0.0	**274.1**	5	111	121.2	40.4	**161.6**
Miscellaneous	12	953	293.0	20.5	**313.5**	4	585	60.6	144.2	**204.9**
TOTAL	**988**	**78,606**	**28,840.7**	**53,891.9**	**82,732.5**	**721**	**59,294**	**29,353.5**	**58,022.1**	**87,375.6**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided
** Includes oleochemicals, pharmaceuticals, cosmetics and biotechnology
*** Includes medical gloves and contraceptives
**** Includes shipbuilding and ship repair
***** Includes oil palm products
****** Includes palm biomass
******* includes industrialised building system (IBS)

Appendix 4: Approved Manufacturing Projects with Investments of RM100 million and above, 2019

INDUSTRY	NEW					EXP./DIV.					TOTAL				
	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOYMENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Electrical and Electronic Products	9	6,116	2,701.3	3,607.3	**6,308.6**	12	9,978	238.8	16,658.9	**16,897.7**	21	16,094	2,940.1	20,266.2	**23,206.3**
Paper, Printing & Publishing	6	4,035	552.2	6,960.8	**7,513.0**	3	408	0.0	2,479.0	**2,479.0**	9	4,443	552.2	9,439.8	**9,992.0**
Transport Equipment****	8	728	3,048.9	768.1	**3,817.0**	4	1,179	2,695.8	342.7	**3,038.6**	12	1,907	5,744.8	1,110.8	**6,855.6**
Non-Metallic Mineral Products*******	5	1,485	340.5	2,978.1	**3,318.6**	4	17	1,598.8	804.7	**2,403.5**	9	1,502	1,939.3	3,782.9	**5,722.1**
Rubber Products***	1	1,560	577.0	2,308.0	**2,885.0**	8	4,003	694.4	463.6	**1,157.9**	9	5,563	1,271.4	2,771.6	**4,042.9**
Chemical & Chemical Products**	6	425	687.5	1,002.3	**1,689.9**	8	171	300.0	1,119.6	**1,419.6**	14	596	987.5	2,122.0	**3,109.5**
Machinery & Equipment	3	940	729.1	1,948.6	**2,677.7**	2	31	0.0	339.1	**339.1**	5	971	729.1	2,287.7	**3,016.8**
Petroleum Products (Inc. Petrochemicals)	4	775	1,359.8	893.6	**2,253.4**	1	0	576.0	0.0	**576.0**	5	775	1,935.8	893.6	**2,829.4**
Scientific & Measuring Equipment	1	793	0.0	1,513.0	**1,513.0**	1	529	0.0	820.0	**820.0**	2	1,322	0.0	2,333.0	**2,333.0**
Food Manufacturing*****	2	441	0.0	611.1	**611.1**	3	123	1,205.5	383.6	**1,589.1**	5	564	1,205.5	994.7	**2,200.2**
Plastic Products	6	811	768.1	304.1	**1,072.2**	1	107	0.0	216.0	**216.0**	7	918	768.1	520.1	**1,288.2**
Natural Gas	1	153	506.8	126.7	**633.5**	0	0	0.0	0.0	**0.0**	1	153	506.8	126.7	**633.5**
Basic Metal Products	2	856	180.1	116.0	**296.1**	1	147	0.0	138.5	**138.5**	3	1,003	180.1	254.5	**434.6**
Beverages & Tobacco	1	166	217.1	0.0	**217.1**	0	0	0.0	0.0	**0.0**	1	166	217.1	0.0	**217.1**
Furniture & Fixtures	2	368	0.0	217.0	**217.0**	0	0	0.0	0.0	**0.0**	2	368	0.0	217.0	**217.0**
Wood & Wood Products******	1	77	0.0	171.9	**171.9**	0	0	0.0	0.0	**0.0**	1	77	0.0	171.9	**171.9**
Fabricated Metal Products	0	0	0.0	0.0	**0.0**	1	156	103.7	2.1	**105.8**	1	156	103.7	2.1	**105.8**
Miscellaneous	0	0	0.0	0.0	**0.0**	1	513	202.4	0.0	**202.4**	1	513	202.4	0.0	**202.4**
Total	**58**	**19,729**	**11,668.5**	**23,526.7**	**35,195.2**	**50**	**17,362**	**7,615.4**	**23,767.9**	**31,383.3**	**108**	**37,091**	**19,283.9**	**47,294.5**	**66,578.4**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided
** Includes oleochemicals, pharmaceuticals, cosmetics and biotechnology
*** Includes medical gloves and contraceptives
**** Includes shipbuilding and ship repair
***** Includes oil palm products
****** Includes palm biomass
******* includes industrialised building system (IBS)

Appendix 5: Approved New and Expansion/Diversification Manufacturing Projects by Industry, 2019 and 2018

INDUSTRY	2019						2018					
	NEW		EXP./DIV.		TOTAL		NEW		EXP./DIV.		TOTAL	
	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Electrical and Electronic Products	42	7,089.7	115	18,570.0	157	**25,659.6**	17	918.2	39	10,261.4	56	**11,179.6**
Paper, Printing & Publishing	31	8,036.0	16	2,718.9	47	**10,754.9**	13	4,316.7	17	1,119.6	30	**5,436.4**
Transport Equipment****	23	4,246.3	43	3,800.0	66	**8,046.4**	26	1,558.9	35	350.7	61	**1,909.6**
Non-Metallic Mineral Products*******	33	4,223.7	11	2,633.3	44	**6,856.9**	29	1,979.4	10	463.9	39	**2,443.3**
Chemical & Chemical Products**	47	2,728.5	41	2,023.4	88	**4,751.9**	38	3,350.2	30	1,649.8	68	**5,000.1**
Rubber Products***	10	3,069.8	17	1,510.7	27	**4,580.5**	9	2,360.0	12	2,240.6	21	**4,600.6**
Machinery & Equipment	62	3,701.3	41	760.6	103	**4,461.9**	41	1,137.9	47	1,275.4	88	**2,413.3**
Food Manufacturing*****	67	1,775.6	31	2,021.0	98	**3,796.6**	39	1,195.8	24	612.6	63	**1,808.4**
Scientific & Measuring Equipment	5	1,613.3	9	906.5	14	**2,519.8**	7	405.2	15	166.7	22	**571.9**
Plastic Products	54	1,912.9	36	566.3	90	**2,479.2**	32	981.4	29	882.8	61	**1,864.2**
Fabricated Metal Products	63	1,464.3	41	506.9	104	**1,971.2**	45	1,274.4	41	528.1	86	**1,802.5**
Wood & Wood Products******	23	612.3	11	95.4	34	**707.7**	28	458.7	3	84.7	31	**543.4**
Basic Metal Products	5	415.2	5	279.2	10	**694.4**	16	11,815.5	9	1,319.0	25	**13,134.5**
Natural Gas	1	633.5	0	0.0	1	**633.5**	0	0.0	0	0.0	0	**0.0**
Furniture & Fixtures	31	596.9	9	26.7	40	**623.6**	15	469.0	5	86.6	20	**555.5**
Textiles & Textile Products	14	265.9	14	175.1	28	**440.9**	12	458.9	6	392.1	18	**851.0**
Beverages & Tobacco	5	262.2	1	11.9	6	**274.1**	1	9.4	4	152.2	5	**161.6**
Petroleum Products (Inc. Petrochemicals)	13	2,471.9	6	693.9	19	**5.0**	14	28,896.7	9	3,998.0	23	**32,894.7**
Miscellaneous	6	84.0	6	229.5	12	**313.5**	4	204.9	0	0.0	4	**204.9**
TOTAL	**535**	**45,203.4**	**453**	**37,529.1**	**988**	**82,732.5**	**386**	**61,791.4**	**335**	**25,584.3**	**721**	**87,375.6**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided
** Includes oleochemicals, pharmaceuticals, cosmetics and biotechnology
*** Includes medical gloves and contraceptives
**** Includes shipbuilding and ship repair
***** Includes oil palm products
****** Includes palm biomass
******* includes industrialised building system (IBS)

Appendix 6: Approved Manufacturing Projects with Malaysian Majority Ownership by Industry, 2019 and 2018

INDUSTRY	2019						2018					
	NEW		EXP./DIV.		TOTAL		NEW		EXP./DIV.		TOTAL	
	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Transport Equipment****	13	3,716.0	35	3,592.8	48	**7,308.8**	21	980.4	28	265.4	49	**1,245.8**
Electrical and Electronic Products	21	3,120.9	30	841.5	51	**3,962.4**	8	131.0	14	335.3	22	**466.4**
Non-Metallic Mineral Products*******	18	936.9	4	1,590.1	22	**2,527.0**	21	685.7	4	108.0	25	**793.7**
Chemical & Chemical Products**	37	1,728.8	21	683.9	58	**2,412.7**	23	330.1	18	190.7	41	**520.8**
Petroleum Products (Inc. Petrochemicals)	10	1,801.0	3	585.4	13	**2,386.4**	10	8,708.7	3	2,097.6	13	**10,806.3**
Food Manufacturing*****	57	997.7	21	1,303.5	78	**2,301.1**	34	910.9	17	430.5	51	**1,341.4**
Plastic Products	39	1,530.2	26	233.1	65	**1,763.3**	14	143.0	21	548.7	35	**691.7**
Machinery & Equipment	42	1,346.2	27	275.5	69	**1,621.6**	33	889.3	29	653.6	62	**1,542.9**
Fabricated Metal Products	46	866.6	33	472.3	79	**1,338.9**	34	745.6	32	404.7	66	**1,150.3**
Rubber Products***	9	184.8	11	976.6	20	**1,161.4**	6	151.0	8	1,447.0	14	**1,598.0**
Paper,Printing & Publishing	23	959.8	6	134.4	29	**1,094.2**	9	230.5	12	194.8	21	**425.3**
Natural Gas	1	633.5	0	0.0	1	**633.5**	0	0.0	0	0.0	0	**0.0**
Wood & Wood Products******	15	257.3	7	43.5	22	**300.8**	24	298.2	2	7.4	26	**305.6**
Beverages & Tobacco	5	262.2	1	11.9	6	**274.1**	0	0.0	3	138.7	3	**138.7**
Basic Metal Products	3	262.2	1	6.0	4	**268.2**	12	6,535.2	4	215.0	16	**6,750.2**
Textiles & Textile Products	6	117.5	11	119.9	17	**237.4**	8	276.0	5	347.9	13	**623.9**
Furniture & Fixtures	23	173.0	8	9.0	31	**182.0**	9	66.1	4	46.6	13	**112.6**
Scientific & Measuring Equipment	3	87.2	5	27.7	8	**115.0**	2	20.0	6	57.1	8	**77.1**
Miscellaneous	5	64.5	6	229.5	11	**294.0**	2	60.6	0	0.0	2	**60.6**
TOTAL	**376**	**19,046.5**	**256**	**11,136.6**	**632**	**30,183.1**	**270**	**21,162.2**	**210**	**7,489.1**	**480**	**28,651.2**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided
** Includes oleochemicals, pharmaceuticals, cosmetics and biotechnology
*** Includes medical gloves and contraceptives
**** Includes shipbuilding and ship repair
***** Includes oil palm products
****** Includes palm biomass
******* includes industrialised building system (IBS)

Appendix 7: Approved Projects in the Engineering Supporting Industry by Sub-Sectors, 2019

SUB-SECTOR	NEW					EXP/DIV					TOTAL				
	NO.	EMPLOY-MENT	DOMESTIC INVEST-MENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOY-MENT	DOMESTIC INVEST-MENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOY-MENT	DOMESTIC INVEST-MENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Moulds, Tools & Dies	11	453	71.8	140.0	**211.8**	5	15	27.7	1.0	**28.7**	16	468	99.5	141.1	**240.6**
Machining	14	721	180.3	16.7	**196.9**	13	214	124.5	20.3	**144.7**	27	935	304.7	36.9	**341.7**
Casting	1	28	70.0	0.0	**70.0**	3	285	39.3	0.0	**39.3**	4	313	109.3	0.0	**109.3**
Surface Engineering	6	210	14.5	133.4	**147.9**	1	89	18.9	0.0	**18.9**	7	299	33.4	133.4	**166.7**
Jigs & Fixtures	0	0	0.0	0.0	**0.0**	1	4	12.0	0.1	**12.1**	1	4	12.0	0.1	**12.1**
TOTAL	**32**	**1,412**	**336.6**	**290.1**	**626.6**	**23**	**607**	**222.3**	**21.4**	**243.7**	**55**	**2,019**	**558.9**	**311.5**	**870.4**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely

Appendix 8: Approved Projects in the Machinery & Equipment Industry by Sub-Sectors, 2019

SUB-SECTOR	NEW					EXP/DIV					TOTAL				
	NO.	EMPLOY-MENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOY-MENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOY-MENT	DOMESTIC INVESTMENT (RM MILLION)		TOTAL CAPITAL INVESTMENT (RM MILLION)*
Power Generating Machinery & Equipment	1	15	8.3	1.9	**10.1**	1	13	6.4	1.4	**7.8**	2	28	14.7	3.3	**17.9**
Machinery Specialized For Specific Industries	19	930	244.6	1,846.8	**2,091.4**	14	312	125.2	384.2	**509.4**	33	1,242	369.8	2,231.0	**2,600.8**
Metalworking Machinery / Machine Tools	0	0	0.0	0.0	**0.0**	1	16	7.2	0.0	**7.2**	1	16	7.2	0.0	**7.2**
General Industrial Machinery, Equipment & Parts	30	1,508	251.9	334.5	**586.4**	15	299	53.5	94.3	**147.9**	45	1,807	305.4	428.8	**734.2**
Machinery/Equipment Modules or Industrial Parts/Components	10	1,268	826.2	169.3	**995.5**	10	153	46.4	42.0	**88.3**	20	1,421	872.6	211.3	**1,083.8**
Maintenance, Upgrading or Reconditioning of M & E (Refurbishment)	1	13	0.0	6.5	**6.5**	0	0	0.0	0.0	**0.0**	1	13	0.0	6.5	**6.5**
TOTAL	**61**	**3,734**	**1,331.0**	**2,358.9**	**3,689.9**	**41**	**793**	**238.6**	**522.0**	**760.6**	**102**	**4,527**	**1,569.6**	**2,880.9**	**4,450.4**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided

Appendix 9: Approved Projects in Electrical & Electronic Industry by Sub-Sectors, 2019

SUB-SECTOR	NEW					EXP/DIV					TOTAL				
	NO.	EMPLOY-MENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOY-MENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	EMPLOY-MENT	DOMESTIC INVESTMENT (RM MILLION)	FOREIGN INVESTMENT (RM MILLION)	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Consumer Electronics	3	668	1,973.2	290.3	**2,263.5**	25	3,443	25.6	3,894.1	**3,919.8**	28	4,111	1,998.8	4,184.5	**6,183.3**
Electronic Components	13	3,597	110.9	1,792.5	**1,903.4**	32	2,851	526.3	11,481.9	**12,008.2**	45	6,448	637.2	13,274.4	**13,911.6**
Industrial Electronics	6	617	16.2	229.3	**245.6**	31	6,424	147.3	1,995.5	**2,142.8**	37	7,041	163.6	2,224.9	**2,388.4**
Electrical Appliances	5	1,463	56.8	595.7	**652.5**	7	116	6.2	8.1	**14.3**	12	1,579	63.0	603.9	**666.9**
Industrial Electrical	6	873	84.1	109.7	**193.8**	8	500	17.0	295.5	**312.5**	14	1,373	101.1	405.2	**506.3**
Electrical Components	9	1,380	849.3	981.5	**1,830.8**	12	1,004	53.1	119.3	**172.3**	21	2,384	902.4	1,100.7	**2,003.1**
TOTAL	**42**	**8,598**	**3,090.6**	**3,999**	**7,089.6**	**115**	**14,338**	**775.6**	**17,794.4**	**18,570.0**	**157**	**22,936**	**3,866.1**	**21,793.5**	**25,659.6**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided

Appendix 10: Approved Manufacturing Projects with Foreign Participation by Source, 2019 and 2018

COUNTRY	2019			2018		
	NO	EMPLOYMENT	FOREIGN INVESTMENT (RM MILLION)*	NO	EMPLOYMENT	FOREIGN INVESTMENT (RM MILLION)*
China	79	14,174	15,300.3	40	11,439	19,673.3
USA	37	4,578	14,226.2	18	2,128	3,155.0
Singapore	118	9,297	5,614.2	82	4,988	1,834.0
Taiwan	28	3,642	5,235.9	18	1,393	678.7
Japan	53	2,789	3,792.2	63	4,816	4,133.3
United Kingdom	8	1,093	1,765.5	10	1,116	434.7
British Virgin Islands	5	4,550	1,388.0	5	1,808	2,768.5
Hong Kong	24	2,959	1,186.0	10	1,343	1,250.6
Netherlands	11	838	997.4	10	1,260	8,336.9
Korea,Rep.	15	695	914.1	10	858	2,495.4
Others	69	7,015	866.9	46	6,068	497.4
Germany	22	534	848.3	6	148	401.6
Italy	5	98	379.4	3	105	59.9
France	5	400	259.4	4	122	591.1
India	13	473	236.2	6	254	377.8
Cayman Islands	10	1,260	191.3	0	0	0.0
Australia	9	294	144.7	7	444	157.8
Switzerland	2	113	126.2	7	378	261.6
Turkey	1	18	106.8	0	0	0.0
Canada	2	359	102.9	1	4	1.5
Thailand	3	27	94.0	6	408	169.6
Indonesia	3	87	41.5	8	563	9,035.6
Iraq	1	95	22.5	0	0	0.0
Pakistan	2	66	12.2	2	51	12.9
Spain	1	10	7.6	0	0	0.0
Yemen	3	74	5.0	2	264	156.6
New Zealand	1	17	4.7	0	0	0.0
United Arab Emirates	1	32	4.5	0	0	0.0
Bangladesh	1	20	4.0	0	0	0.0
Vietnam	1	0	2.7	1	24	12.9
Ireland	1	50	2.6	1	91	21.1
Iran	1	25	2.5	0	0	0.0
Denmark	1	0	2.4	2	53	51.0
Luxembourg	1	10	1.2	2	18	129.5
Portugal	2	109	1.1	0	0	0.0
Bermuda	1	0	0.9	0	0	0.0
Myanmar	1	0	0.3	2	53	22.4
Nepal	1	0	0.3	0	0	0.0
Brunei	0	0	0.0	1	136	23.5
Norway	0	0	0.0	2	72	155.8
Philippines	0	0	0.0	2	119	27.5
Poland	0	0	0.0	1	85	40.1
Cyprus	0	0	0.0	1	9	12.1
Finland	0	0	0.0	1	0	2.1
Mauritius	0	0	0.0	1	11	133.1
Panama	0	0	0.0	4	192	892.0
Samoa	0	0	0.0	1	161	15.3
TOTAL	**	**	**53,891.9**	**	**	**58,022.1**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided
** Number is not totaled to avoid double counting

Appendix 11: Approved Manufacturing Projects by State, 2019 and 2018

STATE	2019						2018					
	NEW		EXP./DIV.		TOTAL		NEW		EXP./DIV.		TOTAL	
	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*	NO.	TOTAL CAPITAL INVESTMENT (RM MILLION)*
Selangor	196	8,912.6	119	8,127.6	315	**17,040.2**	138	13,522.6	103	5,424.8	241	**18,947.4**
Pulau Pinang	74	7,352.6	92	9,502.7	166	**16,855.4**	45	2,364.6	63	3,416.3	108	**5,781.0**
Kedah	31	5,701.3	23	5,775.6	54	**11,476.9**	22	1,976.9	19	409.4	41	**2,386.3**
Johor	103	6,992.8	106	4,462.5	209	**11,455.2**	76	21,153.5	68	9,361.1	144	**30,514.7**
Perak	33	2,308.0	39	4,285.2	72	**6,593.2**	17	522.1	20	1,364.8	37	**1,886.9**
Sabah	10	6,319.5	5	136.6	15	**6,456.2**	10	149.4	3	77.9	13	**227.3**
Pahang	21	4,350.4	13	592.6	34	**4,943.0**	9	7,663.9	6	364.5	15	**8,028.4**
Negeri Sembilan	28	568.6	16	2,997.1	44	**3,565.7**	26	1,640.6	14	790.2	40	**2,430.8**
Sarawak	7	1,720.1	11	862.4	18	**2,582.5**	6	8,625.8	5	34.0	11	**8,659.7**
Melaka	17	322.9	18	556.5	35	**879.3**	17	252.5	25	2,999.8	42	**3,252.4**
Terengganu	4	561.1	4	77.7	8	**638.8**	6	3,625.9	5	1,277.5	11	**4,903.4**
W.P. - Kuala Lumpur	10	87.6	2	86.6	12	**174.2**	8	119.1	2	48.0	10	**167.1**
Perlis	0	0.0	1	53.3	1	**53.3**	0	0.0	1	8.0	1	**8.0**
Kelantan	1	5.8	4	12.7	5	**18.5**	5	93.5	1	7.8	6	**101.2**
W.P.- Labuan	0	0.0	0	0.0	0	**0.0**	1	81.0	0	0.0	1	**81.0**
TOTAL	**535**	**45,203.4**	**453**	**37,529.1**	**988**	**82,732.5**	**386**	**61,791.4**	**335**	**25,584.3**	**721**	**87,375.6**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided

Appendix 12: Approved Investments in Various Services Sectors, 2019 and 2018

SERVICES SECTOR	NUMBER		POTENTIAL EMPLOYMENT		TOTAL CAPITAL INVESTMENT (RM MILLION)**	
	2019	2018	2019	2018	2019	2018
Real Estate	1,279	968	0	NA	40,852.6	47,890.0
Utilities	NA	NA	3	10	32,575.6	9,836.1
Global Establishments	169	204	1,058	2,010	11,751.4	7,458.4
Distributive Trade	1,136	1,263	30,379	43,676	11,697.8	7,257.0
Support Services	536	346	4,065	4,278	5,656.7	5,034.0
Hotel &Tourism	71	63	5,625	4,135	5,117.3	4,642.1
Telecommunications*	402	508	0	NA	4,980.1	8,613.5
Financial Services	24	47	119	105	4,144.1	9,695.3
Transport	8	12	410	0	481.4	798.9
Education Services	453	704	2,320	6,837	469.3	1,130.0
Health Services	7	11	772	4,374	338.1	2,633.4
Other Services	2	1	60	28	40.2	10.7
MSC Status	0	107	0	3,339	0.0	1,071.5
TOTAL	**4,087**	**4,234**	**44,811**	**68,792**	**118,104.6**	**106,070.7**

Note : NA - Data is not available
* Data for telecommunications is only up to September 2019
** Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided

Appendix 13: Approved Investments in Primary Sector, 2019 and 2018

PRIMARY SECTOR	NUMBER		POTENTIAL EMPLOYMENT		TOTAL INVESTMENT (RM MILLION)*	
	2019	2018	2019	2018	2019	2018
Mining	38	26	106	59	6,604.9	10,238.1
Plantation & Commodities	18	23	513	1,302	291.4	601.8
Agriculture	9	14	407	287	135.1	68.8
TOTAL	**65**	**63**	**1,026**	**1,648**	**7,031.4**	**10,908.7**

Note : * Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided

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MALAYSIAN INVESTMENT DEVELOPMENT AUTHORITY

MIDA Sentral
No.5, Jalan Stesen Sentral 5, Kuala Lumpur Sentral, 50470 Kuala Lumpur, Malaysia
Tel: 603 2267 3633 I Fax: 603 2274 7970 I Web: www.mida.gov.my I E-mail: investmalaysia@mida.gov.my