

Energising Manufacturing Sector

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For further information refer to:

Director General
Economic Planning Unit
Prime Minister's Department
Block B5 & B6
Federal Government Administrative Centre
62502 Putrajaya
MALAYSIA

<http://www.epu.gov.my>

Tel.: 603-8000 8000

Fax.: 603-8888 3755

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I. INTRODUCTION

19.1 During the Tenth Malaysia Plan, 2011-2015, the performance of manufacturing sector has been generally encouraging, with positive growth in Gross Domestic Product (GDP) and exports. The manufacturing sector accounts for the largest contributor to the total exports and the second largest to GDP. However, the share of Malaysia's manufacturing exports in the world market is declining, facing stiff competition from emerging economies such as the People's Republic of China, India and Vietnam, particularly in the electrical and electronics (E&E) subsector. The manufacturing sector has not evolved to respond to changing global demands, producing products that are also manufactured by many other countries. This is supported by the declining number of exports that have Revealed Comparative Advantage greater than 1 (RCA>1).

19.2 In the Eleventh Malaysia Plan, 2016-2020, strategies will be introduced to chart a new direction for the manufacturing sector to produce high value, diverse and complex products. Underpinning this transition will be the intensification of research and development (R&D) as well as design and process improvements, adoption of sustainable manufacturing practices, compliance to standards, enhancement of market intelligence and stronger collaboration between stakeholders. Focus will shift from quantity to quality and broad-based incentives to performance-based incentives. In addition, manufacturers will be encouraged to expand into international markets by leveraging the ASEAN Economic Community (AEC) and Free Trade Agreements (FTAs).

II. TENTH MALAYSIA PLAN, 2011-2015: PROGRESS

Manufacturing Sector

19.3 The overall performance of the manufacturing sector was positive with an estimated growth of 4.8% per annum during the Tenth Plan period and contributing 23% or RM243.9 billion to GDP in 2015, as shown in *Exhibit 19-1*. The growth of the sector is mainly from the E&E and chemicals subsectors. The value added of E&E increased from RM44.2 billion in 2011 to RM53.8 billion in 2015, partly due to new applications for semi-conductors in digitalisation, mobility, connectivity, energy efficiency and miniaturisation. The chemicals subsector recorded an average growth of 3.4% per annum with an increase in value added from RM24.8 billion in 2011 to RM27.8 billion in 2015, as chemical products are important input to industries such as automotive, E&E, pharmaceutical and construction.

19.4 Manufactured goods continue to dominate export with a share of 81.8% of total export or RM636.7 billion in 2015. The export of manufactured goods is estimated to chart an annual average growth of 5.4% in the Tenth Plan period. In addition, investment in manufacturing accounted for RM159.1 billion of total approved investment from 2011 to 2014. Of this amount, domestic direct investment (DDI) represented 42.8% and foreign direct investment (FDI) 57.2%. A total of 348,495 new jobs were created from these investments out of which 75% was in the managerial, technical and supervisory, and skilled categories. The sector is expected to provide 2.5 million jobs, representing 18% of total employment in 2015.

Exhibit 19-1

Major Indicators of the Manufacturing Sector, 2010-2020

Indicator	2010	2015	2020	Tenth Plan	Eleventh Plan
				Achieved	Target
Contribution of manufacturing sector to GDP (RM billion in 2010 prices)	192.5	243.9	312.5	1,110.9	1,417.3
Annual Growth Rate (%)	12.1	4.7	4.4	4.8	5.1
Share to GDP (%)	23.4	23.0	22.1	23.1	22.5
Total exports of manufactured goods (RM billion in current prices)	489.6	636.7	812.8	2,801.3	3,677.9
Share to Total Export (%)	76.6	81.8	83.4	76.4	82.8
				Average Annual Growth Rate (%)	
Share to Total Employment (%)	17.0	18.0	18.2	3.9	2.5

Note: 2015 numbers are estimated and 2020 numbers are forecasted

Source: Economic Planning Unit and Department of Statistics Malaysia

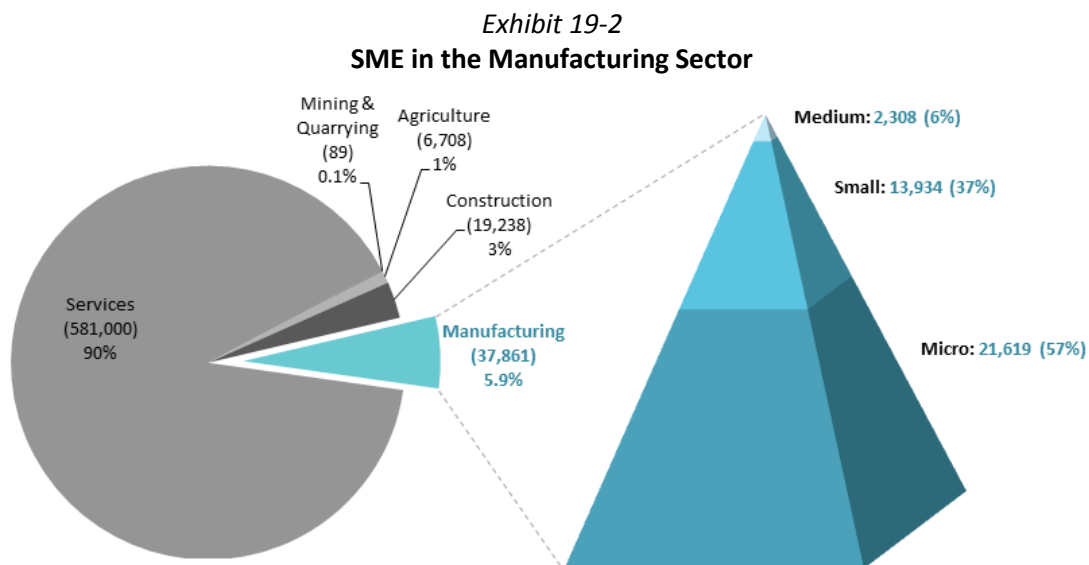
19.5 The factors that also contributed to the growth of the sector, despite the global economic slowdown in 2012, are as follows:

- strong demand from ASEAN countries
- improved demand from the European Union (EU) especially Belgium, Germany, Italy, Netherlands and Poland
- higher imports by FTA partners such as Australia, Chile, People's Republic of China, New Zealand and the Republic of Korea

Small and Medium Enterprises in the Manufacturing Sector

19.6 Based on the Economic Census 2011, from a total of 662,939 establishments, 97.3% or 645,136 were in the small and medium enterprises (SMEs) category. SMEs in the manufacturing sector accounted for 37,861 establishments or 5.9%, with 57% of them in the micro-enterprise category, as shown in *Exhibit 19-2*. In 2013, SMEs in the manufacturing sector contributed 23.7% out of the total SME contribution to GDP and 48.5% of exports

from SMEs. The average labour productivity of SMEs in this sector was at RM63,154 per worker, above the overall average SME productivity of RM50,818 per worker in 2011-2013.



Source: Economic Planning Unit and Department of Statistics Malaysia

III. ISSUES AND CHALLENGES

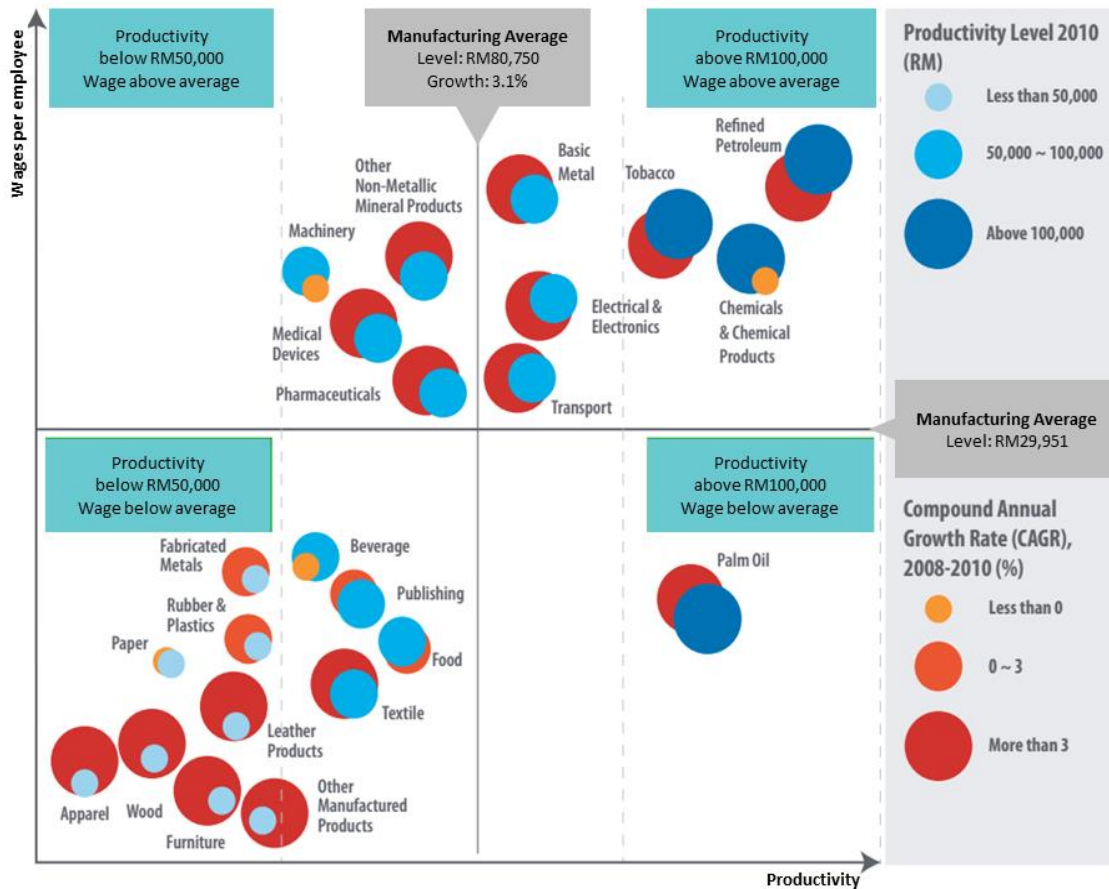
19.7 Issues affecting the manufacturing sector are low productivity, pervasiveness of low value add labour-intensive industries, lack of innovation and competitiveness, and weak enablers.

Productivity

19.8 Labour productivity for the manufacturing sector is estimated to increase to RM98,768 per worker in 2015 from RM94,423 per worker in 2011. However, based on the Productivity Report 2013/2014 by Malaysia Productivity Corporation (MPC), the overall growth of Malaysia labour productivity at 2.3% is still low compared with emerging countries such as People's Republic of China (7.1%), Thailand (2.5%) and India (2.4%), reflecting reduced competitiveness in the global market. Among the manufacturing subsectors, only four surpassed the productivity level of RM100,000 per worker namely, tobacco, refined petroleum, chemicals and chemical products as well as palm oil-based industry, as shown in *Exhibit 19-3*.

Exhibit 19-3

Manufacturing Productivity and Wage Performance



Source: Productivity Report 2013/2014, Malaysia Productivity Corporation

Low Value Add Labour Intensive Industries

19.9 In line with the Government's objectives to attract foreign investments and create jobs in the 1970s and 1980s, the inflow of FDI was largely in the labour-intensive manufacturing sector. Most of the jobs created through these FDI were in low value-add industries that required low-skilled labour, which in later years led to high dependency on foreign workers. This scenario has resulted in low automation and low demand for skilled workers as reflected by the reduction in the composition of skilled workers from 26.3% in 2011 to 24.7% in 2013.

Dependency on Low-Skilled Foreign Workers

19.10 In 2014, 36% of foreign workers were employed in the manufacturing sector, of which 74% were employed in seven subsectors namely E&E, wood and furniture, plastic, food processing, rubber-based, textiles and fabricated metal. The easy access to low-skilled

foreign workers discouraged manufacturers from innovating and investing in automation and technology upgrade for higher productivity.

Talent Gaps

19.11 The shift towards producing higher value and more complex products requires skilled, creative and innovative personnel with technological knowledge to constantly improve products and processes. However, firms face difficulties in hiring skilled and specialised workers where more than 40% of firms reported vacancies for skilled production workers¹. This is due to lack of talent with the required soft skills and relevant technical skills. In addition, firms are unable to attract local talent due to the relatively lower remuneration offered.

Innovation

19.12 Advancements in science and technology have resulted in shorter product cycles, forcing manufacturers to continuously innovate and upgrade their products to remain competitive. However, most manufacturers have low capability to innovate due to inadequate resources, lack of knowledge and resistance towards change. In addition, lack of understanding on intellectual property (IP) development, risk-averseness, and regulations and standards that do not cater for evolving industry needs further hamper innovation efforts.

Resources for R&D

19.13 R&D and innovation involve high risk, long gestation period and high investment to procure machinery and testing equipment. Thus, manufacturers need to invest upfront to undertake product and process improvements. However, manufacturers, particularly SMEs, are often constrained to conduct R&D, design and development, and commercialisation due to inadequate resources. This issue affects most of the subsectors particularly machinery and equipment (M&E), transport, chemicals as well as rubber-based and wood-based industries. The National Survey of Innovation 2012 (NSI-6) indicated that only 38% of manufacturing firms are innovative.

¹ Malaysia Economic Monitor on Modern Jobs 2010

Technology Support

19.14 Most R&D efforts are undertaken by the Government and multinational companies (MNCs). Although there are a number of public research institutions that undertake R&D activities in specific sectors, research findings by these institutions often do not match industry requirements. This leads to low returns on public expenditure on R&D and lack scientific and technology support for industries. Hence, local firms are mostly adopters and adapters rather than creators of technology².

Intellectual Property

19.15 There is a lack of understanding on the importance of IPs such as industrial design, trademark and copyright, to enhance creativity, promote technological innovation and improve competitive positioning for trade. The need to obtain IP rights is commonly perceived as a huge upfront cost and an administrative burden to comply. Between 2009 and 2011, from a total of 39,669 manufacturing establishments, there were only 6,055 registered applications for IP, of which only 609 or 10% of the applications were successful.

Industry Gaps between MNCs and SMEs

19.16 One of the measures taken to increase demand for SME products was by developing domestic linkages with MNCs. However, SMEs are not able to meet the standards or fulfil the demand of MNCs. This is mainly due to the high cost of acquiring new technology, R&D and testing. These shortcomings hinder them from participating in the global supply chain through MNCs, resulting in weak domestic linkages. The Malaysia Economic Monitor Report, June 2014 by the World Bank, cited that the limited domestic linkages contributed to the low value added of E&E. The report also quoted that MNCs in Malaysia source less than 40% of their inputs from domestic firms, compared to 46% in Vietnam and 82% in People's Republic of China.

Risk-Averseness

19.17 Attitude and mindset of manufacturers who are risk averse further impede innovation initiatives. Generally, manufacturers are reluctant to change their current operations due to fear of disruption to production and comfortable with their current business operations. In addition, product innovation usually involves high risks, high cost and long duration, thus making it unaffordable and less attractive.

² Study on Technology Innovation Capabilities of Malaysia-Owned Companies, 2012

Competitiveness

19.18 The decreasing share of Malaysia's world trade from 1.5% in 2000 to 1.2% in 2013 indicates the decline in the level of trade competitiveness. The share of the manufacturing sector to the national export basket also declined from 83.3% in 2000 to 76.7% in 2014. The decline is partly due to the increase in market competition following to the removal of trade barriers through FTAs. The decline is worsened by the low utilisation of FTAs and the increasing global requirements of high compliance to standards. In addition, with the delisting of Malaysia from the European Union Generalised System of Preference (EU GSP) with effect from 1 January 2014, local exporters faced stiffer competition to penetrate the European market.

Diversification of Exports

19.19 Using the economic complexity framework, as shown in *Box 19-1*, the diversification of exports increased rapidly from 490 products in 1980 to 750 products in 1990 but stagnated at 760 products in both 2000 and 2010. In addition, the composition of the exports changed from primarily raw materials to manufactured products, indicating a move towards more complex products. Exports with $RCA > 1$ also increased from 56 in 1980 to 126 in 1990. However, in the last two decades, the manufacturing sector has not evolved to respond to the increasing global demand for more complex and sophisticated products. The exports with $RCA > 1$ increased moderately from 111 in 2000 to 123 in 2010. This implies that exports are less diverse and also ubiquitous. This is further supported by Malaysia's ranking in the Global Competitiveness Index (GCI) and Economic Complexity Index (ECI) for 2013, as shown in *Exhibit 19-4*.

Exhibit 19-4

Global Competitiveness Index and Economic Complexity Index Ranking		
Country	GCI Rank / 152	ECI Rank / 128
Switzerland	1	3
Singapore	2	7
Finland	3	6
Germany	4	2
United States	5	13
Sweden	6	4
Hong Kong	7	24
Netherlands	8	23
Japan	9	1
United Kingdom	10	9
Malaysia	24	34

Source: The Global Competitiveness Report 2013-2014, World Economic Forum and Complexity Analysis Study of Malaysia's Manufacturing Industries, 2014

*Box 19-1***Economic Complexity Index (ECI)**

The Economic Complexity Index (ECI) summarises the complexity of a country's export basket. International trade data was used to observe the network that connects countries with the products they make. ECI uses this trade network to measure the extent of productive capabilities or "know-how" in the export basket as well as to identify less ubiquitous and more diverse products. Hence, having a high ECI is an indicator of a high income country.

This is based on the framework of economic complexity and the product space developed by Cesar A. Hidalgo (Massachusetts Institute of Technology Media Lab) and Ricardo Hausmann (Harvard University's Kennedy School of Government), clearly outline the opportunity space and the risks involved with different product diversification options. The framework shows that advanced countries produce or export many products with $RCA > 1$ (high diversification) and products that are produced or exported by few countries (low ubiquity). On the other hand, less developed countries produce or export few products with $RCA > 1$ (low diversification) and products that are produced or exported by many countries (high ubiquity). This can be summarised as follows:

- Some countries make almost every product (they are diversified)
- Other countries make only a few products (they are not diversified)
- Some products are made by only a few countries (they are rare)
- Other products are made by almost all countries (they are ubiquitous)
- The products that are ubiquitous are made both by diversified and non-diversified countries
- The products that are rare tend to be made only by countries that are diversified

Policy Reforms

19.20 There are several policy reforms undertaken to strengthen the labour market and to remove market distortions in order to increase industry competitiveness. Minimum wage was introduced to strengthen labour market and to encourage transition from labour intensive to capital intensive industries. In addition, subsidy in energy prices is being rationalised gradually to remove market distortions. These policy reforms have caused a temporary spike in the price of inputs of production and thus affect the competitiveness.

Utilisation of FTA

19.21 There are increasing numbers of FTAs signed. However, the utilisation rate of most of these FTAs is low, at an average of 40% as compared to 45% by other Asian firms. This low utilisation is partly due to lack of awareness of FTAs as only 30% of firms understand the

benefits of FTAs. The utilisation tends to be driven primarily by one or two major sectors and a few large firms³. For example, the utilisation rate of Malaysia-Japan Economic Partnership Agreement in 2012 was only 20%. The inability to utilise FTAs resulted in manufacturers focusing in the domestic market and forgoing opportunities in the FTA partner markets.

Compliance to Standards

19.22 World markets are progressively moving towards green production and environmentally safe products. Compliance to standards requires investment in testing and certification. However, due to lack of awareness, capital and knowledge, difficulties are faced to comply with global environmental requirements. Failure in adhering to requirements result in the goods not being able to be exported.

Enablers

19.23 Enablers are among the determinants of the attractiveness of a nation as an investment destination. Key enablers namely logistics, industrial estates, broadband, and financing help manufacturers to grow and become more competitive in the market. However, there are challenges in the provision of these enablers.

Logistics Support

19.24 Inefficiency and high costs of logistics and trade facilitation cause Malaysia to fall behind some of the ASEAN countries such as Indonesia, Singapore and Thailand, as shown in *Exhibit 19-5*. Costs related to customs clearance, land transportation and goods handling in Malaysia is higher compared to these countries.

Exhibit 19-5

Logistics Performance Index: Selected Countries, 2012

Country	Malaysia	Singapore	Thailand	Indonesia
Export Time and Cost/Port or Airport Supply Chain				
Distance (km)	73	130	300	81
Lead time (days)	3	2	2	2
Cost (USD)	285	178	707	415
Export Time and Cost/Land Supply Chain				
Distance (km)	172	25	300	104
Lead time (days)	2	2	2	3
Cost (USD)	298	250	250	309

Source: Logistics Performance Index Results 2012, World Bank

³ The Study to Assess the Impact of the Implementation of FTAs on Malaysian Industries and Consumers, 2014

Infrastructure

19.25 There are over 600 Industrial Estates (IEs), many of which do not have adequate facilities. They are also not well maintained due to the absence of dedicated park managers and limited resources of the local authorities. Accessibility to and coverage of broadband is still inadequate in many industrial areas. This hinders the use of ICT among manufacturers particularly SMEs, to increase their efficiency and for better market access. Additional challenges confront manufacturers in Sabah and Sarawak. Inadequate infrastructure has resulted in low connectivity and poor quality of utilities. Manufacturers in these states also face greater challenges in trade facilitation, difficulty in registering businesses and limited market access.

Access to Financing

19.26 Financing plays an important part in supporting firms to innovate, scale-up and adopt efficient production processes. However, most private financial institutions are reluctant to provide financing due to risk aversion and lack of expertise to evaluate the viability of new technologies. The requirement for collateral, particularly from new firms and start-ups, is also a barrier to access financing.

IV. ELEVENTH MALAYSIA PLAN, 2016-2020: WAY FORWARD

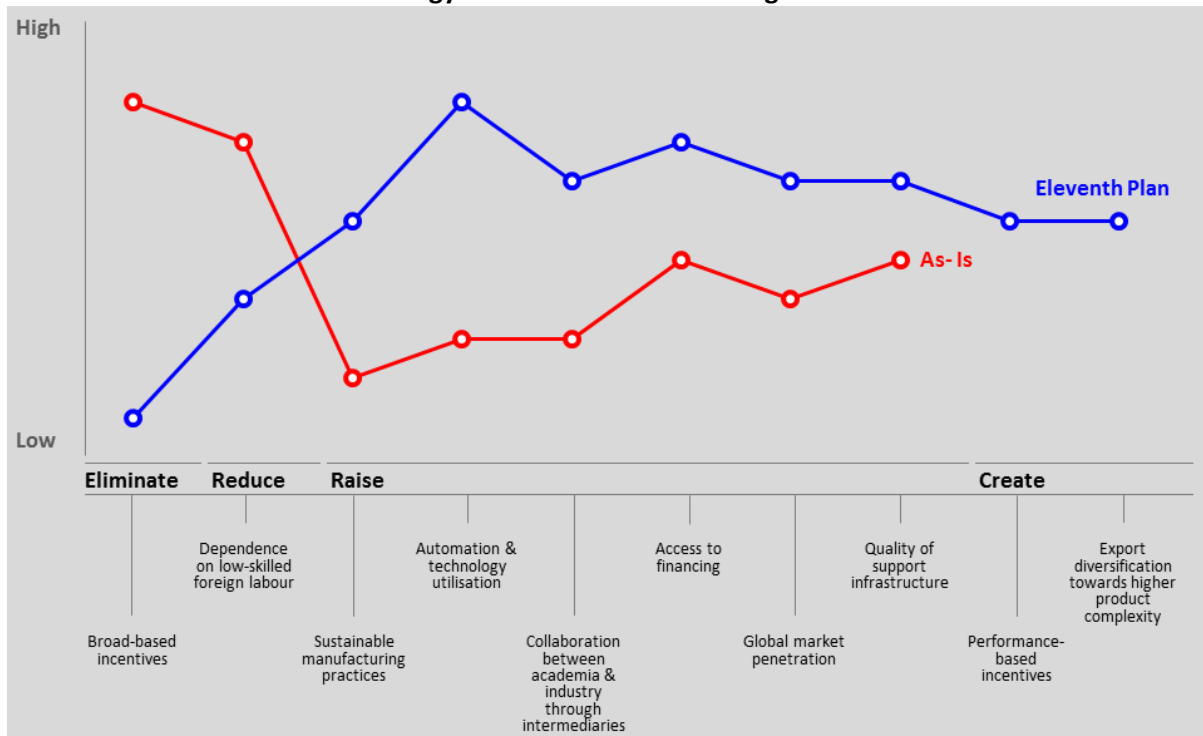
19.27 In the Eleventh Plan, focus will be given on high-end manufacturing activities that capture higher domestic value add, shift towards more complex and diversified products, and generate high-paying jobs. Initiatives will be taken to enhance the quality of manufactured products, particularly from SMEs, and to expand into new and regional markets leveraging on the AEC and FTAs.

19.28 The manufacturing sector is targeted to grow at an annual rate of 5.1% during the Plan period and contribute 22.1% to GDP in 2020, as shown in *Exhibit 19-1*. During the Plan period, its share to total exports is expected to achieve 82.8% or RM3.68 trillion with labour productivity growing at an average annual growth rate of 2.6%. The sector is targeted to provide 18.2% of total employment by 2020.

19.29 Ten strategies have been identified to transform the manufacturing sector, as shown in *Exhibit 19-6*. These strategies are clustered into five policy focus areas, namely:

- moving towards complex and diverse products
- enhancing productivity through automation
- stimulating innovation-led growth
- strengthening growth enablers
- ramping up internationalisation

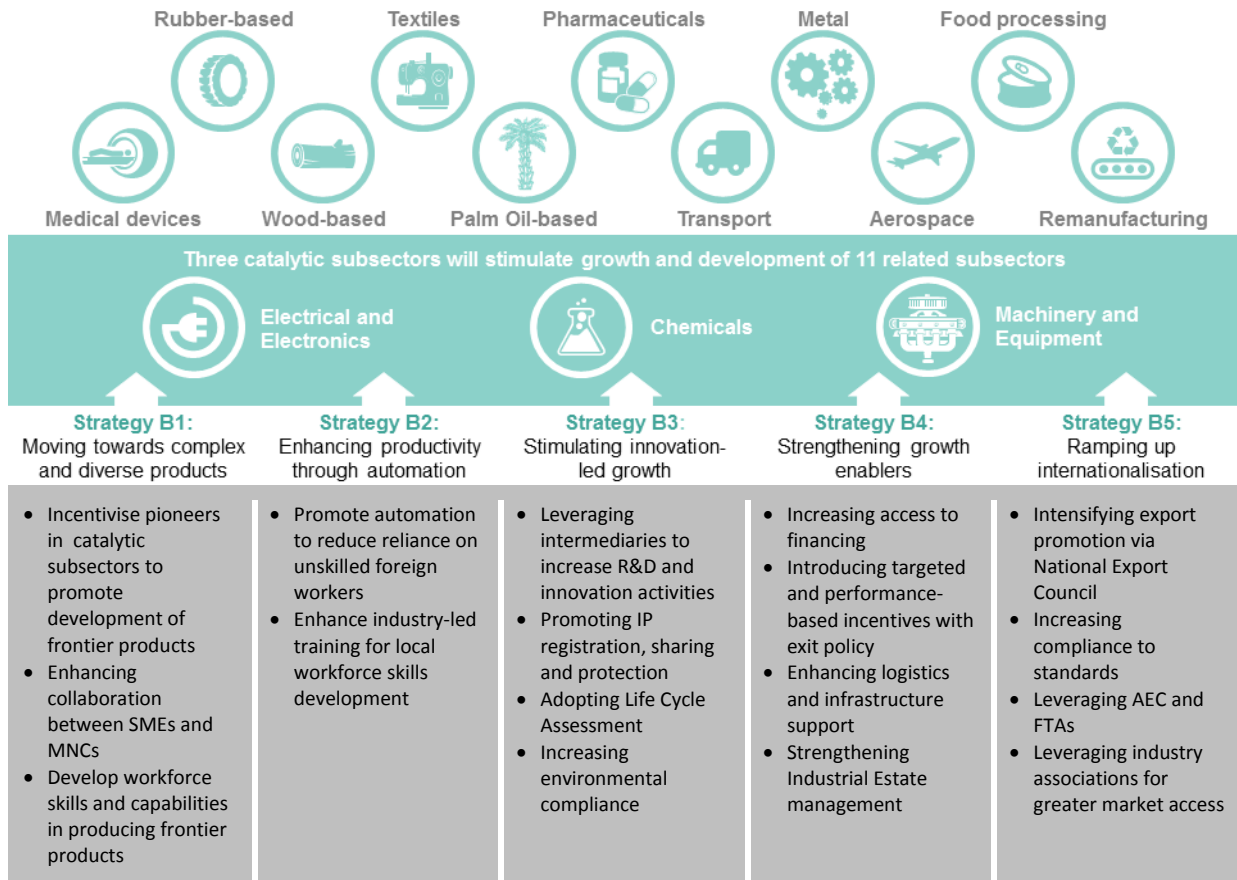
Exhibit 19-6
Strategy Canvas for Manufacturing Sector



19.30 Three catalytic subsectors, namely chemicals, E&E, and M&E as well as two subsectors with high potential growth namely aerospace and medical devices will drive the manufacturing sector growth. This is due to their strong inter-linkages to other subsectors as well as their capacity to support overall manufacturing development. In addition, manufacturers in these subsectors have greater potential and strong capabilities to diversify production towards more complex and high value-added products, as shown in *Exhibit 19-7*. A move towards strategic diversification will be implemented to increase competitiveness particularly in export. Diversification will be focused on complex and high-value products, which are referred to as frontier products.

Exhibit 19-7

The Eleventh Plan Manufacturing Framework



Source: Economic Planning Unit and Ministry of International Trade and Industry

Moving Towards Complex and Diverse Products

19.31 The Complexity Analysis Study of Malaysia's Manufacturing Industries in 2014, identified a total of 238 frontier products, which are complex, technologically feasible and strategically valuable, for diversification. It comprises 66 frontier products in chemicals, 76 in M&E, 9 in E&E and 87 in other subsectors. The frontier products are heavily interconnected with other high-value and complex products, which are produced by advanced economies.

19.32 MIDA and other investment promotion agencies (IPAs) will focus on promoting the identified frontier products. Among the frontier products selected for E&E are electric laser or photon beams and apparatus using X-rays; for chemicals are beauty and cosmetics preparations and lubricating products; and for M&E are power tools and electric ignition equipment. Products of low value and less complex will be removed from the promoted list of products qualified for incentives by MIDA. Other measures include:

- Ministry of International Trade and Industry (MITI) will facilitate producers of frontier products, industry associations and academic institutions to participate and invest in the development of centre of excellences in frontier industries
- MIDA will include the frontier products in their promoted list for incentives to encourage manufacturers to diversify into these products
- SME Corporation Malaysia (SME Corp.) will strengthen partnerships between SMEs and large companies and emulate successful models for frontier products
- a task force for chemicals and M&E subsectors will be established to access potential for collaborative research similar to the function of Collaborative Research in Engineering, Science & Technology (CREST) Centre
- MATRADE will encourage MNCs to assist promising SME suppliers in frontier industries gain access to untapped export markets
- leveraging the Industry Skills Council (ISC), MITI will bridge skills gaps by collaborating with other relevant ministries and agencies including industry associations, to outline a skills framework in frontier industries
- scope of existing funds under various agencies will be expanded to encourage SMEs, in particular start-ups, to venture into frontier industries

Enhancing Productivity Through Automation

19.33 In the Eleventh Plan, industries will be encouraged to increase productivity through automation, reduce reliance on foreign workers and develop more high skilled workers through industry-led training.

Promoting Automation

19.34 Greater automation and technology utilisation to increase productivity will be promoted to reduce the reliance on low-skilled foreign workers. Developmental and financial assistance will be continued to encourage automation of production processes. The scope of existing financial assistance will be expanded to include acquiring technology, training, reskilling and upskilling for the purpose of operation and maintenance of machinery.

Reducing Ease of Getting Foreign Workers

19.35 A series of measures will be undertaken to reduce the ease of getting unskilled foreign workers to encourage automation in production. Among the measures that will be undertaken are:

- increasing the rate of foreign worker levy gradually in the manufacturing sector
- imposing a cap on foreign workers where manufacturers who operate within the cap will be given priority for specialised and performance-based incentives
- tightening inflow of foreign workers through monitoring of firms applying for manufacturing licences and incentives as well as imposing harsher penalties on manufacturers who employ illegal foreign workers
- increasing the minimum wage gradually to reduce demand for foreign workers and encourage greater automation

Enhancing Industry-Led Skills Training

19.36 Measures towards automation and higher productivity will be supported by enhancement of industry-led skills training through greater collaboration with industry experts and training institutes. The measures to be undertaken are aligned with the shift towards technical and vocational education and training (TVET). The measures that will be introduced are:

- encouraging manufacturers to collaborate with skills development centres to equip and upgrade the training facilities with up-to-date equipment and machinery to ensure workforce readiness
- leveraging ISC to strengthen, develop and roll out new and relevant syllabus specific to emerging industry requirements through identification of areas and profiling of human capital
- encouraging manufacturers to provide longer periods of internships for students. A structured internship programme with industries will be introduced to produce talent that are industry-ready upon course completion
- promoting re-skilling and up-skilling of skilled workers to upgrade their level of competency and to acquire high-paying jobs

Stimulating Innovation-Led Growth

19.37 Product and process innovation are essential for manufacturing sector growth and competitiveness. Innovation has to be perceived as an investment rather than cost as it increases productivity. In this regard, manufacturers will be encouraged to:

- leverage intermediaries to increase R&D and innovation activities
- leverage industry associations and chambers of commerce to drive innovation and productivity
- promote IPR sharing and protection
- adopt life cycle assessment
- streamline industry development to multilateral environmental commitments

Leveraging Intermediaries to Increase R&D and Innovation Activities

19.38 Manufacturers will be encouraged to undertake R&D and innovation activities to improve their products and processes by leveraging existing research institutions through intermediaries such as Steinbeis Malaysia Foundation (Steinbeis), SIRIM-Fraunhofer and PlaTCOM Ventures Sdn. Bhd. These intermediaries will engage relevant experts to provide solutions for manufacturing problems and strengthen collaboration between manufacturers and research institutions. The collaboration will, reduce the cost of conducting R&D, increase technical knowledge as well as improve work processes. In addition, the 1-InnoCERT programme by SME Corp. will be further promoted to complement the collaboration efforts by the intermediaries.

Leveraging Industry Associations and Chambers of Commerce to Drive Innovation and Productivity

19.39 Industry associations and chambers of commerce will be leveraged as the platform to spur innovation and adopt technology to improve productivity. This platform will be used to disseminate information on industry-related policies, obtain feedback and conduct industry specific training. In addition, information on improvement tools such as Lean Six Sigma, A3 Problem Solving, Total Quality Management and Enterprise Resource Planning can also be shared.

Promoting IPR Sharing and Protection

19.40 Collaboration between research institutions and manufacturers will be further strengthened through promotion of IPR sharing and protection. Clear and transparent guidelines on IP sharing and protection will be developed by research institutions to protect the interests and ensure fair returns to researchers and manufacturers. These guidelines will further encourage public research institutions to undertake collaborative research with the private sector. In addition, a 'pay per use' mechanism will be introduced in public laboratories and R&D facilities to reduce R&D costs to manufacturers and smaller research institutions, and increase returns on investment for the facilities.

Adopting Life Cycle Assessment

19.41 The adoption of sustainable manufacturing processes, through the use of life cycle assessment (LCA), will be promoted, in line with the global trend towards sustainable consumption and production. Towards this end, manufacturers will be encouraged to use green production processes to recover materials from waste thus reducing the use of raw

materials in production. The use of LCA will catalyse the development of the remanufacturing industry as a new source of economic growth.

Streamlining Industry Development to Multilateral Environmental Commitments

19.42 Industry development will be streamlined to multilateral environmental and international commitments to ensure products comply with international standards and to overcome non-tariff barriers. The following measures will be taken:

- adopting a participatory approach through early engagement with relevant stakeholders in setting national goals and priorities, in all international negotiations to ensure national interests are protected
- developing a close collaboration, cooperation and communications system between Government agencies and manufacturers to increase compliance with multilateral environmental commitments
- adopting the sustainable consumption and production (SCP) approach in which policies, strategies, rules and regulations with regard to manufacturing will incorporate the three pillars of sustainable development namely economy, social and environment
- increasing international strategic alliances with developed economies especially in the field of technology, innovation and R&D to ensure environmental requirement compliance as well as reduce compliance-related costs

Strengthening Growth Enablers

19.43 Financing, incentives, logistics services and IEs are key enablers of growth for the manufacturing sector. In this regard, strategies identified to enable the growth of the sector are through increasing access to financing, introducing performance-based incentives with exit policy and enhancing physical infrastructure support.

Increasing Access to Financing

19.44 Access to financing to support innovation will be improved by increasing the confidence level of financial institutions on innovation process and risks. These institutions will be encouraged to establish independent panel of experts to evaluate business and innovation projects in new areas. Loan procedures will be standardised, demand for collateral reduced, and IPs monetised and recognised to increase access to financing. These efforts will be further supported through:

- PARTNER Programme by The Association of Banks in Malaysia which simplifies the process of securing loans particularly for SMEs
- One Referral Centre (ORC) as a single portal under the SME Corp. to consolidate information on the availability of financial support from banks, financial institutions and government agencies
- BNMLINK, acts as a centralised point of contact to provide a rapid and effective response related to financial issues

Introducing Performance-Based Incentives

19.45 MIDA and other IPAs will introduce performance-based incentives, which are incentives with clear key performance indicators, validity period and exit policy to increase productivity and spur innovation among manufacturers. Incentives will be designed to attract quality investments, promote automation, increase the number of multi-skilled workers and enhance sustainable manufacturing.

Enhancing Logistics and Infrastructure Support

19.46 Logistics and trade facilitation ecosystem will be enhanced to optimise the movement of goods, thus reducing overall product cost as well as increasing productivity and competitive advantage. Virtual selling platform, which adopts e-commerce features, will be promoted to match logistics supply and demand to encourage SMEs to leverage online retails and gain access to a wider market.

19.47 IEs will be developed with a shift in perspective from real estate development to a key enabler for long-term economic growth. A full lifecycle costing approach will be adopted to ensure viability and sustainability of the IEs. In this respect, MITI will undertake the following measures:

- design a self-sustaining park management model to strengthen the current governance of IEs. The model will include, among others, roles and responsibilities of park managers as customer service providers to facilitate tenants in the IEs. Park managers will be responsible to plan and provide adequate facilities and utilities such as roads, electricity, water and broadband infrastructure as well as security services and promotion
- develop a centralised repository to house information on IEs including location, physical attributes and land availability. This repository will be used by MIDA to attract investments and facilitate investors in locating their businesses

Ramping Up Internationalisation

19.48 As a small and open economy, the country's growth trajectory is tied to trade performance. Continuous efforts will be undertaken to explore and expand into new markets in order to be among the preferred trading partners. Measures to be undertaken include:

- intensifying export promotion
- increasing compliance to standards
- capitalising on AEC and FTAs
- leveraging industry associations for greater market access
- enhancing SME collaboration with MNCs

Intensifying Export Promotion

19.49 Moving forward, MATRADE and other related agencies will intensify export promotion through the following strategies:

- leverage the National Export Council to address the gaps and challenges in the export supply chain
- continue Mid-Tier Companies Development Programme to accelerate export growth and to strengthen the core business functions of mid-tier companies with an average annual revenue of RM20 million to RM500 million. This will facilitate access to new markets through global networks, distributors, and technology partners. About 50 mid-tier companies are expected to participate in this programme each year until 2020
- continue Going Export (GoEx) Programme to internationalise SMEs and raise their export contribution from 15.7% in 2010 to 25.0% by 2020
- engage experts to gather information on overseas markets to help local firms to participate in export

Increasing Compliance to Standards

19.50 More standards and relevant regulations will be made mandatory to ensure manufacturers remain competitive and are able to penetrate global markets. The following strategies will be undertaken:

- increasing collaboration between Department of Standards Malaysia and manufacturers to identify relevant international standards to be adopted by the local industry

- adopting sustainable production practices that enable manufacturers to produce eco-friendly products to meet demand for green products particularly, in the European market

Capitalising on AEC and FTAs

19.51 The onset of AEC in 2015 creates a positive environment for trade and investment and opening up the market for Malaysian businesses to 620 million people in the region. One of the pillars of AEC is a 'single production base' where ASEAN can be the manufacturing hub of products to serve ASEAN and its trading partners. AEC is also expected to address other issues such as movement of skilled labour, taxation and IP protection to support the single production base concept. The AEC Blueprint 2015 lays the foundation for further deepening of economic integration of ASEAN beyond 2015. MITI as a lead agency will drive the following initiatives:

- promoting greater intra-ASEAN industry linkages to strengthen supply chain and production networks to maximise opportunities in ASEAN and other greenfield markets
- encouraging cross-border investments by leveraging sub-regional growth triangles to promote growth in border areas such as Serikin in Sarawak-Kalimantan and Padang Besar in Perlis-Songkhla
- leveraging existing Malaysian companies in People's Republic of China and India by collaborating with their State Owned Enterprises
- increasing awareness on the benefits of FTAs to increase the utilisation rate of FTAs as well as to explore possibilities for future FTAs

Leveraging Industry Associations for Greater Market Access

19.52 Industry associations will be encouraged to play a greater role to facilitate information sharing, market accessibility, technology upgrade and human resource development inter- and intra-subsectors. This will strengthen the industry associations, enabling them to lead their industry in the global arena. The associations will be encouraged to:

- form smart partnerships with other industry associations in foreign countries, where manufacturers will gain valuable information on market trends, get advice and know-how from experts on standards and regulations, gain business opportunities and discuss industry related issues including non-tariff barriers

- promote consortium approach among members to pool resources and market intelligence, widen range of products, knowledge sharing and enhance networking to improve export capabilities as well as overcome costs and risks to penetrate foreign markets

Enhancing SME Collaboration with MNCs

19.53 Stronger support will be provided for SMEs to increase their capacity and capability. In addition, MNCs will be encouraged to nurture and guide the SMEs to become their suppliers and vendors. Among strategies to be undertaken include:

- expanding the factory-in-factory concept, where SMEs are given the opportunity to operate within MNC facilities
- imposing tighter conditions for MNCs to source for inputs locally, particularly through SMEs
- strengthening the Vendor Development Programme to nurture SMEs to grow from second-tier suppliers to become first-tier suppliers and eventually become Own-Brand-Manufacturers and Own-Design-Manufacturers

V. CONCLUSION

19.54 In the Eleventh Plan, the manufacturing sector will be restructured to remain competitive. Strategic initiatives will be undertaken to produce more complex, diversified and high value products through the development of catalytic subsectors. Firms will be encouraged to increase productivity through automation and innovation; implement sustainable production practices and leverage industry associations to be more competitive. Focus will shift towards quality, integrated sectoral governance, performance-based incentives and further promoting exports.