



KEMENTERIAN EKONOMI
JABATAN PERANGKAAN MALAYSIA

B//23

BANCI EKONOMI *ECONOMIC CENSUS* **2023**



PEMBUATAN *MANUFACTURING*

JABATAN PERANGKAAN MALAYSIA
Department of Statistics Malaysia



KEMENTERIAN EKONOMI
JABATAN PERANGKAAN MALAYSIA

BANCI EKONOMI
ECONOMIC CENSUS
2023

PEMBUATAN
MANUFACTURING

Pemakluman

Jabatan Perangkaan Malaysia (DOSM) telah melancarkan OpenDOSM NextGen sebagai medium yang menyediakan katalog data dan visualisasi bagi memudahkan pengguna menganalisis pelbagai data dan boleh diakses melalui portal <https://open.dosm.gov.my>.

DOSM sedang menjalankan Banci Pertanian pada tahun 2024. Sila layari <https://www.myagricensus.gov.my/> untuk maklumat lanjut. Tema adalah "Banci Pertanian, Kunci Kemajuan Pertanian."

Kerajaan Malaysia telah mengisytiharkan Hari Statistik Negara (MyStats Day) pada 20 Oktober setiap tahun. Tema sambutan MyStats Day adalah "Statistik Nadi Kehidupan". DOSM menyambut ulang tahun ke 75 Jubli Intan pada tahun 2024.

Announcement

The Department of Statistics Malaysia (DOSM) has launched OpenDOSM NextGen as a medium that provides a catalog of data and visualisations to facilitate users' analysis of various data and can be accessed through <https://open.dosm.gov.my>.

DOSM is conducting the Agricultural Census in 2024. Please visit <https://www.myagricensus.gov.my/> for more information. The theme is "Agriculture Census, Key to Agricultural Development."

The Government of Malaysia has declared National Statistics Day (MyStats Day) on October 20th each year. MyStats Day theme is "Statistics is the Essence of Life". DOSM commemorates its 75th Diamond Jubilee in 2024.

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“Sumber: Jabatan Perangkaan Malaysia”.

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Penerbitan Banci Ekonomi 2023 sektor Pembuatan memaparkan statistik yang diperoleh daripada Banci Ekonomi 2023 bagi tahun rujukan 2022. Banci ini meliputi semua pertubuhan berdaftar yang terlibat dalam aktiviti ekonomi termasuk sektor Pembuatan. Pertubuhan dikelaskan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi 1.0, berdasarkan *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008*. Banci terdahulu telah dijalankan pada tahun 2016, bagi tahun rujukan 2015.

Statistik utama berkaitan bilangan pertubuhan, output kasar, input perantaraan, nilai ditambah, pekerja, gaji & upah dan harta tetap dilaporkan dalam penerbitan ini di peringkat nasional dan negeri. Selain itu, statistik mengenai pemilikan wanita turut dipaparkan. Statistik ini boleh digunakan oleh agensi kerajaan, ahli ekonomi, ahli akademik, pihak swasta serta individu bagi membuat perancangan dan penggubalan dasar, analisis ekonomi, unjuran dan membantu merancang pembangunan perniagaan.

Penerbitan ini dibahagikan kepada empat bahagian. Bahagian pertama memaparkan sorotan utama statistik bagi sektor Pembuatan, diikuti ringkasan penemuan di bahagian kedua. Sementara itu, bahagian ketiga memaparkan jadual statistik terperinci, manakala bahagian keempat merangkumi aspek teknikal, termasuk skop dan liputan, konsep dan definisi, serta penerangan berkaitan pembolehubah utama.

Jabatan Perangkaan Malaysia (DOSM) merakamkan setinggi-tinggi penghargaan atas kerjasama semua pihak yang telah menyediakan data yang diperlukan dan menyumbang kepada kejayaan penerbitan ini. Setiap maklum balas dan cadangan ke arah menambah baik laporan pada masa hadapan adalah amat dihargai.

DATO' SRI DR. MOHD UZIR MAHIDIN

Ketua Perangkawan Malaysia

Julai 2024

The Economic Census 2023 Manufacturing sector publication presents the statistics obtained from the Economic Census 2023 for the reference year 2022. The census covered all registered establishments engaged in economic activities including Manufacturing sector. The establishments are classified according to Malaysia Standard Industrial Classification (MSIC) 2008 Version 1.0, following the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008. The previous census was conducted in 2016, for the reference year of 2015.

Key statistics pertaining to number of establishments, gross output, intermediate input, value added, persons engaged, salaries & wages and fixed assets are reported in this publication at national and state level. Additionally, statistics women ownership are also presented. These statistics can be used by government agencies, economists, academicians, private sectors and individuals for planning and formulating policies, economic analysis, projections and assisting in business development planning.

The publication is divided into four parts. The first part displays the main highlights of statistics for the Manufacturing sector, followed by a summary of findings in the second part. Meanwhile, the third part provides detailed statistical tables, while the fourth part covers technical aspects, including scope and coverage, concepts and definitions, and explanations of key variables.

The Department of Statistics Malaysia (DOSM) gratefully acknowledges the cooperation of all parties who have provided the required data and contributed to the success of this publication. Every feedback and suggestion towards improving future reports is highly appreciated.

DATO' SRI DR. MOHD UZIR MAHIDIN

Chief Statistician Malaysia

July 2024

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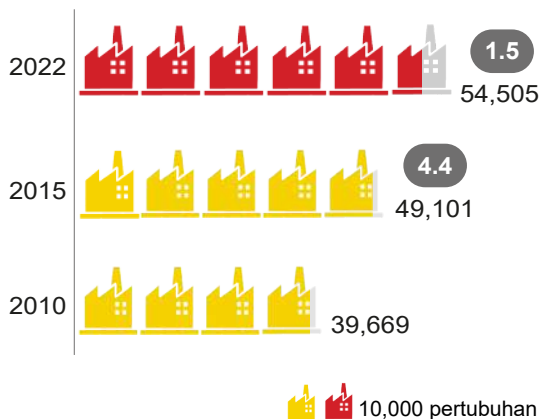
BAHAGIAN 1
PART

BANCI EKONOMI 2023 SEKTOR PEMBUATAN

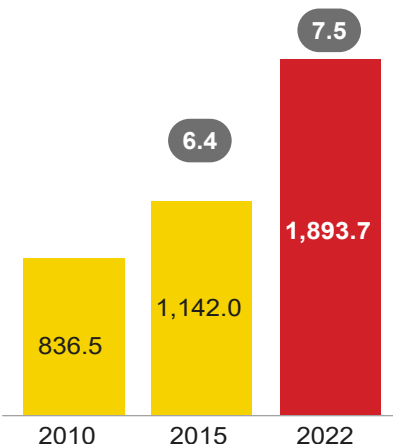
STATISTIK UTAMA

Banci Ekonomi 2023 menunjukkan 54,505 pertubuhan dalam sektor Pembuatan menghasilkan output kasar RM1.89 trilion pada tahun 2022, melonjak 7.5 peratus dalam tempoh tujuh tahun

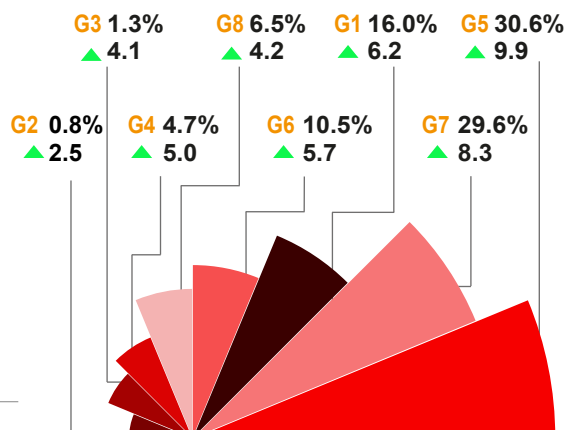
BILANGAN PERTUBUHAN



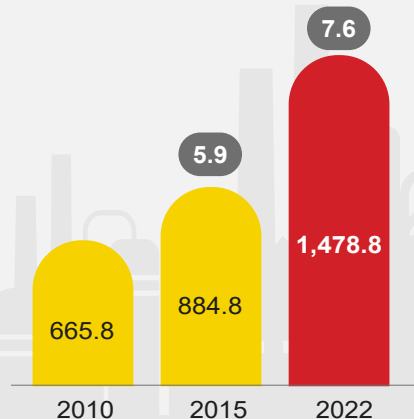
OUTPUT KASAR (RM bilion)



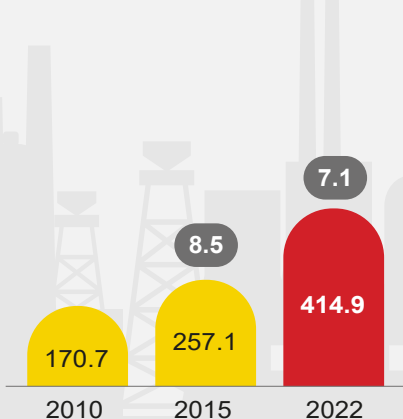
Subsektor Pembuatan



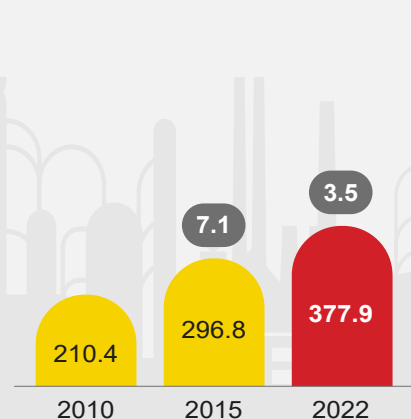
INPUT PERANTARAAN (RM bilion)



NILAI DITAMBAH (RM bilion)

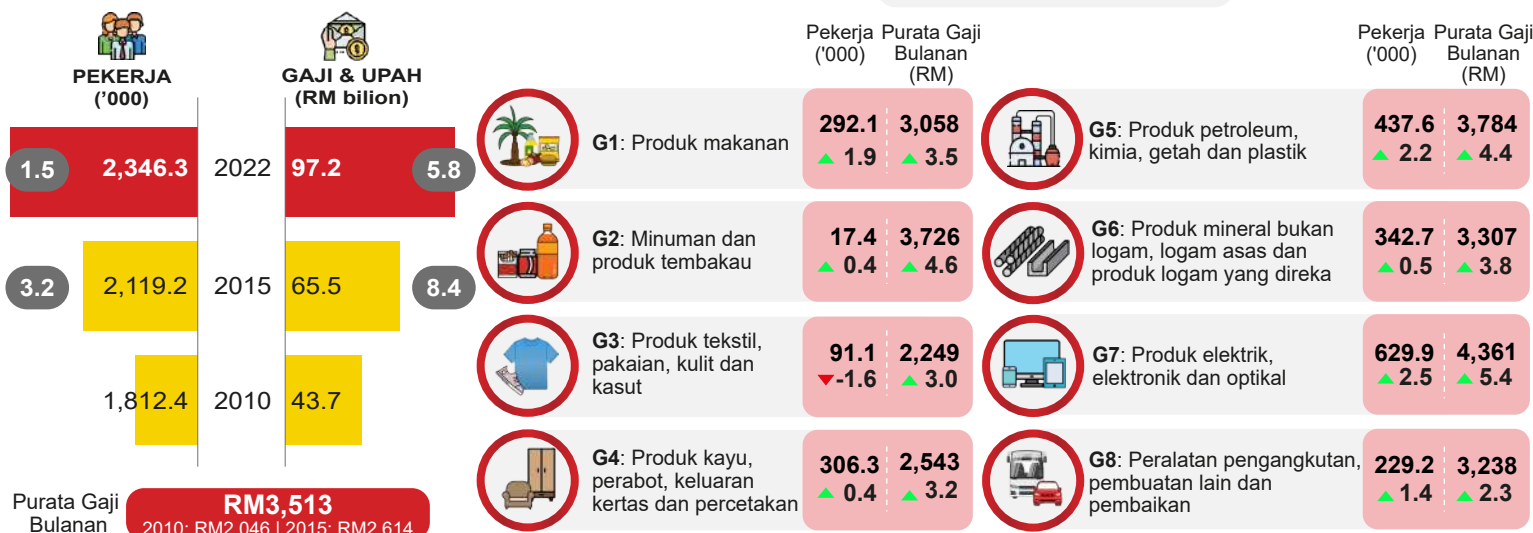


HARTA TETAP (RM bilion)



PEKERJA DAN GAJI & UPAH

Subsektor Pembuatan

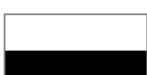


▲ Kadar pertumbuhan tahunan (CAGR)

Sumber: Banci Ekonomi 2023, Pembuatan
Jabatan Perangkaan Malaysia (DOSM)

BANCI EKONOMI 2023 SEKTOR PEMBUATAN

STATISTIK UTAMA NEGERI

		OUTPUT KASAR 	INPUT PERANTARAAN 	NILAI DITAMBAH 	PEKERJA 	GAJI & UPAH 	HARTA TETAP 
Johor		RM316.4b	RM254.6b	RM61.9b	483,010	RM18.0b	RM81.1b
Kedah		RM87.3b	RM70.5b	RM16.8b	118,195	RM4.6b	RM19.4b
Kelantan		RM5.9b	RM4.8b	RM1.1b	19,349	RM466.4j	RM1.5b
Melaka		RM112.7b	RM91.4b	RM21.3b	99,891	RM4.4b	RM23.5b
Negeri Sembilan		RM115.7b	RM91.1b	RM24.7b	93,162	RM4.5b	RM17.9b
Pahang		RM69.0b	RM55.9b	RM13.1b	54,762	RM2.3b	RM17.7b
Pulau Pinang		RM303.2b	RM245.9b	RM57.3b	371,732	RM18.5b	RM39.7b
Perak		RM75.2b	RM57.6b	RM17.7b	147,337	RM5.3b	RM19.9b
Perlis		RM4.0b	RM3.3b	RM714.7j	5,167	RM124.4j	RM432.6j
Selangor		RM516.4b	RM386.9b	RM129.5b	723,767	RM29.8b	RM85.1b
Terengganu		RM47.3b	RM33.3b	RM14.0b	26,516	RM1.5b	RM10.2b
Sabah		RM48.9b	RM42.0b	RM6.9b	61,651	RM1.7b	RM11.3b
Sarawak		RM176.6b	RM131.3b	RM45.3b	101,167	RM4.3b	RM45.6b
W.P. Kuala Lumpur		RM11.4b	RM8.2b	RM3.2b	37,617	RM1.4b	RM3.5b
W.P. Labuan		RM3.5b	RM2.1b	RM1.4b	2,748	RM200.0j	RM1.1b
W.P. Putrajaya		RM8.5j	RM4.2j	RM4.3j	182	RM3.9j	RM1.2j

Nota: b: billion
j: juta

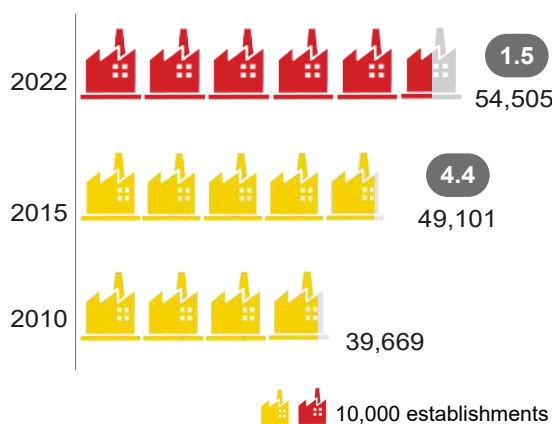
Sumber: Banci Ekonomi 2023, Pembuatan
Jabatan Perangkaan Malaysia (DOSM)

ECONOMIC CENSUS 2023 MANUFACTURING SECTOR

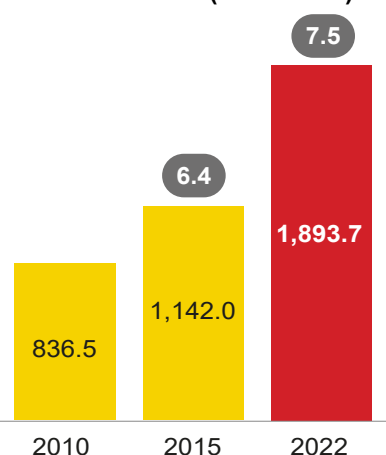
KEY STATISTICS

Economic Census 2023 revealed 54,505 establishments in Manufacturing sector produced a gross output of RM1.89 trillion in 2022, surged by 7.5 per cent within seven years

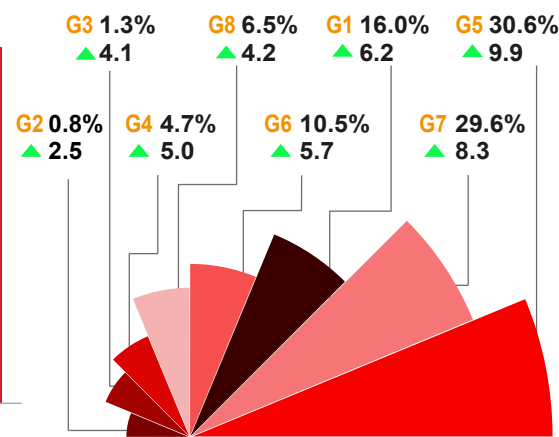
NUMBER OF ESTABLISHMENTS



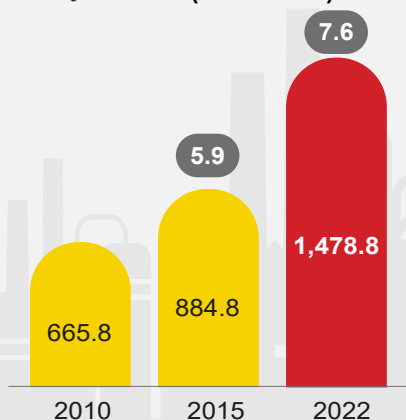
GROSS OUTPUT (RM billion)



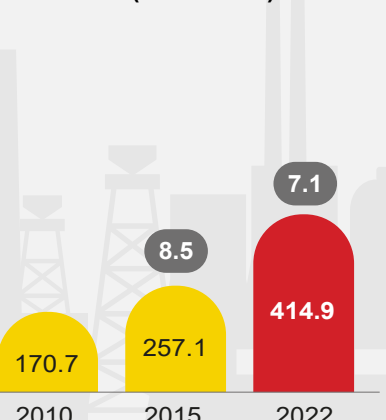
Manufacturing sub-sector



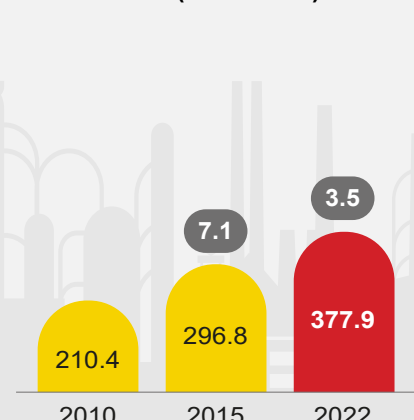
INTERMEDIATE INPUT (RM billion)



VALUE ADDED (RM billion)

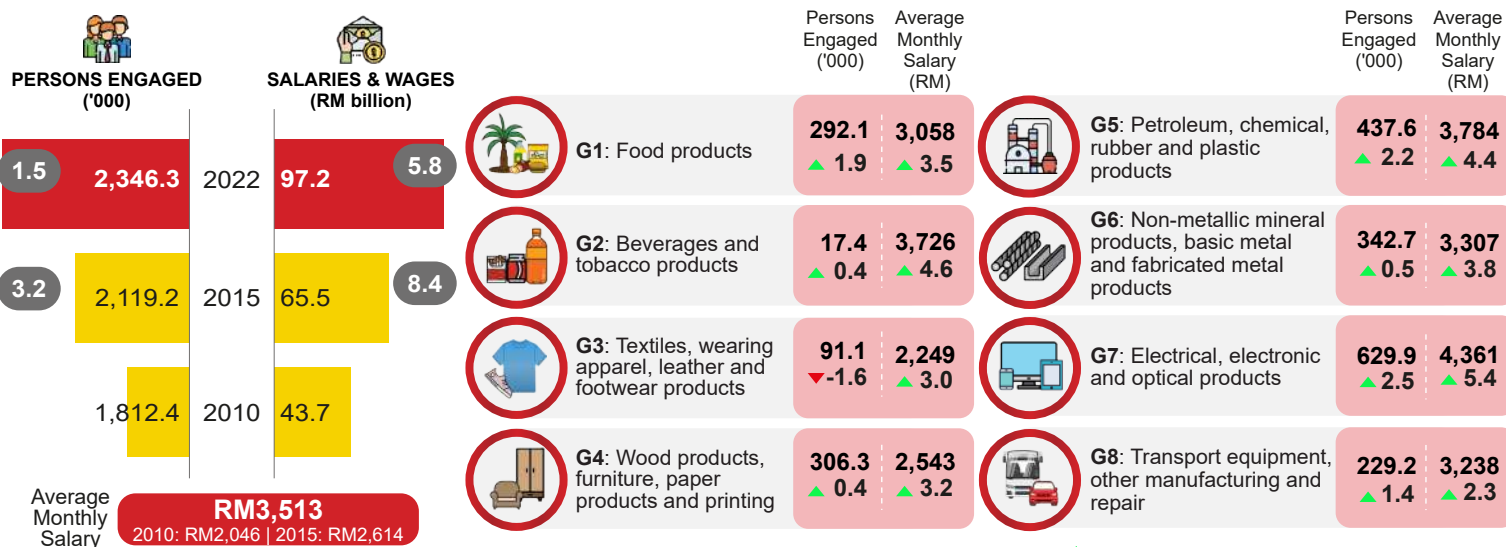


FIXED ASSETS (RM billion)



PERSONS ENGAGED AND SALARIES & WAGES

Manufacturing sub-sector



Compound annual growth rate (CAGR)

ECONOMIC CENSUS 2023 MANUFACTURING SECTOR

STATES KEY STATISTICS

		GROSS OUTPUT 	INTERMEDIATE INPUT 	VALUE ADDED 	PERSONS ENGAGED 	SALARIES & WAGES 	FIXED ASSETS
Johor		RM316.4b	RM254.6b	RM61.9b	483,010	RM18.0b	RM81.1b
Kedah		RM87.3b	RM70.5b	RM16.8b	118,195	RM4.6b	RM19.4b
Kelantan		RM5.9b	RM4.8b	RM1.1b	19,349	RM466.4m	RM1.5b
Melaka		RM112.7b	RM91.4b	RM21.3b	99,891	RM4.4b	RM23.5b
Negeri Sembilan		RM115.7b	RM91.1b	RM24.7b	93,162	RM4.5b	RM17.9b
Pahang		RM69.0b	RM55.9b	RM13.1b	54,762	RM2.3b	RM17.7b
Pulau Pinang		RM303.2b	RM245.9b	RM57.3b	371,732	RM18.5b	RM39.7b
Perak		RM75.2b	RM57.6b	RM17.7b	147,337	RM5.3b	RM19.9b
Perlis		RM4.0b	RM3.3b	RM714.7m	5,167	RM124.4m	RM432.6m
Selangor		RM516.4b	RM386.9b	RM129.5b	723,767	RM29.8b	RM85.1b
Terengganu		RM47.3b	RM33.3b	RM14.0b	26,516	RM1.5b	RM10.2b
Sabah		RM48.9b	RM42.0b	RM6.9b	61,651	RM1.7b	RM11.3b
Sarawak		RM176.6b	RM131.3b	RM45.3b	101,167	RM4.3b	RM45.6b
W.P. Kuala Lumpur		RM11.4b	RM8.2b	RM3.2b	37,617	RM1.4b	RM3.5b
W.P. Labuan		RM3.5b	RM2.1b	RM1.4b	2,748	RM200.0m	RM1.1b
W.P. Putrajaya		RM8.5m	RM4.2m	RM4.3m	182	RM3.9m	RM1.2m

Note: b: billion
m: million

Source: Economic Census 2023, Manufacturing
Department of Statistics Malaysia (DOSM)

RINGKASAN PENEMUAN

*SUMMARY OF
FINDINGS*



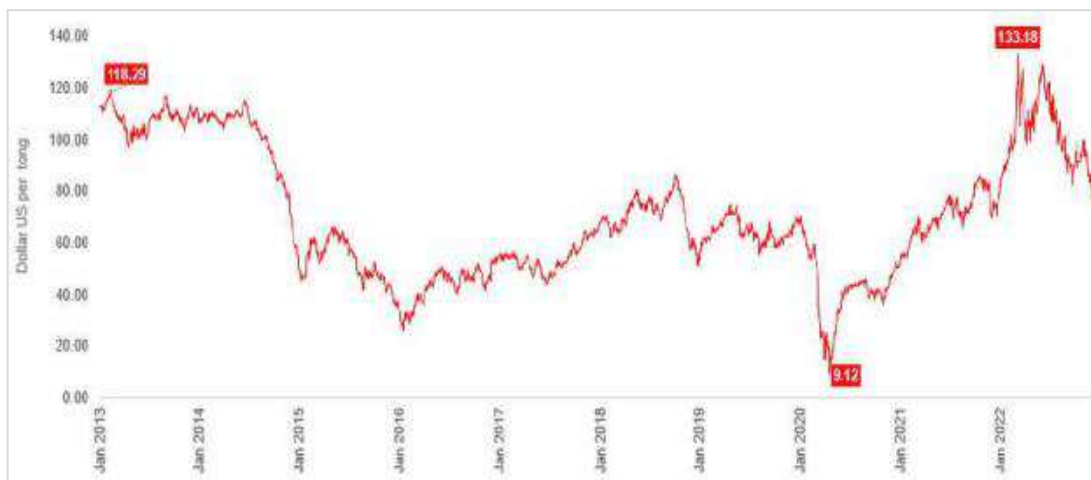
BAHAGIAN 2
PART

1. Pengenalan

Ekonomi global berdepan pelbagai cabaran dan peluang pada tahun 2022, pada ketika inflasi yang tinggi, pengetatan dasar monetari yang agresif dan ketidaktentuan yang berpunca daripada perang Rusia-Ukraine dan pandemik yang berlarutan. Meskipun serata dunia sedang mengalami pemulihan daripada COVID-19, namun kesannya tidak sekata di mana terdapat rantau yang mengalami pertumbuhan pesat manakala yang selainnya berhadapan dengan kemelesetan.

Di samping itu, kemelut pergolakan geopolitik, terutamanya pencerobohan Rusia ke atas Ukraine, telah menyebabkan krisis kemanusiaan yang membimbangkan dan mengganggu rantai bekalan pelbagai komoditi penting, terutamanya yang memberi kesan kepada harga minyak mentah Brent. Harga minyak telah melonjak daripada paras terendah USD 9.12 per tong pada April 2020 kepada paras tertinggi sebanyak USD 133.18 per tong pada Mac 2022 (**Carta 1**). Pada masa yang sama, kos makanan global turut meningkat ke paras yang tidak pernah berlaku sebelum ini disebabkan konflik berkenaan. Kenaikan tersebut telah memberi kesan kepada kos pengeluaran merentasi pelbagai sektor ekonomi dan mendorong kepada dalam inflasi makanan yang tinggi.

Carta 1: Harga Harian Minyak Mentah Brent (USD per tong, 2013 - 2022)



Sumber: U.S. Energy Information Administration

Di Malaysia, meskipun pertumbuhan global yang perlahan, ekonomi Malaysia mencatatkan prestasi yang memberangsangkan sebanyak 8.9 peratus pada tahun 2022, berbanding 3.3 peratus pada tahun sebelumnya. Sektor Pembuatan terus berkembang sebanyak 8.1 peratus pada tahun 2022 selepas mencatatkan peningkatan sebanyak 9.5 peratus pada tahun 2021. Prestasi yang baik ini didorong oleh permintaan domestik dan pasaran buruh yang lebih baik selaras dengan peralihan ke fasa endemik.

Bagi mendapatkan pemahaman yang lebih mengenai struktur ekonomi bagi tahun 2022, Jabatan Perangkaan Malaysia (DOSM) telah menjalankan Banci Ekonomi 2023. Inisiatif ini bertujuan untuk memperoleh pandangan yang lebih mendalam mengenai pertumbuhan ekonomi dan mengenal pasti sebarang ketidakseimbangan yang memerlukan perhatian, memberikan gambaran yang lebih jelas mengenai keadaan ekonomi negara. Data yang dikumpulkan daripada banci ini berfungsi sebagai asas penting untuk Kerajaan, pelabur, dan penyelidik untuk membuat keputusan yang tepat serta membangunkan strategi dan dasar yang berkesan untuk memajukan ekonomi negara.

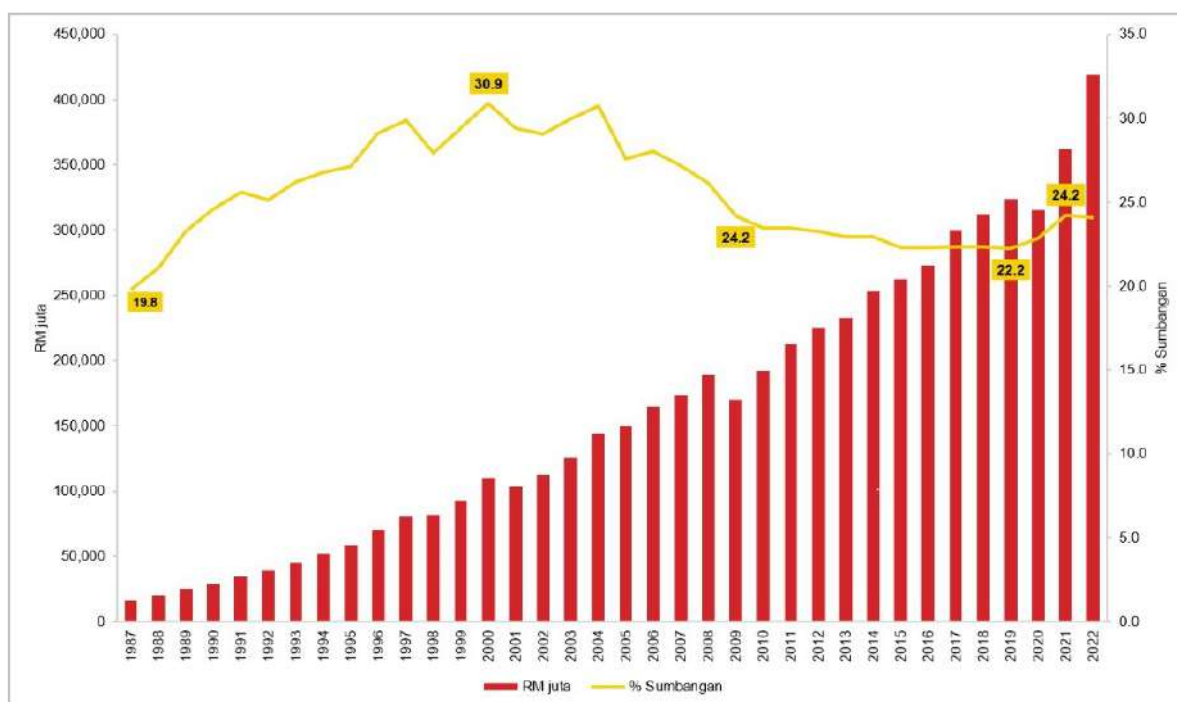
Laporan ini membentangkan statistik utama sektor Pembuatan iaitu bilangan pertubuhan, output kasar, input perantaraan, nilai ditambah, tenaga kerja, gaji & upah serta aset tetap. Liputan Banci Ekonomi 2023 bagi sektor Pembuatan adalah sebanyak 259 industri mengikut Klasifikasi Industri Standard Malaysia 2008 Versi 1.0. Seterusnya, industri tersebut diagregatkan kepada 8 subsektor, iaitu Produk makanan; Minuman dan produk tembakau; Produk tekstil, pakaian, kulit dan kasut; Produk kayu, perabot, keluaran kertas dan percetakan; Produk petroleum, kimia, getah dan plastik; Produk mineral bukan logam, logam asas dan produk logam yang direka; Produk elektrik, elektronik dan optikal; dan Peralatan pengangkutan, pembuatan lain dan pembaikan.

2. Prestasi Sektor Pembuatan

Mengimbu evolusi sektor Pembuatan di Malaysia, sektor ini pada mulanya menumpukan kepada industri asas seperti pemprosesan makanan, tekstil dan barangan pengguna. Dasar Ekonomi Baru, yang telah diperkenalkan pada 1971, dan pelancaran Pelan Induk Perindustrian 1 (IMP1) pada awal 1980-an telah memainkan peranan penting dalam penyusunan semula ekonomi dan pembentukan semula sektor Pembuatan ke arah fasa perindustrian. Dasar ini menekankan pembangunan infrastruktur dan menggalakkan industri utama yang berorientasikan eksport seperti elektronik, produk elektrik, alat ganti automotif dan bahan kimia.

Di samping itu, bermula dari tahun 1982, perindustrian di Malaysia dipacu oleh “Dasar Pandang ke Timur” yang bertujuan untuk mencontohi model kejayaan ekonomi negara-negara Asia Timur. Dasar ini, berserta dengan penubuhan zon perindustrian antara lain Zon Perdagangan Bebas Bayan Lepas dan Zon Perdagangan Bebas Pasir Gudang telah menarik pelaburan langsung asing (FDI) serta menggalakkan industri pembuatan berorientasikan eksport.

Lanjutan itu, sektor Pembuatan mencatatkan peningkatan yang ketara bagi sumbangan ekonominya, daripada 19.8 peratus pada tahun 1987 kepada sumbangan tertinggi iaitu 30.9 peratus pada tahun 2000. Walau bagaimanapun, semasa ekonomi Malaysia menghadapi kemelesetan berikutan krisis kewangan global pada tahun 2009, sumbangan sektor Pembuatan menyusut kepada 24.2 peratus, dan seterusnya pada tahun-tahun berikutnya dari tahun 2010 hingga tahun 2022 sumbangan Pembuatan berada di antara 22.2 peratus hingga 24.2 peratus (**Carta 2**). Begitu juga, tenaga kerja dalam sektor Pembuatan meningkat daripada 15.5 peratus pada tahun 1982 kepada 23.5 peratus pada tahun 2000 selaras dengan perkembangan sektor. Bilangan tenaga kerja dalam sektor ini mencecah 2 juta orang pada tahun 2014 dan terus meningkat. Sektor ini kini bersedia untuk maju lebih jauh, beralih kepada industri teknologi yang

Carta 2: Sumbangan Sektor Pembuatan kepada Ekonomi Malaysia, 1987 - 2022

Sumber: Jabatan Perangkaan Malaysia

Banci Ekonomi (BE) sektor Pembuatan pertama kali dilaksanakan pada tahun 1973. Dalam tempoh 20 tahun, sektor ini berkembang daripada 11,060 pertubuhan pada tahun 1973 kepada 23,476 pertubuhan pada tahun 1993 dengan kadar pertumbuhan tahunan dikompaun sebanyak 3.8 peratus. Pada tempoh yang sama, sektor Pembuatan mengalami pertumbuhan yang ketara, dengan nilai output kasar sebanyak RM165.0 bilion pada tahun 1993, merekodkan peningkatan sebanyak 16.7 peratus.

Dalam tempoh Malaysia memasuki alaf baharu, penekanan lebih diberikan kepada pembuatan berteknologi tinggi dan industri yang berasaskan pengetahuan. Industri utama seperti semikonduktor, bioteknologi, aeroangkasa dan peralatan perubatan muncul sebagai pemacu pertumbuhan baharu. Pada tahun 2021, output kasar sektor Pembuatan meningkat sebanyak empat kali ganda kepada RM1,608.1 bilion dengan purata pertumbuhan tahunan sebanyak 6.4 peratus daripada RM438.5 bilion yang dicatatkan pada tahun 2000. Walau bagaimanapun, dengan kemajuan penggunaan teknologi dalam sektor ini, bilangan pekerja menunjukkan peningkatan sederhana sebanyak 1.8 peratus daripada 1,574,797 orang pada tahun 2000 kepada 2,303,494 orang pada tahun 2021, manakala purata gaji bulanan meningkat sebanyak dua kali ganda kepada RM3,287 daripada RM1,382 dalam tempoh yang sama.

Berdasarkan Banci Ekonomi 2023, sektor Pembuatan Malaysia merekodkan sebanyak 54,505 pertubuhan pada tahun 2022, mencatatkan purata peningkatan tahunan sebanyak 1.5 peratus daripada 49,101 pertubuhan pada tahun 2015. Output kasar pada tahun 2022 berjumlah sebanyak RM1,893.7 bilion, meningkat sebanyak 7.5 peratus setahun daripada RM1,142.0 bilion pada 2015. Selaras dengan peningkatan dalam output kasar, nilai input perantaraan juga meningkat sebanyak 7.6 peratus setahun kepada RM1,478.8 bilion (2015: RM884.8 bilion). Ini menghasilkan nilai ditambah sebanyak RM414.9 bilion pada 2022, meningkat 7.1 peratus daripada 2015. Selain itu, seramai 2,346,253 orang pekerja yang terlibat dalam sektor ini, lebih tinggi daripada 2,119,158 orang yang direkodkan pada tahun 2015. Bilangan pekerja dalam sektor ini juga meningkat sebanyak purata 1.5 peratus setahun. Selari dengan itu, gaji & upah juga meningkat daripada RM65.5 bilion pada tahun 2015 kepada RM97.2 bilion pada 2022, naik dengan purata pertumbuhan tahunan sebanyak 5.8 peratus, Harta tetap sektor Pembuatan turut merekodkan purata pertumbuhan tahunan sebanyak 3.5 peratus, berjumlah RM377.9 bilion seperti yang dipaparkan di **Paparan 1**.

Paparan 1: Statistik Utama Sektor Pembuatan, 2015 dan 2022

	2015	2022	CAGR
 Bilangan Pertubuhan	49,101	54,505	1.5%
 Output Kasar	RM1,142.0 bilion	RM1,893.7 bilion	7.5%
 Input Perantaraan	RM884.8 bilion	RM1,478.8 bilion	7.6%
 Nilai Ditambah	RM257.1 bilion	RM414.9 bilion	7.1%
 Pekerja	2,119,158	2,346,253	1.5%
 Gaji & Upah	RM65.5 bilion	RM97.2 bilion	5.8%
 Harta Tetap	RM296.8 bilion	RM377.9 bilion	3.5%

3. Bilangan Pertubuhan

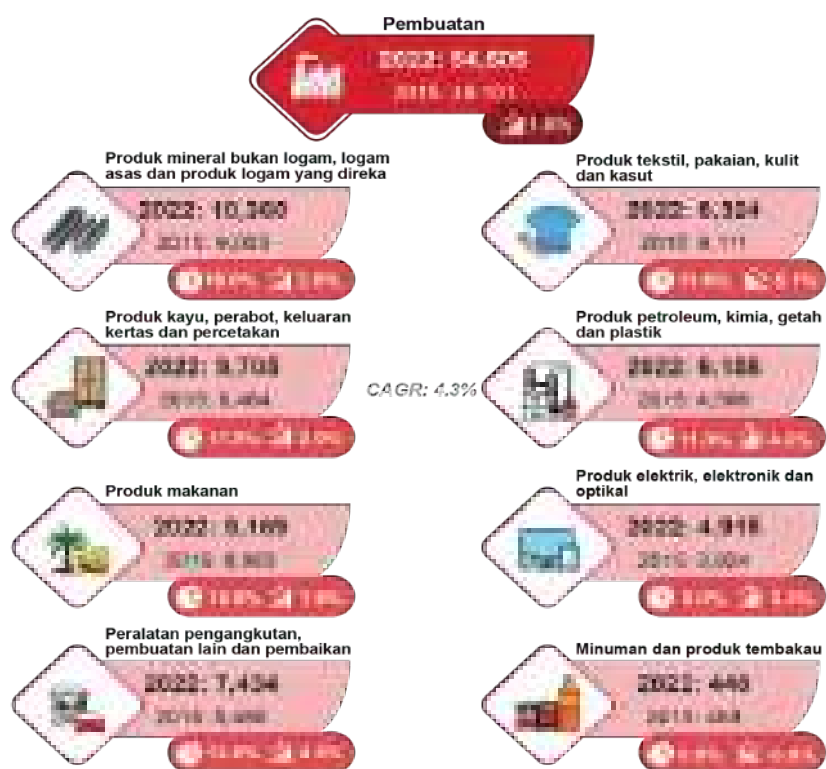
3.1 Bilangan Pertubuhan mengikut Subsektor

Sektor Pembuatan menunjukkan pertumbuhan tahunan sebanyak 1.5 peratus dalam bilangan pertubuhan, mencapai 54,505 pertubuhan pada tahun 2022 (2015: 49,101). Lebih daripada 50 peratus pertubuhan dalam sektor ini terlibat dalam subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka (sumbangan: 19.0%), diikuti oleh subsektor Produk kayu, perabot, keluaran kertas dan percetakan (sumbangan: 17.8%) serta subsektor Produk makanan (sumbangan: 16.8%). Sementara itu, subsektor Minuman dan produk tembakau kekal sebagai penyumbang terendah iaitu sebanyak 0.8 peratus. Selain itu, subsektor Produk tekstil, pakaian, kulit dan kasut yang menduduki tempat pertama pada tahun 2015, jatuh ke tempat kelima dengan penurunan sebanyak 5.1 peratus setahun.

Subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan menunjukkan pertumbuhan tertinggi pada tahun 2022 purata pertumbuhan tahunan sebanyak 4.5 peratus, diikuti oleh subsektor Produk petroleum, kimia, getah dan plastik (CAGR: 4.3%) serta subsektor Produk elektrik, elektronik dan optikal (CAGR: 3.3%).

Malaysia semakin memberi tumpuan kepada industri berteknologi tinggi yang baharu dalam memacu pertumbuhan sektor Pembuatan. Industri seperti pengeluaran bateri dan akumulator khususnya untuk kenderaan elektrik dan pembuatan produk tenaga baharu seperti panel solar telah menerima permintaan yang besar di Malaysia. Sementara itu, industri seperti jahitan pakaian tempahan, pembuatan produk tembakau dan pengeluaran media rakaman magnetik dan optik telah mengalami penurunan permintaan yang menyebabkan industri ini menjadi industri bertumbuh perlahan.

Paparan 2: Bilangan Pertubuhan mengikut Subsektor, 2015 dan 2022

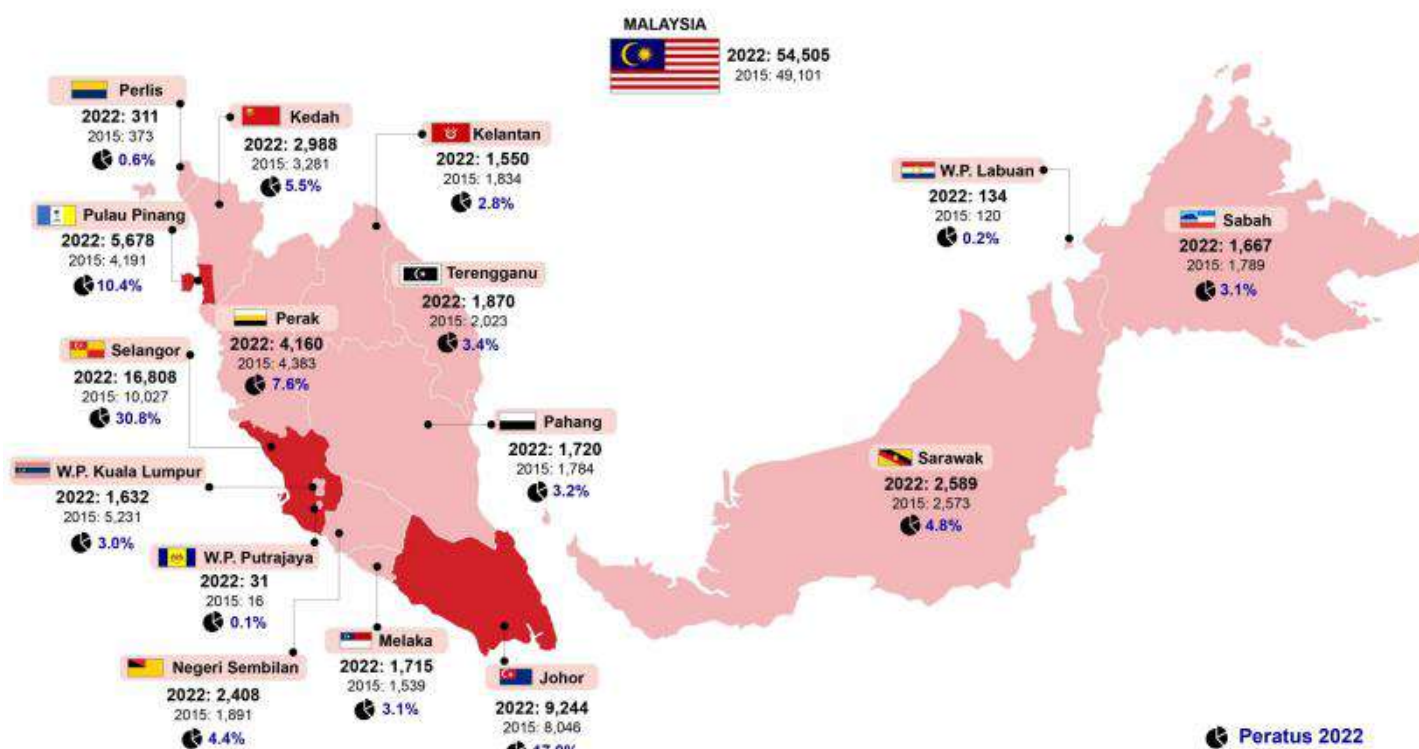


3.2 Bilangan Pertubuhan mengikut Negeri

Selangor kekal sebagai negeri teratas dengan bilangan pertubuhan tertinggi dalam sektor Pembuatan pada tahun 2022, menyumbang 30.8 peratus daripada jumlah keseluruhan dengan 16,808 pertubuhan. Diikuti oleh Johor dengan 9,244 pertubuhan (sumbangan: 17.0%) dan Pulau Pinang dengan 5,678 pertubuhan (sumbangan: 10.4%). Ketiga-tiga negeri ini menyumbang lebih daripada separuh daripada jumlah keseluruhan pertubuhan dalam sektor Pembuatan.

Sementara itu, W.P. Kuala Lumpur mengalami penurunan ketara sebanyak 15.3 peratus, dengan mencatatkan sebanyak 1,632 pertubuhan berbanding 5,231 pertubuhan pada tahun 2015. Penurunan ini sebahagian besarnya disebabkan oleh impak Perintah Kawalan Pergerakan yang berpanjangan yang dilaksanakan sejak tahun 2020, terutamanya ke atas perniagaan bersaiz kecil. Tambahan pula, pelaksanaan Pelan Struktur Kuala Lumpur 2040 yang memberi penekanan kepada usaha mengukuhkan dan meningkatkan nilai tambah aktiviti ekonomi utama yang merangkumi sektor kewangan, perkhidmatan perniagaan dan sektor pelancongan, sebagai ekonomi teras Kuala Lumpur, telah meluaskan lagi jurang daripada sektor Pembuatan kepada sektor Perkhidmatan. Sebaliknya, W.P. Putrajaya mencatatkan purata pertumbuhan tertinggi sebanyak 9.9 peratus setiap tahun, mencapai 31 pertubuhan pada tahun 2022 berbanding 16 pertubuhan pada tahun 2015. Diikuti oleh Selangor dengan pertumbuhan tahunan sebanyak 7.7 peratus.

Paparan 3: Bilangan Pertubuhan mengikut Negeri, 2015 dan 2022



4. Output Kasar

4.1 Output Kasar mengikut Subsektor

Output kasar sektor Pembuatan pada tahun 2022 mencatatkan pertumbuhan kukuh sebanyak 7.5 peratus, dengan nilai RM1,893.7 bilion berbanding RM1,142.0 bilion pada tahun 2015. Peningkatan ini terutamanya disokong oleh subsektor Produk petroleum, kimia, getah dan plastik yang menyumbang 30.6 peratus daripada jumlah keseluruhan, dengan nilai RM579.6 bilion pada tahun 2022. Diikuti oleh subsektor Produk elektrik, elektronik dan optikal yang menduduki tempat pertama pada tahun 2015 (sumbangan: 28.2%), dengan 29.6 peratus sumbangan dan nilai output kasar sebanyak RM560.7 bilion pada tahun 2022. Walaupun menghadapi cabaran daripada pandemik COVID-19, kedua-dua subsektor ini mengalami kesan positif disebabkan peningkatan permintaan bagi bekalan perubatan dan keperluan global untuk peranti elektronik.

Manakala, subsektor Minuman dan produk tembakau kekal sebagai penyumbang terendah dengan sumbangan 0.8 peratus dan nilai output kasar sebanyak RM15.9 bilion, meningkat sebanyak 2.5 peratus setiap tahun daripada RM13.4 bilion pada tahun 2015.

Paparan 4: Nilai Output Kasar mengikut Subsektor, 2015 and 2022

	Output Kasar		Sumbangan (%)		CAGR (%)
	2015	2022	2015	2022	
 Pembuatan	RM1,142.0 bilion	RM1,893.7 bilion			7.5
 Produk petroleum, kimia, getah dan plastik	RM299.1 bilion	RM579.6 bilion	26.2	30.6	9.9
 Produk elektrik, elektronik dan optikal	RM321.8 bilion	RM560.7 bilion	28.2	29.6	8.3
 Produk pertanian	RM199.8 bilion	RM303.6 bilion	17.5	16.0	6.2
 Produk industri bahan makanan, minuman dan produk hutan yang tidak kekal	RM134.8 bilion	RM198.9 bilion	11.8	10.5	5.7
 Pergerakan pengangkutan, peralatan dan komunikasi	RM92.0 bilion	RM122.2 bilion	8.1	6.5	4.2
 Produk kayu, pembinaan, peralatan rumah dan perabot	RM62.9 bilion	RM88.6 bilion	5.5	4.7	5.0
 Produk tekstil, pakaian, kulit dan kasut	RM18.2 bilion	RM24.1 bilion	1.6	1.3	4.1
 Minuman dan produk tembakau	RM13.4 bilion	RM15.9 bilion	1.2	0.8	2.5

4.2 Output Kasar mengikut Negeri

Selangor terus mendominasi sektor Pembuatan dengan nilai output kasar sebanyak RM516.4 bilion (sumbangan: 27.3%), mengalami peningkatan sebanyak 7.7 peratus daripada RM308.0 bilion yang direkodkan pada tahun 2015, didorong terutamanya oleh subsektor Produk petroleum, kimia, getah dan plastik. Mengikuti Selangor, Johor menyumbang sebanyak 16.7 peratus dengan output kasar sebanyak RM316.4 bilion. Seterusnya, Pulau Pinang dan Sarawak masing-masing menyumbang RM303.2 bilion (sumbangan: 16.0%) dan RM176.6 bilion (sumbangan: 9.3%). Secara kolektif, keempat-empat negeri ini menyumbang 69.3 peratus daripada jumlah keseluruhan output kasar, dengan jumlah sebanyak RM1,312.6 bilion.

Walaupun menyumbang dengan sumbangan terendah iaitu sebanyak 0.0004 peratus, W.P. Putrajaya menunjukkan pertumbuhan tahunan output kasar tertinggi sebanyak 27.5 peratus, mencapai RM8.5 juta pada tahun 2022 berbanding RM1.6 juta pada tahun 2015. Selain itu, kadar pertumbuhan tahunan yang ketara turut direkodkan bagi Pulau Pinang sebanyak 10.0 peratus (2015: RM155.7 bilion), Johor sebanyak 9.2 peratus (2015: RM171.1 bilion) dan Sarawak sebanyak 8.1 peratus (2015: RM102.6 bilion). Sementara itu, W.P. Kuala Lumpur mengalami penurunan sebanyak 9.4 peratus, dengan jumlah keseluruhan sebanyak RM11.4 bilion berbanding RM22.8 bilion pada tahun 2015.

Paparan 5: Output Kasar mengikut Negeri, 2015 dan 2022



2022 | 2015 RM bilion
 CAGR (%)
 Sumbangan 2022 (%)

5. Input Perantaraan

5.1 Input Perantaraan mengikut Subsektor

Pada tahun 2022, input perantaraan sektor Pembuatan bertumbuh sebanyak 7.6 peratus, mencapai RM1,478.8 bilion, meningkat daripada RM884.8 bilion pada tahun 2015. Pertumbuhan ini terutamanya disumbangkan oleh subsektor Produk petroleum, kimia, getah dan plastik yang mengalami peningkatan sebanyak 10.4 peratus kepada RM442.0 bilion, berbanding RM221.5 bilion pada tahun 2015. Subsektor Produk elektrik, elektronik dan optikal juga menunjukkan pertumbuhan yang signifikan sebanyak 8.2 peratus, dengan jumlah RM440.5 bilion pada tahun 2022. Kedua-dua subsektor ini menyumbang sebanyak 59.7 peratus daripada jumlah input perantaraan keseluruhan sektor Pembuatan. Peningkatan dalam input perantaraan ini sebahagian besarnya disebabkan oleh kenaikan harga pengeluar tempatan dan harga minyak mentah global.

Paparan 6: Input Perantaraan mengikut Subsektor, 2015 dan 2022

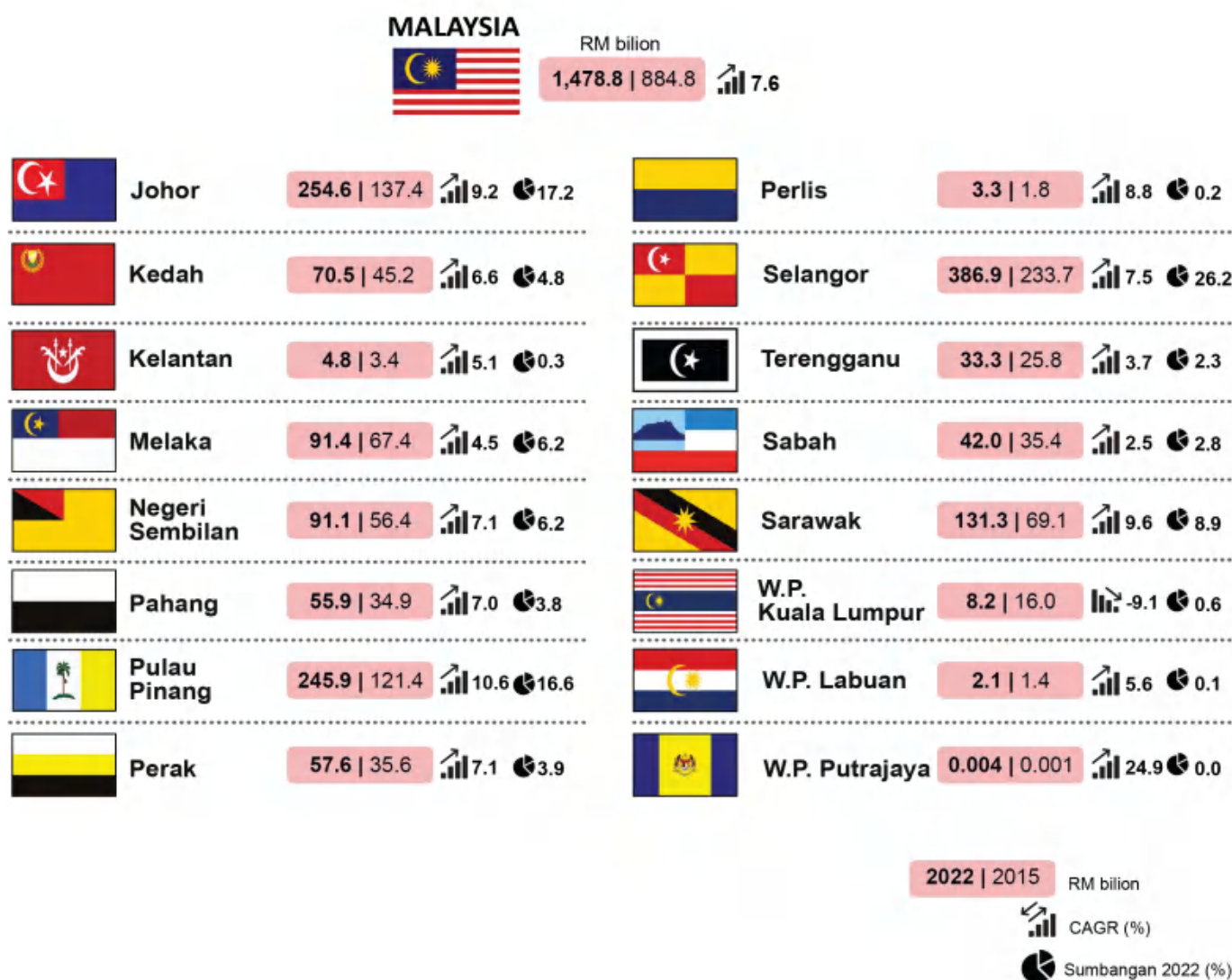
	Input Perantaraan		Sumbangan (%)		CAGR (%)
	2015	2022	2015	2022	
 Pembuatan	RM884.8 bilion	RM1,478.8 bilion			7.6
 Produk petroleum, kimia, getah dan plastik	RM221.5 bilion	RM442.0 bilion	25.0	29.9	10.4
 Produk elektrik, elektronik dan optikal	RM253.1 bilion	RM440.5 bilion	28.6	29.8	8.2
 Produk makanan	RM172.0 bilion	RM257.4 bilion	19.4	17.4	5.9
 Produk mineral bukan logam, logam asas dan produk logam yang direka	RM100.5 bilion	RM154.4 bilion	11.4	10.4	6.3
 Perantaraan pengangkutan, pembuatan kimia dan pembuatan	RM69.8 bilion	RM90.9 bilion	7.9	6.1	3.8
 Produk kayu, perabot, bekalan tekstil dan perikanan	RM45.7 bilion	RM65.1 bilion	5.2	4.4	5.2
 Produk tekstil, pakaian, kulit dan kasut	RM13.2 bilion	RM17.1 bilion	1.5	1.2	3.8
 Rangkaian dan produk farmasi	RM9.0 bilion	RM11.4 bilion	1.0	0.8	3.4

5.2 Input Perantaraan mengikut Negeri

Selangor merupakan penyumbang terbesar dalam input perantaraan, iaitu sebanyak 26.2 peratus dengan jumlah sebanyak RM386.9 bilion, meningkat sebanyak 7.5 peratus berbanding banci terdahulu (2015: RM233.7 bilion). Diikuti oleh Johor, dengan sumbangan 17.2 peratus, dengan pertumbuhan sebanyak 9.2 peratus kepada RM254.6 bilion. Seterusnya, Pulau Pinang dengan sumbangan sebanyak 16.6 peratus, mencatatkan RM245.9 bilion pada tahun 2022. Ketiga-tiga negeri ini menyumbang 60.0 peratus daripada jumlah input perantaraan dalam sektor Pembuatan.

W.P. Putrajaya mencatatkan purata pertumbuhan tahunan tertinggi dengan 24.9 peratus, mencapai RM4.2 juta pada tahun 2022, naik daripada RM894.0 ribu pada tahun 2015. Pulau Pinang juga merekodkan pertumbuhan dua digit sebanyak 10.6 peratus berbanding RM121.4 bilion yang direkodkan pada tahun 2015. Sebaliknya, selari dengan penurunan dalam output kasar, W.P. Kuala Lumpur mengalami penurunan 9.1 peratus dalam input perantaraan, mencatatkan RM8.2 bilion pada tahun 2022 (2015: RM16.0 bilion).

Paparan 7: Input Perantaraan mengikut Negeri, 2015 dan 2022



6. Nilai Ditambah

6.1 Nilai Ditambah mengikut Subsektor

Walaupun dengan peningkatan input perantara sektor Pembuatan, nilai ditambah sektor ini kekal kukuh dengan merekodkan purata pertumbuhan tahunan sebanyak 7.1 peratus, mencapai RM414.9 bilion pada tahun 2022 berbanding banci terdahulu (2015: RM257.1 bilion). Pertumbuhan ini terutamanya didorong oleh subsektor Produk petroleum, kimia, getah dan plastik, yang menyumbang satu pertiga daripada jumlah keseluruhan dengan nilai RM137.6 bilion (sumbangan: 33.2%). Subsektor ini menunjukkan pertumbuhan yang signifikan sebanyak 8.5 peratus daripada RM77.6 bilion pada tahun 2015.

Diikuti oleh, subsektor Produk elektrik, elektronik dan optikal yang menyumbang RM120.2 bilion (sumbangan: 29.0%), dengan purata pertumbuhan tahunan sebanyak 8.3 peratus daripada RM68.7 bilion pada tahun 2015. Seterusnya, subsektor Produk makanan merekodkan nilai ditambah sebanyak RM46.2 bilion (sumbangan: 11.1%) dan berkembang sebanyak 7.5 peratus.

Paparan 8: Nilai Ditambah mengikut Subsektor, 2015 dan 2022

	Nilai Ditambah		Sumbangan (%)		CAGR (%)
	2015	2022	2015	2022	
 Pembuatan	RM257.1 bilion	RM414.9 bilion			7.1
 Produk petroleum, kimia, getah dan plastik	RM77.6 bilion	RM137.6 bilion	30.2	33.2	8.5
 Produk elektrik, elektronik dan optikal	RM68.7 bilion	RM120.2 bilion	26.7	29.0	8.3
 Produk makanan	RM27.8 bilion	RM46.2 bilion	10.8	11.1	7.5
 Produk metal bukan logam, logam asas dan produk logam yang disila	RM34.4 bilion	RM44.6 bilion	13.4	10.7	3.8
 Perkhidmatan pengangkutan, pembuatan lain dan pembuatan	RM22.1 bilion	RM31.3 bilion	8.6	7.5	5.1
 Produk kayu, perabot, bekalan kertas dan pencetakan	RM17.2 bilion	RM23.5 bilion	6.7	5.7	4.6
 Produk tekstil, tekstil, kulit dan kasut	RM5.0 bilion	RM7.0 bilion	1.9	1.7	5.0
 Minuman dan produk tembakau	RM4.4 bilion	RM4.5 bilion	1.7	1.1	0.3

6.2 Nilai Ditambah mengikut Negeri

Selari dengan prestasi output kasar, Selangor menyumbang nilai ditambah tertinggi sebanyak RM129.5 bilion, yang mewakili 31.2 peratus pada tahun 2022, diikuti oleh Johor dengan RM61.9 bilion (sumbangan: 14.9%) dan Pulau Pinang dengan RM57.3 bilion (sumbangan: 13.8%). Tiga negeri teratas ini menyumbang 59.9 peratus kepada nilai ditambah sektor Pembuatan dengan jumlah RM248.7 bilion.

W.P. Kuala Lumpur menunjukkan penurunan sebanyak 10.0 peratus, daripada RM6.8 bilion pada tahun 2015 kepada RM3.2 bilion pada tahun 2022. Sementara itu, W.P. Putrajaya dan Negeri Sembilan mencatatkan kadar pertumbuhan dua digit. W.P. Putrajaya merekodkan pertumbuhan sebanyak 30.6 peratus setahun, meningkat kepada RM4.3 juta pada tahun 2022 berbanding RM0.7 juta pada tahun 2015, manakala Negeri Sembilan meningkat sebanyak 11.6 peratus kepada RM24.7 bilion, naik daripada RM11.5 bilion pada tahun 2015.

Paparan 9: Nilai Ditambah mengikut Negeri, 2015 dan 2022



7. Pekerja dan Gaji & Upah

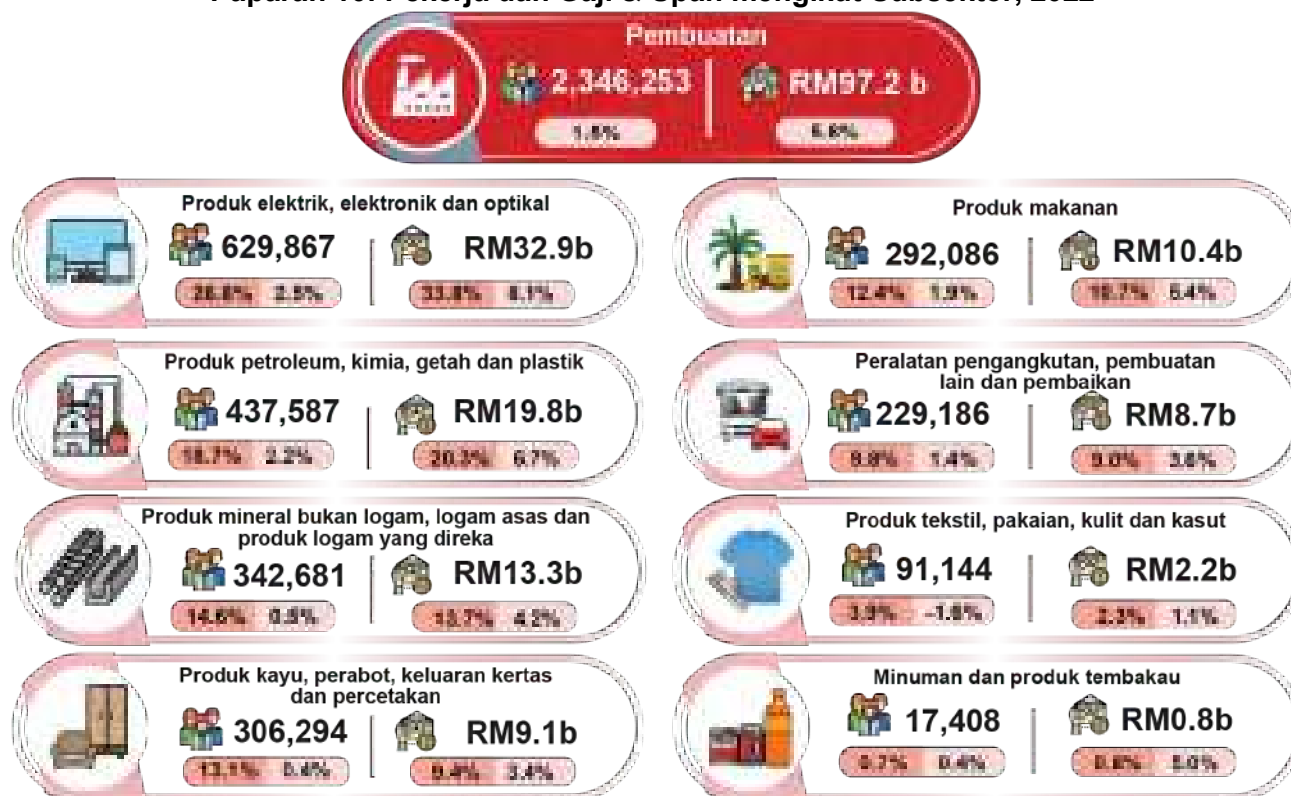
7.1 Pekerja dan Gaji & Upah mengikut Subsektor

Bilangan pekerja dalam sektor Pembuatan meningkat sebanyak 1.5 peratus kepada 2,346,253 orang pada tahun 2022 (2015: 2,119,158 orang). Subsektor Produk elektrik, elektronik dan optikal menyumbang 26.8 peratus daripada jumlah ini, dengan bilangan pekerja seramai 629,867 orang dan peningkatan tahunan sebanyak 2.5 peratus daripada 528,498 orang pada tahun 2015. Seterusnya, bilangan pekerja subsektor Produk petroleum, kimia, getah dan plastik adalah seramai 437,587 orang (sumbangan: 18.7%) pada tahun 2022, meningkat daripada 376,084 pada tahun 2015. Subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka adalah seramai 342,681 orang pekerja pada tahun 2022 (2015: 332,058 orang).

Selaras dengan peningkatan bilangan pekerja, jumlah gaji & upah dalam sektor Pembuatan meningkat sebanyak 5.8 peratus kepada RM97.2 bilion pada tahun 2022, berbanding RM65.5 bilion pada tahun 2015. Subsektor Produk elektrik, elektronik dan optikal mencatatkan jumlah tertinggi dalam gaji & upah pada tahun 2022, dengan jumlah keseluruhan RM32.9 bilion, peningkatan tahunan sebanyak 8.1 peratus (sumbangan: 33.8%). Ini diikuti subsektor Produk petroleum, kimia, getah dan plastik dengan jumlah bayaran sebanyak RM19.8 bilion, mencerminkan peningkatan tahunan sebanyak 6.7 peratus (sumbangan: 20.3%). Subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka menyumbang RM13.3 bilion (sumbangan: 13.7%) kepada jumlah gaji & upah pada tahun 2022, dengan kadar pertumbuhan tahunan dikompaun sebanyak 4.2 peratus (2015: RM10.0 bilion).

Purata gaji & upah yang dibayar dalam sektor Pembuatan pada tahun 2022 adalah sebanyak RM3,513 sebulan.

Paparan 10: Pekerja dan Gaji & Upah mengikut Subsektor, 2022



Sumbangan CAGR

b: bilion

Pekerja

Gaji & Upah

BANCI EKONOMI 2023
ECONOMIC CENSUS 2023



7.2 Pekerja Bergaji Sepenuh Masa dan Gaji & Upah mengikut Kategori Pekerja

Sektor Pembuatan terutamanya terdiri daripada pekerja bergaji sepenuh masa yang dibayar, seramai 2,294,047 orang (sumbangan: 97.8%) manakala baki 2.2 peratus adalah daripada pemilik yang bekerja dan rakan niaga yang aktif, pekerja keluarga tanpa gaji serta pekerja sambilan dengan jumlah 52,206 orang pada tahun 2022. Operator mesin & loji dan pemasang membentuk segmen terbesar dalam pasaran tenaga kerja dengan sumbangan sebanyak 55.2 peratus dengan jumlah 1,295,724 orang. Perkeranian dan pekerjaan yang berkaitan mewakili 15.9 peratus (372,486 orang) dan Pengurus, profesional dan penyelidik merangkumi 9.6 peratus (224,075 orang) daripada jumlah pekerja bergaji sepenuh masa dalam sektor Pembuatan. Keseluruhannya, ketiga-tiga kategori ini mewakili 80.7 peratus, dengan jumlah 1,892,285 orang pekerja bergaji sepenuh masa.

Jumlah gaji & upah didominasi oleh Operator mesin & loji dan pemasang, berjumlah RM39.5 bilion (sumbangan: 40.6%), diikuti dengan Pengurus, profesional dan penyelidik dengan RM29.1 bilion (sumbangan: 29.9%) dan Perkeranian dan pekerjaan yang berkaitan dengan RM12.1 bilion (sumbangan: 12.5%).

Pengurus, profesional dan penyelidik menerima purata gaji & upah bulanan tertinggi dengan RM10,810, diikuti dengan Juruteknik dan profesional bersekutu dengan RM4,879 dan Perkeranian dan pekerjaan yang berkaitan dengan RM2,710.

Paparan 11: Pekerja Bergaji Sepenuh Masa dan Gaji & Upah mengikut Kategori Pekerja, 2022



7.3 Pekerja Bergaji Sepenuh Masa dan Gaji & Upah mengikut Kategori Kemahiran

Bagi bilangan pekerja bergaji sepenuh masa mengikut kategori kemahiran, pekerja separuh mahir merekodkan bilangan pekerja tertinggi dengan jumlah 1,668,210 orang (sumbangan: 72.7%), diikuti dengan pekerja mahir dengan 416,763 orang (sumbangan: 18.2%) dan pekerja berkemahiran rendah dengan 209,074 orang (sumbangan: 9.1%) pada tahun 2022. Gaji & upah bagi pekerja separuh mahir berjumlah RM51.6 bilion, merangkumi 53.2 peratus manakala pekerja mahir menerima gaji & upah sebanyak RM40.4 bilion (sumbangan: 41.6%) dan pekerja berkemahiran rendah menerima RM5.1 bilion (sumbangan: 5.2%).

Pekerja mahir menerima purata gaji & upah bulanan tertinggi sebanyak RM8,068. pekerja separuh mahir mendapat purata sebanyak RM2,578 sebulan, manakala pekerja berkemahiran rendah menerima RM2,030 sebulan, seperti yang digambarkan dalam **Paparan 12**.

Paparan 12 : Pekerja Bergaji Sepenuh Masa dan Gaji & Upah mengikut Kategori Kemahiran, 2022

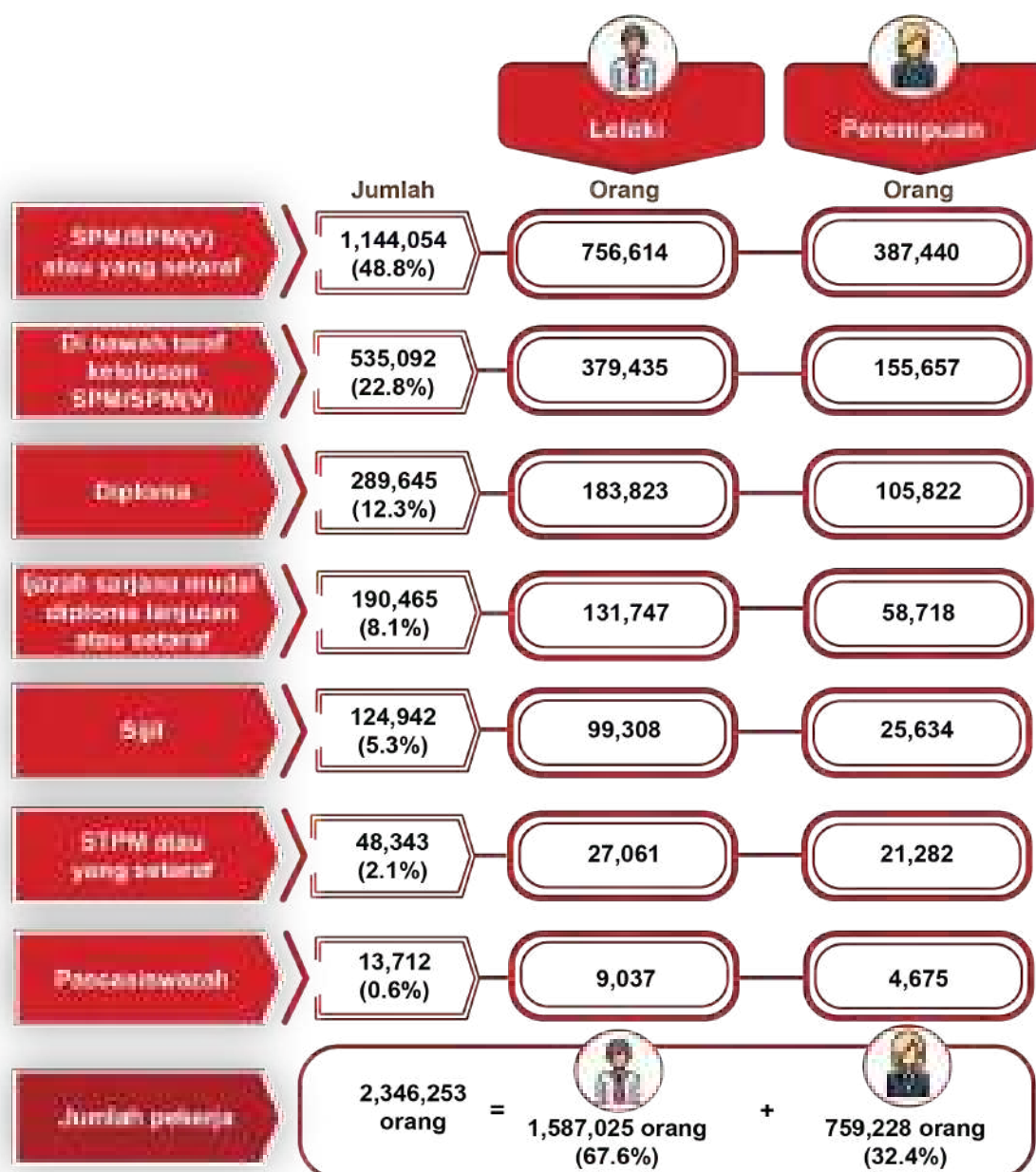


7.4 Pekerja mengikut Sijil Tertinggi

Pekerja yang mempunyai kelayakan SPM/SPM(V) atau yang setaraf menyumbang 48.8 peratus, iaitu seramai 1,144,054 orang dalam sektor Pembuatan. Ini diikuti oleh pekerja yang mempunyai kelayakan Di bawah taraf kelulusan SPM/SPM(V) yang mencatatkan 535,092 orang (sumbangan: 22.8%), dan pemegang Diploma dengan 289,645 orang (sumbangan: 12.3%).

Sebahagian besar tenaga kerja sektor Pembuatan adalah lelaki, dengan jumlah seramai 1,587,025 orang (sumbangan: 67.6%), manakala pekerja perempuan menyumbang 32.4 peratus, dengan jumlah 759,228 orang. Kedua-dua pekerja lelaki dan perempuan mencatatkan jumlah tertinggi dalam kelayakan SPM/SPM (V) atau yang setaraf dengan masing-masing sebanyak 47.7 peratus (756,614 orang) dan 51.0 peratus (387,440 orang).

Paparan 13 : Pekerja mengikut Sijil Tertinggi Diperoleh, 2022



Nota: (Sumbangan)

8. Harta Tetap

Harta tetap sektor Pembuatan meningkat sebanyak 3.5 peratus berkembang daripada RM296.8 bilion pada tahun 2015 kepada RM377.9 bilion pada tahun 2022. Subsektor Produk petroleum, kimia, getah dan plastik muncul sebagai penyumbang terbesar, menyumbang 36.5 peratus daripada jumlah keseluruhan pada tahun 2022. Nilai subsektor ini meningkat daripada RM91.9 bilion pada tahun 2015 kepada RM138.1 bilion pada tahun 2022, mencatatkan kadar pertumbuhan tahunan sebanyak 6.0 peratus. Pertumbuhan ini didorong oleh kemajuan berterusan dalam proses pengeluaran kimia, peningkatan permintaan untuk produk getah dan plastik, serta peranan penting produk petroleum dalam pelbagai industri.

Subsektor Produk elektrik, elektronik dan optikal juga mengalami pertumbuhan yang sebanyak 4.4 peratus, meningkat daripada RM59.4 bilion pada tahun 2015 kepada RM80.5 bilion pada tahun 2022 (sumbangan: 21.3%). Pertumbuhan ini didorong oleh perkembangan ekonomi digital dan peningkatan permintaan untuk peranti dan komponen elektronik yang didorong oleh kemajuan teknologi.

Diikuti oleh subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka dengan sumbangan 14.8 peratus pada tahun 2022. Subsektor ini berkembang daripada RM53.6 bilion pada 2015 kepada RM56.0 bilion pada 2022, mencatatkan pertumbuhan tahunan marginal sebanyak 0.6 peratus. Walaupun pertumbuhan yang perlahan, peranan sektor ini kekal penting sebagai sumber kepada pertumbuhan industri pembinaan dan infrastruktur, mencerminkan permintaan yang berterusan untuk produk logam.

Paparan 14 : Harta Tetap mengikut Subsektor, 2015 dan 2022

	Harta Tetap		Pertumbuhan (%)		Growth (%)
	2015	2022	2015	2022	
 Pembuatan	296.8 bilion	377.9 bilion			3.5
 Produk petroleum, kimia, getah dan plastik	91.9 bilion	138.1 bilion	31.0	36.5	6.0
 Produk elektrik, elektronik dan optikal	59.4 bilion	80.5 bilion	20.0	21.3	4.4
 Produk mineral bukan logam, logam asas dan produk logam	53.6 bilion	56.0 bilion	18.1	14.8	0.6
 Produk logam	37.9 bilion	46.2 bilion	12.8	12.2	2.9
 Produk logam, logam asas dan produk logam	21.7 bilion	25.6 bilion	7.3	6.8	2.4
 Produk logam, logam asas dan produk logam	23.1 bilion	22.5 bilion	7.8	6.0	-0.4
 Produk logam, logam asas dan produk logam	6.0 bilion	5.4 bilion	2.0	1.4	-1.4
 Produk logam, logam asas dan produk logam	3.1 bilion	3.6 bilion	1.1	1.0	2.0

9. Pertubuhan Milikan Wanita

9.1 Pertubuhan Milikan Wanita mengikut Subsektor

Pertubuhan milikan wanita dalam sektor Pembuatan yang direkodkan pada tahun 2022 adalah sebanyak 8,469 pertubuhan, menyumbang 15.5 peratus daripada jumlah pertubuhan, menyusut sebanyak 1.7 peratus berbanding 9,546 pertubuhan pada tahun 2015. Pertubuhan ini menghasilkan output kasar sebanyak RM41.2 bilion dan nilai ditambah sebanyak RM10.5 bilion, dengan bilangan pekerja seramai 126,518 orang.

Subsektor Produk tekstil, pakaian, kulit dan kasut menyumbang hampir separuh daripada jumlah pertubuhan milikan wanita sebanyak 3,693 pertubuhan (sumbangan: 43.6%), diikuti oleh subsektor Produk makanan dengan 2,446 pertubuhan (sumbangan: 28.9%). Kedua-dua subsektor ini menyumbang sebanyak 72.5 peratus daripada jumlah bilangan pertubuhan milikan wanita. Output kasar yang direkodkan bagi kedua-dua subsektor adalah masing-masing sebanyak RM4.0 bilion dan RM12.6 bilion.

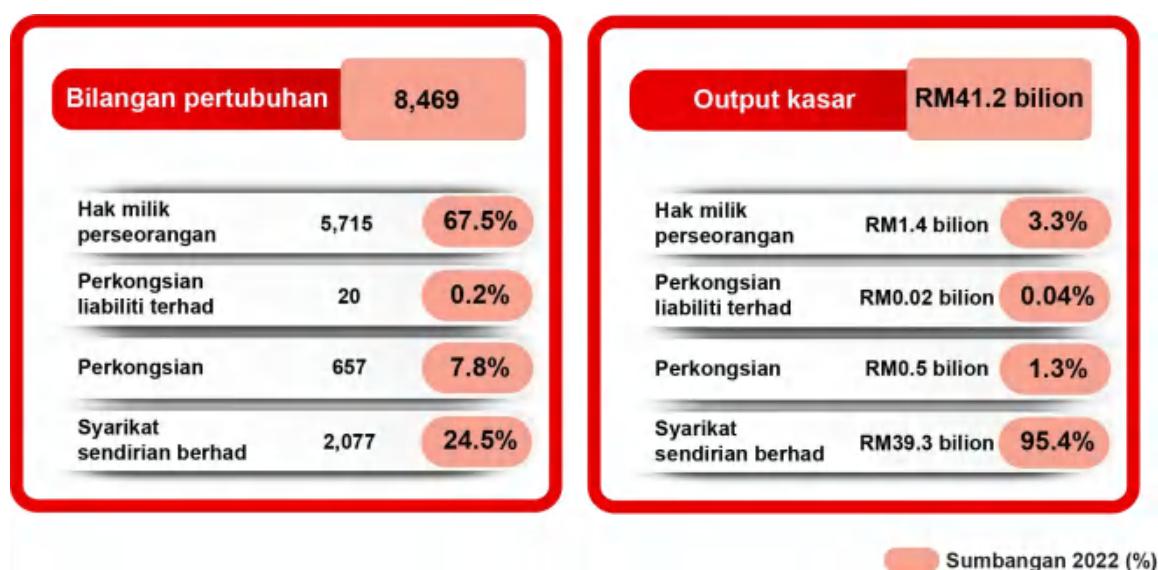
Paparan 15 : Pertubuhan Milikan Wanita mengikut Subsektor, 2022

	Sumbangan output kasar (%)	Bilangan Pertubuhan	Output Kasar (RM bilion)	Nilai Ditambah (RM bilion)	Pekerja
 Pembuatan		8,469	41.2	10.5	126,518
 Produk makanan	30.7	2,446	12.6	2.4	25,478
 Produk petroleum, kimia, getah dan plastik	21.9	383	9.0	2.3	17,722
 Produk kayu, perabot, keluaran kertas dan percetakan	13.8	832	5.7	1.4	23,090
 Produk tekstil, pakaian, kulit dan kasut	9.8	3,693	4.0	1.6	28,888
 Produk mineral bukan logam, logam asas dan produk logam yang direka	8.3	502	3.4	1.0	12,413
 Produk elektrik, elektronik dan optikal	6.8	183	2.8	0.7	9,455
 Peralatan pengangkutan, pembuatan lain dan pembaikan	6.1	391	2.5	0.7	8,742
 Minuman dan produk tembakau	2.7	39	1.1	0.4	730

9.2 Pertubuhan Milikan Wanita mengikut Taraf Sah

Pertubuhan milikan wanita di bawah Hak milik perseorangan menyumbang 67.5 peratus, dengan jumlah 5,715 pertubuhan dan mencatatkan output kasar sebanyak RM1.4 bilion. Sebaliknya, pertubuhan milikan wanita di bawah Syarikat Sendirian Berhad menyumbang 24.5 peratus dengan 2,077 pertubuhan, walau bagaimanapun pertubuhan ini menyumbang nilai output kasar tertinggi iaitu sebanyak RM39.3 bilion, iaitu sumbangan sebanyak 95.4 peratus.

Paparan 16 : Pertubuhan Milikan Wanita mengikut Taraf Sah dan Output Kasar, 2022



10. Prestasi mengikut Negeri

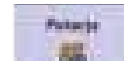
10.1 Johor

Sektor Pembuatan negeri Johor pada tahun 2022 mencatatkan pertumbuhan tahunan sebanyak 2.0 peratus dalam bilangan pertubuhan, mencapai 9,244 pertubuhan berbanding dengan 8,046 pertubuhan pada tahun 2015. Pertumbuhan ini terutamanya didorong oleh subsektor Produk kayu, perabot, keluaran kertas dan percetakan yang menyumbang 21.8 peratus dan peningkatan tahunan sebanyak 3.2 peratus. Selain itu, subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka menyumbang 20.5 peratus kepada jumlah keseluruhan pertubuhan, mencatat peningkatan tahunan sebanyak 2.5 peratus.

Output kasar Johor mencatatkan pertumbuhan kukuh 9.2 peratus setahun kepada RM316.4 bilion pada tahun 2022, meningkat dari RM171.1 bilion pada tahun 2015. Salah satu pendorong utama sektor pembuatan Johor adalah subsektor Produk petroleum, kimia, getah dan plastik yang menyumbang 25.6 peratus daripada jumlah keseluruhan, berjumlah RM81.1 bilion (CAGR: 15.1%). Diikuti oleh subsektor Produk elektrik, elektronik dan optikal menyumbang 24.0 peratus berjumlah RM76.0 bilion (CAGR: 7.1%) dan subsektor Produk makanan menyumbang 22.9 peratus berjumlah RM72.3 bilion dengan pertumbuhan tahunan sebanyak 8.5 peratus. Keseluruhan subsektor ini menyumbang 72.5 peratus kepada output kasar keseluruhan.

Jumlah pekerja dalam sektor Pembuatan Johor meningkat sebanyak 1.1 peratus setahun, berjumlah 483,010 orang berbanding dengan 448,365 orang pada tahun 2015. Subsektor yang memberikan sumbangan tertinggi adalah Produk elektrik, elektronik dan optikal dengan 23.5 peratus, diikuti oleh subsektor Produk petroleum, kimia, getah dan plastik dengan 18.3 peratus dan Produk kayu, perabot, keluaran kertas dan percetakan dengan 16.3 peratus.

Paparan 17: Statistik Utama Negeri Johor mengikut Subsektor

							
 Pembuatan	9,244 8,046	316.4 171.1	254.6 137.4	61.9 33.7	483,010 448,365	18.0 12.2	81.1 55.5
 Produk makanan	1,436 1,325  15.5	72.3 40.8  22.9	59.5 36.0  23.4	12.8 4.7  20.7	58,758 54,505  12.2	2.2 1.7  12.4	13.3 11.3  16.4
 Minuman dan produk tembakau	66 64  0.7	1.4 1.1  0.4	1.0 0.8  0.4	0.4 0.3  0.6	2,825 2,801  0.6	0.1 0.1  0.6	0.3 0.4  0.4
 Produk tekstil, pakaian, kulit dan kasut	910 1,161  9.8	7.6 5.6  2.4	5.2 4.0  2.1	2.4 1.5  3.8	30,403 32,061  6.3	0.7 0.6  3.8	2.8 2.7  3.4
 Produk kayu, perabot, keluaran kertas dan percetakan	2,019 1,622  21.8	20.7 11.5  6.6	14.7 8.1  5.8	6.1 3.4  9.8	78,894 64,503  16.3	2.2 1.4  12.1	4.6 4.2  5.7
 Produk petroleum, kimia, getah dan plastik	1,093 812  11.8	81.1 30.3  25.6	67.3 24.3  26.4	13.8 6.0  22.3	88,317 84,283  18.3	3.9 2.6  21.5	40.0 11.4  49.4
 Produk mineral bukan logam, logam asas dan produk logam yang direka	1,897 1,591  20.5	44.5 22.6  14.1	33.8 16.8  13.3	10.7 5.8  17.3	78,523 76,551  16.3	2.9 2.1  16.0	9.4 12.5  11.6
 Produk elektrik, elektronik dan optikal	853 693  9.2	76.0 46.9  24.0	63.1 37.7  24.8	12.8 9.2  20.7	113,676 102,995  23.5	4.9 3.0  27.4	7.8 9.0  9.7
 Peralatan pengangkutan, pembuatan lain dan pembaikan	970 778  10.5	12.7 12.4  4.0	9.9 9.7  3.9	2.9 2.7  4.6	31,614 30,666  6.5	1.1 0.8  6.2	2.8 4.0  3.4

Note: 2022 Sumbangan 2022 (%)
2015

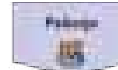
10.2 Kedah

Sektor Pembuatan di Kedah mengalami penurunan dalam bilangan pertubuhan sebanyak 1.3 peratus, dengan jumlah keseluruhan 2,988 pertubuhan pada tahun 2022 berbanding dengan 3,281 pertubuhan pada tahun 2015. Subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka merupakan penyumbang terbesar dalam bilangan pertubuhan dengan 22.1 peratus, berjumlah 659 pertubuhan. Ini diikuti oleh subsektor Produk makanan dengan 19.1 peratus berjumlah 572 pertubuhan dan subsektor Produk tekstil, pakaian, kulit dan kasut dengan 15.4 peratus, berjumlah 460 pertubuhan.

Walaupun bilangan pertubuhan mengalami penurunan, output kasar dalam sektor Pembuatan Kedah menunjukkan daya tahan dengan pertumbuhan tahunan sebanyak 6.3 peratus, mencapai RM87.3 bilion (2015: RM56.9 bilion). Pertumbuhan ini terutamanya didorong oleh subsektor Produk elektrik, elektronik dan optikal yang menyumbang sebanyak 62.6 peratus dan berjumlah RM54.6 bilion, meningkat sebanyak 5.9 peratus setahun. Diikuti oleh subsektor Produk petroleum, kimia, getah dan plastik menyumbang 14.3 peratus dan berjumlah RM12.5 bilion (CAGR: 6.9%).

Selaras dengan pertumbuhan output kasar, jumlah pekerja dalam sektor Pembuatan Kedah juga meningkat sebanyak 2.8 peratus, berjumlah 118,195 orang berbanding dengan 97,463 orang pada tahun 2015. Subsektor Produk elektrik, elektronik dan optikal memberikan sumbangan terbesar kepada jumlah pekerja dengan 33.1 peratus, berjumlah 39,141 orang. Manakala subsektor Produk petroleum, kimia, getah dan plastik menyumbang 23.6 peratus atau 27,874 orang.

Paparan 18: Statistik Utama Negeri Kedah mengikut Subsektor

	 Bilangan Pertubuhan	 Output Kasar (RM bilion)	 Hasil Pemrosesan (RM bilion)	 Bilangan Pekerja (orang)	 Pekerja	 Bil. B. Upah (RM bilion)	 Sumbangan (RM bilion)
 Pembuatan	2,988 3,281	87.3 56.9	70.5 45.2	16.8 11.7	118,195 97,463	4.6 2.8	19.4 13.7
 Produk makanan	572 670  19.1	7.8 3.4  9.0	6.6 2.8  9.4	1.2 0.6  7.3	11,590 9,544  9.8	0.3 0.2  6.0	1.2 1.0  6.2
 Minuman dan produk tembakau	24 37  0.8	0.1 0.1  0.1	0.04 0.05  0.1	0.02 0.01  0.1	304 404  0.3	0.01 0.01  0.2	0.02 0.02  0.1
 Produk tekstil, pakaian, kulit dan kasut	460 816  15.4	0.4 0.2  0.4	0.2 0.1  0.3	0.1 0.1  0.8	3,020 2,570  2.6	0.05 0.03  1.1	0.06 0.04  0.3
 Produk kayu, perabot, keluaran kertas dan percetakan	404 310  13.5	4.1 1.8  4.7	3.0 1.4  4.3	1.1 0.4  6.4	12,398 10,759  10.5	0.3 0.2  7.4	1.2 0.5  6.4
 Produk petroleum, kimia, getah dan plastik	306 244  10.2	12.5 7.8  14.3	9.0 5.9  12.7	3.5 1.9  21.0	27,874 18,737  23.6	1.0 0.6  22.5	3.0 2.4  15.6
 Produk mineral bukan logam, logam asas dan produk logam yang direka	659 661  22.1	4.6 4.0  5.2	3.1 3.0  4.4	1.5 1.1  8.9	12,465 9,129  10.5	0.4 0.2  8.7	1.2 0.7  6.2
 Produk elektrik, elektronik dan optikal	165 171  5.5	54.6 36.7  62.6	46.5 29.9  65.9	8.2 6.8  48.5	39,141 34,673  33.1	2.1 1.2  46.1	11.6 8.2  59.5
 Peralatan pengangkutan, pembuatan lain dan pembaikan	398 372  13.3	3.3 2.9  3.8	2.1 2.1  3.0	1.2 0.8  6.9	11,403 11,647  9.6	0.4 0.3  7.9	1.1 0.9  5.6

Note: 2022  Sumbangan 2022 (%)
2015

10.3 Kelantan

Bilangan pertubuhan dalam sektor Pembuatan di Kelantan menurun sebanyak 2.4 peratus, berjumlah 1,550 pertubuhan pada tahun 2022 berbanding dengan 1,834 pertubuhan pada tahun 2015. Tiga subsektor yang menyumbang jumlah pertubuhan tertinggi adalah subsektor Produk makanan, yang menyumbang 26.4 peratus, diikuti oleh subsektor Produk tekstil, pakaian, kulit dan kasut dengan 21.7 peratus dan subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka dengan 18.6 peratus. Ketiga-tiga, subsektor ini menyumbang 66.7 peratus daripada jumlah keseluruhan, berjumlah 1,034 pertubuhan.

Walau bagaimanapun, output kasar Kelantan mengalami pertumbuhan positif dengan kadar tahunan sebanyak 4.8 peratus, mencapai RM5,919.8 juta. Pertumbuhan ini terutamanya disokong oleh subsektor Produk makanan, yang menyumbang 25.6 peratus dengan jumlah RM1,513.5 juta. Seterusnya subsektor Produk elektrik, elektronik dan optikal dengan sumbangan sebanyak 24.3 peratus, berjumlah RM1,438.0 juta dan subsektor Produk petroleum, kimia, getah dan plastik dengan sumbangan 23.2 peratus atau RM1,373.2 juta.

Jumlah pekerja dalam sektor Pembuatan Kelantan mengalami penurunan marginal sebanyak 0.2 peratus, berjumlah 19,349 orang pada tahun 2022 (2015: 19,665 orang). Subsektor Produk makanan menyumbang 21.3 peratus daripada jumlah keseluruhan, berjumlah 4,131 orang. Diikuti rapat oleh subsektor Produk petroleum, kimia, getah dan plastik dengan sumbangan 19.3 peratus atau 3,743 orang. Subsektor Produk kayu, perabot, keluaran kertas dan percetakan menyumbang 18.2 peratus, berjumlah 3,523 orang.

Paparan 19: Statistik Utama Negeri Kelantan mengikut Subsektor

	Majlis Perbandaran	Majlis Daerah	Majlis Perbandaran	Majlis Daerah	Pengiran	Majlis Daerah	Majlis Perbandaran
	1,550 1,834	5,919.8 4,273.0	4,780.9 3,386.2	1,138.9 886.8	19,349 19,665	466.4 322.2	1,544.4 1,176.1
Pembuatan							
Produk makanan	409 432 26.4	1,513.5 959.9 25.6	1,226.4 802.9 25.7	287.1 157.0 25.2	4,131 3,874 21.3	73.8 54.6 15.8	202.5 209.0 13.1
Minuman dan produk tembakau	14 20 0.9	11.7 10.8 0.2	6.9 6.6 0.1	4.8 4.2 0.4	155 203 0.8	2.6 2.4 0.6	1.5 2.4 0.1
Produk tekstil, pakaian, kulit dan kasut	336 667 21.7	129.1 144.7 2.2	61.8 92.0 1.3	67.2 52.6 5.9	1,735 2,643 9.0	21.5 23.9 4.6	29.2 32.6 1.9
Produk kayu, perabot, keluaran kertas dan percetakan	269 246 17.4	579.6 447.5 9.8	427.5 339.2 8.9	152.2 108.3 13.4	3,523 3,496 18.2	79.1 62.0 17.0	108.5 81.4 7.0
Produk petroleum, kimia, getah dan plastik	46 44 3.0	1,373.2 1,142.2 23.2	1,184.9 910.2 24.8	188.3 231.9 16.5	3,743 4,144 19.3	102.6 78.2 22.0	326.1 367.9 21.1
Produk mineral bukan logam, logam asas dan produk logam yang direka	289 307 18.6	810.6 738.9 13.7	684.9 569.7 14.3	125.7 169.2 11.0	2,900 2,921 15.0	80.2 56.6 17.2	230.9 242.8 15.0
Produk elektrik, elektronik dan optikal	6 13 0.4	1,438.0 796.2 24.3	1,149.9 646.3 24.1	288.0 149.9 25.3	2,350 1,895 12.1	94.7 38.5 20.3	632.7 218.3 41.0
Peralatan pengangkutan, pembuatan lain dan pembaikan	181 105 11.7	64.1 32.8 1.1	38.5 19.2 0.8	25.6 13.7 2.2	812 479 4.2	11.9 5.9 2.5	13.1 21.7 0.8

Note: 2022 Sumbangan 2022 (%)
2015

10.4 Melaka

Bilangan pertubuhan dalam sektor ini pada tahun 2022 bertumbuh sebanyak 1.6 peratus, meningkat kepada 1,715 pertubuhan daripada 1,539 pertubuhan pada tahun 2015. Subsektor utama yang menyumbang kepada bilangan pertubuhan adalah subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka dengan sumbangan 21.0 peratus dengan jumlah 360 pertubuhan dan subsektor Produk makanan pada 19.2 peratus dengan 329 pertubuhan.

Output kasar meningkat sebanyak 5.2 peratus setahun, mencatat RM112.7 bilion berbanding RM79.3 bilion pada tahun 2015. Lebih daripada 50 peratus daripada output keseluruhan disumbangkan oleh subsektor Produk petroleum, kimia, getah dan plastik iaitu sebanyak 51.8 peratus dengan nilai output kasar sebanyak RM58.4 bilion. Ini diikuti oleh subsektor Produk elektrik, elektronik dan optikal yang menyumbang 20.1 peratus dengan nilai RM22.7 bilion. Subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan menyumbang 12.9 peratus dengan nilai RM14.6 bilion. Bersama-sama, tiga subsektor ini menyumbang 84.8 peratus kepada output kasar keseluruhan.

Selaras dengan prestasi output kasar, bilangan pekerja dalam sektor Pembuatan Melaka meningkat sebanyak 2.7 peratus setahun, mencatat 99,891 orang berbanding 82,694 orang semasa banci terdahulu. Pertumbuhan ini didorong oleh subsektor Produk elektrik, elektronik dan optikal, yang menyumbang 38.8 peratus dengan jumlah 38,757 orang. Subsektor Produk petroleum, kimia, getah dan plastik menyumbang 13.9 peratus, dengan jumlah 13,869 orang.

Paparan 20: Statistik Utama Negeri Melaka mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM Bilion)	Input Persekitaran (RM Bilion)	Risikonya (RM Bilion)	Pekerja	Unit & Unit (RM Bilion)	Unit & Unit (RM Bilion)
Pembuatan	1,715 1,539	112.7 79.3	91.4 67.4	21.3 11.9	99,891 82,694	4.4 2.7	23.5 16.6
Produk makanan	329 294	19.2 4.1	5.5 3.4	4.7 3.4	11,458 9,372	0.3 0.2	1.5 1.0
Minuman dan produk tembakau	18 20	1.0 0.01	0.02 0.01	0.01 0.01	320 209	0.007 0.003	0.01 0.01
Produk tekstil, pakaian, kulit dan kasut	187 303	10.9 3.8	3.1 2.9	2.3 2.9	3,499 6,933	0.1 0.2	0.3 0.8
Produk kayu, perabot, keluaran kertas dan percetakan	285 260	16.6 1.8	2.6 1.4	1.9 1.4	9,191 7,901	0.3 0.2	0.9 0.7
Produk petroleum, kimia, getah dan plastik	164 120	9.6 39.0	58.4 35.1	49.3 35.1	13,869 11,007	0.7 0.5	11.1 7.5
Produk mineral bukan logam, logam asas dan produk logam yang direka	360 266	21.0 3.3	5.9 2.6	4.4 2.6	12,202 8,061	0.5 0.2	3.0 0.8
Produk elektrik, elektronik dan optikal	186 133	10.8 16.8	22.7 13.5	17.3 13.5	38,757 29,257	2.2 1.1	3.5 4.6
Peralatan pengangkutan, pembuatan lain dan pembaikan	186 143	10.8 10.5	14.6 8.5	11.5 8.5	10,595 9,954	0.4 0.3	3.2 1.2

Note: 2022
2015 Sumbangan 2022 (%)

10.5 Negeri Sembilan

Sektor Pembuatan di Negeri Sembilan menunjukkan peningkatan tahunan sebanyak 3.5 peratus kepada 2,408 pada tahun 2022 (2015: 1,891 pertubuhan). Penyumbang utama pertumbuhan ini adalah subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka dengan sumbangan sebanyak 21.0 peratus daripada jumlah pertubuhan keseluruhan, dengan jumlah 506 pertubuhan (CAGR: 3.8%). Selain itu, subsektor Produk makanan dan subsektor Produk kayu, perabot, keluaran kertas dan percetakan juga memainkan peranan penting, menyumbang masing-masing sebanyak 16.6 peratus (2022: 400 pertubuhan) dan 16.4 peratus (2022: 396 pertubuhan) daripada bilangan pertubuhan keseluruhan.

Output kasar Negeri Sembilan pada 2022 mencatat pertumbuhan tahunan yang kukuh sebanyak 7.9 peratus, mencapai RM115.7 bilion. Pemacu utama pertumbuhan ini adalah subsektor Produk petroleum, kimia, getah dan plastik, yang menyumbang 59.5 peratus daripada output keseluruhan, dengan jumlah RM68.9 bilion. Subsektor ini mengalami pertumbuhan tahunan yang signifikan sebanyak 11.6 peratus dari RM31.9 bilion yang direkodkan pada tahun 2015. Seterusnya adalah subsektor Produk elektrik, elektronik dan optikal menyumbang 14.8 peratus dengan jumlah keseluruhan RM17.1 bilion.

Bilangan pekerja dalam sektor Pembuatan Negeri Sembilan meningkat sebanyak 2.7 peratus, mencatat 93,162 orang. Penyumbang tertinggi adalah subsektor Produk elektrik, elektronik dan optikal dengan sumbangan sebanyak 23.4 peratus merekodkan 21,807 orang. Diikuti oleh subsektor Produk petroleum, kimia, getah dan plastik sebanyak 21.2 peratus mencatatkan 19,725 orang. Subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka menyumbang 15.7 peratus daripada jumlah keseluruhan dengan jumlah 14,629 orang.

Paparan 21: Statistik Utama Negeri Sembilan mengikut Subsektor

							
 Pembinaan	2,408 1,891	115.7 67.9	91.1 56.4	24.7 11.5	93,162 77,331	4.5 2.6	17.9 13.1
 Produk makanan	400 295  16.6	7.2 3.7  6.2	5.9 2.7  6.5	1.3 1.0  5.1	8,084 5,549  8.7	0.3 0.2  7.7	1.1 1.2  6.4
 Minuman dan produk tembakau	20 21  0.8	1.9 0.4  1.7	1.3 0.2  1.4	0.7 0.2  2.7	2,573 716  2.8	0.16 0.02  3.5	0.6 0.3  3.1
 Produk tekstil, pakaian, kulit dan kasut	357 426  14.8	0.9 0.7  0.7	0.6 0.5  0.6	0.3 0.2  1.2	4,400 3,398  4.7	0.1 0.1  2.5	0.5 0.5  2.9
 Produk kayu, perabot, keluaran kertas dan percetakan	396 303  16.4	4.5 4.0  3.9	3.4 3.2  3.8	1.1 0.9  4.4	10,432 12,251  11.2	0.3 0.3  7.3	1.3 1.3  7.5
 Produk petroleum, kimia, getah dan plastik	255 160  10.6	68.9 31.9  59.5	55.6 28.3  61.1	13.3 3.6  54.0	19,725 15,424  21.2	0.9 0.6  20.3	7.2 3.2  40.4
 Produk mineral bukan logam, logam asas dan produk logam yang direka	506 391  21.0	9.0 7.2  7.8	6.7 5.4  7.4	2.3 1.7  9.3	14,629 12,863  15.7	0.6 0.4  12.9	1.2 2.5  6.5
 Produk elektrik, elektronik dan optikal	157 92  6.5	17.1 17.1  14.8	12.7 13.9  13.9	4.4 3.2  17.9	21,807 20,395  23.4	1.7 0.9  37.1	4.5 3.0  25.0
 Peralatan pengangkutan, pembuatan lain dan pembaikan	317 203  13.2	6.2 2.9  5.4	4.8 2.2  5.3	1.4 0.7  5.5	11,512 6,735  12.4	0.4 0.2  8.7	1.5 1.2  8.3

Note: 2022
2015 Sumbangan 2022 (%)

10.6 Pahang

Sektor Pembuatan Pahang mencatat penurunan bilangan pertubuhan sebanyak 0.5 peratus, mencatat bilangan pertubuhan sebanyak 1,720 pada tahun 2022 berbanding 1,784 pada tahun 2015. Subsektor Produk makanan dan subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka merupakan penyumbang tertinggi kepada bilangan pertubuhan dengan masing-masing 22.7 peratus (2022: 391 pertubuhan) dan 21.3 peratus (2022: 366 pertubuhan).

Walau bagaimanapun, output kasar Pahang kekal berdaya tahan dengan pertumbuhan tahunan sebanyak 7.0 peratus, mencapai RM69.0 bilion pada tahun 2022, meningkat dari RM42.9 bilion pada tahun 2015. Peningkatan ini dipacu oleh subsektor Produk petroleum, kimia, getah dan plastik, yang menyumbang 49.5 peratus daripada jumlah keseluruhan, berjumlah RM34.1 bilion dan mengalami pertumbuhan yang ketara sebanyak 12.2 peratus. Subsektor Produk makanan menyumbang 21.1 peratus, dengan jumlah keseluruhan RM14.5 bilion. Subsektor produk tekstil, pakaian, kulit dan kasut merupakan penyumbang paling kecil kepada output kasar pada 0.04 peratus.

Untuk bilangan pekerja, Pahang mencatat pertumbuhan tahunan sebanyak 3.0 peratus, dengan jumlah keseluruhan 54,762 orang pada tahun 2022. Penyumbang tertinggi adalah subsektor Produk kayu, perabot, keluaran kertas dan percetakan menyumbang 25.4 peratus, diikuti oleh subsektor Produk makanan pada 19.6 peratus.

Paparan 22: Statistik Utama Pahang mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM bilion)	Output Perindustrian (RM bilion)	Output Perkhidmatan (RM bilion)	Pegawai (bilangan)	Output & Upah (RM bilion)	Pegawai Tertinggi (RM bilion)
Pembuatan	1,720 1,784	69.0 42.9	55.9 34.9	13.1 8.1	54,762 44,489	2.3 1.4	17.7 12.3
Produk makanan	391 421	14.5 16.9	12.9 15.1	1.6 1.7	10,759 9,233	0.4 0.2	2.2 1.3
Minuman dan produk tembakau	10 11	0.1 0.1	0.1 0.1	0.02 0.01	364 386	0.01 0.01	0.02 0.02
Produk tekstil, pakaian, kulit dan kasut	274 371	0.03 0.04	0.02 0.03	0.01 0.02	998 939	0.01 0.01	0.01 0.02
Produk kayu, perabot, keluaran kertas dan percetakan	316 285	6.0 2.7	4.7 2.1	1.3 0.6	13,934 10,508	0.4 0.2	1.7 1.2
Produk petroleum, kimia, getah dan plastik	70 63	34.1 15.2	26.4 11.6	7.7 3.7	9,333 7,470	0.7 0.4	5.5 7.7
Produk mineral bukan logam, logam asas dan produk logam yang direka	366 346	8.3 2.8	7.6 1.9	0.8 1.0	9,406 7,189	0.4 0.2	7.2 1.2
Produk elektrik, elektronik dan optikal	26 27	1.3 0.7	0.8 0.5	0.5 0.2	4,202 2,879	0.1 0.1	0.8 0.2
Peralatan pengangkutan, pembuatan lain dan pembaikan	267 260	4.6 4.5	3.4 3.6	1.2 0.9	5,766 5,885	0.2 0.2	0.4 0.7

Note: 2022 Sumbangan 2022 (%)
2015

10.7 Pulau Pinang

Bilangan pertubuhan Pulau Pinang pada 2022 mencatatkan peningkatan sebanyak 4.4 peratus mencapai 5,678 pertubuhan. Subsektor utama yang menyumbang kepada bilangan pertubuhan termasuklah subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka sebanyak 18.8 peratus (2022: 1,066 pertubuhan), subsektor Produk elektrik, elektronik dan optikal sebanyak 18.2 peratus (2022: 1,032 pertubuhan) dan subsektor Produk kayu, perabot, keluaran kertas dan percetakan sebanyak 15.9 peratus (2022: 905 pertubuhan).

Sektor Pembuatan tidak hanya memainkan peranan penting dalam ekonomi Pulau Pinang tetapi juga meningkatkan reputasi negeri ini sebagai pusat inovasi. Output kasar bagi tahun 2022 mencatat pertumbuhan tahunan yang kukuh sebanyak 10.0 peratus, mencapai RM303.2 bilion berbanding RM155.7 bilion pada tahun 2015. Pulau Pinang telah menjadi pusat pengeluaran teknologi tinggi dan elektronik utama di Malaysia. Subsektor Produk elektrik, elektronik dan optikal menyumbang sebanyak 71.8 peratus kepada jumlah keseluruhan, berjumlah RM217.7 bilion, menunjukkan peningkatan sebanyak 11.9 peratus. Manakala subsektor Produk petroleum, kimia, getah dan plastik serta subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka masing-masing menyumbang sebanyak 7.8 peratus dan 7.4 peratus.

Bilangan pekerja dalam sektor ini juga mengalami pertumbuhan tahunan sebanyak 4.6 peratus, dengan jumlah keseluruhan mencapai 371,732 orang pada tahun 2022. Subsektor yang memberikan sumbangan tertinggi adalah subsektor Produk elektrik, elektronik dan optikal sebanyak 58.1 peratus, diikuti oleh Subsektor Produk petroleum, kimia, getah dan plastik sebanyak 9.3 peratus dan subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka sebanyak 9.5 peratus.

Paparan 23: Statistik Utama Pulau Pinang mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM Bilion)	Output Per Kapita (RM Bilion)	Anggaran Pertumbuhan (RM Bilion)	Pulau Pinang	Output Kasar (RM Bilion)	Anggaran Pertumbuhan (RM Bilion)
Pembuatan	5,678 4,191	303.2 155.7	245.9 121.4	57.3 34.3	371,732 272,241	18.5 10.4	39.7 33.0
Produk makanan	799 571	18.0 10.8	15.2 9.3	2.8 1.4	20,258 14,624	0.7 0.4	2.3 2.1
Minuman dan produk tembakau	31 38	0.4 0.3	0.3 0.2	0.1 0.1	532 866	0.02 0.02	0.02 0.14
Produk tekstil, pakaian, kulit dan kasut	373 419	4.1 2.8	3.2 2.1	1.0 0.7	9,472 15,403	0.3 0.4	0.6 0.6
Produk kayu, perabot, keluaran kertas dan percetakan	905 655	6.8 5.5	5.2 4.0	1.5 1.5	25,389 21,372	0.9 0.6	1.5 1.9
Produk petroleum, kimia, getah dan plastik	695 490	23.7 13.4	19.6 10.6	4.1 2.8	34,626 28,203	1.6 0.9	2.9 3.2
Produk mineral bukan logam, logam asas dan produk logam yang direka	1,066 810	22.3 16.2	18.8 13.3	3.5 2.9	35,285 29,143	1.5 0.9	2.7 3.7
Produk elektrik, elektronik dan optikal	1,032 712	217.7 98.9	176.0 76.1	41.7 22.8	215,830 141,696	12.4 6.7	27.2 19.7
Peralatan pengangkutan, pembuatan lain dan pembaikan	777 496	10.2 7.7	7.6 5.7	2.5 2.0	30,340 20,934	1.2 0.6	2.6 1.8

Note: 2022 Sumbangan 2022 (%)
2015

10.8 Perak

Sektor Pembuatan di Perak mengalami penurunan dalam bilangan pertubuhan sebanyak 0.7 peratus mencatat jumlah keseluruhan 4,160 pertubuhan pada tahun 2022 (2015: 4,383 pertubuhan). Penyumbang tertinggi kepada bilangan pertubuhan adalah subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka, menyumbang sebanyak 21.1 peratus dengan 877 pertubuhan. Diikuti oleh subsektor Produk makanan sebanyak 20.3 peratus, berjumlah 843 pertubuhan.

Sementara itu, output kasar mencatat pertumbuhan tahunan yang kukuh sebanyak 7.4 peratus, mencapai RM75.2 bilion dari RM45.7 bilion pada banci terdahulu. Pertumbuhan ini disokong oleh subsektor Produk makanan menyumbang sebanyak 28.4 peratus, berjumlah RM21.4 bilion. Diikuti oleh subsektor Produk petroleum, kimia, getah dan plastik dengan sumbangan sebanyak 25.9 peratus, merekodkan RM19.5 bilion dan subsektor Produk elektrik, elektronik dan optikal dengan sumbangan sebanyak 21.3 peratus dan RM16.1 bilion.

Bilangan pekerja dalam sektor ini pada tahun 2022 mengalami peningkatan marginal sebanyak 0.9 peratus setahun, mencapai jumlah keseluruhan 147,337 orang. Penyumbang utama adalah subsektor Produk petroleum, kimia, getah dan plastik sebanyak 29.7 peratus, diikuti oleh subsektor Produk elektrik, elektronik dan optikal sebanyak 20.1 peratus dan subsektor Produk makanan sebanyak 15.4 peratus. Kesemua tiga subsektor ini menyumbang sebanyak 65.2 peratus daripada jumlah keseluruhan.

Paparan 24: Statistik Utama Perak mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM bilion)	Input Persekitaran (RM bilion)	Nilai Tambah (RM bilion)	Pekerja	Anggaran Bilangan Pekerja	Kos Tenaga (RM bilion)
Pembuatan	4,160 4,383	75.2 45.7	57.6 35.6	17.7 10.1	147,337 138,726	5.3 3.5	19.9 14.8
Produk makanan	843 871	20.3 15.3	28.4 13.7	31.5 13.7	3.3 1.6	18.5 0.8	22,687 20,992
Minuman dan produk tembakau	24 32	0.6 0.5	0.9 0.4	1.0 0.4	0.1 0.1	0.8 0.8	1,112 879
Produk tekstil, pakaian, kulit dan kasut	581 857	14.0 0.7	1.1 0.4	1.0 0.4	0.3 0.2	1.5 0.8	6,483 8,141
Produk kayu, perabot, keluaran kertas dan percetakan	598 591	14.4 2.0	3.5 1.5	3.4 1.5	0.7 0.5	3.8 3.8	11,964 13,027
Produk petroleum, kimia, getah dan plastik	419 388	10.1 8.3	25.9 6.0	23.9 6.0	5.7 2.3	32.3 14.3	43,692 34,407
Produk mineral bukan logam, logam asas dan produk logam yang direka	877 887	21.1 6.7	13.2 4.6	12.8 4.6	2.5 2.1	14.3 14.3	21,567 21,887
Produk elektrik, elektronik dan optikal	197 196	4.7 9.3	21.3 6.6	20.8 6.6	4.1 2.7	23.1 23.1	29,595 31,434
Peralatan pengangkutan, pembuatan lain dan pembaikan	621 561	14.9 3.0	5.7 2.4	5.7 2.4	1.0 0.6	5.7 5.7	10,237 7,959

Note: 2022 Sumbangan 2022 (%)
2015

10.9 Perlis

Sektor Pembuatan di Perlis mengalami penurunan dalam bilangan pertubuhan sebanyak 2.6 peratus, mencatat jumlah keseluruhan 311 pertubuhan pada tahun 2022 berbanding 373 pertubuhan pada tahun 2015. Subsektor Produk makanan merupakan penyumbang tertinggi kepada bilangan pertubuhan dengan 34.1 peratus, berjumlah 106 pertubuhan. Ini diikuti oleh subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka; Produk elektrik, elektronik dan optikal sebanyak 24.4 peratus berjumlah 76 pertubuhan dan subsektor Produk tekstil, pakaian, kulit dan kasut sebanyak 19.9 peratus berjumlah 62 pertubuhan.

Walaupun terdapat penurunan dalam bilangan pertubuhan, output kasar dalam sektor Pembuatan Perlis masih berdaya tahan dengan pertumbuhan tahunan sebanyak 6.8 peratus, mencapai RM3,976.2 juta (2015: RM2,503.8 juta). Pertumbuhan ini didorong oleh subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka; Produk elektrik, elektronik dan optikal yang menyumbang sebanyak 45.1 peratus dan berjumlah RM1,792.1 juta, dengan pertumbuhan tahunan sebanyak 3.4 peratus. Diikuti oleh subsektor Produk makanan yang menyumbang 35.7 peratus dan berjumlah RM1,421.0 juta (CAGR: 12.9%).

Manakala, bilangan pekerja dalam sektor ini menguncup sebanyak 1.4 peratus dengan jumlah keseluruhan 5,167 orang pada tahun 2022 berbanding 5,704 orang pada tahun 2015. Penyumbang utama adalah subsektor Produk petroleum, kimia, getah dan plastik, yang menyumbang 60.9 peratus dan berjumlah 3,148 orang. Ini diikuti oleh subsektor Produk makanan sebanyak 14.9 peratus berjumlah 770 orang.

Paparan 25: Statistik Utama Perlis mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM juta)	Jumlah Pekerja (orang)	Output Kasar (RM juta)	Jumlah Pekerja (orang)	Output Kasar (RM juta)	Jumlah Pekerja (orang)
Pembuatan	311 373	3,976.2 2,503.8	3,261.5 1,810.7	714.7 693.1	5,167 5,704	124.4 126.6	432.6 661.2
Produk makanan	106 110	1,421.0 606.2	1,255.5 497.2	165.6 108.9	770 1,008	13.6 22.8	35.4 226.5
Minuman dan produk tembakau	6 3	16.0 1.3	7.0 0.8	9.0 0.5	111 29	2.6 0.5	5.6 0.9
Produk tekstil, pakaian, kulit dan kasut	62 115	12.3 16.4	7.6 10.1	4.7 6.3	313 343	4.1 3.3	1.9 8.9
Produk kayu, perabot, keluaran kertas dan percetakan	32 44	12.8 24.2	8.0 17.8	4.8 6.4	173 233	3.0 3.1	2.4 3.3
Produk petroleum, kimia, getah dan plastik	7 8	715.0 433.2	468.9 269.7	246.2 163.5	3,148 3,109	75.0 60.5	166.3 115.4
Produk mineral bukan logam, logam asas dan produk logam yang direka	76 83	1,792.1 1,413.8	1,510.7 1,010.7	281.4 403.1	548 864	24.4 32.9	211.6 293.7
Produk elektrik, elektronik dan optikal							
Peralatan pengangkutan, pembuatan lain dan pembaikan	22 10	6.9 8.8	3.9 4.4	3.0 4.4	104 118	1.8 3.4	9.5 12.7

Note: 2022
2015 Sumbangan 2022 (%)

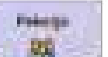
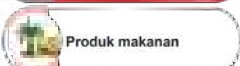
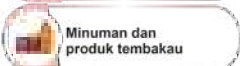
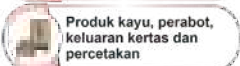
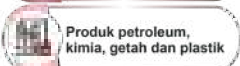
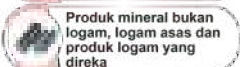
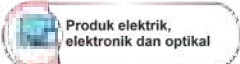
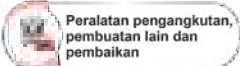
10.10 Selangor

Selangor mencatatkan peningkatan yang kukuh sebanyak 7.7 peratus, mencapai 16,808 pertubuhan pada tahun 2022. Pertumbuhan ini didorong oleh kenaikan di semua subsektor, terutama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan, yang mengalami peningkatan tahunan sebanyak 11.8 peratus (sumbangan: 16.1%), diikuti oleh subsektor Produk makanan, meningkat sebanyak 10.9 peratus setahun (sumbangan: 13.0%) dan subsektor Produk petroleum, kimia, getah dan plastik, yang mencatatkan peningkatan 7.9 peratus setahun (sumbangan: 16.1%).

Seiring dengan peningkatan bilangan pertubuhan, output kasar Selangor juga mencatat pertumbuhan yang kukuh sebanyak 7.7 peratus, mencapai RM516.4 bilion berbanding RM308.0 bilion pada tahun 2015. Pertumbuhan ini utamanya disokong oleh subsektor Produk elektrik, elektronik dan optikal, yang menyumbang 28.1 peratus dengan jumlah RM145.3 bilion, meningkat sebanyak 7.4 peratus setahun dari tahun 2015. Diikuti rapat oleh subsektor Produk petroleum, kimia, getah dan plastik dengan sumbangan sebanyak 23.4 peratus, mencapai RM121.1 bilion dan mencatat pertumbuhan tahunan yang kukuh sebanyak 13.5 peratus. Kedua-dua subsektor ini menyumbang lebih separuh daripada jumlah output kasar keseluruhan.

Dari segi bilangan pekerja, Selangor mencatat pertumbuhan tahunan sebanyak 1.6 peratus, dengan jumlah keseluruhan 723,767 orang berbanding 646,165 orang pada tahun 2015. Subsektor Produk petroleum, kimia, getah dan plastik merupakan penyumbang tertinggi kepada jumlah keseluruhan sebanyak 22.7 peratus, berjumlah 164,576 orang. Ini diikuti oleh subsektor Produk elektrik, elektronik dan optikal sebanyak 20.0 peratus dan subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka sebanyak 16.4 peratus.

Paparan 26: Statistik Utama Selangor mengikut Subsektor

							
	16,808 10,027	516.4 308.0	386.9 233.7	129.5 74.4	723,767 646,165	29.8 21.3	85.1 67.5
	2,193 1,065	82.5 45.1	68.5 37.2	14.0 7.9	86,236 63,749	3.6 2.2	13.6 8.1
	138 103	10.4 9.4	7.5 6.2	2.9 3.3	6,572 7,938	0.3 0.3	2.1 1.8
	1,066 897	6.0 3.2	4.1 2.3	1.8 1.0	20,333 16,738	0.6 0.4	0.7 0.8
	2,962 1,885	27.6 16.7	19.5 11.6	8.1 5.2	84,801 73,714	2.8 2.1	7.2 6.2
	2,712 1,593	121.1 49.8	90.9 36.3	30.1 13.5	164,576 137,496	6.6 4.3	23.1 12.7
	2,924 1,952	61.4 53.5	46.6 39.0	14.8 14.5	118,789 118,772	4.7 4.0	12.7 18.3
	2,107 1,293	145.3 88.1	104.2 69.7	41.1 18.4	144,567 144,513	7.0 4.7	15.5 10.5
	2,706 1,239	62.2 42.1	45.7 31.5	16.5 10.6	97,893 83,245	4.2 3.3	10.3 9.2

Nota: 2022 Sumbangan 2022 (%)
2015

10.11 Terengganu

Sektor Pembuatan di Terengganu mencatat penurunan dalam bilangan pertubuhan sebanyak 1.1 peratus, mencapai jumlah keseluruhan 1,870 pertubuhan pada tahun 2022 (2015: 2,023 pertubuhan). Penyumbang terbesar kepada bilangan pertubuhan adalah subsektor produk tekstil, pakaian, kulit dan kasut yang menyumbang sebanyak 31.8 peratus dengan 594 pertubuhan. Diikuti oleh subsektor Produk makanan sebanyak 22.4 peratus, berjumlah 419 pertubuhan dan subsektor Produk kayu, perabot, keluaran kertas dan percetakan sebanyak 15.3 peratus dengan 286 pertubuhan.

Walaupun terdapat penurunan dalam bilangan pertubuhan, output kasar Terengganu mencatat peningkatan tahunan sebanyak 3.2 peratus, meningkat kepada RM47,321.8 juta daripada RM38,072.8 juta pada tahun 2015. Subsektor Produk petroleum, kimia, getah dan plastik memainkan peranan penting dalam mendorong pertumbuhan ini, mencatatkan sumbangan sebanyak 87.3 peratus dengan jumlah RM41,335.6 juta. Sementara itu, subsektor Produk elektrik, elektronik dan optikal menunjukkan pertumbuhan kukuh sebanyak 41.9 peratus setahun.

Bilangan pekerja sektor ini mengalami pertumbuhan kecil sebanyak 1.5 peratus setahun, dengan jumlah keseluruhan 26,516 orang. Penyumbang utama adalah subsektor Produk petroleum, kimia, getah dan plastik sebanyak 33.6 peratus, diikuti oleh subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan sebanyak 15.0 peratus, dan subsektor Produk kayu, perabot, keluaran kertas dan percetakan sebanyak 14.0 peratus.

Paparan 27: Statistik Utama Terengganu mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM juta)	Input Perantara (RM juta)	Nilai Ditambah (RM juta)	Pekerja	Gaji & Upah (RM juta)	Harta Tetap (RM juta)
Pembuatan	1,870 2,023	47,321.8 38,072.8	33,303.6 25,842.3	14,018.2 12,230.4	26,516 23,839	1,541.4 980.6	10,167.7 19,958.6
Produk makanan	419 455	1,803.4 891.2	1,421.0 691.0	382.4 200.2	3,542 3,234	87.0 39.7	297.2 279.6
Minuman dan produk tembakau	5 6	6.2 8.8	3.4 6.2	2.8 2.6	73 91	1.2 1.4	4.3 8.1
Produk tekstil, pakaian, kulit dan kasut	594 851	96.6 104.0	56.1 62.4	40.5 41.7	2,195 2,141	21.0 19.3	8.7 59.8
Produk kayu, perabot, keluaran kertas dan percetakan	286 214	487.8 422.8	365.3 285.9	122.4 137.0	3,717 3,489	76.4 72.0	67.2 145.2
Produk petroleum, kimia, getah dan plastik	51 36	41,335.6 35,712.3	28,540.0 24,154.9	12,795.6 11,557.4	8,899 9,555	1,059.1 730.8	9,597.8 19,236.0
Produk mineral bukan logam, logam asas dan produk logam yang direka	281 282	2,815.3 571.2	2,368.8 391.4	446.5 179.8	3,512 2,724	147.7 56.5	61.8 129.3
Produk elektrik, elektronik dan optikal	16 9	327.1 28.2	266.1 19.0	61.1 9.3	589 211	20.4 5.3	21.7 24.9
Peralatan pengangkutan, pembuatan lain dan pembaikan	218 170	449.8 334.2	282.8 231.7	166.9 102.5	3,989 2,394	128.6 55.6	108.9 75.8

Note: 2022
2015 Sumbangan 2022 (%)

10.12 Sabah

Sabah mencatatkan penurunan sebanyak 1.0 peratus di dalam sektor Pembuatan, dengan jumlah keseluruhan 1,667 pertubuhan pada tahun 2022 berbanding 1,789 pertubuhan pada tahun 2015. Penyumbang utama kepada pertubuhan pembuatan di Sabah adalah subsektor Produk makanan yang menyumbang sebanyak 28.5 peratus dengan 475 pertubuhan, diikuti oleh subsektor Tekstil, pakaian, kulit dan kasut sebanyak 20.3 peratus dengan 339 pertubuhan. Subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka menyumbang 16.7 peratus dengan 278 pertubuhan.

Namun begitu, Sabah mencatat peningkatan sebanyak 2.3 peratus dalam output kasar, mencapai jumlah RM48.9 bilion. Pertumbuhan ini utamanya didorong oleh subsektor Produk makanan yang menyumbang sebanyak 77.7 peratus daripada jumlah keseluruhan. Subsektor ini mencatatkan pertumbuhan tahunan sebanyak 1.4 peratus, mencapai RM38.0 bilion pada tahun 2022 berbanding RM34.4 bilion pada tahun 2015. Subsektor Produk elektrik, elektronik dan optikal merupakan penyumbang terendah kepada output kasar Sabah dengan 0.2 peratus, berjumlah RM81.4 juta.

Sementara itu, bilangan pekerja yang terlibat dalam sektor ini mengalami penurunan sebanyak 0.5 peratus, dengan jumlah keseluruhan 61,651 orang pada tahun 2022 berbanding 63,766 orang pada tahun 2015. Penyumbang utama adalah subsektor Produk makanan, yang menyumbang 44.3 peratus, berjumlah 27,312 orang. Ini diikuti oleh subsektor Produk kayu, perabot, keluaran kertas dan percetakan sebanyak 26.9 peratus dengan jumlah 16,595 orang.

Paparan 28: Statistik Utama Sabah mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM bilion)	Input Perantara (RM bilion)	Nilai Ditambah (RM bilion)	Pekerja	Gaji & Upah (RM bilion)	Harta Tetap (RM bilion)
Pembuatan	1,667 1,789	48.9 41.8	42.0 35.4	6.9 6.4	61,651 63,766	1.7 1.3	11.3 8.8
Produk makanan	475 462	28.5 34.4	77.7 29.7	4.3 4.7	27,312 28,359	0.7 0.6	4.1 5.1
Minuman dan produk tembakau	19 23	1.1 0.1	0.4 0.09	0.06 0.03	839 635	0.02 0.01	0.10 0.06
Produk tekstil, pakaian, kulit dan kasut	339 446	20.3 0.1	0.3 0.07	0.07 0.04	2,232 1,938	0.03 0.02	0.02 0.03
Produk kayu, perabot, keluaran kertas dan percetakan	250 268	15.0 3.1	6.3 2.42	5.8 0.6	16,595 18,426	0.4 0.4	0.5 1.9
Produk petroleum, kimia, getah dan plastik	82 72	4.9 1.1	8.9 0.9	7.8 0.2	5,077 3,280	0.19 0.07	5.4 0.4
Produk mineral bukan logam, logam asas dan produk logam yang direka	278 306	16.7 2.5	5.2 2.6	4.8 1.98	6,423 7,520	0.21 0.17	0.9 1.1
Produk elektrik, elektronik dan optikal	26 26	1.6 0.07	0.2 0.05	0.1 0.02	365 579	0.01 0.01	0.02 0.02
Peralatan pengangkutan, pembuatan lain dan pembaikan	198 186	11.9 0.4	1.0 0.2	0.7 0.2	2,808 3,029	0.08 0.07	0.20 0.21

Note: 2022
2015 Sumbangan 2022 (%)

10.13 Sarawak

Sektor Pembuatan di Sarawak mengalami peningkatan kecil sebanyak 0.1 peratus dalam bilangan pertubuhan, mencapai jumlah keseluruhan 2,589 pertubuhan pada tahun 2022. Penyumbang utama adalah subsektor Produk makanan yang menyumbang sebanyak 21.9 peratus dan subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka yang menyumbang 21.7 peratus. Subsektor lain yang mencatat sumbangan yang signifikan adalah subsektor Produk tekstil, pakaian, kulit dan kasut sebanyak 17.3 peratus.

Sarawak mencatat pertumbuhan output kasar yang kukuh sebanyak 8.1 peratus setahun, mencapai RM176.6 bilion (2015: RM102.6 bilion). Pertumbuhan ini didorong oleh subsektor Produk petroleum, kimia, getah dan plastik yang menyumbang 61.2 peratus berjumlah RM108.1 bilion. Subsektor ini juga mengalami pertumbuhan tahunan yang tinggi sebanyak 8.6 peratus dari RM60.5 bilion pada tahun 2015. subsektor Produk makanan menyumbang 16.2 peratus daripada jumlah keseluruhan, mencapai RM28.7 bilion.

Manakala, bilangan pekerja dalam sektor ini mengalami peningkatan sedikit sebanyak 0.3 peratus, dengan jumlah keseluruhan 101,167 orang, meningkat dari 99,280 orang pada tahun 2015. subsektor Produk kayu, perabot, keluaran kertas dan percetakan menyumbang 26.2 peratus daripada jumlah keseluruhan berjumlah 26,476 orang. Diikuti rapat oleh subsektor Produk makanan yang menyumbang 20.7 peratus dengan jumlah 20,925 orang.

Paparan 29: Statistik Utama Sarawak mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM bilion)	Input Perantara (RM bilion)	Nilai Ditambah (RM bilion)	Pekerja	Gaji & Upah (RM bilion)	Harta Tetap (RM bilion)
 Pembuatan	2,589 2,573	176.6 102.6	131.3 69.1	45.3 33.5	101,167 99,280	4.3 2.7	45.6 31.7
 Produk makanan	566 545	28.7 17.6	26.1 15.7	2.5 2.0	20,925 15,890	0.7 0.4	3.2 2.7
 Minuman dan produk tembakau	51 36	0.7 1.1	0.5 0.8	0.17 0.23	1,406 867	0.04 0.02	0.2 0.1
 Produk tekstil, pakaian, kulit dan kasut	447 511	0.10 0.07	0.06 0.04	0.04 0.03	1,790 1,367	0.02 0.01	0.009 0.007
 Produk kayu, perabot, keluaran kertas dan percetakan	434 486	8.0 9.1	6.4 7.0	1.6 2.1	26,476 41,492	0.8 0.9	2.1 3.0
 Produk petroleum, kimia, getah dan plastik	117 92	108.1 60.5	73.7 34.7	34.3 25.8	7,395 7,020	0.9 0.5	19.9 16.0
 Produk mineral bukan logam, logam asas dan produk logam yang direka	561 528	21.7 7.5	17.3 5.8	4.4 1.7	19,733 15,207	0.8 0.4	13.3 7.4
 Produk elektrik, elektronik dan optikal	35 37	7.7 4.7	6.1 3.6	1.6 1.1	16,714 9,236	0.8 0.3	6.0 1.6
 Peralatan pengangkutan, pembuatan lain dan pembaikan	378 338	1.7 2.0	1.1 1.4	0.59 0.57	6,728 8,201	0.2 0.2	0.7 0.8

Note: 2022
2015 Sumbangan 2022 (%)

10.14 W.P. Kuala Lumpur

W.P. Kuala Lumpur mengalami penurunan dalam sektor Pembuatan. Pada tahun 2022, bilangan pertubuhan yang direkodkan adalah 1,632 turun dari 5,231 pertubuhan pada tahun 2015 (CAGR: -15.3 peratus). Penurunan ini memberi kesan kepada semua subsektor, terutamanya subsektor Produk kayu, perabot, keluaran kertas dan percetakan yang menyumbang sebanyak 32.4 peratus daripada jumlah keseluruhan dan mengalami penurunan sebanyak 11.9 peratus. Subsektor lain yang signifikan adalah subsektor produk tekstil, pakaian, kulit dan kasut yang menyumbang 17.6 peratus dan mengalami penurunan sebanyak 18.6 peratus.

Sejajar dengan penurunan bilangan pertubuhan, output kasar bagi sektor ini juga mengalami penurunan sebanyak 9.4 peratus mencapai jumlah RM11.4 bilion pada tahun 2022 berbanding RM22.8 bilion pada tahun 2015. Subsektor yang mencatatkan penurunan tertinggi adalah subsektor Minuman dan produk tembakau sebanyak 25.2 peratus menurun kepada RM38.9 juta dari RM296.4 juta pada tahun 2015. Subsektor Produk elektrik, elektronik dan optikal juga menguncup sebanyak 15.9 peratus dengan jumlah RM510.0 juta berbanding RM1.7 bilion pada tahun 2015.

Bilangan pekerja sektor ini juga menunjukkan penurunan sebanyak 12.6 peratus dengan jumlah keseluruhan 37,617 orang berbanding 96,686 orang pada tahun 2015. Penurunan ini disebabkan oleh penurunan dalam semua subsektor. Subsektor Produk kayu, perabot, keluaran kertas dan percetakan menyumbang 22.9 peratus daripada jumlah keseluruhan, menguncup sebanyak 9.4 peratus. Sementara itu, subsektor Produk petroleum, kimia, getah dan plastik menyumbang 18.2 peratus mencatatkan penurunan sebanyak 7.0 peratus.

Paparan 30: Statistik Utama W.P. Kuala Lumpur mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM bilion)	Input Perantaraan (RM bilion)	Nilai Ditambah (RM bilion)	Pekerja	Gaji & Upah (RM bilion)	Harta Tetap (RM bilion)
Pembuatan	1,632 5,231	11.4 22.8	8.2 16.0	3.2 6.8	37,617 96,686	1.4 3.0	3.5 5.6
Produk makanan	205 527	2.7 5.2	2.2 4.1	0.6 1.1	5,322 16,726	0.2 0.6	0.3 0.9
Minuman dan produk tembakau	12 42	0.04 0.30	0.03 0.15	0.01 0.15	161 883	0.004 0.021	0.02 0.06
Produk tekstil, pakaian, kulit dan kasut	287 1,215	0.66 0.75	0.50 0.49	0.2 0.3	4,064 7,492	0.12 0.15	0.2 0.1
Produk kayu, perabot, keluaran kertas dan percetakan	529 1,286	1.5 3.8	1.0 2.5	0.5 1.2	8,627 17,195	0.3 0.5	0.4 1.1
Produk petroleum, kimia, getah dan plastik	140 472	2.6 2.7	2.0 1.8	0.7 0.9	6,865 11,444	0.3 0.4	1.5 1.1
Produk mineral bukan logam, logam asas dan produk logam yang direka	201 579	2.1 5.3	1.3 3.8	0.8 1.5	6,030 18,579	0.3 0.6	0.6 1.5
Produk elektrik, elektronik dan optikal	105 518	0.5 1.7	0.4 1.0	0.1 0.7	2,249 8,681	0.1 0.2	0.1 0.3
Peralatan pengangkutan, pembuatan lain dan pembaikan	153 592	1.2 3.0	0.8 2.1	0.4 0.9	4,299 15,686	0.2 0.5	0.3 0.6

Note: 2022 2015 Sumbangan 2022 (%)

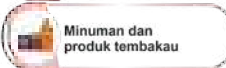
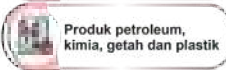
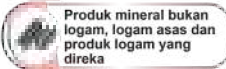
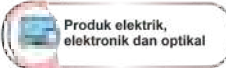
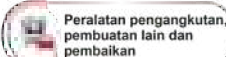
10.15 W.P. Labuan

Sektor Pembuatan W.P. Labuan mencatat peningkatan tahunan sebanyak 1.6 peratus, mencapai 134 pertubuhan pada tahun 2022, meningkat dari 120 pertubuhan pada tahun 2015. Penyumbang tertinggi adalah subsektor Produk tekstil, pakaian, kulit dan kasut sebanyak 32.1 peratus daripada jumlah keseluruhan dengan 43 pertubuhan pada tahun 2022. Diikuti rapat oleh subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan, yang menyumbang 28.4 peratus kepada jumlah keseluruhan. Bersama-sama, kedua-dua subsektor ini menyumbang 60.5 peratus, dengan jumlah keseluruhan 81 pertubuhan.

Output kasar W.P. Labuan mencatat pertumbuhan tahunan sebanyak 5.3 peratus, berjumlah RM3,514.6 juta berbanding RM2,453.9 juta pada tahun 2015. Pertumbuhan ini disokong oleh subsektor Produk kayu, perabot, keluaran kertas dan percetakan; Produk petroleum, kimia, getah dan plastik yang menyumbang 50.1 peratus daripada jumlah keseluruhan, berjumlah RM1,761.6 juta. Subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka; Produk elektrik, elektronik dan optikal menyumbang 35.5 peratus dengan jumlah RM1,248.3 juta. Subsektor ini juga menunjukkan pertumbuhan yang ketara sebanyak 17.9 peratus berbanding RM395.0 juta pada tahun 2015.

W.P. Labuan mencatat pertumbuhan tahunan sebanyak 0.1 peratus dengan jumlah keseluruhan 2,748 orang berbanding 2,722 orang pada tahun 2015. Penyumbang utama bilangan pekerja di W.P. Labuan adalah subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan menyumbang 39.1 peratus dengan jumlah keseluruhan 1,074 orang. Ini diikuti dengan subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka; Produk elektrik, elektronik dan optikal pada 25.0 peratus dan subsektor Produk kayu, perabot, keluaran kertas dan percetakan; Produk petroleum, kimia, getah dan plastik pada 18.7 peratus.

Paparan 31: Statistik Utama W.P. Labuan mengikut Subsektor

	 Bilangan Pertubuhan	 Output Kasar (RM juta)	 Produk Persekitaran (RM juta)	 Produk Sumbangan (RM juta)	 Pekerja	 Uang Gaji (RM juta)	 Perniagaan (RM juta)							
 Pembuatan	134 120	3,514.6 2,453.9	2,072.4 1,416.9	1,442.2 1,036.9	2,748 2,722	200.0 132.3	1,081.4 2,419.2							
 Produk makanan	20 17	14.9	169.1 123.4	4.8	141.7 110.1	6.8	27.4 13.3	1.9	289 303	10.5	9.7 8.5	4.8	8.1 17.0	0.8
 Minuman dan produk tembakau														
 Produk tekstil, pakaian, kulit dan kasut	43 46	32.1	8.0 7.9	0.2	5.0 5.4	0.2	2.9 2.5	0.2	183 116	6.7	2.1 1.3	1.1	0.5 1.6	0.05
 Produk kayu, perabot, keluaran kertas dan percetakan	13 10	9.7	1,761.6 1,677.9	50.1	915.6 856.1	44.2	846.0 821.8	58.7	515 574	18.7	103.4 62.2	51.7	983.7 2,253.4	91.0
 Produk petroleum, kimia, getah dan plastik														
 Produk mineral bukan logam, logam asas dan produk logam yang direka	20 20	14.9	1,248.3 395.0	35.5	824.1 283.7	39.8	424.2 111.3	29.4	687 702	25.0	40.9 26.4	20.4	36.5 74.9	3.4
 Produk elektrik, elektronik dan optikal														
 Peralatan pengangkutan, pembuatan lain dan pembaikan	38 27	28.4	327.7 249.7	9.3	186.0 161.6	9.0	141.7 88.0	9.8	1,074 1,027	39.1	43.9 34.0	21.9	52.5 72.3	4.9

Note: 2022
2015 Sumbangan 2022 (%)

10.16 W.P. Putrajaya

Sektor Pembuatan di W.P. Putrajaya menunjukkan pertumbuhan berterusan dengan bilangan pertubuhan dalam sektor ini meningkat sebanyak 9.9 peratus setahun, mencatat 31 pertubuhan pada tahun 2022 berbanding 16 pertubuhan pada tahun 2015. Penyumbang utama kepada sektor ini adalah subsektor Produk makanan, subsektor Produk tekstil, pakaian, kulit dan kasut; Produk petroleum, kimia getah dan plastik serta subsektor Produk kayu, perabot, keluaran kertas dan percetakan masing-masing menyumbang 25.8 peratus kepada jumlah keseluruhan.

Output kasar W.P. Putrajaya mencatat pertumbuhan tahunan yang signifikan sebanyak 27.5 peratus mencapai RM8.5 juta pada tahun 2022, meningkat dari RM1.6 juta pada tahun 2015. Pemacu utama kepada sektor ini adalah subsektor Produk kayu, perabot, keluaran kertas dan percetakan yang menyumbang 46.2 peratus berjumlah RM3.9 juta. Ini diikuti oleh subsektor Produk makanan dengan 15.9 peratus bernilai RM1.3 juta dan subsektor Produk tekstil, pakaian, kulit dan kasut; Produk petroleum, kimia, getah dan plastik dengan 14.6 peratus, berjumlah RM1.2 juta.

Bilangan pekerja sektor ini juga mencatat pertumbuhan tahunan yang kukuh sebanyak 28.2 peratus dengan jumlah keseluruhan 182 orang. Subsektor Produk kayu, perabot, keluaran kertas dan percetakan menyumbang secara signifikan sebanyak 62.1 peratus, seramai 113 orang. Penyumbang utama lain termasuk subsektor Produk makanan pada 14.3 peratus dan subsektor Produk tekstil, pakaian, kulit dan kasut; Produk petroleum, kimia, getah dan plastik pada 13.2 peratus.

Paparan 32: Statistik Utama W.P. Putrajaya mengikut Subsektor

	Bilangan Pertubuhan	Output Kasar (RM juta)	Input Pemakaian (RM juta)	Pekerja (Orang)	Pekerja (Orang)	Gaji & Upah (RM juta)	Barat, Total (RM juta)
	2022 2015	2022 2015	2022 2015	2022 2015	2022 2015	2022 2015	2022 2015
Pembinaan	31 16	8.5 1.6	4.2 0.9	4.3 0.7	182 32	3.9 0.4	1.2 0.4
Produk makanan	8 5	1.3 0.3	0.7 0.2	0.6 0.1	26 10	0.4 0.1	0.2 0.1
Produk tekstil, pakaian, kulit dan kasut	8 11	1.2 1.3	0.8 0.7	0.5 0.6	24 22	0.2 0.3	0.1 0.3
Produk petroleum, kimia, getah dan plastik	8 -	3.9 -	1.7 -	2.2 -	113 -	2.7 -	0.5 -
Produk kayu, perabot, keluaran kertas dan percetakan	8 -	3.9 -	1.7 -	2.2 -	113 -	2.7 -	0.5 -
Produk mineral bukan logam, logam asas dan produk logam yang direka	3 -	1.1 -	0.6 -	0.5 -	7 -	0.2 -	0.2 -
Produk elektrik, elektronik dan optikal	3 -	1.1 -	0.6 -	0.5 -	7 -	0.2 -	0.2 -
Peralatan pengangkutan, pembuatan lain dan pembaikan	4 -	0.9 -	0.5 -	0.4 -	12 -	0.3 -	0.2 -

Note: 2022 Sumbangan 2022 (%)
2015

SENARIO INDUSTRI ELEKTRONIK DAN ELEKTRIK (E&E) DI MALAYSIA

Syafawati Abdul Refai¹

¹Bahagian Perangkaan Pengeluaran Industri & Binaan, Jabatan Perangkaan Malaysia

PENGENALAN

Pelaksanaan Pelan Induk Perindustrian Pertama (IMP1) pada tahun 1986 merupakan satu titik perubahan yang penting bagi sektor Pembuatan di Malaysia yang membawa kepada pembangunan pesat ekonomi negara ke arah ekonomi perindustrian baharu. Pelaksanaan IMP1 memainkan peranan penting dalam memangkin pertumbuhan guna tenaga di Malaysia dengan memupuk pertumbuhan perindustrian, pembangunan kemahiran, sokongan untuk Perusahaan Kecil dan Sederhana (PKS) dan memanfaatkan kesan berganda pengembangan ekonomi. Sektor Pembuatan, terus berkembang dengan pantas di bawah IMP3, dengan memfokuskan kepada produk dan aktiviti yang menghasilkan nilai tambah yang lebih tinggi, serta aktiviti berasaskan teknologi tinggi dan berintensif modal melalui 12 industri yang disasarkan, termasuk industri Elektrik dan Elektronik (E&E).

Malaysia telah menjadi pemain utama di dalam rantai bekalan global, terutamanya dalam pengeluaran peranti semikonduktor, litar bersepadu dan komponen elektronik. Menelusuri sejarah 5 dekad, industri E&E Malaysia bermula dengan hanya lapan syarikat pengeluaran komponen pada tahun 1970-an dan terus berkembang sejajar dengan peningkatan permintaan global dalam produk elektronik untuk kegunaan di peringkat industri dan pengguna. Industri E&E Malaysia berkembang kepada 4,915 pertubuhan pada tahun 2022² dan menyumbang sebanyak 29.6 peratus kepada jumlah output kasar pembuatan, bernilai RM560.7 billion. Pada tahun yang sama, industri E&E menyumbang seramai 630,197 orang (26.9%) kepada jumlah pekerja di dalam sektor Pembuatan. Industri E&E Malaysia kekal signifikan kepada ekonomi Malaysia dengan menyumbang sebanyak 32.1 peratus kepada Keluaran Dalam Negara Kasar (KDNK) pembuatan pada harga malar 2015 dan sebanyak 7.5 peratus kepada KDNK Malaysia pada tahun 2023. Selain itu, industri E&E Malaysia menyumbang sebanyak RM123,967 juta kepada KDNK pada harga semasa. Industri E&E adalah merupakan satu industri yang luas merangkumi pelbagai subsektor seperti semikonduktor, komponen elektronik, peralatan telekomunikasi dan elektronik pengguna.

Objektif utama artikel ini adalah untuk memaparkan landskap industri E&E termasuk subsektor semikonduktor, di peringkat nasional dan global dan untuk memperihalkan cabaran yang dihadapi oleh industri.

KAJIAN LITERATUR

Industri E&E Malaysia telah menghasilkan sebanyak 13 peratus daripada jumlah keseluruhan produk semikonduktor di peringkat global dan menyumbang 40 peratus kepada keluaran eksport negara dan 5.8 peratus kepada KDNK pada tahun 2023. Industri semikonduktor atau komponen elektronik diunjurkan untuk kekal sebagai pemacu utama di dalam industri E&E di Malaysia, dipergiatkan melalui peningkatan dalam penggunaan teknologi. (MIDA, 2024).

Industri semikonduktor memainkan peranan penting dalam memacu inovasi dan menjana pertumbuhan ekonomi (Melliar-Smith et al., 1998). Semikonduktor menyokong kemajuan dalam pelbagai industri seperti peranti perubatan dan penjagaan kesihatan, komunikasi, pengkomputeran, pertahanan, pengangkutan, tenaga bersih dan teknologi masa depan seperti kecerdasan buatan, pengkomputeran kuantum dan rangkaian tanpa wayar. Mengekalkan keupayaan industri semikonduktor di Amerika Syarikat (AS) adalah penting untuk kemajuan berterusan Amerika, ini adalah kerana teknologi semikonduktor telah meningkatkan kecekapan dan keberkesanan hampir semua sektor ekonomi AS dengan ketara, daripada sektor Pertanian kepada sektor Pembuatan (*Semiconductor Industry Association*, 2023).

²Banci Ekonomi 2023: Pembuatan, DOSM. E&E dikelaskan di bawah Klasifikasi Piawaian Perindustrian Malaysia (MSIC) sebagai 26 (Pembuatan komputer, produk elektronik dan optik), 27 (Pembuatan peralatan elektrik) dan 28 (Pembuatan mesin dan peralatan t.t.t.l.).

Industri semikonduktor telah menjadi pemacu utama penciptaan pekerjaan dan kemakmuran ekonomi. Kajian oleh Sabbagh K. et al. (2013) mendapati bahawa pengembangan industri semikonduktor telah membawa kepada pewujudan pekerjaan berkemahiran tinggi, menyumbang kepada tahap gaji yang lebih tinggi dan pembangunan ekonomi keseluruhan di wilayah yang mempunyai kehadiran semikonduktor yang kukuh. Ini menunjukkan kesan besar industri terhadap pertumbuhan pekerjaan dan pendapatan, seterusnya membuktikan sumbangannya kepada ekonomi.

Di samping sumbangan ekonomi langsung, industri semikonduktor juga memainkan peranan penting dalam membolehkan inovasi dan kemajuan dalam industri-industri yang lain. Pembangunan teknologi semikonduktor yang terkini telah mendorong kemajuan dalam bidang seperti kecerdasan buatan, penjagaan kesihatan dan tenaga boleh diperbaharui. Susulan daripada itu, pengaruh industri semikonduktor melangkaui kesan kepada ekonomi segera, di mana ia membentuk trajektori inovasi teknologi dan pembangunan masyarakat (Laitner et al., 2009).

Aspek sumbangan lain industri semikonduktor kepada ekonomi terletak pada peranan industri sebagai pemacu kepada teknologi dan keselamatan negara. Apabila teknologi kritikal semakin berkait rapat dengan kepentingan keselamatan negara, keupayaan untuk menghasilkan dan inovasi teknologi semikonduktor menjadi aset strategik yang penting bagi sesebuah negara. Ini telah mendorong penggubal dasar dan pihak berkepentingan industri untuk menilai semula keupayaan pembuatan semikonduktor dan mengutamakan daya tahan dan keselamatan dalam rantai bekalan global (Troutman & Barrington, 2005).

ASPIRASI DAN DASAR BAGI MENGUKUHKAN INDUSTRI E&E

Trajektori pembangunan perindustrian Malaysia digariskan dengan baik melalui beberapa siri pelan induk perindustrian, di mana setiap satu digubal berdasarkan pencapaian dan pengajaran yang dipelajari daripada pengalaman terdahulu bagi memacu ekonomi ke arah perindustrian progresif, kepelbagaian dan kemajuan teknologi. Pelan induk perindustrian yang digubal berfungsi hala tuju bagi pembangunan perindustrian negara dengan menggariskan strategi dan dasar utama yang bertujuan untuk memacu pertumbuhan ekonomi, meningkatkan daya saing dan menggalakkan amalan mampan dalam sektor perindustrian.

Pelan Induk Perindustrian Pertama (IMP1) (1986-1995), bertujuan untuk meletakkan Malaysia sebagai negara perindustrian baharu dengan mengutamakan pertumbuhan perindustrian, mempergiatkan aktiviti pembuatan, dan membangunkan keupayaan sumber manusia. Manakala Pelan Induk Perindustrian Kedua (IMP2) (1996-2005) adalah kesinambungan usaha Malaysia untuk mengukuhkan sektor perindustrian dan mengubah ekonomi Negara berdasarkan kejayaan dan pengajaran yang diperolehi daripada IMP1. Subsektor utama yang disasarkan di bawah sektor Pembuatan untuk kedua-dua IMP1 dan IMP2 termasuk Makanan dan minuman, Produk kayu, Produk getah, Kimia dan produk kimia, Industri pembuatan logam dan jentera asas.

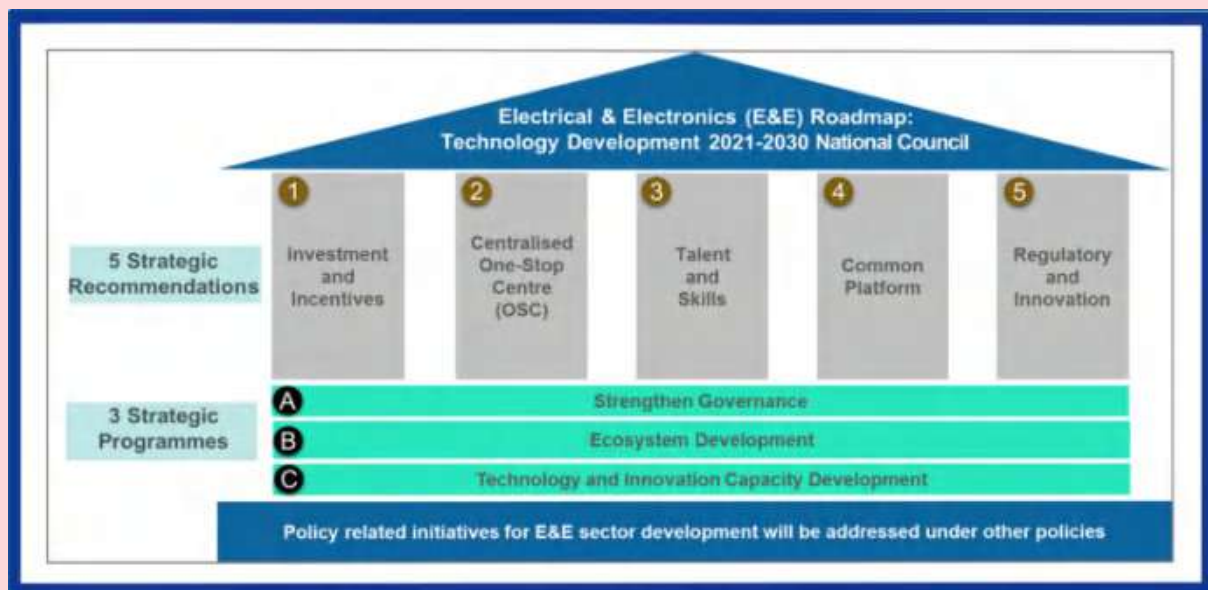
Pelan Induk Perindustrian Ketiga (IMP3) (2006-2020) digubal bagi menangani cabaran evolusi teknologi yang pesat dan keperluan mendesak untuk tenaga kerja mahir yang mampu memacu industri seperti bioteknologi, ICT, aeroangkasa dan pembuatan termaju. Ini memerlukan sistem pendidikan dan program latihan vokasional yang sejajar dengan keperluan pasaran kontemporari dan memupuk pembelajaran sepanjang hayat. Dengan hasrat untuk membina kekuatan industri E&E yang mantap, IMP3 menyasarkan untuk meningkatkan nilai rantai dengan menumpukan pada produk dan komponen berteknologi tinggi termasuk semikonduktor, elektronik pengguna, elektronik automotif dan automasi industri.

Pada tahun 2020, Kementerian Sains, Teknologi dan Inovasi (MOSTI) telah menggubal beberapa pelan hala tuju bagi menyokong penggunaan teknologi digital. Ini termasuk Pelan Hala Tuju Robotik Kebangsaan, Pelan Hala Tuju Kecerdasan Buatan Kebangsaan, *National Blockchain Roadmap*, Pelan Hala Tuju Dasar dan Strategi Nanoteknologi Negara, Pelan Hala Tuju Teknologi Bahan Termaju Nasional dan Pelan Hala Tuju Elektrik dan Elektronik (E&E). Terdahulu, pembangunan industri E&E adalah berpanduan kepada Rancangan Malaysia Ke-12, 2021-2025 (RMKe-12); Pelan Hala Tuju Industri Solar Malaysia 2030; Industri4WRD: Dasar Negara mengenai Industri 4.0.

Pelan Hala Tuju E&E: Pembangunan Teknologi 2021-2030 telah dilancarkan pada 9 Ogos 2022 memfokuskan kepada keterangkuman aktiviti pembangunan ekosistem teknologi tempatan, termasuk rantai bekalan dan nilai, penyelidikan dan pembangunan serta pengkomersialan dan inovasi dengan tujuan meningkatkan nilai tambah industri tempatan melebihi 40 peratus. Matlamat pelan hala tuju ini adalah untuk mencapai tahap negara maju berasaskan kepada kemajuan saintifik dan inovasi teknologi tinggi menjelang 2030. Penggubalan pelan hala tuju ini adalah bertujuan untuk pembangunan dan pertumbuhan negara pada masa hadapan terutamanya untuk membangunkan strategi dan pelan tindakan di bawah RMK-12 dan usaha berkaitan E&E melalui Majlis E&E Kebangsaan.

Pelan Hala Tuju E&E terdiri daripada dua komponen utama; cadangan strategik (5 cadangan strategik utama) dan program strategik (3 program utama) seperti yang digambarkan dalam **Rajah 1**.

Rajah 1: Pelan Hala Tuju Elektrik & Elektronik (E&E): Perumusan Strategik Pembangunan Teknologi



Sumber: Kementerian Sains, Teknologi dan Inovasi

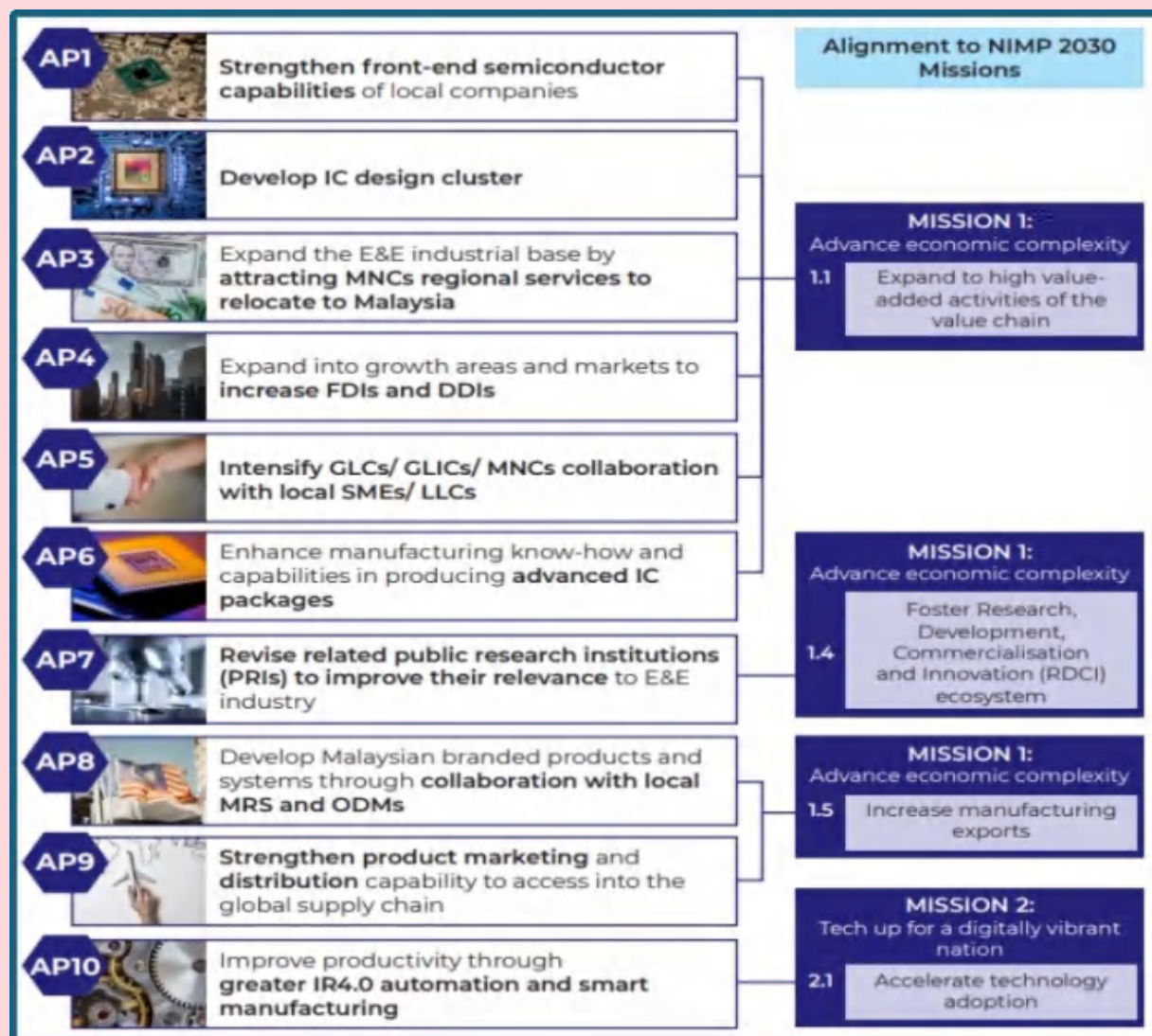
Sumber: Pelan Hala Tuju Elektrik & Elektronik (E&E): Pembangunan Teknologi, 2021 - 2030, MOSTI

Dalam cadangan strategik, terdapat lima teras penting iaitu pelaburan dan insentif, pusat sehenti berpusat, bakat dan kemahiran, platform bersama, kawal selia dan inovasi. Bagu memenuhi lima cadangan strategik utama dan untuk mengukuhkan sektor E&E, tiga program strategik telah dibangunkan dan disokong oleh beberapa aktiviti tambahan. Tiga elemen penting dalam program strategik ialah: memperkukuh tadbir urus, pembangunan ekosistem dan pembangunan kapasiti teknologi dan inovasi.

Pelan Induk Perindustrian Baharu Malaysia 2030 ("NIMP 2030") telah digubal oleh Kementerian Pelaburan, Perdagangan dan Industri dan telah dilancarkan pada 1 September 2023. NIMP yang merupakan dasar perindustrian untuk sektor pembuatan dan sektor perkhidmatan berkaitan pembuatan bertujuan untuk menyediakan hala tuju strategik negara untuk menerajui dasar pembangunan perindustrian di Malaysia. Terdapat 21 sektor, termasuk industri E&E, yang akan bertindak sebagai pemangkin dalam mencapai enam (6) matlamat yang digariskan oleh NIMP. NIMP mengklasifikasikan industri E&E sebagai sektor keutamaan dan menumpukan kepada peningkatan keupayaan dan kapasiti pembuatan melalui automasi Industri 4.0; serta bagi meningkatkan usaha integrasi untuk berkembang ke dalam ekonomi global.

Pelan NIMP 2023 bagi sektor E&E terdiri daripada empat strategi utama dan sepuluh pelan tindakan seperti yang digambarkan dalam **Rajah 2**.

Rajah 2: Strategi dan Pelan Tindakan untuk Industri E&E



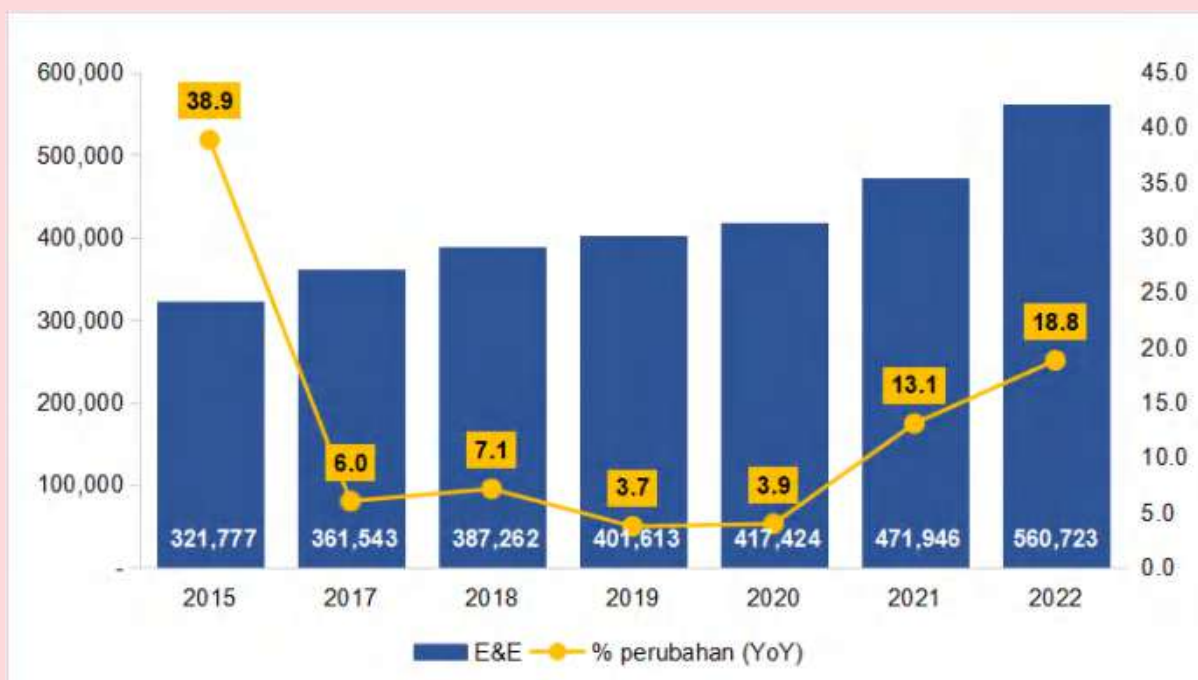
Sumber: NIMP 2030, Industri Elektrik & Elektronik, MITI

INDUSTRI E&E DALAM SENARIO MALAYSIA

Prestasi Pengeluaran Industri E&E

Industri E&E kekal mampan dengan pertumbuhan purata tahunan nilai output sebanyak 8.3 peratus dalam tempoh 2015 sehingga 2022, menyumbang 29.6 peratus atau RM560.7 bilion kepada jumlah output sektor Pembuatan pada 2022. Nilai output industri E&E meningkat kukuh sebanyak 18.6 peratus pada 2022, berbanding RM472.9 bilion yang dicatatkan pada 2021, didorong oleh pembuatan semikonduktor, yang menyumbang 47.4 peratus daripada jumlah keseluruhan output industri E&E. Trend yang sama turut diperhatikan dalam nilai keluaran produk semikonduktor yang meningkat sebanyak 9.0 peratus, berjumlah RM267.7 bilion pada 2022, berbanding RM146.0 bilion pada 2015.

Carta 1: Nilai Output Industri E&E dan Perubahan Peratusan Tahunan, 2015 - 2022



Carta 2: Nilai Output Produk Semikonduktor dan Perubahan Peratusan Tahunan, 2015 - 2022



Selain itu, Indeks Pengeluaran Perindustrian (IPI) menunjukkan trend yang meningkat antara 2015 – 2023 dengan kadar purata pertumbuhan tahunan sebanyak 6.5 peratus. Di sebalik cabaran wabak COVID-19 dan Perintah Kawalan Pergerakan (PKP) yang dilaksanakan oleh kerajaan sepanjang tahun 2020, industri E&E kekal berdaya tahan dengan mencapai peningkatan sebanyak 2.2 peratus pada tahun 2020 dan peningkatan yang signifikan sebanyak 14.7 peratus pada 2021 (**Carta 3**). Pertumbuhan ini disokong oleh permintaan eksport yang kukuh dan pemulihan perdagangan global di mana 66 peratus daripada produk E&E Malaysia telah dieksport ke seluruh dunia. Pada tahun 2022, industri E&E merekodkan indeks IPI tertinggi iaitu 168.8, dengan kadar pertumbuhan tahunan sebanyak 14.3 peratus.

Carta 3: Indeks Industri E&E dan Perubahan Peratusan Tahunan, 2016 - 2023



Sumber: Jabatan Perangkaan Malaysia

Pembuatan produk semikonduktor³ kekal sebagai pemangkin utama industri E&E, dengan purata pertumbuhan tahunan 7.9 peratus antara 2015 dan 2023. Walaupun terdapat cabaran besar semasa pandemik COVID-19 kepada industri semikonduktor, ia juga telah menyerlahkan keupayaan industri tersebut dalam memainkan peranan yang penting dalam memperkasa ekonomi digital dan memacu pertumbuhan dan inovasi jangka panjang. Pembuatan produk semikonduktor pada tahun 2020 mengekalkan pertumbuhan positif pada 3.7 peratus berbanding peningkatan 2.2 peratus pada tahun 2019. Industri ini terus berkembang kepada pertumbuhan dua angka pada tahun 2021 (16.6%) dan dengan indeks IPI tertinggi sebanyak 198.8 pada 2022 dengan peningkatan 19.0 peratus.

Carta 4: Indeks Produk Semikonduktor dan Perubahan Peratusan Tahunan, 2016 - 2023



Sumber: Jabatan Perangkaan Malaysia

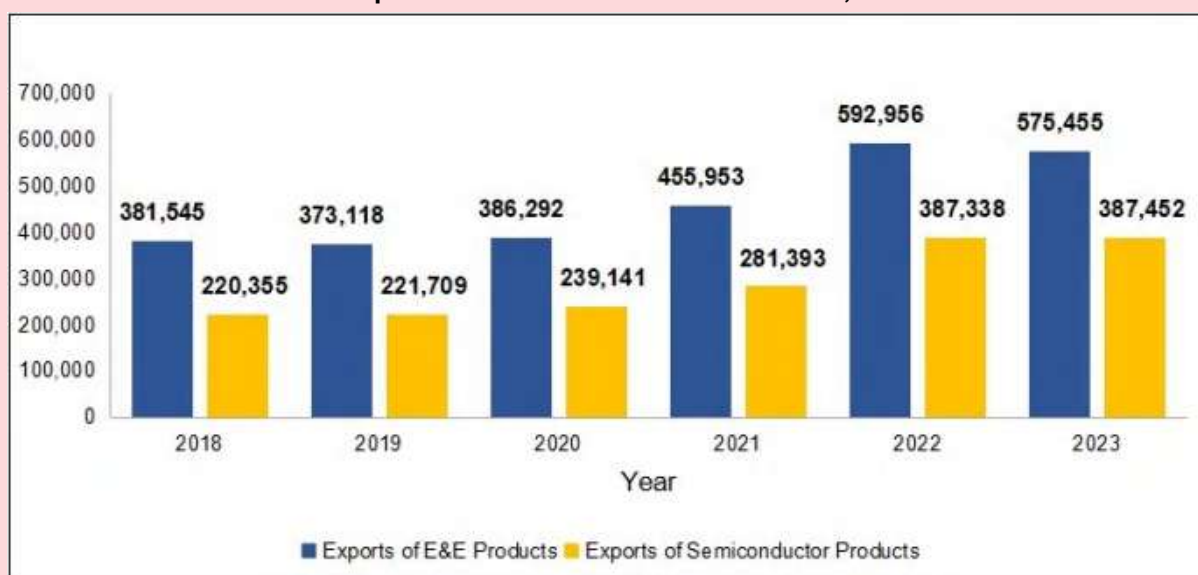
³Produk semikonduktor dikelaskan sebagai 261 (Pembuatan komponen dan papan elektronik) di bawah Klasifikasi Piawaian Perindustrian Malaysia (MSIC 2008)

Prestasi Eksport Industri E&E

Industri E&E Malaysia telah membangunkan kecekapannya dalam pengeluaran produk E&E dan semikonduktor di mana pada tahun 2022 Malaysia disenaraikan sebagai pengeksport ke-12 terbesar produk E&E dan pengeksport ke-6 terbesar produk semikonduktor di peringkat global (MATRADE, 2023). Bagaimanapun, pada tahun 2023, perdagangan global berkembang pada kadar yang lebih perlahan disebabkan oleh beberapa faktor termasuk kemerosotan dalam sektor semikonduktor, yang menjejaskan prestasi perdagangan di Malaysia.

Produk E&E Malaysia menyumbang 40.4 peratus daripada jumlah eksport Negara, manakala segmen semikonduktor terdiri daripada produk seperti litar bersepadu elektronik; kristal piezo-elektrik & bahagian; peralatan telekomunikasi, alat ganti dan aksesori; dan peranti semikonduktor lain menyumbang 67.3 peratus daripada jumlah produk E&E pada 2023. Produk E&E mencapai jumlah eksport RM575.5 bilion, mencatatkan penurunan sebanyak 3.0 peratus berbanding pertumbuhan luar biasa sebanyak 30.0 peratus yang dicatatkan pada 2022 (**Carta 5**). Penurunan eksport E&E dicatatkan pada tahun 2019, dengan penurunan tahun ke tahun sebanyak 2.2 peratus.

Carta 5: Eksport Produk E&E dan Semikonduktor, 2018 – 2023



Sumber: Jabatan Perangkaan Malaysia

Eksport produk semikonduktor mencatatkan pertumbuhan sebanyak 0.03 peratus pada tahun 2023, mencecah RM387.5 bilion. Pertumbuhan ini sebahagian besarnya terjejas oleh penurunan eksport litar bersepadu elektronik (-1.1%) dan kristal piezo-elektrik & bahagian (-2.5%). Sebaliknya, produk semikonduktor lain mencatatkan pertumbuhan 13.1 peratus. Destinasi eksport utama bagi produk semikonduktor adalah negara Singapura dengan jumlah eksport sebanyak RM85.8 bilion (22.1%), diikuti oleh China (16.3%) dan Hong Kong (15.5%), seperti yang ditunjukkan dalam **Jadual 1**.

Jadual 1: Eksport Produk Semikonduktor Mengikut Negara, 2019 – 2023 (RM juta)

Negara	2019	2020	2021	2022	2023
Singapura	42,501	50,745	65,853	93,451	85,798
China	37,632	42,349	46,767	66,217	62,996
Hong Kong	45,365	47,867	53,838	63,839	60,160
Amerika Syarikat	20,807	18,876	19,673	36,620	46,808
Taiwan	16,950	16,792	20,074	26,857	24,144
Vietnam	5,108	7,571	15,632	19,721	21,437
Lain-lain	53,346	54,941	59,556	80,634	86,110
Jumlah	221,709	239,141	281,393	387,338	387,452

Sumber: Jabatan Perangkaan Malaysia

Berdasarkan laporan Kajian Impak Ekonomi 2022/2023 oleh *Malaysian American Electronics Industry* (MAEI), sektor E&E Malaysia mampu untuk bersaing di persada dunia. Berdasarkan hasil kaji selidik, unjuran bagi sektor Pembuatan Malaysia akan kekal positif di mana sekurang-kurangnya 55 peratus syarikat menjangkakan pertumbuhan pada tahun akan datang dan 60 peratus berhasrat untuk meningkatkan pelaburan dalam tempoh 5 tahun akan datang. Walaupun kedua-dua aspek mengalami sedikit penurunan berbanding tahun-tahun sebelumnya, namun sektor ini kekal optimis untuk terus kukuh.

Carta 6: Jualan Semikonduktor Global dan Perubahan Peratusan Tahunan, 2019 - 2023



Sumber: Persatuan Industri Semikonduktor (SIA)

Pekerjaan

Industri E&E ialah penyumbang terbesar kepada pekerjaan dalam sektor Pembuatan dengan kepelbagaian kepada pekerjaan berasaskan aktiviti bernilai rendah, bernilai lebih tinggi dan berkemahiran tinggi. Kemajuan dalam teknologi dan inovasi telah mengubah struktur industri yang memerlukan pekerja mahir untuk memenuhi permintaan dinamik.

Pada tahun 2022, pekerja dalam industri E&E menyumbang sebanyak 26.9 peratus atau 630,197 orang daripada jumlah pekerjaan sektor Pembuatan, dengan kadar pertumbuhan tahunan 2.5 peratus antara 2015 dan 2022. Manakala, segmen produk semikonduktor menyumbang 41.8 peratus, sebanyak 263,216 orang kepada jumlah guna tenaga industri E&E pada tahun yang sama dengan mencatatkan kadar pertumbuhan tahunan sebanyak 4.4 peratus pada tempoh yang sama.

Carta 7: Bilangan pekerja Segmen Industri E&E dan Produk Semikonduktor, 2018 - 2022



Sumber: Jabatan Perangkaan Malaysia

CABARAN DAN PELUANG UTAMA

Industri E&E memainkan peranan penting dalam pembangunan perindustrian negara. Walau bagaimanapun, industri ini menghadapi pelbagai cabaran dalam mengekalkan pertumbuhan dan daya saing di peringkat global. NIMP 2030 menggariskan beberapa cabaran utama yang menyukarkan industri E&E daripada terus maju iaitu:

- Kekurangan industri khusus terutamanya berkaitan dengan perkongsian sumber dan instrumen untuk tujuan penyelidikan dan pembangunan;
- Inisiatif pembangunan bakat dan kemahiran yang tidak mencukupi untuk melahirkan lebih ramai bakat selari dengan permintaan industri;
- Tiada platform utama untuk memudahkan pertumbuhan komuniti keusahawanan dan ekosistem dengan memberikan akses mudah kepada maklumat tentang geran dan insentif kerajaan, kemungkinan rakan kongsi, pembekal, dan tempat untuk bertukar-tukar pengetahuan, teknologi dan harta intelek;
- Peraturan dan dasar kerajaan yang tidak cekap bagi teknologi dan komponen tempatan, terutamanya untuk kemasukan dan penerimaan pasaran dalam sektor terpilih dalam kawalan kerajaan; dan
- Ketidaksamaan dalam nisbah insentif walaupun sektor E&E menyumbang secara signifikan kepada ekonomi Malaysia.

Industri E&E Malaysia beroperasi dalam pasaran global yang sangat kompetitif terutamanya di kalangan negara Asia-Pasifik yang terkenal dengan kehebatan sektor pembuatan memerlukan Malaysia untuk terus komited terhadap inovasi dan peningkatan kualiti produk, keterjangkauan dan kecekapan operasi. Kekurangan kemahiran khusus dalam tenaga kerja, terutamanya dalam bidang termaju seperti pembuatan semikonduktor dan automasi menekankan keperluan untuk mempunyai strategi yang strategik untuk memupuk bakat dan meningkatkan keupayaan buruh sedia ada.

Pengilang E&E Malaysia juga menghadapi tekanan terhadap daya saing kos pengeluaran terutamanya dalam segmen berintensif buruh. Inovasi dalam automasi dan teknologi peningkatan kecekapan penting sebagai langkah bagi menangani kesan kos pengeluaran yang semakin meningkat. Selain itu, peningkatan infrastruktur juga penting bagi memastikan pengedaran produk yang lebih lancar, pengurusan kos pengeluaran dan daya saing industri secara keseluruhan.

Selain itu, sektor ekonomi digital yang berkembang pesat meningkatkan permintaan produk E&E seperti cip semikonduktor. Teknologi baru seperti kecerdasan buatan, *Internet of Things* (IoT) dan tenaga boleh diperbaharui akan menyediakan jalan untuk mengoptimumkan sumber sedia ada bagi merebut arah aliran baru industri E&E. Di tengah-tengah isu geopolitik AS-China, Malaysia juga mempunyai peluang untuk mengukuhkan industri E&E dengan menarik lebih ramai pelabur untuk meningkatkan keupayaan negara.

Mempelbagaikan produk dan pasaran boleh membantu mengurangkan risiko yang berkaitan dengan pergantungan kepada hanya beberapa produk atau pasaran. Malaysia boleh meneroka segmen produk baharu dan berkembang ke pasaran geografi baharu untuk meningkatkan daya saing. Selain itu, kerajaan Malaysia juga perlu menyediakan pelbagai insentif dan skim sokongan untuk menggalakkan pertumbuhan industri E&E, termasuk insentif cukai, geran untuk penyelidikan dan pembangunan, dan pembangunan infrastruktur. Selain itu, terdapat permintaan yang semakin meningkat untuk produk dan proses pembuatan yang mampan alam sekitar, dan Malaysia boleh memanfaatkan trend ini dengan menggunakan teknologi hijau dan melaksanakan amalan mampan dalam industri E&E.

KESIMPULAN

Unjuran jualan semikonduktor global bagi tahun 2024 menjangkakan pertumbuhan dua angka dengan cip memainkan peranan lebih penting dalam pelbagai jenis produk di peringkat global. Unjuran jangka panjang untuk pasaran semikonduktor diunjurkan kukuh didorong oleh kemajuan pelaburan dasar kerajaan dalam R&D, mengukuhkan tenaga kerja semikonduktor dan mengurangkan halangan kepada perdagangan.

Bagi mengekalkan daya saing masa depan industri E&E di peringkat global, Malaysia harus mengukuhkan kemahiran pekerja melalui pendidikan, inisiatif latihan, dan laluan pembangunan kerjaya yang sejajar dengan permintaan industri. Kerjasama antara pihak berkepentingan industri, sokongan kerajaan melalui dasar dan insentif, pelaburan dalam penyelidikan dan pembangunan, dan usaha berterusan untuk menaik taraf infrastruktur juga penting untuk memacu industri E&E ke hadapan.

PENGHARGAAN

Penulis ingin mengucapkan terima kasih kepada Puan Noraliza Mohamad Ali dan Puan Rozita Misran dari Bahagian Perangkaan Pengeluaran Industri dan Binaan, Jabatan Perangkaan Malaysia, atas pandangan yang berharga, bimbingan profesional dan bantuan dalam meningkatkan artikel ini.

PENAFIAN

Pandangan yang dikemukakan adalah pandangan penulis dan tidak semestinya mewakili pandangan DOSM.

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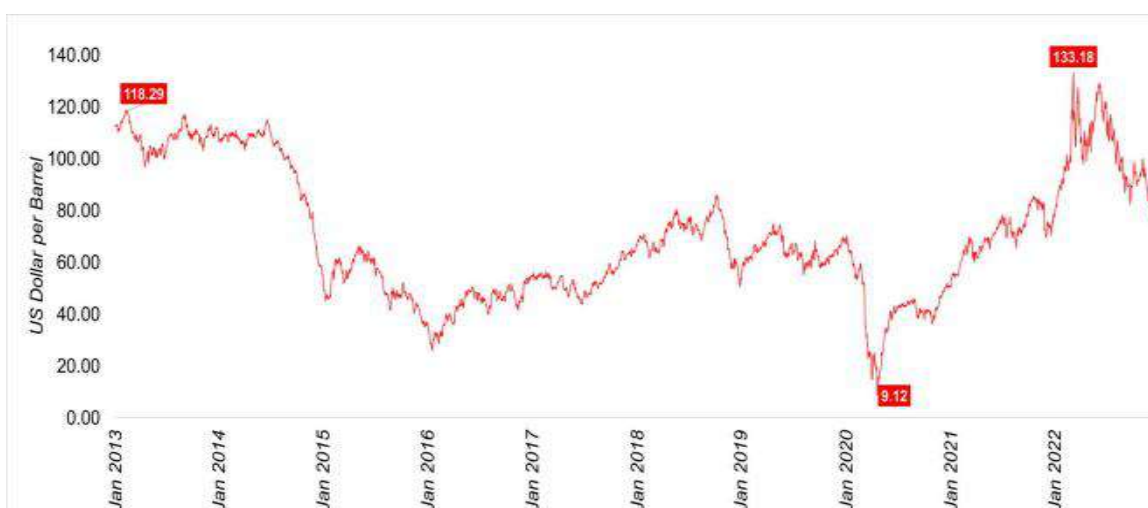
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1. Introduction

The global economy faced both challenges and opportunities in 2022, amid high inflation, aggressive monetary tightening, and uncertainties stemming from the Russia-Ukraine war and the lingering pandemic. Even though many regions continued to recover from the COVID-19 pandemic, this recovery was uneven, with some areas experiencing rapid growth and others facing setbacks.

In addition, the geopolitical turmoil, particularly Russia's invasion of Ukraine, has escalated into a severe humanitarian crisis and disrupted the supply chain of numerous essential commodities, notably affecting Brent crude oil prices. Oil prices soared from a low of USD 9.12 per barrel in April 2020 to a peak of USD 133.18 per barrel in March 2022 (**Chart 1**). Likewise, global food costs reached an unprecedented peak around the same time due to the conflict. These increases have impacted production costs across various economic sectors and have been a major factor in high food inflation.

Chart 1: Daily Brent Crude Oil Prices (USD per barrel), 2013 - 2022



Source: U.S. Energy Information Administration

In Malaysia, despite the softened global growth, Malaysia's economy recorded an encouraging achievement of 8.9 per cent in 2022, as against to 3.3 per cent in the previous year. As for the Manufacturing sector, improved further to 8.1 per cent in 2022 after recorded an increased of 9.5 per cent in 2021. This commendable performance was driven by domestic demand and an improved labour market in line with the transition to the endemic phase.

In order to gain a better understanding of the economic structure for the year of 2022, the Department of Statistics Malaysia (DOSM) has conducted the Economic Census 2023. This initiative aims to gain deeper insights into economic growth and identify any imbalances that require attention, providing a clearer picture of the country's economic conditions. The data collected from this census serves as a crucial foundation for the Government, investors, and researchers to make informed decisions as well as develop effective strategies and policies to drive the country's economy forward.

This report presents key statistics on the Manufacturing sector namely number of establishments, gross output, intermediate input, value added, persons engaged, salaries & wages as well as fixed assets. Coverage of Economic Census 2023 for Manufacturing sector was 259 industries according to Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0. Subsequently, the industries were aggregated into 8 sub-sectors, namely Food products; Beverages and tobacco products; Textiles, wearing apparel, leather and footwear products; Wood products, furniture, paper products and printing; Petroleum, chemical, rubber and plastic products; Non-metallic mineral products, basic metal and fabricated metal products; Electrical, electronic and optical products; and Transport equipment, other manufacturing and repair.

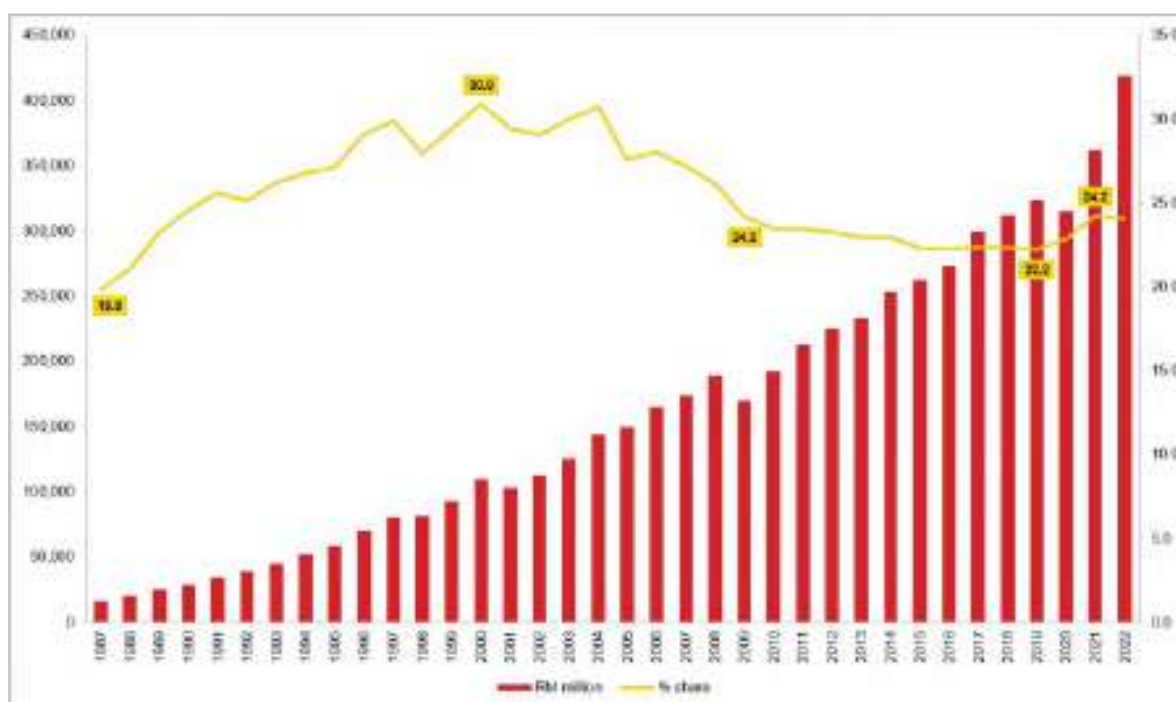
2. Performance of Manufacturing Sector

Reminiscing on the evolution of the Manufacturing sector in Malaysia, the sector initially focused on basic industries such as food processing, textiles, and consumer goods. The New Economic Policy, introduced in 1971, and the launch of the Industrial Master Plan 1 (IMP1) in the early 1980s played critical roles in restructuring the economy and reshaping the Manufacturing sector toward industrialization phase. These policies emphasized infrastructure development and promoted key export-oriented industries such as electronics, electrical products, automotive parts, and chemicals.

Additionally, starting from 1982 the industrialization in Malaysia was spearheaded by the “Look East Policy”, which aimed to emulate the economic success models of East Asian countries. This policy, combined with the establishment of industrial zones among others Bayan Lepas Free Trade Zone and the Pasir Gudang Free Trade Zone, attracted foreign direct investment (FDI) as well as promoted export-oriented manufacturing industries.

This has resulted in the export of manufactured goods contributed more than 80 per cent of total national export by the end of late 1990s. Among other major products were electronics and electrical (E&E), machinery and appliances. Additionally, Malaysia became one of the world’s largest producers and exporters of palm oil. The nature of export products underwent a remarkable shift from predominantly crude palm oil (CPO) to a diverse array of processed palm oil products.

*Consequently, the Manufacturing sector posted a significant increase in its economic share, from 19.8 per cent in 1987 to a peak of 30.0 per cent in 2000. However, as the Malaysia’s economy faced recession following the global financial crisis in 2009, the share of Manufacturing sector shrank to 24.2 per cent, and in subsequent years of 2010 to 2022, Manufacturing share hovering between 22.2 per cent to 24.2 per cent (**Chart 2**). Meanwhile, the workforce in the manufacturing sector grew from a share of 15.5 per cent in 1982 to 23.5 per cent in 2000 align with the expansion of this sector. The number of persons engaged in the sector reached 2 million persons in 2014 and continue increasing. Currently, the sector is poised to advance further, transitioning to a more innovative and higher value-added, cutting-edge technology industries.*

Chart 2: Share of Manufacturing Sector to Malaysia Economy 1987 - 2022

Source: Department of Statistics Malaysia

The first Economic Census for Manufacturing sector was conducted in 1973. In a span of 20 years, the sector expanded from 11,060 establishments in 1973 to 23,476 establishments in 1993 with a compound annual growth rate (CAGR) of 3.8 per cent. During the same period, the Manufacturing sector experienced substantial growth, with a gross output reaching RM165.0 billion in 1993, marking a 16.7 per cent increase.

As Malaysia entered the new millennium, emphasizing more on the high-tech manufacturing and industries reliant on knowledge. Key industries such as semiconductor, biotechnology, aerospace, and medical devices emerged as new growth drivers. In 2021, manufacturing output quadrupled to RM1,608.1 billion with an average annual growth of 6.4 per cent from RM438.5 billion recorded in 2000. However, with the advancement of technology adoption of this sector, the number of persons engaged showed moderate increase of 1.8 per cent from 1,574,797 persons in 2000 to 2,303,494 persons in 2021, while the average monthly salary doubled to RM3,287 from RM1,382 in the same period.

The Economic Census 2023 shown Malaysia Manufacturing sector posted 54,505 establishments in 2022, registering an average annual growth of 1.5 per cent from 49,101 establishments in 2015. The gross output amounted to RM1,893.7 billion in 2022, surged by 7.5 per cent annually from RM1,142.0 billion in 2015. In line with the increase in gross output, the value of intermediate inputs also rose by 7.6 per cent annually to RM1,478.8 billion (2015: RM884.8 billion). This resulted in a value added of RM414.9 billion in 2022, an increased of 7.1 per cent from 2015. Additionally, there were 2,346,253 persons engaged in this sector, higher than the 2,119,158 persons recorded in 2015. The number of persons engaged in the sector grew by an average of 1.5 per cent annually. Salaries & wages correspondingly increased from RM65.5 billion in 2015 to RM97.2 billion in 2022, up with an average annual growth of 5.8 per cent. Manufacturing sector fixed assets also recorded an average annual increase of 3.5 per cent, amounting to RM377.9 billion as illustrated in **Exhibit 1**.

Exhibit 1: Principal Statistics of Manufacturing Sector, 2015 and 2022

	2015	2022	CAGR
 Number of Establishments	49,101	54,505	1.5%
 Gross Output	RM1,142.0 billion	RM1,893.7 billion	7.5%
 Intermediate Input	RM884.8 billion	RM1,478.8 billion	7.6%
 Value Added	RM257.1 billion	RM414.9 billion	7.1%
 Persons Engaged	2,119,158	2,346,253	1.5%
 Salaries & Wages	RM65.5 billion	RM97.2 billion	5.8%
 Fixed Assets	RM296.8 billion	RM377.9 billion	3.5%

3. Number of Establishments

3.1 Number of Establishments by Sub-sector

The Manufacturing sector showed a 1.5 per cent annual growth in the number of establishments reaching 54,505 establishments in 2022 (2015: 49,101). More than 50 per cent of the establishments engaged were contributed by the Non-metallic mineral products, basic metal and fabricated metal products sub-sector (share: 19.0%) followed by Wood products, furniture, paper products and printing sub-sector (share: 17.8%) and Food products sub-sector (share: 16.8%). Meanwhile Beverages and tobacco products sub-sector remained the lowest contributor at 0.8 per cent. In addition, Textiles, wearing apparel, leather and footwear products sub-sector, which was rank first in 2015 dropped to fifth place with a decline of 5.1 per cent annually.

Transport equipment, other manufacturing and repair sub-sector showed the highest growth in 2022 by an average annual growth of 4.5. This was followed by Petroleum, chemical, rubber and plastic products sub-sector (CAGR: 4.3%) and Electrical, electronic and optical products sub-sector (CAGR: 3.3%).

Malaysia is increasingly focusing on new, high-tech industries to drive its manufacturing growth. Industries such as the production of batteries and accumulators, specifically for electric vehicles, and the manufacturing of renewable energy products like solar panels, have garnered significant interest in Malaysia. Meanwhile, industries such as custom tailoring, the manufacture of tobacco products, and the production of magnetic and optical recording media are experiencing declining demand resulting in these industries as slower growing industry.

Exhibit 2 : Number of Establishments by Sub-sector, 2015 and 2022

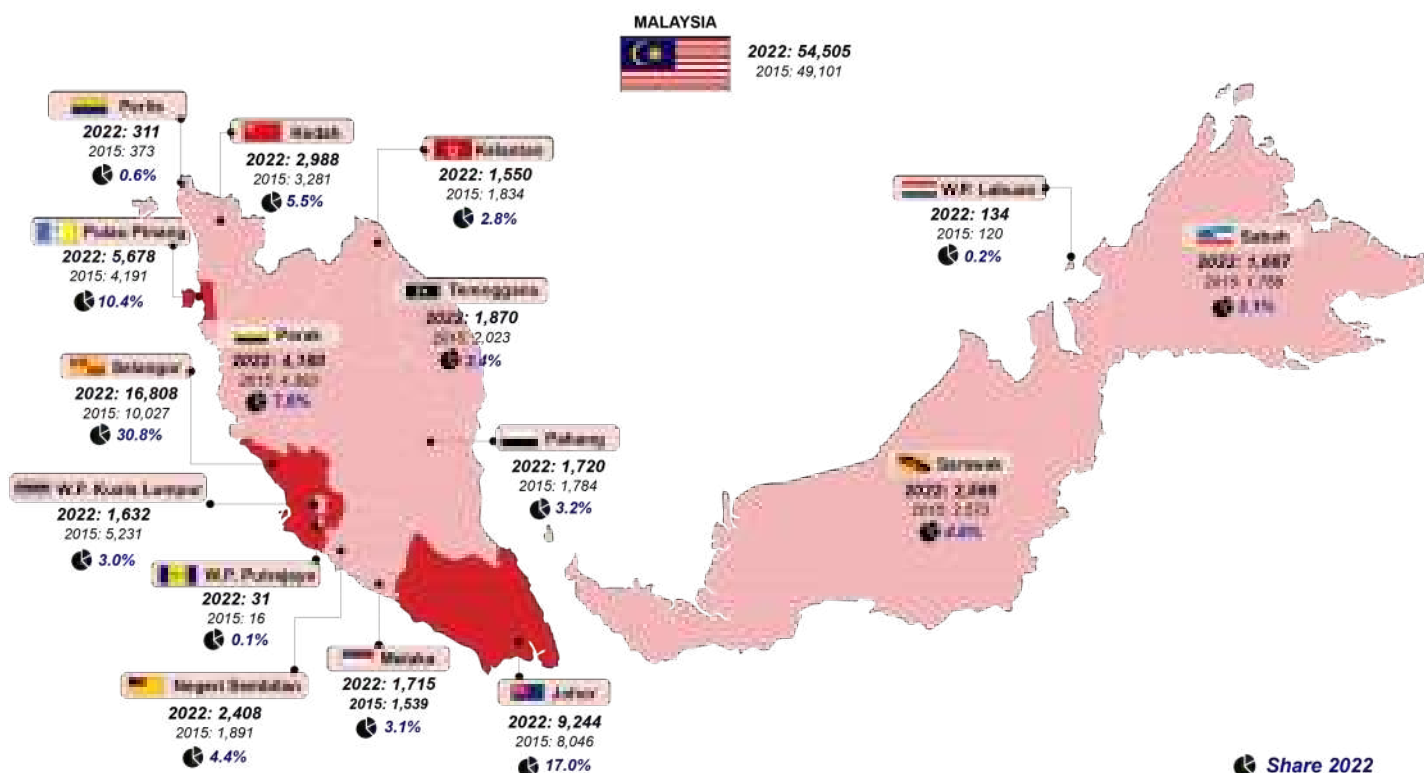


3.2 Number of Establishments by State

Selangor remained the top state for the highest number of establishments engaged in Manufacturing sector in 2022, contributed 30.8 per cent of the total with 16,808 establishments. Followed by Johor with 9,244 establishments (share: 17.0%) and Pulau Pinang with 5,678 establishments (share: 10.4%). These three states combined represented over half of the total number of establishments in the Manufacturing sector.

Meanwhile, W.P. Kuala Lumpur experienced a significant decline of 15.3 per cent totaling 1,632 establishments as compared to 5,231 establishments in 2015. The decline was largely due to the impact of prolonged Movement Control Order imposed since 2020 especially on small businesses. Furthermore, the implementation of Kuala Lumpur Structure Plan 2040 which emphasising on strengthening and enhancing the added value of main economic activities comprising the financial, business services and tourism sectors, as the core economy of Kuala Lumpur, has widen the shifting from Manufacturing to Services sector. On the other hand, W.P. Putrajaya saw highest average growth with 9.9 per cent annually, reaching 31 establishments in 2022 as compared to 16 establishments in 2015. Followed by Selangor with annual growth of 7.7 per cent.

Exhibit 3: Number of Establishments by State, 2015 and 2022



4. Gross Output

4.1 Gross Output by Sub-sector

The gross output of Manufacturing sector in 2022 recorded a strong growth of 7.5 per cent, valued at RM1,893.7 billion compared to RM1,142.0 billion in 2015. The increase was largely supported by the Petroleum, chemical, rubber and plastic products sub-sector which contributed 30.6 per cent of the total, amounted to RM579.6 billion in 2022. Followed by the Electrical, electronic and optical products sub-sector which was rank first in 2015 (share: 28.2%) with a share of 29.6 per cent and a gross output at RM560.7 billion in 2022. Despite the challenges posed by the COVID-19 pandemic, both sub-sectors experienced positive impacts due the increased demand for medical supplies and the global need for electronic devices.

However, the Beverages and tobacco products sub-sector remains the smallest contributor with a 0.8 per cent share and a gross output at RM15.9 billion, an increase of 2.5 per cent annually from RM13.4 billion in 2015.

Exhibit 4: Gross Output by Sub-sector, 2015 and 2022

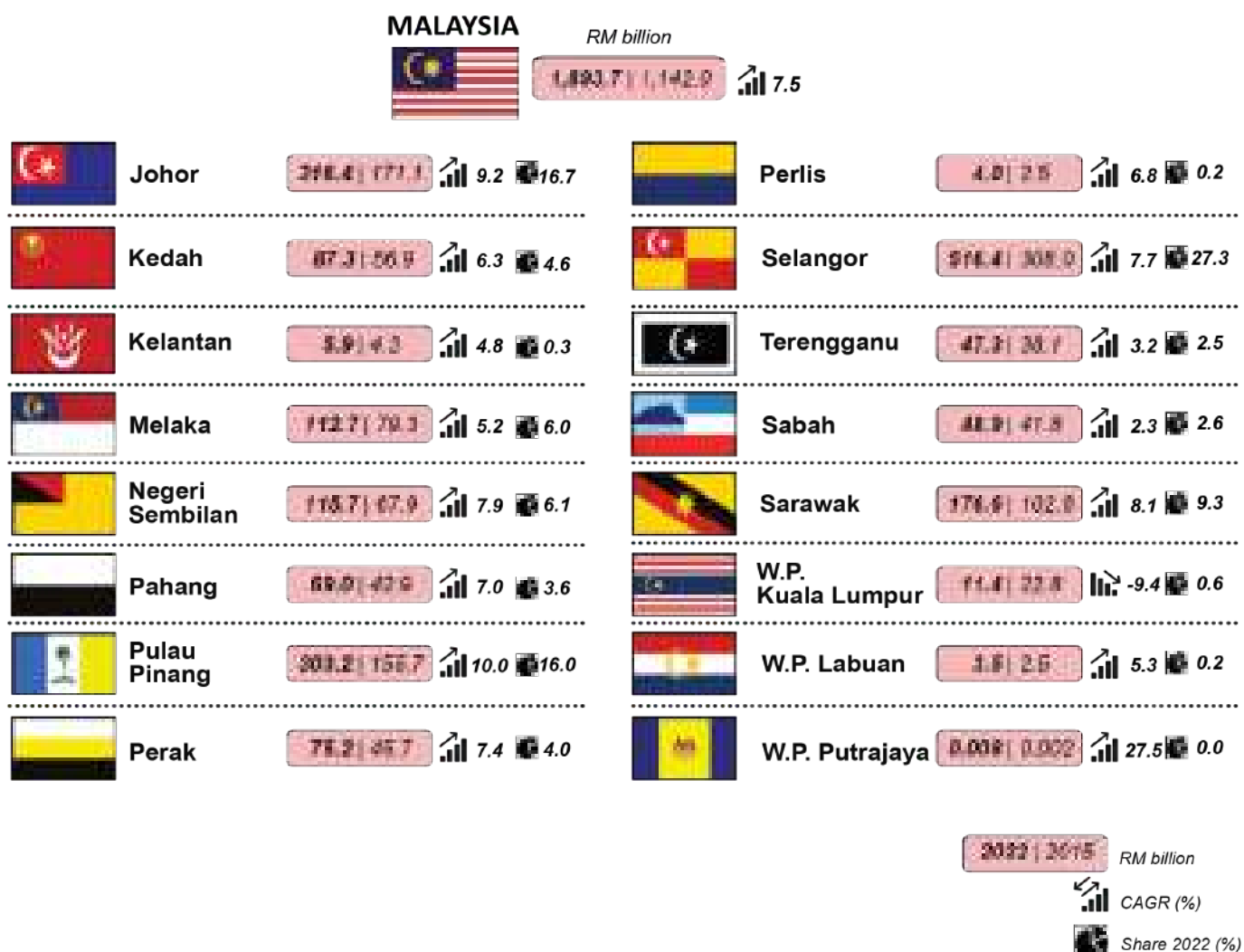
	Gross Output		Share (%)		CAGR (%)
	2015	2022	2015	2022	
 Manufacturing	RM1,142.0 billion	RM1,893.7 billion			7.5
 Petroleum, chemical, rubber and plastic products	RM299.1 billion	RM579.6 billion	26.2	30.6	9.9
 Electrical, electronic and optical products	RM321.8 billion	RM560.7 billion	28.2	29.6	8.3
 Food products	RM199.8 billion	RM303.6 billion	17.5	16.0	6.2
 Non-metallic mineral products, basic metal and fabricated metal products	RM134.8 billion	RM198.9 billion	11.8	10.5	5.7
 Transport equipment, other manufacturing and repair	RM92.0 billion	RM122.2 billion	8.1	6.5	4.2
 Wood products, furniture, paper products and printing	RM62.9 billion	RM88.6 billion	5.5	4.7	5.0
 Textiles, wearing apparel, leather and footwear products	RM18.2 billion	RM24.1 billion	1.6	1.3	4.1
 Beverages and tobacco products	RM13.4 billion	RM15.9 billion	1.2	0.8	2.5

4.2 Gross Output by State

Selangor continued to dominate the Manufacturing sector with a gross output value totaling RM516.4 billion (share: 27.3%) which marked an increase of 7.7 per cent from RM308.0 billion recorded in 2015, primarily driven by the Petroleum, chemical, rubber and plastic products sub-sector. Following Selangor, Johor contributed 16.7 per cent with a gross output of RM316.4 billion. Subsequently, Pulau Pinang and Sarawak, contributed RM303.2 billion (share: 16.0%) and RM176.6 billion (share: 9.3%) respectively. Collectively, these four states contributed 69.3 per cent of the total, amounting to RM1,312.6 billion.

Despite contributing the lowest share of 0.0004 per cent, W.P. Putrajaya exhibited the highest annual growth in gross output at 27.5 per cent reaching RM8.5 million in 2022 as compared to RM1.6 million in 2015. Additionally, notable annual growth rates were observed in Pulau Pinang at 10.0 per cent (2015: RM155.7 billion), Johor at 9.2 per cent (2015: RM171.1 billion) and Sarawak at 8.1 per cent (2015: RM102.6 billion). Meanwhile, W.P. Kuala Lumpur experienced a decline of 9.4 per cent, totaling RM11.4 billion compared to RM22.8 billion in 2015.

Exhibit 5: Gross Output by State, 2015 and 2022



5. Intermediate Input

5.1 Intermediate Input by Sub-sector

In 2022, intermediate input of the Manufacturing sector increased by 7.6 per cent, reaching RM1,478.8 billion, up from RM884.8 billion in 2015. This growth was mainly contributed by the Petroleum, chemical, rubber and plastic products sub-sector, which saw an increase of 10.4 per cent to RM442.0 billion, compared to RM221.5 billion in 2015. The Electrical, electronic and optical products sub-sector also shows significant growth of 8.2 per cent, amounting to RM440.5 billion in 2022. Both sub-sectors accounted for 59.7 per cent of the total intermediate input of the Manufacturing sector. The increase in the intermediate input was largely due to the rise in local producer prices and global crude oil prices.

Exhibit 6: Intermediate Input by Sub-sector, 2015 and 2022

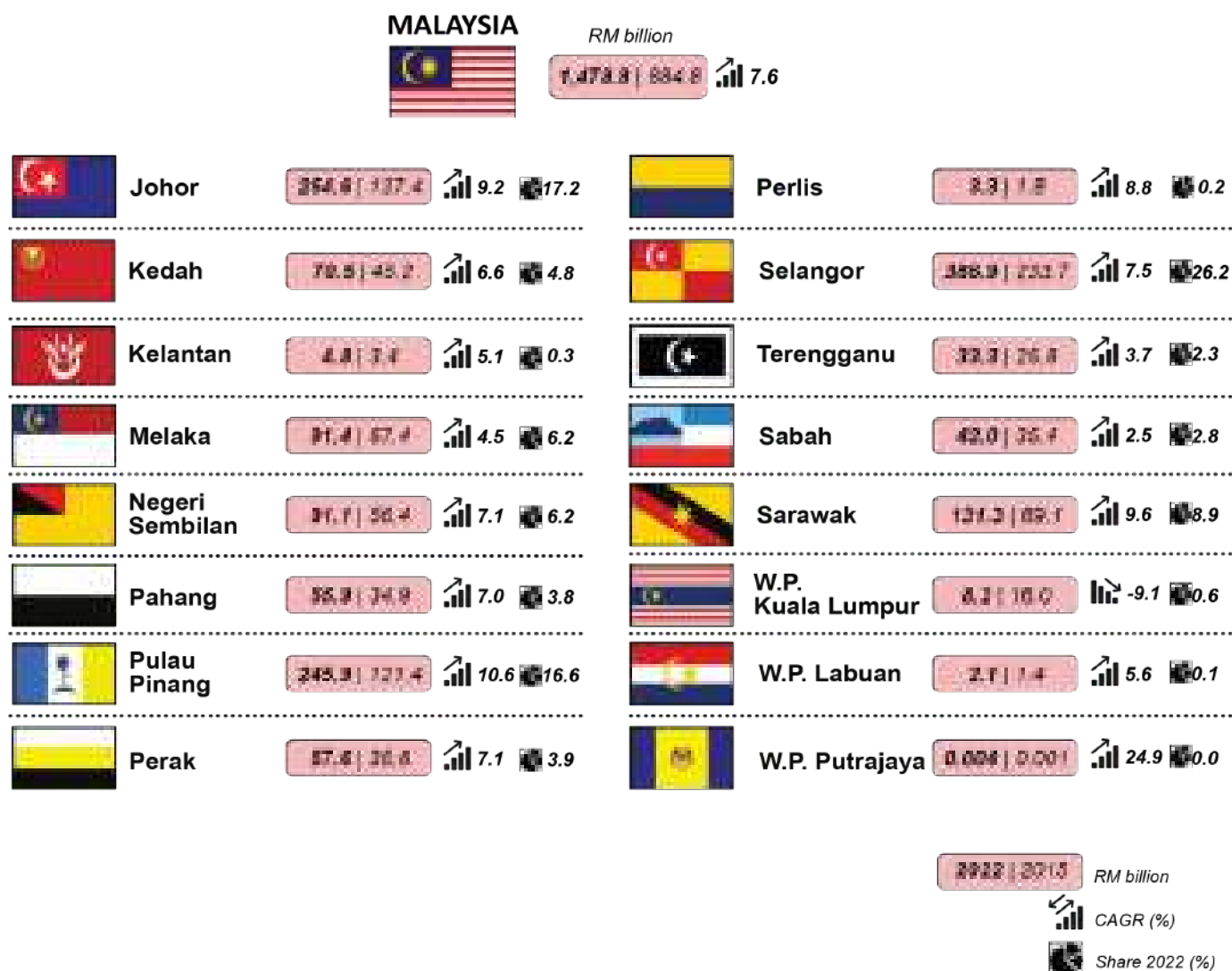
	Intermediate Input		Share (%)		CAGR (%)
	2015	2022	2015	2022	
 Manufacturing	RM884.8 billion	RM1,478.8 billion			7.6
 Petroleum, chemical, rubber and plastic products	RM221.5 billion	RM442.0 billion	25.0	29.9	10.4
 Electrical, electronic and optical products	RM253.1 billion	RM440.5 billion	28.6	29.8	8.2
 Food products	RM172.0 billion	RM257.4 billion	19.4	17.4	5.9
 Non-metallic mineral products, basic metal and fabricated metal products	RM100.5 billion	RM154.4 billion	11.4	10.4	6.3
 Transport equipment, other manufacturing and repair	RM69.8 billion	RM90.9 billion	7.9	6.1	3.8
 Wood products, furniture, paper products and printing	RM45.7 billion	RM65.1 billion	5.2	4.4	5.2
 Textiles, wearing apparel, leather and footwear products	RM13.2 billion	RM17.1 billion	1.5	1.2	3.8
 Beverages and tobacco products	RM9.0 billion	RM11.4 billion	1.0	0.8	3.4

5.2 Intermediate Input by State

Selangor accounted for the largest share of intermediate input, comprising 26.2 per cent and totaling RM386.9 billion, which represented a 7.5 per cent increase compared to the previous census (2015: RM233.7 billion). Following Selangor was Johor, with a 17.2 per cent share, showing a 9.2 per cent increase to RM254.6 billion. Pulau Pinang followed closely with a 16.6 per cent share, registering RM245.9 billion in 2022. Together, these three states contributed 60.0 per cent of the total Manufacturing sector's intermediate input.

W.P. Putrajaya recorded the highest annual growth of 24.9 per cent, reaching RM4.2 million in 2022, up from RM894.0 thousand in 2015. Pulau Pinang also experienced double-digit growth of 10.6 per cent compared to the RM121.4 billion recorded in 2015. Conversely, in line with the decline in gross output, W.P. Kuala Lumpur saw a decreased of 9.1 per cent in intermediate input, totaling RM8.2 billion in 2022 (2015: RM16.0 billion).

Exhibit 7: Intermediate Input by States, 2015 and 2022



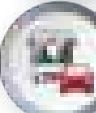
6. Value Added

6.1 Value Added by Sub-sector

Despite an increase in the intermediate input of the Manufacturing sector, the sector's value added remained robust, recording an average annual growth of 7.1 per cent to reach RM414.9 billion in 2022 compared to the previous census (2015: RM257.1 billion). This growth was mainly driven by the Petroleum, chemical, rubber and plastic products sub-sector, which contributed one-third of the total at RM137.6 billion (share: 33.2%). This sub-sector exhibited significant growth of 8.5 per cent from RM77.6 billion in 2015.

Following closely was, the Electrical, electronic and optical products sub-sector contributed RM120.2 billion (share: 29.0%), with an annual growth rate of 8.3 per cent from RM68.7 billion in 2015. Next, the Food products sub-sector, recorded a value added of RM46.2 billion (share: 11.1%) and grew by 7.5 per cent.

Exhibit 8: Value Added by Sub-sector, 2015 and 2022

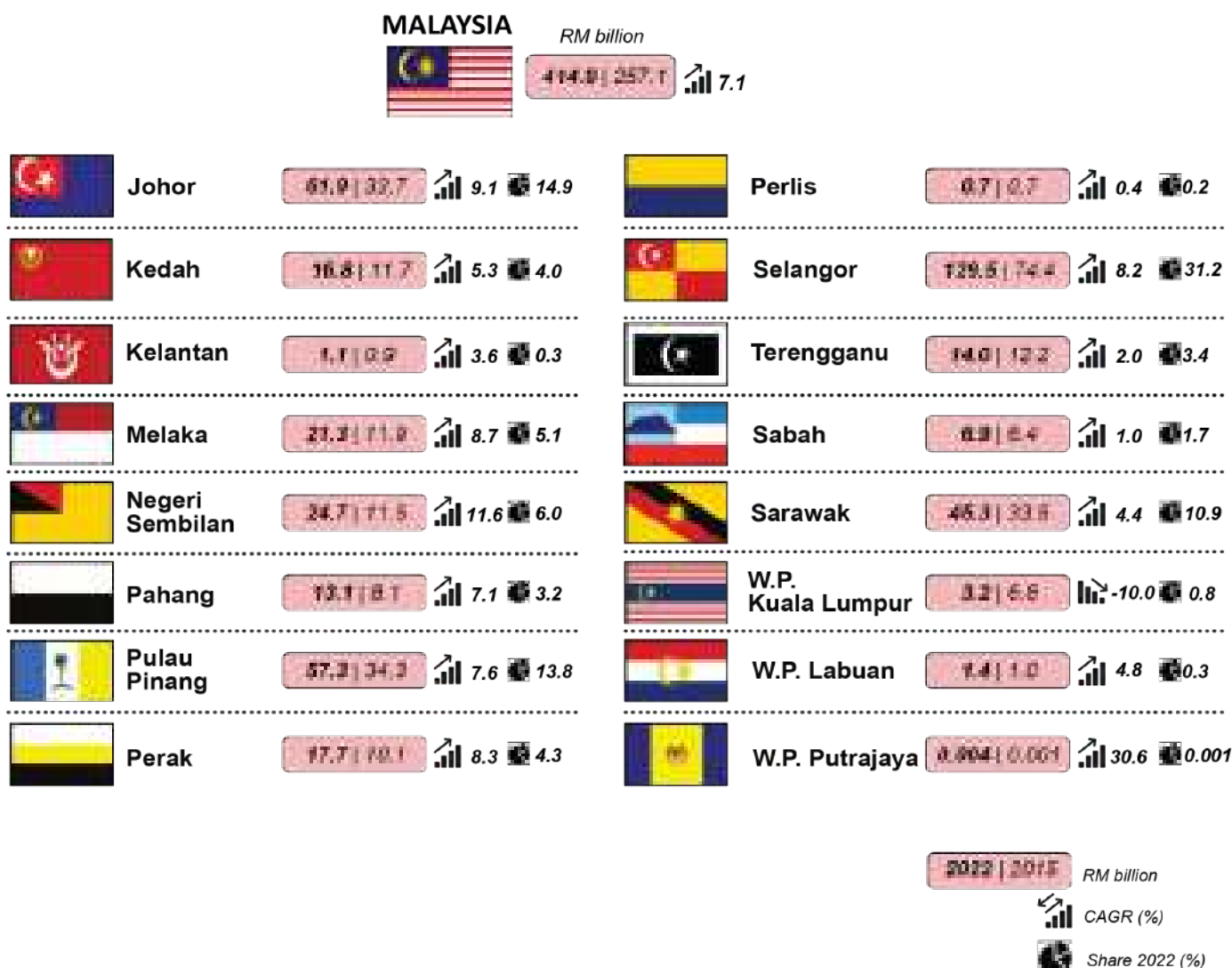
	Value Added		Share (%)		CAGR (%)
	2015	2022	2015	2022	
 Manufacturing	RM257.1 billion	RM414.9 billion			7.1
 Petroleum, chemical, rubber and plastic products	RM77.6 billion	RM137.6 billion	30.2	33.2	8.5
 Electrical, electronic and optical products	RM68.7 billion	RM120.2 billion	26.7	29.0	8.3
 Food products	RM27.8 billion	RM46.2 billion	10.8	11.1	7.5
 Non-metallic mineral products, basic metal and fabricated metal products	RM34.4 billion	RM44.6 billion	13.4	10.7	3.8
 Transport equipment, other manufacturing and repair	RM22.1 billion	RM31.3 billion	8.6	7.5	5.1
 Wood products, furniture, paper products and printing	RM17.2 billion	RM23.5 billion	6.7	5.7	4.6
 Textiles, wearing apparel, leather and footwear products	RM5.0 billion	RM7.0 billion	1.9	1.7	5.0
 Beverages and tobacco products	RM4.4 billion	RM4.5 billion	1.7	1.1	0.3

6.2 Value Added by State

Align with the performance of gross output, Selangor contributed the highest value added at RM129.5 billion accounted for 31.2 per cent in 2022, followed by Johor with RM61.9 billion (share: 14.9%) and Pulau Pinang with RM57.3 billion (share: 13.8%). These top three states contributed 59.9 per cent to the Manufacturing's sector's value added amounting to RM248.7 billion.

W.P. Kuala Lumpur showed a declined of 10.0 per cent from RM6.8 billion in 2015 to RM3.2 billion in 2022. Meanwhile, W.P. Putrajaya and Negeri Sembilan both achieved double-digit growth rates. W.P. Putrajaya registered an annual increase of 30.6 per cent, rising to RM4.3 million in 2022 from RM0.7 million in 2015, while Negeri Sembilan grew by 11.6 per cent to RM24.7 billion, up from RM11.5 billion in 2015.

Exhibit 9: Value Added by State, 2015 and 2022



7. Persons Engaged and Salaries & Wages

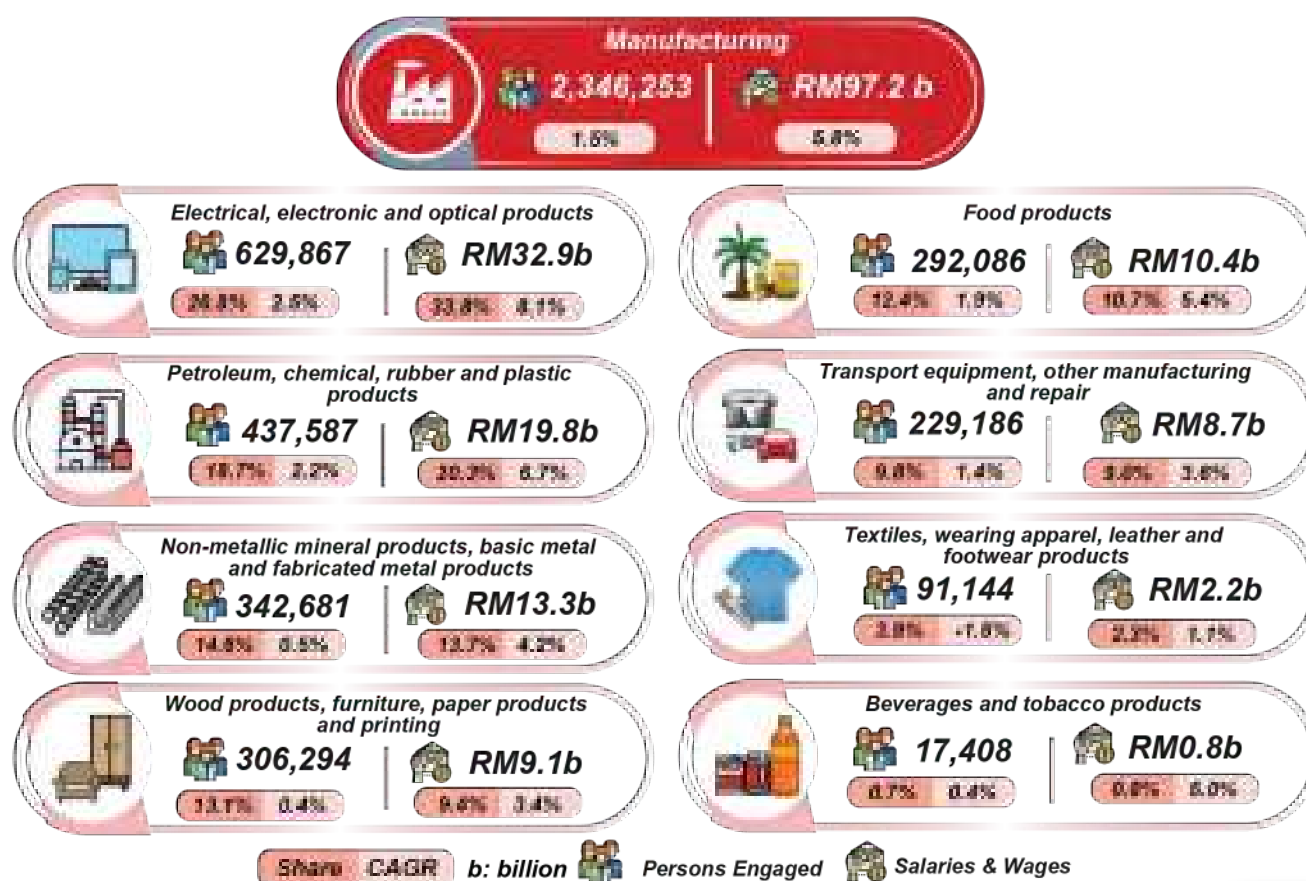
7.1 Persons Engaged and Salaries & Wages by Sub-sector

The number of persons engaged in the Manufacturing sector grew by 1.5 per cent to reach 2,346,253 persons in 2022 (2015: 2,119,158 persons). The Electrical, electronic, and optical products sub-sector accounted for 26.8 per cent of this total, encompassed 629,867 persons, which represented a 2.5 per cent annual increase from 528,498 in 2015. Following closely was the Petroleum, chemical, rubber, and plastic products sub-sector, totaling 437,587 persons (share: 18.7%) in 2022, up from 376,084 in 2015. The Non-metallic mineral products, basic metal, and fabricated metal sub-sector recorded 342,681 persons in 2022 (2015: 332,058 persons).

In line with the increase in the number of persons engaged, the total salaries & wages in the Manufacturing sector grew by 5.8 per cent to RM97.2 billion in 2022, compared to RM65.5 billion in 2015. The Electrical, electronic, and optical products sub-sector paid the highest amount in salaries & wages in 2022, totaling RM32.9 billion, an 8.1 per cent annual increase (share: 33.8%). The Petroleum, chemical, rubber, and plastic products sub-sector followed with RM19.8 billion paid, reflecting a 6.7 per cent annual increase (share: 20.3%). The Non-metallic mineral products, basic metal, and fabricated metal products sub-sector contributed RM13.3 billion (share: 13.7%) to the total salaries & wages in 2022, with a compound annual growth rate of 4.2 per cent (2015: RM10.0 billion).

The average salaries & wages in the Manufacturing sector in 2022 amounted to RM3,513 per month.

Exhibit 10: Persons Engaged and Salaries & Wages by Sub-sector, 2022



7.2 Full-time Paid Employees and Salaries & Wages by Category of Workers

The Manufacturing sector primarily comprises full-time paid workers, totaling 2,294,047 persons (share: 97.8%), while the remaining 2.2 per cent consists of Working proprietors, active business partners, unpaid family workers, and Part-time employees totaling 52,206 persons in 2022. Plant & machine operators and assemblers constituted the largest segment of the workforce with a 55.2 per cent share, amounting to 1,295,724 persons. Clerical and related occupations represented 15.9 per cent (372,486 persons) and Managers, professionals and researchers accounted for 9.6 per cent (224,075 persons) of the total full-time paid employees in the Manufacturing sector. Together, these three categories encompassed 80.7 per cent, totaling 1,892,285 full-time paid employees.

The highest total salaries & wages were dominated by Plant & machine operators and assemblers, amounting to RM39.5 billion (share: 40.6%), followed by Managers, professionals, and researchers with RM29.1 billion (share: 29.9%), and Clerical and related occupations with RM12.1 billion (share: 12.5%).

Managers, professionals, and researchers received the highest monthly average salary at RM10,810, followed by Technicians and associate professionals at RM4,879 per month, and Clerical and related occupations at RM2,710 per month.

Exhibit 11: Full-time Paid Employees and Salaries & Wages by Category of Workers, 2022

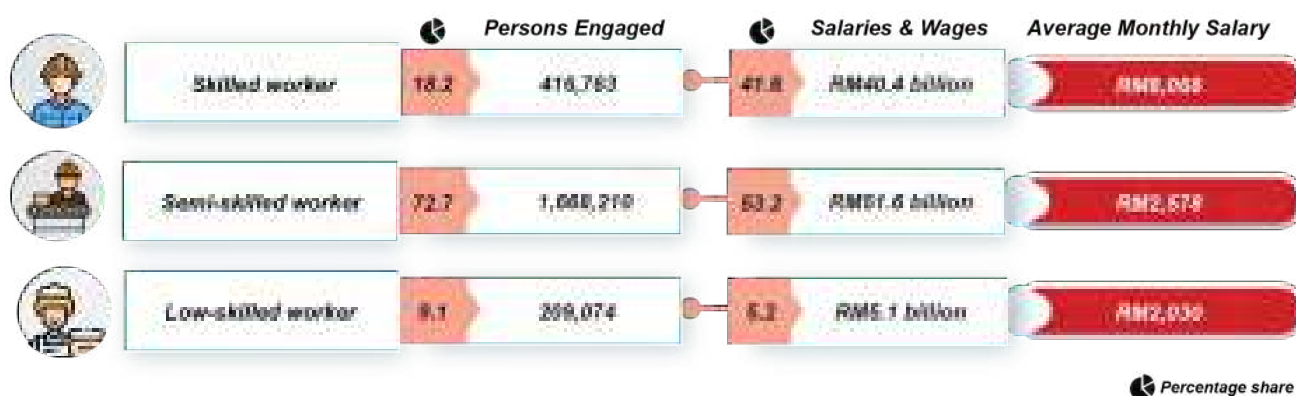


7.3 Full-time Paid Employees and Salaries & Wages by Category of Skills

In terms of the number of full-time paid employees engaged by skill category, Semi-skilled workers comprised the highest number with 1,668,210 persons (share: 72.7%), followed by Skilled workers with 416,763 persons (share: 18.2%), and Low-skilled workers with 209,074 persons (share: 9.1%) in 2022. Salaries & wages to Semi-skilled workers amounted to RM51.6 billion, accounting for 53.2 percent, while Skilled workers received RM40.4 billion (share: 41.6%), and Low-skilled workers received RM5.1 billion (share: 5.2%).

Skilled workers received the highest average salaries & wages per month at RM8,068. Semi-skilled workers earned an average of RM2,578 per month, while Low-skilled workers earned RM2,030 per month, as illustrated in **Exhibit 12**.

Exhibit 12 : Full-time Paid Employees and Salaries & Wages by Category of Skills, 2022

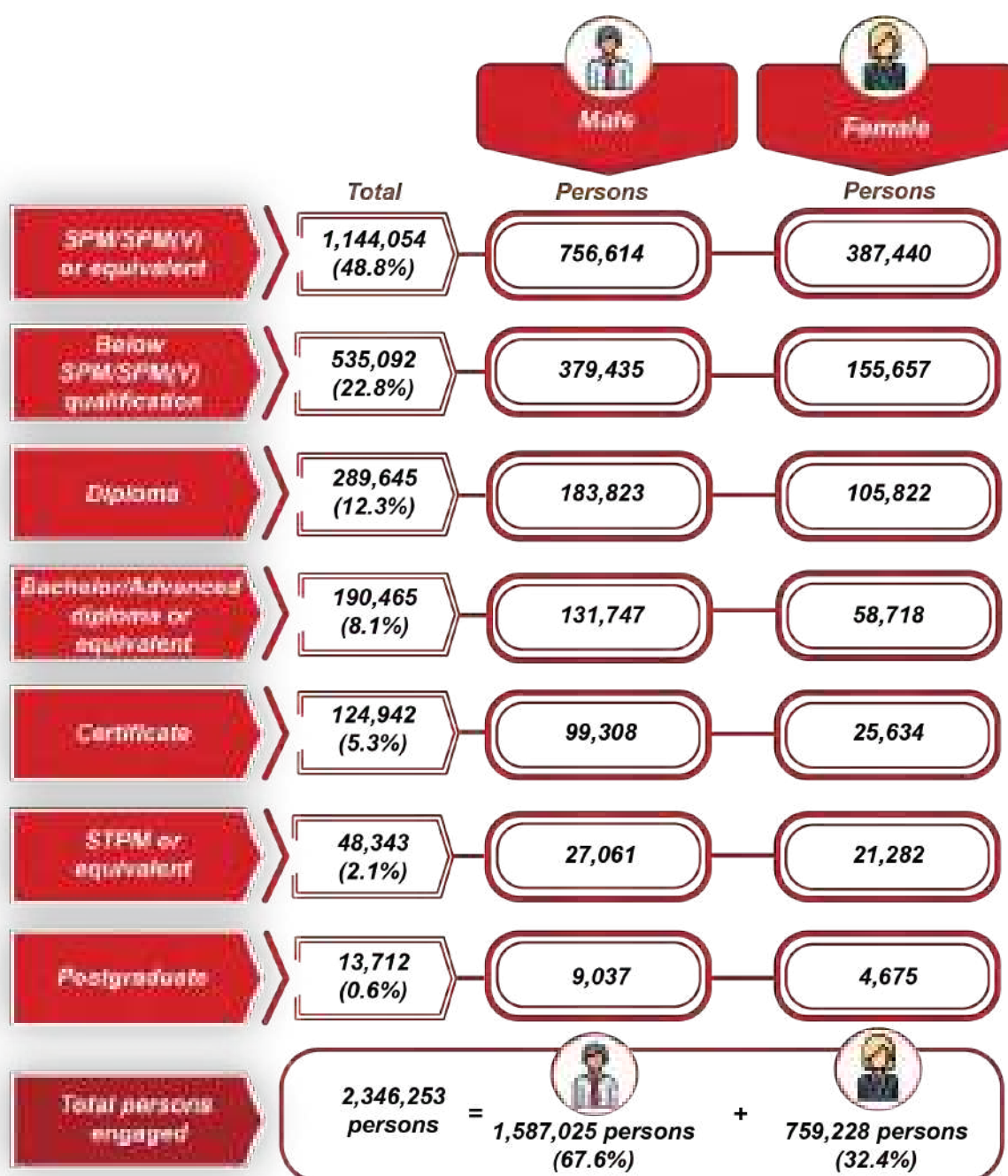


7.4 Persons Engaged by Highest Certificate Obtained

Persons engaged with the qualification of SPM/SPM(V) or equivalent constituted 48.8 per cent, totaling 1,144,054 persons in the Manufacturing sector. This was followed by employees with Below SPM/SPM(V) qualifications, registering 535,092 persons (share: 22.8%) and Diploma holders with 289,645 persons (share: 12.3%).

The Manufacturing sector workforce was predominantly male, comprising 1,587,025 persons (share: 67.6%), while female workers accounted for 32.4 per cent, totaling 759,228 persons. Both male and female employees were predominantly in the SPM/SPM(V) or equivalent qualification with a share of 47.7 per cent (756,614 persons) and 51.0 per cent (387,440 persons) respectively.

Exhibit 13 : Persons Engaged by Highest Certificate Obtained, 2022



Note: (Share)

8. Fixed Assets

The Manufacturing sector's fixed assets increased 3.5 per cent, expanding from RM296.8 billion in 2015 to RM377.9 billion in 2022. The Petroleum, chemical, rubber and plastic products sub-sector emerged as the largest contributor, accounting for 36.5 per cent of the total in 2022. This subsector's value increased from RM91.9 billion in 2015 to RM138.1 billion in 2022, recording an annual growth rate of 6.0 per cent. This growth was driven by ongoing advancements in chemical production processes, increasing demand for rubber and plastic products and the critical role of petroleum products across various industries.

The Electrical, electronic, and optical products sub-sector also experienced notable expansion with an annual growth of 4.4 per cent, increasing from RM59.4 billion in 2015 to RM80.5 billion in 2022 (share: 21.3%). This growth can be attributed to the expansion of digital economy and increase demand for electronic devices and components driven by technological advancements.

Following this was the Non-metallic mineral products, basic metal and fabricated metal products sub-sector with a share of 14.8 per cent in 2022. This sub-sector grew from RM53.6 billion in 2015 to RM56.0 billion in 2022, reflecting a marginal annual growth of 0.6 per cent. Despite this slower growth, the sector remains crucial due to its foundational role in construction and infrastructure development, highlighting consistent demand for metal products.

Exhibit 14 : Fixed Assets by Sub-sector, 2015 and 2022

	Fixed Assets (RM billion)		Share (%)		Change (%)
	2015	2022	2015	2022	
 Manufacturing	296.8 billion	377.9 billion			3.5
 Petroleum, chemical, rubber and plastic products	91.9 billion	138.1 billion	31.0	36.5	6.0
 Electrical, electronic and optical products	59.4 billion	80.5 billion	20.0	21.3	4.4
 Non-metallic mineral products, basic metal and fabricated metal products	53.6 billion	56.0 billion	18.1	14.8	0.6
 Food products	37.9 billion	46.2 billion	12.8	12.2	2.9
 Transport equipment, other manufacturing and repair	21.7 billion	25.6 billion	7.3	6.8	2.4
 Household appliances, furniture, other consumer and personal	23.1 billion	22.5 billion	7.8	6.0	-0.4
 Business services, other services, other manufacturing and repair	6.0 billion	5.4 billion	2.0	1.4	-1.4
 Miscellaneous and other products	3.1 billion	3.6 billion	1.1	1.0	2.0

9. Women-owned Establishments

9.1 Women-owned Establishments by Sub-sector

Women-owned establishments in Manufacturing sector recorded in 2022 was 8,469 establishments, accounting for 15.5 per cent from the total of establishments, contracted by 1.7 per cent compared to 9,546 establishments in 2015. These establishments generated a gross output of RM41.2 billion and a value added of RM10.5 billion, with 126,518 persons engaged.

The Textiles, wearing apparel, leather and footwear products sub-sector accounted for almost half of the women-owned establishments, totaling 3,693 establishments (share: 43.6%), followed by the Food products sub-sector with 2,446 establishments (share: 28.9%). Together, these two sub-sectors contributed 72.5 per cent of total number of women-owned establishments. The gross output recorded for both sub-sectors were RM4.0 billion and RM12.6 billion respectively.

Exhibit 15 : Women-Owned Establishment by Sub-sector, 2022

	Share gross output (%)	Number of Establishments	Gross Output (RM billion)	Value Added (RM billion)	Persons Engaged
 Manufacturing		8,469	41.2	10.5	126,518
 Food products	30.7	2,446	12.6	2.4	25,478
 Petroleum, chemical, rubber and plastic products	21.9	383	9.0	2.3	17,722
 Wood products, furniture, paper products and printing	13.8	832	5.7	1.4	23,090
 Textiles, wearing apparel, leather and footwear products	9.8	3,693	4.0	1.6	28,888
 Non-metallic mineral products, basic metal and fabricated metal products	8.3	502	3.4	1.0	12,413
 Electrical, electronic and optical products	6.8	183	2.8	0.7	9,455
 Transport equipment, other manufacturing and repair	6.1	391	2.5	0.7	8,742
 Beverages and tobacco products	2.7	39	1.1	0.4	730

9.2 Women-owned Establishments by Legal Status

Women-owned establishments under Individual Proprietorship accounted for 67.5 per cent, totaling 5,715 establishments and registered a gross output of RM1.4 billion. In contrast, women-owned establishments under Private Limited Companies constituted 24.5 per cent with 2,077 establishments, yet they contributed the highest gross output value of RM39.3 billion, representing 95.4 per cent share.

Exhibit 16: Women-owned Establishment by Legal Status and Gross Output, 2022



10. Performance by State

10.1 Johor

Johor's Manufacturing sector in 2022 saw a 2.0 per cent annual growth in the number of establishments, reaching 9,244 establishments compared to 8,046 establishments in 2015. This growth was largely driven by the Wood products, furniture, paper products and printing sub-sector which accounted for 21.8 per cent and grew annually at 3.2 per cent. Additionally, the Non-metallic mineral products, basic metal and fabricated metal products sub-sector contributed 20.5 per cent to the total number of establishments, experiencing a yearly increase of 2.5 per cent.

Johor's gross output posted a strong growth of 9.2 per cent annually to RM316.4 billion in 2022, up from RM171.1 billion in 2015. One of the primary drivers of Johor's manufacturing sector is the Petroleum, chemical, rubber and plastic products sub-sector which accounted for 25.6 per cent of the total, amounting to RM81.1 billion (CAGR: 15.1%). Followed by the Electrical, electronics and optical products sub-sector, contributed 24.0 per cent totaling RM76.0 billion (CAGR: 7.1%) and the Food products sub-sector contributed 22.9 per cent amounting to RM72.3 billion with annual growth of 8.5 per cent. Together, these sub-sectors contributed 72.5 per cent to the total gross output.

The number of persons engaged in Johor's Manufacturing sector increased by 1.1 per cent annually, totaling 483,010 persons compared to 448,365 persons in 2015. Sub-sectors with the highest contribution were the Electrical, electronics and optical products at 23.5 per cent, followed by the Petroleum, chemical, rubber and plastic products sub-sector at 18.3 per cent and the Wood products, furniture, paper products and printing at 16.3 per cent.

Exhibit 17: Principal Statistics of Johor by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Non-metallic mineral products (RM billion)	Basic metal and fabricated metal products (RM billion)	Persons Engaged	Electricity & Water (RM billion)	Food & Beverage (RM billion)
Manufacturing	9,244 8,046	316.4 171.1	254.6 137.4	61.9 33.7	483,010 448,365	18.0 12.2	81.1 55.5
Food products	1,436 1,325	72.3 40.8	59.5 36.0	12.8 4.7	58,758 54,505	2.2 1.7	13.3 11.3
Beverages and tobacco products	66 64	1.4 1.1	1.0 0.8	0.4 0.3	2,825 2,801	0.1 0.1	0.3 0.4
Textiles, wearing apparel, leather and footwear products	910 1,161	7.6 5.6	5.2 4.0	2.4 1.5	30,403 32,061	0.7 0.6	2.8 2.7
Wood products, furniture, paper products and printing	2,019 1,622	20.7 11.5	14.7 8.1	6.1 3.4	78,894 64,503	2.2 1.4	4.6 4.2
Petroleum, chemical, rubber and plastic products	1,093 812	81.1 30.3	67.3 24.3	13.8 6.0	88,317 84,283	3.9 2.6	40.0 11.4
Non-metallic mineral products, basic metal and fabricated metal products	1,897 1,591	44.5 22.6	33.8 16.8	10.7 5.8	78,523 76,551	2.9 2.1	9.4 12.5
Electrical, electronic and optical products	853 693	76.0 46.9	63.1 37.7	12.8 9.2	113,676 102,995	4.9 3.0	7.8 9.0
Transport equipment, other manufacturing and repair	970 778	12.7 12.4	9.9 9.7	2.9 2.7	31,614 30,666	1.1 0.8	2.8 4.0

10.2 Kedah

The Manufacturing sector in Kedah experienced a decline in the number of establishments, decreased by 1.3 per cent annually, totaling 2,988 establishments in 2022 compared (2015: 3,281 establishments). The Non-metallic mineral products, basic metal and fabricated metal products sub-sector contributed the highest share of establishments at 22.1 per cent, amounting to 659 establishments. This was followed by the Food products sub-sector at 19.1 per cent, totaling 572 establishments and the Textiles, wearing apparel, leather and footwear products sub-sector at 15.4 per cent, amounting to 460 establishments.

Despite the decline in the number of establishments, the gross output in Kedah's Manufacturing sector demonstrated resilience with an annual growth of 6.3 per cent, reaching RM87.3 billion (2015: RM56.9 billion). The growth was predominantly driven by the Electrical, electronic and optical products sub-sector commanding a share of 62.6 per cent and amounting RM54.6 billion, grew annually at 5.9 per cent. Followed by the Petroleum, chemical, rubber and plastic products sub-sector, contributing 14.3 per cent and totaling RM12.5 billion (CAGR: 6.9%).

In line with the growth in gross output, number of persons engaged in the Kedah Manufacturing sector also increased at 2.8 per cent, totaling 118,195 persons compared to 97,463 persons in 2015. The Electrical, electronic and optical products sub-sector contributed the highest share to the number of persons engaged with 33.1 per cent, totaling 39,141 persons. Meanwhile the Petroleum, chemical, rubber and plastic products sub-sector contributed 23.6 per cent, accounting for 27,874 persons.

Exhibit 18: Principal Statistics of Kedah by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Manufacture Index (2015=100)	Value Added (RM billion)	Persons Engaged	Salaries & Wages (RM billion)	Fixed Assets (RM billion)
Manufacturing	2,988 3,281	87.3 56.9	70.5 45.2	16.8 11.7	118,195 97,463	4.6 2.8	19.4 13.7
Food products	572 670	7.8 3.4	6.6 2.8	1.2 0.6	11,590 9,544	0.3 0.2	1.2 1.0
Beverages and tobacco products	24 37	0.1 0.1	0.04 0.05	0.02 0.01	304 404	0.01 0.01	0.02 0.02
Textiles, wearing apparel, leather and footwear products	460 816	0.4 0.2	0.2 0.1	0.1 0.1	3,020 2,570	0.05 0.03	0.06 0.04
Wood products, furniture, paper products and printing	404 310	4.1 1.8	3.0 1.4	1.1 0.4	12,398 10,759	0.3 0.2	1.2 0.5
Petroleum, chemical, rubber and plastic products	306 244	12.5 7.8	9.0 5.9	3.5 1.9	27,874 18,737	1.0 0.6	3.0 2.4
Non-metallic mineral products, basic metal and fabricated metal products	659 661	4.6 4.0	3.1 3.0	1.5 1.1	12,465 9,129	0.4 0.2	1.2 0.7
Electrical, electronic and optical products	165 171	54.6 36.7	46.5 29.9	8.2 6.8	39,141 34,673	2.1 1.2	11.6 8.2
Transport equipment, other manufacturing and repair	398 372	3.3 2.9	2.1 2.1	1.2 0.8	11,403 11,647	0.4 0.3	1.1 0.9

Note: 2022
2015 Share 2022 (%)

10.3 Kelantan

The number of establishment for Manufacturing sector in Kelantan declined by 2.4 per cent, totaling 1,550 establishments in 2022 compared to 1,834 establishments in 2015. The three sub-sectors that contributed the highest in the number of establishments were the Food products sub-sector, comprising 26.4 per cent, followed by the Textiles, wearing apparel, leather and footwear products sub-sector at 21.7 per cent and the Non-metallic mineral products, basic metal and fabricated metal products sub-sector at 18.6 per cent. Together, these sub-sectors accounted for 66.7 per cent of the total, amounting to 1,034 establishments.

However, Kelantan's gross output grew positively at an annual rate of 4.8 per cent, reaching RM5,919.8 million. This growth was mainly supported by the Food products sub-sector contributing 25.6 per cent and totaling RM1,513.5 million. Next were the Electrical, electronic and optical products sub-sector with a share of 24.3 per cent, valued at RM1,438.0 million and the Petroleum, chemical, rubber and plastic products sub-sector at 23.2 per cent or RM1,373.2 million.

The number of persons engaged in Kelantan's Manufacturing sector declined marginally by 0.2 per cent, registering 19,349 persons in 2022 (2015: 19,665 persons). The Food products sub-sector contributed 21.3 per cent of the total, totaling 4,131 persons. Following closely was the Petroleum, chemical, rubber and plastic products sub-sector with a share of 19.3 per cent or 3,743 persons. The Wood products, furniture, paper products and printing sub-sector contributed 18.2 per cent, totaling 3,523 persons.

Exhibit 19: Principal Statistics of Kelantan by Sub-sector

	Number of Establishments	Gross Output (RM million)	Intermediate Input (RM million)	Value Added (RM million)	Persons Engaged	Salaries & Wages (RM million)	Fixed Assets (RM million)
Manufacturing	1,550 1,834	5,919.8 4,273.0	4,780.9 3,386.2	1,138.9 886.8	19,349 19,665	466.4 322.2	1,544.4 1,176.1
Food products	409 432	1,513.5 959.9	1,226.4 802.9	287.1 157.0	4,131 3,874	73.8 54.6	202.5 209.0
Beverages and tobacco products	14 20	11.7 10.8	6.9 6.6	4.8 4.2	155 203	2.6 2.4	1.5 2.4
Textiles, wearing apparel, leather and footwear products	336 667	129.1 144.7	61.8 92.0	67.2 52.6	1,735 2,643	21.5 23.9	29.2 32.6
Wood products, furniture, paper products and printing	269 246	579.6 447.5	427.5 339.2	152.2 108.3	3,523 3,496	79.1 62.0	108.5 81.4
Petroleum, chemical, rubber and plastic products	46 44	1,373.2 1,142.2	1,184.9 910.2	188.3 231.9	3,743 4,144	102.6 78.2	326.1 367.9
Non-metallic mineral products, basic metal and fabricated metal products	289 307	810.6 738.9	684.9 569.7	125.7 169.2	2,900 2,921	80.2 56.6	230.9 242.8
Electrical, electronic and optical products	6 13	1,438.0 796.2	1,149.9 646.3	288.0 149.9	2,350 1,895	94.7 38.5	632.7 218.3
Transport equipment, other manufacturing and repair	181 105	64.1 32.8	38.5 19.2	25.6 13.7	812 479	11.9 5.9	13.1 21.7

Note: 2022
2015

Share 2022 (%)

10.4 Melaka

The number of establishments in Manufacturing sector for Melaka in 2022 grew by 1.6 per cent, increasing to 1,715 establishments from 1,539 establishments in 2015. The primary sub-sectors contributing to the number of establishments were the Non-metallic mineral products, basic metal and fabricated metal products sub-sector, comprising 21.0 per cent and totaling 360 establishments and the Food products sub-sector at 19.2 per cent with 329 establishments.

The gross output increased annually by 5.2 per cent, amounting to RM112.7 billion compared to RM79.3 billion in 2015. More than 50 per cent of the total output was attributed to the Petroleum, chemical, rubber and plastic products sub-sector, accounting to 51.8 per cent and a gross output value of RM58.4 billion. This was followed by the Electrical, electronic and optical products sub-sector contributing 20.1 per cent and totaling RM22.7 billion. The Transport equipment, other manufacturing and repair sub-sector contributed 12.9 per cent valued at RM14.6 billion. Together, these three sub-sector contributed 84.8 per cent to the total gross output.

Align with the performance of gross output, the number of persons engage in Melaka's Manufacturing sector increased annually by 2.7 per cent, to registering 99,891 persons compared to 82,694 persons in previous census. This growth was primarily driven by the Electrical, electronic and optical products sub-sector, amounting to 38.8 per cent and totaling 38,757 persons. The Petroleum, chemical, rubber and plastic products sub-sector contributed 13.9 per cent, accounting to 13,869.

Exhibit 20: Principal Statistics of Melaka by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Intermediate Input (RM billion)	Value Added (RM billion)	Persons Engaged	Salaries & Wages (RM million)	Fixed Assets (RM million)
Manufacturing	1,715 1,539	112.7 79.3	91.4 67.4	21.3 11.9	99,891 82,694	4.4 2.7	23.5 16.6
Food products	329 294	19.2 4.1	4.7 3.4	0.9 0.7	11,458 9,372	0.3 0.2	1.5 1.0
Beverages and tobacco products	18 20	0.02 0.01	0.01 0.01	0.01 0.01	320 209	0.007 0.003	0.01 0.01
Textiles, wearing apparel, leather and footwear products	187 303	3.1 3.8	2.3 2.9	0.7 0.9	3,499 6,933	0.1 0.2	0.3 0.8
Wood products, furniture, paper products and printing	285 260	2.6 1.8	1.9 1.4	0.7 0.4	9,191 7,901	0.3 0.2	0.9 0.7
Petroleum, chemical, rubber and plastic products	164 120	58.4 39.0	49.3 35.1	9.1 4.0	13,869 11,007	0.7 0.5	11.1 7.5
Non-metallic mineral products, basic metal and fabricated metal products	360 266	5.9 3.3	4.4 2.6	1.4 0.7	12,202 8,061	0.5 0.2	3.0 0.8
Electrical, electronic and optical products	186 133	22.7 16.8	17.3 13.5	5.3 3.3	38,757 29,257	2.2 1.1	3.5 4.6
Transport equipment, other manufacturing and repair	186 143	14.6 10.5	11.5 8.5	3.1 2.0	10,595 9,954	0.4 0.3	3.2 1.2

Note: 2022
2015

Share 2022 (%)

10.5 Negeri Sembilan

The Manufacturing sector in Negeri Sembilan posted an annual increase of 3.5 per cent to 2,408 in 2022 (2015: 1,891 establishments). A key driver of this expansion was the Non-metallic mineral products, basic metal and fabricated metal products sub-sector, which accounted for 21.0 per cent of total establishments, totaling 506 establishments (CAGR: 3.8%). Additionally, the Food products sub-sector and Wood products, furniture, paper products and printing sub-sector have also played substantial roles, contributing 16.6 per cent (2022: 400 establishments) and 16.4 per cent (2022: 396 establishments) of the total establishments, respectively.

Negeri Sembilan's gross output in 2022 registered a strong annual growth of 7.9 per cent, reaching RM115.7 billion. The primary driver behind this growth was the Petroleum, chemical, rubber and plastic products sub-sector, which accounted for 59.5 per cent of the total output, amounting to RM68.9 billion. This sub-sector experienced substantial annual growth of 11.6 per cent from RM31.9 billion recorded in 2015. Following was the Electrical, electronic and optical products sub-sector, contributing 14.8 per cent and totaling RM17.1 billion.

The number of persons engaged in the Negeri Sembilan's Manufacturing sector grew by 2.7 per cent, totaling 93,162 persons. The highest contributor was the Electrical, electronic and optical products sub-sector with a 23.4 per cent share, registering 21,807 persons. Followed by the Petroleum, chemical, rubber and plastic products sub-sector at 21.2 per cent, accounting for 19,725 persons. The Non-metallic mineral products, basic metal and fabricated metal products sub-sector contributed 15.7 per cent of the total amounting to 14,629 persons.

Exhibit 21: Principal Statistics of Negeri Sembilan by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Intermediate Input (RM billion)	Value Added (RM billion)	Persons Engaged	Persons Engaged (RM billion)	Persons Engaged (RM billion)
Manufacturing	2,408 1,891	115.7 67.9	91.1 56.4	24.7 11.5	93,162 77,331	4.5 2.6	17.9 13.1
Food products	400 295	7.2 3.7	5.9 2.7	1.3 1.0	8,084 5,549	0.3 0.2	1.1 1.2
Beverages and tobacco products	20 21	1.9 0.4	1.3 0.2	0.7 0.2	2,573 716	0.16 0.02	0.6 0.3
Textiles, wearing apparel, leather and footwear products	357 426	0.9 0.7	0.6 0.5	0.3 0.2	4,400 3,398	0.1 0.1	0.5 0.5
Wood products, furniture, paper products and printing	396 303	4.5 4.0	3.4 3.2	1.1 0.9	10,432 12,251	0.3 0.3	1.3 1.3
Petroleum, chemical, rubber and plastic products	255 160	68.9 31.9	55.6 28.3	13.3 3.6	19,725 15,424	0.9 0.6	7.2 3.2
Non-metallic mineral products, basic metal and fabricated metal products	506 391	9.0 7.2	6.7 5.4	2.3 1.7	14,629 12,863	0.6 0.4	1.2 2.5
Electrical, electronic and optical products	157 92	17.1 17.1	12.7 13.9	4.4 3.2	21,807 20,395	1.7 0.9	4.5 3.0
Transport equipment, other manufacturing and repair	317 203	6.2 2.9	4.8 2.2	1.4 0.7	11,512 6,735	0.4 0.2	1.5 1.2

Note: 2022 Share 2022 (%)
2015

10.6 Pahang

Pahang's Manufacturing sector recorded a marginal decline in the number of establishments, dropped by 0.5 per cent, to record 1,720 in 2022 establishments from 1,784 in 2015. The Food products sub-sector, along with the Non-metallic mineral products, basic metal and fabricated metal products sub-sector, contributed the highest shares of establishments at 22.7 per cent (2022: 391 establishments) and 21.3 per cent (2022: 366 establishments), respectively.

However, Pahang's gross output remained resilience with an annual growth of 7.0 per cent, amounting to RM69.0 billion in 2022, up from RM42.9 billion in 2015. This was mainly driven by the Petroleum, chemical, rubber and plastic products sub-sector, which accounted for 49.5 per cent of the total, amounting to RM34.1 billion and grew substantially at 12.2 per cent. The Food products sub-sector contributed 21.1 per cent, totaling RM14.5 billion. The Textiles, wearing apparel, leather and footwear products sub-sector, made the smallest contribution to the gross output at 0.04 per cent.

For the number of persons engaged, Pahang recorded an annual growth of 3.0 per cent, totaling 54,762 persons in 2022. The highest contributor was the Wood products, furniture, paper products and printing sub-sector, accounting for 25.4 per cent, followed by the Food products sub-sector at 19.6 per cent.

Exhibit 22: Principal Statistics of Pahang by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Intermediate Input (RM billion)	Value Added (RM billion)	Persons Engaged	Salaries & Wages (RM million)	Plant Assets (RM million)
Manufacturing	1,720 1,784	69.0 42.9	55.9 34.9	13.1 8.1	54,762 44,489	2.3 1.4	17.7 12.3
Food products	391 421	14.5 16.9	12.9 15.1	1.6 1.7	10,759 9,233	0.4 0.2	2.2 1.3
Beverages and tobacco products	10 11	0.1 0.1	0.1 0.1	0.02 0.01	364 386	0.01 0.01	0.02 0.02
Textiles, wearing apparel, leather and footwear products	274 371	0.03 0.04	0.02 0.03	0.01 0.02	998 939	0.01 0.01	0.01 0.02
Wood products, furniture, paper products and printing	316 285	6.0 2.7	4.7 2.1	1.3 0.6	13,934 10,508	0.4 0.2	1.7 1.2
Petroleum, chemical, rubber and plastic products	70 63	34.1 15.2	26.4 11.6	7.7 3.7	9,333 7,470	0.7 0.4	5.5 7.7
Non-metallic mineral products, basic metal and fabricated metal products	366 346	8.3 2.8	7.6 1.9	0.8 1.0	9,406 7,189	0.4 0.2	7.2 1.2
Electrical, electronic and optical products	26 27	1.3 0.7	0.8 0.5	0.5 0.2	4,202 2,879	0.1 0.1	0.8 0.2
Transport equipment, other manufacturing and repair	267 260	4.6 4.5	3.4 3.6	1.2 0.9	5,766 5,885	0.2 0.2	0.4 0.7

Note: 2022
2015

Share 2022 (%)

10.7 Pulau Pinang

The number of establishments in Pulau Pinang recorded an increase of 4.4 per cent, totaling 5,678 establishments in 2022. Key sub-sectors contributing to the number of establishments included the Non-metallic mineral products, basic metal and fabricated metal products sub-sector at 18.8 per cent (2022: 1,066 establishments), the Electrical, electronic and optical products sub-sector at 18.2 per cent (2022: 1,032 establishments) and the Wood products, furniture, paper products and printing sub-sector at 15.9 per cent (2022: 905 establishments).

Manufacturing sector not only plays a significant role in Pulau Pinang's economy but also enhances the state's reputation as a center for innovation. The gross output for 2022 posted a robust annual increase of 10.0 per cent, reaching RM303.2 billion compared to RM155.7 billion in 2015. Pulau Pinang has established itself as a hub for high-technology manufacturing and electronics production in Malaysia. The Electrical, electronic and optical products sub-sector substantially contributed 71.8 per cent to the total, amounting to RM217.7 billion, reflecting an increased of 11.9 per cent. While the Petroleum, chemical, rubber and plastic products sub-sector and the Non-metallic mineral products, basic metal and fabricated metal products sub-sector contributed 7.8 per cent and 7.4 per cent respectively.

The number of persons engaged in the sector also grew by 4.6 per cent annually, totaling 371,732 persons in 2022. The sub-sector contributing the highest was the Electrical, electronics and optical products sub-sector at 58.1 per cent, followed by the Petroleum, chemical, rubber and plastic products sub-sector at 9.3 per cent and the Non-metallic mineral products, basic metal and fabricated metal products sub-sector at 9.5 per cent.

Exhibit 23: Principal Statistics of Pulau Pinang by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Manufactured Goods (RM billion)	Value Added (RM billion)	Persons Employed	Subsidiary & Ancillary (RM billion)	Fixed Assets (RM billion)
Manufacturing	5,678 4,191	303.2 155.7	245.9 121.4	57.3 34.3	371,732 272,241	18.5 10.4	39.7 33.0
Food products	799 571	14.1 10.8	5.9 9.3	6.2 1.4	20,258 14,624	5.4 0.4	3.9 2.1
Beverages and tobacco products	31 38	0.5 0.3	0.1 0.2	0.1 0.1	532 866	0.1 0.02	0.05 0.14
Textiles, wearing apparel, leather and footwear products	373 419	6.6 2.8	1.4 2.1	1.3 0.7	9,472 15,403	2.5 0.4	1.5 0.6
Wood products, furniture, paper products and printing	905 655	15.9 6.8	2.2 5.5	2.1 4.0	25,389 21,372	6.8 0.6	3.7 1.9
Petroleum, chemical, rubber and plastic products	695 490	12.2 23.7	8.0 13.4	7.2 2.8	34,626 28,203	9.3 0.9	7.4 3.2
Non-metallic mineral products, basic metal and fabricated metal products	1,066 810	18.8 22.3	7.4 16.2	7.6 13.3	35,285 29,143	9.5 0.9	6.7 3.7
Electrical, electronic and optical products	1,032 712	18.2 217.7	71.8 98.9	71.6 76.1	215,830 141,696	58.1 6.7	68.5 19.7
Transport equipment, other manufacturing and repair	777 496	13.7 10.2	3.4 7.7	3.1 5.7	30,340 20,934	8.2 0.6	6.5 1.8

Note: 2022
2015 Share 2022 (%)

10.8 Perak

Perak's Manufacturing sector experienced a slight decline in the number of establishments at 0.7 per cent, totaling 4,160 establishments in 2022 (2015: 4,383 establishments). The highest contributor to the number of establishments was the Non-metallic mineral products, basic metal and fabricated metal products sub-sector, accounting for 21.1 per cent share with 877 establishments. Following closely was the Food products sub-sector at 20.3 per cent, amounting to 843 establishments.

Meanwhile, the gross output posted a strong annual growth of 7.4 per cent, reaching RM75.2 billion from RM45.7 billion in previous census. This growth was mainly supported by the Food products sub-sector, contributing 28.4 per cent, amounting to RM21.4 billion. Following closely was the Petroleum, chemical, rubber and plastic products sub-sector with a share of 25.9 per cent, accounting for RM19.5 billion and the Electrical, electronic and optical products sub-sector with a 21.3 per cent share and RM16.1 billion.

The number of persons engaged in the sector grew marginally at 0.9 per cent annually, totaling 147,337 persons in 2022. The main contributors were the Petroleum, chemical, rubber and plastic products sub-sector at 29.7 per cent, followed by the Electrical, electronic and optical products sub-sector at 20.1 per cent and the Food products sub-sector at 15.4 per cent. Together, these three sub-sectors contributed 65.2 per cent of the total.

Exhibit 24: Principal Statistics of Perak by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Petroleum, chemical, rubber and plastic products (RM billion)	Value Added (RM billion)	Persons Engaged	Salaries & Wages (RM billion)	Fixed Assets (RM billion)
 Perak	4,160 4,383	75.2 45.7	57.6 35.6	17.7 10.1	147,337 138,726	5.3 3.5	19.9 14.8
 Food products	843 871	21.4 15.3	18.1 13.7	3.3 1.6	22,687 20,992	0.7 0.4	2.7 2.8
 Beverages and tobacco products	24 32	0.7 0.5	0.6 0.4	0.1 0.1	1,112 879	0.05 0.03	0.2 0.3
 Textiles, wearing apparel, leather and footwear products	581 857	0.9 0.7	0.6 0.4	0.3 0.2	6,483 8,141	0.1 0.1	0.2 0.2
 Wood products, furniture, paper products and printing	598 591	2.6 2.0	1.9 1.5	0.7 0.5	11,964 13,027	0.3 0.3	0.9 0.8
 Petroleum, chemical, rubber and plastic products	419 388	19.5 8.3	13.8 6.0	5.7 2.3	43,692 34,407	1.6 0.9	7.4 4.4
 Non-metallic mineral products, basic metal and fabricated metal products	877 887	9.9 6.7	7.4 4.6	2.5 2.1	21,567 21,887	0.8 0.6	3.3 3.3
 Electrical, electronic and optical products	197 196	16.1 9.3	12.0 6.6	4.1 2.7	29,595 31,434	1.3 0.9	2.9 2.0
 Transport equipment, other manufacturing and repair	621 561	4.3 3.0	3.3 2.4	1.0 0.6	10,237 7,959	0.3 0.2	2.4 1.1

Note: 2022  Share 2022 (%)
2015

10.9 Perlis

The Manufacturing sector in Perlis experienced a decline in the number of establishments by 2.6 per cent, totaling 311 establishments in 2022 compared to 373 establishment in 2015. The Food product sub-sector contributed the largest share of establishments at 34.1 per cent, amounting to 106 establishments. This was followed by the Non-metallic mineral products, basic metal and fabricated metal products; Electrical, electronic and optical products sub-sectors at 24.4 per cent, totaling 76 establishments and the Textiles, wearing apparel, leather and footwear products at 19.9 per cent, amounting to 62 establishments.

Despite the decline in the number of establishments, the gross output in Perlis's Manufacturing sector demonstrated resilience with an annual growth of 6.8 per cent, reaching RM3976.2 million (2015: RM2,503.8 million). The growth was predominantly driven by the Non-metallic mineral products, basic metal and fabricated metal products; Electrical, electronic and optical products sub-sectors, commanding a share of 45.1 per cent and amounting RM1,792.1 million, grew annually at 3.4 per cent. Followed by the Food products sub-sector, contributing 35.7 per cent and totaling RM1,421.0 million (CAGR: 12.9%).

However, the number of persons engaged in the sector decreased by 1.4 per cent, totaling 5,167 persons in 2022 compared to 5,704 persons in 2015. The primary contributor was the Petroleum, chemical, rubber and plastic products sub-sector, accounting for 60.9 per cent, totaling 3,148 persons. This was followed by the Food products sub-sector at 14.9 per cent, amounting to 770 persons.

Exhibit 25: Principal Statistics of Perlis by Sub-sector

	Number of Establishments	Gross Output (RM million)	Intermediate Input (RM million)	Value Added (RM million)	Persons Engaged	Services & Wages (RM million)	Profit Before Tax (RM million)
 Manufacturing	311 373	3,976.2 2,503.8	3,261.5 1,810.7	714.7 693.1	5,167 5,704	124.4 126.6	432.6 661.2
 Food products	106 110	1,421.0 606.2	1,255.5 497.2	165.6 108.9	770 1,008	13.6 22.8	35.4 226.5
 Beverages and tobacco products	6 3	16.0 1.3	7.0 0.8	9.0 0.5	111 29	2.6 0.5	5.6 0.9
 Textiles, wearing apparel, leather and footwear products	62 115	12.3 16.4	7.6 10.1	4.7 6.3	313 343	4.1 3.3	1.9 8.9
 Wood products, furniture, paper products and printing	32 44	12.8 24.2	8.0 17.8	4.8 6.4	173 233	3.0 3.1	2.4 3.3
 Petroleum, chemical, rubber and plastic products	7 8	715.0 433.2	468.9 269.7	246.2 163.5	3,148 3,109	75.0 60.5	166.3 115.4
 Non-metallic mineral products, basic metal and fabricated metal products	76 83	1,792.1 1,413.8	1,510.7 1,010.7	281.4 403.1	548 864	24.4 32.9	211.6 293.7
 Electrical, electronic and optical products							
 Transport equipment, other manufacturing and repair	22 10	6.9 8.8	3.9 4.4	3.0 4.4	104 118	1.8 3.4	9.5 12.7

Note: 2022
2015

Share 2022 (%)

10.10 Selangor

Selangor's Manufacturing sector posted a robust growth of 7.7 per cent, reaching 16,808 establishments in 2022. This expansion was driven by growth across all sub-sectors, notably the Transport equipment, other manufacturing and repair sub-sector, which saw an annual increase of 11.8 per cent (share: 16.1%), followed by the Food products sub-sector, which grew annually by 10.9 per cent (share: 13.0%) and the Petroleum, chemical, rubber and plastic products sub-sector, which posted a 7.9 per cent annual increase (share: 16.1%).

Align with the expansion of the number of establishments, Selangor's gross output also posted strong growth of 7.7 per cent, amounting to RM516.4 billion compared to RM308.0 billion in 2015. This growth was largely supported by the Electrical, electronic and optical products sub-sector, accounting for 28.1 per cent at RM145.3 billion, a 7.4 per cent annual increase from 2015. Following closely was the Petroleum, chemical, rubber and plastic products sub-sector with a share of 23.4 per cent, reaching RM121.1 billion and posting a substantial annual growth of 13.5 per cent. Together, these two sub-sectors contributed more than half of the total gross output.

In terms of the number of persons engaged, Selangor recorded an annual increase of 1.6 per cent, totaling 723,767 persons compared to 646,165 persons in 2015. The Petroleum, chemical, rubber and plastic products sub-sector contributed the highest share of the total at 22.7 per cent, accounting for 164,576 persons. This was followed by the Electrical, electronic and optical products sub-sector at 20.0 per cent, and the Non-metallic mineral products, basic metal and fabricated metal products sub-sector at 16.4 per cent.

Exhibit 26: Principal Statistics of Selangor by Sub-sector

	Number of Establishments	Gross Output (RM billion)	Manufactured output (RM billion)	Value Added (RM billion)	Persons Engaged	Balance of wages (RM billion)	Fixed Assets (RM billion)
Manufacturing	16,808 10,027	516.4 308.0	386.9 233.7	129.5 74.4	723,767 646,165	29.8 21.3	85.1 67.5
Food products	2,193 1,065	82.5 45.1	68.5 37.2	14.0 7.9	86,236 63,749	3.6 2.2	13.6 8.1
Beverages and tobacco products	138 103	10.4 9.4	7.5 6.2	2.9 3.3	6,572 7,938	0.3 0.3	2.1 1.8
Textiles, wearing apparel, leather and footwear products	1,066 897	6.0 3.2	4.1 2.3	1.8 1.0	20,333 16,738	0.6 0.4	0.7 0.8
Wood products, furniture, paper products and printing	2,962 1,885	27.6 16.7	19.5 11.6	8.1 5.2	84,801 73,714	2.8 2.1	7.2 6.2
Petroleum, chemical, rubber and plastic products	2,712 1,593	121.1 49.8	90.9 36.3	30.1 13.5	164,576 137,496	6.6 4.3	23.1 12.7
Non-metallic mineral products, basic metal and fabricated metal products	2,924 1,952	61.4 53.5	46.6 39.0	14.8 14.5	118,789 118,772	4.7 4.0	12.7 18.3
Electrical, electronic and optical products	2,107 1,293	145.3 88.1	104.2 69.7	41.1 18.4	144,567 144,513	7.0 4.7	15.5 10.5
Transport equipment, other manufacturing and repair	2,706 1,239	62.2 42.1	45.7 31.5	16.5 10.6	97,893 83,245	4.2 3.3	10.3 9.2

Note: 2022
2015

Share 2022 (%)

10.11 Terengganu

Terengganu's Manufacturing sector recorded a decline in the number of establishments by 1.1 per cent, totaling 1,870 establishments in 2022 (2015: 2,023 establishments). The highest contributor to the number of establishments was the Textiles, wearing apparel, leather and footwear products sub-sector accounting for 31.8 per cent share with 594 establishments. Followed by was the Food products sub-sector at 22.4 per cent, amounting to 419 establishments and the Wood products, furniture, paper products and printing at 15.3 per cent and 286 establishments.

Despite the decline in the number of establishments, Terengganu's gross output posted an annual increase of 3.2 per cent, rising to RM47,321.8 million, up from RM38,072.8 million in 2015. The Petroleum, chemical, rubber and plastic products sub-sector played a pivotal role in driving this growth, contributing an 87.3 per cent amounting to RM41,335.6 million. Meanwhile, the Electrical, electronic and optical products sub-sector demonstrated robust growth, expanding by 41.9 per cent annually.

The number of persons engaged in the sector grew marginally at 1.5 per cent annually, totaling 26,516 persons in 2022. The main contributors were the Petroleum, chemical, rubber and plastic products sub-sector at 33.6 per cent, followed by the Transport equipment, other manufacturing and repair sub-sector at 15.0 per cent, and the Wood products, furniture, paper products and printing sub-sector at 14.0 per cent.

Exhibit 27: Principal Statistics of Terengganu by Sub-sector

	Number of Establishments	Gross Output (RM million)	Intermediate Input (RM million)	Value Added (RM million)	Persons Engaged	Salaries & Wages (RM million)	Fixed Assets (RM million)
 Manufacturing	1,870 2,023	47,321.8 38,072.8	33,303.6 25,842.3	14,018.2 12,230.4	26,516 23,839	1,541.4 980.6	10,167.7 19,958.6
 Food products	419 455	1,803.4 891.2	1,421.0 691.0	382.4 200.2	3,542 3,234	87.0 39.7	297.2 279.6
 Beverages and tobacco products	5 6	6.2 8.8	3.4 6.2	2.8 2.6	73 91	1.2 1.4	4.3 8.1
 Textiles, wearing apparel, leather and footwear products	594 851	96.6 104.0	56.1 62.4	40.5 41.7	2,195 2,141	21.0 19.3	8.7 59.8
 Wood products, furniture, paper products and printing	286 214	487.8 422.8	365.3 285.9	122.4 137.0	3,717 3,489	76.4 72.0	67.2 145.2
 Petroleum, chemical, rubber and plastic products	51 36	41,335.6 35,712.3	28,540.0 24,154.9	12,795.6 11,557.4	8,899 9,555	1,059.1 730.8	9,597.8 19,236.0
 Non-metallic mineral products, basic metal and fabricated metal products	281 282	2,815.3 571.2	2,368.8 391.4	446.5 179.8	3,512 2,724	147.7 56.5	61.8 129.3
 Electrical, electronic and optical products	16 9	327.1 28.2	266.1 19.0	61.1 9.3	589 211	20.4 5.3	21.7 24.9
 Transport equipment, other manufacturing and repair	218 170	449.8 334.2	282.8 231.7	166.9 102.5	3,989 2,394	128.6 55.6	108.9 75.8

Note: 2022 Share 2022 (%)
2015

10.12 Sabah

Sabah recorded a declined of 1.0 per cent in its Manufacturing sector, totaling 1,667 establishments in 2022 compared to 1,789 establishments in 2015. The main contributors to Sabah's manufacturing establishments were the Food products sub-sector constituting 28.5 per cent and amounting to 475 establishments, followed by the Textiles, wearing apparel, leather and footwear products sub-sector at 20.3 per cent, contributing 339 establishments. The Non-metallic mineral products, basic metal and fabricated metal products sub-sector contributed 16.7 per cent with 278 establishments.

However, Sabah posted an increase of 2.3 per cent, amounting to RM48.9 billion in gross output. This growth was primarily driven by the Food products sub-sector, which accounted for 77.7 per cent of the total. The sub-sector recorded an annual growth of 1.4 per cent, reaching RM38.0 billion in 2022 compared to RM34.4 billion in 2015. The Electrical, electronic and optical products sub-sector was the lowest contributor to Sabah's gross output at 0.2 per cent, amounting to RM81.4 million.

Meanwhile, the number of persons engaged in the sector recorded a marginal decreased of 0.5 per cent, totaling 61,651 persons in 2022 compared to 63,766 persons in 2015. The primary contributor was the Food products sub-sector, accounting for 44.3 per cent, totaling 27,312 persons. This was followed by the Wood products, furniture, paper products and printing sub-sector at 26.9 per cent, amounting to 16,595 persons.

Exhibit 28: Principal Statistics of Sabah by Sub-Sector

	Number of Establishments	Gross Output (RM billion)	Intermediate Input (RM billion)	Value Added (RM billion)	Persons Engaged	Salaries & Wages (RM billion)	Fixed Assets (RM billion)
 Manufacturing	1,667 1,789	48.9 41.8	42.0 35.4	6.9 6.4	61,651 63,766	1.7 1.3	11.3 8.8
 Food products	475 462	28.5 34.4	33.7 29.7	4.3 4.7	27,312 28,359	0.7 0.6	4.1 5.1
 Beverages and tobacco products	19 23	1.1 0.1	0.14 0.09	0.06 0.03	839 635	0.02 0.01	0.10 0.06
 Textiles, wearing apparel, leather and footwear products	339 446	20.3 0.1	0.10 0.07	0.07 0.04	2,232 1,938	0.03 0.02	0.02 0.03
 Wood products, furniture, paper products and printing	250 268	15.0 3.1	2.44 2.42	0.7 0.6	16,595 18,426	0.4 0.4	0.5 1.9
 Petroleum, chemical, rubber and plastic products	82 72	4.9 1.1	3.3 0.9	1.1 0.2	5,077 3,280	0.19 0.07	5.4 0.4
 Non-metallic mineral products, basic metal and fabricated metal products	278 306	16.7 2.6	2.01 1.98	0.5 0.6	6,423 7,520	0.21 0.17	0.9 1.1
 Electrical, electronic and optical products	26 26	1.6 0.07	0.04 0.05	0.04 0.02	365 579	0.01 0.01	0.02 0.02
 Transport equipment, other manufacturing and repair	198 186	11.9 0.4	0.3 0.2	0.2 0.1	2,808 3,029	0.08 0.07	0.20 0.21

Note: 2022
2015 Share 2022 (%)

10.13 Sarawak

Sarawak's Manufacturing sector saw a slight increase of 0.1 per cent in the number of establishments, totaling 2,589 establishments in 2022. The primary contributors were the Food products sub-sector which accounted for 21.9 per cent and the Non-metallic mineral products, basic metal, and fabricated metal products sub-sector contributing 21.7 per cent. Another notable contributor was the Textiles, wearing apparel and leather products sub-sector at 17.3 per cent.

Sarawak posted a robust annual growth of 8.1 per cent, reaching RM176.6 billion in gross output (2015: RM102.6 billion). The growth was primarily driven by the Petroleum, chemical, rubber and plastic products sub-sector, contributing 61.2 per cent, totaling RM108.1 billion. This sub-sector also experienced strong annual growth of 8.6 per cent from RM60.5 billion in 2015. The Food products sub-sector contributed 16.2 per cent of the total, amounting to RM28.7 billion.

On the other hand, the number of persons engaged in the sector grew marginally by 0.3 per cent, totaling 101,167 persons, up from 99,280 persons in 2015. The Wood products, furniture, paper products and printing sub-sector contributed 26.2 per cent of the total, accounting for 26,476 persons. Following closely was the Food products sub-sector which contributed 20.7 per cent and 20,925 persons.

Exhibit 29: Principal Statistics of Sarawak by Sub-sector

								
		Number of Establishments	Gross Output (RM billion)	Intermediate Input (RM billion)	Value Added (RM billion)	Persons Engaged	Salaries & Wages (RM billion)	Fixed Assets (RM billion)
 Manufacturing		2,589 2,573	176.6 102.6	131.3 69.1	45.3 33.5	101,167 99,280	4.3 2.7	45.6 31.7
 Food products		566 545	28.7 17.6	26.1 15.7	2.5 2.0	20,925 15,890	0.7 0.4	3.2 2.7
 Beverages and tobacco products		51 36	0.7 1.1	0.5 0.8	0.17 0.23	1,406 867	0.04 0.02	0.2 0.1
 Textiles, wearing apparel, leather and footwear products		447 511	0.10 0.07	0.06 0.04	0.04 0.03	1,790 1,367	0.02 0.01	0.009 0.007
 Wood products, furniture, paper products and printing		434 486	8.0 9.1	6.4 7.0	1.6 2.1	26,476 41,492	0.8 0.9	2.1 3.0
 Petroleum, chemical, rubber and plastic products		117 92	108.1 60.5	73.7 34.7	34.3 25.8	7,395 7,020	0.9 0.5	19.9 16.0
 Non-metallic mineral products, basic metal and fabricated metal products		561 528	21.7 7.5	17.3 5.8	4.4 1.7	19,733 15,207	0.8 0.4	13.3 7.4
 Electrical, electronic and optical products		35 37	7.7 4.7	6.1 3.6	1.6 1.1	16,714 9,236	0.8 0.3	6.0 1.6
 Transport equipment, other manufacturing and repair		378 338	1.7 2.0	1.1 1.4	0.59 0.57	6,728 8,201	0.2 0.2	0.7 0.8

Note: 2022
2015

Share 2022 (%)

10.14 W.P. Kuala Lumpur

W.P. Kuala Lumpur experienced a decline in the Manufacturing sector. In 2022, the number of establishments recorded was 1,632 down from 5,231 in 2015 (CAGR: -15.3 per cent). This decline affected all sub-sectors, especially the Wood products, furniture, paper products and printing sub-sector which accounted for 32.4 per cent of the total and decreased by 11.9 per cent. Another notable sub-sector was Textiles, wearing apparel, leather and footwear products, contributing 17.6 per cent and experiencing a decline of 18.6 per cent.

Aligned with the decline in the number of establishments, the gross output for the sector also decreased by 9.4 per cent amounting to RM11.4 billion in 2022 compared to RM22.8 billion in 2015. Sub-sectors that recorded highest declines were the Beverages and tobacco products sub-sector at 25.2 per cent, dropping to RM38.9 million from RM296.4 million in 2015. The Electrical, electronic and optical product sub-sector decreased by 15.9 per cent amounting to RM510.0 million compared to RM1.7 billion in 2015.

The number of persons engaged in the sector also declined by 12.6 per cent totaling 37,617 persons compared to 96,686 persons in 2015. This decline was attributed to decreases in all sub-sectors. The Wood products, furniture, paper products, and printing sub-sector contributed 22.9 percent of the total, declined by 9.4 per cent. Meanwhile, the Petroleum, chemical, rubber and plastic products sub-sector accounted for 18.2 per cent decreased by 7.0 per cent.

Exhibit 30: Principal Statistics of W.P. Kuala Lumpur by Sub-sector

		 Number of Establishments	 Gross Output (RM billion)	 Intermediate Input (RM billion)	 Value Added (RM billion)	 Persons Engaged	 Salaries & Wages (RM billion)	 Fixed Assets (RM billion)
 Manufacturing		1,632 5,231	11.4 22.8	8.2 16.0	3.2 6.8	37,617 96,686	1.4 3.0	3.5 5.6
 Food products		205  12.6 527	2.7  24.0 5.2	2.2  26.6 4.1	0.6  17.4 1.1	5,322  14.1 16,726	0.2  12.6 0.6	0.3  9.9 0.9
 Beverages and tobacco products		12  0.7 42	0.04  0.3 0.30	0.03  0.3 0.15	0.01  0.3 0.15	161  0.4 883	0.004  0.3 0.021	0.02  0.5 0.06
 Textiles, wearing apparel, leather and footwear products		287  17.6 1,215	0.66  5.8 0.75	0.50  6.1 0.49	0.2  5.0 0.3	4,064  10.8 7,492	0.12  8.5 0.15	0.2  5.1 0.1
 Wood products, furniture, paper products and printing		529  32.4 1,286	1.5  13.4 3.8	1.0  12.6 2.5	0.5  15.3 1.2	8,627  22.9 17,195	0.3  21.3 0.5	0.4  12.7 1.1
 Petroleum, chemical, rubber and plastic products		140  8.6 472	2.6  23.0 2.7	2.0  23.9 1.8	0.7  20.6 0.9	6,865  18.2 11,444	0.3  20.9 0.4	1.5  42.6 1.1
 Non-metallic mineral products, basic metal and fabricated metal products		201  12.3 579	2.1  18.6 5.3	1.3  16.5 3.8	0.8  24.0 1.5	6,030  16.0 18,579	0.3  17.6 0.6	0.6  18.0 1.5
 Electrical, electronic and optical products		105  6.4 518	0.5  4.5 1.7	0.4  4.5 1.0	0.1  4.3 0.7	2,249  6.0 8,681	0.1  7.6 0.2	0.1  3.3 0.3
 Transport equipment, other manufacturing and repair		153  9.4 592	1.2  10.5 3.0	0.8  9.5 2.1	0.4  12.9 0.9	4,299  11.4 15,686	0.2  11.1 0.5	0.3  7.8 0.6

Note: 2022  Share 2022 (%)
2015

10.15 W.P. Labuan

W.P. Labuan's Manufacturing sector recorded an annual increase of 1.6 per cent, with 134 establishments, an increase from 120 establishments in 2015. The highest contributor was the Textiles, wearing apparel, leather and footwear products sub-sector, accounting for 32.1 per cent of the total with 43 establishments in 2022. Following closely was the Transport equipment, other manufacturing and repair sub-sector, contributing 28.4 per cent to the total. Together, these two sub-sectors accounted for 60.5 per cent, totaling 81 establishments.

The W.P. Labuan's gross output posted an annual growth of 5.3 per cent, reaching RM3,514.6 million compared to RM2,453.9 million in 2015. This growth was mainly Wood products, furniture, paper products and printing sub-sectors; supported by the Petroleum, chemical, rubber and plastic products, contributing 50.1 per cent of the total, amounting to RM1,761.6 million. The Non-metallic mineral products, basic metal and fabricated metal products; Electrical, electronic and optical products sub-sectors contributed 35.5 per cent totaling RM1,248.3 million. This sub-sector also demonstrated substantial growth of 17.9 per cent compared to RM395.0 million in 2015.

W.P. Labuan recorded a marginal annual growth of 0.1 per cent totaling 2,748 persons compared to 2,722 persons in 2015. The main contributor to W.P. Labuan's number of persons engaged was the Transport equipment, other manufacturing and repair sub-sector accounting for 39.1 per cent and totaling 1,074 persons. This was followed by the Non-metallic mineral products, basic metal and fabricated metal products; Electrical, electronic and optical products sub-sectors at 25.0 per cent and the Wood products, furniture, paper products and printing sub-sectors; Petroleum, chemical, rubber and plastic products at 18.7 per cent.

Exhibit 31: Principal Statistics of W.P. Labuan by Sub-sector

	Number of Establishments	Gross Output (RM million)	Intermediate Output (RM million)	Value Added (RM million)	Persons Engaged	Exports & Imports (RM million)	Prime Output (RM million)
 Manufacturing	134 120	3,514.6 2,453.9	2,072.4 1,416.9	1,442.2 1,036.9	2,748 2,722	200.0 132.3	1,081.4 2,419.2
 Food products	20 17	169.1 123.4	141.7 110.1	27.4 13.3	289 303	9.7 8.5	8.1 17.0
 Beverages and tobacco products							
 Textiles, wearing apparel, leather and footwear products	43 46	8.0 7.9	5.0 5.4	2.9 2.5	183 116	2.1 1.3	0.5 1.6
 Wood products, furniture, paper products and printing	13 10	1,761.6 1,677.9	915.6 856.1	846.0 821.8	515 574	103.4 62.2	983.7 2,253.4
 Petroleum, chemical, rubber and plastic products							
 Non-metallic mineral products, basic metal and fabricated metal products	20 20	1,248.3 395.0	824.1 283.7	424.2 111.3	687 702	40.9 26.4	36.5 74.9
 Electrical, electronic and optical products							
 Transport equipment, other manufacturing and repair	38 27	327.7 249.7	186.0 161.6	141.7 88.0	1,074 1,027	43.9 34.0	52.5 72.3

Note: 2022
2015

Share 2022 (%)

10.16 W.P. Putrajaya

The Manufacturing sector in W.P. Putrajaya has shown continuous growth, with the number of establishments engaged in the sector recording an annual increase of 9.9 per cent, totaling 31 establishments in 2022 compared to 16 establishments in 2015. The main contributors to the sector were the Food products sub-sector, the Textiles, wearing apparel, leather and footwear products; Petroleum, chemical, rubber and plastic products sub-sectors and the Wood products, furniture, paper products and printing sub-sector, each contributing 25.8 per cent to the total.

W.P. Putrajaya's gross output posted a significant annual growth of 27.5 per cent, reaching RM8.5 million in 2022, up from RM1.6 million in 2015. The primary driver to the sector was the Wood products, furniture, paper products and printing sub-sector, contributing 46.2 per cent, amounting to RM3.9 million. This was followed by the Food products sub-sector at 15.9 per cent, valued at RM1.3 million, and the Textiles, wearing apparel, leather and footwear products; Petroleum, chemical, rubber and plastic products sub-sectors at 14.6 per cent, amounting to RM1.2 million.

The number of persons engaged in the sector also posted a robust annual growth of 28.2 per cent, totaling 182 persons. The Wood products, furniture, paper products and printing sub-sector contributed significantly at 62.1 per cent, amounting to 113 persons. Other notable contributors were the Food products sub-sector at 14.3 per cent and the Textiles, wearing apparel, leather and footwear products; Petroleum, chemical, rubber and plastic products sub-sectors at 13.2 per cent.

Exhibit 32: Principal Statistics of W.P. Putrajaya by Sub-Sector

	Number of Establishments	Gross Output (RM million)	Intermediate Input (RM million)	Value Added (RM million)	Persons Engaged	Revenue & Wages (RM million)	Plant Assets (RM million)
Manufacturing	31 16	8.5 1.6	4.2 0.9	4.3 0.7	182 32	3.9 0.4	1.2 0.4
Food products	8 5	25.8	15.9	16.9	14.9	14.3	10.3
Textiles, wearing apparel, leather and footwear products	8 11	25.8	14.6	18.0	11.1	13.2	6.3
Petroleum, chemical, rubber and plastic products	8 -	25.8	46.2	40.0	52.5	62.1	69.7
Wood products, furniture, paper products and printing	8 -	25.8	46.2	40.0	52.5	62.1	69.7
Non-metallic mineral products, basic metal and fabricated metal products	3 -	9.7	12.7	13.2	12.1	3.8	4.8
Electrical, electronic and optical products	4 -	12.9	10.7	12.0	9.4	6.6	8.8
Transport equipment, other manufacturing and repair	4 -	12.9	10.7	12.0	9.4	6.6	8.8

Note: 2022
2015 Share 2022 (%)

THE SCENARIO OF ELECTRICAL AND ELECTRONICS (E&E) INDUSTRY IN MALAYSIA

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INTRODUCTION

The introduction of the first Industrial Master Plan (IMP1) in the 1986 marked a significant turning point for Malaysia's Manufacturing sector, leading to a rapid development that classified the country as a newly industrialised economy. The implementation of IMP1 played a pivotal role in catalysing employment growth in Malaysia by fostering industrial growth, skill development, support for Small, Medium Enterprises (SME), and leveraging the multiplier effect of economic expansion. The Manufacturing sector, continuing to expand swiftly under IMP3, is focusing on higher value-added products and activities, as well as high-technology and capital-intensive activities through 12 targeted industries, including electrical and electronics (E&E) outlined in the New Industrial Master Plan (NIMP) 2030.. The E&E industry was also identified as one of the high-growth, high-value industries.

Malaysia has been a significant player in the global supply chain, particularly in the production of semiconductor devices, integrated circuits, and electronic components. With a five-decade history, Malaysia's E&E industry started off with eight component production companies in the 1970s and continues to grow amid global demand for industrial and consumer electronics. Malaysia's E&E industry expanded to 4,915 establishments in 2022² and contributed 29.6 per cent to the total manufacturing's gross output, valued at RM560.7 billion. In the same year, E&E industry contributed 630,197 persons (26.9%) of the total number of persons engaged in the Manufacturing sector. Malaysia's E&E industry remains significant to Malaysia's economy with a contribution of 32.1 per cent to manufacturing's Gross Domestic Product (GDP) at constant 2015 prices and 7.5 per cent to Malaysia's GDP in 2023. In addition, Malaysia's E&E industry reached RM123,967 million of GDP at current prices. The E&E industry is diverse, encompassing various subsectors such as semiconductors, electronic components, telecommunications equipment and consumer electronics.

The main objective of this article is to highlight the landscape of the E&E industry including the semiconductor subsector, at both national and global levels; and to address the challenges faced by the industry.

LITERATURE REVIEW

The Malaysia' E&E industry produced 13 per cent of global back-end semiconductors, driving 40 per cent of the nation's export output and contributing about 5.8 per cent to the GDP in 2023. The semiconductor or electronic components industry is projected to remain a key driver of the E&E sector in Malaysia, intensifying through advancements in technology, which serves as its driving force (MIDA, 2024).

The semiconductor industry plays a critical role in driving innovation and powering economic growth (Melliard-Smith et al., 1998). Semiconductors, often referred to as the "brains" of modern electronics, enabling advances in various industries such as medical devices and health care, communications, computing, defense, transportation, clean energy, and technologies of the future such as artificial intelligence, quantum computing, and advanced wireless networks. Maintaining a vibrant U.S. semiconductor industry is critical to America's continued strength, as semiconductor technology has significantly enhanced the efficiency and effectiveness of virtually all sectors of the U.S. economy, from farming to manufacturing (Semiconductor Industry Association, 2023).

The semiconductor industry has been a key driver of job creation and economic prosperity. A study by Sabbagh K. et al. (2013) found that the industry's expansion has led to the creation of high-skilled jobs, contributing to higher wage levels and overall economic development in regions with a strong semiconductor presence.

²Economic Census 2023: Manufacturing, DOSM. E&E was classified under the Malaysia Standard of Industrial Classification (MSIC) as 26 (Manufacture of computer, electronic and optical products), 27 (Manufacture of electrical equipment) and 28 (Manufacture of machinery and equipment n.e.c.)

This indicates the industry's substantial impact on employment and income growth, further highlighting its contribution to the economy.

In addition to its direct economic contributions, the semiconductor industry also plays a critical role in enabling innovation and progress in other industries. The development of cutting-edge semiconductor technologies has spurred advancements in fields such as artificial intelligence, healthcare, and renewable energy. As a result, the industry's influence extends beyond its immediate economic impact, shaping the trajectory of technological innovation and societal development (Laitner et al., 2009).

Another aspect of the semiconductor industry's contribution to the economy lies in its role as a driver of technological sovereignty and national security. As critical technologies become increasingly intertwined with national security interests, the ability to domestically produce and innovate in semiconductor technologies becomes a vital strategic asset for nations. This has prompted policymakers and industry stakeholders to reassess semiconductor manufacturing capabilities and prioritize resilience and security in the global supply chain (Troutman & Barrington, 2005).

ASPIRATION AND POLICY ON STRENGTHENING E&E INDUSTRY

The trajectory of Malaysia's industrial development is well-delineated through its successive industrial master plans, each building upon the accomplishments and lessons of its predecessor and steering the economy towards progressive industrialization, diversification, and technological advancement. These plans serve as roadmaps for the country's industrial development, outlining key strategies and policies that are intended to drive economic growth, increase competitiveness, and promote sustainable practices within the industrial sector.

First Industrial Master Plan (IMP1) (1986-1995), the inaugural master plan sought to position Malaysia as a newly industrialized country by prioritizing industrial growth, intensifying manufacturing activities, and developing human resource capabilities. While the Second Industrial Master Plan (IMP2) (1996-2005) was a continuation of Malaysia's efforts to accelerate its industrialization process and transform its economy based upon the successes and lesson learned from IMP1. Key subsectors targeted under the Manufacturing sector for both IMP1 and IMP2 included Food and beverages, Wood products, Rubber products, Chemicals and chemical products, Basic metal and machinery manufacturing industries.

Third Industrial Master Plan (IMP3) (2006-2020) sought to address the challenges of rapid technological evolution and the pressing need for a skilled workforce, capable of driving forward industries such as biotechnology, ICT, aerospace, and advanced manufacturing. This necessitated an education system and vocational training programs that aligned with contemporary market requirements and fostered lifelong learning. Building upon E&E industries established strengths, IMP3 aimed to move up the value chain by focusing on high-tech products and components including semiconductors, consumer electronics, automotive electronics and industrial automation.

In the 2020, the Ministry of Science, Technology and Innovation (MOSTI) has embarked on several significant roadmaps to support the adoption of digital technology. These include the National Robotics Roadmap, the National Artificial Intelligence Roadmap, the National Blockchain Roadmap, the National Nanotechnology Policy and Strategy Roadmap, the National Advanced Materials Technology Roadmap, and the Electrical and Electronics (E&E) Roadmap. Prior to that, the development of the E&E industry was guided by the Twelfth Malaysian Plan, 2021-2025 (RMKe-12); the Malaysia Solar Industry Roadmap 2030; Industry4WRD: National Policy on Industry 4.0.

The E&E Roadmap: Technology Development 2021-2030 was launched on 9 August 2022 focusing on the inclusivity of local technology ecosystem development activities, including supply and value chains, research and development as well as commercialisation and innovation with the aim of increasing the value-added of the local industry by more than 40 per cent. The goal of the roadmap is to achieve the level of a developed country, based on scientific advances and high technology innovation by 2030.

The formulation of this roadmap is for the future development and growth of the country specially to develop strategies and action plans for 12th Malaysia Plan (12-MP) and E&E related endeavours through National E&E Council.

E&E Roadmap consists of two main components; strategic recommendations (5 key strategic recommendations) and strategic programmes (3 key programmes) as illustrated in **Figure 1**.

Figure 1: Electrical & Electronic (E&E) Roadmap: Technology Development Strategic Formulation



Source: Ministry of Science, Technology and Innovation

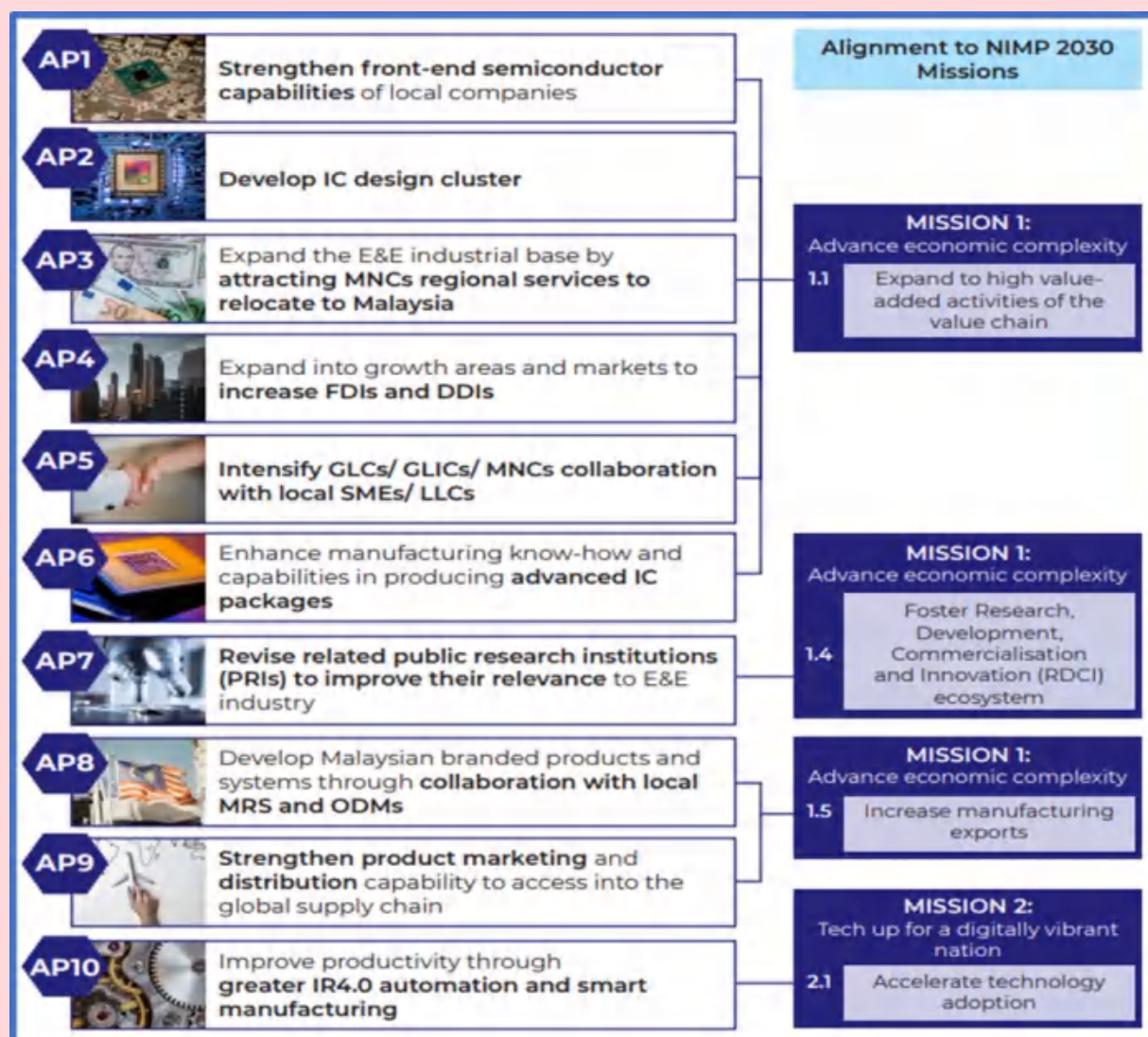
Source: Electrical & Electronic (E&E) Roadmap: Technology Development, 2021 - 2030, MOSTI

In strategic recommendations, there are five important cores which are investment and incentives, centralised one-stop centre, talent and skills, common platform, regulatory and innovation. To meet the five key strategic recommendations and to strengthen the E&E sector, three strategic programmes were developed and backed by a number of additional activities. Three essential elements in strategic programmes are: strengthening governance, ecosystem development and technology and innovation capacity development.

The **Malaysia's New Industrial Master Plan 2030 ("NIMP 2030")** was initiated by the Ministry of Investment, Trade and Industry and was launched on 1 September 2023. The NIMP is an industrial policy for the manufacturing and manufacturing-related services sector aimed at providing the national strategic direction to lead the industrial development policies in Malaysia. There were 21 sectors, including the E&E industry, that will act as catalysts in achieving the six (6) goals outlined by NIMP. The NIMP classified the E&E industry as a priority sector and focuses on enhancing its manufacturing capabilities and capacities through Industry 4.0 automation; and to increase integration efforts to expand into the global economy.

NIMP 2023 for E&E sectoral plan consists of four main strategies and ten action plans as depicted in **Figure 2**.

Figure 2: Strategies and Action Plans for E&E Industry



Source: NIMP 2030, Electrical & Electronics Industry, MITI

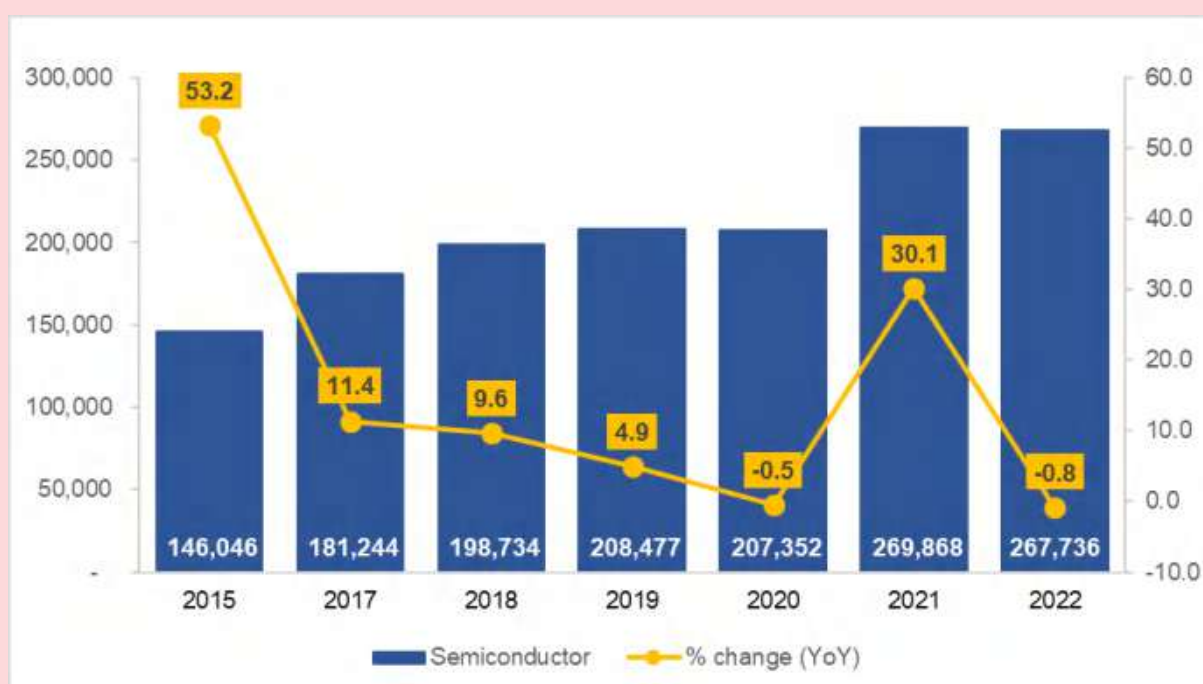
E&E INDUSTRY IN MALAYSIA'S SCENARIO

Performance of E&E Industry Production

The E&E industry remained sustainable with an average annual growth of value of output growth of 8.3 per cent between 2015 and 2022, contributing 29.6 per cent or RM560.7 billion to the total manufacturing output in 2022. The output value of the E&E industry increased significantly by 18.6 per cent in 2022, compared to RM472.9 billion recorded in 2021, propelled by the manufacture of semiconductors, which contributed 47.4 per cent of the total E&E industry output. A similar trend was also observed in the output value of semiconductor products which increased by 9.0 per cent annually, amounting to RM267.7 billion in 2022, compared to RM146.0 billion in 2015.

Chart 1: Output Value of E&E Industry and Annual Percentage Change, 2015 - 2022

Source: Department of Statistics Malaysia

Chart 2: Output Value of Semiconductor Products Segment and Annual Percentage Change, 2015 - 2022

Source: Department of Statistics Malaysia

Additionally, the Industrial Production Index (IPI) shows an increasing trend from 2015 till 2023 with an average annual growth rate of 6.5 per cent. Despite the challenges posed by the COVID-19 outbreak and the Movement Control Order (MCO) imposed by the government throughout 2020, the E&E industry remained resilient, achieving a 2.2 per cent increase in 2020 and a significant double-digit growth of 14.7 per cent in 2021 (**Chart 3**). This growth was supported by strong export demand and the global trade recovery where 66 per cent of manufactured E&E products were exported globally. In 2022, the E&E industry recorded its highest IPI index of 168.8, with an annual growth rate of 14.3 per cent.

Chart 3: E&E Industry Index and Annual Percentage Change, 2016 - 2023

Source: Department of Statistics Malaysia

The manufacturing of semiconductor products³ remains as the main catalyst for the E&E industry, with an average annual growth of 7.9 per cent between 2015 and 2023. Despite significant challenges posed by the COVID-19 pandemic to the semiconductor industry, it has also highlighted the industry's pivotal role in powering the digital economy and accelerated trends driving long-term growth and innovation. In 2020, manufacturing of semiconductor products sustained its positive growth at 3.7 per cent as compared to a 2.2 per cent increase in 2019. The industry continued to expand to a double-digit growth in year 2021 (16.6%) and with the highest IPI index of 198.8 on 2022 which grew 19.0 per cent.

Chart 4: Semiconductor Products Index and Annual Percentage Change, 2016 - 2023

Source: Department of Statistics Malaysia

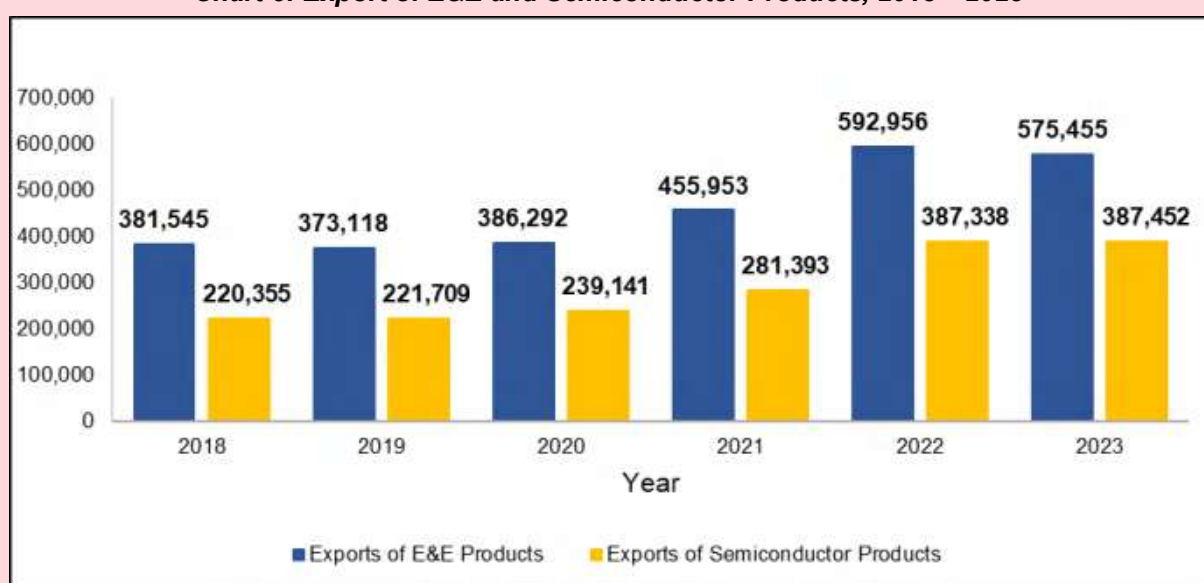
³Semiconductor products was classified as 261 (Manufacture of electronic components and boards) in the Malaysia Standard of Industrial Classification (MSIC 2008)

E&E Industry's Exports Performance

Malaysia's E&E industry has developed its competencies in the production of E&E and semiconductor products where in 2022 Malaysia's ranked as the 12th largest exporter of E&E products and the 6th largest exporter of semiconductor globally in 2022 (MATRADE, 2023). However, in 2023, global trade grew at slower pace, weighed down by several factors including a downturn in the semiconductor sector, which affected trade performance in Malaysia.

Malaysia's E&E products contributed 40.4 per cent of the total export, while the semiconductor segment comprising products such as electronic integrated circuits; piezo-electric crystals & parts; telecommunications equipment, parts and accessories; and other semiconductor devices accounted for 67.3 per cent of total E&E products in 2023. E&E products reached total exports of RM575.5 billion, registering a decline of 3.0 per cent as compared to the remarkable growth of 30.0 per cent recorded in 2022 (Chart 5). The last decline was observed in 2019, with a year-on-year decrease of 2.2 per cent.

Chart 5: Export of E&E and Semiconductor Products, 2018 – 2023



Source: Department of Statistics Malaysia

The exports of semiconductor products posted a slight growth of 0.03 per cent in 2023, reaching RM387.5 billion. This growth was predominantly weighed down by electronic integrated circuits (-1.1%) and piezo-electric crystals & parts (-2.5%). Conversely, other semiconductor products registered a growth of 13.1 per cent. The main export destinations for semiconductor products were by Singapore, amounting to RM85.8 billion (22.1%), followed by China (16.3%) and Hong Kong (15.5%), as depicted in Table 1.

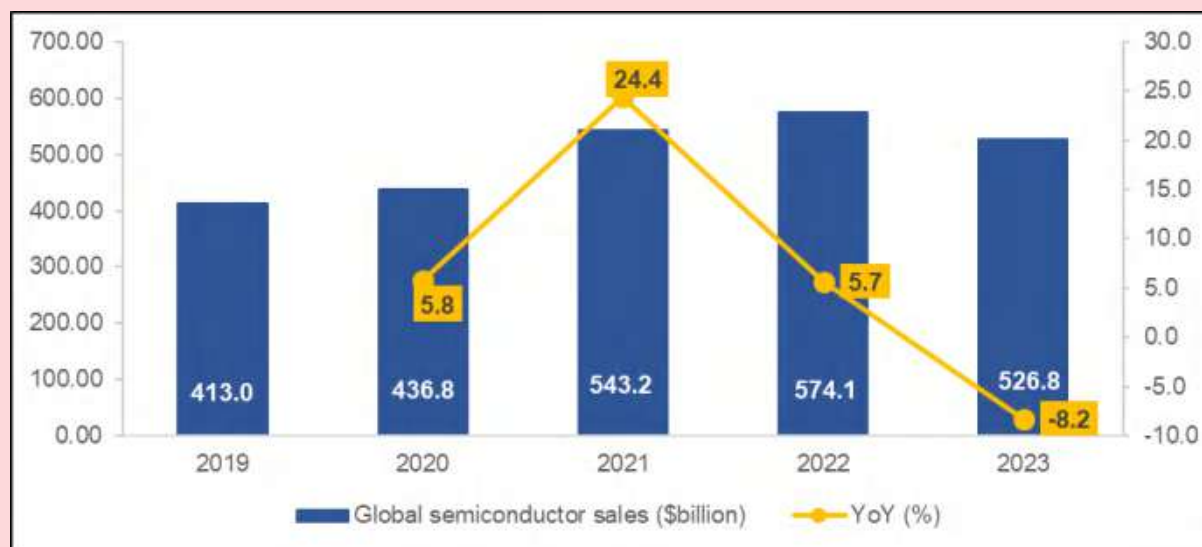
Table 1: Exports of Semiconductor Products by Country, 2019 – 2023 (RM million)

Country	2019	2020	2021	2022	2023
Singapore	42,501	50,745	65,853	93,451	85,798
China	37,632	42,349	46,767	66,217	62,996
Hong Kong	45,365	47,867	53,838	63,839	60,160
United States	20,807	18,876	19,673	36,620	46,808
Taiwan	16,950	16,792	20,074	26,857	24,144
Vietnam	5,108	7,571	15,632	19,721	21,437
Others	53,346	54,941	59,556	80,634	86,110
Total	221,709	239,141	281,393	387,338	387,452

Source: Department of Statistics Malaysia

Based on the 2022/2023 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. Based on the results of the survey, the outlook for Malaysia within the Manufacturing sector remains positive, with at least 55 per cent of companies anticipating growth over the coming year and 60 per cent intending further investments in the next 5 years. Although both aspects saw a slight decrease from the previous years, the result remains hopeful.

Chart 6: Global Semiconductor Sales and Annual Percentage Change, 2019 - 2023

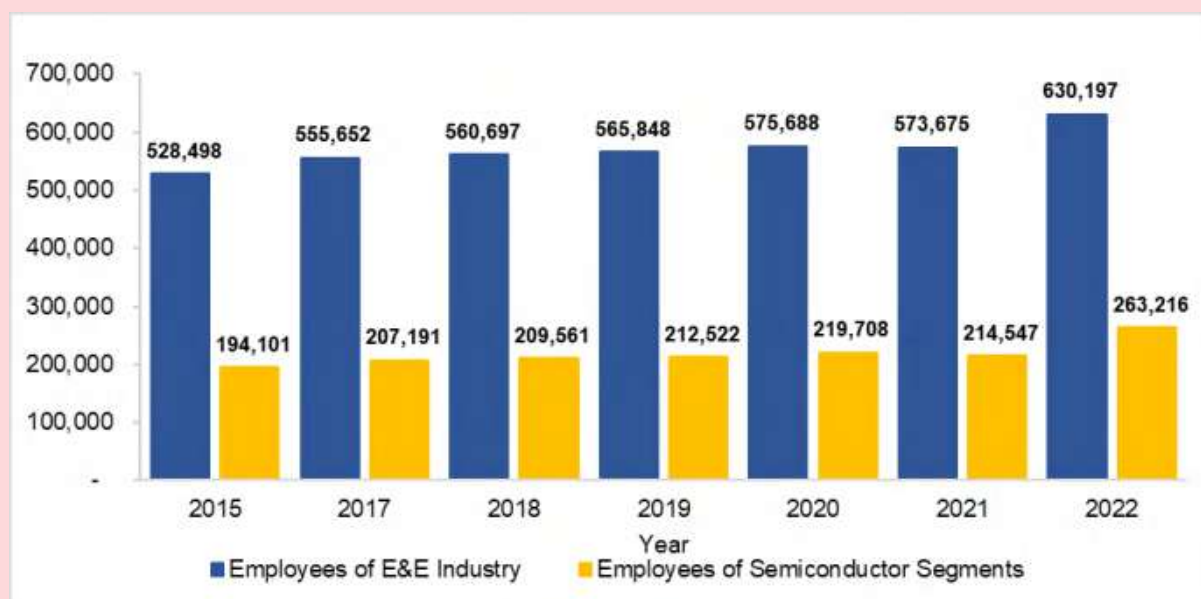


Source: Semiconductor Industry Association (SIA)

Employment

The E&E industry is the largest contributor to employment in the Manufacturing sector with diversification into lower-value, higher-value, and high-skilled activities. Advancements in technology and innovation have transformed the industry, requiring skilled workers to meet the demands of this dynamic sector.

Employees of this industry in 2022 accounted for 26.9 per cent or 630,197 persons of total Manufacturing sector employment, with an annual growth rate of 2.5 per cent between 2015 and 2022. Similarly, the semiconductor products segment contributed 41.8 per cent, accounted for 263,216 persons to total E&E Industry employment in the same year, which recorded an annual growth rate of 4.4 per cent between the same period.

Chart 7: Number of employees of E&E Industry and Semiconductor Products Segment, 2015 - 2022

Source: Department of Statistics Malaysia

KEY CHALLENGES AND OPPORTUNITIES

The E&E industry plays a critical role in the country's industrial development. However, this industry faces challenges in maintaining its growth and competitiveness globally. The NIMP 2030 outlined a few key challenges that are delaying the industry from further prospering which are:

- Insufficient of a specialised industry, especially when it comes to sharing resources and common instruments for research and development;
- Insufficient talent and skill development initiatives to produce more talents that align with industry demands;
- Insufficient of a single platform to facilitate the growth of the entrepreneurial community and ecosystem by giving easy access to information about government grants and incentives, possible partners, suppliers, and venues for exchanging knowledge, technology, and intellectual property;
- inefficient government regulations and policies for local technology and components, particularly for market entry and acceptance in selected sectors within government control; and
- Disparity in the incentives ratio despite the sector's significant contribution to the Malaysian economy.

Malaysia's E&E industry operates in a highly competitive global market especially from other Asia-Pacific nations known for their manufacturing prowess, requires Malaysia to stay committed to innovation and the enhancement of product quality, affordability, and operational proficiency. The scarcity of specialised skills within the workforce, particularly in cutting-edge fields such as semiconductor manufacturing and automation, underscores the necessity for a strategic focus on cultivating talent and enhancing the existing labour capabilities.

Malaysian E&E manufacturers also face pressure on cost competitiveness, particularly within labour-intensive segments. Innovation in automation and efficiency-boosting technologies emerges as a vital countermeasure to these rising expenses. Additionally, infrastructure and connectivity enhancements are identified as pivotal for the seamless distribution of products, cost management, and overall industry competitiveness.

Diversifying product and markets can help mitigate risks associated with dependence on a few products or markets. Malaysia can explore new product segments and expand into new geographical markets to enhance its competitiveness. Moreover, the Malaysian government provides various incentives and support schemes to promote the growth of the E&E industry, including tax incentives, grants for research and development, and infrastructure development. Additionally, there is a growing demand for environmentally sustainable products and manufacturing processes, and Malaysia can capitalize on this trend by adopting green technologies and implementing sustainable practices in the E&E industry.

CONCLUSION

The global semiconductor sales outlook for 2024 anticipates double-digit growth, with chips playing a larger and more important role in countless products on which the world depends. The long-term outlook for the semiconductor market is extremely strong, driven by advancing government policies that invest in R&D, strengthen the semiconductor workforce, and reduce barriers to trade.

Ensuring the future competitiveness of the E&E industry on a global stage, Malaysia should strengthen the skills of its workers through education, training initiatives, and career development pathways that align with industry demands. Collaboration between industry stakeholders, government support through policies and incentives, investment in research and development, and continuous efforts to upgrade the infrastructure are also essential for propelling the E&E industry forward.

ACKNOWLEDGEMENT

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DISCLAIMER

The views expressed are those of the author and do not necessarily represent the views of DOSM.

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JADUAL STATISTIK

STATISTICAL TABLES



BAHAGIAN 3
PART

Jadual 1: Statistik utama sektor Pembuatan, 2010, 2015 dan 2022
Table 1: Principal statistics of Manufacturing sector, 2010, 2015 and 2022

Tahun	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>Year</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM Juta) <i>(RM Million)</i>	(RM Juta) <i>(RM Million)</i>	(RM Juta) <i>(RM Million)</i>		(RM Juta) <i>(RM Million)</i>	(RM Juta) <i>(RM Million)</i>
2022	54,505	1,893,704	1,478,802	414,901	2,346,253	97,219	377,891
2015	49,101	1,141,963	884,845	257,118	2,119,158	65,495	296,801
2010	39,669	836,494	665,821	170,673	1,812,360	43,745	210,406

Jadual 2: Statistik utama sektor Pembuatan mengikut subsektor, 2022
Table 2: Principal statistics of Manufacturing sector by sub-sector, 2022

Subsektor	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>Sub-sector</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah <i>Total</i>	54,505	1,893,703,546	1,478,802,370	414,901,176	2,346,253	97,219,447	377,890,819
Produk makanan <i>Food products</i>	9,169	303,587,156	257,408,012	46,179,144	292,086	10,397,637	46,219,363
Minuman dan produk tembakau <i>Beverages and tobacco products</i>	440	15,922,329	11,442,901	4,479,428	17,408	769,164	3,601,725
Produk tekstil, pakaian, kulit dan kasut <i>Textiles, wearing apparel, leather and footwear products</i>	6,324	24,071,910	17,053,398	7,018,512	91,144	2,202,460	5,430,308
Produk kayu, perabot, keluaran kertas dan percetakan <i>Wood products, furniture, paper products and printing</i>	9,705	88,647,645	65,107,564	23,540,081	306,294	9,137,178	22,519,524
Produk petroleum, kimia, getah dan plastik <i>Petroleum, chemical, rubber and plastic products</i>	6,158	579,571,719	441,974,193	137,597,526	437,587	19,780,319	138,088,390
Produk mineral bukan logam, logam asas dan produk logam yang direka <i>Non-metallic mineral products, basic metal and fabricated metal products</i>	10,360	198,936,286	154,360,575	44,575,712	342,681	13,325,689	55,976,908
Produk elektrik, elektronik dan optikal <i>Electrical, electronic and optical products</i>	4,915	560,722,686	440,511,356	120,211,330	629,867	32,884,581	80,480,455
Peralatan pengangkutan, pembuatan lain dan pembaikan <i>Transport equipment, other manufacturing and repair</i>	7,434	122,243,814	90,944,372	31,299,442	229,186	8,722,419	25,574,147

Jadual 2.1: Statistik utama subsektor Produk makanan mengikut industri, 2022
Table 2.1: Principal statistics of Food products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>		9,169	303,587,156	257,408,012	46,179,144	292,086	10,397,637	46,219,363
Pemprosesan dan pengawetan daging <i>Processing and preserving of meat</i>	101	385	9,494,009	8,163,428	1,330,580	19,083	649,865	2,041,706
Pemprosesan dan pengawetan daging dan pengeluaran produk daging <i>Processing and preserving of meat and production of meat products</i>	10101	154	904,352	676,600	227,752	3,267	92,196	130,541
Pemprosesan dan pengawetan ayam itik dan produk ayam itik <i>Processing and preserving of poultry and poultry products</i>	10102	183	8,334,402	7,286,126	1,048,276	14,980	532,208	1,876,966
Pengeluaran belulang dan kulit daripada rumah penyembelihan <i>Production of hides and skins originating from slaughterhouses</i>	10103	3	3,215	2,269	946	13	434	659
Operasi rumah penyembelihan yang terlibat dalam pembunuhan, pembersihan atau pembungkusan daging <i>Operation of slaughterhouses engaged in killing, dressing or packing meat</i>	10104	35	235,062	186,481	48,581	720	21,988	28,870
Pemprosesan dan pengawetan daging t.t.t.l. <i>Processing and preserving of meat n.e.c.</i>	10109	10	16,978	11,953	5,025	103	3,038	4,669
Pemprosesan dan pengawetan ikan, krustasea dan moluska <i>Processing and preserving of fish, crustaceans and molluscs</i>	102	684	5,069,344	4,093,843	975,501	17,750	410,580	1,003,626
Pengetinan ikan, krustasea dan moluska <i>Canning of fish, crustaceans and molluscs</i>	10201	49	1,397,367	1,040,817	356,549	4,082	93,431	378,383

Jadual 2.1: Statistik utama subsektor Produk makanan mengikut industri, 2022
Table 2.1: Principal statistics of Food products sub-sector by industry, 2022

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<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pemprosesan dan pengawetan ikan, krustasea dan moluska <i>Processing, curing and preserving of fish, crustacean and molluscs</i>	10202	224	2,927,962	2,493,311	434,651	9,486	233,286	498,169
Pengeluaran makanan berasaskan ikan untuk manusia atau haiwan <i>Production of fish meals for human consumption or animal feed</i>	10203	109	515,221	403,536	111,685	1,660	45,070	94,800
Pengeluaran keropok termasuk keropok lekor <i>Production of keropok including keropok lekor</i>	10204	296	220,342	149,397	70,944	2,444	37,355	30,833
Pemprosesan rumpai laut <i>Processing of seaweed</i>	10205	6	8,452	6,781	1,670	78	1,438	1,441
Pemprosesan dan pengawetan buah-buahan dan sayur-sayuran <i>Processing and preserving of fruits and vegetables</i>	103	569	2,178,256	1,632,677	545,579	9,518	259,647	490,635
Pembuatan produk makanan buah-buahan dan sayur-sayuran <i>Manufacture of fruit and vegetable food products</i>	10301	241	837,728	652,878	184,850	3,550	94,892	214,135
Pembuatan jus buah-buahan dan sayur-sayuran <i>Manufacture of fruit and vegetable juices</i>	10302	112	240,404	171,880	68,524	1,406	35,965	37,624
Pengetinan nanas <i>Pineapple canning</i>	10303	5	45,299	34,134	11,164	355	7,244	5,984
Pembuatan jem, marmalad dan sajian jeli <i>Manufacture of jams, marmalades and table jellies</i>	10304	25	380,748	267,943	112,805	1,216	33,881	84,104
Pembuatan kacang dan produk kekacang <i>Manufacture of nuts and nut products</i>	10305	56	389,333	299,130	90,203	1,297	43,032	72,272

Jadual 2.1: Statistik utama subsektor Produk makanan mengikut industri, 2022

Table 2.1: Principal statistics of Food products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan produk tauhu <i>Manufacture of bean curd products</i>	10306	130	284,744	206,712	78,032	1,694	44,633	76,515
Pembuatan minyak dan lemak sayuran dan haiwan <i>Manufacture of vegetable and animal oils and fats</i>	104	681	193,310,292	167,227,401	26,082,890	76,470	2,981,075	22,761,035
Pembuatan minyak sawit mentah <i>Manufacture of crude palm oil</i>	10401	416	81,873,135	70,312,816	11,560,319	53,370	1,972,551	15,165,508
Pembuatan minyak sawit bertapis <i>Manufacture of refined palm oil</i>	10402	82	85,152,914	74,621,204	10,531,710	12,413	550,205	5,287,818
Pembuatan minyak isirong <i>Manufacture of palm kernel oil</i>	10403	51	12,226,320	10,105,613	2,120,707	3,413	144,532	591,603
Pembuatan minyak sayuran mentah dan bertapis <i>Manufacture of crude and refined vegetable oil</i>	10404	31	2,732,847	2,203,347	529,500	1,930	93,954	734,742
Pembuatan minyak kelapa <i>Manufacture of coconut oil</i>	10405	69	299,423	183,471	115,952	1,639	39,230	116,709
Pembuatan sebatian lemak masakan <i>Manufacture of compound cooking fats</i>	10406	29	10,983,396	9,778,088	1,205,308	3,670	179,606	862,659
Pembuatan minyak dan lemak haiwan <i>Manufacture of animal oils and fats</i>	10407	3	42,256	22,862	19,393	35	997	1,995
Pembuatan produk tenusu <i>Manufacture of dairy products</i>	105	215	9,969,231	8,614,262	1,354,969	11,283	565,838	3,808,430

Jadual 2.1: Statistik utama subsektor Produk makanan mengikut industri, 2022
Table 2.1: Principal statistics of Food products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan aiskrim dan ais lain yang boleh dimakan seperti sorbet <i>Manufacture of ice cream and other edible ice such as sorbet</i>	10501	116	560,904	417,661	143,243	2,321	73,513	115,120
Pembuatan susu pekat, tepung dan sejat <i>Manufacture of condensed, powdered and evaporated milk</i>	10502	37	8,895,136	7,773,489	1,121,646	7,746	450,474	3,600,222
Pembuatan produk tenusu lain t.t.t.l. <i>Manufacture of other dairy products n.e.c.</i>	10509	62	513,191	423,112	90,079	1,216	41,850	93,088
Pembuatan produk bijian, kanji dan produk berkanji <i>Manufacture of grain mill products, starches and starch products</i>	106	267	13,486,941	11,987,179	1,499,762	10,861	468,315	2,178,574
Pengilangan beras <i>Rice milling</i>	10611	171	9,221,585	8,559,192	662,393	5,050	217,775	1,385,924
Pengilangan tepung <i>Flour milling</i>	10613	46	3,668,071	2,956,148	711,923	3,515	186,635	641,559
Pembuatan produk bijian t.t.t.l. <i>Manufacture of grain mill products n.e.c.</i>	10619	26	274,142	229,771	44,371	1,568	40,580	63,440
Pembuatan kanji dan produk berkanji <i>Manufacture of starches and starch products</i>	10621	5	78,660	52,876	25,784	220	8,511	16,571
Pembuatan glukosa, sirap glukosa, maltosa, inulin <i>Manufacture of glucose, glucose syrup, maltose, inulin</i>	10622	9	206,926	161,329	45,597	302	10,067	62,729
Pembuatan tepung/produk sago dan ubi kayu <i>Manufacture of sago and tapioca flour/products</i>	10623	10	37,556	27,863	9,693	206	4,746	8,350

Jadual 2.1: Statistik utama subsektor Produk makanan mengikut industri, 2022
Table 2.1: Principal statistics of Food products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan produk makanan lain <i>Manufacture of other food products</i>	107	6,176	56,457,110	43,825,093	12,632,016	137,602	4,676,031	12,389,207
Pembuatan biskut dan cookies <i>Manufacture of biscuits and cookies</i>	10711	373	2,584,983	1,935,714	649,269	10,785	332,034	751,837
Pembuatan roti, kek dan produk bakeri lain <i>Manufacture of bread, cakes and other bakery</i>	10712	2,357	7,199,501	5,098,780	2,100,721	35,370	1,014,161	1,626,838
Pembuatan produk snek <i>Manufacture of snack products</i>	10713	334	2,074,301	1,503,094	571,207	7,917	267,354	677,359
Pembuatan produk bakeri yang dibeku <i>Manufacture of frozen bakery products</i>	10714	191	512,580	336,328	176,252	2,341	59,509	217,270
Pembuatan gula <i>Manufacture of sugar</i>	10721	9	5,224,420	4,122,151	1,102,270	2,025	124,888	645,410
Pembuatan produk daripada gula <i>Manufacture of sugar products</i>	10722	19	476,238	264,075	212,163	675	41,888	186,725
Pembuatan produk koko <i>Manufacture of cocoa products</i>	10731	31	6,694,055	6,055,382	638,673	2,887	144,481	1,169,424
Pembuatan coklat dan produk coklat <i>Manufacture of chocolate and chocolate products</i>	10732	89	3,697,788	3,030,293	667,495	5,017	197,846	1,501,839
Pembuatan konfeksi gula <i>Manufacture of sugar confectionery</i>	10733	38	696,474	508,559	187,915	2,751	74,843	322,049

Jadual 2.1: Statistik utama subsektor Produk makanan mengikut industri, 2022
Table 2.1: Principal statistics of Food products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan bihun, mi dan produk lain yang berkaitan;	10741 }	336	4,526,636	3,524,627	1,002,009	8,793	336,502	842,689
Pembuatan pasta	10742 }							
<i>Manufacture of meehoon, noodles and other related products;</i>								
<i>Manufacture of pastas</i>								
Pembuatan makanan dan hidangan tersedia	10750	461	4,606,727	3,770,318	836,409	12,632	385,419	710,774
<i>Manufacture of prepared meals and dishes</i>								
Pembuatan kopi	10791	263	4,017,703	2,961,242	1,056,461	9,162	305,680	839,015
<i>Manufacture of coffee</i>								
Pembuatan teh	10792	29	400,823	279,096	121,728	1,503	48,997	102,260
<i>Manufacture of tea</i>								
Pembuatan sos dan bahan perasa	10793	327	3,251,987	2,707,763	544,224	9,181	329,042	787,216
<i>Manufacture of sauces and condiments</i>								
Pembuatan rempah ratus dan serbuk kari	10794	221	1,596,039	1,221,918	374,121	5,691	201,910	474,293
<i>Manufacture of spices and curry powder</i>								
Pembuatan produk berasaskan telur	10795	21	157,696	103,014	54,681	470	13,859	26,916
<i>Manufacture of egg products</i>								
Pembuatan produk makanan lain t.t.t.l.	10799	1,077	8,739,156	6,402,739	2,336,418	20,402	797,619	1,507,292
<i>Manufacture of other food products n.e.c.</i>								
Pembuatan makanan haiwan tersedia	108	192	13,621,975	11,864,128	1,757,847	9,519	386,286	1,546,150
<i>Manufacture of prepared animal feeds</i>								
Pembuatan makanan haiwan tersedia	10800	192	13,621,975	11,864,128	1,757,847	9,519	386,286	1,546,150
<i>Manufacture of prepared animal feeds</i>								

Jadual 2.2: Statistik utama subsektor Minuman dan produk tembakau mengikut industri, 2022

Table 2.2: Principal statistics of Beverages and tobacco products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>		440	15,922,329	11,442,901	4,479,428	17,408	769,164	3,601,725
Pembuatan minuman <i>Manufacture of beverages</i>	110	418	15,507,938	11,277,693	4,230,245	16,567	686,622	3,339,633
Penyulingan, pembersihan dan pencampuran spirit <i>Distilling, rectifying and blending of spirits</i>	11010	23	135,750	77,302	58,447	296	10,914	130,714
Pembuatan wain <i>Manufacture of wines</i>	11020	38	166,548	115,360	51,187	619	18,055	49,119
Pembuatan minuman keras malt dan malt <i>Manufacture of malt liquors and malt</i>	11030	21	4,545,153	3,359,239	1,185,914	1,056	107,072	1,172,721
Pembuatan minuman ringan <i>Manufacture of soft drinks</i>	11041	188	9,199,123	6,727,458	2,471,664	9,201	397,864	1,484,640
Pengeluaran air mineral semulajadi dan minuman lain yang dibotolkan <i>Production of natural mineral water and other bottled water</i>	11042	148	1,461,366	998,334	463,032	5,395	152,717	502,439
Pembuatan produk tembakau <i>Manufacture of tobacco products</i>	120	22	414,391	165,208	249,183	841	82,542	262,092
Pembuatan produk tembakau <i>Manufacture of tobacco products</i>	12000	22	414,391	165,208	249,183	841	82,542	262,092

Jadual 2.3: Statistik utama subsektor Produk tekstil, pakaian, kulit dan kasut mengikut industri, 2022
Table 2.3: Principal statistics of Textiles, wearing apparel, leather and footwear products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri Group and industry code	Bilangan pertubuhan Number of establishments	Nilai output kasar Value of gross output (RM '000)	Nilai input perantaraan Value of intermediate input (RM '000)	Nilai ditambah Value added (RM '000)	Bilangan Pekerja Number of persons engaged	Gaji & upah Salaries & wages (RM '000)	Nilai harta tetap Value of fixed assets (RM '000)
<i>Group and industry description</i>								
Jumlah <i>Total</i>		6,324	24,071,910	17,053,398	7,018,512	91,144	2,202,460	5,430,308
Pemintalan, penenunan dan penyiapan tekstil <i>Spinning, weaving and finishing of textiles</i>	131	277	6,395,024	4,776,653	1,618,371	12,287	440,314	1,930,394
Penyediaan dan pemintalan gentian tekstil <i>Preparation and spinning of textile fibres</i>	13110	47	1,553,152	1,211,068	342,084	4,936	144,495	1,050,057
Penenunan tekstil <i>Weaving of textiles</i>	13120	54	3,396,323	2,487,021	909,302	2,441	120,994	358,636
Membuat batik <i>Batik making</i>	13131	87	70,392	47,085	23,307	886	13,577	5,416
Pewarnaan, pelunturan, percetakan dan penyiapan akhir benang dan fabrik <i>Dyeing, bleaching, printing and finishing of yarns and fabrics</i>	13132	89	1,375,157	1,031,479	343,678	4,024	161,248	516,285
Pembuatan tekstil lain <i>Manufacture of other textiles</i>	139	608	5,309,939	3,742,951	1,566,988	18,336	452,830	1,778,680
Pembuatan fabrik dikait dan dikrusye <i>Manufacture of knitted and crocheted fabrics</i>	13910	49	2,287,691	1,592,868	694,823	6,171	122,543	1,356,315
Pembuatan artikel tersedia bagi bahan tekstil seumpamanya, termasuk fabrik dikait atau dikrusye <i>Manufacture of made-up articles of any textile materials, including of knitted or crocheted fabrics</i>	13921	59	266,713	170,010	96,703	1,303	34,597	37,990
Pembuatan artikel perhiasan tersedia <i>Manufacture of made-up furnishing articles</i>	13922	302	1,271,973	892,823	379,150	4,738	124,831	124,727
Pembuatan permaidani dan hamparan <i>Manufacture of carpets and rugs</i>	13930	28	279,970	201,708	78,263	1,964	48,074	36,447

Jadual 2.3: Statistik utama subsektor Produk tekstil, pakaian, kulit dan kasut mengikut industri, 2022
Table 2.3: Principal statistics of Textiles, wearing apparel, leather and footwear products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan bagi tali-temali, tali, tali pintal dan jaring <i>Manufacture of cordage, rope, twine and netting</i>	13940	24	480,466	378,479	101,987	1,292	36,531	25,960
Pembuatan tekstil lain t.t.t.l. <i>Manufacture of other textiles n.e.c.</i>	13990	146	723,125	507,063	216,062	2,868	86,255	197,240
Pembuatan pakaian, kecuali pakaian berbulu <i>Manufacture of wearing apparel, except fur apparel</i>	141	5,103	10,250,031	7,092,366	3,157,664	46,414	956,390	1,329,410
Pembuatan pakaian spesifik <i>Manufacture of specific wearing apparel</i>	14101	218	412,645	260,455	152,190	2,965	68,391	85,146
Pembuatan pakaian <i>Manufacture of clothings</i>	14102	814	8,636,411	6,036,832	2,599,579	26,230	651,580	1,032,005
Jahitan pakaian tempahan <i>Custom tailoring</i>	14103	3,956	848,137	540,887	307,250	15,423	187,370	142,093
Pembuatan aksesori pakaian lain <i>Manufacture of other clothing accessories</i>	14109	115	352,837	254,192	98,645	1,796	49,049	70,165
Pembuatan artikel bulu <i>Manufacture of articles of fur</i>	142	4	28,035	21,350	6,685	183	3,550	8,695
Pembuatan artikel daripada kulit bulu <i>Manufacture of articles made of fur skins</i>	14200	4	28,035	21,350	6,685	183	3,550	8,695
Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>	143	24	209,480	166,066	43,414	1,061	28,564	45,999
Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>	14300	24	209,480	166,066	43,414	1,061	28,564	45,999

Jadual 2.3: Statistik utama subsektor Produk tekstil, pakaian, kulit dan kasut mengikut industri, 2022
Table 2.3: Principal statistics of Textiles, wearing apparel, leather and footwear products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Penyamakan dan pembersihan kulit; pembuatan begasi, beg tangan, pelana dan abah-abah; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur</i>	151	124	1,068,455	683,762	384,692	6,840	160,590	192,928
Penyamakan dan pembersihan kulit; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; dressing and dyeing of fur</i>	15110	5	141,296	96,926	44,370	661	17,680	6,917
Pembuatan bagasi, beg tangan dan seumpamanya, pelana dan abah-abah <i>Manufacture of luggage, handbags and the like, saddlery and harness</i>	15120	119	927,159	586,836	340,323	6,179	142,910	186,011
Pembuatan kasut <i>Manufacture of footwear</i>	152	184	810,948	570,250	240,698	6,023	160,221	144,201
Pembuatan kasut kulit <i>Manufacture of leather footwear</i>	15201	74	331,213	238,260	92,953	1,729	52,661	56,165
Pembuatan kasut plastik <i>Manufacture of plastic footwear</i>	15202	28	196,101	132,262	63,840	1,791	44,338	49,566
Pembuatan kasut getah <i>Manufacture of rubber footwear</i>	15203	44	206,249	145,903	60,346	1,829	43,433	22,992
Pembuatan kasut lain t.t.t.l. <i>Manufacture of other footwear n.e.c.</i>	15209	38	77,385	53,825	23,559	674	19,789	15,477

Jadual 2.4: Statistik utama subsektor Produk kayu, perabot, keluaran kertas dan percetakan mengikut industri, 2022
Table 2.4: Principal statistics of Wood products, furniture, paper products and printing sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>		9,705	88,647,645	65,107,564	23,540,081	306,294	9,137,178	22,519,524
Pengilangan dan pengetaman kayu <i>Sawmilling and planning of wood</i>	161	630	7,852,771	6,282,825	1,569,945	29,681	768,604	1,311,696
Pengilangan dan pengetaman kayu <i>Sawmilling and planning of wood</i>	16100	630	7,852,771	6,282,825	1,569,945	29,681	768,604	1,311,696
Pembuatan produk daripada kayu, gabus, jerami dan bahan jalinan lain <i>Manufacture of products of wood, cork, straw and plaiting materials</i>	162	1,090	19,031,371	14,506,083	4,525,288	65,000	1,888,002	5,428,736
Pembuatan kepingan venier dan papan lapis <i>Manufacture of veneer sheets and plywood</i>	16211	190	8,849,747	6,882,179	1,967,568	32,640	897,607	2,190,023
Pembuatan papan partikel dan papan gentian <i>Manufacture of particle board and fibreboard</i>	16212	48	4,365,554	3,358,497	1,007,057	8,173	319,563	2,058,876
Pertukangan kayu untuk jurubina <i>Manufacture of builders' carpentry</i>	16221	292	2,545,740	1,886,418	659,322	11,145	302,664	564,661
Pembuatan produk tanggam kayu <i>Manufacture of joinery wood products</i>	16222	45	265,145	183,140	82,005	1,265	28,137	33,355
Pembuatan bekas kayu <i>Manufacture of wooden containers</i>	16230	185	1,806,305	1,348,894	457,411	6,047	188,072	277,726
Pembuatan kayu arang <i>Manufacture of wood charcoal</i>	16291	87	420,562	339,440	81,122	1,752	41,158	103,040
Pembuatan produk kayu lain, rotan, artikel gabus, jerami dan bahan jalinan <i>Manufacture of other products of wood, cane, articles of cork, straw and plaiting materials</i>	16292	243	778,318	507,516	270,803	3,978	110,802	201,054

Jadual 2.4: Statistik utama subsektor Produk kayu, perabot, keluaran kertas dan percetakan mengikut industri, 2022

Table 2.4: Principal statistics of Wood products, furniture, paper products and printing sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan kertas dan produk kertas <i>Manufacture of paper and paper products</i>	170	1,065	26,877,782	21,142,740	5,735,042	55,135	1,969,379	8,696,535
Pembuatan pulpa, kertas dan kertas tebal <i>Manufacture of pulp, paper and paperboard</i>	17010	153	5,635,520	4,327,391	1,308,128	7,882	295,959	2,626,234
Pembuatan kertas gelugur dan kertas tebal dan bekas daripada kertas dan kertas tebal <i>Manufacture of corrugated paper and paperboard and of containers of paper and paperboard</i>	17020	329	9,152,956	7,060,176	2,092,780	24,429	834,756	2,985,073
Pembuatan sampul surat dan kad surat <i>Manufacture of envelopes and letter-card</i>	17091	28	222,922	144,995	77,927	1,016	29,127	76,349
Pembuatan kertas kegunaan rumah dan pembersih peribadi <i>Manufacture of household and personal hygiene paper</i>	17092	79	6,326,335	5,170,736	1,155,599	8,064	336,967	2,005,056
Pembuatan kertas bergam atau pelekat yang berjalur atau bergulung dan label dan kertas dinding <i>Manufacture of gummed or adhesive paper in strips or rolls and labels and wall paper</i>	17093	240	3,551,506	2,958,994	592,512	6,631	233,894	523,474
Pembuatan patung, barangan kertas upacara pengebumian, kertas colok <i>Manufacture of effigies, funeral paper goods, joss papers</i>	17094	86	198,520	118,389	80,131	973	26,529	37,354
Pembuatan barang kertas dan kertas tebal lain yang t.t.t.l. <i>Manufacture of other articles of paper and paperboard, n.e.c.</i>	17099	150	1,790,023	1,362,058	427,964	6,140	212,147	442,995

Jadual 2.4: Statistik utama subsektor Produk kayu, perabot, keluaran kertas dan percetakan mengikut industri, 2022

Table 2.4: Principal statistics of Wood products, furniture, paper products and printing sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Percetakan dan aktiviti perkhidmatan berkaitan percetakan	181	3,702	11,075,659	6,843,930	4,231,729	53,155	1,732,674	2,882,301
<i>Printing and service activities related to printing</i>								
Percetakan	18110	2,554	7,948,664	4,979,682	2,968,982	37,187	1,233,498	2,171,728
<i>Printing</i>								
Aktiviti perkhidmatan berkaitan percetakan	18120	1,148	3,126,995	1,864,249	1,262,746	15,968	499,176	710,573
<i>Service activities related to printing</i>								
Penerbitan semula media rakaman	182	26	22,021	14,234	7,787	153	4,845	2,762
<i>Reproduction of recorded media</i>								
Penerbitan semula media rakaman	18200	26	22,021	14,234	7,787	153	4,845	2,762
<i>Reproduction of recorded media</i>								
Pembuatan perabot	310	3,192	23,788,042	16,317,751	7,470,291	103,170	2,773,673	4,197,495
<i>Manufacture of furniture</i>								
Pembuatan perabot kayu dan rotan	31001	2,437	17,811,787	11,961,354	5,850,433	79,037	2,054,896	3,163,123
<i>Manufacture of wooden and cane furniture</i>								
Pembuatan perabot logam	31002	297	3,128,190	2,307,589	820,601	11,738	364,829	563,507
<i>Manufacture of metal furniture</i>								
Pembuatan tilam	31003	117	1,346,507	1,002,839	343,667	4,901	147,737	289,427
<i>Manufacture of mattress</i>								
Pembuatan perabot lain kecuali daripada batu, konkrit atau seramik	31009	341	1,501,558	1,045,968	455,590	7,494	206,210	181,439
<i>Manufacture of other furniture, except of stone, concrete or ceramic</i>								

Jadual 2.5: Statistik utama subsektor Produk petroleum, kimia, getah dan plastik mengikut industri, 2022
Table 2.5: Principal statistics of Petroleum, chemical, rubber and plastic products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>		6,158	579,571,719	441,974,193	137,597,526	437,587	19,780,319	138,088,390
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	192	152	238,969,111	183,136,315	55,832,796	17,944	2,289,267	45,517,669
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	19201	125	224,433,668	170,138,354	54,295,314	16,405	2,144,676	44,579,144
Pembuatan produk bio-diesel <i>Manufacture of bio-diesel products</i>	19202	27	14,535,444	12,997,961	1,537,483	1,539	144,590	938,526
Pembuatan kimia asas, baja dan sebatian nitrogen, plastik dan getah sintetik dalam bentuk primer <i>Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms</i>	201	915	126,763,389	99,420,334	27,343,056	55,641	3,864,096	49,402,995
Pembuatan gas perindustrian atau perubatan bukan organik dalam bentuk cecair atau mampat <i>Manufacture of liquefied or compressed inorganic industrial or medical gases</i>	20111	49	3,541,727	2,107,560	1,434,168	5,262	305,498	2,839,481
Pembuatan kimia organik asas <i>Manufacture of basic organic chemicals</i>	20112	85	50,978,457	40,130,376	10,848,080	10,215	912,165	7,410,223
Pembuatan sebatian bukan organik <i>Manufacture of inorganic compounds</i>	20113	72	14,474,166	9,105,070	5,369,096	5,321	384,004	4,602,554
Pembuatan kimia asas lain t.t.t.l. <i>Manufacture of others basic chemicals n.e.c.</i>	20119	74	7,619,905	6,995,055	624,850	3,685	296,504	302,856
Pembuatan baja <i>Manufacture of fertilizers</i>	20121	242	9,581,063	7,300,828	2,280,235	8,807	481,938	7,257,328

Jadual 2.5: Statistik utama subsektor Produk petroleum, kimia, getah dan plastik mengikut industri, 2022
Table 2.5: Principal statistics of Petroleum, chemical, rubber and plastic products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
Group and industry description	Group and industry code	Number of establishments	Value of gross output	Value of intermediate input	Value added	Number of persons engaged	Salaries & wages	Value of fixed assets
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan produk campuran nitrogen <i>Manufacture of associated nitrogen products</i>	20129	10	990,613	900,334	90,278	269	7,781	79,487
Pembuatan plastik dalam bentuk primer <i>Manufacture of plastics in primary forms</i>	20131	358	35,346,067	30,021,380	5,324,687	20,445	1,376,575	25,748,946
Pembuatan getah sintetik dalam bentuk primer: getah sintetik, tiruan; Pembuatan campuran getah sintetik dan getah asli atau - getah seperti perekat <i>Manufacture of synthetic rubber in primary forms: synthetic rubber, factice;</i> <i>Manufacture of mixtures of synthetic rubber and natural rubber or rubber - like gums</i>	20132 } 20133 }	25	4,231,391	2,859,729	1,371,662	1,637	99,631	1,162,120
Pembuatan produk kimia lain <i>Manufacture of other chemical products</i>	202	1,288	43,822,912	34,641,709	9,181,204	54,695	2,455,436	5,039,437
Pembuatan racun perosak dan produk agrokimia lain <i>Manufacture of pesticides and other agrochemical products</i>	20210	95	2,567,767	2,008,007	559,760	3,051	139,176	278,265
Pembuatan cat, varnis dan penyadur dan mastik <i>Manufacture of paints, varnishes and similar coatings ink and mastics</i>	20221	288	10,058,543	7,269,384	2,789,159	13,155	659,966	1,019,021
Pembuatan dakwat cetak <i>Manufacture of printing ink</i>	20222	56	1,942,123	1,476,223	465,900	3,021	167,642	315,230
Pembuatan sabun dan bahan pencuci, penyediaan membersih dan mengilat <i>Manufacture of soap and detergents, cleaning and polishing preparations</i>	20231	272	4,355,680	3,599,004	756,677	8,004	345,421	490,688

Jadual 2.5: Statistik utama subsektor Produk petroleum, kimia, getah dan plastik mengikut industri, 2022
Table 2.5: Principal statistics of Petroleum, chemical, rubber and plastic products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
Group and industry description	Group and industry code	Number of establishments	Value of gross output	Value of intermediate input	Value added	Number of persons engaged	Salaries & wages	Value of fixed assets
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan pewangi dan penyediaan dandanan diri <i>Manufacture of perfumes and toilet preparations</i>	20232	222	8,496,383	6,955,403	1,540,981	11,235	460,388	1,158,944
Pembuatan plat fotografi, filem, sensitized paper dan other sensitized unexposed materials; Pembuatan dakwat menulis dan melukis <i>Manufacture of photographic plates, films, sensitized paper and other sensitized unexposed materials; Manufacture of writing and drawing ink</i>	20291 } 20292 }	33	48,015	34,005	14,010	212	8,044	5,221
Pembuatan produk kimia lain t.t.t.l. <i>Manufacture of other chemical products n.e.c.</i>	20299	322	16,354,400	13,299,683	3,054,717	16,017	674,798	1,772,070
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	203	5	685,043	588,403	96,640	346	23,147	299,465
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	20300	5	685,043	588,403	96,640	346	23,147	299,465
Pembuatan produk farmaseutikal, kimia perubatan dan botani <i>Manufacture of pharmaceuticals, medicinal chemical and botanical products</i>	210	523	9,897,373	6,214,977	3,682,396	24,318	989,104	3,568,382
Pembuatan bahan aktif ubat-ubatan untuk digunakan oleh bidang farmakologi dalam pembuatan ubat-ubatan <i>Manufacture of medicinal active substances to be used for their pharmacological properties in the manufacture of medicaments</i>	21001	183	4,789,687	2,931,614	1,858,073	16,108	678,167	2,821,340
Pembuatan ubat-ubatan <i>Manufacture of medicaments</i>	21003	79	786,952	308,361	478,591	1,750	56,108	145,326

Jadual 2.5: Statistik utama subsektor Produk petroleum, kimia, getah dan plastik mengikut industri, 2022
Table 2.5: Principal statistics of Petroleum, chemical, rubber and plastic products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan penyediaan diagnosis perubatan; Pembuatan bahan diagnosis in-vivo radioaktif <i>Manufacture of medical diagnostic preparation; Manufacture of radioactive in-vivo diagnostic</i>	21005 } 21006 }	23	152,913	67,104	85,809	421	24,188	25,802
Pembuatan farmaseutikal bioteknologi <i>Manufacture of biotech pharmaceuticals</i>	21007	50	510,325	342,216	168,109	1,042	43,102	173,645
Pembuatan produk farmaseutikal, kimia perubatan dan botani t.t.t.l. <i>Manufacture of other pharmaceuticals, medicinal chemical and botanical products n.e.c.</i>	21009	188	3,657,496	2,565,682	1,091,814	4,997	187,539	402,269
Pembuatan produk getah <i>Manufacture of rubber products</i>	221	923	88,832,927	65,374,287	23,458,640	128,545	4,703,227	20,745,112
Pembuatan tayar getah untuk kenderaan <i>Manufacture of rubber tyres for vehicles</i>	22111	120	2,802,716	2,023,480	779,236	6,788	256,809	1,573,356
Pembuatan bunga tayar yang boleh ditukar ganti dan tayar celup <i>Manufacture of interchangeable tyre treads and retreading rubber tyres</i>	22112	77	401,230	284,748	116,482	1,564	67,608	100,283
Pembuatan produk lain daripada getah asli atau sintetik, tidak divulkan, divulkan atau dikeraskan <i>Manufacture of other products of natural or synthetic rubber, unvulcanized, vulcanized or hardened</i>	22191	95	4,744,658	3,484,443	1,260,215	6,715	241,338	504,539
Pembuatan sarung tangan getah <i>Manufacture of rubber gloves</i>	22192	246	58,284,498	42,189,969	16,094,528	75,833	2,788,359	16,185,089

Jadual 2.5: Statistik utama subsektor Produk petroleum, kimia, getah dan plastik mengikut industri, 2022

Table 2.5: Principal statistics of Petroleum, chemical, rubber and plastic products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pengilangan semula getah dan prosesan susu getah <i>Rubber remilling and latex processing</i>	22193	55	11,691,548	10,175,215	1,516,333	5,605	316,625	648,855
Pembuatan produk getah lain yang t.t.t.l. <i>Manufacture of other rubber products n.e.c.</i>	22199	330	10,908,277	7,216,431	3,691,846	32,040	1,032,489	1,732,991
Pembuatan produk plastik <i>Manufacture of plastic products</i>	222	2,352	70,600,963	52,598,169	18,002,794	156,098	5,456,043	13,515,330
Pembuatan produk plastik separa siap <i>Manufacture of semi-manufactures of plastic products</i>	22201	278	11,845,626	9,382,953	2,462,673	17,306	665,617	3,202,188
Pembuatan produk plastik siap <i>Manufacture of finished plastic products</i>	22202	233	4,903,038	3,640,121	1,262,918	9,655	361,819	839,196
Pembuatan artikel plastik untuk pembungkusan barangan <i>Manufacture of plastic articles for the packing of goods</i>	22203	834	22,531,222	16,522,066	6,009,156	49,195	1,855,237	4,188,606
Pembuatan barangan plastik jurubina <i>Manufacture of builders' plastics ware</i>	22204	80	1,326,031	784,993	541,038	3,496	109,504	361,453
Pembuatan pinggan mangkuk, peralatan dapur dan barangan tandas daripada plastik <i>Manufacture of plastic tableware, kitchenware and toilet articles</i>	22205	229	7,770,783	6,142,487	1,628,296	15,526	518,074	879,761
Pembuatan pelbagai produk plastik t.t.t.l. <i>Manufacture of diverse plastic products n.e.c.</i>	22209	698	22,224,263	16,125,550	6,098,713	60,920	1,945,792	4,044,126

Jadual 2.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut industri, 2022
Table 2.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>		10,360	198,936,286	154,360,575	44,575,712	342,681	13,325,689	55,976,908
Pembuatan kaca dan produk kaca <i>Manufacture of glass and glass products</i>	231	516	12,437,199	9,085,702	3,351,497	19,088	982,173	5,433,494
Pembuatan kaca leper, termasuk kaca leper berdawai, berwarna atau sedikit berwarna <i>Manufacture of flat glass, including wired, coloured or tinted flat glass</i>	23101	173	4,009,716	2,609,346	1,400,371	6,729	301,049	2,213,665
Pembuatan barangan kaca makmal, barangan kesihatan atau farmaseutikal <i>Manufacture of laborator, hygienic or pharmaceutical glassware</i>	23102	79	114,004	56,522	57,482	911	34,552	18,674
Pembuatan produk kaca lain t.t.t.l. <i>Manufacture of other glass products n.e.c.</i>	23109	264	8,313,479	6,419,835	1,893,644	11,448	646,571	3,201,155
Pembuatan produk mineral bukan logam t.t.t.l. <i>Manufacture of non-metallic mineral products n.e.c.</i>	239	2,038	34,136,473	23,562,750	10,573,723	76,072	3,431,173	10,460,099
Pembuatan mortar refraktori dan konkrit <i>Manufacture of refractory mortars and concretes</i>	23911	17	525,773	372,426	153,348	934	47,482	159,491
Pembuatan barangan seramik refraktori <i>Manufacture of refractory ceramic goods</i>	23912	71	800,341	516,932	283,409	3,676	122,633	212,959
Pembuatan seramik bukan refraktori <i>Manufacture of non-refractory ceramic</i>	23921	125	2,194,204	1,478,986	715,218	9,391	411,327	1,536,798
Pembuatan lain-lain bahan binaan dari tanah liat <i>Manufacture of other clay building materials</i>	23929	64	315,093	172,146	142,947	2,197	79,688	108,648

Jadual 2.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut industri, 2022
Table 2.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan produk porselin dan seramik lain <i>Manufacture of other porcelain and ceramic products</i>	23930	107	965,408	634,634	330,774	5,214	218,689	479,356
Pembuatan simen hidraulik <i>Manufacture of hydraulic cement</i>	23941	54	7,375,989	5,232,128	2,143,861	4,750	314,694	2,532,724
Pembuatan kapur dan plaster <i>Manufacture of lime and plaster</i>	23942	60	1,338,774	913,135	425,639	1,891	92,881	399,141
Pembuatan konkrit dan mortar siap bancuh dan bancuhan kering <i>Manufacture of ready-mix and dry-mix concrete and mortars</i>	23951	267	4,037,241	2,609,032	1,428,209	11,448	529,624	819,152
Pembuatan konkrit pratuangan, simen atau artikel batu buatan yang digunakan dalam pembinaan <i>Manufacture of precast concrete, cement or artificial stone articles for use in construction</i>	23952	512	5,367,872	3,798,951	1,568,920	11,837	513,370	1,132,323
Pembuatan komponen struktur pasang siap untuk bangunan atau kejuruteraan awam dari simen, batu atau konkrit buatan <i>Manufacture of prefabricated structural components for building or civil engineering of cement, concrete or artificial stone</i>	23953	308	3,804,989	2,653,836	1,151,153	8,816	350,393	1,295,740
Pembuatan artikel konkrit, simen dan plaster lain t.t.t.l. <i>Manufacture of other articles of concrete, cement and plaster n.e.c.</i>	23959	156	3,031,995	2,065,676	966,320	7,011	327,526	800,298
Pemotongan, pembentukan dan penyiapan batu <i>Cutting, shaping and finishing of stone</i>	23960	131	568,393	354,354	214,039	2,194	84,894	137,133

Jadual 2.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut industri, 2022
Table 2.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan produk mineral bukan logam lain t.t.t.l. <i>Manufacture of other non-metallic mineral products n.e.c.</i>	23990	166	3,810,399	2,760,512	1,049,887	6,713	337,971	846,336
Pembuatan besi asas dan keluli <i>Manufacture of basic iron and steel</i>	241	1,028	43,219,270	35,866,650	7,352,620	47,021	2,097,159	17,000,005
Pengeluaran jongkong besi dan spiegeleisen dalam bentuk jongkong, blok atau dalam bentuk asal lain <i>Production of pig iron and spiegeleisen in pigs, blocks or other primary forms</i>	24101	193	13,781,493	11,004,197	2,777,296	9,610	527,080	5,004,906
Pembuatan batang dan rod keluli tahan karat atau keluli aloi lain <i>Production of bars and rods of stainless steel or other alloy steel</i>	24102	229	22,018,214	18,701,913	3,316,301	23,608	1,050,482	10,549,174
Pembuatan tiub tidak berkelim, dengan pengegekan, picitan atau tempaan panas, atau dengan tempaan atau pengegekan sejuk <i>Manufacture of seamless tubes, by hot rolling, hot extrusion or hot drawing, or by cold drawing or rolling</i>	24103	66	3,314,145	2,741,350	572,795	4,078	167,189	652,367
Pembuatan kelengkapan tiub keluli <i>Manufacture of steel tube fittings</i>	24104	15	33,353	25,038	8,315	183	6,023	2,841
Pembuatan produk besi asas dan keluli lain t.t.t.l. <i>Manufacture of other basic iron and steel products n.e.c.</i>	24109	525	4,072,065	3,394,151	677,913	9,542	346,386	790,717
Pembuatan logam asas berharga dan logam bukan ferus lain <i>Manufacture of basic precious and other non-ferrous metals</i>	242	495	44,440,811	37,601,153	6,839,658	32,929	1,333,181	11,463,596

Jadual 2.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut industri, 2022

Table 2.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Peleburan timah; Pengeluaran aluminium daripada alumina <i>Tin smelting; Production of aluminium from alumina</i>	24201 24202	294	23,994,151	20,076,206	3,917,945	19,539	752,022	7,211,076
Pembuatan logam asas berharga dan logam bukan ferus lain t.t.t.l. <i>Manufacture of other basic precious and other non-ferrous metals n.e.c.</i>	24209	201	20,446,660	17,524,946	2,921,713	13,390	581,158	4,252,520
Pengacuan logam <i>Casting of metals</i>	243	395	5,540,738	4,110,671	1,430,067	17,626	582,846	1,059,195
Pengacuan besi <i>Casting of iron</i>	24311	194	2,478,700	1,829,839	648,861	7,460	249,695	532,385
Pengacuan keluli <i>Casting of steel</i>	24312	103	1,362,759	985,400	377,359	3,857	148,435	303,900
Pengacuan logam bukan ferus <i>Casting of non-ferrous metals</i>	24320	98	1,699,280	1,295,432	403,848	6,309	184,716	222,909
Pembuatan produk struktur logam, tangki, takungan dan penjana wap; Pembuatan senjata dan peluru <i>Manufacture of structural metal products, tanks, reservoirs and steam generators; Manufacture of weapons and ammunition</i>	251 252	3,374	16,478,815	11,948,186	4,530,629	51,462	1,511,708	2,816,420
Pembuatan kerangka kerja perindustrian daripada logam <i>Manufacture of industrial frameworks in metal</i>	25111	125	872,122	617,447	254,675	3,445	106,668	152,646
Pembuatan bangunan pasang siap terutamanya daripada logam <i>Manufacture of prefabricated buildings mainly of metal</i>	25112	44	869,049	719,717	149,332	1,374	45,806	200,944

Jadual 2.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut industri, 2022
Table 2.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan pintu, tingkap dan bingkai, penutup tingkap dan pintu pagar daripada logam <i>Manufacture of metal doors, windows and their frames, shutters and gates</i>	25113	2,271	3,387,972	2,523,117	864,855	19,952	480,397	568,309
Pembuatan produk struktur logam lain <i>Manufacture of other structural metal products</i>	25119	745	7,457,923	5,555,613	1,902,310	19,758	627,425	1,410,998
Pembuatan tangki, takungan dan kontena daripada logam <i>Manufacture of tanks, reservoirs and containers of metal</i>	25120	173	3,670,039	2,360,761	1,309,277	6,215	226,110	406,605
Pembuatan penjana wap, kecuali dandang pemanasan air berpusat; Pembuatan senjata dan peluru <i>Manufacture of steam generators, except central heating hot water boilers;</i> <i>Manufacture of weapons and ammunition</i>	25130 } 25200 }	16	221,710	171,530	50,180	718	25,302	76,919
Pembuatan produk lain yang direka daripada logam; aktiviti perkhidmatan kerja logam <i>Manufacture of other fabricated metal products; metal working service activities</i>	259	2,514	42,682,981	32,185,464	10,497,517	98,483	3,387,449	7,744,098
Tempaan, tekanan, hentakan dan bentuk gelek logam; serbuk metalurgi <i>Forging, pressing, stamping and roll-forming of metal; powder metallurgy</i>	25910	218	6,977,232	5,292,603	1,684,629	17,921	609,384	1,134,279
Rawatan dan penyalutan logam; menggunakan mesin <i>Treatment and coating of metals; machining</i>	25920	386	4,294,517	3,245,369	1,049,149	13,741	404,111	525,168

Jadual 2.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut industri, 2022
Table 2.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan kutleri, alatan pertukangan tangan dan perkakasan am <i>Manufacture of cutlery, hand tools and general hardware</i>	25930	457	3,646,883	2,705,815	941,068	10,242	387,817	662,364
Pembuatan tin untuk produk makanan dan minuman, tiub dan kotak boleh dilipat <i>Manufacture of tins and cans for food products, collapsible tubes and boxes</i>	25991	131	6,537,985	4,990,697	1,547,289	8,904	292,691	783,401
Pembuatan kabel, <i>plaited bands</i> (jalur/pita berpintal) dan artikel seumpamanya daripada logam <i>Manufacture of metal cable, plaited bands and similar articles</i>	25992	153	6,937,808	5,271,817	1,665,992	8,394	365,936	1,361,655
Pembuatan bolt, skru, nat dan produk uliran seumpamanya <i>Manufacture of bolts, screws, nuts and similar threaded products</i>	25993	214	3,371,968	2,680,811	691,157	8,264	292,715	565,005
Pembuatan barangan rumah daripada logam <i>Manufacture of metal household articles</i>	25994	91	622,588	406,584	216,004	2,697	85,257	309,085
Pembuatan produk lain yang direka daripada logam t.t.t.l. <i>Manufacture of any other fabricated metal products n.e.c.</i>	25999	864	10,293,999	7,591,769	2,702,229	28,320	949,538	2,403,141

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i> (RM '000)	Nilai input perantaraan <i>Value of intermediate input</i> (RM '000)	Nilai ditambah <i>Value added</i> (RM '000)	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i> (RM '000)	Nilai harta tetap <i>Value of fixed assets</i> (RM '000)
<i>Group and industry description</i>								
Jumlah <i>Total</i>		4,915	560,722,686	440,511,356	120,211,330	629,867	32,884,581	80,480,455
Pembuatan komponen dan papan elektronik <i>Manufacture of electronic components and boards</i>	261	646	267,736,293	208,123,704	59,612,588	258,079	15,422,684	48,007,598
Pembuatan diod, transistor dan alatan semikonduktor yang seumpamanya <i>Manufacture of diodes, transistors and similar semiconductor devices</i>	26101	202	145,994,211	109,016,566	36,977,645	107,304	7,756,697	24,589,565
Pembuatan litar elektronik bersepadu dengan pemasangan mikro <i>Manufacture of electronic integrated circuits micro assemblies</i>	26102	95	46,159,843	35,282,193	10,877,650	48,402	2,845,551	6,332,747
Pembuatan kapasitor dan perintang elektrik <i>Manufacture of electrical capacitors and resistors</i>	26103	69	6,263,542	5,267,168	996,373	13,773	599,465	2,951,715
Pembuatan papan litar bercetak <i>Manufacture of printed circuit boards</i>	26104	111	61,511,109	51,903,058	9,608,051	72,897	3,463,698	13,049,854
Pembuatan komponen paparan <i>Manufacture of display components</i>	26105	13	1,862,050	1,741,909	120,141	1,211	80,707	61,011
Pembuatan komponen lain untuk aplikasi elektronik <i>Manufacture of other components for electronic applications</i>	26109	156	5,945,538	4,912,809	1,032,729	14,492	676,567	1,022,706
Pembuatan komputer dan kelengkapan peranti <i>Manufacture of computers and peripheral equipment</i>	262	117	70,860,118	63,617,196	7,242,922	44,169	2,144,544	4,300,124
Pembuatan komputer <i>Manufacture of computers</i>	26201	68	25,620,535	23,969,214	1,651,321	15,337	719,388	1,294,079

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan kelengkapan peranti <i>Manufacture of peripheral equipment</i>	26202	49	45,239,583	39,647,983	5,591,600	28,832	1,425,156	3,006,045
Pembuatan peralatan komunikasi <i>Manufacture of communication equipment</i>	263	67	12,143,015	9,682,905	2,460,111	19,363	933,258	1,173,377
Pembuatan peralatan komunikasi <i>Manufacture of communication equipment</i>	26300	67	12,143,015	9,682,905	2,460,111	19,363	933,258	1,173,377
Pembuatan elektronik pengguna <i>Manufacture of consumer electronics</i>	264	111	29,728,090	26,026,636	3,701,454	32,374	1,713,563	1,941,754
Pembuatan elektronik pengguna <i>Manufacture of consumer electronics</i>	26400	111	29,728,090	26,026,636	3,701,454	32,374	1,713,563	1,941,754
Pembuatan kelengkapan mengukur, menguji, memandu arah dan kawalan; jam tangan dan jam <i>Manufacture of measuring, testing, navigating and control equipment; watches and clocks</i>	265	195	22,970,052	17,722,560	5,247,492	30,169	2,114,062	2,992,127
Pembuatan kelengkapan mengukur, menguji, memandu arah dan kawalan <i>Manufacture of measuring, testing, navigating and control equipment</i>	26511	128	18,460,206	14,138,580	4,321,627	20,847	1,624,064	2,404,533
Pembuatan kelengkapan kawalan proses perindustrian <i>Manufacture of industrial process control equipment</i>	26512	52	903,569	677,185	226,384	1,819	87,301	158,879
Pembuatan jam tangan dan jam dan bahagiannya <i>Manufacture of watches and clocks and parts</i>	26520	15	3,606,277	2,906,796	699,481	7,503	402,697	428,715
Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik <i>Manufacture of irradiation, electro medical and electrotherapeutic equipment</i>	266	68	8,398,831	6,312,477	2,086,354	13,517	832,481	2,469,910

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik <i>Manufacture of irradiation, electro medical and electrotherapeutic equipment</i>	26600	68	8,398,831	6,312,477	2,086,354	13,517	832,481	2,469,910
Pembuatan peralatan optikal dan alatan fotografi <i>Manufacture of optical instruments and photographic equipment</i>	267	40	2,208,307	1,642,979	565,328	5,246	258,899	258,099
Pembuatan instrumen dan kelengkapan optikal <i>Manufacture of optical instruments and equipment</i>	26701	33	1,074,017	814,047	259,971	2,644	118,575	180,355
Pembuatan peralatan fotografi <i>Manufacture of photographic equipment</i>	26702	7	1,134,289	828,932	305,357	2,602	140,324	77,744
Pembuatan media magnetik dan optikal <i>Manufacture of magnetic and optical media</i>	268	3	8,075	5,417	2,658	42	2,407	1,878
Pembuatan media rakaman magnetik dan optikal <i>Manufacture of magnetic and optical recording media</i>	26800	3	8,075	5,417	2,658	42	2,407	1,878
Pembuatan motor elektrik, penjana, transformer dan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus</i>	271	408	18,104,331	13,818,538	4,285,792	36,647	1,385,971	2,649,274
Pembuatan motor elektrik, penjana dan transformer <i>Manufacture of electric motors, generators and transformers</i>	27101	122	4,307,582	3,006,502	1,301,080	11,483	479,488	547,541
Pembuatan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electricity distribution and control apparatus</i>	27102	286	13,796,749	10,812,037	2,984,712	25,164	906,483	2,101,733

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>	272	52	5,267,087	3,957,601	1,309,487	6,342	582,015	2,830,642
Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>	27200	52	5,267,087	3,957,601	1,309,487	6,342	582,015	2,830,642
Pembuatan pendawaian dan alatan pendawaian <i>Manufacture of wiring and wiring devices</i>	273	298	21,086,044	17,072,804	4,013,240	26,299	878,719	2,292,530
Pembuatan kabel gentian optikal <i>Manufacture of fibre optic cables</i>	27310	24	481,443	351,594	129,849	1,543	62,417	48,595
Pembuatan wayar dan kabel elektronik dan elektrik lain <i>Manufacture of other electronic and electric wires and cables</i>	27320	205	19,565,419	15,808,990	3,756,429	23,242	769,303	2,187,001
Pembuatan alatan pendawaian pembawa dan bukan pembawa arus untuk litar elektrik (tanpa mengira jenis bahan) <i>Manufacture of current-carrying and non current-carrying wiring devices for electrical circuits regardless of material</i>	27330	69	1,039,181	912,219	126,962	1,514	47,000	56,934
Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>	274	124	1,446,355	1,001,780	444,575	3,793	140,260	143,476
Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>	27400	124	1,446,355	1,001,780	444,575	3,793	140,260	143,476
Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>	275	118	20,482,110	17,159,740	3,322,370	17,743	957,803	1,185,110
Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>	27500	118	20,482,110	17,159,740	3,322,370	17,743	957,803	1,185,110

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan kelengkapan elektrik lain <i>Manufacture of other electrical equipment</i>	279	209	8,790,246	6,582,125	2,208,121	19,006	787,573	771,801
Pembuatan pelbagai kelengkapan elektrik selain daripada motor, penjana dan transformer, bateri dan akumulator, wayar dan alatan pendawaian, kelengkapan pencahayaan atau perkakasan domestik <i>Manufacture of miscellaneous electrical equipment other than motors, generators and transformers, batteries and accumulators, wires and wiring devices, lighting equipment or domestic appliances</i>	27900	209	8,790,246	6,582,125	2,208,121	19,006	787,573	771,801
Pembuatan jentera kegunaan umum <i>Manufacture of general-purpose machinery</i>	281	1,210	36,473,804	25,372,670	11,101,134	55,952	2,111,632	5,087,117
Pembuatan enjin dan turbin, kecuali enjin pesawat, kenderaan dan sikal <i>Manufacture of engines and turbines, except aircraft, vehicle and cycle engines</i>	28110	47	457,774	240,130	217,645	913	31,794	80,828
Pembuatan alat-alat kuasa bendalir <i>Manufacture of fluid power equipment</i>	28120	14	92,880	50,788	42,092	249	7,172	9,006
Pembuatan pam, pemampat, kepala paip dan injap lain <i>Manufacture of other pumps, compressors, taps and valves</i>	28130	125	1,966,843	1,445,947	520,895	3,695	162,584	225,666
Pembuatan penggalas, gear, elemen gear dan pemanduan <i>Manufacture of bearings, gears, gearing and driving elements</i>	28140	53	1,247,641	924,946	322,695	2,956	110,095	269,095
Pembuatan ketuhar, relau dan relau pembakar <i>Manufacture of ovens, furnaces and furnace burners</i>	28150	13	85,861	46,139	39,722	246	7,226	7,781

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan kelengkapan mengangkat dan mengendali <i>Manufacture of lifting and handling equipment</i>	28160	85	2,428,995	1,785,348	643,647	3,901	149,266	288,224
Pembuatan mesin dan kelengkapan pejabat (kecuali kelengkapan komputer dan peranti) <i>Manufacture of office machinery and equipment (except computers and peripheral equipment)</i>	28170	51	987,514	715,751	271,764	2,216	75,787	46,886
Pembuatan alatan tangan yang menggunakan kuasa dilengkapi dengan motor elektrik atau bukan motor elektrik atau pneumatik <i>Manufacture of power-driven hand tools with self-contained electric or non-electric motor or pneumatic drives</i>	28180	19	5,196,302	3,867,927	1,328,375	2,693	94,659	284,936
Pembuatan kelengkapan penyejukan atau pembekuan perindustrian <i>Manufacture of refrigerating or freezing industrial equipment</i>	28191	71	1,034,438	622,304	412,134	2,760	82,558	107,605
Pembuatan mesin penyaman udara, termasuk untuk kenderaan bermotor <i>Manufacture of air-conditioning machines, including for motor vehicles</i>	28192	138	15,290,106	10,420,117	4,869,988	15,916	702,693	2,801,128
Pengeluaran mesin tujuan umum lain t.t.t.l. <i>Manufacture of other general-purpose machinery n.e.c.</i>	28199	594	7,685,451	5,253,274	2,432,178	20,407	687,799	965,962
Pembuatan mesin bagi tujuan khas <i>Manufacture of special-purpose machinery</i>	282	1,249	35,019,930	22,412,226	12,607,704	61,126	2,618,710	4,375,636
Pembuatan mesin bagi pertanian dan perhutanan <i>Manufacture of agricultural and forestry machinery</i>	28210	97	1,350,341	921,477	428,864	2,631	92,409	258,640

Jadual 2.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut industri, 2022
Table 2.7: Principal statistics of Electrical, electronic and optical products sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan jentera pembentukan logam dan alatan mesin <i>Manufacture of metal-forming machinery and machine tools</i>	28220	598	14,904,476	8,816,379	6,088,097	34,227	1,367,495	2,109,866
Pengeluaran bagi jentera untuk metalurgi <i>Manufacture of machinery for metallurgy</i>	28230	35	163,838	81,904	81,934	788	36,159	41,013
Pembuatan mesin untuk perlombongan, pengkuarian dan pembinaan <i>Manufacture of machinery for mining, quarrying and construction</i>	28240	87	2,908,906	1,949,588	959,318	3,603	244,558	446,018
Pembuatan mesin untuk makanan, minuman dan pemprosesan tembakau <i>Manufacture of machinery for food, beverage and tobacco processing</i>	28250	64	549,140	322,282	226,859	1,701	70,675	111,993
Pembuatan mesin untuk tekstil, pakaian dan pengeluaran kulit <i>Manufacture of machinery for textile, apparel and leather production</i>	28260	27	2,934,478	2,318,496	615,982	1,235	64,554	33,262
Pembuatan lain-lain mesin bertujuan khas t.t.t.l. <i>Manufacture of other special-purpose machinery n.e.c.</i>	28290	341	12,208,751	8,002,100	4,206,651	16,941	742,860	1,374,844

Jadual 2.8: Statistik utama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan mengikut industri, 2022
Table 2.8: Principal statistics of Transport equipment, other manufacturing and repair sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i> (RM '000)	Nilai input perantara <i>Value of intermediate input</i> (RM '000)	Nilai ditambah <i>Value added</i> (RM '000)	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i> (RM '000)	Nilai harta tetap <i>Value of fixed assets</i> (RM '000)
<i>Group and industry description</i>								
Jumlah <i>Total</i>		7,434	122,243,814	90,944,372	31,299,442	229,186	8,722,419	25,574,147
Pembuatan kenderaan bermotor <i>Manufacture of motor vehicles</i>	291	22	41,460,159	32,077,984	9,382,175	29,184	1,544,052	9,971,546
Pembuatan kereta penumpang <i>Manufacture of passenger cars</i>	29101	16	39,756,713	30,578,906	9,177,806	28,203	1,490,031	9,855,833
Pembuatan kenderaan komersial <i>Manufacture of commercial vehicles</i>	29102	6	1,703,446	1,499,077	204,369	981	54,021	115,713
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>	292	156	4,284,323	3,457,672	826,652	4,858	158,436	388,561
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>	29200	156	4,284,323	3,457,672	826,652	4,858	158,436	388,561
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>	293	771	27,100,110	20,115,900	6,984,210	57,008	2,165,636	3,735,279
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>	29300	771	27,100,110	20,115,900	6,984,210	57,008	2,165,636	3,735,279
Pembinaan kapal dan bot <i>Building of ships and boats</i>	301	247	5,338,339	4,391,079	947,260	10,984	495,716	2,642,899
Pembinaan kapal dan struktur terapung <i>Building of ships and floating structures</i>	30110	219	4,860,902	4,033,245	827,657	9,965	423,920	2,562,957

Jadual 2.8: Statistik utama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan mengikut industri, 2022

Table 2.8: Principal statistics of Transport equipment, other manufacturing and repair sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembinaan bot persiaran dan sukan <i>Building of pleasure and sporting boats</i>	30120	28	477,437	357,833	119,604	1,019	71,796	79,942
Pembuatan keretapi dan <i>rolling stock</i> ; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of railway and rolling stock; Manufacture of air and spacecraft and related machinery</i>	302 } 303 }	51	5,487,005	4,217,854	1,269,152	7,573	305,129	1,211,692
Pembuatan keretapi lokomotif dan <i>rolling stock</i> ; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of railway locomotives and rolling stock; Manufacture of air and spacecraft and related machinery</i>	30200 } 30300 }	51	5,487,005	4,217,854	1,269,152	7,573	305,129	1,211,692
Pembuatan kenderaan tempur ketenteraan; Pembuatan kelengkapan pengangkutan t.t.t.l. <i>Manufacture of military fighting vehicles; Manufacture of transport equipment n.e.c.</i>	304 } 309 }	141	8,288,493	6,447,334	1,841,159	14,066	496,180	915,195
Pembuatan kenderaan tempur ketenteraan; Pembuatan motosikal <i>Manufacture of military fighting vehicles; Manufacture of motorcycles</i>	30400 } 30910 }	67	5,116,345	3,719,708	1,396,638	7,777	314,892	652,853
Pembuatan basikal dan <i>invalid carriages</i> <i>Manufacture of bicycles and invalid carriages</i>	30920	19	2,991,761	2,585,805	405,956	5,493	157,878	225,372
Pembuatan kelengkapan pengangkutan lain t.t.t.l. <i>Manufacture of other transport equipments n.e.c.</i>	30990	55	180,387	141,821	38,565	796	23,410	36,970
Pembuatan barang kemas, <i>bijouterie</i> dan artikel berkaitan <i>Manufacture of jewellery, bijouterie and related articles</i>	321	269	5,907,861	4,765,806	1,142,055	6,335	234,707	325,817

Jadual 2.8: Statistik utama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan mengikut industri, 2022
Table 2.8: Principal statistics of Transport equipment, other manufacturing and repair sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan barang kemas dan artikel berkaitan <i>Manufacture of jewellery and related articles</i>	32110	247	5,798,906	4,706,012	1,092,894	5,905	219,473	303,111
Pembuatan barang kemas tiruan dan artikel berkaitan <i>Manufacture of imitation jewellery and related articles</i>	32120	22	108,955	59,794	49,161	430	15,234	22,706
Pembuatan instrumen muzik <i>Manufacture of musical instruments</i>	322	14	905,003	524,011	380,992	1,187	31,774	21,047
Pembuatan instrumen muzik <i>Manufacture of musical instruments</i>	32200	14	905,003	524,011	380,992	1,187	31,774	21,047
Pembuatan barangan sukan <i>Manufacture of sports goods</i>	323	54	451,456	255,695	195,761	2,529	69,089	69,881
Pembuatan barangan sukan <i>Manufacture of sports goods</i>	32300	54	451,456	255,695	195,761	2,529	69,089	69,881
Pembuatan permainan dan mainan <i>Manufacture of games and toys</i>	324	54	641,302	343,785	297,518	5,525	187,725	157,577
Pembuatan permainan dan mainan <i>Manufacture of games and toys</i>	32400	54	641,302	343,785	297,518	5,525	187,725	157,577
Pembuatan peralatan dan bekalan perubatan dan pergigian <i>Manufacture of medical and dental instrument and supplies</i>	325	368	3,748,211	2,346,094	1,402,117	13,063	534,231	1,040,178
Pembuatan peralatan dan bekalan perubatan dan pergigian <i>Manufacture of medical and dental instrument and supplies</i>	32500	368	3,748,211	2,346,094	1,402,117	13,063	534,231	1,040,178
Pembuatan lain t.t.t.l. <i>Other manufacturing n.e.c.</i>	329	1,045	6,684,629	4,264,312	2,420,317	20,810	652,452	2,279,116

Jadual 2.8: Statistik utama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan mengikut industri, 2022
Table 2.8: Principal statistics of Transport equipment, other manufacturing and repair sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri <i>Group and industry code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan Pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembuatan alat tulis <i>Manufacture of stationery</i>	32901	143	2,949,437	1,831,999	1,117,438	7,595	257,251	1,452,294
Pembuatan lain t.t.t.l. <i>Other manufacturing n.e.c.</i>	32909	902	3,735,192	2,432,313	1,302,879	13,215	395,201	826,822
Pembaikan produk logam yang direka, jentera dan kelengkapan <i>Repair of fabricated metal products, machinery and equipment</i>	331	3,895	10,642,029	6,882,357	3,759,672	50,076	1,662,500	2,594,182
Pembaikan produk logam yang direka <i>Repair of fabricated metal products</i>	33110	193	411,993	271,088	140,905	2,227	69,355	83,702
Pembaikan dan penyelenggaraan jentera dan kelengkapan industri <i>Repair and maintenance of industrial machinery and equipment</i>	33120	2,442	5,409,539	3,520,463	1,889,076	29,666	932,962	1,016,846
Pembaikan dan penyelenggaraan peralatan menyukat, menguji, memandu arah dan kelengkapan kawalan <i>Repair and maintenance of the measuring, testing, navigating and control equipment</i>	33131	74	304,835	164,476	140,359	1,333	41,056	32,058
Pembaikan dan penyelenggaraan penyinaran, perubatan elektro dan kelengkapan electrotherapeutic <i>Repair and maintenance of irradiation, electro medical and electrotherapeutic equipment</i>	33132	34	174,803	112,169	62,634	1,053	28,108	29,717
Pembaikan bagi peralatan optikal dan alatan fotografi <i>Repair of optical instruments and photographic equipment</i>	33133	9	12,131	7,623	4,507	42	1,741	2,026

Jadual 2.8: Statistik utama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan mengikut industri, 2022
Table 2.8: Principal statistics of Transport equipment, other manufacturing and repair sub-sector by industry, 2022

Keterangan kumpulan dan industri	Kod kumpulan dan industri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan Pekerja	Gaji & upah	Nilai harta tetap
<i>Group and industry description</i>	<i>Group and industry code</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pembaikan dan penyelenggaraan peralatan elektrik kecuali penggunaan domestik <i>Repair and maintenance of electrical equipment except domestic appliances</i>	33140	357	617,926	388,889	229,037	3,344	99,670	108,576
Pembaikan dan penyelenggaraan kelengkapan pengangkutan kecuali motosikal dan basikal <i>Repair and maintenance of transport equipment except motorcycles and bicycles</i>	33150	418	3,127,481	2,054,238	1,073,243	8,970	382,378	1,228,685
Pembaikan dan penyelenggaraan peralatan lain t.t.t.l. <i>Repair and maintenance of other equipment n.e.c.</i>	33190	368	583,322	363,410	219,911	3,441	107,232	92,573
Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>	332	347	1,304,893	854,490	450,403	5,988	184,792	221,176
Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>	33200	347	1,304,893	854,490	450,403	5,988	184,792	221,176

Jadual 3: Statistik utama sektor Pembuatan mengikut negeri, 2022

Table 3: Principal statistics of Manufacturing sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	54,505	1,893,703,546	1,478,802,370	414,901,176	2,346,253	97,219,447	377,890,819
Johor	9,244	316,423,543	254,558,757	61,864,786	483,010	18,027,252	81,116,951
Kedah	2,988	87,306,103	70,513,513	16,792,591	118,195	4,645,538	19,445,084
Kelantan	1,550	5,919,839	4,780,901	1,138,938	19,349	466,381	1,544,399
Melaka	1,715	112,721,136	91,430,758	21,290,378	99,891	4,375,622	23,511,750
Negeri Sembilan	2,408	115,743,547	91,051,157	24,692,391	93,162	4,482,833	17,875,495
Pahang	1,720	68,980,596	55,885,422	13,095,174	54,762	2,270,290	17,728,963
Pulau Pinang	5,678	303,188,123	245,912,484	57,275,639	371,732	18,526,288	39,695,672
Perak	4,160	75,245,406	57,587,038	17,658,368	147,337	5,315,971	19,856,506
Perlis	311	3,976,190	3,261,528	714,662	5,167	124,414	432,572
Selangor	16,808	516,377,213	386,908,215	129,468,998	723,767	29,845,041	85,133,792
Terengganu	1,870	47,321,803	33,303,591	14,018,213	26,516	1,541,425	10,167,679
Sabah	1,667	48,924,387	41,998,120	6,926,267	61,651	1,682,627	11,256,624
Sarawak	2,589	176,606,307	131,333,017	45,273,290	101,167	4,262,849	45,585,665
W.P. Kuala Lumpur	1,632	11,446,269	8,201,232	3,245,037	37,617	1,449,015	3,457,075
W.P. Labuan	134	3,514,584	2,072,401	1,442,183	2,748	199,972	1,081,356
W.P. Putrajaya	31	8,500	4,236	4,264	182	3,929	1,236

Jadual 3.1: Statistik utama subsektor Produk makanan mengikut negeri, 2022

Table 3.1: Principal statistics of Food products sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	9,171	303,596,068	257,414,064	46,182,004	292,147	10,399,326	46,219,944
Johor	1,436	72,324,793	59,495,029	12,829,764	58,758	2,231,036	13,336,209
Kedah	572	7,814,097	6,595,864	1,218,233	11,590	280,181	1,214,459
Kelantan	409	1,513,495	1,226,434	287,061	4,131	73,804	202,487
Melaka	329	5,518,060	4,659,096	858,964	11,458	334,669	1,471,701
Negeri Sembilan	400	7,179,686	5,914,259	1,265,427	8,084	347,169	1,141,724
Pahang	391	14,521,460	12,925,950	1,595,509	10,759	434,738	2,223,914
Pulau Pinang	799	18,023,951	15,205,141	2,818,810	20,258	724,905	2,254,787
Perak	843	21,389,129	18,123,506	3,265,623	22,687	694,522	2,724,842
Perlis	106	1,421,029	1,255,450	165,579	770	13,626	35,363
Selangor	2,193	82,514,302	68,473,661	14,040,641	86,236	3,568,524	13,595,884
Terengganu	419	1,803,362	1,420,980	382,382	3,542	86,970	297,165
Sabah	475	37,998,485	33,677,758	4,320,727	27,312	734,634	4,122,706
Sarawak	566	28,660,474	26,120,813	2,539,661	20,925	682,104	3,249,368
W.P. Kuala Lumpur	205	2,743,301	2,177,708	565,592	5,322	182,357	340,970
W.P. Labuan*	20	169,097	141,699	27,398	289	9,682	8,125
W.P. Putrajaya	8	1,348	714	634	26	405	240

*** Nota: Termasuk subsektor Minuman dan produk tembakau**

** Note: Included Beverages and tobacco products sub-sector*

Jadual 3.2: Statistik utama subsektor Minuman dan produk tembakau mengikut negeri, 2022

Table 3.2: Principal statistics of Beverages and tobacco products sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	458	16,082,514	11,578,548	4,503,966	17,636	777,157	3,609,269
Johor	66	1,410,945	1,044,414	366,531	2,825	99,608	341,973
Kedah	24	55,651	38,769	16,882	304	7,295	16,225
Kelantan	14	11,704	6,928	4,776	155	2,606	1,525
Melaka	18	20,949	11,759	9,190	320	7,023	6,656
Negeri Sembilan	20	1,926,036	1,257,723	668,313	2,573	155,684	554,256
Pahang	10	85,615	66,776	18,839	364	10,005	16,956
Pulau Pinang	31	357,136	266,221	90,915	532	17,827	18,289
Perak	24	685,336	550,157	135,179	1,112	52,752	159,989
Perlis	6	16,025	6,977	9,049	111	2,589	5,571
Selangor	138	10,394,955	7,483,569	2,911,386	6,572	344,001	2,118,922
Terengganu	5	6,234	3,400	2,834	73	1,183	4,279
Sabah	19	203,861	143,562	60,299	839	20,175	104,270
Sarawak	51	700,063	528,796	171,267	1,406	42,237	233,946
W.P. Kuala Lumpur	12	38,906	27,797	11,108	161	4,489	18,286
W.P. Labuan*	20	169,097	141,699	27,398	289	9,682	8,125

*** Nota: Termasuk subsektor Produk makanan**

** Note: Included Food products sub-sector*

Jadual 3.3: Statistik utama subsektor Produk tekstil, pakaian, kulit dan kasut mengikut negeri, 2022
Table 3.3: Principal statistics of Textiles, wearing apparel, leather and footwear products sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	6,324	24,071,910	17,053,398	7,018,512	91,144	2,202,460	5,430,308
Johor	910	7,597,689	5,229,357	2,368,332	30,403	691,229	2,762,578
Kedah	460	366,163	228,950	137,213	3,020	52,770	64,816
Kelantan	336	129,077	61,849	67,228	1,735	21,517	29,150
Melaka	187	3,053,310	2,320,906	732,405	3,499	80,213	307,767
Negeri Sembilan	357	867,562	581,416	286,146	4,400	112,979	515,305
Pahang	274	29,128	15,330	13,798	998	10,105	6,434
Pulau Pinang	373	4,147,610	3,164,227	983,383	9,472	283,114	584,358
Perak	581	864,636	597,307	267,330	6,483	135,757	209,250
Perlis	62	12,329	7,601	4,728	313	4,052	1,864
Selangor	1,066	5,963,864	4,123,534	1,840,330	20,333	616,048	735,144
Terengganu	594	96,632	56,137	40,495	2,195	21,016	8,680
Sabah	339	170,458	102,545	67,913	2,232	28,469	18,021
Sarawak	447	103,816	60,564	43,252	1,790	19,875	9,197
W.P. Kuala Lumpur	287	660,440	497,899	162,541	4,064	122,957	177,096
W.P. Labuan	43	7,960	5,014	2,945	183	2,110	517
W.P. Putrajaya	8	1,237	762	475	24	249	130

Jadual 3.4: Statistik utama subsektor Produk kayu, perabot, keluaran kertas dan percetakan mengikut negeri, 2022

Table 3.4: Principal statistics of Wood products, furniture, paper products and printing sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	9,706	90,402,779	66,020,233	24,382,546	306,742	9,239,032	23,502,261
Johor	2,019	20,728,680	14,663,215	6,065,465	78,894	2,188,606	4,590,491
Kedah	404	4,114,832	3,037,026	1,077,807	12,398	342,628	1,244,875
Kelantan	269	579,648	427,469	152,179	3,523	79,066	108,533
Melaka	285	2,618,719	1,922,079	696,641	9,191	253,136	898,305
Negeri Sembilan	396	4,517,017	3,442,364	1,074,652	10,432	329,038	1,332,867
Pahang	316	6,007,588	4,694,420	1,313,168	13,934	393,152	1,704,645
Pulau Pinang	905	6,756,597	5,242,731	1,513,865	25,389	851,701	1,469,966
Perak	598	2,603,400	1,932,244	671,156	11,964	314,548	851,986
Perlis	32	12,767	7,981	4,786	173	2,960	2,363
Selangor	2,962	27,584,058	19,513,045	8,071,014	84,801	2,836,215	7,201,262
Terengganu	286	487,767	365,348	122,419	3,717	76,446	67,249
Sabah	250	3,103,183	2,439,741	663,443	16,595	403,115	468,803
Sarawak	434	7,991,513	6,380,921	1,610,593	26,476	753,199	2,136,358
W.P. Kuala Lumpur	529	1,531,526	1,034,372	497,153	8,627	309,061	440,380
W.P. Labuan *	13	1,761,552	915,585	845,967	515	103,421	983,657
W.P. Putrajaya	8	3,931	1,693	2,238	113	2,739	522

* Nota: Termasuk subsektor Produk petroleum, kimia, getah dan plastik

* Note: Included Petroleum, chemical, rubber and plastic products sub-sector

Jadual 3.5: Statistik utama subsektor Produk petroleum, kimia, getah dan plastik mengikut negeri, 2022

Table 3.5: Principal statistics of Petroleum, chemical, rubber and plastic products sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah	6,170	579,578,137	441,977,109	137,601,028	437,654	19,781,886	138,089,311
<i>Total</i>							
Johor	1,093	81,106,260	67,282,958	13,823,302	88,317	3,876,962	40,039,187
Kedah	306	12,483,308	8,953,389	3,529,920	27,874	1,043,749	3,038,371
Kelantan	46	1,373,201	1,184,879	188,323	3,743	102,607	326,055
Melaka	164	58,444,065	49,325,040	9,119,025	13,869	713,553	11,125,814
Negeri Sembilan	255	68,920,257	55,593,966	13,326,291	19,725	911,735	7,222,196
Pahang	70	34,143,100	26,410,648	7,732,451	9,333	667,559	5,459,477
Pulau Pinang	695	23,712,749	19,588,272	4,124,477	34,626	1,581,089	2,944,159
Perak	419	19,487,506	13,780,175	5,707,331	43,692	1,635,912	7,354,512
Perlis	7	715,038	468,876	246,162	3,148	74,968	166,329
Selangor	2,712	121,051,838	90,947,914	30,103,923	164,576	6,607,318	23,090,760
Terengganu	51	41,335,569	28,539,993	12,795,576	8,899	1,059,065	9,597,838
Sabah	82	4,358,046	3,290,048	1,067,998	5,077	186,164	5,377,958
Sarawak	117	108,053,468	73,733,129	34,320,339	7,395	914,467	19,889,177
W.P. Kuala Lumpur	140	2,632,181	1,962,237	669,944	6,865	303,317	1,473,820
W.P. Labuan *	13	1,761,552	915,585	845,967	515	103,421	983,657

*** Nota: Termasuk subsektor Produk kayu, perabot, keluaran kertas dan percetakan**

** Note: Included Wood products, furniture, paper products and printing sub-sector*

Jadual 3.6: Statistik utama subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka mengikut negeri, 2022

Table 3.6: Principal statistics of Non-metallic mineral products, basic metal and fabricated metal products sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	10,364	198,941,035	154,363,688	44,577,347	342,706	13,326,241	55,977,799
Johor	1,897	44,533,328	33,819,637	10,713,690	78,523	2,877,527	9,415,001
Kedah	659	4,579,144	3,077,177	1,501,967	12,465	406,037	1,213,019
Kelantan	289	810,625	684,880	125,745	2,900	80,228	230,915
Melaka	360	5,858,454	4,424,060	1,434,394	12,202	452,131	3,026,816
Negeri Sembilan	506	9,032,346	6,740,316	2,292,030	14,629	576,246	1,163,338
Pahang	366	8,331,453	7,552,997	778,455	9,406	405,456	7,157,255
Pulau Pinang	1,066	22,325,693	18,803,425	3,522,268	35,285	1,488,126	2,656,877
Perak	877	9,895,065	7,368,648	2,526,417	21,567	846,017	3,261,524
Perlis *	76	1,792,138	1,510,735	281,403	548	24,378	211,590
Selangor	2,924	61,376,446	46,557,776	14,818,670	118,789	4,668,438	12,669,936
Terengganu	281	2,815,325	2,368,825	446,500	3,512	147,734	61,821
Sabah	278	2,535,142	2,013,142	522,000	6,423	214,114	945,799
Sarawak	561	21,677,526	17,267,893	4,409,633	19,733	843,064	13,303,807
W.P. Kuala Lumpur	201	2,129,012	1,349,519	779,492	6,030	255,675	623,438
W.P. Labuan *	20	1,248,263	824,099	424,164	687	40,884	36,512
W.P. Putrajaya *	3	1,075	558	517	7	188	152

* Nota: Termasuk subsektor Produk elektrik, elektronik dan optikal

* Note: Included Electrical, electronic and optical products sub-sector

Jadual 3.7: Statistik utama subsektor Produk elektrik, elektronik dan optikal mengikut negeri, 2022

Table 3.7: Principal statistics of Electrical, electronic and optical products sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	5,010	563,759,414	442,846,685	120,912,730	631,084	32,949,479	80,727,817
Johor	853	75,975,913	63,149,410	12,826,503	113,676	4,946,251	7,838,608
Kedah	165	54,615,861	46,465,790	8,150,070	39,141	2,143,763	11,570,791
Kelantan	6	1,437,964	1,149,916	288,047	2,350	94,687	632,673
Melaka	186	22,650,573	17,315,586	5,334,987	38,757	2,162,342	3,511,705
Negeri Sembilan	157	17,090,284	12,677,677	4,412,607	21,807	1,661,004	4,461,402
Pahang	26	1,257,424	788,972	468,452	4,202	149,840	750,994
Pulau Pinang	1,032	217,693,574	176,011,184	41,682,390	215,830	12,393,229	27,178,574
Perak	197	16,062,887	11,980,040	4,082,848	29,595	1,342,631	2,874,110
Perlis *	76	1,792,138	1,510,735	281,403	548	24,378	211,590
Selangor	2,107	145,288,591	104,151,963	41,136,628	144,567	7,049,371	15,463,677
Terengganu	16	327,145	266,074	61,071	589	20,448	21,700
Sabah	26	81,399	38,577	42,822	365	11,401	16,952
Sarawak	35	7,726,283	6,142,145	1,584,138	16,714	799,006	6,043,403
W.P. Kuala Lumpur	105	510,040	373,957	136,083	2,249	110,055	114,974
W.P. Labuan *	20	1,248,263	824,099	424,164	687	40,884	36,512
W.P. Putrajaya *	3	1,075	558	517	7	188	152

* Nota: Termasuk subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka

* Note: Included Non-metallic mineral products, basic metal and fabricated metal products sub-sector

Jadual 3.8: Statistik utama subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan mengikut negeri, 2022

Table 3.8: Principal statistics of Transport equipment, other manufacturing and repair sub-sector by state, 2022

Negeri	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>State</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM'000)	(RM'000)	(RM'000)		(RM'000)	(RM'000)
Jumlah Total	7,434	122,243,814	90,944,372	31,299,442	229,186	8,722,419	25,574,147
Johor	970	12,745,936	9,874,736	2,871,200	31,614	1,116,033	2,792,904
Kedah	398	3,277,048	2,116,548	1,160,500	11,403	369,114	1,082,527
Kelantan	181	64,124	38,545	25,579	812	11,866	13,061
Melaka	186	14,557,006	11,452,234	3,104,772	10,595	372,556	3,162,986
Negeri Sembilan	317	6,210,361	4,843,436	1,366,925	11,512	388,979	1,484,407
Pahang	267	4,604,829	3,430,329	1,174,500	5,766	199,434	409,289
Pulau Pinang	777	10,170,812	7,631,282	2,539,530	30,340	1,186,296	2,588,664
Perak	621	4,257,446	3,254,962	1,002,484	10,237	293,832	2,420,293
Perlis	22	6,864	3,908	2,955	104	1,841	9,492
Selangor	2,706	62,203,158	45,656,753	16,546,405	97,893	4,155,126	10,258,207
Terengganu	218	449,769	282,834	166,936	3,989	128,563	108,946
Sabah	198	473,812	292,746	181,066	2,808	84,555	202,115
Sarawak	378	1,693,164	1,098,756	594,408	6,728	208,898	720,409
W.P. Kuala Lumpur	153	1,200,864	780,792	420,072	4,299	161,105	268,112
W.P. Labuan	38	327,713	186,004	141,709	1,074	43,875	52,545
W.P. Putrajaya	4	908	508	400	12	347	192

Jadual 4: Statistik utama sektor Pembuatan mengikut taraf sah, 2022

Table 4: Principal statistics of Manufacturing sector by legal status, 2022

Taraf sah	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>Legal status</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>	54,505	1,893,703,546	1,478,802,370	414,901,176	2,346,253	97,219,447	377,890,819
Hak milik perseorangan <i>Individual proprietorship</i>	19,200	12,760,623	8,124,465	4,636,158	115,610	2,306,028	1,904,352
Perkongsian <i>Partnership</i>	3,328	3,794,483	2,527,853	1,266,630	32,683	693,726	650,120
Perkongsian liabiliti terhad <i>Limited liabilities partnership</i>	137	194,363	120,826	73,537	1,379	38,886	78,451
Syarikat sendirian berhad <i>Private limited company</i>	31,751	1,790,087,999	1,399,654,846	390,433,152	2,161,286	91,893,377	359,575,905
Syarikat awam berhad <i>Public limited company</i>	69	86,393,906	67,999,462	18,394,444	34,170	2,259,786	15,504,941
Syarikat koperasi; Pertubuhan Persendirian Yang Tidak Mencari Keuntungan <i>Co-operative; Private Non-Profit Making Organisation</i>	14	147,836	61,954	85,882	594	11,395	14,548
Perbadanan awam <i>Public corporation</i>	6	324,337	312,964	11,373	531	16,248	162,502

Jadual 5: Statistik utama sektor Pembuatan mengikut hak milik, 2022

Table 5: Principal statistics of Manufacturing sector by ownership, 2022

Hak milik	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Bilangan pekerja	Gaji & upah	Nilai harta tetap
<i>Ownership</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of intermediate input</i>	<i>Value added</i>	<i>Number of persons engaged</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>	54,505	1,893,703,546	1,478,802,370	414,901,176	2,346,253	97,219,447	377,890,819
Residen Malaysia <i>Malaysian residents</i>	53,515	1,467,308,612	1,136,137,912	331,170,700	1,943,219	74,897,880	256,893,784
Bukan residen Malaysia <i>Non-Malaysian residents</i>	944	406,457,077	326,444,950	80,012,127	388,759	21,181,897	101,350,359
Hak milik bersama <i>Joint ownership</i>	46	19,937,856	16,219,508	3,718,348	14,275	1,139,670	19,646,676

Jadual 6: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina, 2022
Table 6: Number of persons engaged and salaries & wages by category of workers and sex, 2022

Kategori pekerja Category of workers	Bilangan pekerja Number of persons engaged			Gaji & upah Salaries & wages
	Jumlah Total	Lelaki Male	Perempuan Female	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	2,346,253	1,587,025	759,228	97,219,447
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	40,358	27,134	13,224	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	30,971	22,047	8,924	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	9,387	5,087	4,300	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	2,294,047	1,553,043	741,004	97,058,726
Pengurus <i>Managers</i>	125,327	95,937	29,390	19,105,535
Profesional <i>Professionals</i>	93,908	60,677	33,231	9,580,248
Penyelidik <i>Researcher</i>	4,840	3,070	1,770	382,254
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	192,688	161,800	30,888	11,282,010
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	151,740	30,979	120,761	5,474,786
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	49,076	25,861	23,215	1,753,883
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	171,670	137,599	34,071	4,884,420
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	1,295,724	881,861	413,863	39,501,848
Pekerja Asas <i>Elementary Occupations</i>	209,074	155,259	53,815	5,093,742
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	11,848	6,848	5,000	160,721

Jadual 6.1: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Produk makanan, 2022
Table 6.1: Number of persons engaged and salaries & wages by category of workers and sex for Food products sub-sector, 2022

Kategori pekerja Category of workers	Bilangan pekerja Number of persons engaged			Gaji & upah Salaries & wages
	Jumlah Total	Lelaki Male	Perempuan Female	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	292,086	195,691	96,395	10,397,637
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	8,706	4,732	3,974	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	6,405	3,694	2,711	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	2,301	1,038	1,263	n.a.
B. Jumlah pekerja bergaji (se penuh masa) <i>Total paid employees (full-time)</i>	280,554	189,697	90,857	10,362,281
Pengurus <i>Managers</i>	15,055	11,073	3,982	2,118,621
Profesional <i>Professionals</i>	6,898	4,145	2,753	588,901
Penyelidik <i>Researcher</i>	681	403	278	41,933
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	15,652	13,448	2,204	804,716
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	20,782	4,130	16,652	669,306
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	11,316	5,695	5,621	362,525
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	21,444	14,907	6,537	588,819
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	151,697	109,379	42,318	4,326,671
Pekerja Asas <i>Elementary Occupations</i>	37,029	26,517	10,512	860,788
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	2,826	1,262	1,564	35,356

Jadual 6.2: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Minuman dan produk tembakau, 2022
Table 6.2: Number of persons engaged and salaries & wages by category of workers and sex for Beverages and tobacco products sub-sector, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i>
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	17,408	11,564	5,844	769,164
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	207	149	58	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	164	127	37	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	43	22	21	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	17,101	11,368	5,733	768,215
Pengurus <i>Managers</i>	1,119	812	307	208,100
Profesional <i>Professionals</i>	628	386	242	79,840
Penyelidik <i>Researcher</i>	49	26	23	2,297
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	1,167	979	188	69,024
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	1,354	236	1,118	40,514
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	541	354	187	15,938
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	827	697	130	21,156
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	10,015	6,853	3,162	301,364
Pekerja Asas <i>Elementary Occupations</i>	1,401	1,025	376	29,982
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	100	47	53	949

Jadual 6.3: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Produk tekstil, pakaian, kulit dan kasut, 2022
Table 6.3: Number of persons engaged and salaries & wages by category of workers and sex for Textiles, wearing apparel, leather and footwear products sub-sector, 2022

Kategori pekerja Category of workers	Bilangan pekerja Number of persons engaged			Gaji & upah Salaries & wages (RM '000)
	Jumlah Total	Lelaki Male	Perempuan Female	
Jumlah (A+B+C) / Total (A+B+C)	91,144	51,984	39,160	2,202,460
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	9,522	3,412	6,110	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	5,936	2,022	3,914	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	3,586	1,390	2,196	n.a.
B. Jumlah pekerja bergaji (se penuh masa) <i>Total paid employees (full-time)</i>	78,845	47,969	30,876	2,175,315
Pengurus <i>Managers</i>	4,263	3,102	1,161	392,807
Profesional <i>Professionals</i>	1,086	608	478	67,909
Penyelidik <i>Researcher</i>	43	12	31	2,142
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	4,128	3,165	963	160,464
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	5,149	985	4,164	144,287
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	2,309	963	1,346	65,964
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	8,721	5,548	3,173	201,020
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	37,782	23,154	14,628	831,427
Pekerja Asas <i>Elementary Occupations</i>	15,364	10,432	4,932	309,295
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	2,777	603	2,174	27,145

Jadual 6.4: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Produk kayu, perabot, keluaran kertas dan percetakan, 2022
Table 6.4: Number of persons engaged and salaries & wages by category of workers and sex for Wood products, furniture, paper products and printing sub-sector, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i>
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	306,294	231,629	74,665	9,137,178
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	6,888	5,671	1,217	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	5,620	4,728	892	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	1,268	943	325	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	297,012	224,137	72,875	9,105,753
Pengurus <i>Managers</i>	16,358	13,369	2,989	1,578,425
Profesional <i>Professionals</i>	5,409	3,416	1,993	391,159
Penyelidik <i>Researcher</i>	326	190	136	17,915
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	16,901	14,826	2,075	709,326
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	24,634	3,980	20,654	738,664
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	7,592	3,864	3,728	231,622
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	29,728	26,448	3,280	733,865
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	148,126	121,145	26,981	3,668,441
Pekerja Asas <i>Elementary Occupations</i>	47,938	36,899	11,039	1,036,336
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	2,394	1,821	573	31,425

Jadual 6.5: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Produk petroleum, kimia, getah dan plastik, 2022
Table 6.5: Number of persons engaged and salaries & wages by category of workers and sex for Petroleum, chemical, rubber and plastic products sub-sector, 2022

Kategori pekerja Category of workers	Bilangan pekerja Number of persons engaged			Gaji & upah Salaries & wages
	Jumlah Total	Lelaki Male	Perempuan Female	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	437,587	296,953	140,634	19,780,319
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	1,918	1,515	403	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	1,605	1,283	322	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	313	232	81	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	435,008	294,960	140,048	19,768,936
Pengurus <i>Managers</i>	24,113	18,005	6,108	3,953,997
Profesional <i>Professionals</i>	17,793	11,195	6,598	2,191,143
Penyelidik <i>Researcher</i>	1,356	707	649	141,211
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	37,188	32,038	5,150	2,435,928
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	28,870	6,070	22,800	1,094,879
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	8,019	3,528	4,491	333,692
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	21,975	17,248	4,727	803,336
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	261,422	181,753	79,669	7,951,050
Pekerja Asas <i>Elementary Occupations</i>	34,272	24,416	9,856	863,699
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	661	478	183	11,383

Jadual 6.6: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Produk mineral bukan logam, logam asas dan produk logam yang direka, 2022
Table 6.6: Number of persons engaged and salaries & wages by category of workers and sex for Non-metallic mineral products, basic metal and fabricated metal products sub-sector, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i>
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	342,681	270,084	72,597	13,325,689
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	6,925	6,180	745	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	5,807	5,329	478	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	1,118	851	267	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	334,429	262,696	71,733	13,304,890
Pengurus <i>Managers</i>	20,714	16,547	4,167	2,760,590
Profesional <i>Professionals</i>	10,950	7,436	3,514	882,437
Penyelidik <i>Researcher</i>	727	577	150	43,954
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	25,795	23,234	2,561	1,341,194
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	26,888	4,899	21,989	909,705
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	6,287	3,323	2,964	234,764
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	33,229	30,394	2,835	982,688
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	176,604	148,458	28,146	5,193,591
Pekerja Asas <i>Elementary Occupations</i>	33,235	27,828	5,407	955,967
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	1,327	1,208	119	20,799

Jadual 6.7: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Produk elektrik, elektronik dan optikal, 2022
Table 6.7: Number of persons engaged and salaries & wages by category of workers and sex for Electrical, electronic and optical products sub-sector, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i>
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	(RM '000)
Jumlah (A+B+C) / Total (A+B+C)	629,867	359,510	270,357	32,884,581
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	1,464	1,280	184	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	1,276	1,129	147	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	188	151	37	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	627,491	357,514	269,977	32,863,008
Pengurus <i>Managers</i>	30,249	21,993	8,256	6,434,115
Profesional <i>Professionals</i>	41,087	26,378	14,709	4,497,001
Penyelidik <i>Researcher</i>	1,312	920	392	111,556
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	73,189	57,583	15,606	4,816,300
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	28,284	7,543	20,741	1,372,918
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	7,478	4,668	2,810	304,311
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	30,804	21,544	9,260	880,078
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	390,906	201,217	189,689	13,755,441
Pekerja Asas <i>Elementary Occupations</i>	24,182	15,668	8,514	691,288
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	912	716	196	21,573

Jadual 6.8: Bilangan pekerja dan gaji & upah mengikut kategori pekerja dan jantina bagi subsektor Peralatan pengangkutan, pembuatan lain dan pembaikan, 2022

Table 6.8: Number of persons engaged and salaries & wages by category of workers and sex for Transport equipment, other manufacturing and repair sub-sector, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i> (RM '000)
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	
Jumlah (A+B+C) / Total (A+B+C)	229,186	169,610	59,576	8,722,419
A. Jumlah pemilik yang bekerja dan pekerja keluarga tanpa gaji <i>Total working proprietor and unpaid family worker</i>	4,728	4,195	533	n.a.
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietor and active business partners</i>	4,158	3,735	423	n.a.
Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family worker (all members of family and friends not receiving regular wages)</i>	570	460	110	n.a.
B. Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	223,607	164,702	58,905	8,710,328
Pengurus <i>Managers</i>	13,456	11,036	2,420	1,658,879
Profesional <i>Professionals</i>	10,057	7,113	2,944	881,859
Penyelidik <i>Researcher</i>	346	235	111	21,246
Juruteknik dan Profesional Bersekutu <i>Technicians and Associate Professionals</i>	18,668	16,527	2,141	945,057
Pekerja Sokongan Perkeranian <i>Clerical Support Workers</i>	15,779	3,136	12,643	504,513
Pekerja Perkhidmatan dan Jualan <i>Service and Sales Workers</i>	5,534	3,466	2,068	205,068
Pekerja Kemahiran dan Pekerja Pertukangan yang Berkaitan <i>Craft and Related Trades Workers</i>	24,942	20,813	4,129	673,457
Operator Mesin & Loji dan Pemasang <i>Plant and Machine Operators and Assemblers</i>	119,172	89,902	29,270	3,473,863
Pekerja Asas <i>Elementary Occupations</i>	15,653	12,474	3,179	346,387
C. Jumlah pekerja bergaji (sambilan) <i>Total employees (part-time)</i>	851	713	138	12,091

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i>
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	(RM'000)
Jumlah <i>Total</i>		54,505	2,346,253	40,358	2,294,047	11,848	97,219,447
Pemprosesan dan pengawetan daging <i>Processing and preserving of meat</i>	101	385	19,083	313	18,646	124	649,865
Pemprosesan dan pengawetan ikan, krustasea dan moluska <i>Processing and preserving of fish, crustaceans and molluscs</i>	102	684	17,750	953	16,202	595	410,580
Pemprosesan dan pengawetan buah-buahan dan sayur-sayuran <i>Processing and preserving of fruits and vegetables</i>	103	569	9,518	446	9,015	57	259,647
Pembuatan minyak dan lemak sayuran dan haiwan <i>Manufacture of vegetable and animal oils and fats</i>	104	681	76,470	159	75,785	526	2,981,075
Pembuatan produk tenusu <i>Manufacture of dairy products</i>	105	215	11,283	114	11,154	15	565,838

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i>
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	(RM'000)
Pembuatan produk bijian, kanji dan produk berkanji <i>Manufacture of grain mill products, starches and starch products</i>	106	267	10,861	288	10,530	43	468,315
Pembuatan produk makanan lain <i>Manufacture of other food products</i>	107	6,176	137,602	6,399	129,767	1,436	4,676,031
Pembuatan makanan haiwan tersedia <i>Manufacture of prepared animal feeds</i>	108	192	9,519	34	9,455	30	386,286
Pembuatan minuman <i>Manufacture of beverages</i>	110	418	16,567	181	16,292	94	686,622
Pembuatan produk tembakau <i>Manufacture of tobacco products</i>	120	22	841	26	809	6	82,542
Pemintalan, penenunan dan penyiapan tekstil <i>Spining, weaving and finishing of textiles</i>	131	277	12,287	373	11,882	32	440,314
Pembuatan tekstil lain <i>Manufacture of other textiles</i>	139	608	18,336	800	17,383	153	452,830

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i>
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	(RM'000)
Pembuatan pakaian, kecuali pakaian berbulu <i>Manufacture of wearing apparel, except fur apparel</i>	141	5,103	46,414	7,803	36,100	2,511	956,390
Pembuatan artikel bulu <i>Manufacture of articles of fur</i>	142	4	183	2	181	-	3,550
Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>	143	24	1,061	24	1,031	6	28,564
Penyamakan dan pembersihan kulit, pembuatan bagasi, beg tangan, pelana dan abah-abah; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur</i>	151	124	6,840	250	6,550	40	160,590
Pembuatan kasut <i>Manufacture of footwear</i>	152	184	6,023	270	5,718	35	160,221
Pengilangan dan pengetaman kayu <i>Sawmilling and planing of wood</i>	161	630	29,681	264	28,497	920	768,604

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i>
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	(RM'000)
Pembuatan produk daripada kayu, gabus, jerami dan bahan jalinan lain <i>Manufacture of products of wood, cork, straw and plaiting materials</i>	162	1,090	65,000	798	63,369	833	1,888,002
Pembuatan kertas dan produk kertas <i>Manufacture of paper and paper products</i>	170	1,065	55,135	441	54,601	93	1,969,379
Percetakan dan aktiviti perkhidmatan berkaitan percetakan <i>Printing and service activities related to printing</i>	181	3,702	53,155	2,857	50,009	289	1,732,674
Penerbitan semula media rakaman <i>Reproduction of recorded media</i>	182	26	153	8	144	1	4,845
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	192	152	17,944	14	17,913	17	2,289,267
Pembuatan kimia asas, baja dan sebatian nitrogen, plastik dan getah sintetik dalam bentuk primer <i>Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms</i>	201	915	55,641	237	55,372	32	3,864,096

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i>
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	(RM'000)
Pembuatan produk kimia lain <i>Manufacture of other chemical products</i>	202	1,288	54,695	383	54,198	114	2,455,436
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	203	5	346	-	346	-	23,147
Pembuatan produk farmaseutikal, kimia perubatan dan botani <i>Manufacture of pharmaceuticals, medical chemical and botanical products</i>	210	523	24,318	179	24,121	18	989,104
Pembuatan produk getah <i>Manufacture of rubber products</i>	221	923	128,545	265	128,134	146	4,703,227
Pembuatan produk plastik <i>Manufacture of plastic products</i>	222	2,352	156,098	840	154,924	334	5,456,043
Pembuatan kaca dan produk kaca <i>Manufacture of glass and glass products</i>	231	516	19,088	391	18,663	34	982,173
Pembuatan produk mineral bukan logam t.t.t.l. <i>Manufacture of non-metallic mineral products n.e.c.</i>	239	2,038	76,072	1,071	74,815	186	3,431,173

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i> (RM'000)
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan dan pekerja keluarga <i>Part-time employees</i>	
Pembuatan besi asas dan keluli <i>Manufacture of basic iron and steel</i>	241	1,028	47,021	672	46,221	128	2,097,159
Pembuatan logam asas berharga dan logam bukan ferus lain <i>Manufacture of basic precious and other non-ferrous metals</i>	242	495	32,929	288	32,573	68	1,333,181
Pengacuan logam <i>Casting of metals</i>	243	395	17,626	184	17,413	29	582,846
Pembuatan produk struktur logam, tangki, takungan dan penjana wap; Pembuatan senjata dan peluru <i>Manufacture of structural metal products, tanks, reservoirs and steam generators;</i> <i>Manufacture of weapons and ammunition</i>	251 252	3,374	51,462	3,194	47,713	555	1,511,708
Pembuatan lain-lain produk yang direka daripada logam; aktiviti perkhidmatan kerja logam <i>Manufacture of other fabricated metal products; metalworking service activities</i>	259	2,514	98,483	1,125	97,031	327	3,387,449

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i> (RM'000)
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	
Pembuatan komponen dan papan elektronik <i>Manufacture of electronic components and boards</i>	261	646	258,079	113	257,912	54	15,422,684
Pembuatan komputer dan kelengkapan peranti <i>Manufacture of computers and peripheral equipment</i>	262	117	44,169	46	44,122	1	2,144,544
Pembuatan peralatan komunikasi <i>Manufacture of communication equipment</i>	263	67	19,363	4	19,358	1	933,258
Pembuatan elektronik pengguna <i>Manufacture of consumer electronics</i>	264	111	32,374	8	31,809	557	1,713,563
Pembuatan kelengkapan mengukur, menguji, memandu arah dan kawalan; jam tangan dan jam <i>Manufacture of measuring, testing, navigating and control equipment; watches and clocks</i>	265	195	30,169	31	30,137	1	2,114,062
Pembuatan kelengkapan mengukur, menguji, mengemudi (memandu arah) dan kawalan; jam tangan dan jam <i>Manufacture of measuring, testing, navigating and control equipment; watches and clocks</i>	266	68	13,517	6	13,509	2	832,481

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i> (RM'000)
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	
Pembuatan peralatan optikal dan alatan fotografi <i>Manufacture of optical instruments and photographic equipment</i>	267	40	5,246	11	5,234	1	258,899
Pembuatan media magnetik dan optikal <i>Manufacture of magnetic and optical media</i>	268	3	42	-	42	-	2,407
Pembuatan motor elektrik, penjana, transformer dan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus</i>	271	408	36,647	89	36,538	20	1,385,971
Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>	272	52	6,342	10	6,332	-	582,015
Pembuatan pendawaian dan alatan pendawaian <i>Manufacture of wiring and wiring devices</i>	273	298	26,299	102	26,164	33	878,719
Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>	274	124	3,793	23	3,763	7	140,260

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i>
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	(RM'000)
Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>	275	118	17,743	17	17,706	20	957,803
Pembuatan kelengkapan elektrik lain <i>Manufacture of other electrical equipment</i>	279	209	19,006	75	18,921	10	787,573
Pembuatan jentera kegunaan umum <i>Manufacture of general-purpose machinery</i>	281	1,210	55,952	455	55,394	103	2,111,632
Pembuatan mesin bagi tujuan khas <i>Manufacture of special-purpose machinery</i>	282	1,249	61,126	474	60,550	102	2,618,710
Pembuatan kenderaan bermotor <i>Manufacture of motor vehicles</i>	291	22	29,184	-	29,184	-	1,544,052
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>	292	156	4,858	92	4,756	10	158,436
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>	293	771	57,008	359	56,601	48	2,165,636

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i> (RM'000)
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	
Pembinaan kapal dan bot <i>Building of ships and boats</i>	301	247	10,984	109	10,845	30	495,716
Pembuatan keretapi dan rolling stock; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of railway and rolling stock; Manufacture of air and spacecraft and related machinery</i>	302 303	51	7,573	2	7,571	-	305,129
Pembuatan kenderaan tempur ketenteraan; Pembuatan kelengkapan pengangkutan t.t.t.l. <i>Manufacture of military fighting vehicles; Manufacture of transport equipment n.e.c.</i>	304 309	141	14,066	53	14,012	1	496,180
Pembuatan perabot <i>Manufacture of furniture</i>	310	3,192	103,170	2,520	100,392	258	2,773,673
Pembuatan barang kemas, bijouterie dan artikel berkaitan <i>Manufacture of jewellery, bijouterie and related articles</i>	321	269	6,335	188	6,138	9	234,707

Jadual 7: Bilangan pekerja dan gaji & upah mengikut kumpulan, 2022
Table 7: Number of persons engaged and salaries & wages by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir <i>Number of persons engaged during December or the last pay period</i>				Gaji & upah <i>Salaries & wages</i> (RM'000)
			Jumlah <i>Total</i>	Pemilik yang bekerja dan rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietors and active business partners and unpaid family workers</i>	Pekerja sepenuh masa <i>Full-time employees</i>	Pekerja sambilan <i>Part-time employees</i>	
Pembuatan instrumen muzik <i>Manufacture of musical instruments</i>	322	14	1,187	10	1,177	-	31,774
Pembuatan barangan sukan <i>Manufacture of sports goods</i>	323	54	2,529	46	2,483	-	69,089
Pembuatan permainan dan mainan <i>Manufacture of games and toys</i>	324	54	5,525	31	5,494	-	187,725
Pembuatan peralatan dan bekalan perubatan dan pergigian <i>Manufacture of medical and dental instrument and supplies</i>	325	368	13,063	187	12,863	13	534,231
Pembuatan lain t.t.t.l <i>Other manufacturing n.e.c.</i>	329	1,045	20,810	820	19,724	266	652,452
Pembaikan produk logam yang direka, jentera dan kelengkapan <i>Repair of fabricated metal products, machinery and equipment</i>	331	3,895	50,076	2,727	46,880	469	1,662,500
Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>	332	347	5,988	104	5,879	5	184,792

Jadual 8: Bilangan pekerja dan gaji & upah mengikut kategori kemahiran dan jantina, 2022

Table 8: Number of persons engaged and salaries & wages by category of skills and sex, 2022

Kategori kemahiran pekerja <i>Category of workers skilled</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i> (RM '000)
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	
Jumlah * <i>Total *</i>	2,294,047	1,553,043	741,004	97,058,726
Mahir <i>Skilled</i>	416,763	321,484	95,279	40,350,047
Separuh mahir <i>Semi-skilled</i>	1,668,210	1,076,300	591,910	51,614,937
Berkemahiran rendah <i>Low-skilled</i>	209,074	155,259	53,815	5,093,742

Nota/Note

***Tidak termasuk pemilik yang bekerja dan rakan niaga yang aktif, pekerja keluarga tanpa gaji dan pekerja bergaji (sambilan)**

Excludes working proprietors and active business partners, unpaid family workers and paid employees (part-time)

Jadual 8.1: Bilangan pekerja dan gaji & upah mengikut kategori kemahiran dan subsektor, 2022
Table 8.1: Number of persons engaged and salaries & wages by category of skills and sub-sector, 2022

Subsektor Sub-sector	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)
	Jumlah Total	Pekerja Mahir High-Skilled workers	Pekerja Separuh Mahir Semi-Skilled workers	Pekerja Kurang Mahir Low-Skilled workers	
Jumlah * <i>Total *</i>	2,294,047	416,763	1,668,210	209,074	97,058,726
Produk makanan <i>Food products</i>	280,554	38,286	205,239	37,029	10,362,281
Minuman dan produk tembakau <i>Beverages and tobacco products</i>	17,101	2,963	12,737	1,401	768,215
Produk tekstil, pakaian, kulit dan kasut <i>Textiles, wearing apparel, leather and footwear products</i>	78,845	9,520	53,961	15,364	2,175,315
Produk kayu, perabot, keluaran kertas dan percetakan <i>Wood products, furniture, paper products and printing</i>	297,012	38,994	210,080	47,938	9,105,753
Produk petroleum, kimia, getah dan plastik <i>Petroleum, chemical, rubber and plastic products</i>	435,008	80,450	320,286	34,272	19,768,936
Produk mineral bukan logam, logam asas dan produk logam <i>Non-metallic mineral products, basic metal and fabricated metal products</i>	334,429	58,186	243,008	33,235	13,304,890
Produk elektrik, elektronik dan optikal <i>Electrical, electronic and optical products</i>	627,491	145,837	457,472	24,182	32,863,008
Peralatan pengangkutan, pembuatan lain dan pembaikan <i>Transport equipment, other manufacturing and repair</i>	223,607	42,527	165,427	15,653	8,710,328

Nota/Note

***Tidak termasuk pemilik yang bekerja dan rakan niaga yang aktif, pekerja keluarga tanpa gaji dan pekerja bergaji (sambilan)**
Excludes working proprietors and active business partners, unpaid family workers and paid employees (part-time)

Jadual 9: Bilangan pekerja mengikut sijil tertinggi diperoleh dan jantina, 2022
Table 9: Number of persons engaged by higher certificate obtained and sex, 2022

Kategori sijil <i>Category of certificate</i>	Bilangan pekerja <i>Number of persons engaged</i>		
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>
Jumlah <i>Total</i>	2,346,253	1,587,025	759,228
Pascasiswazah <i>Postgraduate</i>	13,712	9,037	4,675
Ijazah sarjana muda/Diploma lanjutan atau setaraf <i>Bachelor/Advanced diploma or equivalent</i>	190,465	131,747	58,718
Diploma <i>Diploma</i>	289,645	183,823	105,822
STPM atau yang setaraf <i>STPM or equivalent</i>	48,343	27,061	21,282
Sijil <i>Certificate</i>	124,942	99,308	25,634
SPM/SPM(V) atau yang setaraf <i>SPM/SPM(V) or equivalent</i>	1,144,054	756,614	387,440
Di bawah taraf kelulusan SPM/SPM(V) <i>Below SPM/SPM(V) qualification</i>	535,092	379,435	155,657

Jadual 10: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022

Table 10: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Subsektor Sub-sector	Bilangan pekerja Number of persons engaged					Gaji & upah Salaries & wages (RM '000)
	Jumlah Total	Lelaki Male		Perempuan Female		
		Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	
Jumlah Total	2,346,253	1,205,351	381,674	601,893	157,335	97,219,447
Produk makanan Food products	292,086	149,201	46,490	81,558	14,837	10,397,637
Minuman dan produk tembakau Beverages and tobacco products	17,408	9,722	1,842	5,007	837	769,164
Produk tekstil, pakaian, kulit dan kasut Textiles, wearing apparel, leather and footwear products	91,144	38,431	13,553	34,036	5,124	2,202,460
Produk kayu, perabot, keluaran kertas dan percetakan Wood products, furniture, paper products and printing	306,294	161,765	69,864	61,371	13,294	9,137,178
Produk petroleum, kimia, getah dan plastik Petroleum, chemical, rubber and plastic products	437,587	216,163	80,790	108,571	32,063	19,780,319
Produk mineral bukan logam, logam asas dan produk logam yang direka Non-metallic mineral products, basic metal and fabricated metal products	342,681	204,705	65,379	61,642	10,955	13,325,689
Produk elektrik, elektronik dan optikal Electrical, electronic and optical products	629,867	282,311	77,199	201,265	69,092	32,884,581
Peralatan pengangkutan, pembuatan lain dan pembaikan Transport equipment, other manufacturing and repair	229,186	143,053	26,557	48,443	11,133	8,722,419

Jadual 10.1: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.1: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Produk makanan Food products							
Jumlah Total		292,086	149,201	46,490	81,558	14,837	10,397,637
Pemprosesan dan pengawetan daging Processing and preserving of meat	101	19,083	7,316	4,892	4,455	2,420	649,865
Pemprosesan dan pengawetan ikan, krustasea dan moluska Processing and preserving of fish, crustaceans and molluscs	102	17,750	7,400	2,390	6,539	1,421	410,580
Pemprosesan dan pengawetan buah-buahan dan sayur-sayuran Processing and preserving of fruits and vegetables	103	9,518	4,803	1,142	3,163	410	259,647
Pembuatan minyak dan lemak sayuran dan haiwan Manufacture of vegetable and animal oils and fats	104	76,470	46,814	16,142	11,460	2,054	2,981,075
Pembuatan produk tenusu Manufacture of dairy products	105	11,283	5,559	1,626	2,993	1,105	565,838
Pembuatan produk bijian, kanji dan produk berkanji Manufacture of grain mill products, starches and starch products	106	10,861	6,294	963	3,037	567	468,315
Pembuatan produk makanan lain Manufacture of other food products	107	137,602	65,200	18,270	47,527	6,605	4,676,031
Pembuatan makanan haiwan tersedia Manufacture of prepared animal feeds	108	9,519	5,815	1,065	2,384	255	386,286

Jadual 10.2: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.2: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pekerja <i>Number of persons engaged</i>				Gaji & upah Salaries & wages <
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Jadual 10.3: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.3: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male	Perempuan Female			
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Jumlah Total		91,144	38,431	13,553	34,036	5,124	2,202,460
Pemintalan, penenunan dan penyiapan tekstil Spining, weaving and finishing of textiles	131	12,287	5,124	3,664	3,054	445	440,314
Pembuatan tekstil lain Manufacture of other textiles	139	18,336	9,924	2,394	5,374	644	452,830
Pembuatan pakaian, kecuali pakaian berbulu Manufacture of wearing apparel, except fur apparel	141	46,414	16,640	4,996	21,259	3,519	956,390
Pembuatan artikel bulu Manufacture of articles of fur	142	183	52	41	89	1	3,550
Pembuatan pakaian yang dikait dan dikrusye Manufacture of knitted and crocheted apparel	143	1,061	452	53	513	43	28,564
Penyamakan dan pembersihan kulit, pembuatan bagasi, beg tangan, pelana dan abah-abah; pembersihan dan pewarnaan bulu Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	151	6,840	2,695	1,684	2,144	317	160,590
Pembuatan kasut Manufacture of footwear	152	6,023	3,544	721	1,603	155	160,221

Jadual 10.4: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.4: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged					Gaji & upah Salaries & wages
		Jumlah Total	Lelaki Male		Perempuan Female		(RM '000)
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	
Produk kayu, perabot, keluaran kertas dan percetakan Wood products, furniture, paper products and printing							
Jumlah Total		306,294	161,765	69,864	61,371	13,294	9,137,178
Pengilangan dan pengetaman kayu Sawmilling and planing of wood	161	29,681	16,835	7,316	4,800	730	768,604
Pembuatan produk daripada kayu, gabus, jerami dan bahan jalinan lain Manufacture of products of wood, cork, straw and plaiting materials	162	65,000	31,426	17,425	10,686	5,463	1,888,002
Pembuatan kertas dan produk kertas Manufacture of paper and paper products	170	55,135	29,077	9,790	13,167	3,101	1,969,379
Percetakan dan aktiviti perkhidmatan berkaitan percetakan Printing and service activities related to printing	181	53,155	31,726	4,566	15,712	1,151	1,732,674
Penerbitan semula media rakaman Reproduction of recorded media	182	153	121	-	32	-	4,845
Pembuatan perabot Manufacture of furniture	310	103,170	52,580	30,767	16,974	2,849	2,773,673

Jadual 10.5: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022

Table 10.5: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged					Gaji & upah Salaries & wages (RM '000)
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	
Produk petroleum, kimia, getah dan plastik <i>Petroleum, chemical, rubber and plastic products</i>							
Jumlah <i>Total</i>		437,587	216,163	80,790	108,571	32,063	19,780,319
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	192	17,944	14,429	720	2,610	185	2,289,267
Pembuatan kimia asas, baja dan sebatian nitrogen, plastik dan getah sintetik dalam bentuk primer <i>Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms</i>	201	55,641	36,480	6,665	11,041	1,455	3,864,096
Pembuatan produk kimia lain <i>Manufacture of other chemical products</i>	202	54,695	28,243	8,201	14,855	3,396	2,455,436
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	203	346	269	17	50	10	23,147
Pembuatan produk farmaseutikal, kimia perubatan dan botani <i>Manufacture of pharmaceuticals, medical chemical and botanical products</i>	210	24,318	12,432	1,675	9,140	1,071	989,104
Pembuatan produk getah <i>Manufacture of rubber products</i>	221	128,545	48,739	33,150	33,589	13,067	4,703,227
Pembuatan produk plastik <i>Manufacture of plastic products</i>	222	156,098	75,571	30,362	37,286	12,879	5,456,043

Jadual 10.6: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022

Table 10.6: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged					Gaji & upah Salaries & wages (RM '000)
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	
Produk mineral bukan logam, logam asas dan produk logam yang direka Non-metallic mineral products, basic metal and fabricated metal products							
Jumlah Total		342,681	204,705	65,379	61,642	10,955	13,325,689
Pembuatan kaca dan produk kaca Manufacture of glass and glass products	231	19,088	9,593	4,724	3,164	1,607	982,173
Pembuatan produk mineral bukan logam t.t.t.l. Manufacture of non-metallic mineral products n.e.c.	239	76,072	46,856	14,189	12,956	2,071	3,431,173
Pembuatan besi asas dan keluli Manufacture of basic iron and steel	241	47,021	30,110	8,602	7,374	935	2,097,159
Pembuatan logam asas berharga dan logam bukan ferus lain Manufacture of basic precious and other non-ferrous metals	242	32,929	19,219	6,442	6,390	878	1,333,181
Pengacuan logam Casting of metals	243	17,626	10,496	3,558	3,053	519	582,846
Pembuatan produk struktur logam, tangki, takungan dan penjana wap;	251	51,462	33,764	7,971	8,552	1,175	1,511,708
Pembuatan senjata dan peluru Manufacture of structural metal products, tanks, reservoirs and steam generators; Manufacture of weapons and ammunition	252						
Pembuatan lain-lain produk yang direka daripada logam; aktiviti perkhidmatan kerja logam Manufacture of other fabricated metal products; metalworking service activities	259	98,483	54,667	19,893	20,153	3,770	3,387,449

Jadual 10.7: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022

Table 10.7: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Produk elektrik, elektronik dan optikal Electrical, electronic and optical products							
Jumlah Total		629,867	282,311	77,199	201,265	69,092	32,884,581
Pembuatan komponen dan papan elektronik Manufacture of electronic components and boards	261	258,079	103,487	29,191	94,095	31,306	15,422,684
Pembuatan komputer dan kelengkapan peranti Manufacture of computers and peripheral equipment	262	44,169	23,233	2,600	14,643	3,693	2,144,544
Pembuatan peralatan komunikasi Manufacture of communication equipment	263	19,363	7,389	1,724	7,212	3,038	933,258
Pembuatan elektronik pengguna Manufacture of consumer electronics	264	32,374	11,147	3,611	11,792	5,824	1,713,563
Pembuatan kelengkapan mengukur, menguji, memandu arah dan kawalan; jam tangan dan jam Manufacture of measuring, testing, navigating and control equipment; watches and clocks	265	30,169	13,314	3,582	9,785	3,488	2,114,062
Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik Manufacture of irradiation, electro medical and electrotherapeutic equipment	266	13,517	5,243	375	6,786	1,113	832,481

Jadual 10.7: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.7: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Produk elektrik, elektronik dan optikal Electrical, electronic and optical products							
Pembuatan peralatan optikal dan alatan fotografi Manufacture of optical instruments and photographic equipment	267	5,246	2,679	341	2,147	79	258,899
Pembuatan media magnetik dan optikal Manufacture of magnetic and optical media	268	42	26	-	16	-	2,407
Pembuatan motor elektrik, penjana, transformer dan perkakasan pengagihan dan pengawalan elektrik Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	271	36,647	16,415	4,961	11,281	3,990	1,385,971
Pembuatan bateri dan akumulator Manufacture of batteries and accumulators	272	6,342	3,890	827	1,090	535	582,015
Pembuatan pendawaian dan alatan pendawaian Manufacture of wiring and wiring devices	273	26,299	12,596	3,681	7,883	2,139	878,719
Pembuatan kelengkapan pencahayaan elektrik Manufacture of electric lighting equipment	274	3,793	1,973	486	1,204	130	140,260
Pembuatan perkakasan domestik Manufacture of domestic appliances	275	17,743	8,141	2,547	5,122	1,933	957,803
Pembuatan kelengkapan elektrik lain Manufacture of other electrical equipment	279	19,006	9,839	2,432	4,249	2,486	787,573

Jadual 10.7: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.7: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Produk elektrik, elektronik dan optikal Electrical, electronic and optical products							
Pembuatan jentera kegunaan umum Manufacture of general-purpose machinery	281	55,952	25,282	12,503	11,182	6,985	2,111,632
Pembuatan mesin bagi tujuan khas Manufacture of special-purpose machinery	282	61,126	37,657	8,338	12,778	2,353	2,618,710

Jadual 10.8: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.8: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan	Bilangan pekerja Number of persons engaged					Gaji & upah Salaries & wages
		Jumlah Total	Lelaki Male		Perempuan Female		(RM '000)
			Warganegara Malaysia	Bukan Warganegara Malaysia	Warganegara Malaysia	Bukan Warganegara Malaysia	
Peralatan pengangkutan, pembuatan lain dan pembaikan Transport equipment, other manufacturing and repair	Group code		Malaysian Citizens	Non-Malaysian Citizens	Malaysian Citizens	Non-Malaysian Citizens	
Jumlah Total		229,186	143,053	26,557	48,443	11,133	8,722,419
Pembuatan kenderaan bermotor Manufacture of motor vehicles	291	29,184	25,523	1,113	2,453	95	1,544,052
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler Manufacture of bodies(coachwork) for motor vehicles; manufacture of trailers and semi-trailers	292	4,858	3,287	775	770	26	158,436
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor Manufacture of parts and accessories for motor vehicles	293	57,008	30,412	9,415	13,299	3,882	2,165,636
Pembinaan kapal dan bot Building of ships and boats	301	10,984	7,568	1,361	1,949	106	495,716
Pembuatan keretapi dan rolling stock; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan Manufacture of railway and rolling stock; Manufacture of air and spacecraft and related machinery	302 303	7,573	4,387	1,197	1,525	464	305,129

Jadual 10.8: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022
Table 10.8: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Peralatan pengangkutan, pembuatan lain dan pembaikan Transport equipment, other manufacturing and repair							
Pembuatan kenderaan tempur ketenteraan; Pembuatan kelengkapan pengangkutan t.t.t.l. Manufacture of military fighting vehicles; Manufacture of transport equipment n.e.c.	304 309	14,066	7,127	3,217	2,875	847	496,180
Pembuatan barang kemas, bijouterie dan artikel berkaitan Manufacture of jewellery, bijouterie and related articles	321	6,335	3,257	503	2,257	318	234,707
Pembuatan instrumen muzik Manufacture of musical instruments	322	1,187	556	301	330	-	31,774
Pembuatan barangan sukan Manufacture of sports goods	323	2,529	1,079	628	688	134	69,089
Pembuatan permainan dan mainan Manufacture of games and toys	324	5,525	1,867	504	1,469	1,685	187,725
Pembuatan peralatan dan bekalan perubatan dan pergigian Manufacture of medical and dental instrument and supplies	325	13,063	5,830	1,170	4,702	1,361	534,231
Pembuatan lain t.t.t.l. Other manufacturing n.e.c.	329	20,810	11,219	1,971	6,153	1,467	652,452

Jadual 10.8: Bilangan pekerja dan gaji & upah mengikut taraf kewarganegaraan, jantina dan subsektor, 2022

Table 10.8: Number of persons engaged and salaries & wages by citizenship, sex and sub-sector, 2022

Keterangan kumpulan Group description	Kod kumpulan Group code	Bilangan pekerja Number of persons engaged				Gaji & upah Salaries & wages (RM '000)	
		Jumlah Total	Lelaki Male		Perempuan Female		
			Warganegara Malaysia Malaysian Citizens	Bukan Warganegara Malaysia Non-Malaysian Citizens	Warganegara Malaysia Malaysian Citizens		Bukan Warganegara Malaysia Non-Malaysian Citizens
Peralatan pengangkutan, pembuatan lain dan pembaikan Transport equipment, other manufacturing and repair							
Pembaikan produk logam yang direka, jentera dan kelengkapan Repair of fabricated metal products, machinery and equipment	331	50,076	36,785	3,784	8,831	676	1,662,500
Pemasangan bagi perindustrian mesin dan kelengkapan Installation of industrial machinery and equipment	332	5,988	4,156	618	1,142	72	184,792

Jadual 11: Nilai harta tetap mengikut jenis harta, 2022

Table 11: Value of fixed assets by type of assets, 2022

(RM '000)						
Jenis harta	Nilai buku bersih seperti pada 01.01.2022	Perbelanjaan modal	Harta yang dijual dalam tahun 2022	Susut nilai semasa	Nilai buku bersih seperti pada 31.12.2022	Sewa yang dibayar dalam tahun 2022
Type of assets	Net book value as at 01.01.2022	Capital expenditure	Assets sold during 2022	Current depreciation	Net book value as at 31.12.2022	Rent paid during 2022
Jumlah	389,773,234	27,790,514	5,961,420	35,793,001	377,890,819	3,955,857
<i>Total</i>						
Harta tetap / Fixed assets	357,856,204	16,924,665	1,916,653	35,352,540	340,151,794	3,944,284
Tanah / Land	42,870,865	809,573	143,951	445,511	43,123,017	56,315
Bangunan dan binaan lain / Buildings and other construction	98,676,914	2,283,453	289,426	4,347,466	96,499,610	2,411,738
Tempat kediaman / Residential	3,870,637	215,082	7,255	268,306	3,817,953	54,470
Bukan tempat kediaman / Non-residential	84,556,388	1,764,550	205,178	3,609,250	82,639,401	2,322,864
Binaan lain kecuali pembangunan tanah Other construction except land improvement	10,249,889	303,821	76,993	469,910	10,042,255	34,404
Pembangunan tanah / Land improvement	1,385,619	72,466	8,662	65,123	1,386,023	n.a
Alat pengangkutan / Transport equipment	22,992,225	861,526	79,526	3,548,987	20,234,002	187,135
Kereta penumpang / Passenger cars	2,018,397	479,058	18,029	297,147	2,186,865	8,955
Kenderaan perdagangan / Commercial vehicles	20,524,161	304,052	56,453	3,195,623	17,579,755	54,936
Lain-lain / Others	449,668	78,416	5,044	56,216	467,382	123,243
Teknologi maklumat dan komunikasi	9,074,964	256,933	13,339	1,273,914	8,085,024	40,741
<i>Information and communications technology</i>						
Perkakasan komputer / Computer hardware	6,151,236	136,864	6,074	761,448	5,560,085	21,226
Perisian komputer / Computer software	1,965,450	77,370	6,342	322,377	1,714,794	12,231
Peralatan telekomunikasi / Telecommunications equipment	958,278	42,698	922	190,089	810,145	7,284
Jentera dan kelengkapan / Machinery and equipment	170,624,843	12,358,150	1,292,232	23,977,734	160,098,417	1,238,611
Perabot dan pemasangan / Furniture and fittings	12,230,774	282,564	89,518	1,693,805	10,725,701	9,744
Harta-harta lain / Other assets	31,917,030	10,865,848	4,044,766	440,461	37,739,025	11,573

Jadual 12: Statistik utama pertubuhan milikan wanita mengikut taraf sah, 2022

Table 12: Principal statistics of women-owned establishments by legal status, 2022

Taraf sah	Bilangan pertubuhan	Nilai output kasar	Nilai input perantaraan	Nilai ditambah	Jumlah pekerja pada bulan Disember atau pada tempoh gaji akhir	Gaji & upah	Nilai harta tetap
<i>Legal status</i>	<i>Number of establishments</i>	<i>Value of gross output</i>	<i>Value of Intermediate input</i>	<i>Value added</i>	<i>Total number of persons engaged during December or the last pay period</i>	<i>Salaries & wages</i>	<i>Value of fixed assets</i>
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah <i>Total</i>	8,469	41,241,472	30,748,504	10,492,968	126,518	3,581,559	7,637,561
Hak milik perseorangan <i>Individual proprietorship</i>	5,715	1,354,435	843,196	511,238	23,574	299,973	260,572
Perkongsian <i>Partnership</i>	657	525,765	346,879	178,885	5,737	100,192	112,677
Perkongsian liabiliti terhad <i>Limited liabilities partnership</i>	20	16,684	10,320	6,364	153	3,339	3,341
Syarikat sendirian berhad <i>Private limited company</i>	2,077	39,344,588	29,548,108	9,796,480	97,054	3,178,054	7,260,971

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Jumlah <i>Total</i>		2,305,895	97,219,447	1,893,703,546	414,901,176	42,161	821,244	179,931
Pemprosesan dan pengawetan daging <i>Processing and preserving of meat</i>	101	18,770	649,865	9,494,009	1,330,580	34,623	505,808	70,889
Pemprosesan dan pengawetan ikan, krustasea dan moluska <i>Processing and preserving of fish, crustaceans and molluscs</i>	102	16,797	410,580	5,069,344	975,501	24,444	301,801	58,076
Pemprosesan dan pengawetan buah-buahan dan sayur-sayuran <i>Processing and preserving of fruits and</i>	103	9,072	259,647	2,178,256	545,579	28,621	240,108	60,139
Pembuatan minyak dan lemak sayuran dan haiwan <i>Manufacture of vegetable and animal oils and fats</i>	104	76,311	2,981,075	193,310,292	26,082,890	39,065	2,533,190	341,797
Pembuatan produk tenusu <i>Manufacture of dairy products</i>	105	11,169	565,838	9,969,231	1,354,969	50,661	892,580	121,315
Pembuatan produk bijian, kanji dan produk berkanji <i>Manufacture of grain mill products, starches and starch products</i>	106	10,573	468,315	13,486,941	1,499,762	44,293	1,275,602	141,848
Pembuatan produk makanan lain <i>Manufacture of other food products</i>	107	131,203	4,676,031	56,457,110	12,632,016	35,640	430,303	96,278
Pembuatan makanan haiwan tersedia <i>Manufacture of prepared animal feeds</i>	108	9,485	386,286	13,621,975	1,757,847	40,726	1,436,160	185,329
Pembuatan minuman <i>Manufacture of beverages</i>	110	16,386	686,622	15,507,938	4,230,245	41,903	946,414	258,162

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan produk tembakau <i>Manufacture of tobacco products</i>	120	815	82,542	414,391	249,183	101,278	508,456	305,747
Pemintalan, penenunan dan penyiapan tekstil <i>Spining, weaving and finishing of textiles</i>	131	11,914	440,314	6,395,024	1,618,371	36,958	536,765	135,838
Pembuatan tekstil lain <i>Manufacture of other textiles</i>	139	17,536	452,830	5,309,939	1,566,988	25,823	302,802	89,358
Pembuatan pakaian, kecuali pakaian berbulu <i>Manufacture of wearing apparel, except fur</i>	141	38,611	956,390	10,250,031	3,157,664	24,770	265,469	81,781
Pembuatan artikel bulu <i>Manufacture of articles of fur</i>	142	181	3,550	28,035	6,685	19,615	154,891	36,935
Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>	143	1,037	28,564	209,480	43,414	27,545	202,006	41,865
Penyamakan dan pembersihan kulit, pembuatan bagasi, beg tangan, pelana dan abah-abah; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur</i>	151	6,590	160,590	1,068,455	384,692	24,369	162,133	58,375
Pembuatan kasut <i>Manufacture of footwear</i>	152	5,753	160,221	810,948	240,698	27,850	140,961	41,839
Pengilangan dan pengetaman kayu <i>Sawmilling and planning of wood</i>	161	29,417	768,604	7,852,771	1,569,945	26,128	266,947	53,369

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan produk daripada kayu, gabus, jerami dan bahan jalinan lain <i>Manufacture of products of wood, cork, straw and plaiting materials</i>	162	64,202	1,888,002	19,031,371	4,525,288	29,407	296,430	70,485
Pembuatan kertas dan produk kertas <i>Manufacture of paper and paper products</i>	170	54,694	1,969,379	26,877,782	5,735,042	36,007	491,421	104,857
Percetakan dan aktiviti perkhidmatan berkaitan percetakan <i>Printing and service activities related to printing</i>	181	50,298	1,732,674	11,075,659	4,231,729	34,448	220,201	84,133
Penerbitan semula media rakaman <i>Reproduction of recorded media</i>	182	145	4,845	22,021	7,787	33,416	151,870	53,702
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	192	17,930	2,289,267	238,969,111	55,832,796	127,678	13,327,892	3,113,932
Pembuatan kimia asas, baja dan sebatian nitrogen, plastik dan getah sintetik dalam bentuk primer <i>Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms</i>	201	55,404	3,864,096	126,763,389	27,343,056	69,744	2,287,983	493,521
Pembuatan produk kimia lain <i>Manufacture of other chemical products</i>	202	54,312	2,455,436	43,822,912	9,181,204	45,210	806,873	169,046
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	203	346	23,147	685,043	96,640	66,900	1,979,892	279,306

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan produk farmaseutikal, kimia perubatan dan botani <i>Manufacture of pharmaceuticals, medical chemical and botanical products</i>	210	24,139	989,104	9,897,373	3,682,396	40,975	410,016	152,550
Pembuatan produk getah <i>Manufacture of rubber products</i>	221	128,280	4,703,227	88,832,927	23,458,640	36,664	692,492	182,871
Pembuatan produk plastik <i>Manufacture of plastic products</i>	222	155,258	5,456,043	70,600,963	18,002,794	35,142	454,733	115,954
Pembuatan kaca dan produk kaca <i>Manufacture of glass and glass products</i>	231	18,697	982,173	12,437,199	3,351,497	52,531	665,198	179,253
Pembuatan produk mineral bukan logam t.t.t.l. <i>Manufacture of non-metallic mineral products n.e.c.</i>	239	75,001	3,431,173	34,136,473	10,573,723	45,748	455,147	140,981
Pembuatan besi asas dan keluli <i>Manufacture of basic iron and steel</i>	241	46,349	2,097,159	43,219,270	7,352,620	45,247	932,475	158,636
Pembuatan logam asas berharga dan logam bukan ferus lain <i>Manufacture of basic precious and other non-ferrous metals</i>	242	32,641	1,333,181	44,440,811	6,839,658	40,844	1,361,503	209,542
Pengacuan logam <i>Casting of metals</i>	243	17,442	582,846	5,540,738	1,430,067	33,416	317,666	81,990

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan produk struktur logam, tangki, takungan dan penjana wap;	251	48,268	1,511,708	16,478,815	4,530,629	31,319	341,402	93,864
Pembuatan senjata dan peluru	252							
<i>Manufacture of structural metal products, tanks, reservoirs and steam generators</i>								
<i>Manufacture of weapons and ammunition</i>								
Pembuatan lain-lain produk yang direka daripada logam; aktiviti perkhidmatan kerja logam	259	97,358	3,387,449	42,682,981	10,497,517	34,794	438,413	107,824
<i>Manufacture of other fabricated metal products; metalworking service activities</i>								
Pembuatan komponen dan papan elektronik	261	257,966	15,422,684	267,736,293	59,612,588	59,786	1,037,874	231,087
<i>Manufacture of electronic components and boards</i>								
Pembuatan komputer dan kelengkapan peranti	262	44,123	2,144,544	70,860,118	7,242,922	48,604	1,605,968	164,153
<i>Manufacture of computers and peripheral equipment</i>								
Pembuatan peralatan komunikasi	263	19,359	933,258	12,143,015	2,460,111	48,208	627,254	127,078
<i>Manufacture of communication equipment</i>								
Pembuatan elektronik pengguna	264	32,366	1,713,563	29,728,090	3,701,454	52,943	918,498	114,362
<i>Manufacture of consumer electronics</i>								
Pembuatan kelengkapan mengukur, menguji, mengemudi (memandu arah) dan kawalan; jam tangan dan jam	265	30,138	2,114,062	22,970,052	5,247,492	70,146	762,162	174,115
<i>Manufacture of measuring, testing, navigating and control equipment; watches and clocks</i>								

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik <i>Manufacture of irradiation, electro medical and electrotherapeutic equipment</i>	266	13,511	832,481	8,398,831	2,086,354	61,615	621,629	154,419
Pembuatan peralatan optikal dan alatan fotografi <i>Manufacture of optical instruments and photographic equipment</i>	267	5,235	258,899	2,208,307	565,328	49,455	421,835	107,990
Pembuatan media magnetik dan optikal <i>Manufacture of magnetic and optical media</i>	268	42	2,407	8,075	2,658	57,308	192,252	63,286
Pembuatan motor elektrik, penjana, transformer dan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus</i>	271	36,558	1,385,971	18,104,331	4,285,792	37,912	495,222	117,233
Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>	272	6,332	582,015	5,267,087	1,309,487	91,916	831,821	206,805
Pembuatan pendawaian dan alatan pendawaian <i>Manufacture of wiring and wiring devices</i>	273	26,197	878,719	21,086,044	4,013,240	33,543	804,903	153,195
Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>	274	3,770	140,260	1,446,355	444,575	37,204	383,649	117,924
Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>	275	17,726	957,803	20,482,110	3,322,370	54,034	1,155,484	187,429

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan kelengkapan elektrik lain <i>Manufacture of other electrical equipment</i>	279	18,931	787,573	8,790,246	2,208,121	41,602	464,331	116,641
Pembuatan jentera kegunaan umum <i>Manufacture of general-purpose machinery</i>	281	55,497	2,111,632	36,473,804	11,101,134	38,049	657,221	200,031
Pembuatan mesin bagi tujuan khas <i>Manufacture of special-purpose machinery</i>	282	60,652	2,618,710	35,019,930	12,607,704	43,176	577,391	207,870
Pembuatan kenderaan bermotor <i>Manufacture of motor vehicles</i>	291	29,184	1,544,052	41,460,159	9,382,175	52,907	1,420,647	321,484
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies(coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>	292	4,766	158,436	4,284,323	826,652	33,243	898,935	173,448
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>	293	56,649	2,165,636	27,100,110	6,984,210	38,229	478,386	123,289
Pembinaan kapal dan bot <i>Building of ships and boats</i>	301	10,875	495,716	5,338,339	947,260	45,583	490,882	87,104
Pembuatan keretapi dan rolling stock; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of railway and rolling stock; Manufacture of air and spacecraft and related machinery</i>	302 } 303 }	7,571	305,129	5,487,005	1,269,152	40,302	724,740	167,633

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembuatan kenderaan tempur ketenteraan; Pembuatan kelengkapan pengangkutan t.t.t.l.	304	14,013	496,180	8,288,493	1,841,159	35,409	591,486	131,389
Pembuatan kelengkapan pengangkutan t.t.t.l.	309							
<i>Manufacture of military fighting vehicles; Manufacture of transport equipment n.e.c.</i>								
Pembuatan perabot	310	100,650	2,773,673	23,788,042	7,470,291	27,558	236,344	74,220
<i>Manufacture of furniture</i>								
Pembuatan barang kemas, bijouterie dan artikel berkaitan	321	6,147	234,707	5,907,861	1,142,055	38,182	961,097	185,791
<i>Manufacture of jewellery, bijouterie and related articles</i>								
Pembuatan instrumen muzik	322	1,177	31,774	905,003	380,992	26,995	768,906	323,697
<i>Manufacture of musical instruments</i>								
Pembuatan barangan sukan	323	2,483	69,089	451,456	195,761	27,825	181,819	78,841
<i>Manufacture of sports goods</i>								
Pembuatan permainan dan mainan	324	5,494	187,725	641,302	297,518	34,169	116,728	54,153
<i>Manufacture of games and toys</i>								
Pembuatan peralatan dan bekalan perubatan dan pergigian	325	12,876	534,231	3,748,211	1,402,117	41,490	291,101	108,894
<i>Manufacture of medical and dental instrument and supplies</i>								
Pembuatan lain t.t.t.l.	329	19,990	652,452	6,684,629	2,420,317	32,639	334,399	121,076
<i>Other manufacturing n.e.c.</i>								

Jadual 13: Statistik utama terpilih (per pekerja bergaji) sektor Pembuatan mengikut kumpulan, 2022

Table 13: Selected principal statistics (per paid employee) of Manufacturing sector by group, 2022

Keterangan kumpulan	Kod kumpulan	Jumlah pekerja bergaji	Gaji & upah	Nilai output kasar	Nilai ditambah	Gaji & upah per pekerja bergaji	Nilai output kasar per pekerja bergaji	Nilai ditambah per pekerja bergaji
<i>Group description</i>	<i>Group code</i>	<i>Total number of paid employees</i>	<i>Salaries & wages</i>	<i>Value of gross output</i>	<i>Value added</i>	<i>Salaries & wages per paid employee</i>	<i>Value of gross output per paid employee</i>	<i>Value added per paid employee</i>
			(RM '000)	(RM '000)	(RM '000)	(RM)	(RM)	(RM)
Pembaikan produk logam yang direka, jentera dan kelengkapan <i>Repair of fabricated metal products, machinery and equipment</i>	331	47,349	1,662,500	10,642,029	3,759,672	35,112	224,757	79,403
Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>	332	5,884	184,792	1,304,893	450,403	31,406	221,770	76,547

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Jumlah <i>Total</i>		54,505	1,478,802,370	1,230,937,818	44,123,785	55,721,105	148,019,662
Pemprosesan dan pengawetan daging <i>Processing and preserving of meat</i>	101	385	8,163,428	6,978,841	228,209	335,366	621,012
Pemprosesan dan pengawetan ikan, krustasea dan moluska <i>Processing and preserving of fish, crustaceans and molluscs</i>	102	684	4,093,843	3,394,841	150,150	172,204	376,647
Pemprosesan dan pengawetan buah-buahan dan sayur-sayuran <i>Processing and preserving of fruits and vegetables</i>	103	569	1,632,677	1,274,790	90,308	80,717	186,862
Pembuatan minyak dan lemak sayuran dan haiwan <i>Manufacture of vegetable and animal oils and fats</i>	104	681	167,227,401	146,403,896	4,574,854	5,311,417	10,937,234
Pembuatan produk tenusu <i>Manufacture of dairy products</i>	105	215	8,614,262	6,114,483	790,748	415,434	1,293,598
Pembuatan produk bijian, kanji dan produk berkanji <i>Manufacture of grain mill products, starches and starch products</i>	106	267	11,987,179	9,448,791	1,747,308	218,327	572,753
Pembuatan produk makanan lain <i>Manufacture of other food products</i>	107	6,176	43,825,093	35,150,643	2,407,989	1,836,995	4,429,467
Pembuatan makanan haiwan tersedia <i>Manufacture of prepared animal feeds</i>	108	192	11,864,128	10,350,572	322,704	434,176	756,677

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan minuman <i>Manufacture of beverages</i>	110	418	11,277,693	8,285,194	1,040,997	342,998	1,608,504
Pembuatan produk tembakau <i>Manufacture of tobacco products</i>	120	22	165,208	121,937	11,496	8,753	23,022
Pemintalan, penenunan dan penyiapan tekstil <i>Spining, weaving and finishing of textiles</i>	131	277	4,776,653	2,758,057	46,004	503,152	1,469,440
Pembuatan tekstil lain <i>Manufacture of other textiles</i>	139	608	3,742,951	3,046,492	111,643	142,889	441,927
Pembuatan pakaian, kecuali pakaian berbulu <i>Manufacture of wearing apparel, except fur apparel</i>	141	5,103	7,092,366	5,574,577	205,639	360,868	951,282
Pembuatan artikel bulu <i>Manufacture of articles of fur</i>	142	4	21,350	12,186	815	7,417	931
Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>	143	24	166,066	125,564	5,500	9,611	25,391
Penyamakan dan pembersihan kulit, pembuatan bagasi, beg tangan, pelana dan abah-abah; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur</i>	151	124	683,762	505,973	36,294	37,912	103,583
Pembuatan kasut <i>Manufacture of footwear</i>	152	184	570,250	465,928	22,221	28,781	53,320
Pengilangan dan pengetaman kayu <i>Sawmilling and planning of wood</i>	161	630	6,282,825	5,197,876	92,445	323,666	668,838

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan produk daripada kayu, gabus, jerami dan bahan jalinan lain <i>Manufacture of products of wood, cork, straw and plaiting materials</i>	162	1,090	14,506,083	11,111,407	229,911	1,182,029	1,982,736
Pembuatan kertas dan produk kertas <i>Manufacture of paper and paper products</i>	170	1,065	21,142,740	15,920,004	1,181,186	998,981	3,042,569
Percetakan dan aktiviti perkhidmatan berkaitan percetakan <i>Printing and service activities related to printing</i>	181	3,702	6,843,930	5,481,749	175,615	355,852	830,715
Penerbitan semula media rakaman <i>Reproduction of recorded media</i>	182	26	14,234	11,280	435	962	1,557
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	192	152	183,136,315	163,907,204	476,254	5,809,596	12,943,261
Pembuatan kimia asas, baja dan sebatian nitrogen, plastik dan getah sintetik dalam bentuk primer <i>Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms</i>	201	915	99,420,334	82,207,228	2,293,012	3,839,321	11,080,773
Pembuatan produk kimia lain <i>Manufacture of other chemical products</i>	202	1,288	34,641,709	28,088,429	1,658,760	1,692,449	3,202,071
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	203	5	588,403	537,957	6,641	6,623	37,182

Jadual 14: Nilai input perantara mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantara <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan produk farmaseutikal, kimia perubatan dan botani <i>Manufacture of pharmaceuticals, medical chemical and botanical products</i>	210	523	6,214,977	5,083,469	260,803	298,788	571,917
Pembuatan produk getah <i>Manufacture of rubber products</i>	221	923	65,374,287	49,852,350	3,584,494	2,996,277	8,941,166
Pembuatan produk plastik <i>Manufacture of plastic products</i>	222	2,352	52,598,169	43,378,004	1,595,453	2,218,290	5,406,422
Pembuatan kaca dan produk kaca <i>Manufacture of glass and glass products</i>	231	516	9,085,702	6,270,236	271,800	956,581	1,587,085
Pembuatan produk mineral bukan logam t.t.t.l. <i>Manufacture of non-metallic mineral products n.e.c.</i>	239	2,038	23,562,750	16,086,270	832,641	1,631,228	5,012,610
Pembuatan besi dan keluli asas <i>Manufacture of basic iron and steel</i>	241	1,028	35,866,650	29,986,839	902,817	1,313,022	3,663,971
Pembuatan logam asas berharga dan logam bukan ferus lain <i>Manufacture of basic precious and other non-ferrous metals</i>	242	495	37,601,153	29,189,283	873,059	1,890,915	5,647,896
Pengacuan logam <i>Casting of metals</i>	243	395	4,110,671	3,201,196	66,997	225,288	617,190
Pembuatan produk struktur logam, tangki, takungan dan penjana wap;	251	3,374	11,948,186	9,926,115	279,693	539,718	1,202,660
Pembuatan senjata dan peluru <i>Manufacture of structural metal products, tanks, reservoirs and steam generators; Manufacture of weapons and ammunition</i>	252						

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan lain-lain produk yang direka daripada logam; aktiviti perkhidmatan kerja logam <i>Manufacture of other fabricated metal products; metalworking service activities</i>	259	2,514	32,185,464	25,765,892	1,324,370	1,402,782	3,692,420
Pembuatan komponen dan papan elektronik <i>Manufacture of electronic components and boards</i>	261	646	208,123,704	174,610,644	4,841,724	7,337,208	21,334,128
Pembuatan komputer dan kelengkapan peranti <i>Manufacture of computers and peripheral equipment</i>	262	117	63,617,196	60,048,052	462,989	604,975	2,501,181
Pembuatan peralatan komunikasi <i>Manufacture of communication equipment</i>	263	67	9,682,905	8,535,467	117,444	223,208	806,786
Pembuatan elektronik pengguna <i>Manufacture of consumer electronics</i>	264	111	26,026,636	22,699,978	1,557,738	344,603	1,424,317
Pembuatan kelengkapan mengukur, menguji, mengemudi (memandu arah) dan kawalan; jam tangan dan jam <i>Manufacture of measuring, testing, navigating and control equipment; watches and clocks</i>	265	195	17,722,560	15,468,999	634,797	305,906	1,312,858
Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik <i>Manufacture of irradiation, electro medical and electrotherapeutic equipment</i>	266	68	6,312,477	4,718,778	184,100	448,922	960,677

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan peralatan optikal dan alatan fotografi <i>Manufacture of optical instruments and photographic equipment</i>	267	40	1,642,979	1,389,922	63,108	45,224	144,724
Pembuatan media magnetik dan optikal <i>Manufacture of magnetic and optical media</i>	268	3	5,417	4,140	688	219	370
Pembuatan motor elektrik, penjana, transformer dan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus</i>	271	408	13,818,538	11,544,847	367,753	454,005	1,451,934
Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>	272	52	3,957,601	3,442,147	52,634	112,215	350,605
Pembuatan pendawaian dan alatan pendawaian <i>Manufacture of wiring and wiring devices</i>	273	298	17,072,804	15,121,091	458,191	533,189	960,333
Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>	274	124	1,001,780	755,039	38,258	77,213	131,271
Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>	275	118	17,159,740	12,939,826	349,341	99,101	3,771,472
Pembuatan kelengkapan elektrik lain <i>Manufacture of other electrical equipment</i>	279	209	6,582,125	4,791,541	365,981	466,134	958,469

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan jentera kegunaan umum <i>Manufacture of general-purpose machinery</i>	281	1,210	25,372,670	19,581,115	3,153,998	715,552	1,922,005
Pembuatan mesin bagi tujuan khas <i>Manufacture of special-purpose machinery</i>	282	1,249	22,412,226	17,144,670	1,022,874	1,170,856	3,073,825
Pembuatan kenderaan bermotor <i>Manufacture of motor vehicles</i>	291	22	32,077,984	29,315,219	11,710	559,072	2,191,984
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>	292	156	3,457,672	2,164,452	45,478	462,856	784,885
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>	293	771	20,115,900	17,359,995	583,523	628,093	1,544,289
Pembinaan kapal dan bot <i>Building of ships and boats</i>	301	247	4,391,079	2,144,380	34,391	341,350	1,870,957
Pembuatan keretapi dan rolling stock ; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of railway locomotives and rolling stock; Manufacture of air and spacecraft and related machinery</i>	302 } 303 }	51	4,217,854	3,476,974	42,455	367,684	330,741

Jadual 14: Nilai input perantara mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantara <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembuatan kenderaan tempur ketenteraan; Pembuatan kelengkapan pengangkutan t.t.t.l. <i>Manufacture of military fighting vehicles;</i> <i>Manufacture of transport equipment n.e.c.</i>	304 309	141	6,447,334	4,920,445	78,944	459,140	988,806
Pembuatan perabot <i>Manufacture of furniture</i>	310	3,192	16,317,751	12,239,059	918,030	1,189,555	1,971,106
Pembuatan barang kemas, bijouterie dan artikel berkaitan <i>Manufacture of jewellery, bijouterie and related articles</i>	321	269	4,765,806	4,198,650	133,701	126,125	307,330
Pembuatan instrumen muzik <i>Manufacture of musical instruments</i>	322	14	524,011	458,726	18,563	32,460	14,263
Pembuatan barangan sukan <i>Manufacture of sports goods</i>	323	54	255,695	205,896	8,651	10,083	31,064
Pembuatan permainan dan mainan <i>Manufacture of games and toys</i>	324	54	343,785	301,648	17,139	11,848	13,149
Pembuatan peralatan dan bekalan perubatan dan pergigian <i>Manufacture of medical and dental instrument and supplies</i>	325	368	2,346,094	1,878,293	99,493	116,815	251,494
Pembuatan lain t.t.t.l. <i>Other manufacturing n.e.c.</i>	329	1,045	4,264,312	3,370,313	328,307	159,158	406,534

Jadual 14: Nilai input perantaraan mengikut kumpulan, 2022

Table 14: Value of intermediate input by group, 2022

Keterangan kumpulan <i>Group description</i>	Kod kumpulan <i>Group code</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai input perantaraan <i>Value of Intermediate input</i>				
			Jumlah <i>Total</i>	Kos bahan mentah <i>Cost of raw materials</i>	Bahan pembungkus <i>Packing materials</i>	Perkhidmatan bukan perindustrian <i>Non-industrial services</i>	Kos input lain <i>Other input cost</i>
			(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Pembaikan produk logam yang direka, jentera dan kelengkapan <i>Repair of fabricated metal products, machinery and equipment</i>	331	3,895	6,882,357	4,235,568	209,635	356,748	2,080,406
Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>	332	347	854,490	656,395	22,883	32,202	143,011

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
<i>Group description</i>	<i>Group code</i>	<i>Sales of manufactured/ processed/ assembled products</i>	<i>Income from industrial services rendered</i>	<i>Value of sales (from goods/ materials purchased from resale without further processing)</i>	<i>Rental income received</i>	<i>Other income</i>
Jumlah		1,844,930,401	30,758,382	54,813,739	805,465	21,716,088
<i>Total</i>						
Pemprosesan dan pengawetan daging	101	9,580,922	15,942	13,860	19,606	46,409
<i>Processing and preserving of meat</i>						
Pemprosesan dan pengawetan ikan, krustasea dan moluska	102	5,038,432	4,933	163,061	13,487	48,582
<i>Processing and preserving of fish, crustaceans and molluscs</i>						
Pemprosesan dan pengawetan buah-buahan dan sayur-sayuran	103	2,169,339	8,985	23,519	1,578	14,828
<i>Processing and preserving of fruits and vegetables</i>						
Pembuatan minyak dan lemak sayuran dan haiwan	104	192,393,945	83,301	6,959,953	23,130	1,843,777
<i>Manufacture of vegetable and animal oils and fats</i>						
Pembuatan produk tenusu	105	10,007,779	2,070	186,444	551	55,700
<i>Manufacture of dairy products</i>						
Pembuatan produk bijian, kanji dan produk berkanji	106	13,494,174	4,190	88,680	18,893	46,027
<i>Manufacture of grain mill products, starches and starch products</i>						
Pembuatan produk makanan lain	107	56,601,461	387,408	859,828	22,707	599,014
<i>Manufacture of other food products</i>						
Pembuatan makanan haiwan tersedia	108	13,485,714	6,619	359,152	2,467	71,893
<i>Manufacture of prepared animal feeds</i>						

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)

Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
Group description	Group code	Sales of manufactured/ processed/ assembled products	Income from industrial services rendered	Value of sales (from goods/ materials purchased from resale without further processing)	Rental income received	Other income
Pembuatan minuman <i>Manufacture of beverages</i>	110	15,410,783	47,079	30,033	4,768	62,623
Pembuatan produk tembakau <i>Manufacture of tobacco products</i>	120	402,802	-	139	-	4,127
Pemintalan, penenunan dan penyiapan tekstil <i>Spining, weaving and finishing of textiles</i>	131	6,335,172	35,862	58,239	167	22,770
Pembuatan tekstil lain <i>Manufacture of other textiles</i>	139	4,723,364	31,410	20,351	737	88,000
Pembuatan pakaian, kecuali pakaian berbulu <i>Manufacture of wearing apparel, except fur apparel</i>	141	10,082,196	144,540	50,359	1,744	27,607
Pembuatan artikel bulu <i>Manufacture of articles of fur</i>	142	28,067	-	-	-	3,040
Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>	143	209,488	-	-	20	683
Penyamakan dan pembersihan kulit, pembuatan begasi, beg tangan, pelana dan abah-abah; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur</i>	151	1,070,349	831	309	108	371
Pembuatan kasut <i>Manufacture of footwear</i>	152	804,658	1,721	2,693	273	8,987
Pengilangan dan pengetaman kayu <i>Sawmilling and planing of wood</i>	161	7,769,354	37,769	25,444	10,522	55,841

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
Group description	Group code	Sales of manufactured/ processed/ assembled products	Income from industrial services rendered	Value of sales (from goods/ materials purchased from resale without further processing)	Rental income received	Other income
Pembuatan produk daripada kayu, gabus, jerami dan bahan jalinan lain <i>Manufacture of products of wood, cork, straw and plaiting materials</i>	162	18,687,150	48,589	182,778	49,439	268,045
Pembuatan kertas dan produk kertas <i>Manufacture of paper and paper products</i>	170	26,678,321	42,516	311,113	12,123	243,399
Percetakan dan aktiviti perkhidmatan berkaitan percetakan <i>Printing and service activities related to printing</i>	181	11,015,862	29,880	82,258	14,858	66,099
Penerbitan semula media rakaman <i>Reproduction of recorded media</i>	182	21,458	-	-	-	1,677
Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>	192	225,959,072	10,221,564	35,107,824	182,388	4,283,148
Pembuatan kimia asas, baja dan sebatian nitrogen, plastik dan getah sintetik dalam bentuk primer <i>Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms</i>	201	123,651,889	1,352,961	927,351	25,101	1,542,634
Pembuatan produk kimia lain <i>Manufacture of other chemical products</i>	202	43,452,118	14,390	367,120	7,938	254,122
Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>	203	687,463	-	-	-	3,179

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
<i>Group description</i>	<i>Group code</i>	<i>Sales of manufactured/ processed/ assembled products</i>	<i>Income from industrial services rendered</i>	<i>Value of sales (from goods/ materials purchased from resale without further processing)</i>	<i>Rental income received</i>	<i>Other income</i>
Pembuatan produk farmaseutikal, kimia perubatan dan botani <i>Manufacture of pharmaceuticals, medical chemical and botanical products</i>	210	9,790,024	5,733	83,181	1,078	86,617
Pembuatan produk getah <i>Manufacture of rubber products</i>	221	88,903,091	306,962	110,366	5,323	799,676
Pembuatan produk plastik <i>Manufacture of plastic products</i>	222	70,757,562	30,668	114,657	32,486	421,644
Pembuatan kaca dan produk kaca <i>Manufacture of glass and glass products</i>	231	12,146,107	3,543	20,548	8,701	221,835
Pembuatan produk mineral bukan logam t.t.t.l. <i>Manufacture of non-metallic mineral products n.e.c.</i>	239	33,744,130	141,950	243,689	43,770	327,997
Pembuatan besi dan keluli asas <i>Manufacture of basic iron and steel</i>	241	43,203,596	330,250	130,012	8,871	533,526
Pembuatan logam asas berharga dan logam bukan ferus lain <i>Manufacture of basic precious and other non-ferrous metals</i>	242	43,611,100	44,694	981,175	8,144	310,435
Pengacuan logam <i>Casting of metals</i>	243	5,379,601	84,059	40,365	237	54,760

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
Group description	Group code	Sales of manufactured/ processed/ assembled products	Income from industrial services rendered	Value of sales (from goods/ materials purchased from resale without further processing)	Rental income received	Other income
Pembuatan produk struktur logam, tangki, takungan dan penjana wap;	251	16,163,769	121,257	67,636	11,969	194,204
Pembuatan senjata dan peluru	252					
<i>Manufacture of structural metal products, tanks, reservoirs and steam generators;</i>						
<i>Manufacture of weapons and ammunition</i>						
Pembuatan lain-lain produk yang direka daripada logam; aktiviti perkhidmatan kerja logam	259	41,910,282	560,929	383,053	15,092	252,452
<i>Manufacture of other fabricated metal products; metalworking service activities</i>						
Pembuatan komponen dan papan elektronik	261	264,220,469	201,627	476,155	42,798	2,246,411
<i>Manufacture of electronic components and boards</i>						
Pembuatan komputer dan kelengkapan peranti	262	58,620,760	9,710,151	3,525,827	27,160	298,015
<i>Manufacture of computers and peripheral equipment</i>						
Pembuatan peralatan komunikasi	263	12,095,593	20,447	-	-	31,746
<i>Manufacture of communication equipment</i>						
Pembuatan elektronik pengguna	264	29,838,809	571	5,841	2,181	97,557
<i>Manufacture of consumer electronics</i>						
Pembuatan kelengkapan mengukur, menguji, mengemudi (memandu arah) dan kawalan; jam tangan dan jam	265	22,259,370	828,404	79,325	4	87,736
<i>Manufacture of measuring, testing, navigating and control equipment; watches and clocks</i>						

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
Group description	Group code	Sales of manufactured/ processed/ assembled products	Income from industrial services rendered	Value of sales (from goods/ materials purchased from resale without further processing)	Rental income received	Other income
Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik <i>Manufacture of irradiation, electro medical and electrotherapeutic equipment</i>	266	8,568,910	298,689	285,321	518	107,727
Pembuatan peralatan optikal dan alatan fotografi <i>Manufacture of optical instruments and photographic equipment</i>	267	2,186,644	19,056	396	30	3,375
Pembuatan media magnetik dan optikal <i>Manufacture of magnetic and optical media</i>	268	8,140	-	-	-	-
Pembuatan motor elektrik, penjana, transformer dan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus</i>	271	17,873,832	97,118	122,759	793	96,230
Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>	272	5,241,761	-	88	375	54,107
Pembuatan pendawaian dan alatan pendawaian <i>Manufacture of wiring and wiring devices</i>	273	20,951,795	28,143	643,418	468	158,409
Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>	274	1,431,284	1,024	15,304	461	29,613
Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>	275	16,933,825	1,675	10,664	91	4,106,453

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
<i>Group description</i>	<i>Group code</i>	<i>Sales of manufactured/ processed/ assembled products</i>	<i>Income from industrial services rendered</i>	<i>Value of sales (from goods/ materials purchased from resale without further processing)</i>	<i>Rental income received</i>	<i>Other income</i>
Pembuatan kelengkapan elektrik lain <i>Manufacture of other electrical equipment</i>	279	8,441,754	13,187	4,224	260	55,802
Pembuatan jentera kegunaan umum <i>Manufacture of general-purpose machinery</i>	281	36,221,406	124,932	54,074	6,712	104,867
Pembuatan mesin bagi tujuan khas <i>Manufacture of special-purpose machinery</i>	282	34,912,978	217,795	80,756	10,208	206,088
Pembuatan kenderaan bermotor <i>Manufacture of motor vehicles</i>	291	39,739,011	1,090,736	442,560	35,031	428,476
Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>	292	4,181,645	29,130	36,463	1,350	51,676
Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>	293	26,798,874	222,703	37,460	3,948	252,469
Pembinaan kapal dan bot <i>Building of ships and boats</i>	301	5,056,420	227,939	1,625	39,542	62,721
Pembuatan keretapi dan rolling stock ; Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of railway locomotives and rolling stock; Manufacture of air and spacecraft and related machinery</i>	302 303 }	5,183,584	36,993	552,467	959	11,718

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
Group description	Group code	Sales of manufactured/ processed/ assembled products	Income from industrial services rendered	Value of sales (from goods/ materials purchased from resale without further processing)	Rental income received	Other income
Pembuatan kenderaan tempur ketenteraan; Pembuatan kelengkapan pengangkutan t.t.t.l. <i>Manufacture of military fighting vehicles; Manufacture of transport equipment n.e.c.</i>	304 309 }	8,143,328	96,384	734	1,582	46,577
Pembuatan perabot <i>Manufacture of furniture</i>	310	23,638,398	76,937	86,989	28,736	152,627
Pembuatan barang kemas, bijouterie dan artikel berkaitan <i>Manufacture of jewellery, bijouterie and related articles</i>	321	5,708,712	201,725	242,290	32	31,322
Pembuatan instrumen muzik <i>Manufacture of musical instruments</i>	322	907,219	-	-	-	1
Pembuatan barangan sukan <i>Manufacture of sports goods</i>	323	448,524	1,251	-	70	3,933
Pembuatan permainan dan mainan <i>Manufacture of games and toys</i>	324	640,954	-	21	-	1,026
Pembuatan peralatan dan bekalan perubatan dan pergigian <i>Manufacture of medical and dental instrument and supplies</i>	325	3,720,886	34,157	4,341	1,074	18,068
Pembuatan lain t.t.t.l. <i>Other manufacturing n.e.c.</i>	329	6,650,965	7,114	53,049	1,488	42,308

Jadual 15: Komponen pendapatan mengikut kumpulan, 2022

Table 15: Component of income by group, 2022

(RM '000)						
Keterangan kumpulan	Kod kumpulan	Jualan daripada produk yang dibuat/ proses/ pemasangan	Pendapatan daripada perkhidmatan perindustrian yang diberikan	Nilai jualan (daripada barang/ bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)	Pendapatan daripada sewa	Pendapatan lain
<i>Group description</i>	<i>Group code</i>	<i>Sales of manufactured/ processed/ assembled products</i>	<i>Income from industrial services rendered</i>	<i>Value of sales (from goods/ materials purchased from resale without further processing)</i>	<i>Rental income received</i>	<i>Other income</i>
Pembaikan produk logam yang direka, jentera dan kelengkapan <i>Repair of fabricated metal products, machinery and equipment</i>	331	7,777,151	2,867,879	53,619	51,259	58,350
Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>	332	1,156,807	150,010	2,778	62	4,954

NOTA TEKNIKAL

TECHNICAL NOTES



BAHAGIAN 4

PART

1. SKOP DAN LIPUTAN

Penerbitan ini menggunakan data daripada Banci Ekonomi 2023 (tahun rujukan 2022). Banci mengumpul maklumat daripada pertubuhan berdaftar dalam sektor Pertanian, Perlombongan & pengkuarian, Pembuatan, Pembinaan dan Perkhidmatan. Klasifikasi industri merujuk kepada Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi 1.0 yang selaras dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, United Nations*. Liputan bagi keseluruhan sektor merangkumi 1,200 kategori industri seperti yang ditunjukkan pada **Jadual 1**.

Jadual 1 : Bilangan industri mengikut sektor

Sektor	Bilangan Industri
Pertanian*	142
Perlombongan & pengkuarian	56
Pembuatan	259
Pembinaan	72
Perkhidmatan	645
Jumlah	1,174

Nota*: Usahawan dalam sektor Pertanian yang hanya berdaftar dengan agensi -agensi kerajaan yang berkaitan bagi maksud menerima bantuan **TIDAK** diliputi kecuali pengusaha kelapa sawit.

Keseluruhan liputan banci bagi sektor Pembuatan terdiri daripada 259 industri di peringkat 5-digit. Industri ini dikelaskan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0. Senarai lengkap industri yang diliputi ditunjukkan di Lampiran Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0.

2. RANGKA STATISTIK

Sumber utama rangka statistik pertubuhan adalah daripada *Malaysia Statistical Business Register* (MSBR). MSBR adalah senarai pertubuhan/ perusahaan yang beroperasi di Malaysia yang merangkumi Daftar Syarikat (ROC), Daftar Perniagaan (ROB) dan Perkongsian Liabiliti Terhad (LLP) yang berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) serta pertubuhan yang berdaftar dengan pihak berkuasa tempatan (PBT) dan badan profesional. Senarai di MSBR dikemaskini secara berkala berdasarkan survei dan bancian yang dijalankan oleh Jabatan Perangkaan Malaysia dan sumber data pentadbiran daripada pelbagai agensi. Sumber utama data pentadbiran adalah daripada SSM.

Selain itu, DOSM juga bekerjasama untuk mendapatkan maklumat terkini daripada agensi lain seperti Kumpulan Wang Simpanan Pekerja (KWSP), Jabatan Kastam Diraja Malaysia, Lembaga Hasil Dalam Negeri (LHDN), Pertubuhan Keselamatan Sosial (PERKESO), PBT dan badan profesional. Rangka dikemaskini untuk mengambil kira pertubuhan baru dan sebarang perubahan yang berlaku kepada pertubuhan tersebut seperti tutup, tidak beroperasi, perubahan jenis aktiviti dan lokasi/ alamat pos untuk memastikan maklumat yang terdapat dalam rangka adalah yang paling terkini.

3. JENIS AKTIVITI PERNIAGAAN

Jenis aktiviti perniagaan merujuk kepada aktiviti utama dan sekunder. Aktiviti utama merujuk kepada aktiviti yang mana pertubuhan menumpukan sebahagian besar sumbernya atau memberi sumbangan besar dari segi pendapatan. Aktiviti sekunder didefinisikan sebagai aktiviti sampingan kepada aktiviti utama. Klasifikasi industri bagi pertubuhan adalah berasaskan kepada aktiviti utama dan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi 1.0 yang diselaraskan dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, United Nations* dan pengubahsuaian mengikut keperluan tempatan.

4. KONSEP DAN DEFINISI

Konsep dan definisi yang digunakan selari dengan *International for Industrial Statistics, United Nations Statistical Division*. Takrif pembuatan yang digunakan dalam banci ini adalah selaras dengan MSIC 2008 Ver. 1.0.

4.1 Takrifan Pembuatan

Pembuatan ditakrifkan sebagai perubahan fizikal atau kimia ke atas bahan atau komponen menjadi produk baru sama ada kerja itu dilakukan oleh jentera yang dijalankan oleh kuasa atau yang dijalankan dengan tangan, sama ada dijalankan dalam kilang atau di rumah pekerja, dan sama ada barang keluaran dijual secara borong atau runcit. Subsektor Pembuatan terdiri daripada 24 Bahagian iaitu:

- 4.1.1. Pembuatan produk makanan;
- 4.1.2. Pembuatan minuman;
- 4.1.3. Pembuatan produk tembakau;
- 4.1.4. Pembuatan tekstil;
- 4.1.5. Pembuatan pakaian;
- 4.1.6. Pembuatan produk kulit dan barangan berkaitan;
- 4.1.7. Pembuatan kayu dan produk kayu dan gabus, kecuali perabot; pembuatan bagi artikel jerami dan bahan- bahan anyaman;
- 4.1.8. Pembuatan kertas dan produk kertas;
- 4.1.9. Percetakan dan penerbitan semula media rakaman;
- 4.1.10. Pembuatan kok dan produk petroleum bertapis;
- 4.1.11. Pembuatan kimia dan produk kimia;
- 4.1.12. Pembuatan produk farmaseutikal asas, kimia perubatan dan botani;
- 4.1.13. Pembuatan produk getah dan plastik;
- 4.1.14. Pembuatan produk galian bukan logam lain;
- 4.1.15. Pembuatan logam asas;
- 4.1.16. Pembuatan produk logam, kecuali mesin dan kelengkapan;
- 4.1.17. Pembuatan komputer, produk elektronik dan optikal;
- 4.1.18. Pembuatan kelengkapan elektrik;
- 4.1.19. Pembuatan jentera dan peralatan t.t.t.l;
- 4.1.20. Pembuatan kenderaan bermotor, treler dan semi treler;
- 4.1.21. Pembuatan kelengkapan pengangkutan lain;
- 4.1.22. Pembuatan perabot;
- 4.1.23. Pembuatan lain; dan
- 4.1.24. Membaiki dan pemasangan jentera dan kelengkapan

5. TAHUN BANGCI

Merujuk kepada tahun tahun pelaksanaan bancian dijalankan.

6. TAHUN RUJUKAN

Tahun rujukan bagi banci ini adalah tahun takwim 2022. Pertubuhan yang mempunyai tahun kewangan yang berbeza daripada tahun takwim diminta menyediakan laporan mengikut tahun perakaunan atau kewangan yang meliputi sekurang- kurangnya enam (6) bulan dalam tahun rujukan.

7. KAEDAH PENGUMPULAN

Banci ini secara umumnya dijalankan dengan menggunakan tiga (3) kaedah pengumpulan data seperti berikut:

7.1 Kaedah atas talian melalui portal e-BE

Kaedah ini menyasarkan responden yang telah menggunakan kaedah ini bagi survei rutin terdahulu.

7.2 Kaedah kutipan data melalui e-mel, pos, faks dan telefon

Kaedah ini menyasarkan responden yang pernah terlibat dengan survei rutin terdahulu. Responden diberi tempoh satu bulan untuk melengkapkan dan mengembalikan borang soal selidik tersebut kepada DOSM.

7.3 Kaedah kutipan data secara bersemuka

Kerja luar operasi di lapangan dijalankan untuk mendapatkan maklum balas daripada pertubuhan yang belum memberi jawapan dari kedua-dua kaedah di atas dan kaedah ini menyasarkan pertubuhan yang tidak pernah terlibat dengan survei rutin DOSM.

8. UNIT PELAPOR

Unit pelapor bagi Banci Ekonomi 2023 ini ialah pertubuhan. Sesebuah pertubuhan secara ideal ditakrifkan sebagai “satu unit ekonomi yang bergiat di bawah satu hak milik atau penguasaan tunggal, iaitu di bawah satu entiti yang sah. Ia menjalankan satu jenis subsektor ekonomi utama di satu tempat/ lokasi fizikal”. Setiap pertubuhan diberikan klasifikasi industri berdasarkan aktiviti utamanya dan bukannya mengikut aktiviti syarikat induk.

Setiap cawangan daripada organisasi yang mempunyai pelbagai cawangan di Lokasi yang berbeza dari segi konsep dianggap sebagai pertubuhan yang berlainan. Pertubuhan berkenaan diminta memberikan penyata yang berasingan bagi setiap kegiatannya dari segi nilai. Walau bagaimanapun, dari segi praktis akaun biasanya disediakan secara berpusat kerana kesukaran untuk memperoleh data yang berasingan bagi setiap unit atau cawangan. Entiti atau ‘enterprise’ ini akan dianggap sebagai satu unit pelapor dan dibenarkan mengemukakan soal selidik yang menggabungkan semua unit atau cawangannya.

9. TARAF SAH

Taraf sah sesebuah pertubuhan telah ditakrifkan seperti berikut:

9.1 Hak milik perseorangan

Merujuk kepada perniagaan yang dimiliki dan dijalankan oleh orang perseorangan semata-mata untuk mendapatkan keuntungan sendiri. Pemilik mempunyai hak mutlak atas segala urusan pertubuhannya.

9.2 Perkongsian

Merujuk kepada sekumpulan individu yang telah bersetuju mengikat kontrak dan menjalankan perniagaan dengan matlamat untuk memperoleh keuntungan. Perniagaan tersebut diuruskan oleh kesemua mereka atau salah seorang daripada mereka yang bertindak mewakili semua pihak. Perkongsian perniagaan ini hendaklah mengandungi sekurang-kurangnya dua orang ahli dan tidak melebihi had maksimum dua puluh orang.

9.3 Perkongsian liabiliti terhad

Merujuk kepada perniagaan entity yang dikawal selia di bawah Akta Perkongsian Liabiliti Terhad 2012. Ia memberi perlindungan liabiliti terhad kepada rakan-rakan kongsinya sama seperti liabiliti terhad yang dinikmati oleh pemegang saham sesebuah Syarikat. Ia juga memberi fleksibiliti peraturan perniagaan dalaman melalui pengaturan perkongsian yang serupa dengan sesebuah perkongsian konvensional; dan

9.4 Syarikat sendirian berhad

Merupakan syarikat persendirian yang ditubuhkan bagi tujuan menjalankan perniagaan dengan matlamat untuk mencari keuntungan. Saham dipegang secara tertutup oleh pemegang-pemegang saham yang mempunyai kawalan terhadap operasi syarikat;

Ciri-ciri:

- i. Dikawal di bawah Akta Syarikat 1965 dan merupakan entiti yang sah terpisah daripada pemilik;
- ii. Dimiliki oleh 2 - 50 orang pemegang saham;
- iii. Pemilik syarikat mempunyai liabiliti terhad;
- iv. Pemegang saham yang memiliki 51 peratus atau lebih daripada jumlah saham syarikat berhak untuk mengawal syarikat tersebut. Saham syarikat boleh dijual beli tetapi tidak dilakukan di pasaran terbuka;
- v. Penjualan saham mesti dengan persetujuan pemegang saham yang lain;
- vi. Tidak disenaraikan di Bursa; dan
- vii. Jangka hayat perniagaan adalah panjang dan boleh dikenali perkataan Sendirian Berhad (Sdn. Bhd.) pada akhir nama Syarikat.

9.5 Syarikat awam berhad

Syarikat awam berhad merupakan perniagaan yang ditubuhkan dengan tanggungan berhad, oleh sekurang-kurangnya dua orang untuk menjalankan perniagaan dengan tujuan untuk mencari keuntungan. Saham syarikat awam berhad ini dipegang secara terbuka dan bagi sesebuah syarikat yang disenaraikan di Bursa Malaysia, sahamnya boleh bertukar milik secara bebas;

Ciri-ciri:

- i. Dikawal di bawah Akta Syarikat 1965 dan merupakan entiti yang sah terpisah daripada pemilik;
- ii. Dimiliki oleh pemegang-pemegang saham dan tiada had bagi pemilik saham berkenaan;
- iii. Pengurusan dan kawalan syarikat adalah di bawah tanggungjawab Lembaga Pengarah yang dilantik oleh pemegang saham; dan
- iv. Disenaraikan di Bursa Malaysia.

9.6 Syarikat koperasi

Koperasi adalah organisasi yang ditubuhkan untuk faedah bersama ahli dan didaftarkan di bawah Akta Koperasi 1993. Kumpulan wang yang ada adalah milik bersama untuk memenuhi keperluan ahli-ahlinya.

9.7 Perbadanan awam

Ia merupakan sebuah perbadanan yang ditubuhkan di bawah Akta Khas Parlimen atau Dewan Perundangan Negeri.

9.8 Pertubuhan persendirian tidak mencari keuntungan

Ia merujuk kepada syarikat tanpa saham yang ditubuhkan dengan tanggungan berhad. Kebanyakan syarikat ini terdiri daripada pertubuhan kebajikan, keagamaan, pendidikan, kesihatan, kebudayaan, rekreasi dan pertubuhan yang memberikan perkhidmatan sosial dan kemasyarakatan kepada isi rumah. Perkhidmatan diberikan secara percuma atau pada harga yang tidak melebihi kos perkhidmatan (subsidi). Sebarang keuntungan yang diperoleh dilabur semula ke dalam pertubuhan berkenaan.

10. STRUKTUR HAK MILIK

Hak milik sesebuah pertubuhan dikelaskan mengikut taraf residen pemilik/ pemilik-pemilik modal berbayar yang terbesar (melebihi 50%) dan bukannya mengikut taraf kewarganegaraan mereka. Dalam kes di mana setiap pihak (Residen Malaysia dan Bukan Residen Malaysia) memegang bilangan saham yang sama banyak dalam perniagaan berkenaan, maka pertubuhan tersebut telah dikelaskan di bawah "Hak Milik Bersama".

Residen Malaysia ialah individu, syarikat atau organisasi lain yang lazimnya terletak di Malaysia untuk jangka masa sekurang-kurangnya satu tahun. Cawangan dan anak syarikat asing yang didaftarkan/ diperbadankan di Malaysia adalah dianggap sebagai Residen Malaysia.

Bukan Residen Malaysia ialah individu, syarikat atau organisasi lain yang lazimnya terletak di negara selain Malaysia. Cawangan dan anak syarikat milik Residen Malaysia di luar negara juga dianggap sebagai Bukan Residen Malaysia.

11. NILAI OUTPUT KASAR

Nilai output kasar ditakrifkan seperti berikut:

Nilai jualan produk pembuatan

- + Nilai barang yang dijual dalam keadaan yang sama seperti dibeli
- Kos barang yang dijual dalam keadaan yang sama seperti dibeli
- + Perbelanjaan modal ke atas binaan sendiri
- + Pendapatan daripada perkhidmatan perindustrian yang diberi kepada orang lain
- + Pendapatan daripada kerja perindustrian lain (misalnya, pembinaan, kuari, dll.)
- + Penerimaan bayaran daripada skrap, tenaga elektrik, produk sisa, dll. yang dijual kepada orang lain
- + Penerimaan komisen dan brokeraj
- + Semua nilai output lain (seperti penerimaan perkhidmatan bukan perindustrian, misalnya bayaran pengurusan, sewa harta, dll.)
- + Stok akhir barang siap (pembuatan sendiri)
- Stok awal barang siap (pembuatan sendiri)
- + Stok akhir barang dalam proses
- Stok awal barang dalam proses
- + Perbelanjaan penyelidikan dan pembangunan (dalaman)

12. NILAI INPUT PERANTARAAN

Nilai input perantaraan ditakrifkan seperti berikut:

Nilai bahan mentah dan bekalan yang digunakan

- + Kos kerja perindustrian yang dibuat oleh orang lain
- + Kos bahan dan bekas pembungkus yang digunakan
- + Tenaga elektrik dan air yang dibeli
- + Nilai bahan pembakar, pelincir dan gas yang digunakan
- + Kos bahan yang digunakan bagi pembaikan dan penyelenggaraan harta Tetap (termasuk pembayaran kepada pihak lain ke atas kerja ini)
- + Pembayaran terhadap perkhidmatan bukan perindustrian (termasuk bayaran bagi pengangkutan keluar barang, perjalanan, pengurusan, perundangan, teknologi maklumat, pengiklanan, bank, pos, telekomunikasi, dll.)
- + Semua kos input lain (termasuk kos latihan dan nilai pakaian percuma yang disediakan kepada pekerja)

13. NILAI DITAMBAH

Nilai ditambah adalah perbezaan di antara output kasar dan input perantaraan. Ini hampir menyamai dengan keuntungan perniagaan, gaji dan upah, susut nilai dan cukai tidak langsung; campur faedah yang dibayar dan tolak faedah yang diterima.

14. PEKERJA

Bilangan pekerja merujuk kepada bilangan orang yang bekerja pada bulan Disember atau pada tempoh pembayaran gaji terakhir bagi tahun rujukan. Bilangan orang yang bekerja dikategorikan seperti berikut:

14.1 Pemilik yang bekerja dan pekerja keluarga tidak bergaji

i. Pemilik yang bekerja dan rakan niaga yang aktif

Kategori ini merujuk kepada semua pemilik perseorangan dan rakan niaga, sambilan atau sepenuh masa, yang bekerja dengan aktif dalam sesebuah pertubuhan. Justeru, ini tidak termasuk rakan niaga yang tidak aktif.

ii. Pekerja keluarga tidak bergaji

Kategori ini meliputi semua ahli isi rumah pemilik pertubuhan yang melaksanakan kerja tertentu (sepenuh masa atau sambilan) dan bekerja sekurang-kurangnya satu pertiga daripada waktu bekerja biasa yang diamalkan oleh pertubuhan berkenaan tanpa mendapat bayaran secara tetap, sama ada dalam bentuk wang tunai atau harta benda bagi kerja yang dilakukan. Kebiasaannya pekerja berkenaan menerima makanan, tempat tinggal dan bantuan lain sebagai sebahagian daripada ahli isi rumah pemilik dan akan berterusan menerimanya sama ada mereka bekerja atau tidak di pertubuhan tersebut.

14.2 Pekerja bergaji (sepenuh masa)

Merujuk kepada semua pekerja bergaji (sepenuh masa) yang bekerja sekurang-kurangnya enam jam sehari dan/atau 20 hari sebulan. Pekerja bergaji (sepenuh masa) telah dikategorikan berdasarkan Piawaian Pengkelasan Pekerjaan Malaysia (MASCO) 2020 seperti berikut:

i) **Pengurus, profesional dan penyelidik meliputi:**

a. **Pengurus**

Merujuk kepada mereka yang menggubal, menganalisa, merumus, mengarah dan memberi nasihat tentang dasar kerajaan, dan membuat, memansuhkan undang-undang, kaedah dan peraturan awam, dan mewakili serta bertindak bagi pihak kerajaan, dan memantau pentafsiran dan pelaksanaan dasar dan undang-undang kerajaan, atau menjalankan tugas yang seumpamanya bagi pihak pertubuhan berkepentingan khas, atau mengatur, memimpin, mengawal dan menyelaras dasar dan aktiviti perusahaan, organisasi, jabatan atau seksyen dalamannya; dan

b. **Profesional**

Merujuk kepada mereka yang bertanggung jawab untuk meningkatkan ilmu pengetahuan sedia ada, mengaplikasikan konsep dan teori saintifik atau artistik, mengajar tentang perkara tersebut dengan cara bersistematik, atau terlibat dalam apa-apa gabungan tiga aktiviti di atas.

ii) **Juruteknik dan profesional bersekutu**

Merujuk kepada mereka yang melakukan tugas teknikal dan tugas yang berkaitan dengan penyelidikan dan pengaplikasian konsep sains atau seni dan kaedah operasi, dan peraturan kerajaan atau perniagaan.

iii) **Perkeranian, pekerja perkhidmatan & jualan, kemahiran khas, operator mesin & loji dan pekerjaan yang berkaitan:**

a. **Pekerja sokongan perkeranian**

Merujuk kepada mereka yang merekod, mengurus, menyimpan dan mendapatkan maklumat yang berkaitan, dan menjalankan tugas-tugas perkeranian berhubung dengan operasi pentadbiran, pengendalian wang, urusan perjalanan, permintaan maklumat dan janji temu;

b. **Pekerja perkhidmatan dan jualan**

Merujuk kepada mereka yang menyediakan perkhidmatan peribadi berkaitan dengan perjalanan, pengemasan, katering, penjagaan diri, atau perlindungan dari kebakaran dan undang-undang yang berkaitan, atau menunjuk cara dan menjual barangan di kedai borong atau runcit dan pertubuhan seumpamanya termasuk di gerai dan pasar;

c. **Pekerja kemahiran dan pekerja pertukangan yang berkaitan**

Merujuk kepada mereka yang mengaplikasikan pengetahuan dan kemahiran khusus dalam bidang perlombongan dan pembinaan, penempatan logam, dan mendirikan struktur logam; membuat, melaraskan, menyelenggara dan membaik pulih jentera, kelengkapan atau peralatan; menjalankan kerja pencetakan; dan mengeluarkan atau memproses barang makanan, tekstil atau kayu, logam dan barangan lain termasuk barang kraftangan; dan

d. **Operator mesin & loji, dan pemasang**

Merujuk kepada mereka yang mengendalikan dan mengawasi jentera dan kelengkapan perindustrian dan pertanian; memandu dan mengendalikan kereta api, kenderaan bermotor, jentera dan kelengkapan bergerak; atau memasang bahagian komponen produk mengikut spesifikasi dan prosedur yang ketat.

iv) **Pekerja asas**

Merujuk kepada mereka yang menjalankan tugas yang mudah, rutin dan tidak sistematik yang biasanya memerlukan penggunaan perkakas tangan atau dengan sokongan mesin yang mudah, dan memerlukan tenaga fizikal yang banyak.

14.3 Pekerja bergaji (sambilan)

Ia merujuk kepada semua pekerja bergaji yang bekerja kurang daripada enam jam sehari dan/ atau kurang daripada 20 hari sebulan.

15. KATEGORI KEMAHIRAN

Kategori kemahiran pekerjaan telah dikelaskan berdasarkan Piawaian Pengkelasan Pekerjaan Malaysia (MASCO) 2020 seperti berikut:

15.1 Pekerja Mahir

Pengurus; Profesional; Juruteknik & profesional bersekutu;

15.2 Pekerja Separuh mahir

Pekerja sokongan perkeranian; Pekerja perkhidmatan & jualan; Pekerja kemahiran pertanian, perhutanan, penternakan dan perikanan; Pekerja kemahiran dan pekerja pertukangan yang berkaitan; Operator mesin & loji dan pemasang; dan

15.3 Pekerja Kurang Mahir

Pekerja asas

16. GAJI & UPAH

Semua pembayaran (gaji, upah, bonus, komisyen, bayaran lebih masa dan elaun tunai termasuk belanja sara hidup, perumahan, kereta, makanan dan sebagainya) yang dibuat sepanjang tahun rujukan meliputi semua pekerja bergaji dalam setiap kategori pekerja yang diambil secara langsung termasuk jumlah bayaran yang dibuat adalah sebelum ditolak cukai pendapatan dan caruman pekerja kepada Kumpulan Wang Simpanan Pekerja (KWSP)/ Pertubuhan Keselamatan Sosial (PERKESO)/ Kumpulan wang simpanan lain/ Kumpulan Wang Persaraan (KWP). Caruman majikan kepada kumpulan wang yang di atas hendaklah dikecualikan.

17. NILAI HARTA TETAP

Harta tetap meliputi semua barangan, baru atau terpakai, aset ketara atau aset tidak ketara yang digunakan secara berulang atau berterusan yang mempunyai hayat produktif lebih daripada setahun. Ini termasuk tanah, bangunan & struktur, alat pengangkutan, komputer, jentera & kelengkapan, perabot & pemasangan dan harta lain. Harta lain meliputi aset biologi iaitu pokok/ tanaman (kecuali pokok balak yang bertujuan untuk pembalakan), ternakan dan perikanan akuakultur yang mengeluarkan hasil berulang kali dan mempunyai jangka hayat lebih daripada satu tahun.

Nilai harta tetap awal dan akhir bagi tahun rujukan 2022 adalah berasaskan nilai buku bersih. Pembelian, pindaan dan pembaikan besar atau perbelanjaan modal pada tahun berkenaan dikira pada nilai kos sebenar yang dibayar. Nilai harta tetap yang dijual dalam tahun semasa juga dikira pada nilai sebenar.

18. PERTUBUHAN MILIKAN WANITA

Pertubuhan milikan wanita merujuk kepada pertubuhan sekurang-kurangnya 51 peratus pemilikan ekuiti dipegang oleh wanita ATAU pemegang saham terbesar adalah wanita dan pertubuhan diuruskan oleh wanita ATAU Ketua Pegawai Eksekutif atau Pengarah Urusan adalah wanita yang memiliki sekurang-kurangnya 10 peratus ekuiti.

19. PEMBUNDARAN

Jumlah bagi komponen-komponen mungkin berbeza daripada jumlah besar dalam jadual penerbitan ini disebabkan oleh pembundaran angka.

20. KADAR PERTUMBUHAN TAHUNAN DIKOMPAN

Kadar pertumbuhan tahunan dikompaun (r) adalah berdasarkan formula berikut:

$$Y_t = Y_o(1 + r)^t$$

di mana

$$r = \left[e^{\frac{1}{t} \ln \left(\frac{Y_t}{Y_o} \right)} - 1 \right] \times 100$$

di mana,

Y_t = Nilai pada tahun semasa

Y_o = Nilai pada tahun sebelum

t = Bilangan tahun, $Y_t - Y_o$

r = Kadar pertumbuhan tahunan dikompaun

21. SIMBOL DAN SINGKATAN

Simbol dan singkatan berikut digunakan dalam penerbitan ini:

&	:	dan
%	:	peratus
-	:	tiada
}	:	digabungkan
dll.	:	dan lain-lain
e.g.	:	sebagai contoh
CAGR	:	kadar pertumbuhan tahunan dikompaun
n.a	:	tidak berkaitan
RM	:	Ringgit Malaysia
t.t.t.l.	:	tidak terkelas di tempat lain
Ver.	:	Versi
W.P.	:	Wilayah Persekutuan
0.0	:	kurang dari 0.01

1. SCOPE AND COVERAGE

This publication used data from Economic Census 2023 (reference year 2022). The census collected information from registered establishments in Agriculture, Mining & quarrying, Manufacturing, Construction and Services sectors. The classification for industries refers to Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0, which is in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4 United Nations. The coverage for all sectors encompasses 1,200 categories of industries as shown in **Table 1**.

Table 1: Category of industries by sector

Sector	Category of Industries
Agriculture*	142
Mining & quarrying	56
Manufacturing	259
Construction	72
Services	645
Total	1,174

Note*: Entrepreneurs in the Agriculture sector which registered with relevant government agencies for the purpose of receiving aid were **NOT** covered except palm oil's entrepreneurs.

The coverage of the census for the Manufacturing sector consists of 259 industries at the 5-digit level. These industries are classified according to the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0. The complete list of covered industries is shown in the Appendix of the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0.

2. SOURCE OF STATISTICAL FRAME

The main source of the establishment statistical frame is from the Malaysia Statistical Business Register (MSBR). MSBR is a list of organisations/ enterprises operating in Malaysia that includes the Register of Companies (ROC), Register of Business (ROB) and Limited Liability Partnership (LLP) registered with the Companies Commission of Malaysia (CCM) as well as organisations registered with local authorities (LA) and professional bodies. The list in MSBR is updated regularly based on surveys and censuses conducted by the Department of Statistics Malaysia (DOSM) and administrative data sources from various agencies. The main source of administrative data is from the CCM.

In addition, DOSM also works together to obtain the latest information from other agencies such as the Employees' Provident Fund (EPF), the Royal Malaysian Customs Department, the Inland Revenue Board (IRB), Social Security Organization (SOCSSO), LA and professional bodies. The frame is updated to take into account new establishments and to record any changes in the status of the establishments such as closed down, not in operation, change in activity and location/ correspondence address to ensure the frame is at the most current status.

3. TYPE OF BUSINESS ACTIVITY

Type of business activity refers to both principal and secondary activities. The principal activity refers to the activity to which the establishment devoted most of its resources or activity which derived most of its income. Secondary activities are defined as those incidental or ancillary to the principal activity. The classification of industry for the establishment is based on the principal activity and is in accordance with the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0 which conforms to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, United Nations, with modifications to suit local conditions.

4. CONCEPT AND DEFINITION

Concepts and definitions used are based on the recommendations of the International Recommendations for Industrial Statistics, United Nations Statistical Division. The definition of Manufacturing used in this census follows the MSIC 2008 Ver. 1.0.

4.1 Manufacturing Definition

Manufacturing is defined as the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail. The Manufacturing sub-sector consists of 24 Divisions namely:

- 4.2.1. Manufacture of food products;
- 4.2.2. Manufacture of beverages;
- 4.2.3. Manufacture of tobacco products;
- 4.2.4. Manufacture of textiles;
- 4.2.5. Manufacture of wearing apparel;
- 4.2.6. Manufacture of leather and related products;
- 4.2.7. Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials;
- 4.2.8. Manufacture of paper and paper products;
- 4.2.9. Printing and reproduction of recorded media;
- 4.2.10. Manufacture of coke and refined petroleum products;
- 4.2.11. Manufacture of chemicals and chemical products;
- 4.2.12. Manufacture of basic pharmaceuticals, medicinal chemical and botanical products;
- 4.2.13. Manufacture of rubber and plastics products;
- 4.2.14. Manufacture of other non-metallic mineral products;
- 4.2.15. Manufacture of basic metals;
- 4.2.16. Manufacture of fabricated metal products, except machinery and equipment;
- 4.2.17. Manufacture of computer, electronics and optical products;
- 4.2.18. Manufacture of electrical equipment;
- 4.2.19. Manufacture of machinery and equipment n.e.c;
- 4.2.20. Manufacture of motor vehicles, trailers and semi-trailers;
- 4.2.21. Manufacture of other transport equipment;
- 4.2.22. Manufacture of furniture;
- 4.2.23. Other manufacturing; and
- 4.2.24. Repair and installation of machinery and equipment.

5. CENSUS YEAR

Refers to the year in which a census was conducted.

6. REFERENCE YEAR

The reference year of the census was the calendar year 2022. Establishments whose accounting year differed from calendar year were requested to report according to the accounting year or financial year covering at least six (6) months in the reference year.

7. METHOD OF COLLECTION

This census was generally conducted through three (3) methods of data collection, namely;

7.1 Online method through the e-BE portal

This method targets respondents who have used this method for previous routine surveys

7.2 Data collection method via e-mail, post, fax and telephone

This method targets respondents who have used this method for previous routine surveys. Respondents were given a period of one month to complete and return the questionnaire to the DOSM.

7.3 Face-to-face data collection

Field work operation is carried out to get feedback from establishments that have not yet given answers from the two methods above and this method also targets establishments that have never been involved in a routine survey of DOSM.

8. REPORTING UNIT

*The reporting unit used in the Economic Census 2023 was the **establishment**. An establishment is defined as “an economic unit engaged in one activity, under a single legal entity and operating in a single physical location”. Each establishment is assigned an industry classification based on its principal activity and not according to the activities of the parent company.*

Each branch of a multi-branch organization at a different location was conceptually treated as a different establishment. The establishment is requested to give separate returns for each activity in terms of value. However, if in practice, the accounts are centrally kept such that it is not possible to obtain separate data for each individual unit or branch. The entity or enterprise is treated as a single reporting unit and allowed to submit a consolidated questionnaire covering all the units or branches.

9. LEGAL STATUS

The legal status of an establishment is defined as follows:

9.1 Individual proprietorship

This refers to a business, owned and operated by one person for his own profit. The owner has the exclusive right to control the operation of the establishment.

9.2 Partnership

This refers to a group of individuals who agree to contract and to carry out a business with the objective of profit making. All shareholders or anyone could

manage the business for all parties. A trading partnership must comprise of at least two members and should not exceed a maximum of twenty members.

9.3 **Limited liabilities partnership**

Refers to business entity regulated under the Limited Liability Partnerships Act 2012. It is featured with the protection of limited liability to its partners similar to the limited liability enjoyed by shareholders of a company coupled with flexibility of internal business regulation through partnership arrangement similar to a conventional partnership; and

9.4 **Private limited company**

A private company established to undertake a business with the objective of making a profit. The shares are closely held by the shareholders of the company who have control over its operation.

Characteristics:

- i. Regulated under the Companies Act 1965 and is a legal entity separate from the owners;
- ii. Number of its shareholders between 2 - 50 members;
- iii. Company owners have limited liability;
- iv. Shareholders who own 51 per cent or more of the total shares shall be entitled to manage the company. The company's shares can be traded but not in the open market;
- v. Trading of share must be with the consent of the other shareholders;
- vi. Not listed on the Stock Exchange; and
- vii. Business life expectancy is longer and can be identified by the words "Sendirian Berhad" (Sdn. Bhd.) at the end of the company name.

9.5 **Public limited company**

A public limited company is a company established with limited liability, by a minimum of two persons to operate the business with the objective of making a profit. The shares in a public limited company are openly held and in the case of company listed on the Bursa Malaysia, the shares are freely transferable.

Characteristics:

- i. Regulated under the Companies Act 1965 and is a legal entity separate from the owner;
- ii. Owned by the shareholders and there is no limit to the shareholder
- iii. Management of the company is under the board of director responsibilities as appointed by shareholders; and
- iv. Listed on Bursa Malaysia.

9.6 **Co-operative**

This refers to a voluntary association with unrestricted number of members and registered under the Co-operatives Act 1993. Funds are collectively owned to meet the needs of members.

9.7 Public corporation

This refers to an undertaking set up under a Special Act Parliament or by the State Legislature.

9.8 Private non-profit making organization

This is non-stock company set up with limited liability. It comprises mainly welfare, religious, educational, health, cultural, recreational and other organisations providing social and community services to households. These services are provided free of charge or at prices, which do not necessarily or fully cover the cost of providing such services (subsidy). Any profit made is reinvested in the organisation.

10. OWNERSHIP

The ownership of an establishment is classified by the residential status of the owner (s) of the majority (more than 50%) of the paid-up capital and not by their citizenship status. In instances where each party (Malaysian Resident and Non-Malaysian Resident) held equal shares in the business, the establishments were classified as "Joint Ownership".

A Malaysian Resident is any individual, company or other organisation ordinarily domiciled in Malaysia for a period of at least one year. Malaysian registered branches and incorporated subsidiaries of foreign based/ origins are also regarded as Residents.

A Non-Malaysian Resident is any individual, company or other organisation ordinarily domiciled in a country other than Malaysia. Foreign branches and/ or subsidiaries abroad owned by Malaysian Residents are also regarded as Non-Residents.

11. VALUE OF GROSS OUTPUT

The value of gross output is defined as follow:

Value of sales of manufacturing products

- + *Value of goods sold in the same condition as purchased*
- *Cost of goods sold in the same condition as a purchased*
- + *Capital expenditure on own construction*
- + *Income from industrial services rendered to others*
- + *Income from other industrial work done (e.g. construction, quarry, etc.)*
- + *Receipt from scrap, electricity, waste product, etc. sold to others*
- + *Receipt from commision and brokerage earned*
- + *All other output (such as receipt from non-industrial services, e.g. management fees received, income from rental of property, etc.)*
- + *Closing stocks of finished goods (own manufactured)*
- *Opening stocks of finished goods (own manufactured)*
- + *Closing stocks of goods-in-process*
- *Opening stocks of goods-in-process*
- + *Research and development expenditure (In-house)*

12. VALUE OF INTERMEDIATE INPUT

The value of intermediate input is defined as follow:

Value of raw materials and supplies consumed

- + *Cost of industrial work done by others*
- + *Cost of packing materials and containers consumed*
- + *Electricity and water purchased*
- + *Value of fuel, lubricants and gas consumed*
- + *Cost of materials used for repairs and maintenance of assets (including payments to others for this work)*
- + *Payments for non-industrial services (including payments for carriage outwards of goods, traveling, management fees, information technology, advertising, bank charges, post, telecommunio, etc.)*
- + *All other input costs (including training and value of free wearing apparel provided for workers)*

13. VALUE ADDED

Value added is the difference between gross output and intermediate input. It is approximately equivalent to commercial profit, salaries and wages, depreciation and indirect taxes; plus, interest paid less interest received.

14. NUMBER OF PERSONS ENGAGED

Employment covers all persons engaged during December or the last pay period of the reference year. The number of persons engaged was classified under the following categories:

14.1 Working proprietors and unpaid family worker

i) Working proprietors and active business partners

This category refers to all individual proprietors and partners (full-time or part-time) who are actively engaged in the work of the establishment. It therefore, excludes silent and inactive partners; and

ii) Unpaid family workers

Include all household members (full-time or part-time) to the owners of the establishment who perform a specified job and work for a minimum of one third of the normal working time for the establishment, but do not receive regular payment either in cash or in kind for the work done. Such workers generally receive food, shelter and other support as part of the household of an owner but this would continue whether they worked in the establishment or not.

14.2 Paid full-time employees

Refer to all paid workers (full-time) who work for at least six hours a day and/or 20 days a month. All such employees are to be categorised according to Malaysia Standard Classification of Occupations 2020 (MASCO) as follows:

- i) **Manager, professional and researcher included:**
 - a. **Manager**
Refer to those who devise, analyse, formulate, direct and advise on government policy, and make, amend and repeal laws, public rules and regulations, and represent and act on behalf of the government, and oversee the interpretation and implementation of policies and government legislation, or carry out similar tasks on behalf of special interest organisations, or plan, organise, lead, control and coordinate the policies and activities of enterprises, organisations, departments or the internal section; and
 - b. **Professional**
Refer to those responsible for increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these three activities.
- ii) **Technicians and associate professionals**
Refer to those who perform technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.
- iii) **Clerical, services & sales workers, craft workers, plant & machine operators and related occupations includes:**
 - a. **Clerical support workers**
Refer to those who record, organise, store and retrieve related information and perform clerical duties especially in connection with administrative operations, handling of money, travel arrangements and requests for information and appointments;
 - b. **Service and sales workers**
Refer to those who provide personal services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments as well as at stalls and markets;
 - c. **Skilled agricultural, forestry, livestock and fishery workers**
Refer to those who grow and harvest field or tree and shrub crops, gather wild fruit, herbs and vegetables, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and gather forest products, breed or catch fish and cultivate or gather other forms of aquatic life;
 - d. **Craft and related trades workers**
Refer to those who apply their specific knowledge and skills in the fields of mining and construction, metal forming, and erect metal structures, make, fit, maintain and repair machinery, equipment or tools, carry out printing work as well as produce or process

foodstuffs, textiles, or wooden, metal and other articles including handicraft goods; and

e. Plant & machine operators and assemblers

Refer to those who operate and monitor industrial and agricultural machinery and equipment, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble product component parts according to strict specifications and procedures.

iv) Elementary occupations

Refer to those who perform simple, routine and non-systematic tasks which mainly require the use of handheld tools or with the assistance of simple machines, and in some cases considerable physical effort.

14.3 Paid Part-time employees

It refers to all paid workers who work for less than six (6) hours a day and/or less than 20 days a month.

15. CATEGORY OF SKILLS

Category of skills are categorized according to Malaysia Standard Classification of Occupations 2020 (MASCO) as follow:

15.1 High-Skilled workers

Managers; Professionals; Technicians & associate professionals;

15.2 Semi-Skilled workers

Clerical support workers; Service & sales workers; Skilled agricultural, forestry, livestock & fishery workers; Craft & related trades workers; Plant & machine operators and assemblers; and

15.3 Low-Skilled workers

Elementary occupations

16. SALARIES & WAGES

All payments (salaries, wages, bonuses, commissions, overtime pay and cash allowances including cost of living, housing, car, food, etc.) made throughout the reference year to all paid employees in each category. For all directly employed workers, total payments made before deductions for income tax and employees' contributions to Employees' Provident Fund (EPF)/ Social Security Organisation (SOCSO)/ Other provident/ Retirement Funds Incorporated (KWAP). The Employer's contribution to such funds as mentioned above should be excluded.

17. VALUE OF FIXED ASSETS

Fixed assets cover all goods, new or used, tangible or intangible, which have a normal economics life span of more than one year. For instance land, building & structure, transport equipment, computer, machinery & equipment, furniture & fittings and other assets. Other assets also include biological assets namely trees/ crops (except for logging trees that intended for logging), livestock and aquaculture fisheries which can produce products repeatedly and have a life expectancy of more than one year.

Value of assets as at the beginning and end of 2022 was based on net book value. Purchases alterations and major repairs or capital expenditure during the year were valued at actual costs incurred. Value of assets sold during the year refers to the actual value.

18. WOMEN-OWNED ESTABLISHMENT

Women-owned establishment refers to a minimum of 51 per cent of the equity held by a women OR the biggest shareholders are women and the establishment is managed by a women OR the Chief Executive Officer or Managing Director is women that owns at least 10 per cent of the equity.

19. ROUNDING

The sum of the component figures may not tally with the sub-total or total figures due to rounding.

20. COMPOUND ANNUAL GROWTH RATE

The calculation of compound annual growth rate (r) is based on the following formula:

$$Y_t = Y_o (1 + r)^t$$

where,

$$r = \left[e^{\frac{1}{t} \ln \left(\frac{y_t}{y_o} \right)} - 1 \right] \times 100$$

where,

Y_t = Value at current year

Y_o = Value at previous year

t = Number of years, $Y_t - Y_o$

r = Compound annual growth rate

21. SYMBOLS AND ABBREVIATIONS

&	:	and
%	:	per cent
-	:	nil
}	:	combine
etc	:	et cetera
e.g.	:	for example
CAGR	:	compound annual growth rate
n.a	:	not applicable
RM	:	Ringgit Malaysia
n.e.c.	:	not elsewhere classified
Ver.	:	Version
W.P.	:	Wilayah Persekutuan
0.0	:	less than 0.01

Piawaian Klasifikasi Industri Malaysia, 2008 Ver. 1.0
 Malaysia Standard Industrial Classification, 2008 Ver. 1.0

Industri Industry	MSIC 2008 dan keterangan MSIC 2008 and description
10101	Pemprosesan dan pengawetan daging dan pengeluaran produk daging <i>Processing and preserving of meat and production of meat products</i>
10102	Pemprosesan dan pengawetan ayam itik dan produk ayam itik <i>Processing and preserving of poultry and poultry products</i>
10103	Pengeluaran belulang dan kulit daripada rumah penyembelihan <i>Processing and preserving of fruit and vegetables</i>
10104	Operasi rumah penyembelihan yang terlibat dalam pembunuhan, pembersihan atau pembungkusan daging <i>Production of hides and skins originating from slaughterhouses</i>
10109	Pemprosesan dan pengawetan daging t.t.t.l. <i>Processing and preserving of meat n.e.c.</i>
10201	Pengetinan ikan, krustasea dan moluska <i>Canning of fish, crustaceans and mollusks</i>
10202	Pemprosesan dan pengawetan ikan, krustasea dan moluska <i>Processing, curing and preserving of fish, crustacean and mollusks</i>
10203	Pengeluaran makanan berasaskan ikan untuk manusia atau haiwan <i>Production of fish meals for human consumption or animal feed</i>
10204	Pengeluaran keropok termasuk keropok lekor <i>Production of keropok including keropok lekor</i>
10205	Pemprosesan rumpai laut <i>Processing of seaweed</i>
10301	Pembuatan produk makanan buah-buahan dan sayur-sayuran <i>Manufacture of fruits and vegetables food products</i>
10302	Pembuatan jus buah-buahan dan sayur-sayuran <i>Manufacture of fruit and vegetables juices</i>
10303	Pengetinan nanas <i>Manufacture of pineapple canning</i>
10304	Pembuatan jem, marmalad dan sajian jeli <i>Manufacture of jams, marmalades and table jellies</i>
10305	Pembuatan kacang dan produk kekacang <i>Manufacture of nuts and nut products</i>
10306	Pembuatan produk tauhu <i>Manufacture of bean curd products</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
10401	Pembuatan minyak sawit mentah <i>Manufacture of crude palm oil</i>
10402	Pembuatan minyak sawit bertapis <i>Manufacture of refined palm oils</i>
10403	Pembuatan minyak isirong <i>Manufacture of palm kernel oils</i>
10404	Pembuatan minyak sayuran mentah dan bertapis <i>Manufacture of crude and refined vegetable oil</i>
10405	Pembuatan minyak kelapa <i>Manufacture of coconut oil</i>
10406	Pembuatan sebatian lemak masakan <i>Manufacture of compound cooking fats</i>
10407	Pembuatan minyak dan lemak haiwan <i>Manufacture of animal oils and fats</i>
10501	Pembuatan aiskrim dan ais lain yang boleh dimakan seperti sorbet <i>Manufacture of ice cream and other edible ice such as sorbet</i>
10502	Pembuatan susu pekat, tepung dan sejat <i>Manufacture of condensed, powdered and evaporated milk</i>
10509	Pembuatan produk tenusu lain t.t.t.l. <i>Manufacture of other dairy products n.e.c.</i>
10611	Pengilangan beras <i>Rice milling</i>
10612	Perkhidmatan persediaan pengilangan <i>Provision of milling services</i>
10613	Pengilangan tepung <i>Flour milling</i>
10619	Pembuatan produk bijian t.t.t.l. <i>Manufacture of grain mill products n.e.c.</i>
10621	Pembuatan kanji dan produk berkanji <i>Manufacture of starches and starch products</i>
10622	Pembuatan glukosa, sirap glukosa, maltosa, inulin <i>Manufacture of glucose, glucose syrup, maltose, inulin</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
10623	Pembuatan tepung/produk sagu dan ubi kayu <i>Manufacture of sago and tapioca flour/products</i>
10711	Pembuatan biskut dan cookies <i>Manufacture of biscuits and cookies</i>
10712	Pembuatan roti, kek dan produk bakeri lain <i>Manufacture of bread, cakes and other bakery products</i>
10713	Pembuatan produk snek <i>Manufacture of snack products</i>
10714	Pembuatan produk bakeri yang dibeku <i>Manufacture of frozen bakery products</i>
10721	Pembuatan gula <i>Manufacture of sugar</i>
10722	Pembuatan produk daripada gula <i>Manufacture of sugar products</i>
10731	Pembuatan produk koko <i>Manufacture of cocoa products</i>
10732	Pembuatan coklat dan produk coklat <i>Manufacture of chocolate and chocolate products</i>
10733	Pembuatan konfeksi gula <i>Manufacture of sugar confectionery</i>
10741	Pembuatan bihun, mi dan produk lain yang berkaitan <i>Manufacture of meehoon, noodles and other related products</i>
10742	Pembuatan pasta <i>Manufacture of pastas</i>
10750	Pembuatan makanan dan hidangan tersedia <i>Manufacture of prepared meals and dishes</i>
10791	Pembuatan kopi <i>Manufacture of coffee</i>
10792	Pembuatan teh <i>Manufacture of tea</i>
10793	Pembuatan sos dan bahan perasa <i>Manufacture of sauces and condiments</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
10794	Pembuatan rempah ratus dan serbuk kari <i>Manufacture of spices and curry powder</i>
10795	Pembuatan produk berasaskan telur <i>Manufacture of egg products</i>
10799	Pembuatan produk makanan lain t.t.t.l. <i>Manufacture of other food products n.e.c.</i>
10800	Pembuatan makanan haiwan tersedia <i>Manufacture of prepared animal feeds</i>
11010	Penyulingan, pembersihan dan pencampuran spirit <i>Distilling, rectifying and blending of spirits</i>
11020	Pembuatan wain <i>Manufacture of wines</i>
11030	Pembuatan minuman keras malt dan malt <i>Manufacture of malt liquors and malt</i>
11041	Pembuatan minuman ringan <i>Manufacture of soft drinks</i>
11042	engeluaran air mineral semulajadi dan minuman lain yang dibotolkan <i>Production of natural mineral waters and other bottled waters</i>
12000	Pembuatan produk tembakau <i>Manufacture of tobacco products</i>
13110	Penyediaan dan pemintalan gentian tekstil <i>Preparation and spinning of textile fibres</i>
13120	Penenunan tekstil <i>Weaving of textiles</i>
13131	Membuat batik <i>Manufacture Batik making</i>
13132	Pewarnaan, pelunturan, percetakan dan penyiapan akhir benang dan fabrik <i>Dyeing, bleaching, printing and finishing of yarns and fabrics</i>
13139	Penyiapan akhir tekstil lain <i>Other finishing textile</i>
13910	Pembuatan fabrik dikait dan dikrusye <i>Manufacture of knitted and crocheted fabrics</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
13921	Pembuatan artikel tersedia bagi bahan tekstil seumpamanya, termasuk fabrik dikait atau dikrusye <i>Manufacture of made-up articles of any textile materials, including of knitted or crocheted fabrics</i>
13922	Pembuatan artikel perhiasan tersedia <i>Manufacture of made-up furnishing articles</i>
13930	Pembuatan permaidani dan hamparan <i>Manufacture of carpets and rugs</i>
13940	Pembuatan bagi tali-temali, tali, tali pintal dan jaring <i>Manufacture of cordage, rope, twine and netting</i>
13990	Pembuatan tekstil lain t.t.t.l. <i>Manufacture of other textiles n.e.c.</i>
14101	Pembuatan pakaian spesifik <i>Manufacture of specific wearing apparel</i>
14102	Pembuatan pakaian <i>Manufacture of clothings</i>
14103	Jahitan pakaian tempahan <i>Custom tailoring</i>
14109	Pembuatan aksesori pakaian lain <i>Manufacture of other clothing accessories</i>
14200	Pembuatan artikel daripada kulit bulu <i>Manufacture of articles made of fur skins</i>
14300	Pembuatan pakaian yang dikait dan dikrusye <i>Manufacture of knitted and crocheted apparel</i>
15110	Penyamakan dan pembersihan kulit; pembersihan dan pewarnaan bulu <i>Tanning and dressing of leather; dressing and dyeing of fur</i>
15120	Pembuatan begasi, beg tangan dan seumpamanya, pelana dan abah-abah <i>Manufacture of luggage, handbags and the like, saddlery and harness</i>
15201	Pembuatan kasut kulit <i>Manufacture of leather footwear</i>
15202	Pembuatan kasut plastik <i>Manufacture of plastic footwear</i>
15203	Pembuatan kasut getah <i>Manufacture of rubber footwear</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
15209	Pembuatan kasut lain t.t.t.l. <i>Manufacture of other footwear n.e.c.</i>
16100	Pengilangan dan pengetaman kayu <i>Sawmilling and planing of wood</i>
16211	Pembuatan kepingan venier dan papan lapis <i>Manufacture of veneer sheets and plywood</i>
16212	Pembuatan papan partikel dan papan gentian <i>Manufacture of particle board and fibreboard</i>
16221	Pertukangan kayu untuk jurubina <i>Manufacture of builders' carpentry</i>
16222	Pembuatan produk tanggam kayu <i>Manufacture of joinery wood products</i>
16230	Pembuatan bekas kayu <i>Manufacture of wooden containers</i>
16291	Pembuatan kayu arang <i>Manufacture of wood charcoal</i>
16292	Pembuatan produk kayu lain; rotan, artikel gabus, jerami dan bahan jalinan <i>Manufacture of other products of wood, cane, articles of cork, straw and plaiting materials</i>
17010	Pembuatan pulpa, kertas dan kertas tebal <i>Building of ships and boats</i>
17020	Pembuatan kertas gelugur dan kertas tebal dan bekas daripada kertas dan kertas tebal <i>Manufacture of corrugated paper and paperboard and of containers of paper and paperboard</i>
17091	Pembuatan sampul surat dan kad surat <i>Manufacture of envelopes and letter-card</i>
17092	Pembuatan kertas kegunaan rumah dan pembersih peribadi <i>Manufacture of household and personal hygiene paper</i>
17093	Pembuatan kertas bergam atau pelekat yang berjalur atau bergulung dan label dan kertas dinding <i>Manufacture of gummed or adhesive paper in strips or rolls and labels and wall paper</i>
17094	Pembuatan patung, barangan kertas upacara pengebumian, kertas colok <i>Manufacture of effigies, funeral paper goods, joss papers</i>
17099	Pembuatan barang kertas dan kertas tebal lain yang t.t.t.l. <i>Manufacture of other articles of paper and paperboard n.e.c.</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
18110	Percetakan <i>Printing</i>
18120	Aktiviti perkhidmatan berkaitan percetakan <i>Service activities related to printing</i>
18200	Penerbitan semula media rakaman <i>Reproduction of recorded media</i>
19100	Pembuatan produk ketuhar kok <i>Manufacture of coke oven products</i>
19201	Pembuatan produk petroleum bertapis <i>Manufacture of refined petroleum products</i>
19202	Pembuatan produk bio-diesel <i>Manufacture of bio-diesel products</i>
20111	Pembuatan gas perindustrian atau perubatan bukan organik dalam bentuk cecair atau mampat <i>Manufacture of liquefied or compressed inorganic industrial or medical gases</i>
20112	Pembuatan kimia organik asas <i>Manufacture of basic organic chemicals</i>
20113	Pembuatan sebatian bukan organik <i>Manufacture of inorganic compounds</i>
20119	Pembuatan kimia asas lain t.t.t.l. <i>Manufacture of other basic chemicals n.e.c.</i>
20121	Pembuatan baja <i>Manufacture of fertilizers</i>
20129	Pembuatan produk campuran nitrogen <i>Manufacture of associated nitrogen products</i>
20131	Pembuatan plastik dalam bentuk primer <i>Manufacture of plastic in primary forms</i>
20132	Pembuatan getah sintetik dalam bentuk primer: getah sintetik, tiruan <i>Manufacture of synthetic rubber in primary forms: synthetic rubber, factice</i>
20133	Pembuatan campuran getah sintetik dan getah asli atau getah-seperti perekat <i>Manufacture of mixtures of synthetic rubber and natural rubber or rubber - like gums</i>
20210	Pembuatan racun perosak dan produk agrokimia lain <i>Manufacture of pesticides and other agrochemical products</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
20221	Pembuatan cat, varnis dan penyadur dan mastik <i>Manufacture of paints, varnishes and similar coatings ink and mastics</i>
20222	Pembuatan dakwat cetak <i>Manufacture of printing ink</i>
20231	Pembuatan sabun dan bahan pencuci, penyediaan membersih dan mengilat <i>Manufacture of soap and detergents, cleaning and polishing preparations</i>
20232	Pembuatan pewangi dan penyediaan dandanan diri <i>Manufacture of perfumes and toilet preparations</i>
20291	Pembuatan plat fotografi, filem, sensitized paper dan other sensitized unexposed materials <i>Manufacture of photographic plates, films, sensitized paper and other sensitized unexposed materials</i>
20292	Pembuatan dakwat menulis dan melukis <i>Manufacture of writing and drawing ink</i>
202992	Pembuatan produk kimia lain t.t.t.l. <i>Manufacture of other chemical products n.e.c.</i>
20300	Pembuatan serat buatan manusia <i>Manufacture of man-made fibres</i>
21001	Pembuatan bahan aktif ubat-ubatan untuk digunakan oleh bidang farmakologi dalam pembuatan ubat-ubatan <i>Manufacture of medicinal active substances to be used for their pharmacological properties in the manufacture of medicaments</i>
21002	Pemprosesan darah <i>Processing of blood</i>
21003	Pembuatan ubat-ubatan <i>Manufacture of medicaments</i>
21004	Pembuatan produk kimia bagi pencegah kehamilan <i>Manufacture of chemical contraceptive products</i>
21005	Pembuatan penyediaan diagnosis perubatan <i>Manufacture of medical diagnostic preparation</i>
21006	Pembuatan bahan diagnosis in-vivo radioaktif <i>Manufacture of radioactive in-vivo diagnostic substances</i>
21007	Pembuatan farmaseutikal bioteknologi <i>Manufacture of biotech pharmaceuticals</i>
21009	Pembuatan produk farmaseutikal, kimia perubatan dan botani t.t.t.l. <i>Manufacture of other pharmaceuticals, medicinal chemical and botanical products n.e.c.</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
22111	Pembuatan tayar getah untuk kenderaan <i>Manufacture of rubber tyres for vehicles</i>
22112	Pembuatan bunga tayar yang boleh ditukar ganti dan tayar celup <i>Manufacture of interchangeable tyre treads and retreading rubber tyres</i>
22191	Pembuatan produk lain daripada getah asli atau sintetik, tidak divulkan, divulkan atau dikeraskan <i>Manufacture of other products of natural or synthetic rubber, unvulcanized, vulcanized or hardened</i>
22192	Pembuatan sarung tangan getah <i>Manufacture of rubber gloves</i>
22193	Pengilangan semula getah dan prosesan susu getah <i>Rubber remilling and latex processing</i>
22199	Pembuatan produk getah lain yang t.t.t.l. <i>Manufacture of other rubber products n.e.c</i>
22201	Pembuatan produk plastik separa siap <i>Manufacture of semi-manufactures of plastic products</i>
22202	Pembuatan produk plastik siap <i>Manufacture of finished plastic products</i>
22203	Pembuatan artikel plastik untuk pembungkusan barangan <i>Manufacture of plastic articles for the packing of goods</i>
22204	Pembuatan barangan plastik jurubina <i>Manufacture of builders' plastics ware</i>
22205	Pembuatan pinggan mangkuk, peralatan dapur dan barangan tandas daripada plastik <i>Manufacture of plastic tableware, kitchenware and toilet articles</i>
22209	Pembuatan pelbagai produk plastik t.t.t.l. <i>Manufacture of diverse plastic products n.e.c.</i>
23101	Pembuatan kaca leper, termasuk kaca leper berdawai, berwarna atau sedikit berwarna <i>Manufacture of flat glass, including wired, coloured or tinted flat glass</i>
23102	Pembuatan barangan kaca makmal, barangan kesihatan atau farmaseutikal <i>Manufacture of laboratory, hygienic or pharmaceutical glassware</i>
23109	Pembuatan produk kaca lain t.t.t.l. <i>Manufacture of other glass products n.e.c.</i>
23911	Pembuatan mortar refraktori dan konkrit <i>Manufacture of refractory mortars and concretes</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
23912	Pembuatan barangan seramik refraktori <i>Manufacture of refractory ceramic goods</i>
23921	Pembuatan seramik bukan refraktori <i>Manufacture of non-refractory ceramic</i>
23929	Pembuatan lain-lain bahan binaan dari tanah liat <i>Manufacture of other clay building materials</i>
23930	Pembuatan produk porselin dan seramik lain <i>Manufacture of other porcelain and ceramic products</i>
23941	Pembuatan simen hidrolik <i>Manufacture of hydraulic cement</i>
23942	Pembuatan kapur dan plaster <i>Manufacture of lime and plaster</i>
23951	Pembuatan konkrit dan mortar siap bancuh dan bancuhan kering <i>Manufacture of ready-mix and dry-mix concrete and mortars</i>
23952	Pembuatan konkrit pratuangan, simen atau artikel batu buatan yang digunakan dalam pembinaan <i>Manufacture of precast concrete, cement or artificial stone articles for use in construction</i>
23953	Pembuatan komponen struktur pasang siap untuk bangunan atau kejuruteraan awam dari simen, batu atau konkrit buatan <i>Manufacture of prefabricated structural components for building or civil engineering of cement, concrete or artificial stone</i>
23959	Pembuatan artikel konkrit, simen dan plaster lain t.t.t.l. <i>Manufacture of other articles of concrete, cement and plaster n.e.c.</i>
23960	Pemotongan, pembentukan dan penyiapan batu <i>Cutting, shaping and finishing of stone</i>
23990	Pembuatan produk mineral bukan logam lain t.t.t.l. <i>Manufacture of other non-metallic mineral products n.e.c.</i>
24101	Pengeluaran jongkong besi dan spiegeleisen dalam bentuk jongkong, blok atau dalam bentuk asal lain <i>Production of pig iron and spiegeleisen in pigs, blocks or other primary forms</i>
24102	Pembuatan batang dan rod keluli tahan karat atau keluli aloi lain <i>Production of bars and rods of stainless steel or other alloy steel</i>
24103	Pembuatan tiub tidak berkelim, dengan penggelekan, picitan atau tempaan panas, atau dengan tempaan atau penggelekan sejuk <i>Manufacture of seamless tubes, by hot rolling, hot extrusion or hot drawing, or by cold drawing or cold rolling</i>
24104	Pembuatan kelengkapan tiub keluli <i>Manufacture of steel tube fittings</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
24109	Pembuatan produk besi asas dan keluli lain t.t.t.l. <i>Manufacture of other basic iron and steel products n.e.c.</i>
24201	Peleburan timah <i>Tin smelting</i>
24202	Pengeluaran aluminium daripada alumina <i>Production of aluminium from alumina</i>
24209	Pembuatan logam asas berharga dan logam bukan ferus lain t.t.t.l. <i>Manufacture of other basic precious and other non-ferrous metals n.e.c.</i>
24311	Pengacuan besi <i>Casting of iron</i>
24312	Pengacuan keluli <i>Casting of steel</i>
24320	Pengacuan logam bukan ferus <i>Casting of non-ferrous metals</i>
25111	Pembuatan kerangka kerja perindustrian daripada logam <i>Manufacture of industrial frameworks in metal</i>
25112	Pembuatan bangunan pasang siap terutamanya daripada logam <i>Manufacture of prefabricated buildings mainly of metal</i>
25113	Pembuatan pintu, tingkap dan bingkai, penutup tingkap dan pintu pagar daripada logam <i>Manufacture of metal doors, windows and their frames, shutters and gates</i>
25119	Pembuatan produk struktur logam lain <i>Manufacture of other structural metal products</i>
25120	Pembuatan tangki, takungan dan kontena daripada logam <i>Manufacture of tanks, reservoirs and containers of metal</i>
25130	Pembuatan penjana wap, kecuali dandang pemanasan air berpusat <i>Manufacture of steam generators, except central heating hot water boilers</i>
25200	Pembuatan senjata dan peluru <i>Manufacture of weapons and ammunition</i>
25910	Tempaan, tekanan, hentakan dan bentuk gelekkan logam; serbuk metalurgi <i>Forging, pressing, stamping and roll-forming of metal; powder metallurgy</i>
25920	Rawatan dan penyalutan logam; menggunakan mesin <i>reatment and coating of metals; machining</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
25930	Pembuatan kutleri, alatan pertukangan tangan dan perkakasan am <i>Manufacture of cutlery, hand tools and general hardware</i>
25991	Pembuatan tin untuk produk makanan dan minuman, tiub dan kotak boleh dilipat <i>Manufacture of tins and cans for food products, collapsible tubes and boxes</i>
25992	Pembuatan kabel, plaited bands (jalur/pita berpintal) dan artikel seumpamanya daripada logam <i>Manufacture of metal cable, plaited bands and similar articles</i>
25993	Pembuatan bolt, skru, nat dan produk uliran seumpamanya <i>Manufacture of bolts, screws, nuts and similar threaded products</i>
25994	Pembuatan barangan rumah daripada logam <i>Manufacture of metal household articles</i>
25999	Pembuatan produk lain yang direka daripada logam t.t.t.l. <i>Manufacture of any other fabricated metal products n.e.c.</i>
26101	Pembuatan diod, transistor dan alatan semikonduktor yang seumpamanya <i>Manufacture of diodes, transistors and similar semiconductor devices</i>
26102	Pembuatan litar elektronik bersepadu denpemasangan mikrogan <i>Manufacture electronic integrated circuits micro assemblies</i>
26103	Pembuatan kapasitor dan perintang elektrik <i>Manufacture of electrical capacitors and resistors</i>
26104	Pembuatan papan litar bercetak <i>Manufacture of printed circuit boards</i>
26105	Pembuatan komponen paparan <i>Manufacture of display components</i>
26109	Pembuatan komponen lain untuk aplikasi elektronik <i>Manufacture of other components for electronic applications</i>
26201	Pembuatan komputer <i>Manufacture of computers</i>
26202	Pembuatan peralatan komunikasi <i>Manufacture of peripheral equipment</i>
26300	Pembuatan kelengkapan peranti <i>Manufacture of communication equipment</i>
26400	Pembuatan elektronik pengguna <i>Manufacture of consumer electronics</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
26511	Pembuatan kelengkapan mengukur, menguji, memandu arah dan kawalan <i>Manufacture of measuring, testing, navigating and control equipment</i>
26512	Pembuatan kelengkapan kawalan proses perindustrian <i>Manufacture of industrial process control equipment manufacturing</i>
26520	Pembuatan jam tangan dan jam dan bahagiannya <i>Manufacture of watches and clocks and parts</i>
26600	Pembuatan peralatan penyinaran, perubatan elektro dan elektroterapeutik <i>Manufacture of irradiation, electro medical and electrotherapeutic equipment</i>
26701	Pembuatan instrumen dan kelengkapan optikal <i>Manufacture of optical instruments and equipment</i>
26702	Pembuatan peralatan fotografi <i>Manufacture of photographic equipment</i>
26800	Pembuatan media rakaman magnetik dan optikal <i>Manufacture of magnetic and optical recording media</i>
27101	Pembuatan motor elektrik, penjana dan transformer <i>Manufacture of electric motors, generators and transformers</i>
27102	Pembuatan perkakasan pengagihan dan pengawalan elektrik <i>Manufacture of electricity distribution and control apparatus</i>
27200	Pembuatan bateri dan akumulator <i>Manufacture of batteries and accumulators</i>
27310	Pembuatan kabel gentian optikal <i>Manufacture of fibre optic cables</i>
27320	Pembuatan wayar dan kabel elektronik dan elektrik lain <i>Manufacture of other electronic and electric wires and cables</i>
27330	Pembuatan alatan pendawaian pembawa dan bukan pembawa arus untuk litar elektrik (tanpa mengira jenis bahan) <i>Manufacture of current-carrying and non current-carrying wiring devices for electrical circuits regardless of material</i>
27400	Pembuatan kelengkapan pencahayaan elektrik <i>Manufacture of electric lighting equipment</i>
27500	Pembuatan perkakasan domestik <i>Manufacture of domestic appliances</i>
27900	Pembuatan pelbagai kelengkapan elektrik selain daripada motor, penjana dan transformer, bateri dan akumulator, wayar dan alatan pendawaian, kelengkapan pencahayaan atau perkakasan domestik <i>Manufacture of miscellaneous electrical equipment other than motors, generators and transformers, batteries and accumulators, wires and wiring devices, lighting equipment or domestic appliances</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
28110	Pembuatan enjin dan turbin, kecuali enjin pesawat, kenderaan dan sikal <i>Manufacture of engines and turbines, except aircraft, vehicle and cycle engines</i>
28120	Pembuatan alat-alat kuasa bendalir <i>Manufacture of fluid power equipment</i>
28130	Pembuatan pam, pemampat, kepala paip dan injap lain <i>Manufacture of other pumps, compressors, taps and valves</i>
28140	Pembuatan penggalas, gear, elemen gear dan pemanduan <i>Manufacture of bearings, gears, gearing and driving elements</i>
28150	Pembuatan ketuhar, relau dan relau pembakar <i>Manufacture of ovens, furnaces and furnace burners</i>
28160	Pembuatan kelengkapan mengangkat dan mengendali <i>Manufacture of lifting and handling equipment</i>
28170	Pembuatan mesin dan kelengkapan pejabat (kecuali kelengkapan komputer dan peranti) <i>Manufacture of office machinery and equipment (except computers and peripheral equipment)</i>
28180	Pembuatan alatan tangan yang menggunakan kuasa dilengkapi dengan motor elektrik atau bukan motor elektrik atau pneumatik <i>Manufacture of power-driven hand tools with self-contained electric or non-electric motor or pneumatic drives</i>
28191	Pembuatan kelengkapan penyejukan atau pembekuan perindustrian <i>Manufacture of refrigerating or freezing industrial equipment</i>
28192	Pembuatan mesin penyaman udara, termasuk untuk kenderaan bermotor <i>Manufacture of air-conditioning machines, including for motor vehicles</i>
28199	Pengeluaran mesin tujuan umum lain t.t.t.l. <i>Manufacture of other general-purpose machinery n.e.c.</i>
28210	Pembuatan mesin bagi pertanian dan perhutanan <i>Manufacture of agricultural and forestry machinery</i>
28220	Pembuatan jentera pembentukan logam dan alatan mesin <i>Manufacture of metal-forming machinery and machine tools</i>
28230	Pengeluaran bagi jentera untuk metalurgi <i>Manufacture of machinery for metallurgy</i>
28240	Pembuatan mesin untuk perlombongan, pengkuarian dan pembinaan <i>Manufacture of machinery for mining, quarrying and construction</i>
28250	Pembuatan mesin untuk makanan, minuman dan pemprosesan tembakau <i>Manufacture of machinery for food, beverage and tobacco processing</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
28260	Pembuatan mesin untuk tekstil, pakaian dan pengeluaran kulit <i>Manufacture of machinery for textile, apparel and leather production</i>
28290	Pembuatan lain-lain mesin bertujuan khas t.t.t.l. <i>Manufacture of other special-purpose machinery n.e.c.</i>
29101	Pembuatan kereta penumpang <i>Manufacture of passenger cars</i>
29102	Pembuatan kenderaan komersial <i>Manufacture of commercial vehicles</i>
29200	Pembuatan kerangka (coachwork) untuk kenderaan bermotor; pembuatan treler dan semi treler <i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>
29300	Pembuatan alat ganti dan aksesori untuk kenderaan bermotor <i>Manufacture of parts and accessories for motor vehicles</i>
30110	Pembinaan kapal dan struktur terapung <i>Building of ships and floating structures</i>
30120	Pembinaan bot persiaran dan sukan <i>Building of pleasure and sporting boats</i>
30200	Pembuatan keretapi lokomotif dan rolling stock <i>Manufacture of railway locomotives and rolling stock</i>
30300	Pembuatan pesawat dan kapal angkasa dan jentera berkaitan <i>Manufacture of air and spacecraft and related machinery</i>
30400	Pembuatan kenderaan tempur ketenteraan <i>Manufacture of military fighting vehicles</i>
30910	Pembuatan motosikal <i>Manufacture of motorcycles</i>
30920	Pembuatan basikal dan invalid carriages <i>Manufacture of bicycles and invalid carriages</i>
30990	Pembuatan kelengkapan pengangkutan lain t.t.t.l. <i>Manufacture of other transport equipments n.e.c..</i>
31001	Pembuatan perabot kayu dan rotan <i>Manufacture of wooden and cane furniture</i>
31002	Pembuatan perabot logam <i>Manufacture of metal furniture</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
31003	Pembuatan tilam <i>Manufacture of mattress</i>
31009	Pembuatan perabot lain kecuali daripada batu, konkrit atau seramik <i>Manufacture of other furniture, except of stone, concrete or ceramic</i>
32110	Pembuatan barang kemas dan artikel berkaitan <i>Manufacture of jewellery and related articles</i>
32120	Pembuatan barang kemas tiruan dan artikel berkaitan <i>Manufacture of imitation jewellery and related articles</i>
32200	Pembuatan instrumen muzik <i>Manufacture of musical instruments</i>
32300	Pembuatan barangan sukan <i>Manufacture of sports goods</i>
32400	Pembuatan permainan dan mainan <i>Manufacture of games and toys</i>
32500	Pembuatan peralatan dan bekalan perubatan dan pergigian <i>Manufacture of medical and dental instrument and supplies</i>
32901	Pembuatan alat tulis <i>Manufacture of stationery</i>
32909	Pembuatan lain t.t.t.l <i>Other manufacturing n.e.c.</i>
33110	Pembaikan produk logam yang direka <i>Repair of fabricated metal products</i>
33120	Pembaikan dan penyelenggaraan jentera dan kelengkapan industri <i>Repair and maintenance of industrial machinery and equipment</i>
33131	Pembaikan dan penyelenggaraan peralatan menyukat, menguji, memandu arah dan kelengkapan kawalan <i>Repair and maintenance of the measuring, testing, navigating and control equipment</i>
33132	Pembaikan dan penyelenggaraan penyinaran, perubatan elektro dan kelengkapan electrotherapeutic <i>Repair and maintenance of irradiation, electro medical and electrotherapeutic equipment</i>
33133	Pembaikan bagi peralatan optikal dan alatan fotografi <i>Repair of optical instruments and photographic equipment</i>
33140	Pembaikan dan penyelenggaraan peralatan elektrik kecuali penggunaan domestik <i>Repair and maintenance of electrical equipment except domestic appliances</i>

Industri <i>Industry</i>	MSIC 2008 dan keterangan <i>MSIC 2008 and description</i>
33150	Pembaikan dan penyelenggaraan kelengkapan pengangkutan kecuali motosikal dan basikal <i>Repair and maintenance of transport equipment except motorcycles and bicycles</i>
33190	Pembaikan dan penyelenggaraan peralatan lain t.t.t.l. <i>Repair and maintenance of other equipment n.e.c.</i>
33200	Pemasangan bagi perindustrian mesin dan kelengkapan <i>Installation of industrial machinery and equipment</i>

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