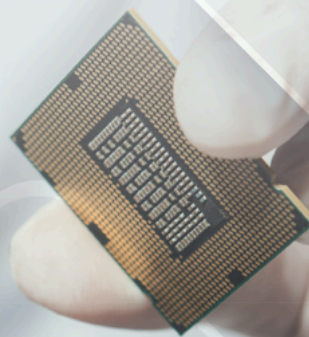




MINISTRY OF
INVESTMENT, TRADE AND INDUSTRY

NATIONAL SEMICONDUCTOR STRATEGY



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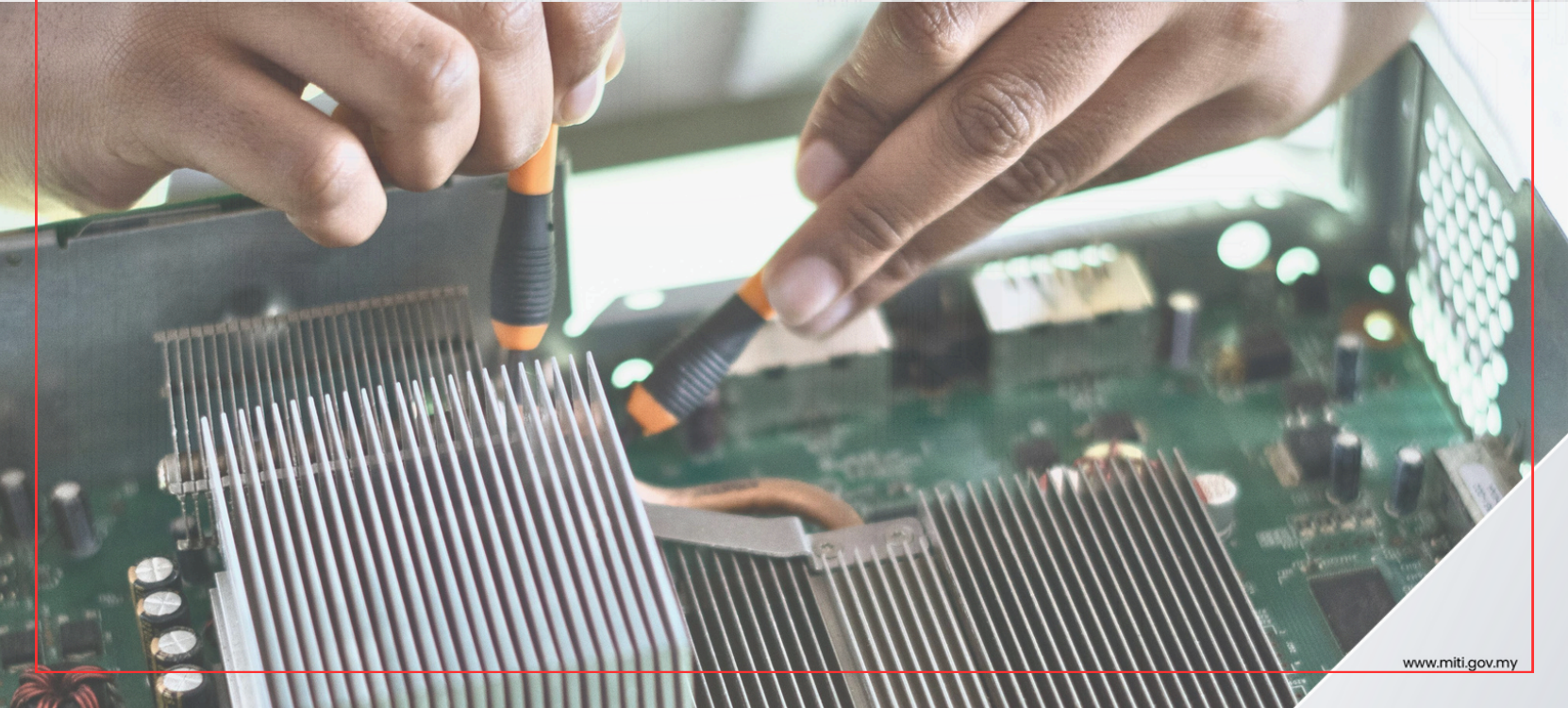
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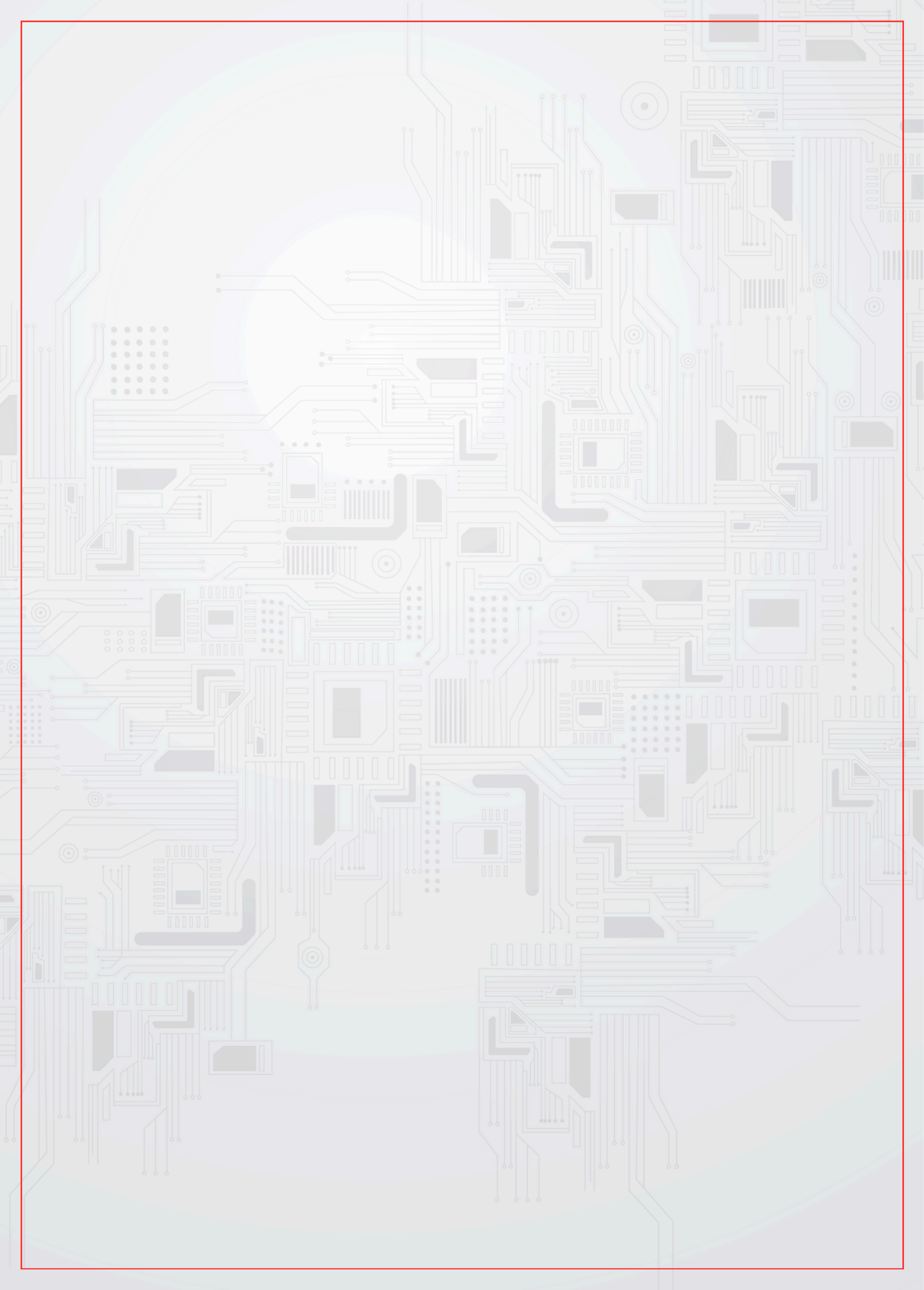
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FOREWORD



Anwar Ibrahim
Prime Minister, Malaysia

“Our vision is to create an ecosystem driven by dynamic Malaysian firms and world-class talent – while partnering with global companies – to compete regionally and globally based on innovation and creativity. Our motto, Malaysia: Bridging Technology for Our Shared Tomorrow, encapsulates our commitment to connecting current technological capabilities with future humanity-enhancing innovations, while building a more secure and resilient supply chain for the global semiconductor industry.”

PREFACE

As we stand at the verge of a new era in technological advancement, re-designed supply chains and a new global economic order, our understanding of the clear division within the global tech ecosystem is crucial to position Malaysia as a preferred investment destination, particularly for semiconductors. It is, therefore, my privilege to introduce the National Semiconductor Strategy (NSS), which sets forth a clear, holistic policy direction on elevating Malaysia's semiconductor industry further up the global value chain.

The NSS is formulated with a clear vision: to establish Malaysia as a vibrant hub for semiconductor research, development, commercialisation, and innovation (RDCI), encompassing comprehensive manufacturing and service activities. This holistic approach aims to cultivate an integrated ecosystem that not only fosters cutting-edge semiconductor technologies, but also accelerates their commercialisation and application across diverse industries. Malaysia has the industrial capacity, the track record and the rule of law to become a 'middle-power broker' to support the security of the global tech supply chain. By nurturing an innovation-driven ecosystem holistically, Malaysia can be a leader in advanced semiconductor technology.



Tengku Zafrul Aziz
Minister of Investment,
Trade and Industry

Key initiatives outlined under NSS include the establishment of crucial programmes and facilities such as the Advanced Packaging Programme and Technology Centre, MYChipStart Programme, and Wafer Fabrication Park. The strategy also introduces various fiscal and non-fiscal incentives aimed at developing a robust talent pipeline; fostering RDCI, improving industrial infrastructure, and bolstering support services.

Specifically on talent development, international collaboration will underscore our skill enhancement programmes to cultivate the required workforce, accelerate innovation cycles, enhance Malaysia's global competitiveness and elevate our position in the global semiconductor supply chain.

Through the NSS, the Government has earmarked over RM25 billion over the next decade to strengthen and upscale Malaysia's semiconductor sector through talent development, targeted initiatives for domestic companies, and incentives to promote investment in high value-added front-end activities. This includes elevating existing wafer fabrication facilities and attracting fresh investments in this crucial sector. This will help position Malaysia as a frontrunner in driving technological advancement and market leadership in the global semiconductor industry.

MITI welcomes collaborators' steadfast support and commitment to the NSS. We will work with all stakeholders – relevant ministries and government agencies, industry leaders, researchers and investors – in a whole-of-nation endeavour to ensure the transformative success of the NSS will support our MADANI objectives of fostering Malaysia's sustainable and inclusive socio-economic growth.

Thank you.

ACKNOWLEDGEMENT

The National Semiconductor Strategy (NSS) represents a visionary roadmap that positions Malaysia at the forefront of the global leadership in the semiconductor industry. This strategy not only embraces the cutting-edge technologies but also aligns seamlessly with the forward-thinking objectives of the New Industrial Master Plan (NIMP) 2030.

In the journey of developing the NSS, MITI has been privileged to receive invaluable support and cooperation from numerous ministries and agencies. We would like to express our heartfelt gratitude and acknowledged their instrumental contributions in shaping this strategy into a comprehensive roadmap for success.

We also sincerely extend our deep appreciation to the industry partners for their persistent assistance, resources, and expertise, which have been crucial in crafting and developing this strategy. Their unwavering support made the development of this strategy possible.

The NSS exemplifies the collective efforts and dedication of ministries, agencies and industries. We hope that through the NSS, Malaysia aims to harness the power of technology and democratise technology for the benefit of all humanity.

Thank you.



Hairil Yahri Yaacob
Secretary General of the
Ministry of Investment,
Trade and Industry

EXECUTIVE SUMMARY

Malaysia's semiconductor industry holds a significant share of the global market and has seen increased attention due to geopolitical tensions driving multinational firms to diversify their supply chains. With robust policies and investment strategies in place, Malaysia stands poised to capitalise on these opportunities, leveraging its conducive investment environment, skilled workforce and strategic location.

Meanwhile, global semiconductor incentives and policies are reshaping the industry landscape, with countries like the United States, European Union, Republic of Korea, People's Republic of China, Japan, Vietnam, Thailand, India, and Singapore implementing various initiatives to strengthen their semiconductor industry. Malaysia's semiconductor ecosystem comprises a mix of small and medium enterprises (SMEs), limited liability companies (LLCs), and multinational corporations (MNCs), with notable local champions making strides despite challenges. Malaysian Government and industry associations work collaboratively to create a robust supportive ecosystem to further enhance Malaysia's contribution in the global semiconductor trade.

Malaysia emerges as a prominent semiconductor hub, leveraging over 50 years of industry expertise and a conducive ecosystem. This is bolstered by a skilled and multilingual workforce, financial support, and incentives. The country's infrastructure, including modern industrial parks and efficient logistics networks, promotes an ideal environment for semiconductor manufacturing and supporting services. Strategically positioned at the crossroads of major Asian markets and offering stability amidst geopolitical uncertainties, Malaysia presents highly lucrative opportunities for semiconductor investments.

The NSS involves three phases, with targets that include a total investment of RM500 billion by 2030, developing local semiconductor-related companies to be global champions, and nurturing 60,000 skilled local talents. Through the establishment of the National Semiconductor Strategic Task Force (NSSTF), Malaysia seeks to create a conducive environment supported by world-class infrastructure, incentives, and a highly skilled workforce to drive sustainable growth and success in the semiconductor sector.

NSS introduces initiatives and enablers spanning infrastructure, incentives, and talent development, with key programmes including the establishment of an Advanced Packaging Programme and Technology Centre to foster innovation and collaboration, implementation of the MYChipStart Programme to support IC design start-ups, and establishment of a semiconductor park. The introduction of incentives such as specially tailored tax incentives, attractive training, and R&D matching grants aims to attract investment, foster talent development and R&D activities.

PAVING THE PATH TO SEMICONDUCTOR EXCELLENCE: AN INTRODUCTION TO MALAYSIA'S STRATEGIC VISION

THE STORY OF MALAYSIA'S SEMICONDUCTOR JOURNEY

In 1972, Intel opened its first overseas production facility in Malaysia, marking the beginning of a transformative journey for the country's semiconductor industry. Investing USD 1.6 million, Intel's plant was built on what used to be a paddy field. This memorable start included the future Intel CEO Andy Grove's car getting stuck in the mud during a monsoon season visit to the plant—a testament to the humble yet ambitious beginnings of Malaysia's semiconductor story.

Following Intel's pioneering move, numerous multinational companies (MNCs) such as AMD, Hitachi, Clarion, Robert Bosch, and Litronix (now ams OSRAM) established operations in Malaysia. Over time, this momentum attracted companies like Micron and Infineon. Equally significant was Malaysia's success in nurturing homegrown companies such as Inari, Vitrox, Oppstar, Skyechip, and Pentamaster, creating a truly local-global ecosystem.

50 Years of E&E Track Record in Malaysia





BUILDING A THRIVING SEMICONDUCTOR ECOSYSTEM

In the fifty years since Intel's arrival, Malaysia has developed a robust semiconductor ecosystem. The country boasts an end-to-end supply chain enhanced by market access through Free Trade Agreements (FTAs) and a skilled, multilingual workforce. The government has played a crucial role, providing numerous incentives to promote industry growth. Malaysia's world-class infrastructure is showcased through its industrial parks in Kulim, Batu Kawan, and Bayan Lepas, as well as its international airports and seaports.

The country also benefits from excellent enabling institutions, including centres of excellence, universities, research arms, and industry associations, all of which drive innovation, conduct cutting-edge research, and nurture talent for the semiconductor industry.

STRATEGIC POSITION AND INVESTMENT SUCCESS

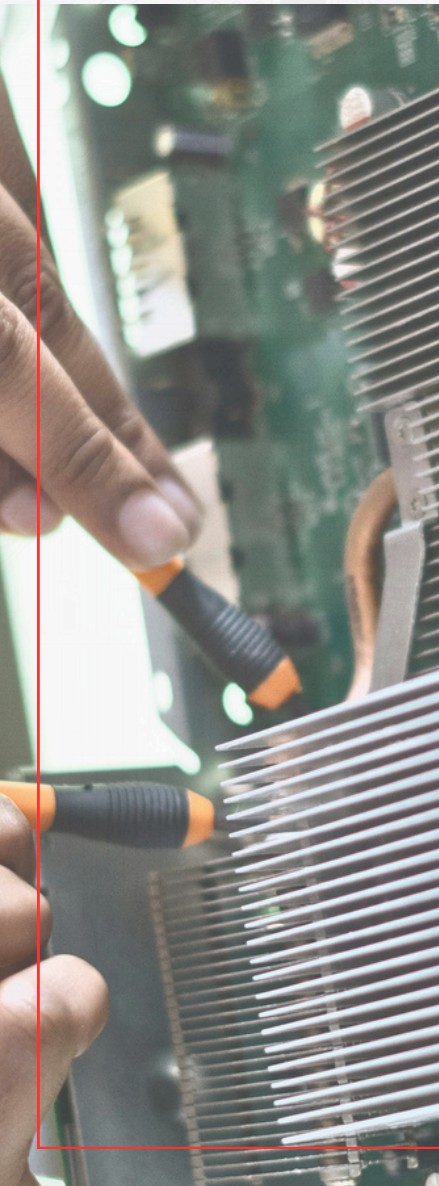
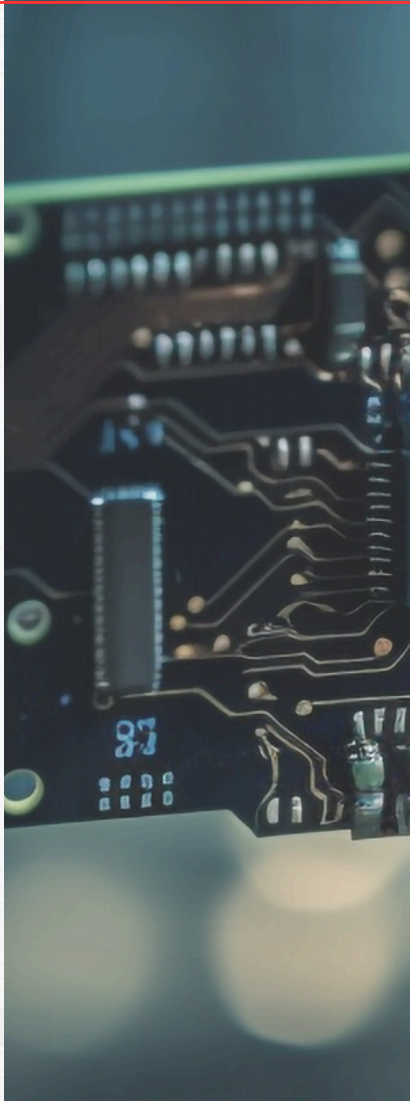
Malaysia's strategic position in the global supply chain is well-recognised, and investor confidence remains strong. The increasing demand for semiconductors, which power everything from electric vehicles and AI to technology hardware and medical devices, further boosts Malaysia's attractiveness. The semiconductor industry attracted the highest investment into Malaysia's manufacturing sector last year, securing RM69.4 billion in approved investments and generating over 11,000 job opportunities, including highly skilled positions such as managerial positions, engineers, and technicians. Among the notable semiconductor industry projects in 2023 are Infinecs Sdn. Bhd., a Malaysian semiconductor design services company and X-Fab Sdn. Bhd., a Belgium-based company in analogue/mixed-signal and MEMS foundry.

Despite significant achievements, Malaysia remains over-concentrated in the back-end process, specifically outsourced semiconductor assembly and test (OSAT). While there are players in design, fabrication, and manufacturing equipment, the country has a strong capacity to diversify and move higher in the value chain. This means advancing towards high-end manufacturing, semiconductor design, enhanced OSAT, advanced packaging, and sophisticated semiconductor manufacturing equipment.

VISION FOR THE FUTURE

Malaysia’s vision is to create an ecosystem driven by dynamic Malaysian firms and world-class talent, in partnership with global companies, to compete regionally and globally through innovation and creativity.

Malaysia is positioning itself as a “bridge” to connect countries that are open to technology collaboration. Already a melting pot of local and international tech talent, Malaysia provides a conducive environment for companies to be regionally and globally competitive. The motto, “Malaysia: Bridging Technology for Our Shared Tomorrow,” reflects the country’s commitment to connecting current technological capabilities with future humanity-enhancing innovations while building a more secure and resilient supply chain for the global semiconductor industry.



EMBRACING RAPID TECHNOLOGICAL EVOLUTION

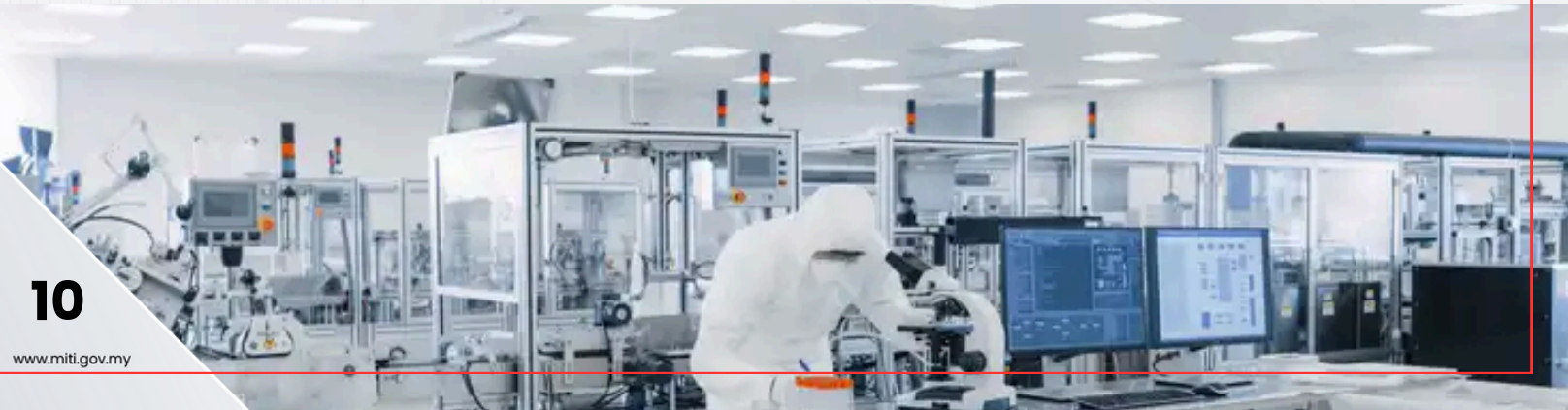
The rapid pace of technological evolution necessitates agility and adaptability. Malaysia recognises the challenges in reaching the frontier of chip technology. For example, Taiwan’s TSMC has a capital expenditure budget of USD 28 to 32 billion for 2024. While it will take time for Malaysia to reach such levels, the country focuses on other parts of the value chain. The growth of the global electric vehicle (EV) market presents an opportunity for Malaysia to become a key hub for supplying power chips to EVs, which are crucial for energy transition and decarbonisation technologies. Through initiatives like the New Industrial Master Plan 2030 (NIMP 2030) and the National Energy Transition Roadmap (NETR), Malaysia has the right policy enablers and incentives in place for companies wishing to manufacture these chips.

COMMITMENT TO SUSTAINABLE ENERGY

The Malaysian government aims to have 40% target of renewable energy (RE) in installed capacity mix by 2035. Additionally, target of RE in installed capacity mix will be enhanced to 70% in 2050. The government supports exploring new technologies like green hydrogen, nuclear technology, and large-scale energy storage to reduce dependence on fossil fuels.

To accelerate energy transition efforts, the NETR is developed to steer Malaysia’s shift from traditional fossil fuels-based economy to a high-value green economy. The NETR requires a whole-of-nation approach, encompassing federal and state governments, industry, general public, and international community.

Starting in September 2024, third-party access (TPA) will be allowed in the national electricity supply industry. This program will allow RE developers to study electricity directly to their customers via existing transmission lines, reflecting high foreign investor interest in Malaysia.

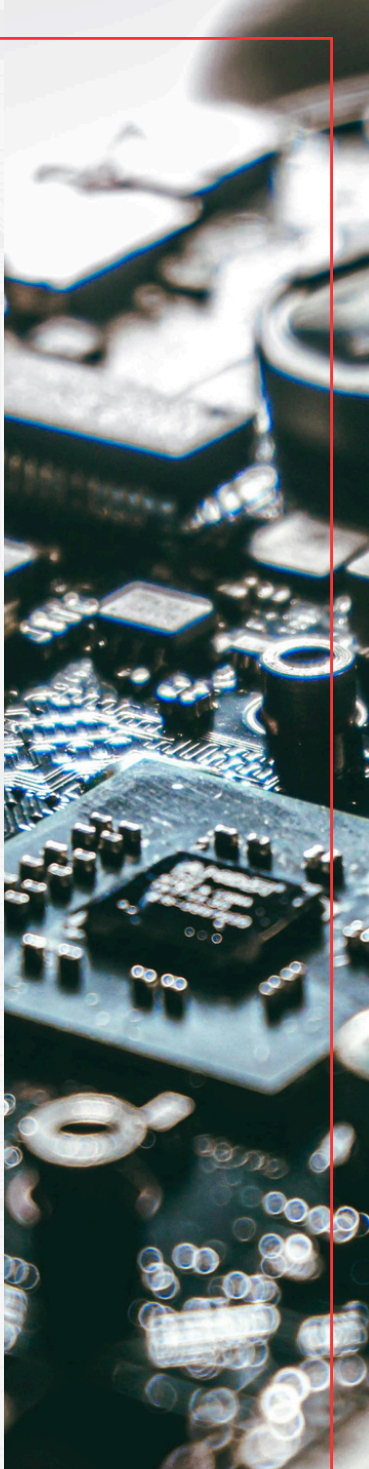


UNVEILING THE NATIONAL SEMICONDUCTOR STRATEGY






Against this backdrop, a strategic plan for Malaysia’s semiconductor industry was requested by the National Investment Committee on 16 April 2024. Today, we are proud to share the salient features of Malaysia’s National Semiconductor Strategy (NSS).

Led by MITI and its agencies – with the Malaysian Investment Development Authority (MIDA) as the lead in investments and Collaborative Research in Engineering, Science and Technology (CREST) as the lead on industrial development and its secretariat – and various ministries involved, the NSS is a robust, agile, inclusive, and forward-thinking strategy. Structured in three phases, this plan is designed to foster collaboration with companies across ASEAN, Asia, and the global stage.

This strategy aims to build on Malaysia’s existing foundations to advance towards integrated circuit (IC) design and high-end manufacturing such as advanced packaging, and sophisticated semiconductor manufacturing equipment. By doing so, Malaysia aspires to create an ecosystem driven by collaboration of global and Malaysian firms couple with world-class talent towards achieving a more resilience global supply chain.



Malaysia's solid foundation and a thriving ecosystem in semiconductors

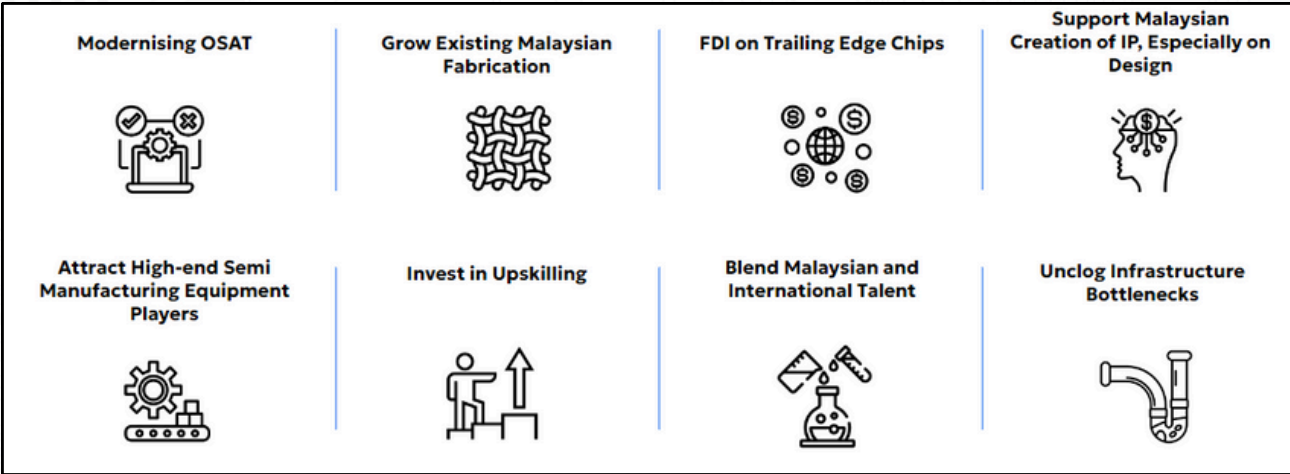
				
ECOSYSTEM	TALENT	INCENTIVES	INFRASTRUCTURE	RESEARCH INSTITUTIONS & UNIVERSITIES
<ul style="list-style-type: none">• Malaysia is the 6th largest Semiconductor exporter• More than 50 years in assembly, testing and packaging (ATP)• Anchor by MNC, support by local company	<ul style="list-style-type: none">• Highly educated• Multilingual	<ul style="list-style-type: none">• Pioneer status• Investment tax allowance• Import duty exemption• Incentives for strategic projects• Reinvestment allowance	<ul style="list-style-type: none">• Kulim Hi-Tech Park• Bayan Lepas Industrial Zone• Batu Kawan Industrial Park• World class international airports & seaports	<ul style="list-style-type: none">• Research institutions: CREST, MIMOS, PSDC, MSIA• Public Universities: UM, USM, UKM, UTM, UNIMAP

PHASES OF THE NATIONAL SEMICONDUCTOR STRATEGY

Phase 1: Building On Our Foundations

In the initial phase, we will leverage our industry's existing capacity and capabilities to support the modernisation of OSAT with a move toward advanced packaging. This phase includes growing existing fabs in Malaysia and pursuing foreign direct investment (FDI) and domestic direct investment (DDI) to expand capacity in trailing-edge chips, particularly power chips. Additionally, we aim to develop local chip design champions.

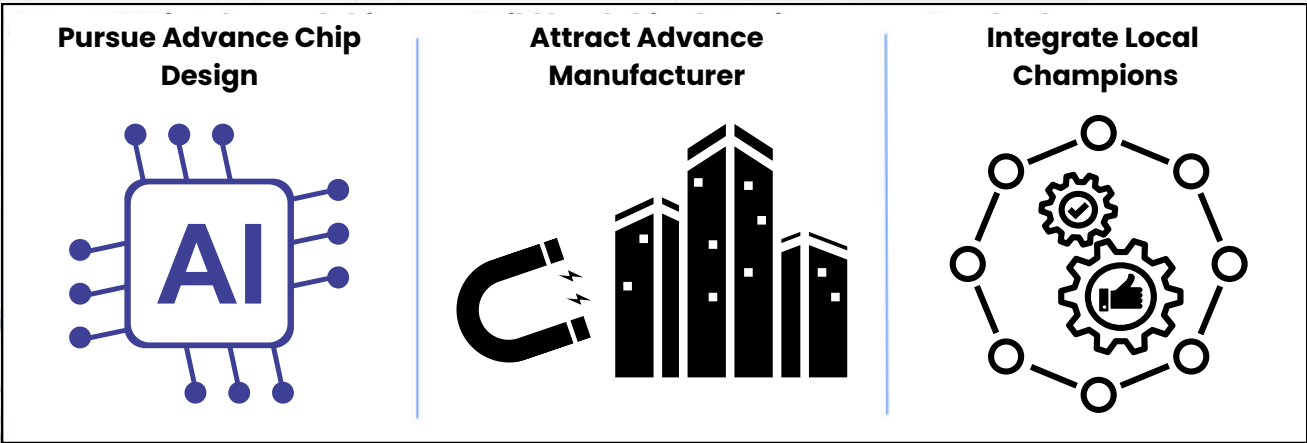
Continuing to develop Malaysia’s strengths in the chips industry



Phase 2: Moving To The Frontier

The second phase focuses on cutting-edge logic and memory chip design, fabrication, and testing, with a goal to integrate the purchasers of these chips. As Phase 1 is implemented, we anticipate attracting more advanced chip manufacturers to our shores. This phase will allow our local design champions to be easily integrated into the ecosystem of these advanced fab companies.

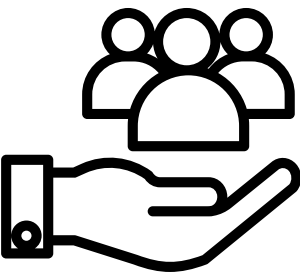
Pursuing cutting edge technology and moving up the value chain



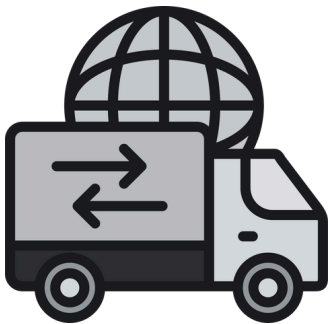
Phase 3: Innovating At The Frontier

In the final phase, we will support the development of world-class Malaysian semiconductor design, advanced packaging, and manufacturing equipment firms. Simultaneously, we will attract buyers of advanced chips, such as Apple, Huawei, and Lenovo, to pursue advanced manufacturing in Malaysia.

Support world-class Malaysian Firm



Attract Major Buyers








To maintain flexibility and agility, the NSS will be a living document, evolving as needed. However, we remain steadfast in our aspiration to make Malaysia a major global player in accessible technology for all, powered by our semiconductor industry.

KEY TARGETS OF THE NATIONAL SEMICONDUCTOR STRATEGY

To enable the successful implementation of the three phases of the National Semiconductor Strategy (NSS), we have identified **five headline targets** that will guide our efforts and ensure measurable progress. These targets are designed to address key areas of investment, company growth, research and development, workforce training, and fiscal support. Each target is crucial for building a robust and dynamic semiconductor ecosystem in Malaysia, positioning the country as a global leader in the industry. Here are the five headline targets that will drive the NSS forward.

Five targets for National Semiconductor Strategy

				
Have RM500b of combined Investment (focused on Advanced Packaging, IC Design, Manufacturing Equipment) and FDI (focused on Wafer Fabs and Manufacturing Equipment)	Create 10 Malaysian companies in Design and Advanced Packaging (RM1b to USD1b revenue) and 100+ high revenue (RM1b or more) companies, who will in turn create higher wages for Malaysian workers	Become a global semiconductor R&D hub with world-class universities, corporate R&D, centers of excellence	Train and upskill 60,000 high-skilled Malaysian engineers	Allocate at least RM25 billion, for a start, to implement the NSS

Target 1: Investments

The first target of the NSS is to secure substantial investments, with a goal of attracting at least RM500 billion. This ambitious target is essential for laying the foundation for Malaysia's semiconductor industry. Foreign direct investment (FDI) and domestic direct investment (DDI) will be targeted towards expanding wafer fabrication facilities, boosting integrated circuit (IC) design, advanced packaging and semiconductor manufacturing equipment sectors. Malaysia aims to strengthen its technological capabilities and build a resilient semiconductor ecosystem by encouraging local investments.

This approach not only aims to enhance Malaysia's production capacity but also to integrate cutting-edge technology and expertise from leading global semiconductor companies. Malaysia aspires to solidify its position as a key player in the global semiconductor supply chain through these focused investments.

Target 2: Company Growth

The second target emphasises the growth of local companies within the semiconductor industry. The NSS aims to establish at least 10 Malaysian companies specialising in design and advanced packaging, each generating revenues between RM1 billion and RM4.7 billion (~USD1 billion). This goal is pivotal for nurturing a robust domestic semiconductor industry capable of competing on a global scale.

Additionally, the strategy seeks to establish at least 100 semiconductor-related companies with revenues nearing RM1 billion (USD210 million). These companies will contribute to higher wage opportunities for Malaysian workers, fostering economic growth and improving living standards. By achieving this target, Malaysia aims to create a dynamic and diverse semiconductor sector that supports innovation, job creation, and sustainable economic development.

Target 3: Research & Development Hub

The third target focuses on transforming Malaysia into a global hub for semiconductor research and development (R&D). This involves the development of world-class universities, corporate R&D centres, and centres of excellence that blend the best of Malaysian and international talent. By positioning itself as a global R&D hub, Malaysia aims to attract top-tier talent and foster a culture of innovation.

This initiative will not only drive advancements in semiconductor technology but also ensure that Malaysia remains at the forefront of global semiconductor research. The collaboration between academia, industry, and government will be crucial in achieving this target, creating a fertile ground for breakthroughs in semiconductor technology and establishing Malaysia as a leader in the global semiconductor landscape.

Target 4: Training

The fourth target of the NSS focuses on training and upskilling a significant number of Malaysian engineers to meet the demands of the rapidly evolving semiconductor industry. The NSS aims to train and upskill 60,000 high-skilled Malaysian engineers. This initiative is critical for ensuring Malaysia has a well-equipped workforce capable of driving innovation and maintaining competitiveness in the global semiconductor market. By investing in the education and professional development of engineers, Malaysia seeks to cultivate a pool of talent that can support advanced manufacturing, research and development, and technological advancements within the industry.

This focus on human capital development will not only enhance the capabilities of the local workforce but also attract multinational companies looking for skilled professionals, thereby boosting Malaysia's position as a hub for semiconductor excellence.

Target 5: Fiscal Support

The fifth target emphasises the importance of robust fiscal support to operationalise the National Semiconductor Strategy. The Malaysian government plans to allocate at least RM25 billion (~USD5.3 billion) in undertaking several initiatives as follows.

Initiatives to Support The National Semiconductor Strategy

INITIATIVE	ESTIMATION AMOUNT (RM/ BILLION)	DURATION (YEARS)	IMPLEMENTING MINISTRY / AGENCY
Capital Grants	10	10 – 16 (2023 – 2038)	MOF/ KE/ MIDA

TARGET: TRAINING AND R&D HUB

INITIATIVE	ESTIMATION AMOUNT (RM/ BILLION)	DURATION (YEARS)	IMPLEMENTING MINISTRY / AGENCY
Human Resources Development Fund (HRDF) (For the semiconductor sector)	1.25	6 (2025 – 2030)	KESUMA
High Impact Fund for Semiconductors (MNC)	1	5 (2026 – 2030)	MIDA
Domestic Strategic Investment Fund for Semiconductors (Locally owned companies)	1	6 (2025 – 2030)	MIDA

TARGET: 60,000 HIGHLY SKILLED LOCAL ENGINEERS BY 2030

INITIATIVE	ESTIMATION AMOUNT (RM/ BILLION)	DURATION (YEARS)	IMPLEMENTING MINISTRY / AGENCY
Estimated average cost of RM20,000 per engineer (Utilising existing funds)	1.2	6 (2025 – 2030)	MOHE/ KESUMA

TARGET: ESTABLISH 100+ LOCAL COMPANIES WITH REVENUE OF RM1 BILLION AND ABOVE

INITIATIVE	ESTIMATION AMOUNT (RM/ BILLION)	DURATION (YEARS)	IMPLEMENTING MINISTRY / AGENCY
MyChipStart IC Programme (Development of the local IC Design industry and companies into global champions under NIMP COSIF)	1	5 (2025 - 2029)	MITI/ CREST/MIDA/ MIMOS
Semiconductor Industrial Park (Focus on general infrastructure, utilities and others)	2	5 (2025 - 2029)	MOF/ MITI/ MIDA
Advanced Packaging Center (utilising and expanding existing facilities, such as at MIMOS, in collaboration with CREST and the industry)	0.5	2 (2025 - 2026)	MITI/ CREST/ MIDA/ MIMOS/SIRIM
An addition of RM30 million per year for the operation of this center. Operating costs are required for at least 10 years.	0.3	10 (2026 - 2035)	MITI/ CREST/MIDA/ MIMOS/ SIRIM
Collaborative R&D Project	2.7	5 (2026-2030)	MITI/CREST/MOSTI
Empower institutions that support the semiconductor industry, namely MIMOS and CREST. Allocation of RM15 million per institution.	0.3	10 (2025 - 2034)	CREST/ MIMOS
National Energy Transition Fund to support renewable energy facilities and supply (Allocation provided)	2	-	PETRA
Green Technology Financing Scheme (GTFS) 4.0 to encourage the development of green businesses (Existing)	2	Expiring in 2025	NRES

KEY ENABLERS FOR EFFECTIVE IMPLEMENTATION OF THE NATIONAL SEMICONDUCTOR STRATEGY

The National Semiconductor Strategy (NSS) has identified several key enablers that are essential to successfully achieving its five headline targets:

Investments

Participation from GLICs and Fund Management Companies

The involvement of venture capital firms is crucial for supporting the semiconductor industry's growth. Government-linked investment companies (GLICs), as major institutional investors, can provide substantial funding and strategic guidance, and the My Gear Up programme demonstrates that.

The My Gear Up programme is a collaborative workshop designed to advance Malaysia's semiconductor industry in alignment with national goals. Bringing together industry players, GLICs, and key government bodies like MITI and MIDA, the programme aims to understand industry needs, identify investment opportunities for GLICs, and establish steps to develop the semiconductor ecosystem. It focuses on priority sectors outlined in the NIMP 2030 and 12th Malaysia Plan, enhancing ecosystems in the semiconductor sector. On the other hand, venture capital firms can inject capital into startups and innovative projects, fostering entrepreneurship and technological advancements.

Facilitating Investment through Policy and Regulatory Reforms

MITI will continue introducing reforms to enhance investor confidence, attract foreign direct investment, and drive economic growth. The establishment of Invest Malaysia Facilitation Centre (IMFC) at MIDA will streamline investment processes and clarify regulations.

Company Growth

Building Global IC Design Champions (MyChipStart)

The MyChipStart programme provides comprehensive support for IC Design & Development (D&D) entrepreneurs to increase their success and accelerate the growth of IC D&D start-ups on the global stage.

Research & Development Hub

Empowering Public and Private Research Institutions

Research institutions are pivotal in driving innovation within the semiconductor industry. The government will empower these institutions with funding, resources, and collaborative opportunities with the private sector, fostering ground-breaking research and technological breakthroughs.

Establishment of World-Class Infrastructure and Facilities

Creating world-class infrastructure in specialised semiconductor industrial parks is vital for attracting both local and foreign companies. These parks will offer advanced manufacturing facilities, research labs, logistics support, and access to skilled workforce clusters, providing a conducive environment for semiconductor development.

Advanced Packaging Technology Programme and Centre

An Advanced Packaging Programme and Technology Centre will be established to develop advanced packaging technologies. This initiative will involve collaboration between industry players, government agencies, academia, and industry associations to foster R&D and develop sought-after talent in advanced packaging.

Wafer Fab Industrial Park

A dedicated Wafer Fabrication Industrial Park will be established to attract advanced wafer fabrication companies to Malaysia. This industrial park will offer world-class infrastructure, including 24/7 green power, district cooling, water recycling, rainwater harvesting, and integrated waste management.

Expanding Semiconductor Manufacturing Equipment to Front-End Semiconductor Processes

By investing in cutting-edge R&D for front-end processes, Malaysia aims to enhance the capabilities of its semiconductor manufacturing equipment in critical areas such as wafer fabrication, lithography, and material engineering.

Training

Talent Development and Attraction

Investing in education and training programmes to equip individuals with the necessary skills is essential for sustaining industry growth. The government aims to attract and retain skilled professionals by offering incentives and benefits to returning local talent and streamlining immigration processes for expatriates.

These key enablers are designed to ensure the effective implementation of the NSS, fostering a dynamic and innovative semiconductor industry in Malaysia.

CONCLUSION

Malaysia's semiconductor industry stands at the forefront of global competition, buoyed by robust policies and investments. With a rich ecosystem comprising limited liability companies (LLCs) and multinational corporations (MNCs), Malaysia promotes collaboration to support its global semiconductor trade contribution.

Leveraging over 50 years of expertise, Malaysia emerges as a prominent semiconductor hub, supported by a skilled workforce and conducive infrastructure. Positioned strategically amidst major Asian markets, Malaysia offers stability amid geopolitical uncertainties, presenting attractive opportunities for semiconductor investments.

In reaffirming Malaysia's commitment to becoming a global leader in the semiconductor industry, the National Semiconductor Strategic Task Force (NSSTF), with CREST serving as the Secretariat, focuses on fostering innovation, enhancing research and development capabilities, and driving the commercialisation of semiconductor technologies.

The National Semiconductor Strategy (NSS) outlines a comprehensive strategic initiative focusing on advanced packaging, IC design, and wafer fabrication. Through strategic initiatives and the establishment of the NSSTF, Malaysia aims to create an environment conducive to sustained growth and success in the semiconductor sector. With a clear emphasis on infrastructure improvement, tailored financial incentives, and talent development, the NSS paves the way for Malaysia to emerge as a prominent player in the global semiconductor landscape by 2030.

The targeted outcomes for the NSS are designed to complement the National Industrial Master Plan (NIMP) 2030 and transform Malaysia into a high-tech, high-income economy by increased foreign direct investment (FDI), development of local champions, enhanced R&D and innovation, a skilled workforce, world-class infrastructure, an improved industry ecosystem, sustainable industrial growth, global competitiveness, economic diversification, and enhanced export performance. By achieving these goals, the NSS aims to drive Malaysia's semiconductor industrial transformation, elevate the country's economic status, and ensure sustainable and inclusive growth for the future.

Ultimately, the NSS aims to advance and democratise technology for the good of all humanity. Geopolitical dynamics aside, a robust multinational semiconductor production is vital for humankind's survival, especially as we race against time in our climate action and risk mitigation efforts. Malaysia offers itself as the most neutral and non-aligned location for semiconductor production, helping to build a more secure and resilient global semiconductor supply chain. Our key proposition, "Malaysia: Bridging Technology for Our Shared Tomorrow," reflects our sincere aspiration to promote technology for humanity's greater good by being your leading partner and collaborator in the global semiconductor industry and beyond.

APPENDIX:

ACRONYM AND ABBREVIATION

ASEAN	Association of Southeast Asian Nation
CEO	Chief Executive Officer
CREST	Collaborative Research in Engineering, Science and Technology
D&D	Design and Development
DDI	Domestic Direct Investment
E&E	Electrical and Electronics
EVs	Electric Vehicles
FTA	Free Trade Agreement
FDI	Foreign Direct Investment
GLICs	Government-Linked Investment Companies
IC	Integrated Circuit
IMFC	Invest Malaysia Facilitation Centre
LLCs	Large Local Companies
MIMOS	Malaysian Institute of Microelectronic Systems
IMFC	Invest Malaysia Facilitation Centre
MIDA	Malaysian Investment Development Authority
MITI	Ministry of Investment, Trade and Industry
MNCs	Multinational Corporations
NIMP	New Industrial Master Plan
NETR	National Energy Transition Roadmap
NSSTF	National Semiconductor Special Task Force
NSS	National Semiconductor Strategy
OSAT	Outsourced Assembly and Test
PRIs	Public Research Institutions
R&D	Research and Development
RDCI	Research, Development, Commercialisation and Innovation
RM	Ringgit Malaysia
SMEs	Small and Medium – Sized Enterprises
TPA	Third-Party Agreement
USD	United States Dollar



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