

Companies' Best Practices on Long-Term Foreign Direct Investment Within APEC Economies

Company Write-up

Intel Malaysia

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1. OVERVIEW OF SELECTED FDI PROJECTS / COMPANIES

1.1 INTEL MALAYSIA



Intel Malaysia

Origin:

The United States

Industry:

Semiconductor

PRESENCE IN HOST ECONOMY



Est. Year:

1972

Head Office:

Bayan Lepas Free Industrial Zone (Bayan Lepas FIZ)

Bayan Lepas, Penang

Entity:

- 1. Intel Malaysia Sdn. Bhd.
- 2. Intel Products (M) Sdn. Bhd.
- 3. Intel Technology Sdn. Bhd.
- 4. Intel Microelectronics (M) Sdn. Bhd.

No of Employees:



~12,000

Main Production Facility Location:

• Bayan Lepas FIZ, George Town, Penang

Continuity



Intel Malaysia has been a cornerstone of Intel's global operations since its establishment in 1972, marking Intel's first offshore expansion. Beginning with 100 employees, it played a pivotal role in positioning Malaysia as a key player in the semiconductor industry. Over the decades, Intel Malaysia expanded its capabilities to include advanced research, design, and manufacturing activities, such as the development of Meteor Lake processors. Today, the site spans Penang and Kulim, with 900,000 square feet of manufacturing space supporting critical functions like assembly, testing, and advanced packaging. Intel Malaysia's resilience was evident during the COVID-19 pandemic, as it maintained operational stability through proactive crisis management and innovative IT solutions. Beyond operations, Intel Malaysia drives industrial growth through investments like the USD 7.1 billion for chip-packaging facilities and initiatives aligned with Malaysia's New Industrial Master Plan (NIMP) 2030 and National Semiconductor Strategy (NSS), enhancing Malaysia's role in the global semiconductor value chain.

Relationship



Intel Malaysia's CSR efforts are guided by a robust ESG framework aligned with Intel's global standards and the RISE 2030 strategy, focusing on the following pillars: Responsibility, Inclusivity, Sustainability, and Enablement. The company's achievements include hosting its largest solar farm outside the US, achieving 100% renewable energy use, and advancing sustainability through water conservation and waste management. Community engagement is central to Intel's initiatives, with over 1.14 million volunteer hours and ~USD 3.7 million contributed through the Intel Involved Matching Grant Program. Partnerships with organizations like the Penang Science Cluster (PSC) and Asia Community Service (ACS) foster education, digital literacy, and social inclusion. Recognitions such as the MY AMCHAM CARES award underscore Intel Malaysia's commitment to building strong community relationships and driving impactful societal change.

Human Resource Development



Intel Malaysia has been a cornerstone of local job creation and talent development since its establishment in 1972. With approximately 12,000 employees, 98% of whom are Malaysian, the company emphasizes hiring and retaining local talent while fostering skills and innovation. Aligned with the 'Responsible' pillar of the RISE 2030 strategy, Intel supports employee well-being through comprehensive benefits, including health programs, flexible work arrangements, and education subsidies. Beyond direct employment, Intel strengthens Malaysia's high-tech ecosystem through partnerships with institutions like the Penang Skills Development Centre (PSDC). These collaborations have trained over 30,000 students and working professionals annually, supporting industry growth. Intel also engages in STEM outreach programs and internship initiatives. Together, these efforts highlight Intel Malaysia's commitment to workforce development and its pivotal role in Malaysia's economic advancement.

2. DETAILS AND KEY FINDINGS OF INDIVIDUAL CASE STUDY

2.1 INTEL MALAYSIA

2.1.1 Continuity

Investment Longevity

Intel's journey in Malaysia began in 1972 with the establishment of its first offshore assembly plant, the A1 facility, in Penang. This landmark event marked Intel's inaugural expansion beyond the US, starting with just 100 employees. Over the decades, this bold step not only solidified Intel Malaysia's significance within the corporation but also positioned Malaysia as a key player in the global semiconductor industry. Intel Malaysia has since evolved into a cornerstone of Intel's international operations, laying the foundation for technological growth and innovation in the region.

By 1991, Intel expanded its footprint in Malaysia with the establishment of a design center dedicated to developing an 8-bit microcontroller. At the time, 8-bit microcontrollers, such as the Intel 8051, were revolutionizing embedded systems, enabling their integration into automotive, industrial, and consumer applications. This move signified a strategic transition into high-value activities such as research, design, and development, further underscoring Intel Malaysia's critical role in driving innovation. Over the years, the site achieved significant milestones, including the 2015 introduction of its Field-Programmable Gate Array (FPGA) design team, a cutting-edge technology known for its flexibility and adaptability in performing specialized tasks. Intel Malaysia also contributed to the development of Meteor Lake processors, demonstrating its expertise in advanced design and packaging technologies, both of which are vital to Intel's product innovation.

With over 52 years of history in Malaysia, Intel has evolved beyond manufacturing to include design and innovation... We are continuously expanding our capabilities through new projects in Penang and Kulim.

- (Ms. Anna Amalina Imam Baweh, Director of Government Affairs at Intel Malaysia)

Today, Intel Malaysia stands as one of the most comprehensive and dynamic sites in Intel's global network. Spanning operations in Penang and Kulim, the company boasts approximately 900,000 square feet of manufacturing space, supporting activities that range from assembly and testing to advanced packaging. Intel Malaysia operates through four specialized entities, each contributing to critical areas such as supply chain management, product design, and development services (see *Figure 1 Figure 1*). This multifaceted structure enables Intel Malaysia to play an integral role in every stage of semiconductor production, from design and validation to high-volume manufacturing and supply chain optimization.

INTEL MALAYSIA'S KEY FUNCTIONS Die Prep Assembly Board & System Advanced & Test **Packaging** & Sort Integration Product Product Customer Validation Design Development Engagement Failure Global Technology Sales & Analysis Marketing Services Development

Figure 1: Intel Malaysia's Key Functions

Source: Materials shared by Intel Malaysia (https://tinyurl.com/263byvy6)

The strategic importance of Intel Malaysia within Intel's global supply chain is further exemplified by its advanced assembly and testing capabilities and its expertise in innovative technologies such as advanced packaging, which enhances performance and efficiency by integrating multiple chips in a single package, enabling faster and more scalable semiconductor solutions that differentiate Intel from competitors. These strengths allow Intel Malaysia to ensure the quality, efficiency, and reliability of Intel's global output, cementing its role as a vital link in the supply chain.

As one of Intel's most established international sites, Intel Malaysia exemplifies the company's enduring confidence in Malaysia as a reliable partner. With a legacy spanning over 50 years, Intel Malaysia has become a driving force for industrial development and technological innovation in the region. Its extensive contributions not only highlight its indispensable role in Intel's journey toward technological excellence but also reinforce Intel's commitment to long-term growth and collaboration in Malaysia, ensuring that it remains a cornerstone of global semiconductor advancements.

Resilience and Adaptability

Intel Malaysia's resilience and adaptability in managing disruptions are guided by Intel's Response Continuum, a comprehensive framework that outlines the stages of crisis management: preparation, response, recovery, and post-event evaluation (see <u>Figure 2Figure 2</u>). This overarching framework ensures a seamless transition through each phase of disruption, minimizing impact and maintaining operational stability.

RESPONSE CONTINUUM Intel Crisis Management (ICM) **Minimize Duration Emergency Response Business Recovery** Focus on People • Focus on Product & Process ERT1 & EOC2 Activation CMT⁴ Activation CEOC³ Activation Business Continuity Plans Engaged Transition / Business Disruption Continuity Pre Event Post Event · Focus on Preparation · Focus on Evaluation Developing EM/BC⁵ Plans & Assess Performance Improve & Enhance Drills & Assessments Notes: 1) ERT: Emergency Response Team, 2) EOC: Emergency Operations Center, 3) CEOC: Corporate Emergency Operations Center, 4) CMT: Crisis Management Team, and 5) EM/BC: Emergency Management / Business Continuity

Figure 2: Response Continuum

Source: Intel website¹; Materials shared by Intel during field study

Within this structure, the Intel Crisis Management (ICM) Program (see <u>Figure 3</u>Figure 3) serves as the operational mechanism, implementing the Response Continuum through its three core functions: Emergency Management, Business Continuity, and Business Recovery. Together, the Response Continuum and ICM provide a robust and proactive approach to safeguarding Intel Malaysia's workforce, assets, and supply chain.

Figure 3: Intel Crisis Management (ICM) Program



Source: Intel website Materials shared by Intel during field study

The COVID-19 pandemic tested Intel Malaysia's crisis management framework, beginning with the deployment of Emergency Management protocols. To safeguard its workforce and ensure the continuity of essential operations, Intel Malaysia implemented strict health and safety measures across its sites. At the Design Center, approximately 300 essential staff continued on-site work under these protocols, ensuring critical R&D projects remained on schedule despite strict movement controls. Additionally, Intel Malaysia's Information Technology (IT) teams developed internal applications, such as health management tools, to monitor employee well-being and facilitate compliance with evolving regulations. These immediate actions prioritized the safety of employees while securing essential operations, demonstrating Intel Malaysia's proactive approach to crisis response.

Building on these measures, Intel Malaysia activated its Business Continuity strategies to transition roles suitable for remote work due to on-site quota limitations. Pre-established IT infrastructure and remote management systems enabled employees to securely access critical systems from home, ensuring uninterrupted productivity. To further support its remote workforce, Intel Malaysia provided resources such as ergonomic chairs and tables, monitors, and home internet subsidies, reflecting its strong commitment to operational stability and employee well-being.

We provided ergonomic chairs, tables, and monitors to employees working from home, facilitating orders and delivery directly to their homes to ensure they could operate safely and comfortably.

– (Ms. A. K. Chong, Vice President at Foundry Manufacturing and Supply Chain & Managing Director at Intel Malaysia)

As the situation evolved, Intel Malaysia implemented Business Recovery strategies to address broader operational challenges, including supply chain disruptions. By leveraging real-time logistics management and engaging proactively with suppliers, Intel Malaysia maintained seamless global supply commitments, achieving zero delivery delays despite widespread

logistical challenges. These recovery efforts highlighted Intel Malaysia's operational reliability and flexibility, reinforcing its reputation as a resilient and dependable global partner during a time of significant uncertainty.

Intel Malaysia's operations remained uninterrupted during the COVID-19 pandemic. We continued running the factories 24/7, shipping every unit possible, while the design center and labs also stayed fully operational... This was no easy task, especially during the early stages when regulations frequently changed. However, with experience and strong leadership, we came together to overcome these challenges.

 (Ms. A. K. Chong, Vice President at Foundry Manufacturing and Supply Chain & Managing Director at Intel Malaysia)

Beyond immediate recovery efforts, Intel has proactively strengthened Malaysia's long-term supply chain resilience. The company has localized critical supply chain components, working with over 100 Malaysian suppliers to ensure stability and reduce dependency on single-region sourcing. Intel's expansion into advanced packaging and testing in Malaysia further diversifies production capabilities, mitigating risks from geopolitical disruptions and trade restrictions. Additionally, Intel has implemented stringent supply chain security protocols aligned with global standards (NIST, ISO), enhancing traceability and risk management. By embedding resilience into its Malaysian operations, Intel reinforces the economy's strategic importance in the global semiconductor supply chain, ensuring long-term adaptability in an increasingly complex industry landscape.

Intel's commitment to resilience extends beyond its own operations. Recognizing its role within the broader ecosystem, Intel Malaysia contributed to economy-wide recovery efforts by establishing a vaccination center at its Penang campus (see <u>Figure 4Figure 4</u>). This initiative provided vaccination services not only to employees but also to suppliers and nearby businesses, accelerating immunization efforts and supporting Malaysia's economic recovery. Such actions underscored Intel Malaysia's role as a community-focused corporation, strengthening the industrial ecosystem during a critical time.

Figure 4: Intel Malaysia COVID-19 Immunization Program (IMCIP)

INTEL MALAYSIA COVID-19 IMMUNIZATION PROGRAM (IMCIP)

Intel Malaysia significantly contributed to the COVID-19 vaccination efforts through its Intel Malaysia COVID-19 Immunization Program (IMCIP). An on-site vaccination center at Intel's Penang campus facilitated the vaccination of over 12,000 Intel employees and contingent workers, as well as 5,400 employees from 115 neighboring companies and their suppliers.

Source: NST Online²

We collaborated with multiple stakeholders during the pandemic, with one example being the establishment of a vaccination center... This center not only served all employees but also extended its services to external stakeholders, including suppliers and nearby companies, offering vaccinations to anyone who wished to receive them.

 (Ms. A. K. Chong, Vice President at Foundry Manufacturing and Supply Chain & Managing Director at Intel Malaysia)

By leveraging the ICM framework within the broader context of the Response Continuum, progressing from emergency response to continuity and recovery, Intel Malaysia showcased remarkable resilience and adaptability during the COVID-19 crisis. Its ability to swiftly implement proactive measures, maintain operational stability, and extend support to the broader community highlighted its agility in overcoming unprecedented challenges. These efforts not only ensured the safety and well-being of its workforce but also sustained critical operations and supply chain commitments.

Operational Consistency

Intel Malaysia has demonstrated operational consistency through its adherence to globally recognized standards and certifications, reflecting its ongoing commitment to quality, safety, and continuous improvement. The company's ability to integrate these standards into its operations has established a reliable framework that supports sustained performance and positions it as a key player in the semiconductor industry.

Intel Malaysia's adherence to international standards highlights the company's relentless focus on operational excellence, including maintaining superior product quality and ensuring the health and safety of its employees (see *Figure 5Figure 5*). These standards emphasize Intel's proactive approach to refining processes, optimizing efficiency, and creating a safe, secure work environment. By achieving these certifications, Intel demonstrates its commitment to meeting both customer expectations and internal goals, while also reinforcing its credibility as a trusted and innovative company in operational practices.

Figure 5: Certifications

CERTIFICATIONS

Selected Certifications



Energy Management System

A standard that provides a framework for organizations to establish, manage, and improve their energy performance, including energy efficiency and consumption



Environmental Management Systems

A standard that focuses on managing environmental responsibilities systematically to reduce waste, prevent pollution, and ensure compliance with environmental regulations



Occupational Health and Safety Management Systems

A standard that provides a framework for improving employee safety, reducing workplace risks, and creating better, safer working conditions

Highlights Intel Malaysia's ability to reduce energy costs, improve energy efficiency, and minimize the environmental impact of operations, ensuring consistent and sustainable manufacturing processes Shows Intel Malaysia's ability to maintain consistent environmental practices while aligning with global sustainability goals, which is essential for long-term operational stability and compliance

Signifies Intel Malaysia's consistent implementation of safety protocols, contributing to operational reliability and workforce well-being, which are crucial for maintaining productivity and continuity

Source: Intel website 44,55

Intel's focus on operational consistency has earned it numerous accolades and recognitions. One of the most notable achievements came in 2020 when Intel Malaysia received the Intel Quality Award (IQA) (see *Figure 6-Figure 6*), one of the most prestigious internal awards within the company, for Assembly and Test Manufacturing across four factories³. This recognition came amid the global uncertainty caused by the onset of the COVID-19 pandemic, showcasing Intel's ability to maintain high-quality standards and operational efficiency even during challenging times.

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Figure 6: Intel Quality Award (IQA)

INTEL QUALITY AWARD (IQA)



In 2020, Intel Malaysia earned the prestigious Intel Quality Award (IQA) for its exceptional performance in operational excellence and quality within Intel's global manufacturing network. This recognition highlighted Intel Malaysia's significant contributions, particularly in its Assembly and Test Manufacturing operations across four factories. The award underscored the site's ability to uphold Intel's highest standards for quality and innovation, ensuring products and processes met or exceeded global expectations. This achievement demonstrated Intel Malaysia's pivotal role in driving technological advancements and maintaining Intel's reputation for excellence in the semiconductor industry.

Source: The Edge Malaysia³³

Furthermore, Intel Malaysia has also garnered recognition from external bodies, such as winning the National Council of Occupational Safety and Health (NCOSH) Award in the OSH Innovation & Technology category (see *Figure 7Figure 7*). This award highlights Intel's continued commitment to advancing occupational health and safety practices, further reinforcing its reputation for innovation and operational excellence.

Figure 7: Intel Malaysia Receiving the NCOSH Award



Source: Materials shared by Intel during field study

Through the integration of global best practices, rigorous quality assurance, and a culture of continuous improvement, Intel Malaysia has cemented its reputation as a key player in the semiconductor industry. This unwavering focus on operational consistency enables the company to remain resilient amidst industry challenges, ensuring its long-term competitiveness and maintaining its pivotal role in the global semiconductor value chain. By consistently delivering excellence, Intel Malaysia reinforces its position at the forefront of technological innovation in an ever-evolving industry.

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Additional Investments

Intel Malaysia's growth reflects a steady trajectory of investment and operational expansion, driven by a long-term vision for sustained presence and technological development (see <u>Figure 8</u>Figure 8). With each strategic milestone, Intel has deepened its commitment to advancing Malaysia's industrial landscape, fostering innovation, and positioning the economy as a critical hub in the global semiconductor value chain.

INTEL MALAYSIA INVESTMENT TIMELINE 1972 1995 2021 First Second **Third** Investment Investment Investment Intel established its first factory in Intel expanded its presence with Intel announced a significant Bayan Lepas, Penang, marking the new state-of-the-art facilities in expansion in both Penang and start of its operations in Malaysia Kulim, Kedah Kulim, with operations expected to begin in 2024

Figure 8: Intel Malaysia Investment Timeline

Source: Materials shared by Intel during field study

The investment journey began in 1972 when Intel established its first facility in Bayan Lepas, Penang, with an initial investment of USD 1.6 million (see *Figure 9Figure 9*). This foundational step enabled Intel to commence global semiconductor production while contributing to the growth of Malaysia's industrial ecosystem. Over the decades, the facility became an important hub for Intel's global operations, supporting Penang's recognition during its peak as the "Silicon Valley of the East."

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Figure 9: Intel Penang Campus

INTEL PENANG CAMPUS



In early 1972, Intel's co-founder and then CEO Andy Grove was persuaded to consider the ideal location for Intel's first offshore assembly operation: Penang, Malaysia. Impressed by Penang's location, workforce, and local government support, Intel invested USD 1.6 million by November 1972 to establish its first offshore assembly plant, known as Assembly Plant 1 (A1), on a site that was initially a muddy paddy field. The workforce at the time consisted of 100 batik-clad¹ employees.

Today, Intel Penang has transformed into a cutting-edge campus with 10 buildings, including one of Intel's largest assembly and test facilities and a design and development center. The site is integral to Intel's global operations, with employees in the Intel Architecture Group (IAG) Malaysia advancing innovations in microprocessors, chipsets, and system-on-a-chip (SOC) technologies.



Notes: 1) Batik: A traditional Southeast Asian textile made using a wax-resist dyeing technique

Source: Intel website⁴

As production demands increased, Intel broadened its presence in 1995 with the establishment of a second facility in Kulim, Kedah, focusing on semiconductor assembly and testing (see *Figure 10 Figure 10*). This strategic expansion significantly enhanced Intel's regional manufacturing capacity, creating a robust platform for supply chain integration and fostering technological innovation. By doing so, it not only strengthened Intel's operational efficiency but also elevated Malaysia's standing as a pivotal player in the global semiconductor industry.

Figure 10: Intel Kulim Campus

INTEL KULIM CAMPUS



In 1995, Intel expanded its Malaysian operations by establishing a facility in Kulim, initially focusing on motherboard manufacturing. Strategically located within the Kulim Hi-Tech Park, Malaysia's first hightech industrial park, which officially opened in 1996, the Kulim site has grown to encompass five buildings.

Today, it specializes in processor packaging assembly and serves as a key operations center for mobile modules. Situated approximately a 45-minute drive from Intel's Penang campus, the Kulim facility plays a crucial role in Intel's global manufacturing network, contributing significantly to the company's assembly and testing capabilities in the region.



Source: Intel website⁵

Building on this foundation, in December 2021, Intel announced a ~USD 7.1 billion (MYR 30 billion) investment to further expand its operations in Malaysia by constructing new chippackaging and testing facilities in Penang and Kulim (see *Figure 11 Figure 11*). This expansion highlights Intel's enduring commitment to Malaysia as a pivotal hub in its global manufacturing network, leveraging nearly five decades of partnership. The investment aims to address global semiconductor demand, strengthen supply chain resilience, and enhance Intel's advanced manufacturing capabilities, ensuring a more robust and integrated global production network.

The new facilities in Malaysia are part of our investments in manufacturing capacity to support the expansion of our internal factory network and our system foundry model. The new assembly-and-test factory in Kulim further extends our current capabilities and it will be operationally similar to existing factories in Penang and Kulim.

 (Ms. A. K. Chong, Vice President at Foundry Manufacturing and Supply Chain & Managing Director at Intel Malaysia)⁶

Figure 11: Intel's USD 7.1 Billion Investment



Source: Nikkei Asia⁷

Collectively, these investments are projected to amount to MYR 66 billion (~USD 15 billion) by 2032, reflecting Intel's profound and sustained commitment to Malaysia. Over the past five decades, Intel's presence has catalyzed the development of a robust semiconductor ecosystem in Malaysia, encompassing activities across the value chain, including packaging, assembly, and testing (see *Figure 12 Figure 12*).

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Figure 12: Intel Malaysia Manufacturing Operations

Source: Techgoondu article⁸

This extensive ecosystem has not only reinforced Malaysia's position as a strategic global semiconductor hub but has also contributed significantly to the economy's economic development. By fostering technological innovation, generating high-value employment opportunities, and enhancing supply chain integration, Intel's investments have had a transformative impact on Malaysia's industrial landscape, supporting its ambitions as a key participant in the global semiconductor industry.

Industrial Impact

Intel Malaysia's investments have contributed to industrial growth, supporting technological development, economic resilience, and Malaysia's emergence as a hub for electronics manufacturing. As one of the first multinational companies to establish operations in Penang in 1972, Intel played a pivotal role in shaping Malaysia's electrical and electronics (E&E) sector. Recognized as one of Penang's "Eight Samurai"a, a group of pioneering firms that took early investment risks in Malaysia's fledgling industrial zones, Intel was instrumental in developing critical supply chains, linking local suppliers to global markets and strengthening Malaysia's semiconductor ecosystem. It also played a key role in infrastructure growth, helping establish Malaysia's first free industrial zone and improving essential utilities and logistics. Additionally, Intel fostered industry networks, collaborating with academia and government to advance R&D and workforce development. These contributions cemented Malaysia's position as a leading high-tech manufacturing hub, attracting global technology companies.

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Alongside Intel Malaysia, the Eight Samurai include Advanced Micro Devices (AMD), Hewlett-Packard (HP) (now Keysight Technologies and Agilent Technologies), Robert Bosch, Hitachi (now Renesas Electronics), Clarion, Litronix (now Osram Opto Semiconductors), and National Semiconductor (later acquired by Texas Instruments)

,,

Today, Intel contributes approximately 20% of Malaysia's E&E exports, solidifying its position as a cornerstone of the economy's export-oriented economy and reinforcing its role in the global semiconductor supply chain. With cumulative investments projected to reach ~USD 15 billion by 2032, Intel continues to drive Malaysia's industrial growth, creating a multiplier effect that benefits local businesses and industries. The company's annual spending of MYR 1.5 billion (~USD 344 million) on local suppliers has helped them scale through Intel's supplier ecosystem and strategic partnerships, contributing to Malaysia's prominence in high-tech manufacturing.

Intel Malaysia contributes about 20% of the economy's E&E exports and spends ~MYR 1.5 billion (~USD 340 million) on local suppliers annually, boosting economic growth and strengthening the economy's semiconductor ecosystem.

- (Ms. Anna Amalina Imam Baweh, Director of Government Affairs at Intel Malaysia)

Malaysia's push to become a global semiconductor hub is reinforced by a comprehensive policy framework beyond the National Semiconductor Strategy (NSS) and NIMP 2030. The National Investment Aspirations (NIA) targets innovation-driven industries with strategic incentives, including tax exemptions under the Pioneer Status program, investment tax allowances, and R&D grants aimed at fostering high-value activities such as semiconductor design and advanced manufacturing. Special Economic Zones (SEZs) in Penang and Sarawak offer streamlined approvals and infrastructure to attract high-tech investments. The Invest Malaysia Facilitation Centre (IMFC) further enhances ease of doing business by serving as a centralized hub that coordinates key government agencies, fast-tracks approvals, and reduces bureaucratic hurdles for investors. Together, these policies create a strong foundation for long-term industry growth and deeper integration into the global semiconductor value chain.

In alignment with Malaysia's New Industrial Master Plan (NIMP) 2030, Intel's initiatives actively support the economy's goal of advancing economic complexity by promoting highgrowth industries such as advanced materials, electric vehicles, and renewable energy. These efforts also enable the production of more sophisticated products (see <u>Figure 13 Figure 13</u>). A central pillar of this vision is the E&E sector, with semiconductors serving as a critical driver for enhancing Malaysia's global competitiveness.

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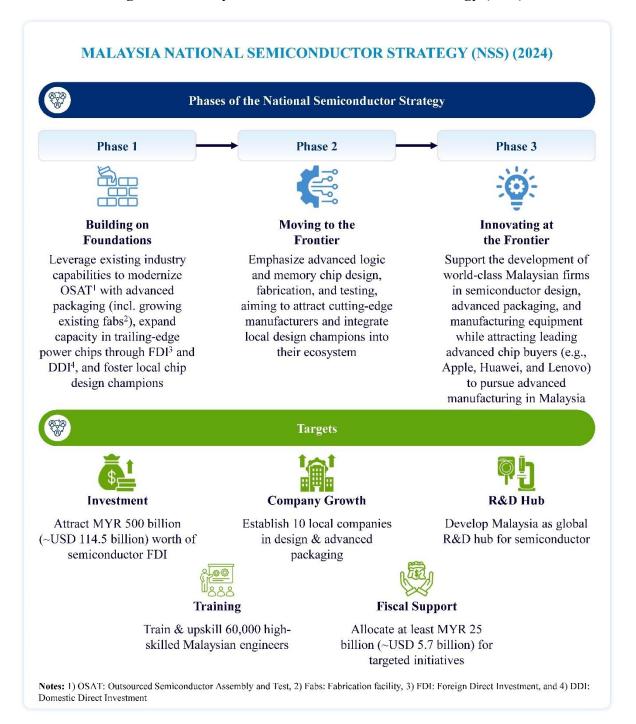
MALAYSIA NEW INDUSTRIAL MASTER PLAN (NIMP) 2030 VISION **GOALS** 3.E ÖÖ Strong domestic Competitive High income Increase Create high-Extend and skilled linkages value job domestic industry with economic workforce linkages high economic complexity opportunities complexity MISSIONS Mission #1 Mission #2 Mission #4 Mission #3 Advance economic Tech up for a digitally Safeguard economic Push for net zero complexity vibrant economy security and inclusivity Expand to high Develop entire Establish Foster Research, Increase value-added ecosystem to cooperative Development, manufacturing activities of the support the high Commercializatio 'vertical exports value-added value chain integration' for n and Innovation activities global value chain (RDCI) ecosystem Intel Malaysia aligns closely with Mission #1 of the NIMP 2030

Figure 13: Intel Malaysia's Alignment with NIMP 2030

Source: New Industrial Master Plan (NIMP) 2030⁹

The alignment of Intel Malaysia with the NIMP 2030 is further strengthened by its contributions to the National Semiconductor Strategy (NSS) (see *Figure 14Figure 14*). The NSS, structured around three progressive phases, aims to modernize Malaysia's semiconductor ecosystem, enhance production capabilities, and ultimately position the economy as a global leader in semiconductor innovation. To support these objectives, the Malaysian government has committed at least MYR RM25 billion (approximately USD 5.3 billion) in fiscal support, including targeted incentives for advanced manufacturing, research and development, and talent development. Intel's strategic investments directly support the foundational objectives of the NSS while contributing to the economy's long-term aspirations in this critical sector.

Figure 14: Malaysia National Semiconductor Strategy (NSS)



Source: Ministry of Investment, Trade and Industry (MITI)¹⁰

A prime example of Intel Malaysia's impact is its groundbreaking Project Pelican, part of a USD 7.1 billion investment. As the first and only Intel site outside the United States to feature advanced Foveros 3D packaging technology^b, the Penang facility marks a significant milestone in modernizing Malaysia's semiconductor manufacturing capabilities. Project Pelican aligns closely with Phase 1 of the NSS, which focuses on modernizing OSAT facilities with advanced packaging technologies. By adopting cutting-edge Foveros 3D technology, Intel reinforces Malaysia's efforts to strengthen its semiconductor ecosystem and establish leadership in advanced packaging.

Intel's long-term commitment has established a robust industrial ecosystem in Malaysia, ensuring the economy's continued relevance in the global semiconductor industry. As global demand for semiconductors rises, Intel Malaysia remains a pivotal contributor to the economy's industrial growth, the international semiconductor supply chain, and Malaysia's role in driving the Fourth Industrial Revolution.

2.1.2 Relationship

CSR Initiatives

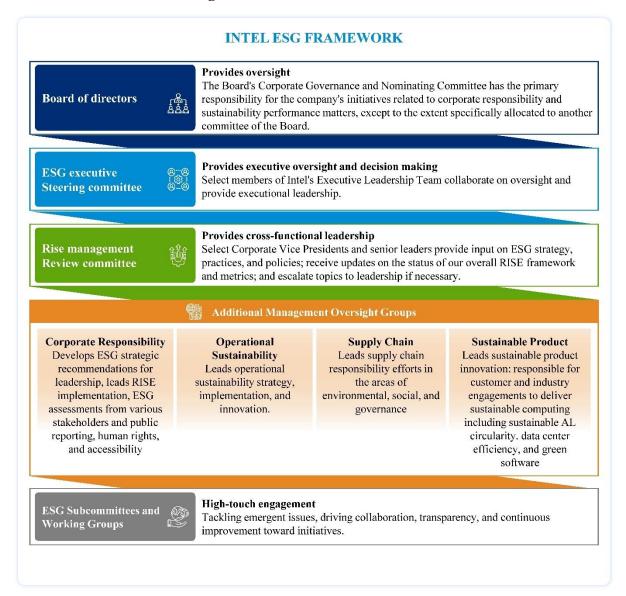
Intel Malaysia's Corporate Social Responsibility (CSR) efforts are guided by a comprehensive Environmental, Social, and Governance (ESG) framework (see <u>Figure 15 Figure 15</u>) that aligns closely with Intel's global standard. This structured framework is designed to provide clear governance, accountability, and cross-functional collaboration, enabling Intel Malaysia to effectively implement its ESG initiatives and achieve meaningful outcomes. The governance structure includes:

- **Board of Directors:** Provides oversight of corporate responsibility and sustainability performance matters, with the Corporate Governance and Nominating Committee addressing specific ESG responsibilities and conducting an annual review of the corporate responsibility strategy.
- **ESG Executive Steering Committee:** Comprising select members of Intel's Executive Leadership Team, this committee offers strategic oversight and decision-making to drive ESG initiatives and ensure executional leadership.
- RISE Management Review Committee: Facilitates cross-functional leadership by involving Corporate Vice Presidents and senior leaders in shaping ESG strategies, reviewing RISE framework progress, and escalating key topics to leadership as needed.
- Management Oversight Groups: Dedicated to specialized ESG domains, these groups address corporate responsibility, operational sustainability, supply chain accountability, and sustainable product development through focused strategies and innovation.
- ESG Subcommittees and Working Groups: Engage in high-touch collaboration to address emergent issues, enhance transparency, and foster continuous improvement across all ESG-related initiatives.

This structured framework enables Intel Malaysia to deliver measurable outcomes across its CSR efforts, ensuring alignment with its global ESG goals and providing a solid foundation for implementing impactful initiatives.

Foveros 3D packaging technology is Intel's advanced chip packaging method that vertically stacks logic chips to enable higher performance, power efficiency, and smaller form factors for complex semiconductor designs.

Figure 15: Intel's ESG Framework



Source: Intel Corporation 2023-24 corporate responsibility report¹¹

Building on this foundation, the RISE 2030 strategy (see <u>Figure 16Figure 16</u>) serves as the cornerstone of Intel Malaysia's CSR initiatives, reflecting the company's commitment to addressing global challenges and advancing sustainable development. RISE, an acronym for Responsible, Inclusive, Sustainable, and Enabling, outlines Intel's vision to create a more responsible, inclusive, and sustainable world through its technology and the dedication of its employees. The RISE 2030 strategy is deeply embedded within Intel's governance framework, with the RISE Management Review Committee (see <u>Figure 15Figure 15</u>) playing a pivotal role in ensuring its implementation and alignment with broader ESG objectives. For example, the committee regularly reviews updates on the progress of RISE 2030 initiatives and escalates key issues to the leadership for action.

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Figure 16: RISE 2030 Strategy

RISE 2030 STRATEGY & GOALS Goals Employee Health, Safety, and Wellness: Ensure over 90% of employees recognize Intel's strong safety Responsible culture, with 50% participating in its global wellness program Revolutionize health and safety through technology Responsible Supply Chain Practices: Strengthen supplier responsibility programs to promote ethical sourcing, environmental sustainability, and compliance across 100% of contracted suppliers and all highrisk identified suppliers in the supply chain Inclusive Workforce Inclusion Make technology fully inclusive and expand digital readiness Achieve 25% representation of women in senior leadership roles (globally) - Exceed 40% representation of women in technical positions - Achieve 10% representation of employees with disabilities in the global workforce by 2030 Achieve 12% representation of underrepresented minorities in the US senior leadership roles Achieve 5% representation of Black/African American employees in senior, director, and executive roles in the US $\textbf{Supplier Diversity:} \ Increase \ global \ annual \ spending \ with \ diverse \ suppliers^1 \ by \ 100\% \ to \ reach \ USD \ 2$ billion in annual spending by 2030 Sustainable Climate & Energy Advance carbon-neutral computing to - Achieve 100% renewable electricity address climate change Conserve 4 billion kWh of electricity Achieve a 10% reduction in absolute Scope 1 and 2 GHG emissions Increase product energy efficiency 10X for Intel client and server microprocessors to reduce Scope 3 GHG emissions New Goals Set in 2022 Achieve net-zero Scope 1 and 2 GHG emissions by 2040 - Reduce the carbon footprint of platform reference designs for future client form factors by 30% or more by 2030 - Reduce Scope 3 GHG supply chain emissions by 30% from what they would be in the absence of action Build new factories and facilities to US Green Building Council green building standards New Goals Set in 2023 Achieve net-zero upstream Scope 3 GHG emissions by 2050 Net Positive Water: Achieve net positive water by conserving 60 billion gallons of water and funding external water restoration projects Zero Waste/Circular Economy: Achieve zero waste to landfill and implement circular economy strategies for at least 60% of manufacturing waste streams, in collaboration with suppliers Enabling Accelerate the advancement of · Community Impact: Deliver 10 million volunteer hours to improve local communities, including an progress through technology, increase in skills-based volunteerism leveraging the expertise and passion of employees

Notes: 1) Diverse suppliers are recognized as businesses that are 51% owned and operated by at least one of the following: women; minorities as defined by the economy or region where the business was established; veterans/service-disabled veterans; persons who are lesbian, gay, bisexual, or transgender; or persons who are disabled. While these categories are acknowledged by Intel, they may vary by economy in accordance with local law

Source: Intel Corporation 2023-24 corporate responsibility report

- Intel Malaysia's commitment extends beyond business objectives, striving to create a meaningful, positive impact on society a mission driven by our RISE strategy.
 - (Ms. Anna Amalina Imam Baweh, Director of Government Affairs at Intel Malaysia)

Focusing on the 'Sustainable' aspect of the RISE 2030 strategy, Intel Malaysia demonstrates a strong commitment to environmental stewardship while expanding its manufacturing capabilities. This commitment reflects Intel Malaysia's efforts to balance growth with sustainability, integrating advanced practices to minimize environmental impact and support global sustainability goals (see *Figure 17Figure 17*). As part of this approach, Intel Malaysia hosts the largest Intel solar panel farm outside of the US, showcasing its commitment to renewable energy adoption. Additionally, Intel Malaysia achieved a significant milestone by operating entirely on 100% renewable energy since 2020, reinforcing its dedication to reducing carbon emissions and promoting sustainable manufacturing practices. This comprehensive approach underscores Intel Malaysia's alignment with the RISE strategy's focus on building a more sustainable future.

We have built the largest solar farm outside the US, here in Malaysia... Our sustainability efforts align with Malaysia's environmental goals through active collaboration and participation in government-supported renewable energy programs.

– (Ms. Anna Amalina Imam Baweh, Director of Government Affairs at Intel Malaysia)

COMMITMENT TO SUSTAINABILITY Product Waste Energy Water 2030 goals 84% <3% 10x largest Intel solar farm waste to landfill energy efficiency for net-positive water in 2023 outside U.S. client & server 135 100% 99% 30% AT wastewater¹ treated million kwh conserved recycling rate for solid reference system and reused in facility (2020-2023)wastes in 2023 designs carbon footprint systems reduction 100% 240 renewable energy million liters water (2020-2023)conserved in 2023 Notes: 1) AT wastewater refers to wastewater treated and reused directly "at-site" within Intel's facility systems

Figure 17: Commitment to Sustainability

Source: Materials shared by Intel during field study

This achievement can be further investigated by analyzing the environmental performance of Intel Malaysia's Penang and Kulim campuses (see *Figure 18 Figure 18* and *Figure 19 Figure 19*). These campuses exemplify Intel's efforts to integrate sustainability into operations, focusing on areas such as water conservation, waste management, and energy efficiency, which are closely monitored to ensure continuous improvement. Together, the campus-level initiatives and overarching company-wide achievements reflect Intel Malaysia's holistic approach to sustainability, contributing to both local and global environmental goals.

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Figure 18: Intel Penang Environmental Performance



Source: Intel website 44

Figure 19: Intel Kulim Environmental Performance



Source: Intel website. 55

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Community and Stakeholder Engagement

The 'Enabling' aspect of the RISE 2030 strategy highlights Intel Malaysia's dedication to meaningful community and stakeholder engagement, rooted in collaboration and shared progress. By championing volunteerism, Intel empowers its employees to contribute their time and skills to address local challenges, fostering a culture of giving back. In parallel, strategic partnerships with institutions amplify the impact of these efforts, aligning initiatives with broader economy-wide priorities. This dual approach not only strengthens ties with the community but also ensures Intel Malaysia's contributions drive long-term, sustainable outcomes that resonate beyond the company's immediate operations.

Zooming first into the volunteerism aspect, Intel Malaysia has achieved remarkable milestones in community contribution. Intel Malaysia's employees have collectively contributed over 1.14 million volunteer hours to community-focused initiatives across Malaysia, benefiting various sectors of society, including more than 2,900 recipients (i.e., since 2006) such as schools and non-governmental organizations (NGOs) (see *Figure 20 Figure 20*). A key enabler of this success is the Intel Involved Matching Grant Program (IIMGP), which incentivizes employees to volunteer by matching each hour of service with a financial contribution. Through this program, Intel Malaysia has disbursed over MYR 16 million (~USD 3.7 million), directly supporting impactful community projects and fostering meaningful change.

Our CSR initiative, launched in 2006, collaborates with selected schools and NGOs, where Intel employees contribute volunteer hours... These efforts are amplified through the Intel Foundation's matching grants, providing financial support that drives impactful community projects.

– (Mr. Mohd Harizan, Manager of Community Engagement at Intel Malaysia)

Figure 20: Volunteer Activities

VOLUNTEER ACTIVITIES

Activities in Q1 2024



One Community Day

The Programmable Solutions Group's (PSG) Employees Well-Being team organized a "One Community Day" at SJKC! Wen Khai, Penang. Seventeen PSG volunteers participated in the event, dedicating 99 hours to painting the school's bathroom walls, contributing to the improvement of the school environment.



Beach Clean-up

The Penang Disaggregation Manufacturing (PGDM) team, consisting of over 90 employees, conducted their 1st Beach Clean-Up at Permatang Tepi Laut, Batu Maung. They collected 653kg of rubbish and recyclables, surpassing the previous record of 180kg, while contributing approximately 480 volunteer hours.



Chinese New Year Visit

Ahead of Chinese New Year, visits were made to three homes in Penang, Silver Jubilee Home for the Aged, St. Nicholas, and Relau Rumah Charis, where 157 residents received new clothes and Mandarin oranges, bringing joy as they prepared to welcome the Year of the Dragon.



School Makeover

The Malaysia Design Center's (MDC) community engagement teams worked together to beautify SMK² Keladi, Kulim, painting classrooms, the canteen, and the school fence. In total, the team contributed 200 volunteer hours, supporting the school's reopening and creating a conducive learning environment for students.





One STEM Day

The CRSO³ and Kulim Assembly Test teams hosted a "One STEM Day" at SMK Taman Mutiara, Kedah, where 50 volunteers helped 85 Form 2 students⁴ assemble DIY Solar Car kits. The event, which included a competition for assembling the kits, logged approximately 440 volunteer hours.



Botanic Gardens Clean-Up

115 volunteers from Malaysia Desing Center (MDC) participated in a plogging activity at Penang Botanic Gardens, collecting about 20 bags of rubbish and recyclables, contributing nearly 500 volunteer hours.



One STEM Day

The CRSO and Penang High Volume Engineering teams organized a "One STEM Day" at SK⁵ Bukit Gambir, Penang, where 25 volunteers assisted 40 students, including special needs students, in assembling DIY Hand Crank Electricity and Voice Control Lamp kits, contributing approximately 140 volunteer hours.



Youth Empowerment

Intel Women@Intel (WIN) Malaysia and USM hosted "CodeMaven4.0," guiding 34 primary school girls in Penang to program games using "Scratch," contributing 181 volunteer hours to promote female participation in STEM.

Notes: 1) SJKC stands for Sckolah Jenis Kebangsaan Cina, which translates to Chinese National-Type School in Malaysia, 2) SMK stands for Sckolah Menengah Kebangsaan, which translates to National Secondary School in Malaysia, 3) CSRO: Community Relations & Sustainable Operations, 4) Form 2 students refer to second-year students in Malaysian secondary schools, 5) SK stands for Sekolah Kebangsaan, which translates to National Primary School in Malaysia, and 5) USM: Universiti Sains Malaysia, which translates to Science University of Malaysia

Source: Intel Malaysia CSR Newsletter^{12,13}

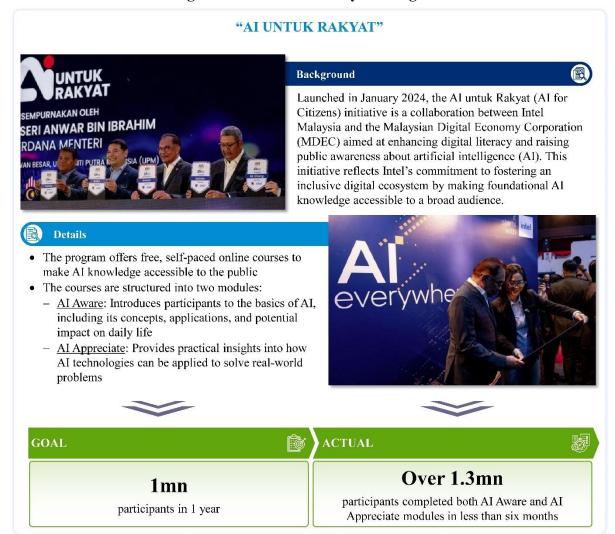
Building on its foundation of volunteerism, Intel Malaysia has established strategic partnerships with key institutions to create a broader societal impact. For instance, its collaboration with the Penang Science Cluster (PSC) underscores its commitment to advancing education and fostering innovation. Through PSC, Intel sponsored the inaugural Lego Robotics Program, which aims to spark early interest in technology and innovation among students. Furthermore, Intel has donated retired corporate personal computers (PCs) to schools, equipping underserved communities with essential digital tools, thereby supporting technology-based learning and enhanced digital literacy.

Intel's donation of corporate laptops has expanded access to digital tools, enabling students to explore 3D design software and participate in technology-based learning programs.

- (Mr. Ooi Peng Ee, Chief Executive Director (CED) at Penang Science Cluster)

Further enriching its collaborative efforts and aligning with the 'Inclusive' aspect of the RISE 2030 strategy, Intel Malaysia partnered with the Malaysian Digital Economy Corporation (MDEC) to launch the "AI untuk Rakyat" (AI for Citizens) program in January 2024 (see *Figure 21 Figure 21*). This initiative aligns with Malaysia's goals to enhance digital literacy and foster greater public understanding of artificial intelligence. Designed to be accessible and inclusive, the program offers free, self-paced online courses on AI, featuring multilingual content tailored to participants from diverse age groups and backgrounds. The program not only demystifies AI concepts but also equips individuals with foundational knowledge, enabling them to engage with emerging technologies more effectively. By supporting Malaysia's digital transformation agenda, this partnership strengthens Intel's relationship with government agencies, fostering policy alignment, mutual trust, and a shared vision for a digitally empowered society.

Figure 21: "AI untuk Rakyat" Program



Source: Materials shared by Intel during field study; "AI untuk Rakyat" website¹⁴

Additionally, Intel Malaysia demonstrates its dedication to social inclusion through its partnership with Asia Community Service (ACS), formalized in 2008. This collaboration specifically supports marginalized groups, such as individuals with disabilities, by providing opportunities for skills-building and empowerment. Initially focused on facility support, the partnership has evolved into skill-based workshops where Intel volunteers work alongside ACS trainees in activities such as baking, batik painting, soap production, and weaving. These workshops not only enhance skills development but also strengthen connections between Intel employees and ACS trainees, fostering empathy and inclusion. To further support ACS's sustainability efforts, Intel Malaysia has helped implement food waste composting and water harvesting systems at the ACS center, reflecting its holistic approach to community engagement and its commitment to driving long-term societal impact.

Intel has demonstrated a deep commitment to this community over the years, and we hope this invaluable support for NGOs continues for another 20 or even 50 years.

– (Ms. Aina Khor, Chief Executive Director (CED) at Asia Community Service)

Company Reputation / Stakeholder Satisfaction

Building on Intel Malaysia's extensive efforts in CSR and stakeholder engagement outlined in previous sections, the company has consistently demonstrated its commitment to fostering meaningful relationships with its stakeholders. Through its structured ESG framework and the impactful initiatives of the RISE 2030 strategy, Intel Malaysia has not only advanced its sustainability and inclusivity goals but also solidified its reputation as a responsible corporate entity. This commitment is further validated by the numerous accolades and recognitions Intel Malaysia has received from reputable external organizations, underscoring its positive contributions to the community, workforce, and broader industry.

One key recognition highlighting Intel Malaysia's commitment to community engagement is the MY AMCHAM CARES award, which the company has received for an impressive eight consecutive years in 2024 (see *Figure 22Figure 22*). This award, conferred by the American Malaysian Chamber of Commerce (AMCHAM), celebrates companies that excel in CSR by addressing critical social issues, supporting local communities, and aligning their business operations with sustainability goals. The consistent recognition through this award underscores Intel Malaysia's commitment to community engagement and its ability to drive meaningful societal impact.

Figure 22: MY AMCHAM CARES Award



Intel Malaysia was recognized with the MY AMCHAM CARES award for the eighth consecutive year in 2024. This award, presented by the American Malaysian Chamber of Commerce (AMCHAM), highlights the company's unwavering dedication to corporate citizenship. It celebrates member organizations that excel in addressing social and environmental challenges, fostering meaningful community engagement, and promoting sustainable practices. Intel Malaysia's continued recognition underscores its leadership and sustained impact in driving positive change for the community and environment.

Source: Materials shared by Intel during field study

Aligned with the 'Responsible' aspect of the RISE 2030 strategy, which emphasizes employee health, safety, and wellness, Intel Malaysia has earned significant recognition for its exceptional human resource practices (see *Figure 23 Figure 23*). A notable achievement came in 2022 when the company received the prestigious Human Resources Minister Award at the HRD Awards, presented by the Human Resource Development Corporation (HRD Corp). This distinguished accolade honors top organizations in Malaysia for excellence in human capital and learning development. By prioritizing talent development, organizational agility, and employee well-being, Intel Malaysia has established itself as a benchmark for HR excellence and a preferred employer within the region.

AWARDS AND RECOGNITIONS IN HUMAN RESOURCE DEVELOPMENT 2022 2023 2024 "Top 5 Leading 'Graduates' "Malaysia's HR "Most Preferred "Тор Graduate Choice of "Gold" Companies" Minister' **Employers**' **Employer** Employer' Award Recognition Award Award Award Award intel COMPANIES intel. CELLENC intel Linked in gti) media Human Resource Graduan Brand Graduates' Choice Human Resources HRD Corp GTI Media LinkedIn Awards Award Online Awarded the Recognized as the Ranked among the Recognized as one Awarded the Awarded two Gold Awards at the HR Human Resources 2nd Runner-Up in Top 5 Leading of the Top Graduates' Choice Minister Award at the Electronics & Graduate Companies in of Employer Excellence Awards the HRD Awards Technology Employers in Malaysia 2022 by Award 2023 for 2024: Employer of 2022 for Intel category at the Malaysia for the LinkedIn, Intel the Year for being one of the Malaysia's Graduan Brand third consecutive Malaysia was "Most Preferred fostering an excellence in Awards 2022, Intel year in 2022, Intel celebrated as one Graduate empowering employee Malaysia was Malaysia was of the 15 best Employers to workplace and Work For," Intel acknowledged as recognized by GTI development. workplaces to Excellence in grow a career, Malaysia ranked highlighting its one of Malaysia's Media as a winner Agile Talent in the Electronics reflecting its dedication to most preferred #1 in the Mobility for fostering a employers, and Information commitment to Semiconductor and innovative workforce dvnamic reflecting its strong Technology (IT) fostering Microprocessor workforce and appeal and categories, further professional categories, adaptability aligning human reputation in the cementing its development and reflecting its strong capital practices tech industry position as a career growth appeal to with domestic preferred employer opportunities university students standards of for graduates and its reputation innovation and for fostering talent growth in high-demand industries

Figure 23: Awards and Recognitions in Human Resource Development

Source: Materials shared by Intel during field study

Aligned with the 'Inclusive' aspect of the RISE 2030 strategy, Intel Malaysia has been widely recognized for its excellence in Diversity, Equity, and Inclusion (DE&I) (see <u>Figure 24Figure 24</u>). Notably, the company was named Inclusive Advocate of the Year at the Global Diversity and Inclusion Advocates Awards (GDIAA) in both 2024 and 2022. These accolades highlight Intel Malaysia's dedication to fostering an inclusive workplace culture that values diversity and ensures equal opportunities for all employees. By embedding DE&I as a core principle in its strategy, Intel Malaysia has strengthened its reputation as an employer committed to fairness and inclusivity, creating an environment where its workforce is empowered to thrive.

AWARDS AND RECOGNITIONS IN DE&I 2023 2024 "Inclusive Advocate of 100% Score on the Year" & "Diversity "Inclusive Advocate of "Chapter" Disability:IN#DEI the Year" Award & Inclusion Team" Award Index Award intel intel intel intel Intel Corporation Intel Corporation Intel Corporation Intel Corporation Achieved a 100% score on Awarded Employee Awarded a Double Win for Awarded Employee the DEI Index for 2022, a Resource Group of the Malaysia's Women at Intel Resource Group of the benchmark by Year at the Global Network (WIN) at the Year at the Global Disability: IN and AAPD* Diversity and Inclusion 2023 Global WIN Chapter Diversity and Inclusion for corporate disability Achievement Awards Awards, recognizing the Achievement Awards inclusion. This recognizes (GDIAA) 2022 for its chapter's outstanding (GDIAA) 2024 for the Intel Malaysia's efforts to foster efforts in fostering gender Intel Disability and commitment to accessibility, inclusivity, diversity and empowering Accessibility Network accessibility through and diversity in the women in the workplace (IDAN), recognizing its workplace efforts to foster inclusive hiring, disability accommodations, and accessibility and inclusivity within the workplace accessibility initiatives workplace

Figure 24: Awards and Recognitions in DE&I

*AAPD: American Association of People with Disabilities

Source: Materials shared by Intel during field study

Intel Malaysia's awards and recognitions validate its commitment to excellence in CSR, HR, and DE&I, reinforcing its reputation as a highly respectable and socially responsible organization. By aligning business objectives with responsibilities to society, the environment, and its workforce, the company has earned the trust and respect of stakeholders. Its ability to balance operational excellence with social impact underscores its position as a benchmark for sustainable and inclusive growth, creating long-term value for both business and society.

Conflict Resolution Mechanisms

Intel Malaysia employs a proactive and structured approach to conflict resolution, addressing potential disputes with stakeholders such as employees, government agencies, suppliers, educational institutions, and the local community. By fostering transparency, open communication, and collaboration, Intel Malaysia ensures alignment with stakeholder expectations, mitigating tensions that could disrupt operations or stakeholder relationships.

A prominent example is Intel Malaysia's response during the COVID-19 pandemic, where it implemented detailed and proactive communication measures to ensure compliance and

operational continuity. Specific to suppliers, Intel Malaysia issued guidance documents that included a self-audit checklist and best-known practices tailored to Malaysia's Ministry of Investment, Trade and Industry (MITI) and Ministry of Health (MOH) requirements. Suppliers were required to complete the checklist, prepare a presentation illustrating their compliance measures, and participate in reviews of their implementation.

Intel further supported its suppliers by sharing best-known practices derived from its manufacturing operations, both locally and globally, to help suppliers navigate the challenges of operating under the Movement Control Order (MCO). This collaborative approach not only reinforced compliance with government regulations but also fostered trust and partnership within the supply chain. By maintaining transparency and offering practical resources, Intel Malaysia minimized disruptions, mitigated potential conflicts, and ensured the safety and continuity of critical operations during a highly challenging period.

Intel Malaysia's commitment to transparency extends to both government partners and industry stakeholders, ensuring open communication and alignment during critical operational considerations. For instance, as Intel reassessed its global manufacturing priorities, there were potential adjustments to the activation timeline for its advanced packaging facility in Penang (i.e., the Pelican Project, part of the ~USD 7.1 billion investment). Anticipating the impact such changes could have on government partners expecting economic benefits or stakeholders reliant on timely project completion, Intel Malaysia engaged in continuous communication well before any official announcements (see *Figure 25Figure 25*). This proactive approach not only kept stakeholders informed but also reinforced Intel's reputation as a reliable and transparent corporate partner.

TRANSPARENT ENGAGEMENT WITH GOVERNMENT Source: Malay Mail Kon Yeow: InvestPenang engaging Intel on **Details** expansion plans amid reports of project freeze on island In September 2024, Penang Chief Minister Chow Kon Yeow confirmed that the state government, through InvestPenang, was actively engaging with Intel Malaysia on its expansion plans in Penang. He highlighted the ongoing collaboration between the Malaysian government and Intel Malaysia, noting that any updates on the project would be officially announced by the company. This proactive communication aligns with Intel Malaysia's commitment to transparency and open engagement with government and industry stakeholders, ensuring alignment and trust during critical operational decisions, such as adjustments to its advanced packaging facility timeline.

Figure 25: Transparent Engagement with Government

Source: Malay Mail¹⁵

Additionally, another potential area of conflict where Intel Malaysia navigates effectively is competition for skilled professionals, which could create tension with other technology firms and strain Intel Malaysia's recruitment pipeline. Without intervention, this intense demand for talent in Penang's Bayan Lepas area could lead to operational delays, higher recruitment costs, and strained relationships with other companies competing for the same talent pool. Such challenges could escalate into larger conflicts, including difficulties in meeting project timelines, increased poaching of employees, or reduced goodwill within the local industry ecosystem.

To mitigate these risks, Intel Malaysia collaborates with institutions like the PSC and the Penang Skills Development Centre (PSDC) to expand the regional talent pool. Additionally, its partnerships with over 30 universities across Malaysia help align curricula with industry needs, ensuring graduates are equipped with in-demand skills. This proactive approach not only alleviates competition-related pressures but also fosters cooperative relationships with educational institutions, government stakeholders, and competing firms. By addressing this potential conflict at its root, Intel Malaysia supports regional human capital development, maintains operational continuity, and sustains harmony within the broader industrial ecosystem.

- ** PSDC strives to develop a sustainable talent pipeline that adequately supports industry growth, mitigating inter-company poaching, particularly in response to the arrival of new investment projects.
- (Ms. Lim Wei Chen, Chief Operating Officer (COO) at Penang Skills Development Center)

Intel Malaysia's approach to conflict resolution centers on identifying potential areas of tension, whether related to workforce dynamics, operational shifts, or external disruptions, and addressing them collaboratively through transparency, strategic planning, and stakeholder engagement. This preemptive and structured mechanism not only ensures smooth operations and builds trust but also strengthens relationships with employees, government agencies, industry partners, and the broader community. By fostering mutual trust and implementing long-term solutions, Intel Malaysia reinforces its reputation as a trusted and responsible corporate entity, contributing to Malaysia's sustainable growth and societal progress.

2.1.3 Human Resource Development

Local Job Creation

Intel Malaysia has significantly contributed to Malaysia's industrial and economic development since its establishment in 1972. As one of the first multinational corporations to set up operations in Penang, Intel introduced advanced manufacturing practices to the economy, laying the groundwork for Malaysia's development as a hub for semiconductor manufacturing. Alongside fostering a highly skilled local workforce, Intel's investments in facilities and employee development have supported the growth of Malaysia's high-tech industry.

Today, Intel Malaysia employs approximately 12,000 individuals, with 98% of its workforce being Malaysian. This figure reflects the company's unwavering commitment to local talent development and retention. This commitment not only emphasizes local job creation but also highlights the provision of quality jobs that prioritize employee health, safety, and wellness. Aligned with the 'Responsible' aspect of Intel's RISE 2030 strategy, Intel Malaysia ensures a work environment that promotes well-being through comprehensive benefits, such as health and wellness programs. For example, employees have access to on-site gym facilities and lifestyle benefits that include children's education support, loan interest subsidies, and flexible

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work arrangements. These initiatives reflect Intel's dedication to supporting its employees' professional and personal growth while fostering a culture of innovation and excellence.

Intel Malaysia's contributions to job creation extend beyond direct employment, encompassing the development of a local supply chain ecosystem that supports ancillary industries. Through collaborations with suppliers and service providers in areas such as logistics, equipment maintenance, and raw material production, Intel Malaysia has indirectly created thousands of additional jobs. For example, Intel's MYR RM30 billion expansion investment in Malaysia is expected to generate significant indirect employment, particularly in construction and infrastructure development. The company's engagement with local suppliers has also enhanced the capabilities of small and medium-sized enterprises (SMEs), enabling their participation in global supply chains. This ripple effect has contributed to the economic activity and growth of Penang and other regions where Intel Malaysia operates.

Many of our suppliers began as small, family-run businesses... and as we expanded our factories, they grew and scaled their operations alongside us.

- (Mr. Ong Hean Jin, Director of Factory Enabling Team at Intel Malaysia)

Intel Malaysia's role in advanced manufacturing has influenced Malaysia's industrial development. Its presence has contributed to Malaysia's appeal as a location for high-tech investments and encouraged other multinational corporations to establish operations in the economy. Companies in sectors such as electronics, precision engineering, and automation have expanded their presence, creating additional employment opportunities and integrating Malaysia further into the global value chain. This concentration of high-tech industries has supported the growth of skilled jobs and contributed to the development of a dynamic innovation ecosystem.

Intel Malaysia's contributions to job creation extend beyond the direct employment of its workforce. Through the development of local talent, support for a strong supply chain ecosystem, and the attraction of additional investments, the company has contributed to Malaysia's economic development. Its focus on workforce development and innovation has supported Malaysia's growth as a center for advanced manufacturing and technology.

Local Workforce Training & Skills Development

Intel Malaysia's approach to workforce training and skills development is rooted in the company's global Employee Value Proposition (EVP) (see <u>Figure 26Figure 26</u>). The EVP serves as a promise to both current and prospective employees, emphasizing opportunities for growth, innovation, and meaningful work. Among its five pillars, the 'Opportunity' pillar is closely tied to workforce development. It reflects Intel's commitment to providing employees with avenues to unlock their potential through personal and professional growth, lifelong learning, and career mobility. This emphasis on opportunity shapes Intel Malaysia's comprehensive strategy for training and skills development.

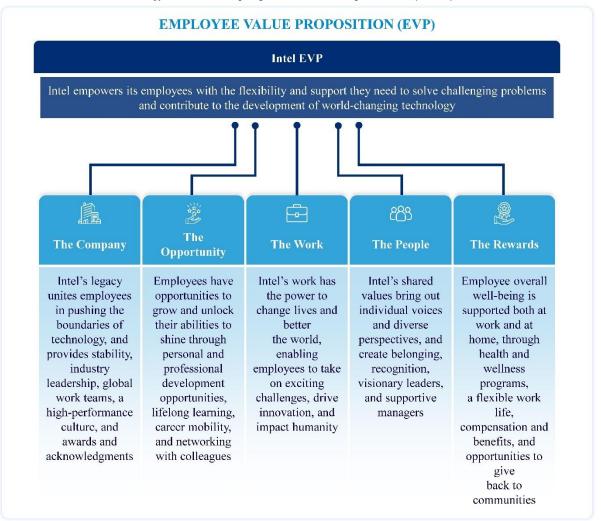


Figure 26: Employee Value Proposition (EVP)

Source: Intel Corporation 2023-24 corporate responsibility report.

Aligned with Intel's global EVP, Intel Malaysia fosters skill enhancement and leadership development through a range of initiatives. Employees benefit from extensive training programs designed to strengthen technical expertise and build leadership capabilities. Rotational opportunities expose staff to diverse roles and challenges, promoting well-rounded career development. Additionally, Intel Malaysia provides annual learning resources, ensuring that employees stay abreast of evolving industry trends and technologies. This internal focus on workforce development equips employees to remain agile and competitive in a rapidly changing global environment.

Beyond its internal training efforts, Intel Malaysia demonstrates a strong commitment to workforce development by actively engaging with the broader community. Through strategic partnerships and targeted programs, the company strengthens Malaysia's talent pipeline while fostering innovation across diverse sectors. According to Arthur D. Little, educational programs should be in place to attract individuals to develop capabilities in specialized electronics, as attracting overseas talent appears to be difficult in Malaysia's workforce industry. These efforts are specifically designed to nurture local talent and creating opportunities for advanced education.

A key partnership that underscores Intel Malaysia's commitment to workforce development is with the Penang Skills Development Centre (PSDC), where Intel is a founding member. Since

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PSDC's establishment in 1989, Intel has maintained continuous representation on its Management Council, contributing strategic insights and resources to shape its programs. Intel's contributions include the creation of a microprocessor lab in 1993, which significantly enhanced PSDC's technical training capabilities in the semiconductor and electronics fields. Intel also actively serves on PSDC's Technical Advisory Committee (TAC), providing guidance on emerging industry trends and ensuring the integration of cutting-edge tools into training initiatives.

Intel's commitment to PSDC is demonstrated by its continuous participation as a member of PSDC's Council since its founding in 1989.

– (Ms. Lim Wei Chen, Chief Operating Officer (COO) at Penang Skills Development Center)

Through this sustained collaboration, PSDC now trains over 30,000 individuals annually, creating a skilled talent pipeline that bolsters Malaysia's high-tech manufacturing sector. Intel's foundational role and ongoing involvement have been pivotal in PSDC's ability to adapt to evolving industry demands. This partnership not only reflects Intel's commitment to advancing workforce development but also reinforces Malaysia's position as a global hub for high-tech innovation.

Furthermore, Intel Malaysia places a strong emphasis on early career development through its extensive internship programs, benefiting over 2,300 interns across the entire economy. A notable example is the Ministry of Higher Education (MoHE)–Intel Malaysia Elite Internship Program, launched in 2021, which welcomed 120 participants and provided hands-on experience in the semiconductor industry (see *Figure 27Figure 27*). These internships bridge the gap between academic learning and real-world application, nurturing a future-ready talent pipeline equipped to meet the evolving demands of a globalized industry.

Figure 27: Malaysia Elite Internship Program



Source: Malay Mail¹⁶

MOHE has actively worked together with Intel in various programs, and I am pleased to acknowledge Intel's active role in coming up with various technology adoption programs that are in line with the focus of the government... I would like to express my gratitude to Intel for functioning as catalysts of new curriculum revolution in universities in the areas of electrical and electronic as well as computer science.

 (Datuk Seri Dr. Noraini binti Ahmad, former Minister of Higher Education of Malaysia) 16¹⁶

Additionally, Intel Malaysia prioritizes preparing the next generation of talent. Collaborating with PSC, Intel conducts STEM outreach programs that engage over 3,000 students annually. Activities such as Geek Kids (see <u>Figure 28Figure 28</u>) offer hands-on, technology-based learning experiences, inspiring schoolchildren to explore careers in technology and innovation. These programs aim to spark curiosity and build foundational skills among young learners, contributing to Malaysia's future talent pipeline.

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Figure 28: Partnership with PSC



- In 2024, the Intel Geek Kids program culminated in an economy-wide competition held at KLCC¹, where 69 finalists aged 9 to 12 from 8 states showcased their innovative STEM² solutions
- This event marked the conclusion of a series of economy-wide roadshows and workshops aimed at
 fostering creativity and problem-solving among Malaysia's primary school students
- Supported by 24 Intel mentors and evaluated by an expert panel of judges, the competition highlighted the students' ingenuity and potential in tackling real-world challenges
- The Intel Geek Kids program builds on its successful pilot in 2022 and continues to expand its reach and impact

Notes: 1) KLCC: Kuala Lumpur City Centre, a prominent commercial and cultural hub in Malaysia, and 2) STEM: Science, Technology, Engineering, and Mathematics

Source: PSC Facebook post¹⁷

Intel Malaysia's commitment to fostering innovation also extends to small and medium-sized enterprises (SMEs) through initiatives like the AI for SMEs program. This program has supported over 100 businesses in Penang and Kulim, helping them adopt artificial intelligence technologies to improve efficiency and competitiveness. By enabling SMEs to integrate AI into their operations, Intel strengthens Malaysia's digital economy while equipping these businesses to adapt to global technological and market shifts. This initiative highlights Intel's role in ensuring the resilience and sustainability of Malaysia's industrial base.

Intel Malaysia's commitment to workforce training and development supports both employee growth and broader community advancement. By fostering innovation and equipping individuals with critical skills, the company helps build a resilient and future-ready workforce. These efforts not only strengthen Malaysia's talent pipeline but also contribute to the economy's economic and industrial progress. Through strategic collaborations and outreach initiatives, Intel Malaysia reinforces its role as a key player in driving technological advancement and supporting sustainable development.

Career Progression

Intel Malaysia has established a comprehensive career development framework that emphasizes professional growth, skill-building, and transparent pathways for advancement. By combining structured policies with clear evaluation criteria, the company creates an environment where employees are empowered to achieve their career aspirations while contributing meaningfully to Intel's broader industry and economic objectives. This integrated approach underscores Intel Malaysia's commitment to developing a highly skilled and motivated workforce capable of driving innovation and excellence.

At the core of this framework is a structured promotion process, closely tied to Intel's career-level structure, which ranges from entry-level grades to senior executive positions, each with distinct roles, responsibilities, and performance expectations. Promotions are determined through annual performance reviews, where employees' achievements, contributions, and growth potential are thoroughly assessed. Employees who consistently exceed expectations, take on additional responsibilities and demonstrate readiness for advanced roles are prioritized for promotion. This transparent, merit-based system ensures fairness while aligning individual advancements with organizational goals, inspiring employees to continuously perform at their best.

⁶⁶ Our internal promotion and transfer policy prioritizes existing Intel Malaysia employees for new roles, supporting a culture of career mobility and professional growth.

– (Ms. Leow Poh Hwa, Director of Human Resources at Intel Malaysia)

Complementing the promotion process is Intel Malaysia's robust internal mobility and transfer policy, which enables employees to explore diverse career paths within the organization. This approach supports the development of cross-functional expertise and prepares employees for leadership roles. Additionally, the company offers global exposure opportunities, a cornerstone of its career progression framework. Malaysian employees have played pivotal roles in establishing Intel's operations in Ho Chi Minh and Chengdu, leading critical projects that enhance their professional skills and broaden their perspectives. These international assignments not only promote individual growth but also contribute to Intel's global expansion and operational success.

When new sites are being set up, such as the first facility in China, we proactively select talent from within the organization to lead and support the site's growth and development.

- (Mr. Ong Hean Jin, Director of Factory Enabling Team at Intel Malaysia)

Intel Malaysia's career development framework emphasizes structured pathways for advancement, transparent evaluation criteria, and opportunities for global exposure, supporting both individual and organizational growth. The average employee tenure of 8-9 years reflects employees' confidence in the company's approach to career progression and professional development. This commitment to career growth and human resource development has earned Intel Malaysia multiple awards and recognition as a top employer, further highlighting its role in fostering a highly skilled and motivated workforce (see *Figure 23 Figure 23*). This framework plays a significant role in enhancing employee skills while contributing to Intel's global operations and Malaysia's talent development efforts.

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Workforce Diversity and Inclusion

Intel Malaysia's commitment to diversity, equity, and inclusion (DE&I) is deeply rooted in the 'Inclusive' pillar of its RISE 2030 strategy. This pillar emphasizes fostering an environment where everyone can thrive, and ensuring opportunities are accessible to all, regardless of gender, ability, or background. Aligned with this vision, DE&I remains a central focus of Intel Malaysia's workforce and community initiatives.

Within Intel Malaysia's workforce, approximately 40% of employees are women, reflecting the company's commitment to fostering gender equity in the technology and engineering sectors. This dedication is exemplified by the leadership of A.K. Chong, the first woman to serve as Managing Director of Intel Malaysia, appointed in 2021. Her leadership underscores the company's inclusive culture and its focus on empowering women to thrive and contribute meaningfully at all levels of the organization. Additionally, Intel Malaysia has achieved one of the goals under the 'Inclusive' pillar of its RISE 2030 strategy by surpassing 40% representation of women in technical positions. Furthermore, the company is on track to double the number of women in senior and executive roles by 2030, reaffirming its long-term commitment to gender equity and leadership diversity.

⁶⁶ Intel Malaysia will continue to evolve and keep its gender-inclusive workplace strategies current to attract, hire, retain, and advance women in technical and senior leadership roles globally.

– (Ms. A. K. Chong, Vice President at Foundry Manufacturing and Supply Chain & Managing Director at Intel Malaysia)¹⁸

Expanding its impact beyond the workplace, Intel Malaysia actively promotes diversity and inclusion through community programs. One notable initiative is the Girls in Engineering and Tech (GET) program, organized in collaboration with PSC and supported by various companies. In this program, female engineers from Intel Malaysia volunteer as mentors, inspiring young women to pursue careers in STEM. By nurturing the next generation of female STEM professionals, Intel Malaysia not only promotes gender equality but also contributes to strengthening Malaysia's future talent pipeline.

Figure 29: Girls in Engineering and Tech (GET) Program

GIRLS IN ENGINEERING AND TECH (GET) PROGRAM



Objective

- The GET program, organized by the Penang Science Cluster (PSC), aims to inspire and empower Form 4¹ female students in Penang to explore careers in engineering and technology.
- The program seeks to bridge the gender gap in STEM fields by fostering technical skills, creativity, and interest in these disciplines, encouraging young women to pursue further studies and careers in STEM



Programs

- GET Core Program: A six-month program offering hands-on workshops in programming, web development, 3D modeling, data science, and embedded systems. It combines technical training with mentorship from female industry professionals and project-based learning. Over 300 girls from 28 schools have graduated from this program
- GET Lite Program: A shorter, accessible version focusing on introductory STEM workshops and basic technical training, designed for schools or students with limited time. 278 girls from 11 schools have graduated from this program

Notes: 1) Form 4 is the equivalent of the tenth grade in Malaysia's secondary education system, typically for students aged 16, serving as the second-to-last year before completing secondary school

Source: GET website¹⁹

Intel Malaysia's commitment to inclusivity goes beyond gender equity, extending to support individuals with disabilities. Through its Intel Disability and Accessibility Network (IDAN), the company aims to bridge the STEM education gap for children with disabilities. A standout initiative under this effort is the Inclusive STEM program (see <u>Figure 30 Figure 30</u>), which empowers 60 students with disabilities from five schools on Penang Island with hands-on workshops in 3D printing, coding, and robotics, equipping them with essential skills for the digital future.

Figure 30: InclusiveSTEM Program

InclusiveSTEM PROGRAM





Launched the InclusiveSTEM program, aimed at empowering 60 students with disabilities from five schools in Penang Island



Running from August to October 2024, the program provides hands-on workshops in areas such as 3D printing, coding, robotics, and DIY microscopes, culminating in project submissions for the Penang International Science Fair



Intel has committed MYR 55,000 (~USD 12,600) to the initiative, supplying STEM learning kits, loaned laptops, and mentorship from 76 Intel volunteers, who guide students through technical projects and foster interest in STEM careers



This program equips differently-abled students with skills for the digital future, while also aligns with Penang2030's vision of inclusivity, innovation, and workforce empowerment, ensuring that technology benefits all members of society

Source: The Sun²⁰

Intel Malaysia's DE&I efforts have garnered widespread recognition, including receiving the Global Diversity and Inclusion Achievements Awards (GDIAA) in 2022 and 2024 (see <u>Figure 24</u>Figure 24). These accolades reflect the company's sustained commitment to building an inclusive workplace and contributing to a more equitable society. Through its internal practices and community-focused initiatives, Intel Malaysia continues to set a benchmark for diversity, equity, and inclusion within the technology sector.

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