

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

Company Write-up

Intel Viet Nam

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1. OVERVIEW OF SELECTED FDI PROJECTS / COMPANIES

1.1 INTEL PRODUCTS VIETNAM CO., LTD. (IPV)

COMPANY DETAIL

Intel Products Vietnam Co., Ltd.

Origin:

The United States

Industry:

Semiconductor

PRESENCE IN HOST ECONOMY



Est. Year:

2006

Head Office:

Saigon Hi-Tech Park Ho Chi Minh City, Viet Nam

Entity:

Intel Products Vietnam Co., Ltd.

No of Employees:



~2,000

Main Production Facility Location:

 Saigon Hi-Tech Park, Ho Chi Minh City, Viet Nam

Continuity



IPV represents a pivotal milestone in Intel's global semiconductor strategy, marking the company's further expansion into Southeast Asia since its investment into Viet Nam in 2006. As Intel's largest assembly and test manufacturing facility globally, IPV has transformed Viet Nam's technological landscape by investing over USD 1.5 billion and establishing a critical manufacturing hub within the Saigon Hi-Tech Park. The facility has consistently demonstrated operational excellence, contributing greater than 50% of Intel's internal Assembly Test Manufacturing (ATM) output while supporting the company's Integrated Device Manufacturing (IDM) 2.0 strategy. IPV's resilience was evident during the COVID-19 pandemic, as it maintained operational stability through proactive crisis management and innovative IT solutions. Through resilient operations, technological innovation, and strategic investments, IPV has not only enhanced Intel's global manufacturing capabilities but also positioned Viet Nam as an emerging player in the semiconductor industry.

Relationship



IPV's Corporate Social Responsibility efforts are guided by a robust ESG framework aligned with Intel's global RISE 2030 strategy, focusing on responsibility, sustainability, inclusivity, and enablement. The company has achieved significant milestones, including over 50 million kWh of energy savings, Leadership in Energy and Environmental Design (LEED) certifications, and 240,000 volunteer hours across community development initiatives. Strategic partnerships and investments totaling USD 22 million have supported education, environmental sustainability, and social impact projects. Recognized through prestigious awards like the Golden Dragon Award, IPV has established itself as a leader in corporate responsibility, demonstrating how technology companies can drive meaningful social and economic progress in emerging markets.

Human Resource Development



IPV has played a pivotal role in Viet Nam's industrial development since 2010, creating over 6,500 jobs, including approximately 2,000 direct hires, with a >95% local workforce in alignment with Intel's RISE 2030 strategy. The company prioritizes employee through comprehensive training development partnerships with educational institutions, and a structured career progression framework that emphasizes technical and leadership skills. IPV's commitment extends to diversity and inclusion, with initiatives supporting women in Science, Technology, Engineering, and Mathematics (STEM) earning international recognition like the UN Women WEPs Award. By fostering a supportive workplace and investing in talent development, IPV plays a crucial role in shaping Viet Nam's high-tech ecosystem and economic advancement.

2. DETAILS AND KEY FINDINGS OF INDIVIDUAL CASE STUDY

2.1 INTEL PRODUCTS VIETNAM CO., LTD. (IPV)

2.1.1 Continuity

Investment Longevity

In 2006, Intel announced its investment in Viet Nam, marking a historic milestone as the economy's first high-tech company. This landmark investment led to the creation of IPV, which began operations in 2010 in Ho Chi Minh City. Over the years, IPV has consistently demonstrated Intel's commitment to long-term operational continuity and strategic investment, growing into a cornerstone of Intel's global manufacturing network and a key contributor to the semiconductor industry's growth in Southeast Asia.

- When we first arrived at this site in 2006, it was nothing more than grass fields with grazing animals and our arrival marked the beginning of a new era as we became Viet Nam's first high-tech company...our vision is to create a future that fosters growth for both Intel and Viet Nam, focusing on mutual benefits and shared progress.
 - Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

Located within the 115-acre Saigon Hi-Tech Park (SHTP), IPV is Intel's largest assembly and test manufacturing facility globally, spanning 571,000 square feet. Its establishment represented a major achievement for Intel, as it became the fifth site in the company's global assembly and test network. By establishing operations in Viet Nam, Intel leveraged the economy's strategic location and favorable business environment to ensure supply chain resilience and continuity in its global operations.

Since operations began, IPV has demonstrated remarkable adaptability and evolution in its product portfolio. Initially focused on producing chipsets for laptops and mobile devices, the facility expanded its capabilities to assemble and test a diverse range of products. Today, IPV's portfolio includes system-on-chips (SoCs), desktop central processing units (CPUs), Internet of Things (IoT) devices, modems, and mobile CPUs (see *Figure 1*). These advancements showcase Intel's ability to remain agile in addressing dynamic market demands while overcoming challenges such as supply chain disruptions. IPV's development of advanced packaging technologies (e.g., Foveros¹) further highlights its critical role in Intel's sustained manufacturing operations.

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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

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Chipset Desktop Modem Discrete Graphic New Tech

ATOM SOC Mobile Thunderbolt 5G Server (BCP)

IPV produces a diverse range of products to support Intel's global manufacturing and supply chain

Figure 1: Product Portfolio

Source: Materials shared by Intel during the field study

Currently, IPV plays a pivotal role in Intel's Integrated Device Manufacturing (IDM) 2.0 strategy (see *Figure 2*), contributing greater than 50% of Intel's total internal Assembly Test Manufacturing (ATM) output. As a key driver of the 'Foundry Manufacturing Supply Chain' pillar within IDM 2.0, IPV delivers world-class assembly and test manufacturing services to ensure reliable product delivery across Intel's global operations. IPV reinforces Intel's geographic diversification and supply chain resilience by seamlessly integrating upstream chip fabrication with downstream product delivery. This critical role has also enhanced Viet Nam's position within the global semiconductor ecosystem, solidifying its importance in the industry.

- We have the capability to produce various products that you interact with every single day... Starting with chipsets, we later expanded to include mobile, desktop, and other technologies... It has been a journey of growth, beginning small and gradually evolving into a mega-factory through our continuous learning and customer first mindset.
 - Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

INTEL FOUNDRY – INTEGRATED DEVICE MANUFACTURING (IDM) Foundry Manufacturing Foundry Foundry Technology **Supply Chain** Services Development Providing world-class Accelerating customer success At the forefront of Moore's Law, manufacturing and supply chain as the customer engine for turning research and engineering services on a global scale to Intel Intel Foundry breakthroughs into mass-Foundry customers production silicon and advanced Ambition packaging solutions at worldclass performance, power, area and cost for Intel Foundry customers Ensures reliable delivery of Accelerates customer success by Delivers state-of-the-art products to meet customer offering seamless integration technology for Intel's products and Foundry customers by between Intel chip designs and its demand by leveraging its extensive manufacturing manufacturing expertise, remaining at the forefront of Significance infrastructure and global reach, positioning itself as the 'engine' innovation, advancing research making Intel a trusted partner in driving its customers' and development to push the the semiconductor ecosystem achievements boundaries of semiconductor capabilities

Figure 2: Integrated Device Manufacturing (IDM) 2.0 Strategy

IPV's ongoing success is a testament to Intel's long-term vision and commitment to operational excellence. By anchoring a facility of this scale and capability in Viet Nam, Intel has ensured a stable foundation for its manufacturing continuity while fostering innovation, collaboration, and economic growth in the region. As Intel continues to execute its IDM 2.0 vision, IPV stands as a symbol of investment longevity and the essential role of strategic manufacturing hubs in sustaining global operations.

Resilience and Adaptability

IPV's resilience and adaptability are guided by Intel's Response Continuum framework (see *Figure 3*), which offers a structured approach to crisis management through the stages of preparation, response, recovery, and post-event evaluation. This overarching framework allows IPV to navigate seamlessly between phases, ensuring operational continuity and minimizing disruptions.

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 Teams 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 3: Response Continuum

At the core of the Response Continuum is Intel's Crisis Management (ICM) Program (see *Figure 4*), which integrates Emergency Management, Business Continuity, and Business Recovery. This program offers clear guidelines for addressing complex and evolving challenges.

INTEL CRISIS MANAGEMENT (ICM) PROGRAM **Emergency** Business **Business** Management Continuity Recovery Focuses on responding to Focuses on developing Focuses on restoring normalcy emergencies, while prioritizing and stabilizing critical business programs to prevent (in order) the protection of life, operational halts and ensure functions after a crisis, with Intel's Business Continuity environment and community, Intel's resilience in recovering and Intel assets Plans enabling their recovery from unexpected events during disruptions

Figure 4: Intel Crisis Management (ICM) Program

Source: Materials shared by Intel during the field study

During the COVID-19 pandemic, IPV exemplified the effectiveness of this approach, prioritizing employee safety, operational integrity, and supply chain continuity, despite unprecedented global disruptions. In the early stages of the pandemic, IPV swiftly implemented Emergency Management protocols to tackle immediate challenges. Measures included isolated accommodations, comprehensive vaccination campaigns, and on-site COVID-19 testing (see *Figure 5*). These efforts safeguarded employee health while mitigating the virus's spread among both remote and on-site teams. To maintain operations, IPV enforced strict health and safety regulations, limiting employee contact points and restricting travel to essential routes between accommodations and the factory.

COVID-19 CONTROL MEASURES SAFE WORKPLACE TO OPERATE 4th COVID-19 OUTBREAK HCMC ENACTED 27 Apr 2021 SOCIAL 3,800 EMPLOYEES & CWS AT HOTEL FOR-3 **MONTHS Jul** 15 Away from home/family MILITARY CONTROLS **CITY FOR 39 DAYS** WFH employees are not allowed Aug 23 to leave home except for medical Sept 25 GREAT Q3'21 CLOSURE Full factory operations Zero safety & quality incident CITY RE-OPENS & 125mn units for Q3'21 output EMPLOYEES LEAVE HOTEL **FOR HOME** 96% fully vaccinated Oct 01 100% 72K +3800 vaccinated through 12 on-site COVID-19 tests conducted employees across 22 hotels vaccination sessions on-site and via mobile means

Figure 5: COVID-19 Control Measures

Source: Materials shared by Intel during the field study

Beyond emergency responses, IPV transitioned to Business Continuity practices to adapt work processes and sustain critical operations during the crisis. As a key player in Intel's global supply chain, responsible for greater than 50% of Intel's ATM output, uninterrupted operations at IPV were vital. To ensure production stability, IPV invested USD 6.1 million to implement robust measures, such as housing employees in isolated accommodations, upholding strict pandemic prevention protocols, and maintaining high safety and quality standards. These actions underscored IPV's strategic importance in Intel's global network and its dedication to safeguarding production and workforce safety.

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During the crisis period in Q3'21, we maintained 100% operational capacity in our factories with zero downtime and zero fatalities among our employees & suppliers.

"

 Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

As conditions began to stabilize, IPV shifted focus to Business Recovery, tackling broader challenges such as supply chain disruptions. Leveraging Intel's global network, IPV collaborated with Intel Malaysia to mitigate supply chain challenges by transferring assembly and testing responsibilities for a niche product to IPV's plant. This swift adaptability reinforced the resilience of Intel's Southeast Asia network, further solidifying IPV's reputation as a reliable contributor to Intel's global operations during uncertain times.

Beyond its internal operations, IPV demonstrated resilience by extending its support to the community through significant contributions during the COVID-19 pandemic. In total, IPV donated approximately VND 10 billion (~USD 430,000) worth of medical equipment to local healthcare institutions, including the Ministry of Health and key COVID-19 treatment hospitals, to bolster the economy's response to the crisis. Additionally, IPV contributed VND 1.3 billion (~USD 56,000) in cash to SHTP's COVID-19 Fund and the SHTP COVID-19 Quarantine Center. A notable example of this commitment was IPV's collaboration with the American Chamber of Commerce (AmCham), through which it donated a fully-equipped ambulance and medical equipment valued at 2.2 billion (~USD 100,000) to the 115 Emergency Center in Ho Chi Minh City (see *Figure 6*). IPV's swift implementation of proactive measures, ability to maintain operational stability, and support for the broader community exemplified its agility and determination to overcome unprecedented challenges.

Figure 6: COVID-19 Relief Aid

COVID-19 RELIEF AID



- On July 21, 2020, IPV, in collaboration with the American Chamber of Commerce (AmCham), donated medical equipment to the 115 Emergency Center in Ho Chi Minh City
- This donation included a fully-equipped ambulance, and medical supplies valued at VND 2.2 billion (~USD 100,000)
- The medical equipment comprised six ICU¹ ventilators, ten HFNC² oxygen therapy ventilators, a brand-new fully-equipped ambulance, and PPE³

Note: 1) ICU: Intensive Care Unit, 2) HFNC: High-flow Nasal Cannula, and 3) PPE: Personal Protective Equipment

Source: Materials shared by Intel during the field study

- While managing the challenges of COVID-19 within our operations, we also extended support to the local community by supplying medical equipment. During that time, obtaining ventilators was particularly difficult, making this effort even more critical.
- Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

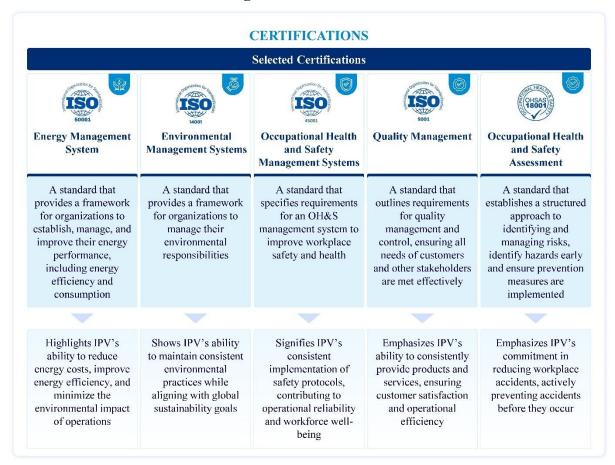
By applying the ICM framework within the Response Continuum and progressing from emergency responses to continuity and recovery, IPV showcased resilience and adaptability while navigating the COVID-19 crisis. IPV's agility and resilience in times of uncertainty helped to ensure the safety and well-being of its workforce, as well as maintain critical operations and supply chain commitments.

Operational Consistency

IPV has established itself as a model of operational consistency by adhering to globally recognized standards and certifications, showcasing its commitment to quality, sustainability, and corporate responsibility. By embedding these standards into its operations, IPV has created a robust framework that drives sustained performance and positions it as a key contributor to Viet Nam's growing semiconductor industry. This adherence underscores IPV's unwavering focus on delivering excellence across all facets of its operations.

Central to IPV's success is its commitment to international standards that encompass superior product quality, effective energy and environmental management, and comprehensive occupational health and safety practices (see *Figure 7*). These certifications serve as a testament to Intel's proactive approach to process refinement, efficiency optimization, and fostering a safe and secure workplace. By ensuring rigorous compliance, IPV consistently delivers products and services that meet and exceed customer expectations and regulatory requirements. This steadfast dedication strengthens its credibility as a trusted and innovative leader in the semiconductor industry.

Figure 7: Certifications



Source: Intel website¹

IPV's focus on operational excellence has earned it numerous accolades. The most notable achievements came in both 2016 and 2022, when IPV was awarded the Intel Quality Award (IQA) (see *Figure 8*), one of the most prestigious internal awards within the company, for Assembly and Test Manufacturing. These awards reflect IPV's ongoing dedication to upholding Intel's reputation for excellence and operational consistency.

Figure 8: Intel Quality Award (IQA)





Receiving the Intel Quality Award (IQA) in both 2016 and 2022 highlights IPV's exceptional operational excellence, commitment to producing high-quality, innovative products, and adherence to Intel's rigorous global standards.

This prestigious accolade places IPV among Intel's top-performing sites, showcasing its pivotal role in the company's global manufacturing network.

Source: Intel website²

Through the integration and upholding of global best practices, IPV has held an unwavering focus on operational consistency, enabling the company to remain resilience amidst industry challenges, ensuring its long-term sustainability and growth in the competitive landscape to maintain at the forefront of technological innovation.

Additional Investments

Since its establishment in Viet Nam, IPV has steadily grown through strategic investments and operational expansions. Each milestone reflects Intel's commitment to building a strong presence in the region, enhancing Viet Nam's technological capabilities, and integrating the economy into the global semiconductor supply chain (see *Figure 9*).

IPV INVESTMENT TIMELINE Nov 2006 Jan 2021 Jan 2006 First Second Third Investment Investment Investment Additional USD 475 million Intel announced its decision to set Increased its investment to USD up the ATM1 in HCMC with initial 1.04 billion, expanding the planned investment to improve technologies investment of USD 605 million facility size to three times its initial and boost production of its 5G land area products and core processors Note: 1) ATM: Assembly, Test, and Manufacturing plant

Figure 9: Intel's Investment in IPV

Source: Intel website³

The investment journey began in January 2006, when Intel announced its plan to establish a chip assembly and testing facility in Ho Chi Minh City with an initial investment of USD 605 million (see *Figure 10*). This facility aimed to expand Intel's global manufacturing network, addressing the growing demand for semiconductor chips. It marked Intel's first significant step into Viet Nam, laying the groundwork for a long-term collaboration with the economy.

By November 2006, just nine months after the initial announcement, Intel unveiled plans to triple the size of its facility to 46,000 square meters and increased its investment to USD 1.04 billion. This expansion was announced during a ceremony attended by then-Prime Minister Nguyen Tan Dung and Ho Chi Minh City leadership (see *Figure 10*). The event emphasized the importance of this investment for both Intel and Viet Nam, highlighting their shared goal of strengthening the local economic and technological ecosystem.

Figure 10: Opening of Ho Chi Minh City Campus



Source: Fullbright University Vietnam report⁴

In 2021, Intel announced an additional investment of USD 475 million in IPV (see *Figure 11*) This funding is part of a broader strategy to enhance manufacturing capabilities, particularly in 5G products and core processors, solidifying IPV's position as Intel's largest chip assembly and testing facility globally. With this investment, Intel's total commitment to Viet Nam reached USD 1.5 billion, demonstrating its confidence in the region's potential to support innovation and production.

Investment Details and Economic Impact

Context and Semiconductor Industry Challenges

Intel's total investment in its Viet Nam facility has reached USD 1.5 billion, reflecting a significant commitment during the challenges of the COVID-19 pandemic

This increased investment decision demonstrates Intel's confidence in the local workforce and the stable investment in Viet Nam

Figure 11: Intel's USD 475 Million Investment into IPV

Source: Intel website⁵

As IPV continues to grow, it plays a critical role in addressing global semiconductor demand while fostering local talent development. The facility not only strengthens Intel's manufacturing network but also positions Viet Nam as a significant player in the global technology landscape. These strategic investments have enabled IPV to contribute to Viet Nam's economic development while advancing the company's global objectives.

Through its sustained investments, Intel remains focused on expanding its technological capabilities and driving sustainable economic growth in Viet Nam. The success of IPV reflects the company's commitment to fostering long-term partnerships that benefit both Intel and the broader community, ensuring a future of shared progress and innovation.

Industrial Impact

IPV has been instrumental in advancing Viet Nam's position as a high-tech manufacturing hub, particularly in the semiconductor industry. Since its establishment, IPV has contributed significantly to the economy's industrial growth, with its Ho Chi Minh City campus shipping over 3.8 billion units between 2010 and 2024 (see *Figure 12*). As the first major FDI in Viet Nam's high-tech sector, IPV has played a pioneering role in attracting other high-tech investors, enhancing Viet Nam's appeal to global companies, and fostering robust supply chains and industrial ecosystems.

It's about how we make an impact on the community while growing our business. Since we began production, we have shipped more than 3.8 billion units, generating over USD 93 billion in export value from this site (IPV) from 2010 to the present.

 Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

Total accumulative units shipped

Saigon Hi-Tech Park export

Cumulative Export Figures (2010-2024)

USD >96.2Bn

Total accumulative export value

Total export value for Y2024 amounts
to USD 11.4 billion

Impact

16%

Viet Nam export of electronics, computers, and components

Figure 12: Contribution to Exports

Source: Materials shared by Intel during the field study

IPV has created a multiplier effect within the local supply chain ecosystem by engaging with over 600 local suppliers since its establishment. This engagement has enabled small and medium enterprises (SMEs) to scale up and become significant players in the industry. By collaborating with local suppliers, IPV not only enhances their operational capabilities but also fosters innovation and technology transfer, thereby strengthening the competitiveness of Viet Nam's supply chain ecosystem, particularly in the electrical and electronics (E&E) sector.

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- Much of our effort focuses on developing local suppliers, revolving around providing them with more business, strengthening the ecosystem, and nurturing local talent to enhance their capabilities for active participation.
 - Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

In addition to its economic impact and engagement with local suppliers, IPV has also laid the foundation for Viet Nam's goals. IPV's establishment and efforts support the government's ambitious 'C=SET+1' Strategy, unveiled in 2024 (see *Figure 13*). This initiative focuses on strengthening Viet Nam's role in the global semiconductor supply chain through investment in chip manufacturing, electronics development, and workforce specialization. To support this, the government has introduced tax incentives, infrastructure development in high-tech parks, and a National Steering Committee on Semiconductor Development to coordinate policy implementation and attract foreign direct investment. Central to this vision is the E&E sector, with semiconductors serving as a cornerstone for enhancing Viet Nam's global competitiveness.

OVERVIEW OF VIET NAM 'C=SET+1' Components of the 'C=SET+1' Strategy C=SET+1 Specialization Chips Electronics Talent Viet Nam Development Core technologies of Specialized chips Development of Viet Highlight Viet Internet of Things low-power IoT, high-Nam's semiconductor Position the economy Nam's emerging security industrial (IoT) and Artificial industry must be as a global talent hub status as a safe for the semiconductor Intelligence (AI) systems, closely aligned with destination within the are driven by telecommunications, the growth of its industry global semiconductor semiconductor chips healthcare, transport, electronics and digital supply chain transformation and energy industries Developing Viet Nam's semiconductor industry by 2030, with a vision to 2050 Phase 1 Phase 3 Phase 2 2030-2040 2040-2050 2024-2030 Attract selective FDI to become a Position itself as one of the leading Aim to be among the top global hub for semiconductor talent global semiconductor and electronics semiconductor nations, mastering hubs, with a balanced approach research and development and between domestic production achieving leadership in select and FDI segments of the semiconductor supply chain

Figure 13: Overview of Viet Nam 'C=SET+1'

Source: Vietnam News^{6,7}

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One notable example of IPV's contribution to advancing economic complexity is its additional investment into the IPV facility in 2021, which has further reinforced Viet Nam's positioning as an emerging semiconductor manufacturing hub in the global industry. The additional investment has allowed for an expansion in capacity of the IPV facility, allowing for the facility to feature advanced Foveros² 3D packaging technology, elevating Viet Nam's manufacturing capabilities to compete effectively in the global market. Moreover, this investment has facilitated substantial knowledge transfer in quality assurance and advanced packaging technologies to the local economy, fostering the development of specialized technical expertise crucial for sustaining Viet Nam's edge in the semiconductor value chain. Through these strategic investments, IPV has supported Viet Nam's goals and is on track to uplift the economy to achieve its future ambitions (see *Figure 14*).

VIET NAM 'C=SET+1' STRATEGY **GOALS** Phase 1 Phase 2 Phase 3 Establish itself as one of the Grow as a global semiconductor Become one of the world's global semiconductor and electronics center leaders in the semiconductor manpower centres and electronics industries Design companies 100 >200 300 Chip fabrication plant 2 3 Small-scale Packaging and 10 15 20 testing plant Projected annual >USD 25 billion >USD 50 billion >USD 100 billion industry revenue by 2030 by 2030 by 2030 **Key Areas of Focus** 靊 ******* Quantil 1 Specialized Chip **Electronics Industry** Talent and Investment **Environmental and** Development Growth Workforce Attraction International Development Collaboration Research and develop Support the Establish initiatives to Implement policies to Promote green development of nexttrain and retain a attract high-tech FDI manufacturing and cutting-edge technologies for generation electronics skilled workforce in the semiconductor safe waste disposal in specialized chips integrated with sector (i.e., tax the semiconductor industry specialized chips incentives)

Figure 14: Viet Nam 'C=SET+1' Strategy

Source: Vietnam News^{7, 8}

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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

IPV's long-term commitment has established a robust industrial ecosystem in Viet Nam, ensuring the economy's sustained development of its competitive edge in the global semiconductor industry. As global demand for semiconductors continues to rise, IPV's sustained contributions are critical to Viet Nam's journey toward becoming a leading hub for semiconductor manufacturing and innovation.

2.1.2 Relationship

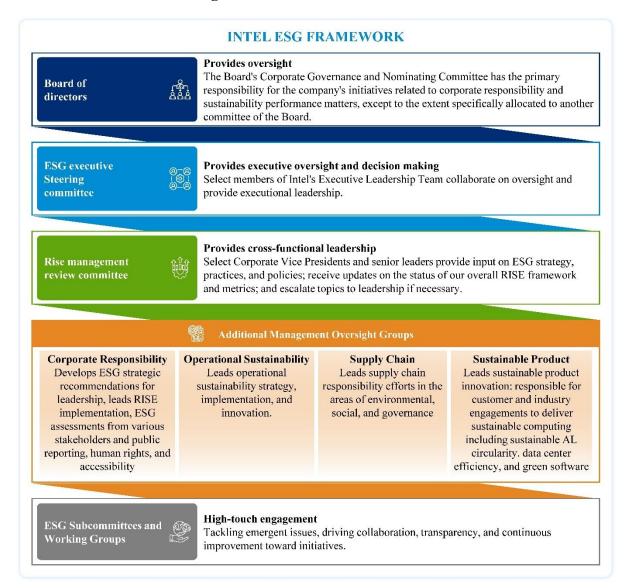
CSR Initiatives

IPV's Corporate Social Responsibility (CSR) efforts are guided by a comprehensive Environmental, Social, and Governance (ESG) framework (see *Figure 15*) that aligns closely with Intel's global standard. This structured framework is designed to provide clear governance, accountability, and cross-functional collaboration, enabling IPV 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 IPV to deliver measurable outcomes across its CSR efforts, ensuring alignment with its global ESG goals and providing a solid foundation for implementing impactful initiatives.

Figure 15: Intel's ESG Framework



Source: Intel Corporation 2023-24 corporate responsibility report⁸

Building on this foundation, the RISE 2030 strategy (see *Figure 16*) serves as the cornerstone of IPV'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 *Figure 15*) 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.

Figure 16: RISE 2030 Strategy

RISE 2030 STRATEGY & GOALS

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Goals

Responsible

Revolutionize health and safety through technology



Employee Health, Safety, and Wellness: Ensure over 90% of employees recognize Intel's strong safety culture, with 50% participating in its global wellness program

 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

Make technology fully inclusive and expand digital readiness

Workforce Inclusion

- 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



Supplier Diversity: Increase global annual spending with diverse suppliers¹ by 100% to reach USD 2 billion in annual spending by 2030

Sustainable

Advance carbon-neutral computing to address climate change

Climate & Energy

- Achieve 100% renewable electricity
- 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

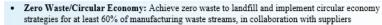
New Goals Set in 2023

- Achieve net-zero upstream Scope 3 GHG emissions by 2050



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Net Positive Water: Achieve net positive water by conserving 60 billion gallons of water and funding
external water restoration projects



Enabling

Accelerate the advancement of progress through technology, leveraging the expertise and passion of employees Community Impact: Deliver 10 million volunteer hours to improve local communities, including an
increase in skills-based volunteerism

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 report⁹

Focusing on the 'Sustainable' aspect of the RISE 2030 strategy, IPV underscores its commitment to environmental sustainability through a series of noteworthy achievements (see *Figure 17*). IPV's dedication to sustainability is evident in its progress in energy efficiency and resource conservation. For instance, the company has achieved over 50 million kWh of energy savings, significantly reducing its environmental footprint while promoting responsible energy use. Complementing this achievement, IPV has implemented initiatives that have resulted in 1.1 million cubic meters of water savings and recycling, further emphasizing its focus on preserving vital natural resources and supporting long-term sustainability.

- Our team is dedicated to making everything more energy-efficient and environmentally friendly... Our progress, reflected in measurable numbers, has been steadily advancing over time.
 - Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

ENVIRONMENTAL SUSTAINABILITY ACHIEVEMENTS ENERGY WATER WASTE AIR >13,700 MTCO2e >50M kWh 1.1M m³ 100% **Emissions Reduced Energy Saved** Water Saved & Hazardous Wastes Recycled Treated & Recycled >3M kWh 97% Non-hazardous Wastes Green Energy Utilized Treated & Recycled

Figure 17: Environmental Sustainability Achievements

Source: Source: Materials shared by Intel during the field study

These achievements are the result of IPV's robust and well-structured efforts in sustainability. One of the key factors contributing to these outcomes is IPV's adherence to stringent facility standards. All its facilities, encompassing 46,000 square meters of LEED-certified (Leadership in Energy and Environmental Design) building space, have received LEED Gold certification from the U.S. Green Building Council (see *Figure 18*). This recognition highlights IPV's successful integration of energy efficiency, water conservation, and greenhouse gas reduction into its operations. This commitment to maintaining high standards reflects IPV's proactive approach to fostering sustainable practices.

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We consistently strive to achieve the highest standards in line with our RISE 2030 goals, aiming to stay ahead of local government requirements... For example, our buildings are LEED-certified, even when it is not mandated by the government.

– Mr. Tan Lin Sheng (Strategy and Operations Director at IPV)

Figure 18: LEED Certification



On December 12, 2012, the SS3 GPB office building at Intel Viet Nam achieved LEED Gold certification, making it among the early adopters of this recognition in Ho Chi Minh City by the U.S. Green Building Council.

This achievement initiated a comprehensive sustainability program across the campus. Subsequently, all campus buildings have attained LEED certification, reflecting a consistent focus on reducing operational costs, enhancing asset value, minimizing landfill waste, improving energy and water efficiency, fostering healthier work environments, and reducing greenhouse gas emissions.

Source: Intel publication⁹

Furthermore, IPV has made significant advancements in renewable energy. In 2012, the company inaugurated the largest solar power station in Viet Nam at the SHTP (see *Figure 19*). This USD 1.1 million facility generates approximately 321,000 kWh of electricity annually, supplying 30% of IPV's electricity needs and reducing carbon dioxide emissions by 221,300 kilograms each year. This initiative not only demonstrates IPV's leadership in renewable energy adoption but also serves as a model for green energy solutions in the region.

Figure 19: Solar Power Plant

SOLAR POWER PLANT



IPV plays a key role in advancing Intel's global green energy strategy to combat climate change. At the time, the solar power system at the site was the largest in both Ho Chi Minh City and Viet Nam, as well as the first and largest within Intel's Assembly-Test Manufacturing network. Spanning 3,920 m², the system includes 1,092 high-efficiency photovoltaic panels, 21 inverters, and extensive cabling, completed with nearly 5,000 man-hours of work by 30 engineers. It generates 321,000 kWh annually, offsetting 221,300 kg of CO2 emissions, equivalent to the emissions from 610 vehicles per year. This project underscores IPV's commitment to minimizing environmental impact and serves as a model for renewable energy initiatives, aiming to inspire further investment in green energy across the economy.

Source: Intel publication⁹

Looking ahead, IPV plans to advance its sustainability commitment by participating in the carbon market, anticipated to launch in 2028. This move aligns with Intel's global sustainability objectives and positions IPV as a forward-thinking leader in carbon reduction strategies. By engaging in the carbon market, IPV aims to further reduce its carbon footprint while contributing to the development of a robust carbon trading ecosystem in Viet Nam. In parallel, IPV is actively exploring green energy purchases from local companies, showcasing its commitment to fostering partnerships within the domestic energy sector. By procuring renewable energy directly from local providers, IPV not only supports Viet Nam's transition to a cleaner energy future but also reinforces its role in promoting local economic development. These initiatives reflect IPV's proactive and multifaceted approach to achieving long-term sustainability goals.

Approximately 90% of our greenhouse gas emissions come from energy use, so we are focused on reducing this through better management of our internal systems and the production of green energy... We are exploring various approaches, including participating in Viet Nam's anticipated carbon market, which is expected to launch around 2028... Additionally, we are pursuing energy purchase agreements with local companies to procure green energy, further supporting our sustainability goals.

– Mr. Nguyen Quang Thao (Environmental, Health, and Safety (EHS) Manager at IPV)

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Through these integrated efforts, IPV seamlessly aligns its robust ESG framework with the RISE 2030 strategy to drive meaningful progress in sustainability. By adhering to global standards and advancing initiatives like LEED certification, renewable energy adoption, and participation in emerging carbon markets, IPV reinforces its commitment to environmental stewardship and sustainable development.

Community and Stakeholder Engagement

The 'Enabling' aspect of the RISE 2030 strategy highlights IPV's commitment to fostering meaningful engagement with communities and stakeholders. This approach emphasizes creating sustainable value by addressing local challenges and aligning initiatives with broader economy-wide priorities. By integrating volunteer-driven efforts and strategic partnerships, IPV has built a framework for impactful engagement that resonates beyond its operations, contributing to the long-term development of Viet Nam.

A key pillar of IPV's community engagement is its focus on volunteerism, which has been a cornerstone of its efforts since 2008. Over the years, IPV employees have collectively contributed more than 240,000 hours to various community initiatives, with participation from 60% of the workforce (see *Figure 20*). These efforts notably began even before IPV officially commenced operations, underscoring a proactive approach to addressing community needs. Programs like the Intel Involved Matching Grant Program (IIMGP) have further incentivized employee participation by matching each hour of service with a financial contribution, enhancing both the scale and impact of these volunteer activities.

Through these activities, we are able to make a meaningful difference in the lives of those in need. Whether it's spending time cooking, helping to clean houses, or engaging with the elderly, these efforts create a real impact on the community. I feel deeply touched to contribute to their needs and be part of something so fulfilling.

– Mr. Tan Lin Sheng (Strategy and Operations Director at IPV)

Figure 20: Volunteer Activities



Source: Intel website¹⁰

IPV has made significant financial investments, dedicating USD 22 million to community projects centered on education, environmental sustainability, and health and safety. A notable example of this commitment is the support extended during the COVID-19 pandemic, with IPV contributing a total of VND 11.3 billion (~USD 478,000), as detailed in *Figure 6*. These contributions provided essential resources during a critical time, demonstrating IPV's ability to respond effectively to pressing challenges and support local healthcare systems and communities.

In addition to direct contributions, IPV has established strategic partnerships to further its impact. Collaborations with universities and educational institutions are central to this effort, allowing IPV to address systemic challenges in education and workforce development. Initiatives such as the IPV Scholars program and partnerships under the AI for Future Workforce framework are designed to build a pipeline of skilled professionals, contributing to the development of Viet Nam's talent ecosystem (further details on IPV's partnerships with educational institutions are discussed under the "Local Workforce & Skills Development" indicator). These efforts align with economy-wide objectives while ensuring the company's initiatives support broader societal needs.

IPV's community engagement is also evident in its efforts to address diverse community needs. Beyond education and healthcare, the company has supported initiatives aimed at assisting disadvantaged children and youth through partnerships with organizations such as the Pacific Links Foundation, Saigon Children Charity, and SOS Children Villages Viet Nam (see *Figure 21*). These collaborations enhance the reach of IPV's initiatives, addressing social challenges while strengthening ties with the communities it serves.

COLLABORATION IN SUPPORTING CHILDREN AND YOUTH DEVELOPMENT D **Examples of Partners** Organization & Description A US-based NGO that empowers women and youth in Viet Nam by enhancing life skills, raising self-awareness, and providing educational opportunities, with a strong focus on combating human trafficking A non-profit organization providing direct support to disadvantaged children in Viet Nam, saigonchildren focusing on improving access to education through school building, scholarships, vocational training, and special needs education An organization that provides loving homes, education, and healthcare to children who have lost parental care, helping them become selfreliant and contributing members of society A non-profit focused on equipping underserved children in Viet Nam with access to high-quality KIDSP* RE STEAM1 education, fostering digital literacy, self-confidence, and preparation for future careers Notes: 1) STEAM: Science, Technology, Engineering, Arts, and Mathematics

Figure 21: Collaboration in Supporting Children and Youth Development

Source: Materials shared by Intel during the field study

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Through its comprehensive approach to community and stakeholder engagement, IPV demonstrates a sustained commitment to fostering long-term development. By combining the strengths of volunteerism, financial contributions, and strategic partnerships, the company ensures its initiatives are both impactful and aligned with its broader sustainability goals. This integrated approach reinforces IPV's role as a responsible corporate citizen, contributing meaningfully to Viet Nam's development.

Company Reputation / Stakeholder Satisfaction

Building on IPV's extensive efforts in CSR and stakeholder engagement, the company has continuously demonstrated a robust commitment to fostering impactful relationships with its community and stakeholders. Through its well-structured ESG framework, IPV has driven progress in sustainability, inclusivity, and community development, further enhancing its reputation as a socially responsible corporate entity. These efforts align with Intel's global vision, adapting it to the local context in Viet Nam to create long-lasting benefits for both the community and the economy. This dedication is reflected in IPV's numerous accolades and recognitions from prestigious organizations, cementing its role as a leader in corporate responsibility.

For us Intel, we never do what we do for the awards, it is embedded in our culture and principles. We strive to do good and uphold what is right, and along the way, we have been recognized, something we truly appreciate.

- Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

One key recognition highlighting IPV's commitment to community engagement and ESG principles is its three-time Golden Dragon Award win (see *Figure 22*). This award is highly prestigious in Viet Nam, as it recognizes foreign-invested enterprises that excel in business performance, innovation, and corporate responsibility. IPV's consistent success in this category underscores its significant contributions across multiple dimensions, including economic growth, workforce development, and environmental stewardship.

OVERALL EXCELLENCE AWARD AND RECOGNITION "Golden Dragon" "AmCham Viet Nam **HCMC Certificate** ESG Impact" Award Award of Merit Awarded in 2022, 2023 & 2024 Awarded in 2022 & 2024 Awarded in 2022 Vietnam Economic Ministry of AmCham Viet Nam HCMC People's Committee Foreign Affairs Times Recognizes FDIs in Viet Nam for Acknowledges companies that excel Acknowledges organizations that outstanding achievements in in implementing ESG practices, have made exceptional contributions business performance, innovation, particularly those that prioritize to the city's socio-economic and corporate responsibility; One community engagement, development, enhancing the quality of of the most prestigious awards for sustainability, and responsible life for its residents FDIs operating in Viet Nam corporate behavior Highlights IPV's leadership in Affirms IPV's role in driving Significance Recognizes IPV's partnership with the balancing business success with sustainability and social city in fostering economic and social meaningful community responsibility, showcasing its progress, strengthening its contributions, cementing its status commitment to Viet Nam's community impact as a top FDI development

Figure 22: Overall Excellence Award and Recognition

In addition to the Golden Dragon Awards, IPV has also received the American Chamber of Commerce (AmCham) Viet Nam ESG Impact Award, recognizing its excellence in CSR and ESG integration (see *Figure 22*). Another notable accolade is the HCMC Certificate of Merit, awarded by Ho Chi Minh City authorities for IPV's outstanding contributions to the city's socio-economic development (see *Figure 22*). Together, these recognitions reflect IPV's holistic approach to addressing environmental, social, and governance challenges, showcasing its positive impact from all angles.

Beyond these overarching achievements, IPV has also been acknowledged for its operational excellence and contributions to workforce development (see *Figure 23*). The company's inclusion in the Top 20 Trade and Customs Excellence Award highlights its leadership in trade facilitation and efficient operational practices, which contribute to Viet Nam's economic progress. Meanwhile, the HCMC Trade Union Recognition demonstrates IPV's strong relationship with its workforce, emphasizing its efforts to promote a supportive and inclusive working environment that benefits employees and enhances productivity.

OPERATIONAL AWARD AND RECOGNITION **HCMC** Trade Union "Top 20 Trade and Customs Excellence" Award Recognition Awarded in 2023 Awarded in 2023 Ho Chi Minh City Customs Department Ho Chi Minh City Trade Union Description Acknowledges organizations for outstanding collaboration Recognizes companies for their exemplary trade and with labor unions and commitment to ensuring employee customs compliance, operational efficiency, and well-being through fair policies, benefits, and contributions to facilitating international trade collective agreements IPV's recognition aligns with APEC's Trade Facilitation Action Plan, which promotes initiatives like Single Window systems and the Authorized Economic Demonstrates IPV's dedication to fostering a positive work Operator (AEO) program to simplify cross-border trade environment and its proactive approach to employee and reduce costs. This highlights IPV's leadership in engagement and labor law compliance in Ho Chi Minh efficient supply chain management and trade City facilitation, reinforcing its role in supporting Ho Chi Minh City's and Viet Nam's deeper integration into the global economy

Figure 23: Operational Award and Recognition

IPV's contributions extend further into the realms of social impact and sustainability (see *Figure 24*). The company's recognition by the Thu Duc City Red Cross reflects its dedication to humanitarian efforts and local community support, particularly through impactful initiatives aimed at improving lives. Additionally, IPV has been honored with Top 50 Corporate Sustainability Awards, underscoring its leadership in implementing sustainable practices across its operations. The UN Women's Empowerment Principles Award, another significant achievement, highlights IPV's role in advancing gender equality and promoting diversity, equity, and inclusion within its organization and the broader community.

SOCIAL AND SUSTAINABILITY AWARD AND RECOGNITION Thu Duc City Red Cross "Top 50 Corporate "UN Women's Empowerment Principles" Award Recognition Sustainability"Award Awarded in 2022, 2023 & 2024 Awarded in 2022 & 2024 Awarded in 2021, 2022 & 2024 Nhịp Cầu Đầu Tư Magazine Thu Duc City Red Cross United Nations Acknowledges organizations for Honors companies in Vict Nam that Celebrates organizations that their contributions to local demonstrate leadership in sustainable champion gender equality and humanitarian efforts, including development, focusing on empowerment, promoting diversity, support for vulnerable groups, environmental protection, social equity, and inclusion within their underprivileged individuals, and responsibility, and effective corporate operations and communities disaster relief in Thu Duc City governance Highlights IPV's exemplary efforts in Recognizes IPV's commitment to Affirms IPV's leadership in advancing harmonizing economic growth with community welfare and its women's empowerment and fostering sustainability, affirming its position as impactful role in addressing social inclusive workplaces, showcasing its a role model for corporate challenges, reinforcing its commitment to creating equal responsibility and environmental dedication to humanitarian causes opportunities for all stewardship

Figure 24: Social and Sustainability Award and Recognition

These achievements collectively illustrate IPV's unwavering commitment to community and stakeholder engagement. Through its ESG-driven initiatives, operational excellence, and targeted social impact programs, IPV has established itself as a model for responsible corporate behavior in Viet Nam. As it continues to champion sustainability, inclusivity, and innovation, IPV reaffirms its dedication to creating lasting value for its stakeholders and contributing positively to Viet Nam's socio-economic development.

Conflict Resolution Mechanisms

At the core of IPV's success is its proactive approach to conflict management. IPV focuses not only on addressing potential issues at an early stage but also on preventing conflicts through proactive engagement and collaboration. This approach is supported by strong communication channels and well-established relationships with stakeholders, enabling IPV to anticipate and mitigate challenges before they arise. This commitment to prevention, early engagement, and resolution is a fundamental aspect of IPV's operational strategy, contributing to its sustained success.

IPV's efforts in community engagement have fostered a strong foundation of trust and collaboration, significantly reducing the occurrence of conflicts. With its comprehensive CSR initiatives and ESG framework, IPV consistently aligns its objectives with the needs of the local community. These proactive efforts have created a positive feedback loop, where mutual understanding and shared goals help minimize the potential for disputes. For example, IPV's volunteer-driven programs, partnerships with local organizations, and significant financial contributions have strengthened its relationships, reinforcing its position as a reliable community partner.

A key area where IPV demonstrates effective conflict management is its relationship with the government. IPV maintains strong communication and engagement with government bodies, ensuring open dialogue on critical matters. This collaboration extends across various domains, including talent development, renewable energy, and policy advocacy (see *Figure 25* and *Figure 26*). IPV actively participates in discussions, offers feedback, and creates a two-way communication process with government officials. This approach fosters alignment and shared objectives, which are vital for navigating complex regulatory landscapes and ensuring mutual satisfaction.

Figure 25: Government Engagement – Workforce Development



GOVERNMENT ENGAGEMENT – OTHERS Policy and Industry Discussion and Advocacy Policy & Supply Chain Institute Launching Government F2F Meeting with Deputy Chair of Kick-Off Semiconductor Workforce Project NA's Budget and Finance Committee The US Government, International Partner Technology and Supply Chain Institute National Assembly's Budget and Viet Nam Government Finance Committee (ITSI), Arizona State University, and National Innovation Center (NIC) Launched to strengthen Viet Nam's role in Supports workforce readiness and skills Engaged in discussions on enhancing the global semiconductor supply chain by development for Viet Nam's growing policy frameworks and financial strategies addressing policy challenges and fostering semiconductor sector. The project to attract foreign investment. This meeting collaboration. The program highlights the reflects Intel's active role in shaping underscores the government's importance of innovation and supply commitment to advancing high-tech policies that support economic and chain resilience in high-tech industries. capabilities through industry partnerships. industrial growth in Viet Nam. Sustainability and Renewable Energy **Industry Promotion** F2F Meeting on Renewable Energy Collaboration at SEMIExpo 2024 Description Partner Ministry of Industry and Trade (MOIT) Ministry of Planning and Investment (MPI) Highlighted joint efforts to position Viet Nam as a global Focused on advancing renewable energy adoption and sustainable energy initiatives. The dialogue emphasized semiconductor hub. The event showcased Viet Nam's potential collaboration to achieve Viet Nam's green energy goals and in the semiconductor industry and emphasized the need for reduce environmental impact. innovation and investment.

Figure 26: Government Engagement – Others

- We strive to continue doing our part in partnering with the government. This includes providing feedback, such as engaging with the National Assembly and contributing to policy adjustments and improvements aimed at attracting FDIs. These are just a few examples of how we work collaboratively to create a better future for both our company and the economy, particularly in the context of high-tech and semiconductors.
 - Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

IPV also collaborates with the government on various matters, including policy discussions and advocacy

IPV's strong government relations stem from its proactive approach in fostering trust, transparency, and alignment with economic priorities. For example, its involvement in initiatives such as the "AI for Future Workforce" program and signing ceremonies with the Ministry of Education and Training (MoET) highlights this alignment. Additionally, IPV's frequent face-to-face meetings with key government stakeholders, such as the Ministry of Industry and Trade (MOIT) and the National Assembly's Budget and Finance Committee, demonstrate its commitment to understanding and addressing policy concerns. This collaborative approach enables IPV to build strong, cooperative relationships with the government.

In addition to collaborating with the government, IPV actively engages with organizations such as AmCham Viet Nam and the U.S.-ASEAN Business Council (USABC) to further strengthen communication and partnerships with governmental bodies. These organizations provide a platform for IPV to contribute to policy discussions, share feedback on regulatory developments, and align its objectives with broader economic and industrial priorities. By working through these channels, IPV enhances its ability to influence and adapt to policy changes while fostering deeper connections with both local and international stakeholders.

In addition to partnerships with the government, we also engage with organizations such as AmCham and USABC, utilizing multiple channels to strengthen collaborations and foster effective communication.

– Ms. Theu Nguyen (Government Affairs Manager at IPV)

Looking ahead, IPV's conflict resolution mechanisms will continue to evolve as the company expands its efforts in sustainability and community development. By maintaining its proactive communication strategies and leveraging its established ESG framework, IPV ensures its ability to address emerging challenges effectively. Through its integrated approach to stakeholder engagement and collaboration with both governmental and non-governmental organizations, IPV highlights how prevention, early conflict management, and strong relationships can drive sustainable growth and mutual success in Viet Nam.

2.1.3 Human Resource Development

Local Job Creation

IPV has played a pivotal role in Viet Nam's industrial and economic development since its establishment in 2010. As a pioneer in the high-tech and semiconductor sector in Viet Nam, IPV laid the groundwork for developing a highly skilled local workforce. The commitment to local talent is evident in IPV's growth; today, the company has created over 6,500 jobs, with approximately 2,400 direct employees working in semiconductor assembly, testing, engineering, and manufacturing operations. An additional 4,100 jobs have been generated indirectly through IPV's extensive supply chain, local partnerships, and service providers supporting semiconductor manufacturing. These roles span across technical maintenance, logistics, packaging, and supporting industries that ensure the smooth functioning of IPV's operations. (see *Figure 27*).

Figure 27: IPV Employment Impact



Source: Materials shared by Intel during the field study

- Initially, we relied on experts from our global branches, but we always had a clear plan to nurture local talent. Today, I am proud to say we have successfully developed strong local leadership.
 - Ms. Pham Thi Hong Yen (Employment & Labor Legal and Strategic Employee Relation at IPV)

Notably, 95% of IPV's workforce are local employees, encompassing roles from production specialists to department managers and members of the factory's board of directors. This commitment underscores Intel's dedication to local job creation while providing quality jobs that prioritize employee health, safety, and wellness. Aligned with the 'Responsible' pillar of Intel's RISE 2030 strategy, IPV cultivates a supportive work environment through comprehensive benefits and well-being initiatives.

A testament to this commitment is the recent opening of an Employee Wellness & Recreation Center in May 2024 (see *Figure 28*). The center provides various well-being and entertainment activities aimed at enhancing employee health and productivity, demonstrating IPV's dedication to employee well-being. The center's opening was marked by the "Inlympic" sports event, held during Vietnamese Workers' Month. This initiative emphasized the importance of physical activity and teamwork, reinforcing IPV's focus on creating a supportive and inclusive workplace culture.

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EMPLOYEE WELLNESS & RECREATION CENTER Standing at 1,920m², Intel built the center to the center features a improve employee health and productivity gym, a sports room, a creativity and through a innovation room, a comprehensive range of yoga studio, and a healthcare and multifunctional music entertainment activities room The Employee Wellness & Recreation Center offers comprehensive facilities including a fully equipped gym, a multi-purpose sports hall with basketball, volleyball, and badminton courts, spaces for yoga, meditation, dance, and music rooms. To celebrate its opening and Vietnamese Workers' Month, IPV hosted "Inlympic", a sports event designed to promote mental and physical wellness while fostering employee camaraderie.

Figure 28: IPV Employee Wellness & Recreation Center

Source: Intel website³

In addition to the Wellness & Recreation Center, IPV actively promotes employee engagement through its Active Social Clubs Initiative (see *Figure 29*). The program includes a diverse range of clubs such as yoga, music, dance, badminton, photography, e-sports, and running, offering opportunities for employees to connect and engage outside their daily roles. These clubs cater to varied interests and encourage a sense of community while promoting mental and physical well-being.

ACTIVE SOCIAL CLUBS INITIATIVE – THE SOCIAL CLUBS

Soccer Badminton Dance Table Tennis Volleyball Running Basketball

E-game Photo Music Parenting English Yoga

Figure 29: Active Social Clubs Initiative

Source: Materials shared by Intel during the field study

IPV's commitment to job creation not only strengthens its workforce but also plays a crucial role in shaping Viet Nam's future as a key player in the global semiconductor industry. By driving localization, supporting supply chain development, and creating stable employment opportunities, IPV has significantly enhanced the local job economy in Viet Nam.

Local Workforce Training & Skills Development

IPV's approach to workforce training and skills development is deeply aligned with the company's global Employee Value Proposition (EVP). The EVP (see *Figure 30*) serves as a commitment to both current and prospective employees, highlighting opportunities for growth, innovation, and meaningful work. Among the five EVP pillars, the 'Opportunity' pillar is particularly focused on workforce development, reflecting Intel's dedication to empowering employees through personal and professional growth, lifelong learning, and career mobility. By aligning closely with Intel's global EVP, IPV ensures that its employees receive the support and resources needed to succeed, thrive, and remain competitive in a rapidly changing global environment.

EMPLOYEE VALUE PROPOSITION (EVP) **Intel EVP** Intel empowers its employees with the flexibility and support they need to solve challenging problems and contribute to the development of world-changing technology දිරිපි The Company The Opportunity The Work The People The Rewards Intel's legacy unites Employees have Intel's work has the Intel's shared Employee overall employees in opportunities to power to change values bring out well-being is grow and unlock supported both at pushing the lives and better individual voices boundaries of their abilities to the world, enabling and diverse work and at home, technology, and shine through employees to take through health and perspectives, and provides stability, personal and on exciting create belonging, wellness programs, industry leadership, professional challenges, drive recognition, a flexible work life, global work teams, development innovation, and visionary leaders, compensation and a high-performance opportunities, impact humanity and supportive benefits, and opportunities to culture, and awards lifelong learning, managers career mobility, and and give acknowledgments networking with back to colleagues communities

Figure 30: Employee Value Proposition (EVP)

Source: Intel Corporation 2023-24 corporate responsibility report⁹

Our strength lies in our people... They are innovative, hardworking, and eager to learn. Quoting Intel's former chairman Andy Bryant: "The ingredient we start with is sand. Everything else is value added by people."

 Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

Attracting, developing, and retaining top talent are key principles that IPV closely follows by implementing Learning & Development (L&D) initiatives that are heavily based on both hard and soft skills development (see *Figure 31*). This dual focus on technical and soft skills development underscores IPV's dedication to nurturing a holistic workforce capable of driving innovation and sustaining the company's leadership in the industry.

Figure 31: People Learning & Development Initiatives



Source: Materials shared by Intel during the field study

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IPV ensures that current and new employees stay technically proficient in industry practices through structured training programs, enabling mastery of critical skills essential for semiconductor manufacturing excellence while also focusing on leadership development by allowing employees to build key leadership competencies through mentoring, cohort-based training, and coaching sessions, which prepares them for strategic roles as they advance in their careers.

Beyond internal training, IPV actively contributes to workforce development in the growth and support of the next generation. IPV's partnerships with universities take three primary forms: extending internship opportunities, collaborating in curriculum development, and providing scholarships through partners to enhance the skills and capabilities of the next-generation workforce.

A key focus of IPV is early career development, exemplified by its extensive internship programs. The programs range from six months to a year, giving students practical, hands-on experience that bridges academic learning with real-world applications. These internships hence nurture a future-ready talent pipeline equipped to meet the evolving demands of a globalized industry.

We actively provide internship opportunities for students from various universities, ranging from six months to a year. The universities have been highly collaborative and open to partnerships, working with us to create joint programs that connect students to meaningful internship opportunities in companies like Intel

- Ms. Pham Thi Hong Yen (HR Director at IPV)

In addition to internships, IPV collaborates with local institutions on curriculum planning, demonstrating its commitment to developing the next generation of professionals. One notable initiative is the Higher Engineering Education Alliance Program (HEEAP), launched in 2010 as a public-private partnership involving Intel, the United States Agency for International Development (USAID), Arizona State University (ASU), and the Viet Nam Ministry of Education and Training (MOET). HEEAP aims to transform high-tech education in Viet Nam by modernizing engineering curricula and promoting advanced teaching methods that emphasize hands-on, industry-relevant training (see *Figure 32*).

Figure 32: Higher Engineering Education Alliance Program (HEEAP)





Transforming Engineering and Vocational Studies in Viet Nam

Initiated and funded by IPV, the Higher Engineering Education Alliance Program (HEEAP) is a public-private partnership aimed at modernizing high-tech education in Viet Nam. Collaborating with five universities and three vocational colleges, HEEAP focuses on curriculum updates, laboratory modernization, and leadership development.

Through partnerships with Arizona State University and the Vietnamese government, HEEAP enhances engineering education, supports faculty development, and promotes gender diversity in technical fields.



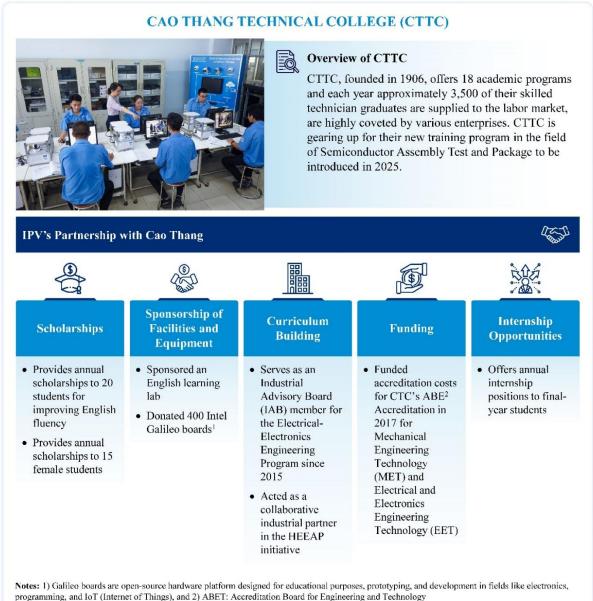
Notes: 1) ABET: Accreditation Board for Engineering and Technology

Source: Materials shared by Intel during the field study

- Between 2010 and 2018, we established HEEAP in collaboration with the Viet Nam Government, Arizona State University, prestigious local institutions, and leading enterprises. The program has successfully trained 9,000 faculty members and achieved regional accreditation.
 - Mr. Kenneth Tse (Vice President of Foundry Manufacturing and Supply Chain (FMSC) & General Manager at IPV)

A prime example of HEEAP's success is at Cao Thang Technical College (CTTC), one of the partnering institutions. Leveraging HEEAP's resources, CTTC has significantly enhanced its educational offerings by modernizing its curriculum to align with industry demands (see *Figure 33*). Notably, it has introduced a new training program in Semiconductor Assembly Test and Packaging (ATP) to address the growing needs of Viet Nam's high-tech sector. Through such partnerships and educational reforms, IPV plays a crucial role in developing a skilled workforce essential for Viet Nam's expanding high-tech manufacturing industry.

Figure 33: Cao Thang Technical College (CTTC)



Source: Materials shared by Cao Thang Technical College during the field study

Intel's support for our lecturers has significantly helped boost our curriculum to follow international standards. Our college has a team of 300 lecturers, 78 of whom participated in training in the US under the HEEAP program. Additionally, two Intel technicians on our advisory board have provided valuable guidance in developing and " refining our curriculum

> - Ms. Nguyen Hoang Ngoc Anh (Expert of Science and Technology & International Cooperation Department at Cao Thang Technical College)

Lastly, IPV collaborates with higher education institutions, industry associations, and government bodies in the provision of scholarships to expand educational opportunities (see Figure 33) and create a sustainable talent pipeline in Viet Nam. These partnerships focus on enhancing STEM education and aligning academic training with industry needs. As part of this effort, IPV supports the AI for Future Workforce initiative, a global Intel-led program designed to equip students with AI skills such as programming, data science, and machine learning to enhance employability. In collaboration with the Ministry of Education and Training (MoET), IPV has helped introduce AI-focused curricula in universities, including a 225-hour AI training program launched in July 2024 for lecturers from leading science and technology institutions. Additionally, IPV has engaged with Viet Nam National University, Ho Chi Minh City (VNUHCM), to explore the establishment of AI training centers dedicated to semiconductor microelectronics and AI applications, further strengthening Viet Nam's talent pipeline in high-tech industries.

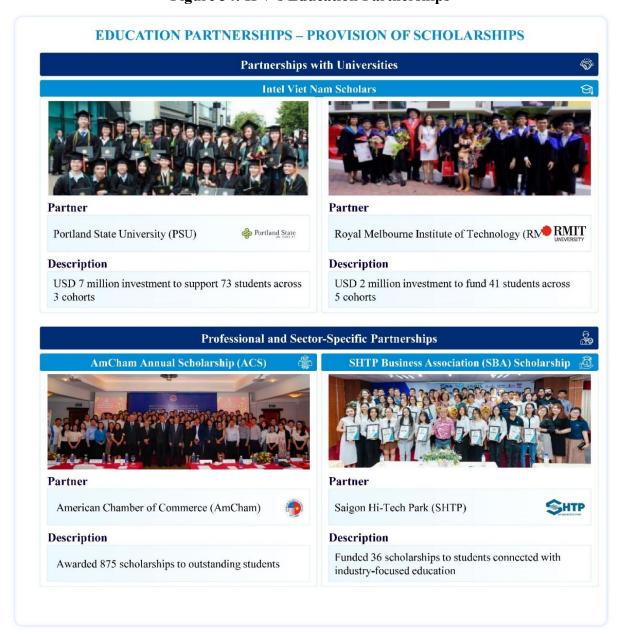


Figure 34: IPV's Education Partnerships

Source: Materials shared by Intel during the field study

IPV'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 Viet Nam's talent pipeline but also contribute to economic and industrial

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progress. Through strategic collaborations and outreach initiatives, IPV reinforces its role as a key player in driving technological advancement and supporting sustainable development.

Career Progression

IPV has implemented a structured career development framework that emphasizes clear growth opportunities, skill development, and defined pathways for advancement. This framework is designed to support employees in navigating their career journeys while providing the necessary tools and resources to succeed. By aligning individual development with organizational objectives, IPV creates an environment that encourages professional growth and contributions to the company's goals.

Central to IPV's framework is a structured career-level system, which spans from entry-level roles to senior leadership positions. Each level outlines specific roles, responsibilities, and competencies, offering employees a clear understanding of expectations and progression opportunities. This system enables employees to develop their skills and knowledge to meet the requirements of their roles while contributing to IPV's broader strategic goals.

To support career progression, IPV has implemented a structured feedback process centered on regular discussions between employees and managers. This process includes at least two dedicated career-focused conversations each year, during which employees and managers collaborate to explore potential career paths, set specific objectives, and develop actionable plans to achieve these goals. These sessions offer a platform for employees to voice aspirations, receive guidance, and align their development strategies with organizational priorities. At the end of the year, a comprehensive review session is conducted to evaluate progress, refine goals, and finalize individual development plans for the coming year. This structured and ongoing dialogue fosters a clear understanding of career pathways, ensures alignment with organizational objectives, and empowers employees to take ownership of their professional growth.

Each year, employees and managers engage in at least two discussions focused on career paths, allowing them to explore goals and development strategies. At the end of the year, a final session is held to review progress and finalize the employee's development plan.

- Ms. Pham Thi Hong Yen (HR Director at IPV)

The career framework is supported by IPV's internal training programs, which focus on enhancing both technical and leadership skills. These training initiatives help employees strengthen their competencies and prepare for roles with greater responsibilities. By linking career progression with targeted skill development, IPV equips employees to address the demands of an evolving industry and take on leadership opportunities.

While IPV offers structured support for career growth, the framework emphasizes the importance of individual initiative. Employees are encouraged to actively engage in their development by utilizing available resources, participating in training programs, and applying feedback from discussions. This approach allows individuals to take charge of their careers while contributing effectively to IPV's success.

We emphasize the importance of employees taking ownership of their own careers, as this is essential for meaningful progress... While we provide extensive training opportunities, it is ultimately up to individuals to leverage these resources... We ensure that those who are motivated to advance their careers have the tools and support needed to achieve their goals.

- Ms. Pham Thi Hong Yen (HR Director at IPV)

According to Arthur D. Little, developing an advanced engineering talent pool helps economies to foster a conducive environment for semiconductor innovation and production. ¹¹ IPV's career development framework combines a structured career-level system, regular feedback sessions, and targeted training programs to support employees in achieving their career goals. By providing a clear and supportive structure, IPV fosters professional growth while addressing the needs of the organization and the high-tech industry in Viet Nam.

Workforce Diversity and Inclusion

IPV is committed to fostering an inclusive and equitable workplace that reflects the core values of Intel's global RISE 2030 'Inclusive' pillar which emphasizes creating opportunities for all, regardless of gender, background, or identity, to ensure every individual can thrive. IPV's Diversity, Equity & Inclusion (DE&I) efforts extend beyond the workplace, integrating inclusivity into its community engagement initiatives to develop a sustainable talent pipeline for Viet Nam's high-tech industry.

As part of this commitment, IPV has established a strong foundation of Employee Resource Groups (ERGs), which play a crucial role in driving its DE&I agenda. These ERGs include the Women@Intel Network (WIN), the Intel Pride, the NextGEN Professionals Network, and the Technical Female Community (see *Figure 35*). Each ERG serves a unique purpose in creating a supportive environment for employees while addressing specific needs within the workforce. These groups work together to align IPV's workplace culture with the principles of equity, collaboration, and respect for all.

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Figure 35: Employee Resource Groups Chapter



Source: Materials shared by Intel during the field study

- Since IPV started operating, our Employee Resource Groups have supported all employees by fostering an inclusive environment where every individual feels valued and treated equally.
 - Mr. Vo Thanh An (Diversity and Inclusion Program Manager & ATM Global Training Manager at IPV)

Additionally, IPV underscores its dedication to DE&I through a rigorous approach to measuring the impact of its initiatives. By utilizing Intel's global Employee Inclusion Survey (EIS), IPV ensures that DE&I remains a measurable and actionable priority. In 2024, IPV achieved an overall 96% of employees who feel safe and included in their workplace (see *Figure 36*), reflecting its success in meeting one of Intel's RISE 2030 goals: ensuring that over 90% of employees recognize IPV's strong safety culture as essential for creating an inclusive and equitable workplace. IPV's transparent approach to measuring and addressing DE&I challenges demonstrates that inclusion is not merely a goal but an ongoing responsibility.

- Our annual Employee Inclusion Survey provides a platform for two-way communication, ensuring that underrepresented groups among our employees have a voice. This initiative demonstrates our commitment to inclusivity and shows that we genuinely care about the diverse experiences of all our team members.
 - Mr. Vo Thanh An (Diversity and Inclusion Program Manager & ATM Global Training Manager at IPV)

INTEL GLOBAL EMPLOYEE INCLUSION SURVEY (EIS)1 of employees have a enjoyable experience based on 89% Intel's EIS survey 89% 89% Safe & Inclusive Voice is Valued Visible Open About Belong on Role Models Who I Am a Team Manager Values Fairness in Unwritten Norms & Fairness in Insights/Rewards Development DEL Hiring Workplace Practices Notes: 1) 1,315 survey respondents

Figure 36: Intel Global Employee Inclusion Survey (EIS)

Source: Materials shared by Intel during the field study

IPV has made significant strides in empowering women and fostering gender diversity as part of its commitment to the 'Inclusive' pillar of its RISE 2030 strategy. With over 32% of its workforce comprising women, IPV actively encourages female participation in STEM education and careers by awarding numerous scholarships to outstanding female engineering students (see *Figure 37*). By providing these scholarships, IPV not only offers financial support but also motivates more women to pursue careers in these fields, instilling confidence and encouraging them to pursue their passions in STEM fields. These initiatives create an inclusive environment that enables women to thrive academically and professionally, while fostering inclusivity and diversity in Viet Nam's STEM ecosystem. In recognition of its efforts, IPV was honored as the first runner-up in the 2021 UN Women WEPs Awards for Community Engagement and Partnerships. This accolade reflects IPV's unwavering commitment DE&I principles and its role as a leader in promoting inclusivity in Viet Nam.

PROVISION OF SCHOLARSHIPS FOR FEMALE STUDENTS 匌 Scholarships to Encourage Females in STEM AmCham Women in Engineering **IPV Vocational Female Student Dariu Future Female Engineers** Scholarship Scholarship (ACWES) Scholarship Higher Engineering American Chamber of Education Alliance Dariu Foundation Commerce (AmCham) (HEEAP) Description Description Description IPV has been a key sponsor of IPV partners with Dariu As part of the HEEAP initiative, the Scholarship since its Foundation to provide 30 IPV awards approximately 100 inception in 2011, and has since scholarships to aspiring female female students annually sponsored 370 scholarships for engineers the ACWES IPV aims to encourage and support female students pursuing studies and careers in STEM fields

Figure 37: Provision of Scholarships for Female Students

Source: Materials shared by Intel during the field study

- At IPV, the HR team, DE&I team, and management have diligently collaborated to advocate for and ensure that all individuals receive the same benefits and support, fostering an inclusive workplace culture where everyone feels valued and accepted.
 - Mr. Vo Thanh An (Diversity and Inclusion Program Manager & ATM Global Training Manager at IPV)

IPV's DE&I efforts have garnered widespread recognition, reinforcing its commitment to building an inclusive workplace. These initiatives reflect the company's sustained dedication to creating a supportive and equitable environment for all employees. By embedding inclusive practices into its internal policies and community engagements, IPV continues to set a benchmark for diversity, equity, and inclusion in Viet Nam's technology sector.

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