

3. Products and Customer Services

3.1 Green R&D and Design



Material Topic Management Approach: Innovation and R&D

Corresponding GRI Indicators: GRI 3-3

Impact Description		[Negative] If R&D innovation capabilities are insufficient or pilot production conversion efficiency is poor, it may lead to a lack of market competitiveness for the product, technological lag, or material waste and increased operating costs due to non-compliance with quality specifications. [Positive] Through active product development and technological innovation, products can achieve higher added value and quality stability, meeting customer demands for low carbon and high quality. This establishes the company's long-term competitive advantage and creates sustainable value in collaboration with customers.			
Location		For the Group:			
Policies or Commitments Established or Followed	Internal Regulations	"Intellectual Property Management Plan" and "New Product Transfer and Pilot Production Management Procedures"			V
	Government Regulations				
Responsible Units		1. R&D Department 2. Sustainable Development Committee 3. Plant Quality Control Department			
Management Actions		<ul style="list-style-type: none">Source R&D and Technological Innovation: Focus on High Added Value and Green Low-Carbon Product Development.Standardize the transfer and pilot production management: Standardize processes according to regulations to ensure technology transfer.Intellectual Property Protection: Combine the "Intellectual Property Management Plan" to protect R&D Achievements.			
Process for Monitoring the Effectiveness of Actions		<ul style="list-style-type: none">Trial production review and assessment mechanism.Rolling PDCA Improvement.			
Management Performance Indicators					
Indicators		2025 Achievement	Short-term Goal (2025)	Mid-term Goal (2022-2027)	Long-term Goal (2022-2050)
At least one new patent annually with the annual addition of invention/utility/design patents reaching 5 or more.		Achieved 100% in 2025 (18 new patents added in 2025)			100%

In the environment of rapid advancement of AI technology and the soaring global demand for computational power, the market has seen new changes and demands for the innovation and development of future products. To align with customers' planning and layout for new products, Pan-International Industrial Corp. has formulated a transformation strategy. The main goals are to enhance AI-related technology capabilities and the key components of humanoid robots, to explore new technology talents, to devote resources to developing AI servers and key components of robots, to invest in production equipment, and to optimize production line processes. By improving technology and service capabilities, the Company aims to capture new business opportunities for AI industry-related products. In response to SDG 9 Industry, Innovation and Infrastructure, it substantially aligns with the United Nations Sustainable Development Goal "SDG 9 Industry, Innovation and Infrastructure."

For the new energy vehicle market, although currently experiencing fierce competition and facing headwinds, there is still an opportunity for breakthroughs and increased demand in the future due to the global trend of climate warming and the expanding need for energy conservation and emission reduction. Therefore, the Company maintains its research and development capacity for related products, focusing on developing EV wiring harness products that optimize performance and reduce costs to enhance product competitiveness, waiting for the opportunity to emerge again. At the same time, due to the energy crowding effect generated by AI demand, the future demand for energy storage equipment is also expected to grow concurrently. Therefore, extending the technology of automotive wire harnesses, the Company actively develops wire harness products related to energy storage equipment to provide new impetus for revenue growth.

The company continues to invest NT\$400-500 million annually in R&D funding (approximately 1-2% of the annual total revenue) to support the R&D team in developing new products and technologies in industrial control, medical, communication, automotive, and consumer industries, maintaining product and technological competitiveness. In the future, in line with the transformation strategy, more resources will be invested to expand the global R&D team, acquire new technologies and patents, and build a more competitive innovation and research & development system. The company will actively develop key component products for the AI industry and robotics to ensure technological innovation and product development remain ahead of the market, playing a critical role in the overall value chain of the future AI industry.





- **Developing Green Products:**

Pan-International Group continues to expand its product offerings for electric vehicles and energy storage equipment, drawing on its R&D and manufacturing capabilities in wire harnesses and electronic components to support transportation electrification and the energy transition. Under the Group's end-use-based classification system, products used in these two application areas are classified as green products. In 2025, revenue from these products totaled approximately NTD 2.1 billion, accounting for approximately 9.75% of the Group's consolidated revenue.

In response to global demand for energy conservation, carbon reduction, and sustainable products, Pan-International Group continues to integrate environmental considerations into its product development and manufacturing processes while expanding R&D for products used in electric vehicles, energy storage equipment, and other related applications. To support the development of its sustainable product portfolio, the Company invests R&D expenditures and relevant operating expenses in initiatives such as low-environmental-impact materials, recyclable and reusable materials, halogen-free materials, and lead-free manufacturing processes.

At the same time, manufacturing sites make related capital investments in solar power generation facilities and the replacement of energy-intensive equipment. Together with process improvements and the use of renewable energy, these initiatives enhance production efficiency and reduce energy consumption and environmental impacts associated with product manufacturing.

In addition, the Group provides training on sustainable design principles for employees involved in R&D, product design, engineering, and innovation. The training helps employees incorporate environmental considerations into material selection, product design, and development decisions, thereby continuously strengthening the Group's sustainable product development capabilities.



- **Product Technology Intellectual Property:** Product Design Criteria

Pan-International Group incorporates environmental considerations into product design and development based on product characteristics and customer requirements, covering raw material and component selection, manufacturing, packaging and distribution, product use, and end-of-life management, with the aim of reducing environmental impacts across all stages of the product life cycle.

Raw Materials and Components: To meet customers' green product requirements, the Group complies with relevant requirements such as RoHS, REACH, and POPs and implements hazardous substance management. Depending on applicable product standards and customer requirements, the Group promotes the use of halogen-free materials and lead-free manufacturing processes. When selecting materials, priority is given to raw materials and components with lower environmental impacts and greater recyclability or reusability, thereby reducing resource consumption and environmental burdens. The Group also commits to avoiding minerals sourced from conflict-affected areas and to ensuring that its supply chain complies with ethical and human rights standards, thereby meeting customer expectations while responding to the global trend toward greener and more sustainable products.

Manufacturing and Operations: The Group integrates product decarbonization concepts into its manufacturing processes through process optimization, replacement of energy-intensive equipment, improvements in energy efficiency, installation of solar power generation systems, and increased use of renewable energy. These measures help reduce energy consumption and Greenhouse Gas emissions associated with product manufacturing. At the same time, the Group has begun planning its Scope 3 emissions inventory, promoting product carbon footprint accounting and verification, and developing an overall value chain decarbonization roadmap. Through these efforts, the Group works toward energy conservation, carbon reduction, and Greenhouse Gas emissions reduction, in alignment with SDG 12: Responsible Consumption and Production.

Packaging and Distribution: Based on the operational needs of each site, the Group promotes packaging reduction, recycling of packaging materials, and pallet reuse, while encouraging the use of recyclable or reusable packaging materials to reduce packaging material consumption and waste generation.

Product Use Phase: In accordance with customer requirements, energy efficiency during the product use phase is incorporated into design considerations. Through material selection and design optimization, the Group seeks to reduce energy losses during product use.

End-of-Life Management: In accordance with customer requirements, ease of disassembly and material recyclability are incorporated into product design considerations to facilitate disassembly, material sorting, and recycling at the end of a product's useful life, thereby enhancing resource reuse and recovery efficiency.

3.2 Product Quality and Safety

Material Topic Management Approach: Product Quality and Safety

Corresponding GRI Indicators: GRI 3-3, 416-2, 417-2

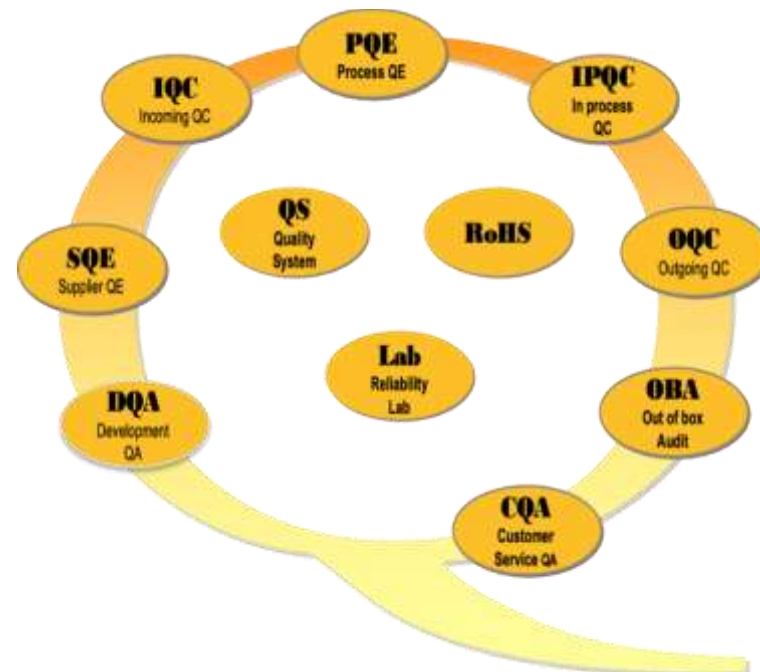
Impact Description		1. Bear product damage compensation liability. 2. Increase product repair costs. 3. Damage to reputation and corporate image. 4. Loss of orders.
Location		For the Group:
Policies or Commitments Established or Followed	Internal Regulations	V (Various Factories and Locations set up Internal Regulations according to the Nature of the Plant)
	Government Regulations	V
Responsible Units		1. Sustainable Development Committee 2. R&D Department 3. Plant Manufacturing Department 4. Plant Quality Control Department
Management Actions		<ul style="list-style-type: none"> Source Quality and Safety Planning: Incorporate green design, absence of hazardous substances, and quality and safety standards in the product design and development phase. Comprehensive quality control throughout the supply chain: Establish a complete supply chain inspection system with quality inspection stations at each stage to strictly ensure product quality. Two-way customer feedback mechanisms: Establish diverse and effective customer service and satisfaction survey channels to promptly respond, review, and address issues. Risk and Product Liability Insurance: Fully insure for product liability to transfer potential risks, providing better protection of interests for customers and consumers.
Process for Monitoring the Effectiveness of Actions		<ul style="list-style-type: none"> Regularly review the inspection results at each quality inspection station and optimize the procedures. Modify designs and processes based on customer feedback to improve product quality.

Management Performance Indicators				
Indicators	2025 Achievement	Short-term Goal (2025)	Mid-term Goal (2022-2027)	Long-term Goal (2022-2050)
Zero product safety incidents (Maintained)	<div>Achieved 100% in 2025</div> <div>100%</div>			
No legal cases involving product liability, health, and safety (Maintained)				
No incidents of non-compliance with product and service information labeling regulations (Maintained)				

"Quality, cost, efficiency, and flexibility" are the four major criteria we set to provide services to customers and earn their trust. In a highly competitive market, providing end consumers with safe products that do not harm their health and offering production customers products that conform to specification requirements and are cost-effective are what we firmly believe demonstrate the best competitiveness. Therefore, for product assembly manufacturers or brand sellers, we always prioritize "quality" for our electronic components or electronic finished products. Internally, we have established inspection stations throughout the process--from product design, supplier selection, incoming inspection, production inspection, outgoing inspection, unpacking inspection to customer service audit. These connected inspections allow us to identify and address problems immediately to maintain quality stability. In addition, to enhance professional technology and quality management capabilities while meeting customer requirements, the Company has obtained external certifications such as ISO 9001, ISO 13485, ISO 14001, ISO 45001, ISO 14064-1, IATF 16946, and IECQ QC 080000. These certifications demonstrate capabilities in quality management, environmental management, hazardous substance management, occupational health and safety management, Greenhouse Gas inventory, and specialized production capabilities in the medical and automotive fields. Pan-International meets the professional production management standards, providing customers with products that are quality-assured and safety-based.

However, to avoid damages to the Company from accidents, we also purchase product liability insurance to mitigate risk associated with product liability lawsuits. Currently, the overall implementation is positive, with no cases of product liability lawsuit reported.

Quality Inspection Function Cycle



(GRI 416-2 、 417-2)

2025 Objectives and Achievements:

For the Group, the highest standards of product responsibility and integrity governance have been demonstrated, and in 2025 and the past three years (2023–2025), have all been achieved:

- No legal cases involving product liability.
- No legal cases involving product health and safety.
- No incidents of non-compliance with product and service information (and environmental compliance labeling) regulations.

For the Group: Through a rigorous quality management system and hazardous substance control (RoHS/REACH), we ensure the safety and compliance of all line components, providing a substantial response to the United Nations Sustainable Development Goals:

- SDG 12 Responsible Consumption and Production (Target 12.4): Implement hazardous substance control throughout the product life cycle to ensure the quality and safety of the supply chain.
- SDG 3 Good Health and Well-Being (Target 3.9): Prevent potential hazards of products to protect the health and safety of downstream customers and end-users.
- SDG 16 Peace, Justice and Strong Institutions (Target 16.6): Implement regulatory compliance and integrity governance, demonstrating a robust corporate structure with zero violations and zero litigation.



3.3 Customer Relationship Management

Material Topic Management Approach, Risk Management for Major Events: Customer Relationship Management

Corresponding GRI Indicators: GRI 3-3, 418-1

Impact Description		[Negative] Negative aspects such as quality defects or leakage of confidential information may lead to loss of orders, damage to reputation, and litigation and financial risks. [Positive] Comprehensive quality and information security protection can enhance customer trust and deepen long-term partnership relationships with major international companies.			
Location		For the Group:			
Policies or Commitments Established or Followed	Internal Regulations	V (Various Factories and Locations set up Internal Regulations according to the Nature of the Plant)			
	Government Regulations	V			
Responsible Units		1. Marketing Department 2. Plant Quality Control Department / Supervising Unit: 1. Information Department 2. Audit Office			
Management Actions		<ul style="list-style-type: none">Customer Satisfaction Survey: Annually distribute customer satisfaction survey questionnaires covering 5 dimensions.Customer Complaint Handling and Improvement: Establish a customer complaint handling mechanism to conduct root cause analysis for customer feedback issues and propose preventive measures to avoid recurrence.Information Security and Confidentiality Protection: Sign confidentiality agreements, strictly control access rights to customers' drawings and technical data, and implement information security protection.			
Process for Monitoring the Effectiveness of Actions		<ul style="list-style-type: none">Satisfaction Trend Review: Customer satisfaction analysis results, tracking the implementation results of improvement measures.Customer Complaint Indicator Monitoring: Monitor the complaint resolution rate and recurrence rate to ensure the substantial closed-loop of quality improvement measures.Zero Information Security and Privacy Incident Review: Ensure the Year achieves the goal of "Zero substantiated complaints concerning breaches of customer privacy or data leakage."			
Management Performance Indicators					
Indicators		2025 Achievement	Short-term Goal (2025)	Mid-term Goal (2022-2027)	Long-term Goal (2022-2050)
Maintain an annual customer satisfaction percentage of over 90% at hotspot sites.		Achieved 100% in 2025			
No substantiated complaints concerning breaches of customer privacy or loss of customer data have occurred in the past 3 years.		Achieved 100% in 2025			
No cases involving customer trade secrets and confidential information leakage have occurred in the past 3 years.		Achieved 100% in 2025			



Pan-International Industrial Corp. firmly believes that "Customers are the core partners for the company's promotion of sustainable management and continuous growth." In the face of changes in the global supply chain landscape and the trend of Green Transformation, For the Group: upholds a pragmatic and innovative corporate spirit, rich research and development/manufacturing experience, and global logistics Location arrangements. We are committed not only to providing high-quality signal cables, wire harnesses, Connectors, and one-stop integrated EMS services that conform to environmental standards, but also to establishing long-term transparent Communication Channels and comprehensive customer service mechanisms to listen to customer feedback, meet customer expectations, and create new business opportunities and sustainable Value in collaboration with customers.

3.3.1 Commitment to Customers

(GRI 418-1)

Through clear Customer Relationship Management strategies and service policies, we aim to establish stable and trust-based partnerships with customers, enhance mutual adherence, and ensure that at every critical stage from product development, production and manufacturing, quality delivery to after-sales service, we demonstrate a sustainable commitment to our customers. Our commitment to Customers is as follows:

- **Excellence in Quality and Technological Innovation:** Combining extensive experience in wire and harness development, we actively expand into emerging fields such as AI servers and key components for humanoid robots, medical equipment, high-end communications, and electronic products for electric vehicles. We implement a quality-first and joint development (JDM/ODM) business philosophy to create high-quality and competitive solutions for our Customers.
- **Commitment to Business Integrity and Compliance:** Fully adhere to the principles of business ethics, fair competition, and business integrity, strictly protect customers' trade secrets, technical patents, and confidential product information, ensuring zero violations during the cooperation process.
- **Sustainable Green Product Partners:** Actively responding to customers' demands for carbon reduction and environmentally friendly products, we continue to optimize low-carbon manufacturing processes, promote the use of renewable energy and eco-friendly materials, and assist customers in achieving a green supply chain and carbon neutrality goals together.

3.3.2 Customer Communication Channels and Satisfaction Survey

The Business Department and each Business Unit serve as the core interfaces for external communication, working closely with the Quality Assurance and R&D Departments to establish a diverse, regular, and irregular customer interaction mechanism.

● Diverse Communication and Engagement Channels

- **Regular visits and business meetings:** Irregularly through physical customer visits, online video conferences, and technical exchanges, we gain in-depth understanding of customers' market planning and new product development needs, providing real-time technical support and flexible capacity allocation.

- **Plant visits and audit reception:** In coordination with factory audits from major global customers (including quality systems, ISO certifications, SEDEX/SMETA ethical audits, and CSR sustainability projects), we demonstrate the effectiveness of transparent factory management and sustainable governance.
- **Exclusive Service and Immediate Response Mechanism:** **For the Group, diverse contact channels are provided, including email and dedicated hotlines. Upon receiving customer complaints or feedback, designated personnel will acknowledge receipt and respond to customers, describing the subsequent processing procedures and estimated completion timeline.** For customers' quality feedback or technical inquiries, coordinate the Quality Assurance and R&D Departments to establish a quick response mechanism, accurately track root causes and preventive improvement measures, and maintain a high level of customer service quality.

● Customer Satisfaction Survey and Continuous Improvement

Pan-International Group annually distributes the "Customer Satisfaction Survey Questionnaire" to major global customers. The survey scope covers 5 major aspects: **product quality, delivery accuracy, technical R&D support, service attitude, and ESG green compliance.** The business and quality management units collaborate to statistically analyze the survey results and **other feedback. The analysis results are incorporated into the product design and development process,** transforming customer feedback into internal continuous improvement plans, which are then submitted to the Management Team meeting for review.

Goals and Achievements: In 2025, the Group's overall customer satisfaction remained above a good level. Cross-departmental project tracking was conducted for the optimization recommendations suggested by customers, such as IE optimization improvements and increasing the proportion of automated and semi-automated production, achieving continuous improvement in customer satisfaction.

Item	2025
Customer Satisfaction at Hotspot Sites	100.00%
Hotspot Sites Satisfaction Survey Coverage Ratio	95%

- * This survey covers only the hotspot plants, including Dongguan Pan-International, CJ Electric Systems, Wuhu (including Chaohu Ruichang, Anqing Ruiyu, and Wuhu Hezhong), and Honghuasheng, Yantai.
- * Satisfied customer percentage: Set a score of 80 or above as "satisfied customers" and calculate the proportion of customers whose scores reach or exceed this set score.
- * Satisfaction survey coverage ratio: Using either the number of customers or revenue as the denominator, calculate the proportion of customers who responded to the satisfaction survey during the year or the revenue contribution ratio.
- * Not applicable: Locations such as Pan-International, Taipei, PIU, Taiwan-Czech Electronics, Huizhou Taiwan-Czech Electronics, Dongguan Guangshan, Yibin Pan-International, and CJ Electric Systems, Ordos are small offices or warehouses and therefore are excluded.

3.3.3 Protection of Customer Privacy and Trade Secrets

(GRI 418-1)

Information security, customer privacy, and the protection of confidentiality are the cornerstones of maintaining customer trust. Pan-International Industrial Corp. has established rigorous confidentiality agreements, mechanisms, and Information Security Management System regulations to ensure that all drawings, technical data, estimated demands, and business information delivered by customers are managed with the highest level of security. **In 2025, Pan-International Group did not use customer information for purposes other than specific intended uses.** For management details, please refer to Section 2.6.1 Information Security Management Policy of this report.

2025 Objectives and Achievements:

▼ [Zero Cases of Confidential Information Leakage]

Item	Number of Cases
2025 Substantiated complaints concerning breaches of customer privacy and losses of customer data	0
Cases involving customer trade secrets and confidential information leakage in 2025	0