



# 3. Products and Services

## 3.1 Product R&D and Innovation

To meet customer demands for new product development and improvements in production technology, the Company continues to invest in R&D personnel, equipment and locations, as well as in optimizing and automating production equipment to improve production efficiency. In addition, in response to new energy vehicle opportunities, the Company is actively developing new products such as high-voltage cable for EV, high-voltage wire harnesses, high-speed wire harnesses, connector wire harness, HDI multi-layer boards, and automotive PCBs to expand product lines and company revenue. Furthermore, for the Company’s other industry products such as Automotive low-voltage harnesses, High-voltage cables for EV, Medical instrument cables, and other connecting cables and devices; PCB for vehicle LCM, Workstations, and Mining Machines PCB; as well as consumer electronics products like Medical Consumables, Wi-Fi 6 for 5G routers, and Charger Inlets, new products are also actively being developed to maintain market competitiveness. Total R&D expenses continue to represent approximately 1-2% of total annual revenue (about NT\$400-500 million), with plans to gradually increase the investment ratio.



### Developing Green Products:

To meet customer demands for new product development and improvements in production technology, the Company continues to invest in R&D personnel, equipment and locations, as well as in optimizing and automating production equipment to improve production efficiency. In addition to complete the preparation of equipment required for mass production of **new energy vehicles**, we are also actively developing vehicle wire harnesses, high-voltage wire harnesses, and high-speed wire harnesses for **new vehicle models** to meet customer needs. HDI multilayer boards and automotive PCBs are being completed according to customer product development schedules to fulfill their requirements for product quality and quantity.



### Strategic Layout - Entering the New Energy Vehicle Market:

In response to the green transition, the Group is actively investing in new markets for **new energy vehicle-related products**. Pan-International began its layout in 2021 and has continued to increase revenue from related products while enhancing the Company’s visibility and market share in 2022 to 2023. The Company is actively investing to establish itself as a first-tier supplier of automotive wire harnesses and related products. In addition to increasing its revenue share, it also conforms to the strategy of transformation, achieving the goal of improving profitability, enabling employees and shareholders to share the results of operations.





## 3.2 Product Quality and Safety

### Material Topic Management Approach: Product Quality and Safety

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

Impact Description		<ol style="list-style-type: none"> <li>1. Bear product damage compensation liability.</li> <li>2. Increase product repair costs.</li> <li>3. Damage to reputation and corporate image.</li> <li>4. Loss of orders.</li> </ol>				
Location		Pan-International, Taipei (Parent Company)	Dongguan Pan-International	New Ocean Precision Component, Jiangxi	Honghuasheng, Yantai	CJ Electric Systems, Wuhu
Policies or Commitments Established or Followed	Internal Regulations	v	v	v	v	v
	Government Regulations	v	v	v	v	v
Responsible Units		<ol style="list-style-type: none"> <li>1. R&amp;D Department</li> <li>2. Plant Manufacturing Department</li> <li>3. Quality Control Department</li> </ol>				
Management Actions		<ol style="list-style-type: none"> <li>1. Incorporate quality and safety planning when designing and developing products.</li> <li>2. Develop a comprehensive quality inspection for the supply chain at each station.</li> <li>3. Establish customer feedback mechanisms to improve product quality.</li> <li>4. Arrange product liability insurance to protect company interests.</li> </ol>				
Process for Monitoring the Effectiveness of Actions		<ol style="list-style-type: none"> <li>1. Regularly review the inspection results at each quality inspection station and optimize the procedures.</li> <li>2. Modify designs and processes based on customer feedback to improve product quality.</li> </ol>				

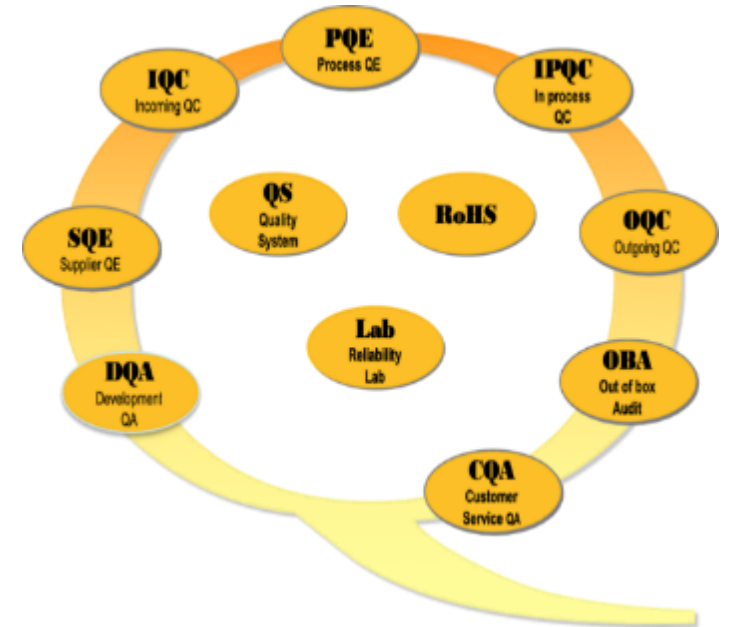


Management Performance Indicators				
Indicators	2023 Achievement	Short-term Goal (2024)	Mid-term Goal (2022-2027)	Long-term Goal (2022-2050)
Zero product safety incidents	<b>Achieved 100% in 2023</b>			

Quality, efficiency, cost, and innovation are our fundamental criteria for meeting customer demands and are the key indicators that give customers confidence in Pan-International’s capabilities. Due to our emphasis on product quality, we prioritize it as our top criterion. By establishing a comprehensive production system that includes inspections and checks at every stage--from R&D verification, supplier audits, incoming inspections, production inspections, outgoing inspections, unpacking inspections, and customer service audits--we ensure that our product and service quality meets customer needs. In addition, through external verification units, we have obtained certifications such as ISO 9001, ISO 13485, ISO 14001, ISO 45001, ISO 14064-1, IATF 16946, IECQ QC 080000 etc., certifying that our management, production, special industry, environmental, hazardous substance, and occupational safety management systems meet market requirements.

However, to avoid damage 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.

We provide products and services to customers and win their trust based on the four principles of “quality, cost, efficiency, and flexibility.” In a highly competitive market, we believe that providing end consumers with safe products that do not harm their health is the best way to demonstrate our 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 several certifications, including ISO 9001, ISO 14001, ISO 45001, ISO 14064-1, ISO 13485, IATF16949, and IECQ QC 080000. These certifications demonstrate that Pan-International meets professional standards in quality management, environmental management, hazardous substance management, occupational health and safety management, greenhouse gas inventory, and other management capabilities, as well as medical and automotive professional production capabilities, ensuring that we provide customers with safe products.



Quality Inspection Function Cycle ▼



### 3.3 Customer Relationship Management

Pan-International has long been deeply involved in industries such as consumer electronics, automotive, industrial control, and medical sectors, with extensive experience in the research and development and manufacturing of customized wire harnesses and related components. Leveraging the advantages of our global logistics bases, we can offer customers comprehensive one-stop solutions. Amid the global trend toward net zero emissions, green industries are emerging. We are actively working with customers to develop wire harnesses and related components for new energy vehicles and energy storage equipment, aiming to seize opportunities in the early stages of global green industry development and secure our position in the market.

Customer loyalty to Pan-International is an achievement we take pride in. We treat all customers with integrity by setting accessible levels for their product drawings, formulas, production technologies, trademarks, patents, and other related confidential information, ensuring strict control to prevent any leakage. We require employees and suppliers to sign confidentiality agreements and establish penalties for breaches. We also strengthen the awareness of confidentiality and regulatory compliance through various daily channels, ensuring that personnel who handle confidential information treat it as their own assets and protect it strictly. In addition, various whistleblower reporting channels have been established to form a third-party supervision network to further prevent leakage of confidential information.

Through the joint development of new products, efficient and cost-effective finished product delivery, strict confidentiality in safeguarding customer business opportunities, and global logistics and distribution, we meet all customer needs while maintaining strong and close customer relationships.

#### 3.3.1 Commitment to Customers

- Zero Cases of Confidential Information Leakage

Items	Number of Cases
Number of cases involving confidential information leakage in 2023	0

- No Product Liability Lawsuits

Items	Number of Cases
Number of cases involving product liability lawsuits in 2023	0