Letter from the Chairman

A New Era of AI-Empowered Sustainability

Semiconductors have become a core driving force that fuels the modern era of smart living, digital economy, low-carbon transitions and medical advancements. Within this evolving landscape, advanced packaging and testing plays a critical role in the semiconductor value chain, transforming chip design and manufacturing technologies into reliable applications that improve the quality of life and drive industry progress. At ASEH, we are guided by our commitment to product quality, service reliability and corporate responsibility. As a key enabler of technological innovation, we work closely with our customers, suppliers, and stakeholders to advance semiconductor technologies and build a more sustainable and resilient future.

2025 was a defining year for the semiconductor industry, marked by remarkable resilience while breaking new ground. Despite persistent headwinds from geopolitical shifts, tariffs and trade barriers, the industry remained agile and continued their growth momentum. While the rapid advancement of Generative AI fueled strong chip demands and unlocked new opportunities, it has also increased energy consumption and infrastructure challenges among others. These challenges serve as a profound reminder that technological progress must advance in step with a sustainable transition.

As we seize the opportunities presented by AI, we have not lost sight on the carrying capacity of the environment. The 10th anniversary of the Paris Agreement marks a crucial juncture for global climate action, as the risk of exceeding the 1.5° C global warming target in the next decade increases significantly. With the carbon reduction transition timeline extremely compressed, climate strategies have shifted from simply reducing carbon emissions to more comprehensive reforms encompassing both climate adaptation and operational resilience. According to the International Energy Agency's 2025 Energy and AI report, the widespread adoption of carbon reduction initiatives in AI could contribute to approximately 5% of reductions in global energy-related emissions by 2035. We believe in the positive synergy between AI and sustainability, and is leveraging our advanced packaging and testing technologies to enable high-performance computing with low energy intensity. AI is also a strategic tool that helps us accelerate our low-carbon transition by utilizing intelligent decision-making and data models to improve energy management, process efficiency, and carbon reduction.

Smart Manufacturing: Reshaping the Sustainability Paradigm with AI

In response to the accelerating shift toward a smarter, low-carbon future, we have adopted a two-pronged strategy centered on AI and net zero emissions. To that end, we are integrating AI into all aspects of our business functions including smart manufacturing, energy management, environmental monitoring and operational decision-making.

As of 2025, our smart factory coverage across our Taiwan operations has reached 45%. Additionally, we continue to optimize our processes, resource efficiency and quality control to create a more streamlined, resilient and sustainable manufacturing system. Our flagship facility in Kaohsiung pioneered the development of our first AI-enabled

smart building, deploying real-time data analysis, equipment automation, and intelligent decision-making across the entire manufacturing process. Smart manufacturing has drastically improved our production efficiency and operational stability while also reducing energy and resource consumption.

Beyond manufacturing, we are also applying AI to strengthen environmental management. Our air pollution control and water treatment systems leverage AI technologies for real-time monitoring, anomaly warning and automated controls. In particular, we have adopted an innovative AI-digitized scent recognition technology that uses scent detection, data identification and intelligent analysis to create a safer, smarter and more conducive working environment at our manufacturing facilities. While we recognize the enormous benefits that AI offers, it is equally important to uphold the highest standards of compliance, and ensure the responsible adoption of emerging technologies through robust data governance and IP protection frameworks.

Jason C.S. Chang
Chairman

On our net-zero transition, we continue to make steady progress toward our SBTi-validated net-zero 2050 targets, with renewable energy use reaching 23% in 2025. We are also actively pursuing a long-term strategy for renewable energy assets, and developing a green energy blueprint to increase our renewable energy use to 42% by 2030. Globally, 90% of our manufacturing facilities are using renewable energy or RE certificates, 10 manufacturing facilities are RE100 compliant and 86% have complied with the ISO 50001 energy management standards. Internal carbon pricing has been implemented at 99.5% of our manufacturing sites, allowing us to internalize carbon costs and use it as a tool to transform climate risks and drive carbon reduction investments and innovation. For residual emissions, we have developed carbon credit offset strategies in accordance with SBTi, prioritizing the procurement of carbon removal credits. It is worth noting that ASEH was one of the first to participate in carbon trading when the Taiwan Carbon Solution Exchange was established in 2023, an action demonstrating our long-term commitment to the company's carbon reduction blueprint and net-zero 2050.

Resilience: Fostering Sustainable Soft Power Across the Value Chain

The semiconductor industry is poised to usher in a new decade of continuous innovation and accelerated transformation. Our supply chain partners are not only crucial drivers of technological innovation, but also an indispensable force in overcoming technological bottlenecks and transitioning towards net-zero. In 2025, "Innovation of Synergy" became a key pillar in our supplier selection process, reflecting the importance we place on innovation, collaboration, and strategic partnerships. By working closely with our suppliers and leveraging our collective strengths, we are accelerating innovation, strengthening competitiveness, and building a more agile and resilient supply chain for the future.

To strengthen the integrity of our supply chain carbon data, we are working actively with key suppliers to obtain ISO 14064-1 greenhouse gas inventory or equivalent third-party certification by 2030. We also require certain raw material suppliers to complete ISO 14067 product carbon footprint certification. The robustness of our carbon management has enabled us to improve data quality, as well as work with our supply chain partners to identify emissions hotspots and accelerate low-carbon technology adoption for a more resilient, competitive and sustainable green supply chain. Amid growing geopolitical challenges and global trade uncertainties, we remain focused on strengthening regulatory compliance and risk management by reinforcing our corporate governance framework.

We are also working closely with 19 equipment suppliers to integrate energy-saving innovations into equipment design from the outset. During the year, we published the ASEH Equipment Energy Management White Paper, incorporating energy efficiency into equipment procurement specifications, as well as the launch of the Equipment Supplier Energy-Saving Project to promote energy efficiency standards for packaging and testing equipment. Our partnership with suppliers to develop next-generation equipment that are energy efficient will allow us to accelerate towards our 2030 goal of reducing energy consumption per unit output by 20%.

Fostering a safe working environment for every employee and partner is fundamental to building a resilient supply chain and strengthening long-term competitiveness. To this end, we have published the Contractor Safety Orange Book, combining standardized procedures, AI-powered intelligent monitoring, and digital technology to reinforce contractor safety management. We are committed to driving fundamental change in safety behavior, integrating safety awareness into every project and operational detail, and working in tandem with our contractors to build a zero-accident, zero-harm workplace culture and, in turn, create a robust and sustainable supply chain.

Co-Prosperity: Building a Human-Centered Support System

Talent is our most valuable asset for long-term sustainability, and we are therefore committed to fostering a safe, healthy, skills-focused and inclusive workplace. We firmly believe that when every employee is respected, empowered and equipped with opportunities to thrive, we can harness the collective strengths of our global operations to drive innovation, transformation and growth.

To address Taiwan's aging society, we are extending our employee care to include family members and providing a support system more closely aligned with our employees' needs. ASE Social Enterprise Co., Ltd. has collaborated with experienced day care institutions to establish five elderly day care centers near our facilities in Kaohsiung, Chungli, Taichung, and Changhua through the 'Good Day Good Care' program. As of the end of 2025, four day care centers are now operational in Kaohsiung, Chungli, Taichung, and Changhua, providing care for a total of 104 senior citizens. The fifth location, the Kaohsiung Jiuchang Day Care Center, will officially open in 2026. We have taken a progressive approach to employee care that extends beyond conventional workplace benefits by developing distinctive programs that support a comfortable balance between work and family life for our employees.

In the area of social engagement, we are investing our resources in public welfare focusing on sustainability education and youth empowerment. We are continuously refining the 'pacer-style' approach in our unique sustainability program for young students, combining competition, mentorship, industry-academia collaboration and practical application. For one full year, students will be provided guidance and support throughout the program from idea development to prototyping and real-world implementation. Our goal is to empower the younger generation with the knowledge, skills and opportunities to transform sustainability concepts such as net zero, biodiversity and the circular economy, into innovative, practical solutions that address environmental and social challenges. We are proud to support the development of an engaged and resilient younger generation equipped to play an active role in shaping a more sustainable future.

Vision: Forging the Next Chapter through Sustainable Leadership

Over the past four decades since our founding, we have made significant strides in our sustainability journey, earning recognition from leading international rating agencies and stakeholders. These achievements reflect not only our leadership in setting industry benchmarks, but also our enduring commitment to concrete action and continuous innovation.

Looking ahead, we will continue to strengthen our global presence by advancing AI enablement and smart manufacturing, while accelerating our low-carbon transition. Guided by a clear vision and unwavering commitment, we will deepen collaboration across our value chain – working closely with our customers, suppliers, employees, and stakeholders, to build a sustainable eco-system that delivers long-term value for the semiconductor industry and meaningful impact for society.

Richard H.P. Chang
Vice Chairman and President