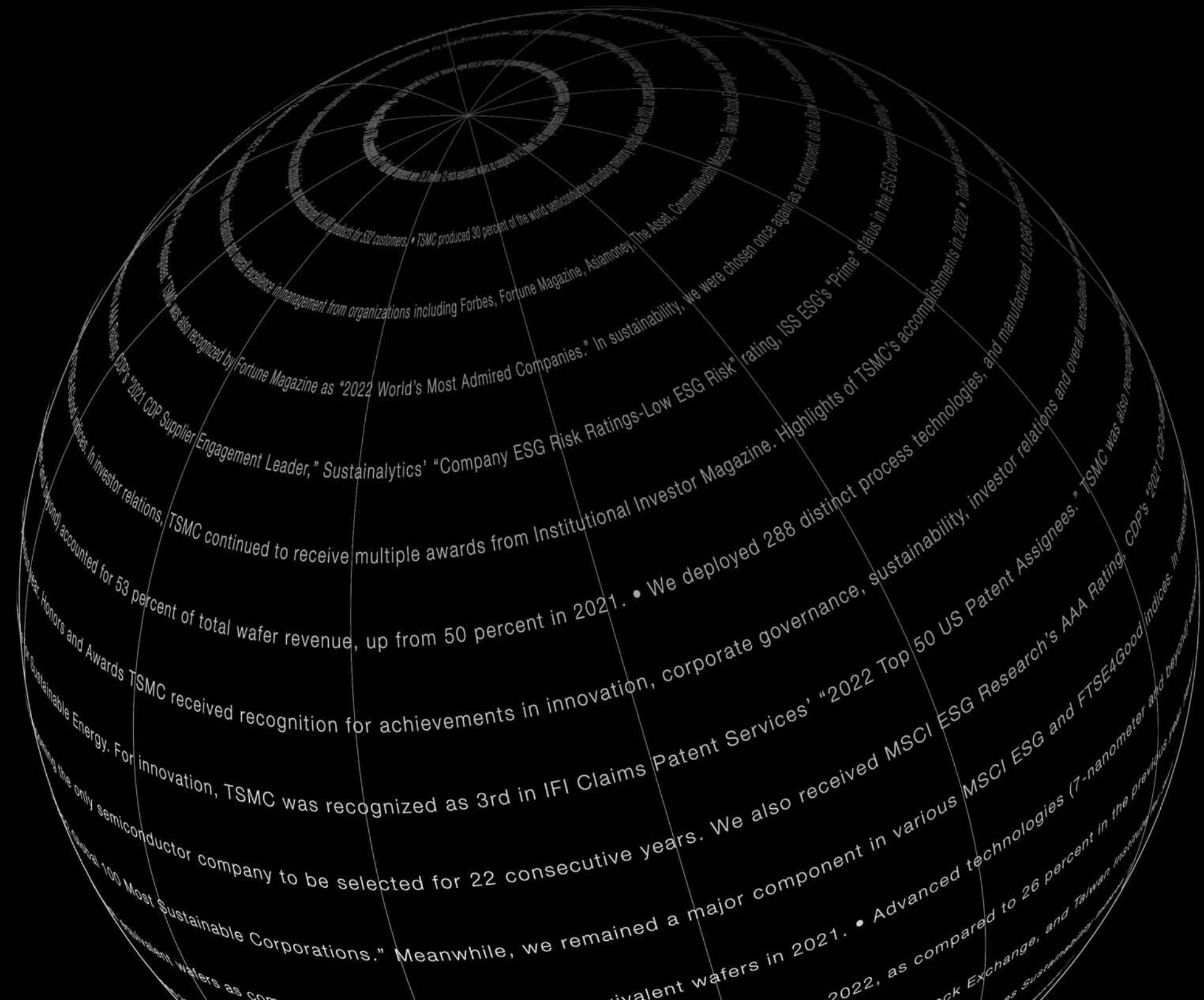


1 LETTER TO *Shareholders*



TSMC's Mission

Our mission is to be the trusted technology and capacity provider of the global logic IC industry for years to come.

Dear Shareholders,

The year 2022 was a landmark year for TSMC. Supported by our strong technology leadership and differentiation, we delivered a thirteenth-consecutive year of record revenue, with strong profitable growth. Our 2022 annual revenue increased 33.5% year-over-year in U.S. dollar terms, while our EPS rose to NT\$39.20, nearly tripling over the past three years.

These achievements were earned in the face of considerable economic, human and geopolitical challenges across the world. The year started with continued COVID-19 lockdowns, conflict in Ukraine, and geopolitical tensions and trade restrictions that severely disrupted global supply chains. Retreat of globalization and free trade fueled inflationary pressure around the world, increased macroeconomic uncertainty, and impacted consumer confidence. In the second half of the year, pandemic-related demand, such as remote working and remote learning, receded as many parts of the world began to re-open, and the semiconductor industry entered an inventory correction mode.

The world also began to focus more intently on the importance of the semiconductor industry, as it suddenly recognized the critical role semiconductors play in a modern economy. The rising tensions in geopolitics also accentuated the attention on a resilient semiconductor supply chain, and the key role it plays in their economic and national infrastructure security.

For TSMC, we continued to focus on the fundamentals of our business. We enriched our R&D intensity and worked diligently on our technology development, especially 2-nanometer, to deliver full node strides in performance and power benefits to our customers, while offering the industry's most advanced transistor scaling. We also increased our productivity and fab operations quality, while successfully bringing our industry-leading 3-nanometer to high volume manufacturing in 4Q'22. We deepened our service and expanded our capacity to support our customers' growth, further earning their trust, as evidenced by higher scores in our annual customer survey. We enhanced our cybersecurity systems and measures continuously, to rigorously protect customers' IP and our proprietary information. As we entered our third year of digital transformation, we accelerated the pace to keep our employees connected and productive in a flexible work environment, while protecting them from COVID infection with stringent anti-pandemic measures.

Despite the recent macroeconomic uncertainties around the world, the fundamental structural growth trajectory in the long-term semiconductor demand remains strong, underpinned by the industry's multi-year megatrends of 5G and High Performance Computing (HPC)-related applications. Therefore, we continuously work closely with our customers in a disciplined manner to plan our capacity, based on the long-term market demand profile, and investing in leading edge and specialty technologies, to support their structural growth.

As geopolitical tensions have arisen in different parts of the world, our customers also start to value more geographic manufacturing flexibility, in addition to technology leadership, manufacturing excellence, low cost and trust of service quality.

Under this environment, based on customers' request, we are expanding our global manufacturing footprint, to increase customer trust, to expand our future growth opportunities, and to reach for global talents.

In Taiwan, our N3 has just entered volume production in Tainan Science Park. We are also preparing for N2 volume production starting in 2025, which will be located in Hsinchu and Taichung Science Parks.

In the U.S., we are in the process of building two advanced semiconductor fabs in Arizona, with N4 and N3 process technology, respectively. We are also building a 12-inch specialty technology fab in Kumamoto, Japan.

These investment decisions are based on our customers' needs in each region, and a necessary level of government support. We believe this is a necessary step to maximize value for our shareholders.

Our pricing will remain strategic to reflect our value, which also includes the value of geographic manufacturing flexibility. At the same time, we will continue to leverage our competitive advantages of large volume, economies of scale and manufacturing technology leadership, to continuously drive costs lower. We will also continue to work closely with all the regional governments, to secure their support.

Combining such actions, TSMC will have the ability to absorb the higher costs of overseas fabs, while remaining the most efficient and cost-effective manufacturer, no matter where we operate. Thus, even as we increase our capacity outside of Taiwan, we can continue to earn a sustainable and healthy return, while delivering long-term profitable growth for our shareholders.

To address the insatiable demand for energy-efficient computing power, customers rely on TSMC not only for reliable capacity, but also a predictable cadence of technology development.

We continued to extend our technology leadership, as our 3-nanometer technology entered volume production in 2022, and is the most advanced semiconductor technology in both PPA and transistor technology.

We are building a strong foundation for the next generation technology to follow. N2 technology development is on track, with risk production scheduled in 2024 and volume production in 2025. Our 2-nanometer technology will be the most advanced semiconductor technology in the industry in both density and energy efficiency when it is introduced.

Highlights of TSMC's accomplishments in 2022:

- Total wafer shipments were 15.3 million 12-inch equivalent wafers as compared to 14.2 million 12-inch equivalent wafers in 2021.
- Advanced technologies (7-nanometer and beyond) accounted for 53 percent of total wafer revenue, up from 50 percent in 2021.
- We deployed 288 distinct process technologies, and manufactured 12,698 products for 532 customers.
- TSMC produced 30 percent of the world semiconductor excluding memory output value in 2022, as compared to 26 percent in the previous year.

2022 Financial Performance

Consolidated revenue reached NT\$2,263.89 billion, an increase of 42.6 percent over NT\$1,587.42 billion in 2021. Net income was NT\$1,016.53 billion and diluted earnings per share were NT\$39.20. Both increased 70.4 percent from the 2021 level of NT\$596.54 billion net income and NT\$23.01 diluted EPS.

TSMC generated net income of US\$34.07 billion on consolidated revenue of US\$75.88 billion, which increased 59.6 percent and 33.5 percent respectively from the 2021 level of US\$21.35 billion net income and US\$56.82 billion consolidated revenue.

Gross profit margin was 59.6 percent as compared with 51.6 percent in 2021, while operating profit margin was 49.5 percent compared with 40.9 percent a year earlier. Net profit margin was 44.9 percent, an increase of 7.3 percentage points from 2021's 37.6 percent.

In 2022, the Company further raised its total cash dividend payments to NT\$11.0 per share, up from NT\$10.25 a year ago.

Technological Developments

In 2022, we continued to increase our investment in R&D to US\$5.47 billion to extend our technology leadership and differentiation. We also work closely with our customers to enable the global pool of innovators, to unleash their innovations and create greater value for the semiconductor industry.

In its third year of ramp, our 5-nanometer family of technologies contributed 26% of TSMC's revenue. We continued to enhance our N5 family's performance, power and density, and N4 started volume production in 2022. We also introduced N4P and N4X technologies, targeting next wave 5nm products. N4P technology development is well on track, and volume production is scheduled in 2023. N4X is TSMC's first HPC-focused, workload-intensive technology, with customers' product tape-outs in 2023.

After N3 technology entered volume production in 2022, N3E will further extend our N3 family, with enhanced performance, power, and yield. Volume production of N3E is scheduled for 2H'23. We are working on a high level of customer engagement at both N3 and N3E, with the number of tape-outs more than 2x that of N5 in its first and second year. We expect our N3 family to be another large and long-lasting node for TSMC.

Our 2-nanometer technology will adopt nanosheet transistor structure, and deliver full-node performance and power efficiency gains, with 10-15% speed improvement at the same power or 25-30% power improvement at the same speed as compared to N3E, to address the increasing need for energy-efficient computing. N2 will provide our customers with the best performance, cost and technology maturity, and extend our technology leadership position well into the future.

As TSMC pushes the envelope of transistor scaling, we also continue to expand our TSMC 3DFabric™ design solutions, as another dimension to improve system-level performance. TSMC 3DFabric™ consists of both wafer-level 3D and advanced packaging technologies. For our 3D technologies, TSMC-SoIC® Chip-on-Wafer (CoW) technology successfully entered volume production in 2022, demonstrating significant performance improvement by stacking SRAM chips on logic wafers. TSMC-SoIC® Wafer-on-Wafer (WoW) technology demonstrated superb system performance enhancement for HPC products in 2022 by stacking 7nm logic wafer on deep trench capacitor wafer. For our advanced packaging technologies, the CoWoS®-S technology that integrates multiple system-on-chip (SoC) chips, high bandwidth memory stacks, and a 3-reticle size silicon interposer successfully entered volume production for customer HPC products in 2022. For InFO advanced packaging technology, TSMC successfully entered volume production of Integrated Fan-Out on Substrate (InFO_oS) that integrates multiple SoC chips in a 2-reticle size fan-out package.

To help customers unleash their product innovations with fast time-to-market, TSMC provides customers with comprehensive infrastructure needed to optimize design productivity and cycle times. TSMC continues to expand our Open Innovation Platform® (OIP), providing over 55,000 items of libraries and silicon IP portfolio, more than 43,000 technology files, and over 2,900 process design kits, from 0.5-micron to 3-nanometer in 2022.

Environmental, Social and Governance

As a responsible global corporate citizen, TSMC is focused on driving changes in Green Manufacturing, establishing a Responsible Supply Chain, Talent Development, Inclusive Workplace, and Caring for the Underprivileged. In 2022, we published our first UN SDGs (United Nations Sustainable Development Goals) Action Report and Materiality Analysis Report to enhance the transparency of our sustainability progress.

Green Manufacturing is the cornerstone of our sustainability management. TSMC strives to be a global standard of an eco-friendly corporation, and we integrate green management into all aspects of our daily operations, both in Taiwan and overseas. In 2022, TSMC's Reclaimed Water Plant commenced operations in the Southern Taiwan Science Park and began water supply of 10,000 metric tons of water per day, with the goal of reaching 36,000 metric tons per day by 2026. At TSMC Arizona, we plan to build an Industrial Water Reclamation Plant, which would allow us to reach "Near Zero Liquid Discharge."

In our supply chain, TSMC is actively working with our suppliers to drive low-carbon emissions management, a key component of our roadmap to Net Zero Emissions by 2050. We continue to expand carbon capture opportunities in our supply chain management, and encourage our suppliers to set up carbon capture facilities to reduce carbon emissions.

Talent is critical to the global semiconductor industry's success. We believe TSMC's global footprint expansion not only enables us to better support our customers, but also gives us more opportunities to reach global talent. To attract more talent and create a sustainable recruitment pipeline for the semiconductor industry, TSMC continues to invest in semiconductor related research through close collaboration with top universities including National Taiwan University, National Tsing Hua University, National Yang Ming Chiao Tung University, National Cheng Kung University, MIT, Stanford University, UC Berkeley, Arizona State University, Tokyo University, and other prestigious institutions around the world.

In order to deepen employee awareness and practice of Diversity and Inclusion, TSMC focuses on enhancing employees' awareness of respecting individual differences and its unique values in the workplace. TSMC has designed a course on unconscious bias to help employees identify and respond to biases in the right way. Employees can also use intercultural assessment tools to evaluate themselves and learn how to work with colleagues from diverse backgrounds in their teams.

The TSMC Education and Culture Foundation and the TSMC Charity Foundation have long been invested in driving positive changes towards a better society, by focusing on caring for the disadvantaged and helping youth education. In 2022, the TSMC Charity Foundation assisted 6,358 students at 134 rural care institutes and collaborated with TSMC volunteers to produce tutorial videos for scientific experiments and science education. TSMC also partnered with SEMI to hold a session at 2022 SEMICON Taiwan, promoting a matching platform that offered 600 jobs opportunities from 30 different companies to rural vocational students.

Corporate Developments

In December 2022, TSMC announced that, in addition to TSMC Arizona’s first fab, which is scheduled to begin production of N4 process technology in 2024, the Company has also started the construction of a second fab in Arizona to begin production of 3nm process technology in 2026. The overall investment for these two facilities will be approximately US\$40 billion. When completed, TSMC Arizona’s two fabs will manufacture over 600,000 wafers per year.

In February 2022, TSMC, Sony Semiconductor Solutions Corporation (SSS) and Denso Corporation jointly announced a joint venture of Japan Advanced Semiconductor Manufacturing (JASM). In addition to the previously announced 22/28 nanometer process, TSMC will also enhance JASM’s capabilities with 12/16 nanometer FinFET process technology, and increase monthly production capacity to 55,000 12-inch wafers. With the additional capacity, the total capital expenditure for JASM’s Kumamoto fab is estimated to be approximately US\$8.6 billion with strong support from the Japanese government.

Honors and Awards

TSMC received recognition for achievements in innovation, corporate governance, sustainability, investor relations and overall excellence in management from organizations including *Forbes*, *Fortune Magazine*, *Asiamoney*, *The Asset*, *CommonWealth Magazine*, Taiwan Stock Exchange, and Taiwan Institute for Sustainable Energy. For innovation, TSMC was recognized as 3rd in IFI Claims Patent Services’ “2022 Top 50 US Patent Assignees.” TSMC was also recognized by *Fortune Magazine* as “2022 World’s Most Admired Companies.” In sustainability, we were chosen once again as a component of the Dow Jones Sustainability Indices, becoming the only semiconductor company to be selected for 22 consecutive years. We also received MSCI ESG Research’s AAA Rating, CDP’s “2022 CDP Supplier Engagement Leader,” Sustainalytics’ “Company ESG Risk Ratings-Low ESG Risk” rating, ISS ESG’s “Prime” status in the ESG Corporate Rating, and *Corporate Knight’s* “2022 Global 100 Most Sustainable Corporations.” Meanwhile, we remained a major component in various MSCI ESG and FTSE4Good indices. In investor relations, TSMC continued to receive multiple awards from *Institutional Investor Magazine*.

Outlook

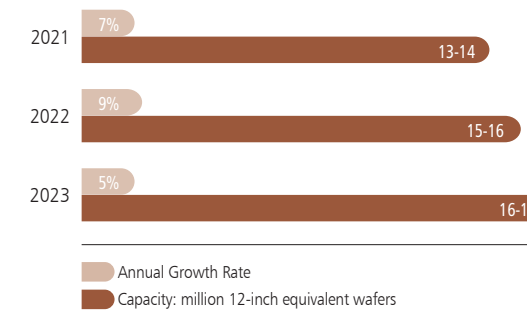
Entering 2023, macroeconomic and geopolitical uncertainties persist. As global COVID-19 pandemic subsides, we have entered a more intelligent and connected world. As semiconductors become increasingly essential and ubiquitous to every part of our daily lives, semiconductor technology is becoming a foundational technology for the modern digital economy. The semiconductor value in the global supply chain continues to increase, creating greater value opportunities for our customers, and greater value opportunities for TSMC.

It is more important than ever for TSMC to fulfill our mission to be the trusted technology and capacity provider for the global logic IC industry for years to come. We will uphold our Trinity of Strengths of Technology Leadership, Manufacturing Excellence, and Customer Trust, to address and capture the strong growth opportunities.

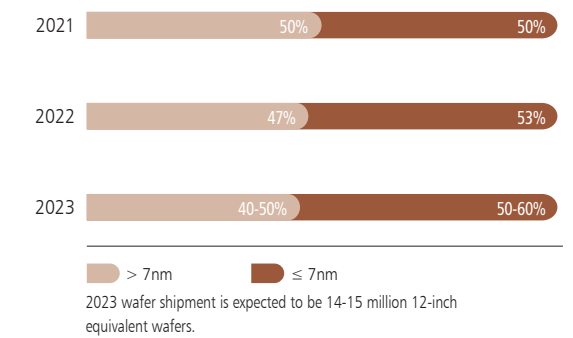
We are increasing our investments in R&D, to continue to extend our overall competitiveness and technology leadership. With our leadership in both leading edge process technologies and 3DIC solutions, TSMC’s technology cadence remains constant, to deliver the value of our technology platform, and to help our customers to enhance their product competitiveness and to grow their markets well into the future.

We continue to focus on optimizing our manufacturing operations to drive greater efficiency and productivity, including “digitalization” of our fabs, to support high volume ramp of N3 in 2023 and beyond.

Capacity Plan



Wafer Sales Plan



We are increasing our capacity beyond Taiwan to expand our future growth potential, to reach for global talent, and to further increase our customer trust. As we expand our global footprint, and recruit people from around the world, our priority is to identify, attract and hire talent whose core values and principles are aligned with TSMC’s, so that we can establish TSMC culture in all our employees, no matter where we operate.

We recognize the increasingly important role of TSMC in the global semiconductor industry, our impact to many of the world’s economies, and the responsibilities that come with our position. We remain steadfast to our dedicated foundry business model, and will continue to work as One Team to support all the IC innovators and enable their success. We will hold ourselves to rigorous standards of corporate governance, and adhere to our core values of Integrity, Commitment, Innovation and Customer Trust, while pursuing a sustainable future. We are honored to earn your trust in TSMC through the challenges of 2022. We are more excited about our future, and are even more firmly committed to earning good returns for our shareholders in the years to come.



Mark Liu
Chairman

C.C. Wei
Chief Executive Officer

TSMC FINANCIAL, OPERATIONAL, AND SUSTAINABILITY PERFORMANCE HIGHLIGHTS



Recorded a **13th** consecutive year of record revenue

Annual revenue increased **33.5%** YoY in U.S. dollar terms

EPS nearly **tripled** over the past 3 years

Received Alliance for Water Stewardship (AWS) platinum certification with the highest score for **3** consecutive years

N3 technology entered volume production in 2022

Total wafer shipments were **15.3 million** 12-inch equivalent wafers

Manufactured **12,698** different products using **288** distinct technologies for **532** different customers

Net Zero

Emissions by 2050

The only semiconductor company to be selected as a component of the Dow Jones Sustainability Indices for **22 consecutive years**

TSMC S.T.S.P. Reclaimed Water Plant commenced operation, becoming the world's first industrial reclaimed water plant for advanced semiconductor processes

Increased investment in R&D to **US \$5.47 billion**

TSMC produced **30%** of the world's semiconductor output value (excluding memory) in 2022

Consolidated revenue increased by **42.6 %**

2022 | NT\$2,263.89 B
2021 | NT\$1,587.42 B

Net income & EPS increased **70.4 %**

	Net Income	EPS
2022	NT\$1,016.53 B	NT\$39.20
2021	NT\$596.54 B	NT\$23.01

RECOGNITION FOR ACHIEVEMENTS IN INNOVATION, CORPORATE GOVERNANCE, SUSTAINABILITY, AND OVERALL EXCELLENCE IN MANAGEMENT

INNOVATION

3rd in IFI Claims Patent Services, "**2022 Top 50 US Patent Assignees**"

2022 **Top 100 Global Innovators** by Clarivate

Innovators by Clarivate Innovation Momentum 2022: The Global Top 100 by LexisNexis

GOVERNANCE

Most Honored Company by Institutional Investor Magazine

2022 **World's Most Admired Companies** by Fortune Magazine

World's Best Employers by Forbes

SUSTAINABILITY PERFORMANCE

MSCI ESG Research's **AAA Ratings**

CDP's "**2022 CDP Supplier Engagement Leader**"

Sustainalytics' "**Company ESG Risk Ratings-Low ESG Risk**" rating

"**Prime**" Rated by ISS ESG Corporate Rating

Corporate Knight's 2022 **Global 100 Most Sustainable Corporations**

SDG 2000 **The 2,000 Most Influential Companies**