

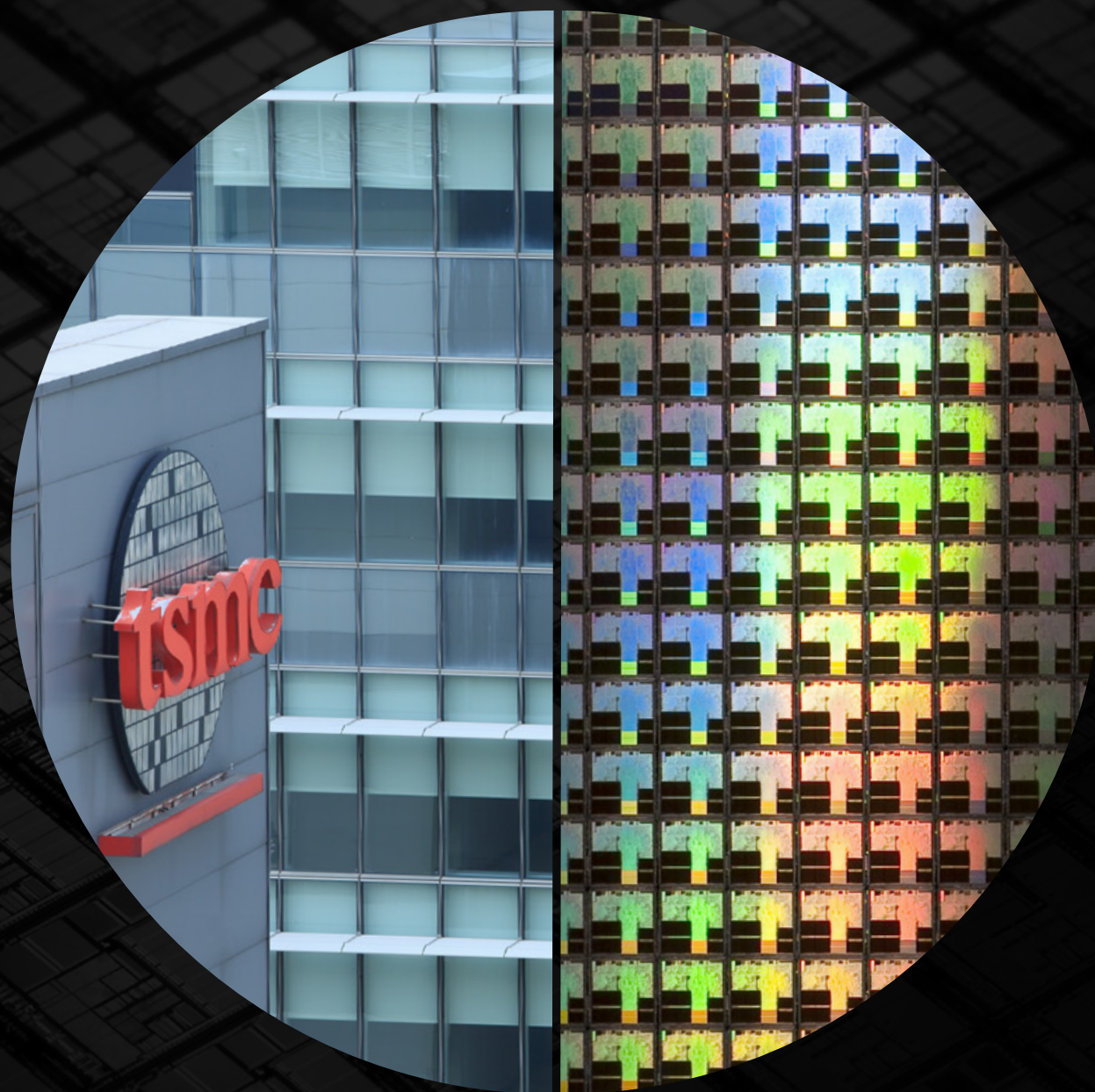


## TSMC 2020 Business Overview



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# TSMC Vision, Mission & Core Values

## TSMC’s Vision

Our vision is to be the most advanced and largest technology and foundry services provider to fabless companies and IDMs, and in partnership with them, to forge a powerful competitive force in the semiconductor industry.

To realize our vision, we must have a trinity of strengths:

- 1. be a technology leader, competitive with the leading IDMs
- 2. be the manufacturing leader
- 3. be the most reputable, service-oriented and maximum-total-benefits silicon foundry

## TSMC’s Mission

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

## TSMC’s Core Values

### Integrity

Integrity is our most basic and most important core value. We tell the truth. We believe the record of our accomplishments is the best proof of our merit. Hence, we do not brag. We do not make commitments lightly. Once we make a commitment, we devote ourselves completely to meeting that commitment. We compete to our fullest within the law, but we do not slander our competitors and we respect the intellectual property rights of others. With vendors, we maintain an objective, consistent, and impartial attitude. We do not tolerate any form of corrupt behavior or politicking. When selecting new employees, we place emphasis on the candidates’ qualifications and character, not connections or access.

### Commitment

TSMC is committed to the welfare of customers, suppliers, employees, shareholders, and society. These stakeholders all contribute to TSMC’s success, and TSMC is dedicated to serving their best interests. In return, TSMC hopes all these stakeholders will make a mutual commitment to the Company.

### Innovation

Innovation is the wellspring of TSMC’s growth, and is a part of all aspects of our business, from strategic planning, marketing and management, to technology and manufacturing. At TSMC, innovation means more than new ideas, it means putting ideas into practice.

### Customer Trust

At TSMC, customers come first. Their success is our success, and we value their ability to compete as we value our own. We strive to build deep and enduring relationships with our customers, who trust and rely on us to be part of their success over the long term.

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# 1. Letter to Shareholders



## Dear Shareholders,

2020 was a devastating year for the entire world due to the COVID-19 pandemic, and our thoughts and hearts go out to all those who have been affected. With the spread of COVID-19, millions of lives were lost, many cities entered lock down, and the world experienced massive economic and societal disruptions. However, semiconductor industry demand remained resilient, as trends such as work-from-home and distance learning emerged to help to accelerate the digital transformation. At TSMC, our top priority is to protect the health and safety of our employees, and ensure our global fab operations continue delivering to customers. While we have been successful so far, we will remain vigilant and continue our utmost efforts to weather this pandemic.

For TSMC, although 2020 was a year of extraordinary challenges, it was also a year of significant growth and progress. Facing upheaval brought by the global COVID-19 pandemic as well as geopolitical tensions, we worked dynamically with our customers, and doubled down our commitment to technology leadership, manufacturing excellence, and customer trust. In 2020, we delivered an eleventh consecutive year of record revenue, thanks to strong demand coming to our industry-leading 5-nanometer (N5) and 7-nanometer (N7) technologies. Our revenue increased 31.4% year-over-year in US dollar terms, as compared to about 10% year-over-year growth for the semiconductor industry.

We continued to focus on the fundamentals of our business in 2020 by enriching our R&D infrastructures, enlarging our talent pipeline, strengthening our information protection and cybersecurity, and accelerating our technology differentiation.

In 2020, fueled by the industry megatrends of 5G and high performance computing (HPC) applications, both driving semiconductor content enrichment, we increased our 2020 capital spending to US\$17.2 billion. As TSMC enters another period of higher growth, we will continue to invest to capture the opportunities that will follow.

In 2020, we successfully ramped our industry-leading N5 technology, to enable our customers' innovations for both smartphone and HPC applications. As the foundry industry's most advanced solution with the best performance, power and area (PPA), N5 further expands our customer product portfolio and increases our addressable markets.

In its third year of ramp, our 7-nanometer family, which includes N7, N7+ and N6, continued to see very strong demand across a wide spectrum of products from smartphone, HPC, Internet of Things (IoT) and Automotive applications.

Our 3-nanometer technology will be another full node stride from our N5, and offer the most advanced foundry technology in both PPA and transistor technology when it is introduced.

In 2020, TSMC introduced 3DFabric™, an umbrella of the company's fast-growing portfolio of 3DIC system integration solutions under one family of technologies. Our differentiated chiplet and heterogeneous integration technologies drive better power efficiency, greater compute density, and smaller form factor benefits for our customers, while shortening their time-to-market. We are working with several product leaders on 3DFabric™ to enable chiplet architectures.

> Skyscrapers towering into the night sky (Left)

> Orderly ranks of semiconductor fab equipment (Right)

Highlights of TSMC's accomplishments in 2020:

- Total wafer shipments were 12.4 million 12-inch equivalent wafers as compared to 10.1 million 12-inch equivalent wafers in 2019.
- Advanced technologies (16-nanometer and beyond) accounted for 58 percent of total wafer revenue, up from 50 percent in 2019.
- We deployed 281 distinct process technologies, and manufactured 11,617 products for 510 customers.
- TSMC produced 24 percent of the world semiconductor excluding memory output value in 2020, as compared to 21 percent in the previous year.

## 2020 Financial Performance

Consolidated revenue reached NT\$1,339.255 billion, an increase of 25.2 percent over NT\$1,069.99 billion in 2019. Net income was NT\$517.89 billion and diluted earnings per share were NT\$19.97. Both increased 50.0 percent from the 2019 level of NT\$345.26 billion net income and NT\$13.32 diluted EPS.

TSMC generated net income of US\$17.60 billion on consolidated revenue of US\$45.51 billion, which increased 57.5 percent and 31.4 percent respectively from the 2019 level of US\$11.18 billion net income and US\$34.63 billion consolidated revenue.

Gross profit margin was 53.1 percent compared with 46.0 percent in 2019, while operating profit margin was 42.3 percent compared with 34.8 percent a year earlier. Net profit margin was 38.7 percent, an increase of 6.4 percentage points from 2019's 32.3 percent.

In 2020, total cash dividend payments to shareholders sustained at NT\$10 per share.

## Technological Developments

In 2020, we continued to increase our investment in R&D to US\$3.72 billion to unleash our customers' innovations and extend our technology leadership.

Our 3-nanometer will offer up to 70% logic density gain, up to 15% performance gain and up to 30% power reduction as compared with N5. N3 technology development is on track with good progress. N3 will offer complete platform support for both mobile and HPC applications. Volume production is targeted in second half of 2022.

Our 5-nanometer (N5) technology successfully entered volume production in the second quarter of 2020 and experienced a strong ramp in the second half. We plan to offer continuous enhancements, such as N4, to extend the leadership of our 5-nanometer family. N4 is a straightforward migration from N5 with compatible design rules, while providing further performance, power and density enhancements for the next wave 5-nanometer products. N4 volume production is scheduled in 2022.

In its third year, 7-nanometer technology continued to see one of TSMC's fastest ramp ups in volume production, shipping more than one billion good dies in this process for hundreds of products from dozens of customers. Our N7+ also entered its second year of ramp using EUV lithography technology, while N6, which provides a clear migration path for next wave 7-nanometer products, entered volume production at the end of 2020. N6 will further extend our 7-nanometer family well into the future.

Our 16nm/12nm family has received over 650 customer product tape-outs across smartphone, HPC, storage and consumer electronics applications. We also unveiled our N12e™ process, bringing TSMC's world-class FinFET transistor technology to AI-enabled IoT devices, by providing both powerful computing performance and outstanding power efficiency.

The value of our technology platforms are evolving to include logic wafer scaling, design-technology co-optimization, and 3DIC. We have developed a comprehensive 3DIC technology roadmap to enhance system-level performance and drive greater energy efficiency. These technologies include chip stacking solutions such as SoIC (System on Integrated Chip), as well as advanced packaging solutions such as InFO (Integrated Fan-Out) and CoWoS® (Chip on Wafer on Substrate). TSMC's CoWoS® continued to integrate with larger interposer size for heterogeneous integration. We are also working with customers on TSMC-SoIC™, which is expected to be first adopted by HPC applications where bandwidth performance, power efficiency, and form factors are aggressively pursued.

TSMC's ecosystem, the Open Innovation Platform®, empowers our 510 distinct customers to design in a safe and secure cloud environment, to unleash their innovations with fast time-to-market. We also worked with our ecosystem partners to expand our libraries and silicon IP portfolio to over 35,000 items in 2020. More than 12,000 technology files and over 450 process design kits, from 0.5-micron to 3-nanometer, are available to customers via TSMC-Online. We saw more than 100,000 customer downloads in 2020.

## Corporate Social Responsibility

The foundation of TSMC's corporate social responsibility is a sound corporate governance built upon our core values that balances the interests of all stakeholders. Guided by the UN Sustainable Development Goals, our Corporate Social Responsibility Executive Committee has set our CSR focuses to be on driving green manufacturing, building a responsible supply chain, creating an inclusive workplace, developing STEM talent, and caring for the underprivileged.

Joining in the global effort to combat COVID-19, TSMC leveraged our expertise in technology, global procurement and supply chain management with a budget of US\$20 million to aid communities near TSMC sites with urgent needs in Taiwan, Mainland China, Japan, Europe and the United States. This included donations of personal protection equipment and ventilators to hospitals, public health agencies, and related parties; providing relief to vulnerable communities with immediate food, shelter, and medical aid; and collaborating with leading institutes on COVID-19 diagnostics, vaccines and therapeutics development.

As a responsible corporate citizen, TSMC is dedicated to fighting climate change and protecting the environment of the world that we share. By 2030, we target to supply 25% of power consumed by our fabs, and 100% of power consumed for non-fab facilities, using renewable energy. In 2020, we signed the largest renewables corporate power purchasing agreement in the world, and committed to renewable energy purchase agreements totaling 1.3 gigawatts. We have further committed to supplying 100% of TSMC's power from renewable energy and generating zero indirect carbon emissions from electricity consumption by 2050, enabling us to become the first semiconductor company to join the RE100 renewable energy initiative in 2020.

Corporate Developments

In May 2020, TSMC announced its intention to build and operate an advanced semiconductor fab in the United States, in the state of Arizona. This fab will start with 5-nanometer technology at 20,000 wafers per month capacity. Production is targeted to begin in 2024. A U.S. fab will enable TSMC to expand our technology ecosystem, better serve our customers and partners, and extend our reach for global talents.

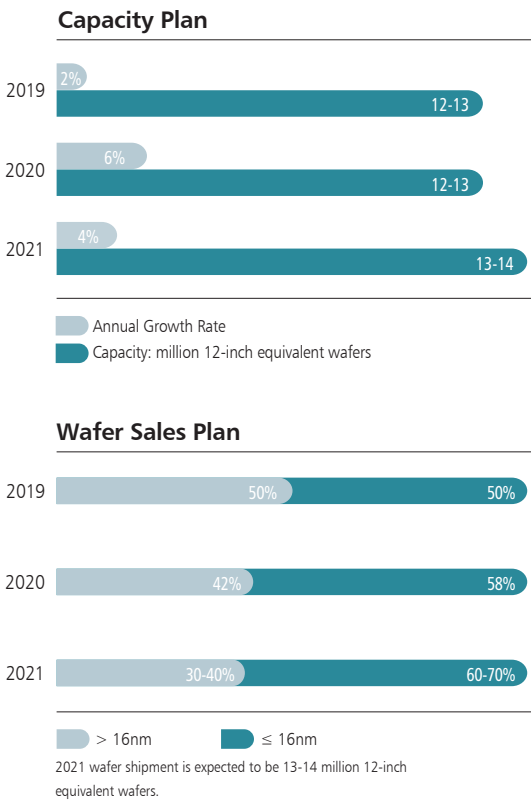
Honors and Awards

TSMC received recognition for achievements in innovation, corporate governance, sustainability, investor relations and overall excellence in management from organizations including *Forbes*, *Fortune Magazine*, *CommonWealth Magazine*, *Business Today*, RobecoSAM (S&P Global), RE100 and the Taiwan Stock Exchange. TSMC also received the prestigious 2021 IEEE Corporate Innovation Award, honoring the Company’s leadership in developing 7-nanometer foundry technology and enabling the innovations of IC designers everywhere. 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 20 consecutive years. TSMC also received recognition as one of *Wall Street Journal’s* “100 Most Sustainably Managed Companies” and *Corporate Knight’s* 2020 “Global 100 Most Sustainable Corporations”. Meanwhile, we remained a major component in both various MSCI ESG and FTSE4Good indices. In investor relations, TSMC continued to receive multiple awards from *Institutional Investor Magazine*.

Outlook

The challenges of the COVID-19 pandemic have only renewed TSMC’s dedication to enabling innovations that improve peoples’ lives. Digital technology has helped us weather the disruptions of the COVID-19 pandemic by allowing people to work, learn, and play in the safety of their homes, and also by maintaining our bonds with distant loved ones during difficult times. Beyond that, it has accelerated a digital transformation of society, with technology becoming increasingly essential in people’s lives.

As we enter the 5G era, the performance of digital computing for AI and 5G is insatiable. A smarter and more intelligent world will require massive increases in computation performance and greater need for energy efficient computing, fueling strong demand for advanced semiconductor technologies. With our leadership in advanced process technologies, our broad portfolio of specialty



technologies and 3DIC solutions, our unparalleled manufacturing capabilities, and deep collaborative relationships with customers, we are well positioned to capture the growth from these megatrends in the years ahead.

While macroeconomic uncertainties may linger, we will continue to work on the fundamentals of our business to further extend our technology differentiation. We will adhere to our dedicated foundry business model, and collaborate with all the IC innovators to unleash innovation. We will continue to conduct our business with integrity, sell our value, and treat all customers fairly. We will sharpen our Trinity of Strengths of technology leadership, manufacturing excellence, and customer trust, so that we may continue to fulfill our mission to be the trusted technology and capacity provider of the global logic IC industry for years to come.

We remain dedicated to world-class governance, sustainability, and good returns to our shareholders. We thank you for the trust and commitment you have placed in TSMC. We are excited about our future, and look forward to a long and prosperous relationship together.



Mark Liu  
Chairman

C.C. Wei  
Chief Executive Officer

## 2. Introduction

### Company Profile

Established in 1987 and headquartered in Hsinchu Science Park, Taiwan, TSMC pioneered the pure-play foundry business model with an exclusive focus on manufacturing customers' products. By choosing not to design, manufacture or market any semiconductor products under its own name, the Company ensures that it never competes with its customers. And so, the key to TSMC's success has always been to focus on its customers' success. TSMC's foundry business model has enabled the rise of the global fabless industry, and since its inception TSMC has been the world's leading semiconductor foundry. The Company manufactured 11,617 different products using 281 distinct technologies for 510 different customers in 2020.

TSMC-made semiconductors serve a global customer base that is large and diverse and includes a wide range of applications. These products are used in a variety of end markets including mobile devices, high performance computing, automotive electronics and the Internet of Things (IoT). Such strong diversification helps to smooth fluctuations in demand, which in turn allows TSMC to maintain higher levels of capacity utilization and profitability, and generate healthy returns for future investment.

The annual capacity of the manufacturing facilities managed by TSMC and its subsidiaries exceeded 12 million 12-inch equivalent wafers in 2020. These facilities include four 12-inch wafer GIGAFAB® fabs, four 8-inch wafer fabs, and one 6-inch wafer fab – all in Taiwan – as well as one 12-inch wafer fab at a wholly owned subsidiary, TSMC Nanjing Company Limited, and two 8-inch wafer fabs at wholly owned subsidiaries, WaferTech in the United States and TSMC China Company Limited.

TSMC provides customer support, account management and engineering services through offices in North America, Europe, Japan, China, and South Korea. At the end of 2020, the Company and its subsidiaries employed more than 56,000 people worldwide.

The Company is listed on the Taiwan Stock Exchange (TWSE) under ticker number 2330, and its American Depositary Shares (ADSs) are traded on the New York Stock Exchange (NYSE) under the symbol TSM.

### R&D Highlights in 2020

To meet our customer's needs in today's dynamic marketplace, TSMC is accelerating the pace of its innovation by offering leading-edge processes as well as a wide variety of specialty technologies to unleash their innovation. Many of our technological breakthroughs in materials, processing, and advanced lithography are enabling devices to be faster, smaller and more power efficient. In 2020, the Company developed or introduced a wide variety of technologies.

#### Advanced Technology Highlights

3nm fin field-effect transistor (FinFET) (N3) technology development is on track with good progress. This world-leading technology is optimized for both mobile and high-performance computing applications, and is expected to receive multiple customer product tape-outs in 2021. In addition, volume production is expected to start in the second half of 2022.

N4 technology is an enhanced version of 5nm FinFET (N5) technology, with compatible design rules while providing further enhancement in performance, power and density for the next wave of 5-nanometer products. The development of N4 is on schedule with good progress, and volume production is expected to start in 2022.

5nm FinFET (N5) technology is currently TSMC's most advanced technology in volume production. Products using this technology from various customers entered volume production in 2020 for applications including mobile and high-performance computing products.

#### Specialty Technology Highlights

The N6 radio frequency (N6RF) technology development started in 2020. This technology is built upon the N6 logic technology platform and adds high performance RF transistors and passive devices that can support more power and area efficient circuit designs. This new RF technology will enable future generations of wireless local area network (WLAN) and fifth-generation (5G) RF transceiver integrated circuits. The design kit for this technology is expected to be completed in 2021.

22ULL embedded RRAM technology IPs completed reliability qualification in 2020. Following 40ULP embedded RRAM technology, this technology is TSMC's second generation RRAM solution with balanced cost and reliability. This technology is fully CMOS logic compatible for process design kits (PDKs) and IP re-use for various applications including wireless MCU, IoT and wearable devices.

22ULL embedded MRAM technology IPs completed reliability qualification in 2020, with >100K cycle endurance and reflow capability. This technology demonstrated automotive Grade-1 capability and started volume production for customer wearable products in 2020. This technology is fully complementary-metal-oxide-semiconductor logic compatible for process design kit (PDK) and IP re-use for applications including wireless MCU, IoT and wearable devices.

#### Advanced Packaging Technology Highlights

In 2020 TSMC introduced 3DFabric™, a comprehensive family of 3D silicon stacking and advanced packaging technologies, which are comprised of frontend TSMC-SolC™ 3D silicon stacking and backend 3D interconnect technologies which include CoWoS® (chip on wafer on substrate) and InFO (integrated fan-out), providing customers flexible solutions for integration of chiplets.

TSMC-SolC™ (System on Integrated Chip) technology features both wafer-on-wafer (WoW) and chip-on-wafer (CoW) processes. This allows the stacking of both similar and dissimilar dies, greatly improving system performance while reducing a product's form factor. Continuing to develop CoW process technology, in 2020 TSMC successfully demonstrated WoW technology with good electrical results on heterogeneous integration of memory on logic and deep trench capacitor (DTC) on logic applications.

### 3. Market Overview

In 2020, TSMC maintained its leading position in the foundry segment of the global semiconductor industry by producing 24% of the world semiconductor (excluding memory) output value, increasing from 21% in 2019, as the Company's growth was fueled by the industry megatrends of 5G and high performance computing (HPC)-related applications. The Company's strong market position stems in great part from its leadership in advanced process technologies. In 2020, 58% of TSMC's wafer revenue came from advanced manufacturing processes – defined as geometries of 16nm and smaller – up from 50% in 2019.

TSMC estimates that the worldwide semiconductor market excluding memory reached US\$359 billion in revenue in 2020, representing a 10% increase from 2019. In the foundry segment of the semiconductor industry, total revenue rose to US\$80 billion in 2020, a robust growth of 20% over 2019.

For 2020, TSMC's strong growth in the foundry segment was driven by increased market demand for 5G smartphones and high-performance computing (HPC) products such as PCs, tablets, game consoles, servers, and 5G base station, which were further boosted by increasing "shelter at home" and "work from home" during the COVID-19 pandemic. Meanwhile, to cope with high market demand and supply uncertainties, the electronics supply chain took on higher inventory levels, which also contributed to foundry and TSMC growth. For 2021, TSMC forecasts further increases in demand for overall electronics devices, driven by the ongoing 5G smartphone ramp-up and continued strength in HPCs, supporting the acceleration of digital transformation, resulting in the total semiconductor market excluding memory to have a low-teens growth. Over the longer term, fueled by increasing semiconductor content in electronic devices, continued market share gains by fabless companies, increases in integrated device manufacturer (IDM) outsourcing, and expanding in-house application-specific integrated circuits (ASIC) from systems companies, the Company expects foundry segment revenue to outpace the mid-single-digit compound annual growth rate projected for the overall semiconductor market excluding memory from 2020 through 2025.

As an upstream supplier in the semiconductor supply chain, the foundry segment is tightly correlated with the market health of the major platforms, including smartphone, HPCs, Internet of Things, automotive, and digital consumer electronics (DCE).

#### Smartphone

Smartphone unit shipments, which were down a modest 2% in 2019, declined again in 2020 by 9%, reflecting their already high penetration in many developed countries and China, as well as the impact of the COVID-19 pandemic on consumer purchasing power. With 5G commercialization continuing to accelerate, new 5G smartphones will likely shorten the overall replacement cycle. As a result, TSMC projects a high-single-digit growth for the smartphone market in 2021. Over the longer term, the migration to 5G, together with improved performance, longer battery life, biosensors and more AI features, will all continue to propel smartphone sales going forward.

Low-power integrated circuit (IC) technology is an essential requirement among handset manufacturers, and system-on-chip (SoC) design is the preferred solution given its optimized cost, power, and form factor (IC footprint and thickness) potential. TSMC is the acknowledged leader in process technology for manufacturing system-on-chip. Spurred by the appetite for higher performance to run artificial intelligence (AI) applications, various complex software computation and higher resolution video, the migration to advanced process technologies will continue to accelerate.



### High Performance Computing (HPC)

The HPC platform includes PCs, tablets, game consoles, servers, and base stations, etc. Major HPC unit shipments grew by 11% in 2020, mainly driven by the COVID-19 “stay at home economy” and rapid 5G base station deployment.

The HPC market is projected to have a high-single-digit unit growth in 2021, following its strong growth in 2020. Several factors are expected to drive demand in the HPC platform, including ongoing 5G base station deployment, rising data center AI server demand, and next generation game console ramping. All these require higher performance and power-efficient CPUs, GPUs, NPUs, AI accelerators, and related-ASICs, which will drive the overall HPC platform towards richer silicon content and more advanced process technologies.

### Internet of Things (IoT)

The Internet of Things platform includes various types of connected devices, such as smart wearables, smart speakers, and surveillance systems. Boosted by pandemic-driven demand, IoT unit shipments grew 17% in 2020, with Bluetooth earphones, smart wearables, and smart health devices as the major growth drivers.

Looking ahead to 2021, IoT unit shipments will grow about 30%, thanks to the continued momentum of Bluetooth earphones, smart watches and smart speakers. In addition, the pandemic is changing consumers’ life and working styles, further triggering more applications for disease management and prevention. By adding more AI functions, IoT devices will drive demand for more powerful yet lower power-consuming controllers, connectivity ICs and sensors. TSMC offers high-performance yet low-power process technologies to meet industry trends and help customers succeed in the marketplace.

### Automotive

Worldwide car unit sales fell 14% in 2020 as global economies were softened by the COVID-19 pandemic. Car unit sales are projected to rebound, however, in 2021 with growth in the low teens driven by expected recovery in global economies and the automotive market in particular. Moving forward, TSMC expects semiconductor content requirement, driven by electric vehicles (EVs), advanced driver assistance systems (ADAS) and infotainment systems, to fuel the demand for processors, sensors, analog and power ICs. TSMC offers a wide variety of process technologies to help customers compete and succeed in the automotive market.

### Digital Consumer Electronics (DCE)

DCE unit shipments fell 7% in 2020. Sales of TVs and set-top boxes exceeded expectation thanks to the “stay at home economy”, but other consumer products such as digital cameras continued to decline due to stagnant demand and cannibalization by smartphones.

A slight rebound in the overall DCE market is expected in 2021 as certain sub-segments such as 4K and smart TVs continue to show positive growth. In addition, AI functions such as picture quality improvement and voice control are increasingly incorporated in TVs. With a broad array of advanced technology offerings, TSMC expects to take advantage of these market trends.

## 4. TSMC’s Trinity of Strengths

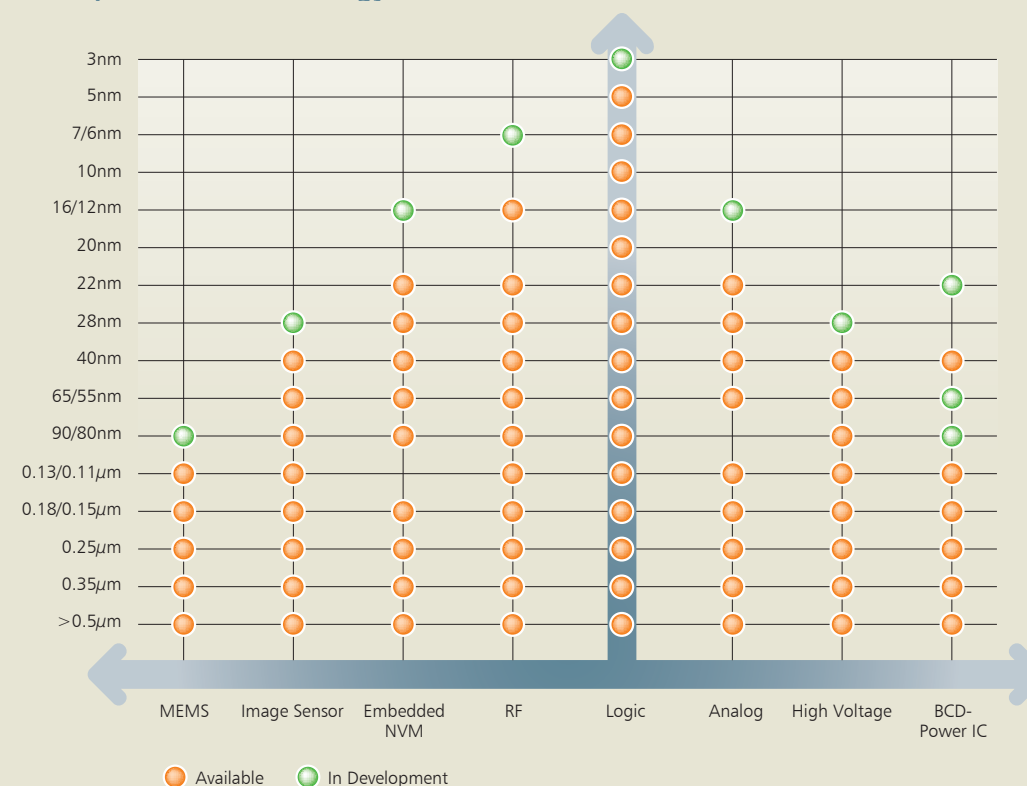
TSMC’s growth has outperformed the overall semiconductor industry for all but two years since the company’s founding. We have been able to achieve this track record by serving as “everyone’s foundry”. We do not compete with our customers but support them as they grow, and participate in their success as they flourish. Our ability to serve as everyone’s foundry is rooted in our trinity of strengths: Technology Leadership, Manufacturing Excellence, and Customer Trust.

Each component of the trinity plays a critical part. Our Technology Leadership allows us to provide leading-edge technologies to serve the most advanced product designs, and also enables a broad portfolio of specialty processes offerings for a diverse spectrum of IC designers. Our Manufacturing Excellence offers customers the fastest time-to-volume for their products and gives us the flexible capacity to not only manufacture for the foundry segment’s largest customer base, but also to provide more capacity when their products succeed and begin to generate high demand. Finally, Customer Trust keeps the goals of TSMC and its customers aligned, because we do not believe long-term success is possible if our customers do not succeed.

### Technology Leadership

As a semiconductor industry leader, TSMC’s technology offerings possess the breadth of specialty technologies to suit the needs of a broad array of customers, and our leading-edge technology development has the depth to give customers a head start in the next wave of fast-growing product segments. We commit considerable resources to maintain this competitive advantage in technology: In 2020, TSMC’s R&D spending totaled approximately 8.2% of revenues.

### Comprehensive Technology Portfolio



TSMC has focused its R&D efforts on enabling the Company to continually offer its customers first-to-market, leading-edge technologies and design solutions that contribute to their product success. In 2020, following the transfer to manufacturing of 5nm technology, the Company's R&D organization continued to fuel the pipeline of technological innovation needed to maintain industry leadership. While TSMC's 3nm technology, the sixth generation platform to make use of 3D transistors, continues full development as major customers completed IP design and started silicon validation, the Company has proceeded into full development of 2nm technology, which is the leading edge technology in the semiconductor industry today. At the same time, the Company's research and pathfinding pushed forward with exploratory studies for nodes beyond 2nm.

In addition to complementary-metal-oxide-semiconductor (CMOS) logic, TSMC conducts R&D on a wide range of other semiconductor technologies that provide the functionalities required by customers for mobile SoC and other applications. Highlights in 2020 include:

- Accomplished process validation of system-on-integrated-chip (SoIC) for both chip-on-wafer (CoW) and wafer-on-wafer (WoW) stacking using micron-level bonding-pitch processes with promising electrical yield and reliability results
- Achieved technical qualification of 28nm eFlash for automobile electronics and micro controller units (MCU) applications
- Expanded 12-inch Bipolar-CMOS-DMOS (BCD) technology portfolio on 90nm, 55nm and 22nm, targeting a variety of fast-growing applications of mobile power management ICs with various levels of integration
- Began production of 28nm resistive random access memory (RRAM) as a low-cost solution for the price sensitive IoT market and 22nm magnetic random access memory (MRAM) for next-generation embedded memory MCUs, automotive devices, IoT and AI applications
- Entered volume production of CMOS image sensors with shrunk sub-micron pixel size and sensors meeting automotive grade reliability compliance

TSMC's Technology Development team also provides customers with comprehensive design support to optimize their design productivity and reduce their cycle time, enabling their products to go from the designer's desk to the marketplace as short a time as possible. Our design support includes design flows for electronic design automation (EDA); silicon-proven IP building blocks, process design kits (PDKs), and technology files. By 2020, TSMC had provided customers more than different 12,000 different tech files and 450 PDKs via TSMC-Online™. There are more than 100,000 customer downloads of these tech files and PDKs every year. In addition, TSMC expanded its library and silicon IP portfolio in 2020 to contain more than 35,000 items, a 35% increase over 2019.

### Manufacturing Excellence

As "everyone's foundry," TSMC served 510 active customers in 2020, and manufactured over 11,617 different products using 281 different technologies, making it the world's most diversified provider of logic IC capacity. TSMC's unique manufacturing system is tailored to manage the diverse manufacturing requirements of each customer, product, and technology without compromising speed, precision, and flexibility to adapt to changing circumstances. At the same time, our people and systems deliver these results in the leanest and most efficient way possible to support TSMC's profitability.

In recent years, TSMC has focused on advancing our fab operations from "automated" to "intelligent". TSMC has integrated intelligence of processes, machine tuning, manufacturing know-how, and Artificial Intelligence (AI) technologies to create an intelligent manufacturing environment. Intelligent manufacturing technologies are widely applied in scheduling and dispatching, employee productivity, equipment productivity, process and equipment control, quality defense, and robotic control in order to

optimize quality, productivity, efficiency, and flexibility while achieving real-time information analysis, improving forecast capability, maximizing cost effectiveness, and accelerating overall innovation. TSMC has also integrated new applications such as intelligent mobile devices, IoT, and mobile robots, and combined with intelligent automated material handling systems (AMHS) to consolidate wafer manufacturing data collection and analysis, utilize manufacturing resource efficiently, and maximize manufacturing effectiveness. As a result, the system provides fast ramp-up, short cycle time, stable manufacturing, on-time delivery, and total quality satisfaction. It also offers great flexibility to quickly support customers' urgent pull-in requests when needed.



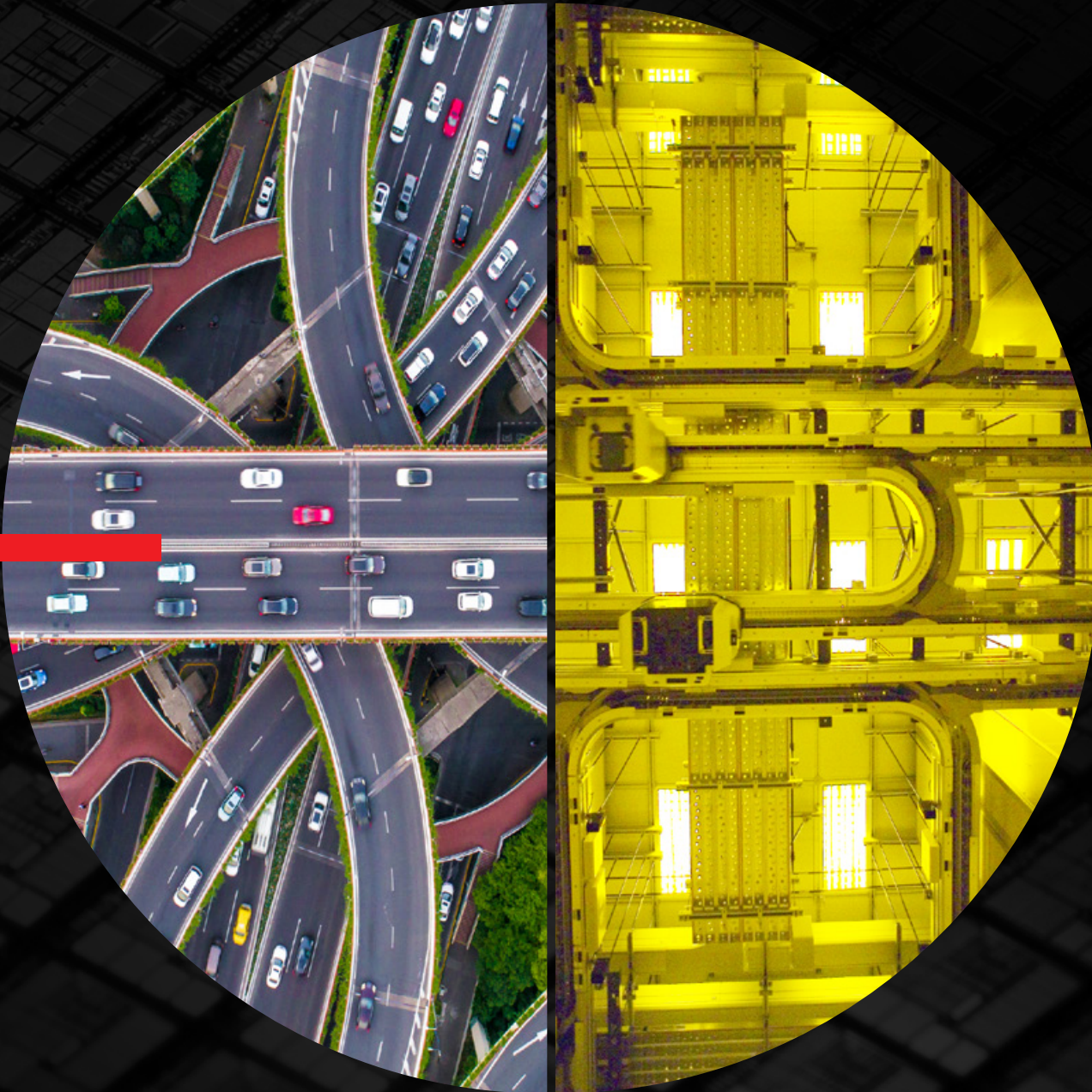
### Customer Trust

Customer Trust is deeply ingrained as one of TSMC's four core values and is our keystone to serving as "everyone's foundry". It ensures that we win together with our customers in long-term relationships that last from one generation of technology to another. A critical foundation stone for customer trust is a commitment TSMC made when it first opened for business: to never compete with customers. As a result, TSMC does not design IC products, but chooses to focus all of its resources on serving as the trusted foundry partner for its customers.

The dedicated foundry business model gives TSMC a distinct advantage over IDM foundries which give priority to manufacturing its own IC products over those of its customers. Customers that work with TSMC will not need to be concerned that their products will compete with their foundry's products in the marketplace. Nor will they need to worry that their capacity needs will take a back seat to the capacity needs of the IDM's products.

TSMC's engagement with customers begins at the earliest stages of R&D to understand their technology needs, and continues through to design support, mask making, manufacturing, and packaging and testing. Along the way, customers can call on the support of a dedicated customer service team, as well as 24-hour a day, seven-day-a-week access to real-time information through TSMC-Online, a suite of web-based applications that facilitates design, engineering, and logistics collaboration. From the fundamental tenets of TSMC's business model to the fine-grained details of doing business together, customers can be assured that TSMC is committed to winning together with them.

## 5. Corporate Governance



> The ceaseless flow of city traffic (Left)

> Intelligent operations of automated materials systems (Right)

TSMC advocates and acts upon the principles of operational transparency and respect for shareholder rights. We believe that the basis for successful corporate governance is a sound and effective Board of Directors. In line with this principle, the TSMC Board delegates various responsibilities and authority to two Board Committees, Audit Committee and Compensation Committee. Each Committee has a written charter approved by the Board. Each Committee's chairperson regularly reports to the Board on the activities and actions of the relevant committee.

### Board of Directors

TSMC's Board of Directors consists of ten distinguished members with a great breadth of experience as world-class business leaders or professionals. We deeply rely on them for their diverse knowledge, personal perspectives, and solid business judgment. Six of those ten members are Independent Directors: former British Telecommunications Chief Executive Officer, Sir Peter L. Bonfield; Co-Founder, Chairman Emeritus of the Acer Group, Mr. Stan Shih; former Chairman of National Performing Arts Center and former Advisor of Executive Yuan, R.O.C., Ms. Kok-Choo Chen; former Chairman of Applied Materials, Inc., Mr. Michael R. Splinter; former Chief Executive Officer of Xilinx, Inc., Mr. Moshe N. Gavrielov; and currently Chairman of Delta Electronics Inc., Mr. Yancey Hai. Independent Directors constitute 60% of the Board.

TSMC's Board is comprised of a diverse group of professionals from different backgrounds in industries, academia, law, etc. These professionals include citizens from Taiwan, Europe and the U.S. with world-class business operating experience, one of whom is female.

Inheriting the spirit of TSMC's Founder, Dr. Morris Chang's philosophy on corporate governance, under the leadership of Chairman Dr. Mark Liu and CEO & Vice Chairman Dr. C.C. Wei, TSMC's Board of Directors takes a serious and forthright approach to its duties and is a dedicated, competent and independent Board.

The Board's primary duty is to supervise the Company's compliance with relevant laws and regulations, financial transparency, timely disclosure of material information, and maintaining of the highest integrity. TSMC's Board of Directors strives to perform these responsibilities through its Audit Committee and the Compensation Committee, the hiring of a financial expert consultant for the Audit Committee, and coordination with our Internal Audit department.

The second duty of the Board of Directors is to evaluate the management's performance and to appoint and dismiss officers of the Company when necessary. TSMC's management has maintained a healthy and functional communication with the Board of Directors, has been devoted in executing guidance of the Board, and is dedicated in running the business operations, all to achieve the best interests for TSMC shareholders.

The third duty of the Board of Directors is to resolve important, concrete matters, such as capital appropriations, investment activities, dividends, etc.

The fourth duty of the Board of Directors is to provide guidance to the management team of the Company. Quarterly, TSMC's management reports to the Board on a variety of subjects (including CSR/ ESG programs). The management also reviews the Company's business strategies with the Board and updates TSMC's Board on the progress of those strategies, obtaining Board guidance as appropriate.

## 6. Corporate Social Responsibility



> A library collecting accumulated knowledge (Left)

> Photomasks storing the power of innovation (Right)

The Company's four core values of integrity, commitment, innovation, and customer trust remain as the core values of TSMC's culture. As the world's largest semiconductor foundry and a trusted technology and capacity provider, TSMC seeks, in addition to continued success in its business endeavors, to fulfill its ESG (Environmental, Social and Governance) management. For TSMC these responsibilities fall into three primary missions: acting with integrity, strengthening environmental protection and caring for the disadvantaged. For each of these missions the Company has established concrete, measurable long-term goals, as well as corresponding action plans to review and correct periodically, consistently creating value for all stakeholders.

### Vision

- To Uplift Society

### Mission

- Integrity
- Strengthening Environmental Protection
- Caring for the Disadvantaged

### Guiding Principles

**Acting with Integrity:** TSMC believes in acting ethically, following the law, and balancing the interests of all stakeholders. The Company endeavors to use the experience of developing a sustainable business to drive the industry and supply chain into a positive cycle and to act together with them as an uplifting force in society.

**Strengthening Environmental Protection:** TSMC strives to achieve environmental sustainability and continues to promote green fabs, green manufacturing, and green supply chains. The Company seeks the most efficient use of energy and resources and is committed to reducing waste and preventing pollution. TSMC is eager to share its environmental experience and expertise and aims to collaborate with government, academia, and all of society to address the challenges of climate change.

**Caring for the Disadvantaged:** TSMC believes in equality, justice, and a safe and prosperous society. The Company combines its resources with employee volunteer service to commit money, material and labor to the two main areas of "education" and "living". TSMC hopes to provide underprivileged students in rural regions with diverse learning opportunities and to offer disadvantaged groups necessary aid and emergency relief for the common good of society.

### TSMC ESG Highlights in 2020

#### Global COVID-19 Relief

Whenever a major catastrophe occurs, TSMC always looks for ways to leverage our unique knowledge and resources to provide aid and relief, such as applying our expertise in constructing fabs to help communities in Taiwan rebuild from disasters. Similarly, to fight the global COVID-19 pandemic, TSMC leveraged its expertise in technology, global procurement and supply chain management with a budget of US\$20 million to aid areas most in need of resources in Taiwan, Mainland China, Japan, Europe and the United States. This included donations of personal protection equipment and ventilators to hospitals, public health agencies, and related parties; providing relief to vulnerable communities with immediate food, shelter, and medical aid; and collaborating with leading institutes on COVID-19 diagnostics, vaccines and therapeutics development.

### Commitment to 100% Renewable Energy

With a vision of pursuing growth and mutual prosperity between industry and the environment, TSMC continues to expand its usage of renewable energy after supplying 100% of the power consumed at all overseas sites from renewable energy. In 2020, TSMC set the goal of using renewable energy to supply 25% of power consumed by its manufacturing facilities, and 100% of power for other facilities. In addition, TSMC has committed to 100% renewable energy and zero indirect carbon emissions from electricity consumption by 2050, enabling the Company to become the world’s first semiconductor company to join the RE100, a global renewable energy initiative led by the Climate Group and the Carbon Disclosure Project.

### Industrial-Grade Wastewater Reclamation Plant

As a leading global semiconductor company, TSMC began investing in water reclamation technologies in 2015 by coordinating with government agencies to develop domestic wastewater recycling processes to diversify the Company’s water sources. In 2020, TSMC signed a contract with the Southern Taiwan Science Park Bureau to build a reclaimed water plant capable of reclaiming industrial-grade wastewater, and began construction on the project. By 2021, TSMC expects the plant to supply about 5,000 tons or reclaimed water per day, increasing to 20,000 tons per day by 2023. As a determined promoter of green manufacturing, TSMC is actively committed to using reclaimed water from industrial wastewater and domestic sewage to reduce consumption of tap water.

### Zero-Waste Manufacturing Center

TSMC proactively develops waste reclamation technologies to recycle and reuse waste materials, and in 2020, the TSMC Board of Directors approved construction of the semiconductor industry’s first Zero-Waste Manufacturing Center, which will be located in the Central Taiwan Science Park. Using a circular economy model, the project aims to purify waste resources into semiconductor-grade chemicals that will return to TSMC manufacturing processes. Reclaimed material is expected to substitute for at least 30% of raw material demand, reducing outsourced waste treatment by 14 tons per year and creating NT\$1.2 billion of value in waste recycling and reduction.

# 7. Financial Statements

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

### Consolidated Condensed Balance Sheets

December 31, 2016 - 2020

(In Millions of New Taiwan Dollars (NTD) and U.S. Dollars (USD))

|                                                       | 2020      |              | 2019         | 2018         | 2017         | 2016         |
|-------------------------------------------------------|-----------|--------------|--------------|--------------|--------------|--------------|
|                                                       | USD       | NTD          | NTD          | NTD          | NTD          | NTD          |
| ASSETS                                                |           |              |              |              |              |              |
| Current Assets                                        |           |              |              |              |              |              |
| Cash and Cash Equivalents                             | \$ 23,496 | \$ 660,171   | \$ 455,399   | \$ 577,815   | \$ 553,392   | \$ 541,254   |
| Investments in Marketable Financial Instruments       | 4,673     | 131,306      | 128,049      | 117,367      | 95,967       | 90,855       |
| Accounts Receivable                                   | 5,198     | 146,038      | 139,771      | 129,198      | 122,317      | 129,305      |
| Inventories                                           | 4,889     | 137,353      | 82,981       | 103,231      | 73,881       | 48,682       |
| Other Current Assets                                  | 616       | 17,317       | 16,414       | 24,069       | 11,646       | 7,633        |
| Total Current Assets                                  | 38,872    | 1,092,185    | 822,614      | 951,680      | 857,203      | 817,729      |
| Non-current Assets                                    |           |              |              |              |              |              |
| Long-term Investments                                 | 987       | 27,728       | 30,172       | 29,305       | 41,569       | 46,154       |
| Property, Plant and Equipment                         | 55,365    | 1,555,589    | 1,352,377    | 1,072,050    | 1,062,543    | 997,778      |
| Right-of-use, Intangible and Other Non-current Assets | 3,032     | 85,209       | 59,642       | 37,093       | 30,547       | 24,794       |
| Total Non-current Assets                              | 59,384    | 1,668,526    | 1,442,191    | 1,138,448    | 1,134,659    | 1,068,726    |
| Total Assets                                          | \$ 98,256 | \$ 2,760,711 | \$ 2,264,805 | \$ 2,090,128 | \$ 1,991,862 | \$ 1,886,455 |
| LIABILITIES AND SHAREHOLDERS' EQUITY                  |           |              |              |              |              |              |
| Current Liabilities                                   |           |              |              |              |              |              |
| Short-term Loans                                      | \$ 3,152  | \$ 88,559    | \$ 118,522   | \$ 88,755    | \$ 63,767    | \$ 57,958    |
| Accounts Payable                                      | 1,463     | 41,095       | 40,206       | 34,357       | 30,069       | 27,325       |
| Payables to Contractors and Equipment Suppliers       | 5,616     | 157,805      | 140,811      | 43,134       | 55,724       | 63,154       |
| Cash Dividends Payable                                | 4,614     | 129,652      | 129,652      | -            | -            | -            |
| Accrued Expenses and Other Current Liabilities        | 7,027     | 197,440      | 129,745      | 139,397      | 150,746      | 131,692      |
| Current Portion of Bonds Payable and Bank Loans       | 93        | 2,600        | 31,800       | 34,900       | 58,401       | 38,110       |
| Total Current Liabilities                             | 21,965    | 617,151      | 590,736      | 340,543      | 358,707      | 318,239      |
| Non-current Liabilities                               |           |              |              |              |              |              |
| Bonds Payable                                         | 9,044     | 254,105      | 25,100       | 56,900       | 91,800       | 153,094      |
| Other Non-current Liabilities                         | 1,382     | 38,833       | 26,874       | 15,189       | 18,595       | 25,071       |
| Total Non-current Liabilities                         | 10,426    | 292,938      | 51,974       | 72,089       | 110,395      | 178,165      |
| Total Liabilities                                     | 32,391    | 910,089      | 642,710      | 412,632      | 469,102      | 496,404      |
| Equity Attributable to Shareholders of the Parent     |           |              |              |              |              |              |
| Capital Stock at Par Value                            | 9,229     | 259,304      | 259,304      | 259,304      | 259,304      | 259,304      |
| Capital Surplus                                       | 2,005     | 56,347       | 56,340       | 56,316       | 56,310       | 56,272       |
| Legal Capital Reserve                                 | 11,074    | 311,147      | 311,147      | 276,034      | 241,723      | 208,298      |
| Special Capital Reserve                               | 1,504     | 42,259       | 10,675       | 26,907       | -            | -            |
| Unappropriated Earnings                               | 43,965    | 1,235,280    | 1,011,513    | 1,073,706    | 991,639      | 863,710      |
| Others                                                | (1,946)   | (54,680)     | (27,569)     | (15,450)     | (26,918)     | 1,664        |
| Equity Attributable to Shareholders of the Parent     | 65,831    | 1,849,657    | 1,621,410    | 1,676,817    | 1,522,058    | 1,389,248    |
| Noncontrolling Interests                              | 34        | 965          | 685          | 679          | 702          | 803          |
| Total Shareholders' Equity                            | 65,865    | 1,850,622    | 1,622,095    | 1,677,496    | 1,522,760    | 1,390,051    |
| Total Liabilities & Shareholders' Equity              | \$ 98,256 | \$ 2,760,711 | \$ 2,264,805 | \$ 2,090,128 | \$ 1,991,862 | \$ 1,886,455 |

Note: Amounts in New Taiwan dollars have been translated into U.S. dollars at the rate of NT\$28.097 as of December 31, 2020.

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

### Consolidated Condensed Statements of Comprehensive Income

For the Years Ended December 31, 2016 - 2020

(In Millions of New Taiwan Dollars (NTD) and U.S. Dollars (USD), Except for Earnings Per Share)

|                                            | 2020      |              | 2019         | 2018         | 2017       | 2016       |
|--------------------------------------------|-----------|--------------|--------------|--------------|------------|------------|
|                                            | USD       | NTD          | NTD          | NTD          | NTD        | NTD        |
| Net Revenue                                | \$ 45,505 | \$ 1,339,255 | \$ 1,069,985 | \$ 1,031,474 | \$ 977,447 | \$ 947,938 |
| Cost of Revenue                            | (21,342)  | (628,125)    | (577,283)    | (533,600)    | (482,621)  | (473,106)  |
| Gross Profit                               | 24,163    | 711,130      | 492,702      | 497,874      | 494,826    | 474,832    |
| Operating Expenses                         |           |              |              |              |            |            |
| Research and Development Expenses          | (3,720)   | (109,486)    | (91,419)     | (85,895)     | (80,733)   | (71,208)   |
| Sales, General and Administrative Expenses | (1,209)   | (35,570)     | (28,086)     | (26,254)     | (27,169)   | (25,696)   |
| Total Operating Expenses                   | (4,929)   | (145,056)    | (119,505)    | (112,149)    | (107,902)  | (96,904)   |
| Other Operating Income and Expenses        | 24        | 710          | (496)        | (2,101)      | (1,365)    | 30         |
| Income from Operations                     | 19,258    | 566,784      | 372,701      | 383,624      | 385,559    | 377,958    |
| Non-operating Income and Expenses          |           |              |              |              |            |            |
| Share of Profits of Associates             | 122       | 3,593        | 2,844        | 3,058        | 2,986      | 3,495      |
| Net Interest Income (Expenses)             | 236       | 6,937        | 12,939       | 11,643       | 6,134      | 3,011      |
| Other Gains and Losses                     | 253       | 7,463        | 1,361        | (815)        | 1,454      | 1,495      |
| Total Non-operating Income and Expenses    | 611       | 17,993       | 17,144       | 13,886       | 10,574     | 8,001      |
| Income before Income Tax                   | 19,869    | 584,777      | 389,845      | 397,510      | 396,133    | 385,959    |
| Income Tax Expenses                        | (2,263)   | (66,619)     | (44,501)     | (46,326)     | (52,986)   | (51,621)   |
| Net Income                                 | 17,606    | 518,158      | 345,344      | 351,184      | 343,147    | 334,338    |
| Other Comprehensive Income (Losses)        | (1,030)   | (30,322)     | (11,824)     | 9,837        | (28,822)   | (11,067)   |
| Comprehensive Income                       | \$ 16,576 | \$ 487,836   | \$ 333,520   | \$ 361,021   | \$ 314,325 | \$ 323,271 |
| Net Income Attributable to:                |           |              |              |              |            |            |
| Shareholders of the Parent                 | \$ 17,597 | \$ 517,885   | \$ 345,264   | \$ 351,131   | \$ 343,111 | \$ 334,247 |
| Noncontrolling Interests                   | 9         | 273          | 80           | 53           | 36         | 91         |
|                                            | \$ 17,606 | \$ 518,158   | \$ 345,344   | \$ 351,184   | \$ 343,147 | \$ 334,338 |
| Earnings per Share - Diluted (NT\$)        | 0.68      | 19.97        | 13.32        | 13.54        | 13.23      | 12.89      |
| Earnings per ADR - Diluted (US\$)          |           | 3.39         | 2.15         | 2.24         | 2.17       | 2.00       |

Note: Amounts in New Taiwan dollars have been translated into U.S. dollars at the weighted average rate of NT\$29.431 for the year ended December 31, 2020.

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

### Consolidated Condensed Cash Flow Statements

For the Years Ended December 31, 2016 - 2020

(In Millions of New Taiwan Dollars (NTD) and U.S. Dollars (USD))

|                                                                         | 2020      |            | 2019       | 2018       | 2017       | 2016       |
|-------------------------------------------------------------------------|-----------|------------|------------|------------|------------|------------|
|                                                                         | USD       | NTD        | NTD        | NTD        | NTD        | NTD        |
| Cash Flows from Operating Activities:                                   |           |            |            |            |            |            |
| Income Before Income Tax                                                | \$ 19,869 | \$ 584,777 | \$ 389,845 | \$ 397,510 | \$ 396,133 | \$ 385,959 |
| Depreciation & Amortization                                             | 11,271    | 331,725    | 286,884    | 292,546    | 260,143    | 223,828    |
| Share of Profits of Associates                                          | (122)     | (3,593)    | (2,844)    | (3,058)    | (2,986)    | (3,495)    |
| Income Taxes Paid                                                       | (1,745)   | (51,362)   | (52,044)   | (45,383)   | (63,620)   | (45,943)   |
| Changes in Working Capital & Others                                     | (1,321)   | (38,880)   | (6,702)    | (67,661)   | (4,352)    | (20,514)   |
| Net Cash Generated by Operating Activities                              | 27,952    | 822,667    | 615,139    | 573,954    | 585,318    | 539,835    |
| Cash Flows from Investing Activities:                                   |           |            |            |            |            |            |
| Interest Received                                                       | 332       | 9,775      | 16,875     | 14,660     | 9,526      | 6,353      |
| Cash Dividend Received                                                  | 118       | 3,487      | 2,039      | 3,421      | 4,391      | 5,616      |
| Acquisitions of:                                                        |           |            |            |            |            |            |
| Property, Plant and Equipment                                           | (17,235)  | (507,239)  | (460,422)  | (315,582)  | (330,588)  | (328,045)  |
| Marketable Financial Instruments                                        | (9,070)   | (266,940)  | (257,997)  | (99,017)   | (102,508)  | (116,901)  |
| Financial Assets Carried at Cost                                        | -         | -          | -          | -          | (1,313)    | (534)      |
| Proceeds from Disposal or Redemption of:                                |           |            |            |            |            |            |
| Property, Plant and Equipment                                           | 21        | 607        | 287        | 181        | 326        | 98         |
| Marketable Financial Instruments                                        | 9,081     | 267,247    | 247,212    | 89,159     | 87,461     | 40,518     |
| Financial Assets Carried at Cost                                        | -         | -          | -          | -          | 58         | 160        |
| Others                                                                  | (432)     | (12,719)   | (6,796)    | (7,091)    | (3,518)    | (2,705)    |
| Net Cash Used In Investing Activities                                   | (17,185)  | (505,782)  | (458,802)  | (314,269)  | (336,165)  | (395,440)  |
| Cash Flows from Financing Activities:                                   |           |            |            |            |            |            |
| Increase (Decrease) in Short-term Loans                                 | (1,073)   | (31,572)   | 31,804     | 23,923     | 10,394     | 18,969     |
| Proceeds from Issuance of Bonds                                         | 8,043     | 236,726    | -          | -          | -          | -          |
| Repayment of Bonds                                                      | (1,080)   | (31,800)   | (34,900)   | (58,025)   | (38,100)   | (23,472)   |
| Repayment of Long-term Bank Loans                                       | -         | -          | -          | -          | (31)       | (9)        |
| Interest Paid                                                           | (61)      | (1,781)    | (3,597)    | (3,233)    | (3,483)    | (3,302)    |
| Cash Dividends Paid for Common Stock                                    | (8,810)   | (259,304)  | (259,304)  | (207,443)  | (181,513)  | (155,582)  |
| Others                                                                  | (30)      | (884)      | (3,642)    | (346)      | (2,964)    | 5,596      |
| Net Cash Used in Financing Activities                                   | (3,011)   | (88,615)   | (269,639)  | (245,124)  | (215,697)  | (157,800)  |
| Effect of Exchange Rate Changes on Cash and Cash Equivalents and Others | (798)     | (23,498)   | (9,114)    | 9,862      | (21,318)   | (8,030)    |
| Net Increase (Decrease) in Cash and Cash Equivalents                    | 6,958     | 204,772    | (122,416)  | 24,423     | 12,138     | (21,435)   |
| Cash and Cash Equivalents at Beginning of Period                        | 15,473    | 455,399    | 577,815    | 553,392    | 541,254    | 562,689    |
| Cash and Cash Equivalents at End of Period                              | \$ 22,431 | \$ 660,171 | \$ 455,399 | \$ 577,815 | \$ 553,392 | \$ 541,254 |

Note: Amounts in New Taiwan dollars have been translated into U.S. dollars at the weighted average rate of NT\$29.431 for the year ended December 31, 2020.

# Contact Information

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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|                                                                                                                                                                                              |                                                                                                                                                                             |
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| Europe/North America                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>TSMC Europe B.V.</b><br>World Trade Center, Zuidplein 60, 1077 XV Amsterdam, The Netherlands<br>Tel: +31-20-3059900                                                                                                                                                                                    | <b>TSMC Technology, Inc</b><br>2851 Junction Avenue, San Jose, CA 95134, U.S.A.<br>Tel: +1-408-3828000                                                                                                                                                                                                                                                                                                                   |
| <b>TSMC Design Technology Canada Inc.</b><br>535 Legget Dr., Suite 600, Kanata, ON K2K 3B8, Canada<br>Tel: +613-576-1990   Fax: +613-576-1999                                                                                                                                                             | <b>WaferTech, LLC</b><br>5509 N.W. Parker Street, Camas, WA 98607-9299, U.S.A.<br>Tel: +1-360-8173000   Fax: +1-360-8173009                                                                                                                                                                                                                                                                                              |
| <b>TSMC North America</b><br>2851 Junction Avenue, San Jose, CA 95134, U.S.A.<br>Tel: +1-408-3828000   Fax: +1-408-3828008                                                                                                                                                                                | <b>TSMC Arizona Corporation</b><br>2510 W. Dunlap Avenue, #600, Phoenix, AZ 85021, U.S.A.<br>Tel: +1 602-567-1688                                                                                                                                                                                                                                                                                                        |
| <b>TSMC Spokesperson</b><br>Name: Wendell Huang<br>Title: Vice President & CFO<br>Tel: +886-3-5636688   Fax: +886-3-5637000<br>Email: <a href="mailto:press@tsmc.com">press@tsmc.com</a>                                                                                                                  | <b>Common Share Transfer Agent and Registrar</b><br>Company: The Transfer Agency Department of CTBC Bank<br>Address: 5F, 83, Sec. 1, Chung-Ching S. Rd., Taipei 100-003, Taiwan R.O.C.<br>Tel: +886-2-66365566   Fax: +886-2-23116723<br>Website: <a href="http://www.ctbcbank.com">http://www.ctbcbank.com</a>                                                                                                          |
| <b>TSMC Deputy Spokesperson</b><br>Name: Nina Kao<br>Title: Head of PR Department<br>Tel: +886-3-5636688   Fax: +886-3-5637000<br>Email: <a href="mailto:press@tsmc.com">press@tsmc.com</a>                                                                                                               | <b>ADR Depository Bank</b><br>Company: Citibank, N.A.<br>Depository Receipts Services<br>Address: 388 Greenwich Street, New York, NY 10013, U.S.A.<br>Website: <a href="http://www.citi.com/dr">http://www.citi.com/dr</a><br>Tel: +1-877-2484237 (toll free)<br>Tel: +1-781-5754555 (out of US)   Fax: +1-201-3243284<br>E-mail: <a href="mailto:citibank@shareholders-online.com">citibank@shareholders-online.com</a> |
| <b>Auditors</b><br>Company: Deloitte & Touche<br>Auditors: Mei-Yen Chiang, Yu-Feng Huang<br>Address: 20F, No. 100, Songren Rd., Xinyi Dist.,Taipei 110-016, Taiwan, R.O.C.<br>Tel: +886-2-27259988   Fax: +886-2-40516888<br>Website: <a href="http://www.deloitte.com.tw">http://www.deloitte.com.tw</a> | <p>TSMC’s depository receipts of the common shares are listed on New York Stock Exchange (NYSE) under the symbol TSM. The information relating to TSM is available at <a href="http://www.nyse.com">http://www.nyse.com</a> and <a href="http://mops.twse.com.tw">http://mops.twse.com.tw</a></p>                                                                                                                        |

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The statements included in this business overview that are not historical in nature are “forward-looking statements” within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. TSMC cautions readers that forward-looking statements are subject to significant risks and uncertainties and are based on TSMC’s current expectations. Actual results may differ materially from those contained in such forward-looking statements for a variety of reasons including, among others, risks associated with cyclicalty and market conditions in the semiconductor industry; demand and supply for TSMC’s foundry manufacturing capacity in particular and for foundry manufacturing capacity in general; intense competition; the failure of one or more significant customers to continue to place the same level of orders with us; TSMC’s ability to remain a technological leader in the semiconductor industry; TSMC’s ability to manage its capacity; TSMC’s ability to obtain, preserve and defend its intellectual property rights; natural disasters and other unexpected events which may disrupt production; and exchange rate fluctuations. Additional information as to these and other risk factors that may cause TSMC’s actual results to differ materially from TSMC’s forward-looking statements may be found in TSMC’s Annual Report on Form 20-F, filed with the United States Securities and Exchange Commission (the “SEC”) on April 16, 2021, and such other documents as TSMC may file with, or submit to, the SEC from time to time. Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.