

Charles D. (Chuck) del Prado

Chairman of the Management Board, President and Chief Executive Officer

MESSAGE FROM THE CEO

2019 has been a highly successful year for ASMI. We increased our sales by 57%, including proceeds from the settlement with Kokusai Electric Corporation (KEC). Excluding these proceeds sales increased by 37%, strongly outperforming the wafer fab equipment (WFE) market.



Our growth was driven by solid spending in the logic/foundry segment on the most advanced nodes. We delivered record high financial results and we booked meaningful progress in our Corporate Responsibility programs. We took further steps towards our strategic targets to expand our served available markets (SAM), supported by new customer engagements and a number of important product introductions. We continue to make significant investments in the growth of our company while, at the same time, delivering on our commitment to use excess cash for the benefit of our shareholders. Supported by a record high backlog ASMI is well positioned for a healthy performance in 2020. On behalf of the Board I would like to thank our employees whose continued dedication and hard work made possible ASMI's outstanding results in 2019.

WFE MARKET IN 2019 WAS DOWN A HIGH SINGLE-DIGIT PERCENTAGE COMPARED TO 2018

Our industry went through a correction in 2019. Worldwide semiconductor industry sales decreased by about 12%. An important reason was the decrease in the memory end-markets, but growth slowed also in other parts of the semiconductor market due to uncertainties related to the economic outlook and trade frictions. This trend was exacerbated by temporary inventory corrections such as in the datacenter part of the market.

Against this backdrop WFE spending dropped by a high single digit percentage. This was the balance of a substantial weakening in memory spending and a solid increase in spending in the logic/foundry sector. In the memory segment, customers are currently digesting the substantial investments they made over the last few years and are focused on rebalancing supply and demand in their markets. This was reflected by significant cuts in equipment spending, both in the DRAM and NAND segments.

“OUR SHARE OF WALLET IN THE MOST ADVANCED LOGIC/FOUNDRY NODES SIGNIFICANTLY INCREASED.”

Logic/foundry spending was solid throughout the year, driven by spending on the most advanced nodes. In the advanced logic sector, investments in the 10nm node increased strongly on top of continued 14nm capacity additions earlier in the year. Foundry spending on the 5nm node also increased strongly, with ongoing demand for 7nm capacity.

ASMI STRONGLY OUTPERFORMED IN 2019

With sales growth of 33% in constant currencies and excluding the settlements, ASMI strongly outperformed the WFE market in 2019. We benefited from our leading position in logic/foundry. Our non-memory sales, of which logic and foundry are the largest parts, accounted again for more than half of our total sales in 2019. The leading logic and foundry customers increased their capital expenditures as they stepped up their investments in the volume ramp of the newest technology nodes. Compared to the previous logic/foundry nodes, our share of wallet increased in a meaningful way as we are engaged in a substantially higher number of applications. This had already started to drive our sales in the second half of 2018, and the trend further strengthened in 2019.

In terms of industry segments, sales for the full-year were led by foundry. Our sales increased strongly, driven by investments throughout the year in the most advanced foundry nodes, especially the 5nm node, combined with our share of wallet gains at this node. The second-largest industry segment was logic. Following an already strong increase in 2018, sales in this segment grew again by a substantial double digit percentage in 2019. In memory – the third-largest segment – our sales were relatively flat in 2019, compared to the double digit decline in the broader memory market. Our sales in memory benefited from customer-specific projects, such as in the DRAM segment. The analog segment, which is smaller than the other segments, showed a decent double digit sales increase for the full year. As expected, this was the balance of a strong first half of 2019 and a weaker second half. In this segment we serve a broad base of customers across the globe for products such as power devices and IoT-related semiconductors.

Our equipment sales grew by 44%. By product lines, sales in the full-year were led by strong double digit growth in our ALD product line, which increased to a new record high. ALD continued to represent more than half of our equipment revenue in 2019. Sales of our combined other product lines also increased by a robust double digit percentage to a new record high in 2019, led by growth in our Epi business. Driven by our expanding installed-base spares & service sales increased by a solid 15% and represented 19% of total sales in 2019.

FINANCIAL PERFORMANCE

Our sales increased with 57% to a level of €1,284 million. During the year we resolved all pending litigation with Kokusai Electric Corporation (KEC). As part of these settlement agreements, KEC paid in total US\$176 million, or €159 million, to ASMI. Excluding these proceeds, sales increased by 37% in 2019 to €1,125 million, a new record high for our company.

Gross margin increased from 40.9% to 42.6% in 2019. While we incurred extra costs related to new growth initiatives and product introductions, this was more than offset by better margins on the newly introduced products which improved as compared to 2018. With operating expenses under control operating profit increased 77%. Results from investments excluding amortization of intangible assets – reflecting our share of ASMPT's net profits – decreased by 70% to €18 million.

Free cash flow in 2019 strongly increased to €206 million on the back of improved profitability and a reduction in working capital. ASMI's financial position continues to be solid. The cash balances increased from €286 million to €498 million. As well as strong free cash flow, the cash position was positively impacted by the settlement proceeds, and partly offset by €200 million that we used for dividends and share buybacks in 2019.

In February 2020 we completed the €100 million share buyback program that started in November 2019, and announced the authorization of a new €100 million share buyback. Also in February, we announced a proposed full year dividend over 2019 of €3.00 per share, including the interim dividend of €1.00 per share paid November 2019. The full year dividend consists of a regular dividend of €1.50 per share, up 50% from the dividend paid over 2018, and an extraordinary dividend of €1.50 per share. The extra-ordinary dividend and the new share buyback program reflect our continued commitment to use excess cash for the benefit of our shareholders.

PROGRESSING WELL AGAINST STRATEGIC TARGETS

2019 was also a year of progress in a number of important strategic areas. ALD continues to be a strong long-term driver for ASMI. As conventional deposition runs out of steam for many challenging process steps, the importance of ALD increases as a key enabling technology supporting customers transitioning to smaller geometries, new complex 3D device structures and new materials. We remain confident that, over time, the single-wafer ALD market will grow as a percentage of the total deposition market.

An important pillar of our growth strategy is to increase our addressable market within the single-wafer ALD space. To this end we continue to commit significant resources in further enhancing our leading platforms and to grow the pipeline of new ALD applications. In 2019, we announced the launch of the XP8 QCM tool for high-productivity PEALD applications. This newest addition to our portfolio of leading ALD platforms allows for the integration of up to four modules, each containing four process reactors on a single platform. This launch followed on the introduction of Synergis in 2018. These two new platforms will enable a meaningful expansion of our SAM. Demand for both new platforms has been strong and they were a meaningful driver of our ALD tool sales in 2019.

“ASMI HAS NEVER BEEN STRONGER THAN IT IS TODAY.”

In logic/foundry we have strongly expanded our position in the most advanced nodes. The number of ALD layers has substantially increased in the logic 10nm and foundry 5nm nodes. This drove solid share of wallet gains and substantial sales increases for ASMI in 2019. We are now working with our customers on the next nodes, where we expect again a further increase in the number of ALD layers and applications.

In memory, despite the market downturn, our sales were about flat last year. In DRAM, we benefited from a number of specific customer projects where we have strengthened our position. In DRAM, we also won tool selections in the area of non-patterning ALD applications. We expect these tool selections to start contributing in 2020. In 3D-NAND we supplied multiple systems as part of a customer selection that we won early in 2019. We made important progress in developing additional ALD applications with our customers for the next higher stack device generations. We expect the number of single-wafer ALD applications – and ASMI’s participation in this segment – to further increase.

Next to ALD, we remain focused on expanding our SAM in our other product lines, especially in Epi. With again strong double digit growth in 2019, Epi has become our second-largest product line. Demand for our Intrepid Epi tool continued to be strong, driven by our expanded position at the leading foundry 5nm node.

The prospects for long-term structural growth in the epitaxy market are healthy as next-generation devices in the logic/foundry market are expected to require a rising number of Epi steps. We booked further progress in R&D customer engagements last year and we continue to aim for further increases in our Epi share over time. An important step was the introduction of the Previm in July 2019. Previm is an integrated Epi pre-clean module integrated as a module in our Intrepid Epi product. Pre-clean steps can be critical to enable high-quality Epi film growth in advanced devices at 5nm and smaller.

In vertical furnaces and PECVD we continued to expand our niche positions by investing in selected growth opportunities. An example in 2019 was the launch of our new A400 DUO vertical furnace tool for growing 200mm applications such as in IoT.

OPERATIONAL EXCELLENCE

In Safety, we achieved the lowest injury rates in the recorded history of the company. Our total work-related injury rate improved a further 24% from 2018, and our recordable injury rate improved 6%. Our year-on-year focused safety risk reduction efforts provide the structural foundation for these and further gains. In Product Safety, we continue to make significant progress embedding Safety-by-Design into our product development DNA. And as part of our Corporate Responsibility focus, we continue to make solid progress towards our environmental targets, most notably through significant reductions in our global water consumption. In January 2020, we took the next logical step in our long-standing commitment to the tenets of the Responsible Business Alliance (RBA) by becoming a member. Beyond this progress, we remain intensely and relentlessly focused on further improvement towards our vision of ZERO HARM!

In 2019, we opened our new facility in Dongtan, South Korea, further strengthening our R&D position, manufacturing capacity, and support performance for our key customers in South Korea. We are also completing construction of a new manufacturing center in Singapore which is expected to be completed end of Q2 2020 and will substantially increase our manufacturing capacity. Through our multi-year Business Enterprise Systems Transformation (BEST) program, we completed the first phase go-live of our leading-edge global product development environment, and made considerable progress in other key areas of this roadmap. We also strengthened our supply chain performance by further

developing and institutionalizing statistical methods with our key suppliers. Combined with continued structural improvements in many areas of the company, these steps further improve our capabilities and performance for our customers, and position us well for the next stages of our development.

Our progress in operational excellence is increasingly recognized by our customers. Last December, we received, for the fourth time, an Excellent Performance Award from TSMC. And for 2019, we received notable awards from other key customers. We are very honored to receive such prestigious awards which continue to validate our progress.

“ASMI STRONGLY OUTPERFORMED THE WFE MARKET IN 2019.”

WELL POSITIONED FOR CONTINUED HEALTHY PERFORMANCE

We have started 2020 with a record high order backlog. Supported by continued strength in the logic/foundry segments we expect further growth in our sales in the first half of 2020, based on the guidance that we provided with our fourth quarter results. Looking at 2020 as a whole, WFE spending is expected to be up a high single digit percentage, with upside to double digits depending on the strength and timing of memory spending recovery. Our customers are investing in advanced-node capacity to enable the faster and more powerful chips that will be required for the new end-market products to be introduced in 2020 and beyond in areas such as 5G, high performance computing and data centers, and which are all expected to be important growth markets for the coming years. Supply demand conditions in the memory sector have further improved in recent months illustrated by decreasing levels of inventory at certain customers and a recovery in memory prices. 3D-NAND spending is expected to recover first followed by DRAM. The exact timing and magnitude of the recovery in memory spending is however not yet clear.

At the time of writing (February 2020) China and the rest of the world are making massive efforts to contain the COVID-19 outbreak. Our thoughts are with those affected by this human tragedy. The health and safety of our employees and partners is our top priority, and we are taking measures to minimize the health risks. Our exposure to China is still relatively limited, although it has been growing in recent years. So far, in February 2020, we have not yet seen a meaningful impact on our business, but we continue to closely monitor as the situation is still evolving and the implications of supply chain disruptions and travel restrictions are not yet clear for our broader industry and for our company.

ON A PERSONAL NOTE

As most of you know, this is my last Annual Report message to you as CEO of ASMI. As was announced in September, I will step down at the AGM in May 2020 after 12 years as CEO and 14 years within ASMI's Management Board. This was a tough decision for me but I am convinced it is the right one. I'm extremely proud of what we have achieved at ASMI as one team. In 2008, ASMI had its breakthrough in ALD with a leading customer having selected our tool for an innovative application. Since then we have strongly expanded our customer-base, with our enabling technologies supporting increasingly complex node transitions. Today, ASMI is a leader in the deposition market, serving all of the top capex spenders in our industry. At the same time, we have taken many steps to improve the efficiency and effectiveness of our operations. We stepped up our investment in operational excellence while staying true to our focus on innovation, and strengthened a culture in which safety, customer focus and respect are key values. Our successful expansion and enhanced operations have driven a strong improvement in our financial performance. This created substantial value for our stakeholders and provided our company with the financial strength for further investments in growth. It has been a tremendous honor to work with the talented and highly-motivated team at ASMI, and with our customers, shareholders, suppliers and other partners who have contributed to the successful development of our company and of our industry. ASMI has never been stronger than it is today. Looking at all the opportunities ahead, I am convinced our company is well positioned to continue its track record of healthy growth.

March 5, 2020



Charles D. (Chuck) del Prado
President and Chief Executive Officer