8.3 CFO message

Paul Verhagen
Chief Financial Officer

Against the backdrop of softening market conditions, ASM delivered a robust financial performance in 2023. Revenue increased to a new record high. Our operating margin was steady with increased investments in R&D to address future growth opportunities. Free cash flow was at an all-time high.

Robust performance in a softening market [1]

ASM's revenue increased by 9% as reported (13% at constant currencies) to a new record-high of €2.6 billion. Revenue growth slowed, compared to 39% increase as reported in 2022, but was still robust considering the weakening wafer fab equipment (WFE) market last year.

The total semiconductor market dropped by around 10% in 2023. This was also impacted by continued economic uncertainty, higher interest rates and sluggish consumer spending, next to geopolitical tensions. In terms of end markets, artificial intelligence was a bright spot – and an area where ASM is well positioned to benefit – but the related chip volumes are still relatively small. At the same time, the recovery in larger volume segments, such as smartphones, was slower than industry observers expected at the start of 2023.

Against this backdrop, WFE dropped slightly in 2023. The drop was most pronounced in memory but leading-edge logic/foundry spending also decreased meaningfully in 2023, which was offset by strong growth in the Chinese market. ASM outperformed the WFE market in 2023. At constant currencies, our equipment sales increased by 12%. Our ALD sales decreased moderately, impacted by weakness in the leading-edge part of the market, but continued to account for more than half of our equipment sales. In terms of existing product lines, vertical furnaces was the strongest growing product line – in part fueled by solid demand for our new SONORA tool – followed by Si Epi. Spares & Services had another strong year, with sales 19% higher at constant currencies, and continued momentum in our outcome-based services offering.

Strong demand in mature nodes

In terms of customers segments, our total logic/foundry sales increased slightly. The leading-edge part of logic/foundry sales decreased, impacted by end-market weakness and delays in a number of new fabs. This was offset, however, by growth

[1] Normalized figures are non-IFRS performance measures. For a reconciliation of non-IFRS performance measures, see the table at the end of section 8.1.

in mature logic/foundry, particularly in China. Importantly, despite softer spending trends, customers in leading-edge logic/foundry remained focused on developing the next-generation gate-all-around (GAA) technology, which is going to be an important inflection for ASM. We booked the first meaningful GAA orders for pilot line activity in the second half of 2023.

In memory, our sales dropped around 40% against a relatively stronger level in 2022. We benefited in 2023 from demand for our high-k ALD solutions for high-performance DRAM in AI applications, but this could not offset the sharp correction in overall memory. In total, the memory contribution dropped from 19% of our equipment sales in 2022 to 11% in 2023.

We booked strong growth in the combined power/analog/wafer segment in 2023. Compared to a relatively lower level in 2022, sales in this segment almost doubled, including the consolidation of our SiC Epi business (LPE), and also in large part fueled by growth in China.

“Amidst softening market conditions, ASM delivered a robust performance in 2023."

Substantial growth in China

Our overall sales in the year were supported by substantial growth in China. The impact from the export restrictions that were issued by the US government in October 2022 – 15% -25% negative impact on our China sales as we communicated in November 2022 – was more than offset by very strong demand for more mature nodes in the Chinese market. The new export regulations that were issued by the Dutch and Japanese governments in the course of 2023, and updated export controls by the US government in October 2023, did not have a material additional impact relative to what we communicated earlier.

We generated strong growth in the power, analog, and wafer markets in China, and also in the more mature logic/foundry segments. Furthermore, our growth in China was supported by the consolidation of LPE, which has a strong market share in China. In all, the contribution of China increased significantly versus 2022. For 2024, we expect some normalization in spending in the Chinese market compared to the exceptional level in 2023. As a consequence, the contribution of our China sales is likely to drop in 2024, although we expect it to remain significantly higher than the level in 2022.

Strong growth in SiC Epi

Our new silicon carbide (SiC) Epi business was successfully integrated into our company. New customer wins exceeded the expectations we had when we closed the acquisition of LPE in October 2022. Sales comfortably met the target of more than €130 million in 2023, which was already up from an initial target of €100 million. We have been stepping up capacity and capabilities in this business, to prepare for continued growth in coming years. Fueled by EVs, the long-term prospects for the SiC market remain solid, even though market growth is expected to temporarily slow down in 2024. Supported by market-share gains, we continue to expect a further solid increase in our SiC Epi sales in 2024.

Gross margin increased due to mix

Gross margin increased from 47.4% to 48.3% in 2023, which was mainly mix related. Adjusted for PPA amortization, normalized gross margin increased from 47.5% to 49.3% in 2023. Gross margin fluctuated between a high of 49.4% in the first quarter, which was positively impacted by mix – mainly due to a higher contribution from China sales with above-average profitability, and also a higher-margin application mix within our ALD sales – and 47.2% in the fourth quarter. While the mix remained favorable in Q4 2023, including a continued strong contribution from China sales with above average profitability, the gross margin in Q4 2023 was impacted by approximately 1% due to a one-off restructuring cost in relation to further optimization of our global manufacturing footprint.

“Gross margin was positively impacted by mix, mainly due to the increased contribution from China."

Despite inflation pressures on our cost of goods sold in 2023, we were able to limit this through commercial price negotiations and increased cost reduction value-engineering initiatives. We remain committed to gross margins of 46% to 50% in coming years, which we believe is a healthy and sustainable range. With a normalization in the contribution from China sales in 2024, we expect a decrease in gross margin compared to 2023.

Stepping up R&D

Net R&D expenses increased by 32% in 2023, reflecting a strong increase in R&D projects and a record-high number of customer engagements. In addition, we increased the R&D headcount by 11% in 2023, compared to a 5% increase in headcount in the rest of the organization. Adjusted for PPA amortization, normalized net R&D expenses increased by 29% in 2023.

R&D investment is our lifeline. For 2024, we project a further increase in R&D, in support of the rising number of engagements for new applications, such as for second-generation GAA, and new opportunities in memory. Normalized net R&D expenses will remain at a high single-digit to low double-digit percentage of sales in the period up until 2027, and in the first part of this period more towards the higher end of the range.

SG&A expenses increased by 12% as reported, compared to an increase of 46% in 2022. Adjusted for PPA amortization, normalized SG&A increased 10%. The trend in SG&A was broadly in line with the indication we provided at the start of the year. The increase in SG&A in 2022 continued to reflect our earlier decision to invest in strengthening the organization, and prepare for higher activity levels in future years. The moderation in 2023 is explained by the fact that most of these investments were completed by the end of 2022, and also due to continued cost focus amid softer market conditions.

“We continue to invest in innovation. R&D investment is our lifeline."

We expect a further moderate increase in SG&A in 2024. We continue to invest in selected areas such as sustainability and cybersecurity. Another important project is the upgrading of our SAP systems that we started in 2023. In the period up until 2027, normalized SG&A is targeted to be a high single-digit percentage of sales. In 2023, at 11.5% of sales, normalized SG&A is still above this target level, due to aforementioned investments we made in the past couple of years to strengthen the organization, and to the softer revenue development. In coming years, we expect relative normalized SG&A to decrease once revenue growth accelerates again.

Operating result amounted to €654 million, a healthy increase compared to €632 million in 2022. The increase in the operating profit was supported by higher gross profit, and partially offset by higher SG&A and R&D expenses. The operating margin as reported decreased from 26.2% to 24.8% in 2023. Adjusted for PPA, normalized operating margin was stable at 26.6% in 2023.

Strong improvement in free cash flow

We generated free cash flow of €447 million in 2023, a record high[2] and up from €381 million (excluding €314 million in cash spent on acquisitions in 2022) despite higher capex. Next to continued solid profitability, free cash flow was driven by improved working capital. Lower working capital led to a cash inflow of €44 million in 2023 compared to a cash outflow of €159 million in 2022.

Working capital decreased as we managed good collections from our customers. The quality of accounts receivables remained healthy with a reduction in overdue balances. Inventories decreased slightly in 2023. This compares to the strong increase in 2022, when inventories went up due to supply-chain constraints, including tools waiting in our facilities for missing parts. With the normalization of the supply-chain conditions,work in progress (WIP) had already decreased in 2023, but we still kept higher buffer inventories to ensure flexibility in our operations.

ASM's financial position remained very solid, with cash of €637 million at the end of 2023, and no debt.

Investment in growth

Capex increased to €154 million in 2023 up from €101 million in 2022. The majority of capex was related to investment in our R&D facilities. Following the strong growth of our R&D activity in recent years, we have been running out of space and needed to expand our cleanroom capacity and lab equipment in our research and product-development facilities across the world. To support continued future growth, we need to further invest in R&D infrastructure. In February 2023, we announced our plan for an investment of around

[2] Excluding free cash flow in 2017 which included proceeds from sales of ASMPT shares

US$100 million, in the period up to 2025, to significantly increase our R&D and manufacturing facility in Korea. In December 2023, we announced a consolidation and major expansion of activities in the US. We will spend around €300 million over a period of up to five years to construct a new state-of-the-art site in Scottsdale. Including these expansion project, we expect total capex in a range of €100-180 million in the period 2024-2027.

In terms of manufacturing, we expect to have the capacity in place to deliver on our 2027 revenue targets, following the completion of the second manufacturing floor in our Singapore facility in early 2023, and the announced expansion in Korea.

Accelerating sustainability

In 2023, we also further increased our investments and efforts to accelerate sustainability. A highlight was the validation of our Net Zero by 2035 targets by SBTi, the first company in our industry to achieve this. We increased our percentage of electricity from renewable sources from 73% in 2022 to 88% in 2023, and we remain on track to achieve 100% by 2024. Collaboration within our industry is an important element of our efforts to address climate change, evidenced by ASM cofounding and currently chairing the Semiconductor Climate Consortium. We also stepped up our reporting on ESG in this year's Annual Report even further, illustrated by detailed reporting on the size and sources of our Scope 1, 2 and 3 GHG emissions, ahead of the publication of our Climate Transition Plan in the first quarter of 2024. We also made significant efforts to prepare for CSRD reporting as of the next financial year.

"Electricity from renewable sources increased to 88% in 2023. We are on track to achieve 100% by 2024."

Investor Day 2023

In September 2023, we hosted our second Investor Day, where we reconfirmed our Growth through Innovation strategy. For 2025, we increased the revenue range to €3-3.6 billion, up from the range of €2.8-3.4 billion that we targeted at the 2021 Investor Day. For 2027, we are targeting further growth in revenue to a range of €4-5 billion, implying a CAGR of 11% to 16% in the five-year period until 2027. Key drivers will be our continued leadership in the fast-growing ALD market, market-share gains in Si Epi, selective growth in vertical furnaces and PECVD, and further expansion of our SiC Epi business. We reiterated our target for normalized operating margin at 26%-31% for the year up until 2027, with an upward trend in the outer years.

Capital-allocation policy unchanged

Our capital-allocation policy remains unchanged. The key priority continues to be investment in growth, and that means investment in R&D, capex and, opportunistically, in M&A. In addition, it is important to maintain a strong balance sheet. Our policy to pay a sustainable dividend is unchanged. With the publication of the fourth quarter results on February 27, 2024, we announced a proposed dividend of €2.75 per share, up 10% compared to the dividend in the previous year. We remain committed to return excess cash to our shareholders. With the publication of the fourth-quarter results, we announced a new €150 million share buyback program. In 2023, we executed a €100 million share-buyback program.

ASM well placed for continued growth in the mid-term

At the time of publication of this Annual Report, it is too early to provide a forecast for the full-year 2024. Even though the semiconductor end markets are expected to show a gradual recovery, WFE spending in memory, advanced logic/foundry and power/analog are still soft in the first part of the year. We remain confident about ASM's prospects, however, based on the strengths of our customer engagements, talented people, and innovation. ASM is well placed to continue outperforming the WFE over time, given our continued strong position in high-growth market segments, and our share-of-wallet gains in the new technology nodes.

Paul Verhagen
March 1, 2024
Member of the Management Board and Chief Financial Officer