

# Ahead of what's next

Annual Report 2024

PDF/Printed version

This document is the PDF/printed version of ASM International N.V.’s 2024 Annual Report and has been prepared for ease of use. The 2024 Annual Report in European Single Electronic Reporting format (the ESEF reporting package) is the official version. The ESEF reporting package is available on the company’s website. In case of any discrepancies between this PDF version and the ESEF reporting package, the latter prevails.

Cautionary note regarding forward-looking statements

In addition to historical information, some of the information posted or referenced herein or on the website contains statements relating to our future business and/or results, including, among others, statements regarding future revenue, sales, income, expenditures, sufficiency of cash generated from operations, maintenance of interest in ASMPT Ltd, business strategy, product development, product acceptance, market penetration, market demand, return on investment in new products, facility completion dates and product shipment dates, corporate transactions, restructurings, liquidity and financing matters, outlooks, and any other non-historical information. These statements include or may be interpreted to include certain projections and business trends, which are or could be considered ‘forward-looking’. We caution readers that no forward-looking statement is a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking statements.

You can identify forward-looking statements by the use of words like ‘may’, ‘could’, ‘should’, ‘project’, ‘believe’, ‘anticipate’, ‘expect’, ‘plan’, ‘estimate’, ‘forecast’, ‘potential’, ‘intend’, ‘continue’, ‘aim’, ‘strive’ and variations of these words or comparable words.

Forward-looking statements do not guarantee future performance and involve risks and uncertainties. You should be aware that our actual results may differ materially from those contained in the forward-looking statements as a result of certain risks and uncertainties. These risks and uncertainties include, but are not limited to, economic conditions and trends in the semiconductor industry and the duration of industry downturns, currency fluctuations, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholder(s) or other issues, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or geopolitical tensions or political instability, changes in import/export regulations, epidemics, pandemics and other risks indicated in our most recently filed Annual Report and other filings from time to time. The risks described are not the only ones. Some risks are not yet known and some that we do not currently believe to be material could later become material. Each of these risks could materially affect our business, revenues, income, assets, liquidity, and capital resources. All statements are made as of the date of posting unless otherwise noted, and we assume no obligation to update or revise any forward-looking statements to reflect future developments or circumstances.



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# Introduction

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# 1. CEO message



**Hichem M'Saad**

Chairman of the Management Board and Chief Executive Officer

**Despite mixed market conditions, ASM delivered a strong performance in 2024. Sales increased by 12% at constant currencies, marking our eighth consecutive year of double-digit growth, and we continued to strengthen our engagements with key customers. I want to thank all our people for their relentless commitment and teamwork, which contributed to another successful year for ASM.**

It was a year of progress for the company. To stay ahead of what's next, we continued investing in R&D, our people, and expansion. We increased our share of wallet with leading customers as they prepare to introduce new technologies, especially the new gate-all-around (GAA) tech node in the advanced logic/foundry segment.

I believe there's never been a better time to be in the semiconductor industry. Market research firms expect the semiconductor market to grow to US\$1 trillion by the end of the decade. Artificial intelligence (AI) will account for a meaningful part of this growth and will require ever-faster and power-efficient computing solutions. To enable next-generation AI chips, our customers are working on 3D device technologies and new materials, all of which will require more ALD and Epi steps.

Since assuming my role as CEO in May 2024, I have become even more convinced of the strong opportunities that lie ahead of us. I feel privileged to lead our great team into the next growth phase.

## Strong growth in AI, mixed conditions in the rest of the market

After the drop in 2023, the semiconductor end market recovered by 18% in 2024. This growth was uneven, however, with mixed dynamics across the different segments. AI has become the main driver of the semiconductor market, significantly boosting data-center growth. In 2024, other high-volume end-market segments such as PCs and smartphones continued to be relatively sluggish, due to slow consumer spending, economic uncertainty, and ongoing geopolitical tensions. The industrial and automotive end markets entered a cyclical downturn with limited visibility for improvement in the near term.

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**“There has never been a better time to be in the semiconductor industry.”**

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This picture in the end markets was also reflected in the spending patterns of our customers. Advanced semiconductor devices that enable AI have become the main areas of wafer fab equipment spending – in particular GAA devices in leading-edge logic/foundry and high-bandwidth memory in DRAM.

## Accelerating momentum in GAA

Our leading-edge logic/foundry business accelerated in 2024. In the first part of the year, sales in this segment

were still relatively low, following the softer market conditions in 2023. In the second half of the year, leading-edge logic/foundry sales increased significantly compared to the first half, driven by investments in the new GAA 2nm technology node. Initially, most of our GAA-related tool shipments were for customer pilot lines, but in the second half, the mix shifted increasingly towards tools for volume-manufacturing. Leading customers have confirmed their plans to ramp the 2nm node in high-volume manufacturing during 2025, with some reporting strong demand from their own customers for the 2nm technology.

GAA will be a significant inflection for ASM. As previously communicated, we expect our served available market to increase by US\$400 million compared to the previous FinFET node. The complexity of the GAA device architecture has increased ALD requirements, such as more dipole and work-function layers. In addition, we believe ASM has maintained its leading ALD market share in the transition to the GAA 2nm node.

Silicon Epi is also an enabling technology for GAA as it defines the precision of the channel layers (nanosheets). Our Epi solution offers best-in-class performance, due to innovations such as our closed-loop on-wafer temperature control system (Turino). Compared to the previous node, we have successfully expanded our customer base in GAA, for various Epi applications. While our total Epi sales decreased slightly in 2024, due to the cyclical downturn in the power and wafer segments, sales of our advanced Intrepid ES platform increased substantially, reflecting our growing Epi share in GAA applications.

During the year, we also expanded our cooperation with key logic/foundry customers for the sub-nodes of 2nm and for the next 1.4nm node. We expect innovations such as back-side power delivery, widening adoption of metal ALD, and selective ALD to drive further increases in ALD intensity.

**“AI has become the main driver of WFE spending.”**

Memory sales fueled by HBM DRAM

Our memory business delivered a very strong performance in 2024. As a percentage of equipment sales, memory jumped from a relatively low level of 11% in 2023 to 25% in 2024. On the back of strong AI-related demand, DRAM customers stepped up their investment in high-bandwidth memory (HBM). The high-speed DRAM chips used in these HBM stacks require high-k metal gate ALD technology, in which ASM has a leading position. In other parts of the DRAM market, which depend more on the PC and smartphone segments, investment levels remained subdued. Sales of 3D-NAND approximately doubled, primarily for our advanced ALD gap-fill solutions. However, this was compared to a depressed level in 2023, and was mostly limited to technology buys. In 2024, 3D-NAND represented the smaller part of our memory sales. The memory market is a strategic growth area for ASM. As the DRAM industry transitions to smaller nodes and to 4F<sup>2</sup> technology, more ‘logic-like’ technologies will be needed. This is expected to result in additional ALD layers and increased adoption of Epi. In 2024, we further expanded our R&D engagements with leading memory

customers, underpinning our expectations for further increases in our share of wallet in the coming years.

Power/analog in cyclical correction

Our sales in the power/analog/wafer segments were down by a significant double-digit percentage in 2024. This is compared to the very strong level in 2023, when our sales in this market nearly doubled. The slowdown reflected the soft demand and inventory corrections in the industrial and automotive end markets.

Strengthened market position in SiC Epi

Our silicon carbide epitaxy (SiC Epi) sales increased by a mid-single digit percentage last year. Albeit below our initial forecast for a double-digit increase, we believe this is still a robust performance. The overall SiC Epi market dropped in 2024, following a deceleration in sales of electric vehicles (EVs) in several geographies. While the outlook for the SiC market in 2025 further weakened, we believe the longer-term prospects remain positive. Following the acquisition of LPE in 2022, we have substantially increased our positioning, by combining LPE’s portfolio of first-class SiC Epi products with ASM’s scale and strengths in areas such as manufacturing, customer reach, and global support. After a number of key customer wins in Europe and the US in 2023, we increased our base of SiC Epi customers in 2024.

We believe we are well placed to further expand our market share in SiC Epi. A highlight in 2024 was the launch of our first 200mm single-wafer cluster SiC Epi tool, the PE208. Similar to our existing PE106 and PE108 tools, the PE208 offers leading film performance,

excellent within-wafer and wafer-to-wafer uniformity, and the lowest level of defectivity. These benefits will only become more important as our customers are preparing for the transition from 150mm to the larger 200mm wafer size. New in the PE208 is its dual-chamber platform, compared to the single-chamber architecture of our existing PE108 tool. This substantially increases throughput and lowers cost of ownership for our customers.

**“Momentum in GAA sales accelerated in 2024.”**

Sales from China remained strong

Following a strong increase in 2023, the Chinese market again made a strong contribution to our sales in 2024. In the second half of 2024, sales in this market decreased compared to an exceptional level in the first half, as several customers in China entered a phase of digestion after substantial new capacity investments in 2023 and 2024. We expect this softening to continue and sales in China to decrease in 2025. The impact from new US export controls announced in December 2024 was in line with our assumptions and is reflected in our forecasts for 2025.

We project equipment sales in China to represent a low-to-high 20s percentage of ASM’s total revenue in 2025. Although this is a decrease from 2024, it is still higher than in the years before 2023. Spending in segments such as mature logic/foundry continue to be higher than historical levels. In addition, we have expanded our

positions in the Chinese market. For example, in the power/analog market, we have gained several new customers over the past couple of years, due to the introduction of innovative and cost-competitive products such as our Sonora vertical furnace and Intrepid ESA Epi tools.

Strong financial results

ASM’s financial results continued to be strong in 2024. Revenue increased by 12% at constant currencies to a new record level of €2.9 billion, again outperforming the WFE market. Equipment sales growth of 9% at constant currencies was driven by our ALD product lines, supported by momentum in both the logic/foundry and memory segments. Our Spares & Services business had another strong year with sales growth of 29% at constant currencies. This growth was partly fueled by continued customer adoption of outcome-based services, and, in the second half, by accelerated demand in China. Adjusted gross margin<sup>1</sup> increased from 49.3% to 50.5%, supported by a positive mix including a continued substantial sales contribution from the Chinese market, as well as ongoing cost focus.

With net R&D up 20% and SG&A expenses strictly controlled (+3%), the operating result increased by 23%. Free cash flow also increased by 23% to a record level of €548 million. Our financial position remains solid, providing us with the flexibility to invest in innovation and growth, and allowing continued attractive shareholder returns. Throughout 2024, we continued to invest in the newly expanded innovation centers in Korea and Arizona, both announced in 2023. With the publication of our Q4 2024 results, we announced a

<sup>1</sup> Adjusted figures are non-IFRS performance measures. For a reconciliation of non-IFRS performance measures, see the table at the end of section 10.1.



proposed dividend of €3.00 per share (+9%), and a new €150 million share buyback program.

### Strategic priorities unchanged

The pillars of our Growth through Innovation strategy remain unchanged. This strategy has proven successful over the past few years, as shown by our strengthened market positions and revenue growth that outpaces the industry. Maintaining ASM's leadership in ALD continues to be a priority. As communicated in our Investor Day 2023, we expect ALD to remain one of the fastest-growing segments of the WFE market with a CAGR of 10% to 14% (2022-2027).

In Si Epi, we continue to aim for further market-share increases towards our target of at least 30% by 2025, particularly in the fast-growing leading-edge part of the Si Epi market. In vertical furnaces, PECVD, and SiC Epi, we continue our selective growth strategy.

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**“People are at the heart of ASM's success.”**

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We are also exploring and investing in new growth areas. One of these is advanced packaging, which is becoming an increasingly important driver for improved device performance in advanced semiconductor applications. It plays to ASM's strength in differentiated deposition and surface treatment technologies. We have R&D engagements in place with key customers on new advanced packaging applications, which we expect to start contributing to our sales in the coming years.

### Continued focus on efficiency

While growth is a priority, we also remain focused on improving efficiency. We are investing in the ongoing digitalization of our organization. For example, we are using AI in the screening of future ALD materials, which helps increase process efficiency and accelerate the time to market for new ALD applications. In our global operations, we are collaborating with key suppliers to create 'Merge-in-Transit' (MIT) modules that can be shipped directly to customers. By outsourcing more of these MIT modules, we have opportunities to lower cost and achieve additional growth with minimal expansion of our manufacturing facilities. The benefits of these efficiency programs will be realized over time, helping us to maintain healthy margins.

### Developing our talent

Our talented people are at the heart of ASM's success, and we continued to invest in development, training, and engagement. Following significant growth in previous years, our total headcount remained steady at approximately 4,600 FTEs in 2024. We hired nearly 600 new employees, focusing on R&D, field support and customer-facing roles. Voluntary staff turnover remained relatively low at 7%. In 2024, we continued to invest in the development of our people through our 'Lead Ahead' program, which focuses on enhancing leadership skills for people managers at all levels.

We continued to take steps to strengthen our culture, which is key to attracting and retaining talent, and to promote accountability, collaboration, and empowerment (ACE) as best-practice behaviors.

### Accelerate sustainability

In 2024, we made further strides in sustainability, which is one of ASM's strategic priorities. In March, we published our Climate Transition Plan, which details how we aim to achieve our Net Zero by 2035 target. As a first milestone, we achieved 100% renewable electricity in our operations worldwide in 2024. This contributed to a 52% decrease in our combined Scope 1 and 2 GHG emissions. We also continued to engage with our suppliers on sustainability topics. By 2024, 96% of our critical suppliers have submitted their climate disclosures.

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**“100% renewable electricity was one of our sustainability highlights in 2024.”**

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During the year, we also stepped up R&D investment in decarbonizing our products. We implemented a methodology to track our progress, and, for the first time with this year's Annual Report, we have presented measurable targets for our deposition technologies, such as a 35% reduction in precursor consumption for key ALD applications by 2035. This will help our customers reduce their own energy consumption while maintaining high-performance production capabilities. Our efforts in sustainability have led to improved sustainability ratings. Notably, ASM was recently named in CDP's prestigious 'A List' for climate action and water for the first time.

### Outlook 2025

Looking into 2025, market conditions continue to be mixed, with WFE spending expected to increase slightly. Leading-edge logic/foundry is expected to show the highest growth in 2025. As part of our Q4 2024 results

publication in February 2025, we communicated that despite some further shifts in capex forecasts among customers in this segment, overall our forecast for a substantial increase in GAA-related sales in 2025 is unchanged. In memory, we expect healthy sales in 2025, supported by continued solid demand for HBM-related DRAM, although it is too early to tell if memory sales will be at the same very strong level of 2024. The power/analog/wafer segments are still in a cyclical correction with no signs of a recovery in the near term. In SiC Epi, the outlook further weakened. China revenue is expected to decrease in 2025.

We confirm our target for revenue in a range of €3.2-3.6 billion in 2025, but it is too early to provide a more specific forecast due to market uncertainty and as visibility for the second half of the year is still limited.

March 6, 2025  
Hichem M'Saad  
Chairman of the Management Board and Chief Executive Officer

## 2. Highlights 2024

### Financials

#### Revenue

€2,933m

+11% vs 2023  
+12% at constant  
currencies

#### Operating result

€802m

+23% vs 2023

#### Gross margin

50.5%

vs 48.3% in 2023

#### Free cash flow

€548m

+23% vs 2023

### Planet

#### Electricity from renewable sources

100%

vs 88% 2023

#### Scope 1+2 GHG emissions

(52)%

Reduction vs 2023

### Supply chain

#### Key suppliers disclosing to CDP

96%

88% in 2023

### Innovation

#### Gross R&D spending

€470m

+15% vs 2023

#### Patents in force

3,395

+15% vs 2023

### People

#### Employees

4,632

Headcount

#### Total injury rate

0.47

vs 0.48 in 2023

#### Female employees

18%

vs 17% in 2023

#### Engagement survey

95%

Participation rate in 2024



# 3. At a glance

## About us

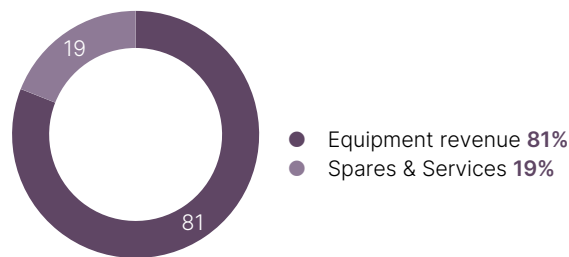
A heritage of over 55 years of relentless research and innovation, and breakthrough technologies

- A leading semiconductor equipment provider, with a focus on deposition tools
- A leading mid-50s percentage market share in ALD
  - Growing position in silicon Epi

We aim to be a leader in sustainability



## Revenue breakdown by segment



## Our global footprint

Key locations where we're active

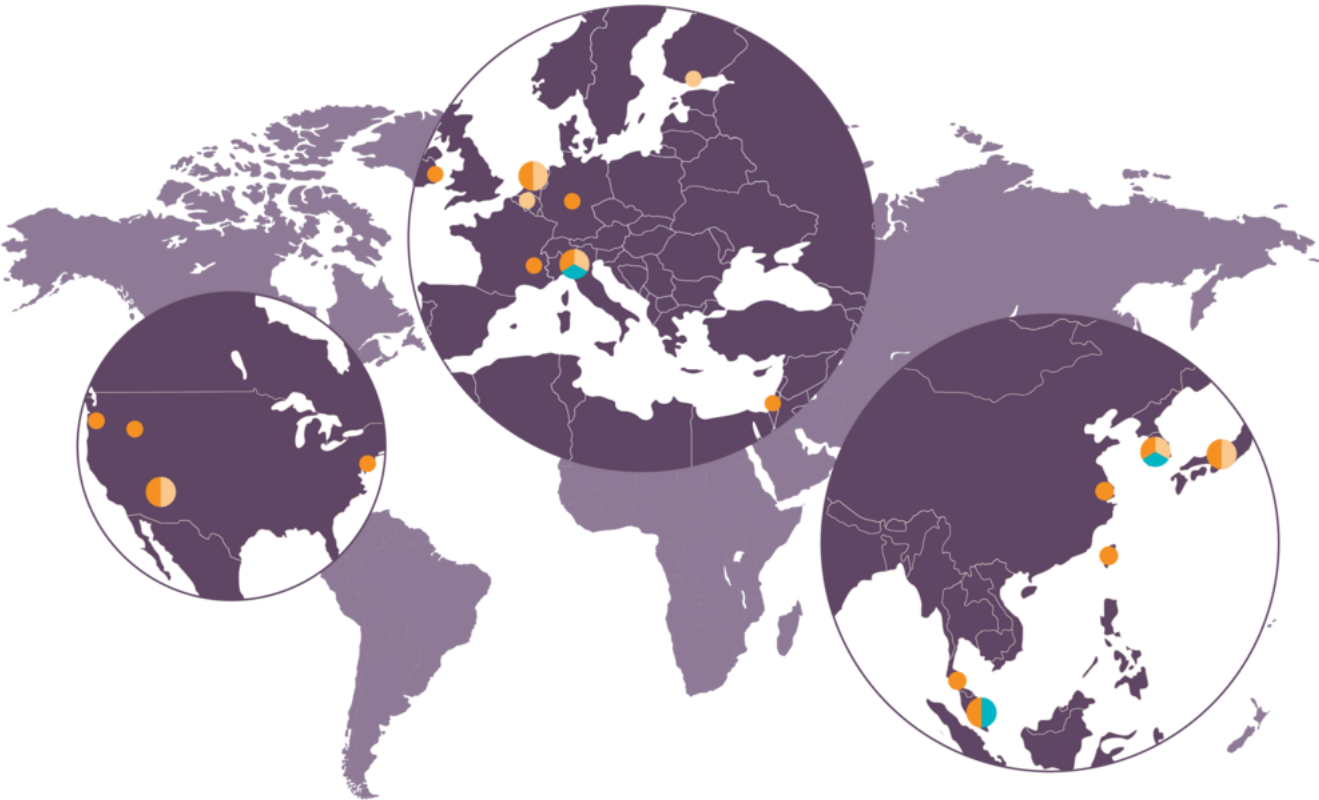
15

Countries/regions we supply to

20

Manufacturing facilities

3

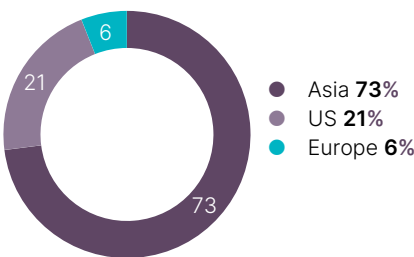


## ASM's key locations:

- |           |                 |   |
|-----------|-----------------|---|
| ● Belgium | ● Japan         | ● Corporate, sales and service offices        |
| ● China   | ● Korea         | ● Research and product development facilities |
| ● Finland | ● Malaysia      | ● Manufacturing facilities                    |
| ● France  | ● Netherlands   |   |
| ● Germany | ● Taiwan        |   |
| ● Ireland | ● Singapore     |   |
| ● Israel  | ● United States |   |
| ● Italy   |                 |   |

For further information on our various locations, please visit our corporate website: [www.asm.com](http://www.asm.com)

## Revenue breakdown by geography



# History

## Over 50 years of innovation



**1968**  
Founded by  
Arthur del Prado

ASMPT  
**1975**



**1976**  
ASM America

ASM Japan  
**1982**



**1999**  
Acquisition of  
Microchemistry

ASM Singapore /  
Acquisition of Genitech  
(Korea)  
**2004**



**2016**  
20<sup>th</sup> listing anniversary  
Euronext Amsterdam

Opening of new and  
expanded Singapore  
facility  
**2022**



**2023**  
Announcement  
of new and  
expanded  
facilities in Korea  
and Scottsdale,  
Arizona

ASM was founded in the Netherlands in 1968 at the start of the semiconductor industry. Since then, the company has sparked many new ventures around the world, and is at the forefront of innovation and globalization in our industry. Until 2008, this evolution took place under the visionary leadership of Arthur del Prado. He was followed by his son, Chuck Del Prado, until 2020, then by Benjamin Loh until 2024. Hichem M'Saad is our current CEO.

From the early 1970s, ASM expanded globally and into new equipment market segments, first by entering the furnace technology market in the Netherlands. In 1976, ASM America was founded, shaping our current epitaxy technology. Since 1982, ASM Japan has done the same for plasma CVD products.

In the 1970s, in the market for back-end equipment, ASM founded ASMPT in Hong Kong, in which ASM still maintains a minority share. This was followed by ASM's participation in a joint venture with Philips in the mid-1980s to develop lithography technology, known today as ASML. ASM sold its share in ASML in 1988.

Through our acquisitions of ASM Microchemistry in 1999 and ASM Genitech Korea in 2004, we laid the foundation of ASM's market leadership in ALD. In 2022, with the acquisition of LPE, we entered the fast-growing silicon carbide epitaxy market. ASM is expanding globally with investments in multiple new facilities, including one in Singapore, as well as recently announced locations in Hwaseong, Korea, and Scottsdale, Arizona, in 2023.



# 4. Our positioning in the market

We are a leading supplier in the semiconductor equipment industry. Our ALD and Epi technologies enable the most advanced and next-generation semiconductor devices. Long-term prospects for our industry remain positive, driven by trends such as digitalization, AI and electric vehicles.

## 4.1 Industry megatrends

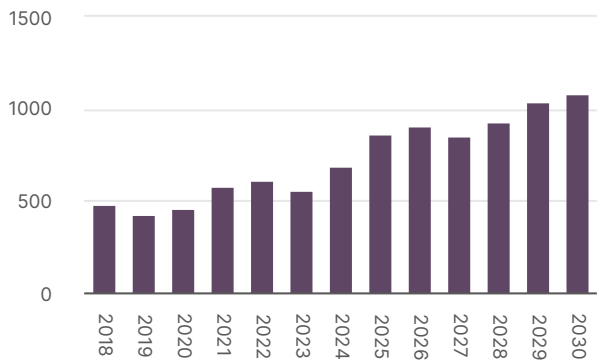
### Artificial intelligence (AI)

Digital transformation and AI trends continue to fuel significant growth in the semiconductor-device market. The semiconductor market increased by 18% to more than US\$600 billion in 2024 (Gartner, Dec 2024), driven by AI innovations and demand for GPUs, DRAM and NAND devices in hyperscale data centers. Growth is expected to continue into 2025 as broader long-term secular trends remain solid. As global economies become increasingly digitized, advanced semiconductors are key to creating this more connected world.

New AI-augmented end-market products and applications are being developed across nearly every segment of the economy. There is tremendous demand for smarter devices for the home, autonomous vehicles, robotics for industry and home, and new generative-AI services like ChatGPT delivered on AI PC and smartphones for consumer and industrial use cases. And the number of connected devices is multiplying. Analysts are expecting the total semiconductor market

to be worth >\$1 trillion by the end of the decade. The growth of AI is expected to increase capacity requirements for the semiconductor industry, as AI-specific functions are expected in >40% of logic/foundry devices by 2027. ASM stands to benefit as more single-wafer ALD and Epi steps are expected to be required to enable semiconductor devices with higher power efficiency and improved performance that will enable next-generation AI applications.

Semiconductor market forecast (US\$ billion)



Source: TechInsights (December, 2024)

### Rising complexity of chip technologies

Demand for wafer fab equipment (WFE) is primarily driven by the growth in the semiconductor device markets and the increasing complexity of advanced semiconductor devices for shrinking dimensions and new device architectures. As a result, we see that each new technology node needs further investment in process equipment. The WFE market was up about 4% to US\$102 billion in 2024 (TechInsights, Dec 2024).

While there was considerable support and activity around AI end markets, the WFE market was also supported by strong investment from China and moderated by global economic weakness, rising interest rates, inflationary pressures, trade conflicts, and other challenges. During the year, there was a significant increase in investment by memory manufacturers for high-performance DRAM devices in high-bandwidth memory (HBM). For leading-edge logic/foundry, spending was up vs 2023, while investments for mature nodes, including the power/analog/wafer segments, were weaker. In spite of the moderate WFE market growth in 2024, trends in the semiconductor market are expected to be positive for the structural long-term growth outlook for WFE.

### Talent

We need the right talent to grow and strengthen our organization, but there is increasing competition for highly skilled talent everywhere we operate. Without this talent we will not be able to realize our strategy.

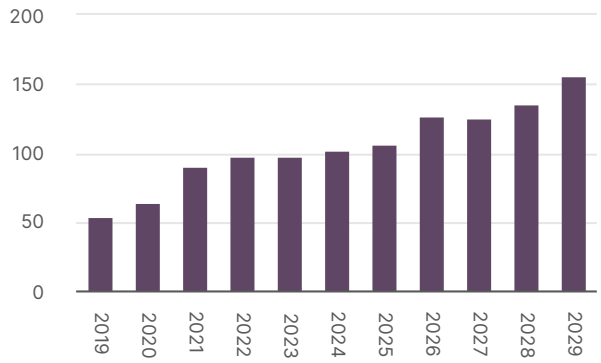
### Environmental footprint

While the semiconductor industry contributes vital technology to society, it is becoming increasingly important for our stakeholders and society in general that we make progress on sustainability initiatives. To this end, we continue to strengthen our team and global innovation and collaboration network to enhance the energy and resource-efficiency of our products and their impact on our customers products, and in turn improve the industry's environmental footprint.

### Geopolitical risk and shift in global supply

In the past, the success of the semiconductor industry was strongly linked to the success of all parties along the value chain. Innovations by equipment suppliers supported state-of-the-art solutions developed by chip manufacturers. This led to new opportunities for customers to take advantage of these advanced chips. Geopolitical developments, such as trade restrictions, put this model at risk. At the same time, increasing awareness around the importance of a domestic semiconductor industry is leading to shifts in the industry's global footprint, with 'Chips Acts' stimulating investments in local manufacturing in various geographies.

WFE market forecast (US\$ billion)



Source: TechInsights (December, 2024)

# AI revolution enabled by ALD and Epi

AI capabilities are improving and changing our world. Across a variety of disciplines – including image recognition and generation, medical diagnostics and research, entertainment and software – we’ve been seeing a rapid improvement in AI capability in the past few years. Training generative AI models requires increasingly massive amounts of computing power, and this comes at a significant cost.

To counter this demand, there is a need for improvements in semiconductor logic / GPU and memory devices for higher speed and lower energy usage.

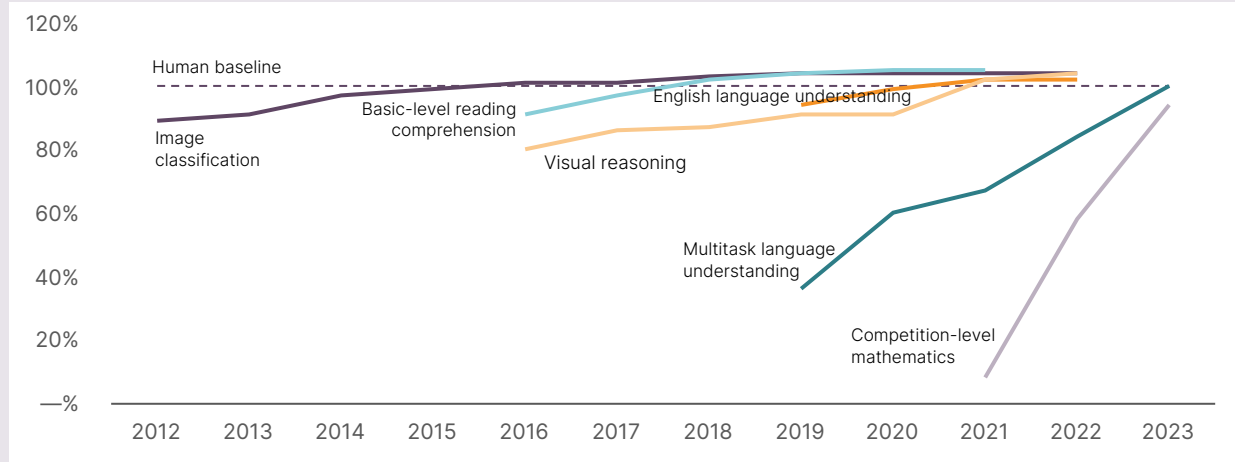
Improvements in the logic transistors, memory and packaging – scale, design, and materials used – are vital. Smaller transistors, in denser devices with advanced packaging, are enabling better performance at lower power.

As we’ve seen, new AI products and services drive growth in data centers with higher content servers, including AI-specific GPUs / accelerators, and more memory, including high bandwidth memory (HBM). And we’re just starting to see the growth in AI-enhanced

edge devices, smartphones, home appliances, autos, etc. all with increases in silicon content.

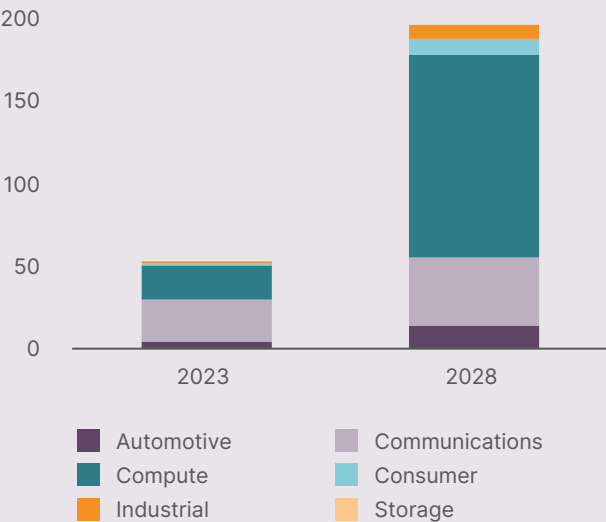
These expanded markets and requirements are expected to continue to drive more advanced-node logic and memory capacity and leading-edge technologies such as FinFET and gate-all-around (GAA) transistors and high-performance DRAM. That means more single-wafer ALD and Epi process steps for ASM tools. To enable the continuation of these improvements, new materials are being developed and deposited with ASM ALD and epitaxy, with better control and conformality, to enable the devices of tomorrow.

Technical performance benchmark: AI catching up quickly or even surpassing human baseline



Source: AI Index, 2024 | Chart: AI Index report

AI semiconductor forecast 2023-2028



Source: Gartner, October 2024

“AI is one of the most disruptive innovations in recent history, and ALD and Epi will play an increasingly important role in continued scaling and new device designs that will enable the AI products of tomorrow.”

For ASM customers, the transition to GAA technology utilizes new epitaxy and ALD steps, and is expected to provide the necessary advancements in transistor performance and efficiency to support the growing demands of AI applications – enabling faster and more energy-efficient AI systems, in data centers, on smart phones and PCs.



4.2 WFE market overview

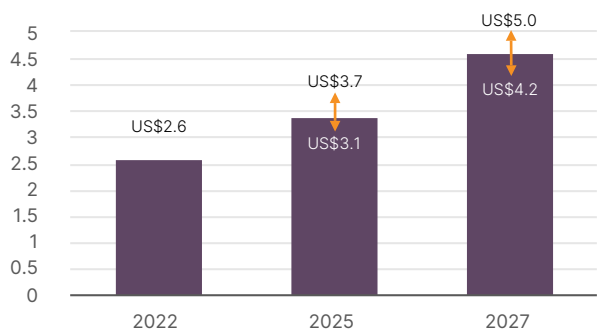
The major segments in WFE include lithography, etch & clean, deposition, and process diagnostics. Our focus is on deposition equipment, comprising about 26% of WFE, in which we address ALD, Epi, PECVD and vertical furnaces. We now also address silicon epitaxy (Si Epi), following the acquisition of LPE in 2022. Within deposition, ALD and Epi are among the fastest-growing market segments, driven especially by leading-edge technology advancements like gate-all-around (GAA) transistors in logic/foundry. The single-wafer ALD market is expected to grow from ~US\$2.6 billion in 2022 to US\$4.2-\$5.0 billion in 2027.

The Si Epi market is expected to grow from ~US\$2.0 billion in 2022 to about ~US\$2.3-US\$2.9 billion in 2027, as shared at our Investor Day in September 2023. Based on these estimates, the ALD and Epi markets are expected to outgrow the total WFE market. The ALD market is projected to increase with a CAGR of 10%-14% in 2022-2027. This growth is expected to be driven by the adoption of many applications and 'layers', such as far high-k gate and Vt tuning layers, metal ALD, and selective ALD, in both the logic/foundry and memory markets. The total Si Epi market is expected to grow with a CAGR of 3%-8%. Expected growth in the coming years is relatively lower for the mature node part of the Si Epi market, which has been boosted by significant investments in the past couple of years, particularly in China. The leading-edge part of Si Epi is expected to be the fastest-growing segment with a CAGR of 10%-15% in 2022-2027, driven by Si Epi requirements in GAA, and increasing adoption in future DRAM technology nodes.

ASM supplies equipment to the leading semiconductor manufacturers in the logic/foundry and memory (DRAM and NAND) segments of the WFE market. Other smaller

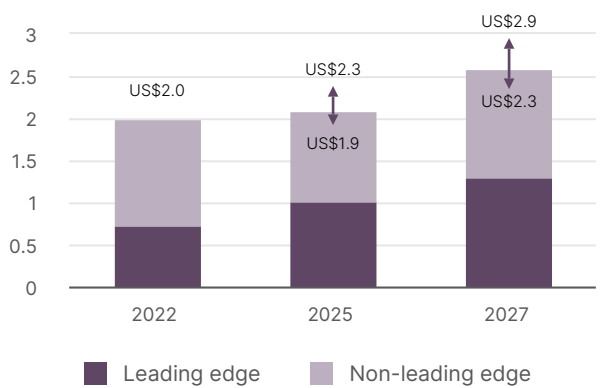
but important market segments we supply equipment to include power/analog devices and wafer manufacturing. Analog and power semiconductors are used in a wide range of electronic systems for mobile products, automotive, telecommunications, and other applications. The wafer manufacturing segment relates to the processing of bare silicon wafers before they are delivered to semiconductor device manufacturers. Some wafer manufacturers also provide epitaxy wafers – Si or silicon carbide (SiC). As the market for leading-edge solutions continues to grow, we remain focused on supporting our customers, leveraging ASM's strong track record of innovation in semiconductor materials, hardware, and process technologies. We enable their roadmaps, which are focused on accelerating technology, improving manufacturing efficiencies, optimizing costs, and sustainability.

ALD market size (billion)



Source: ASM Investor Day 2023

Epi market size (billion)



Source: ASM Investor Day 2023

Semiconductor value chain and manufacturing process

Making semiconductor chips at our customers' fabs is complex and costly. The fabs house a large set of wafer-processing equipment, which performs a series of process steps on round silicon wafers, typically 300mm in diameter. The equipment operates in cleanrooms, where the air is filtered to prevent small particles from causing contamination that could affect the circuitry on the chips. Semiconductor manufacturing involves a wide range of technical disciplines, including physics, electronics, chemistry, plasma generation, gas-flow dynamics, optics, and metrology.

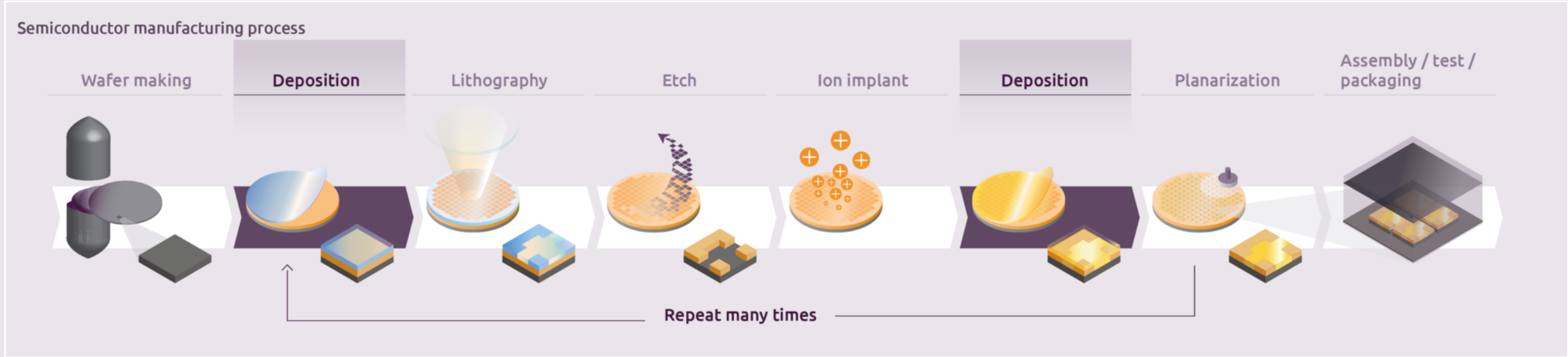
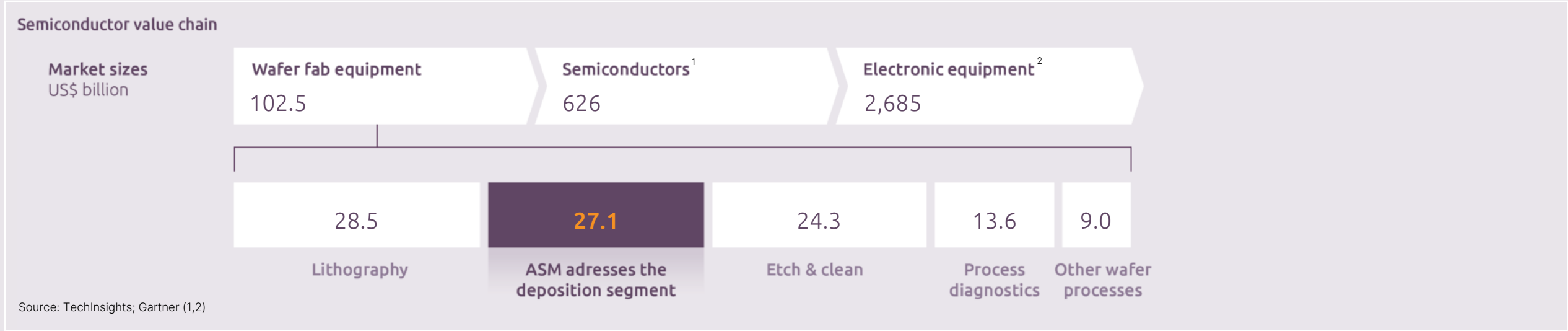
There are many steps to fabricating a semiconductor chip, involving various types of wafer-processing equipment. These include:

- Deposition of thin-film layers on the starting wafer;
- Lithography to create patterns;
- Etching to remove material;
- Deposition of thin-film layers; and

- Planarization, cleaning and thermal treatments.
- ASM's systems are designed for deposition processes where thin films, or layers, of various materials are grown or deposited onto the wafer. Many different thin-film layers are deposited to complete the full sequence of process steps to make a chip.

Finally, the individual chips on the wafer are separated, tested, and packaged in a protective housing. The resulting packaged products are integrated into electronic end products like servers and smartphones, and many other consumer devices – either directly or within printed circuit boards or other advanced packaging solutions where multiple chips are packaged with very dense interconnections.

# Semiconductors: value chain & manufacturing process





# GAA: a key growth driver for ASM

From their invention in 1947 to the early 2010s, planar transistors were the mainstream technology for advanced semiconductor devices. The gate electrode sits on top of a planar (semi-conducting) epitaxially deposited silicon channel area. When a charge is applied to the gate the flow of electrons is allowed to pass, making one of the most important building blocks of computer chips. Most of the improvements in device speed and cost came from making the device smaller, by using new (smaller wavelength) light sources for the lithography processes, along with some materials changes like the introduction of HiK gates, and strained silicon.

Over time, as dimensions were reduced, the controllability of the gate electrostatics (unwanted electric fields which make the operation of the transistor unreliable, or allow energy loss in the off state, i.e. leakage) became more challenging.

FinFET (FinField Effect Transistors) devices were introduced at around the 16nm node to mitigate these issues. It was recognized that surrounding the gate on three sides vs just one side on the top of the transistor could offer better control of the gate on/off states, limiting leakage and improving the scalability (continued reduction in the size of transistors).

Then, over a period of around 10 years, the industry progressed from 16nm FinFET devices, down to what is nominally called the 3nm node today.

As manufacturers have sought to scale FinFET transistors to smaller dimensions, new challenges – comparable in some ways to those of planar transistor scaling – have arisen. To solve these new scaling challenges, device designers came up with gate-all-around (GAA) – or nanosheet – transistor architecture, which consists of the channel with the gate totally around it. In this new architecture, multiple nanosheets are used to enable the correct current.

The resulting structure offers better electrostatic control and is scalable beyond the FinFET design. Importantly, this architecture also allows for scalability by offering a path to further transistor stacking, i.e. CFET architecture – where N - and P gates are stacked on top of each other.

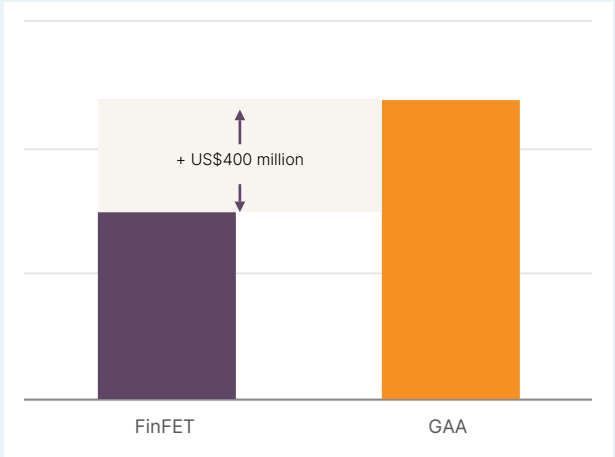
It is expected that 2025 will be the ramp year for GAA devices. They have matured to the point where logic/foundry device manufacturers have demonstrated viable yields and end devices have incorporated this new transistor design.

For ASM, it's an important area for growth. The smaller dimension and 3D nature of the GAA devices, as well as the additional control needed, benefits from the adoption of additional ALD and Epi steps. As discussed at our 2023 Investor Day, we estimate that this represents about US\$400 million in additional ALD and Si

Epi served available market (SAM) – per 100,000 wafer starts per month (WSPM) vs the last FinFET node – and exciting areas for growth.

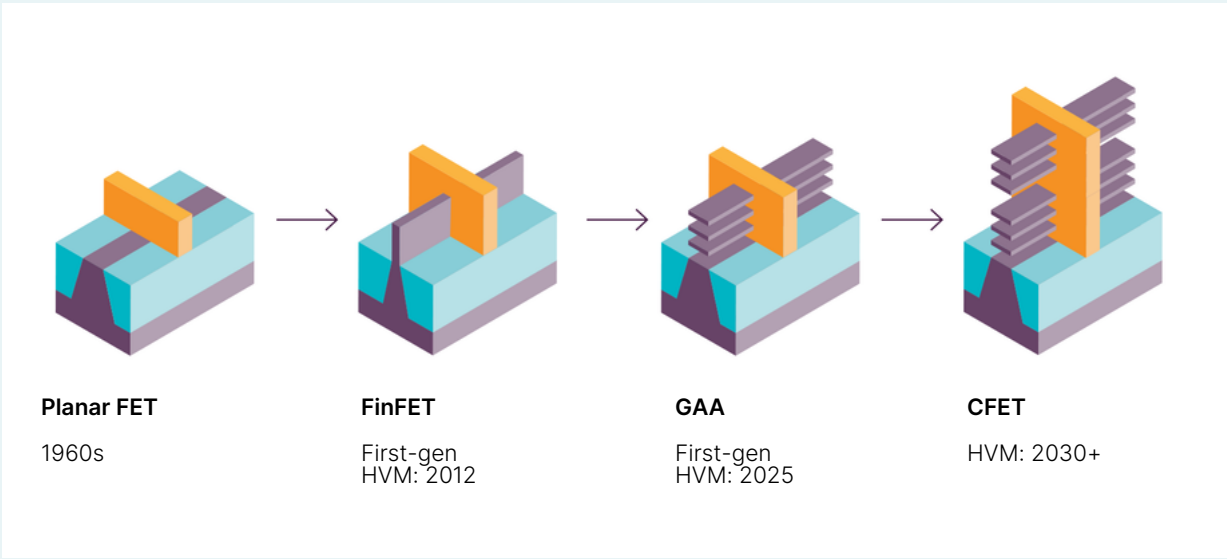
In the current environment of strong growth in AI and new product development, GAA-based transistors offer the potential to deliver higher capability with lower energy usage for future data centers and end devices like smartphones and PCs.

### Increased ALD and Epi SAM with move to GAA



Per 100,000 wafer starts per month  
Source: ASM Investor Day 2023

### Evolution of logic device architecture



4.3 Our product technologies

Our products include wafer-processing systems for ALD, epitaxy, PECVD, and vertical furnaces. We now also have silicon carbide (SiC) epitaxy tools, following the acquisition of LPE in 2022. We continuously drive innovation of our products and services to address our customers’ technology needs, and the industry’s focus on reducing costs and improving its environmental footprint.

Our development programs aim to increase throughput, make our equipment more reliable, improve yield in our customers’ manufacturing line, reduce energy and resource intensity, and cost of ownership. Our customers benefit from lower operating costs, as many of our products use the same parts and consumables, while a common control architecture improves ease of use.

Our single-wafer tools are designed for use on a common platform architecture. The XP platform is a high-productivity, common 300mm single-wafer platform that can be configured with up to four process modules. The XP platform enables high-volume multi-chamber parallel processing or the integration of sequential process steps on one platform. Our XP8 platform follows the basic architectural standards of the XP, but it offers even higher productivity with up to 16 chambers integrated on a single-wafer platform with a relatively small footprint. The XP8 platform can be configured with four dual-chamber modules (DCM), enabling up to eight integrated chambers, or with four quad chamber modules (QCM) for up to 16 integrated chambers on the same platform.

ALD

ASM is the leader in the fast-growing single-wafer ALD market – with a market share of around mid-50s

percentage (source: ASM estimates, Investor Day 2023). Using ALD technology, we can scale devices to smaller dimensions while reducing the power consumption of transistors. This helps the industry follow Moore’s Law, and create smaller, more powerful semiconductors. ALD allows us to deposit thin films, atom by atom, on silicon wafers. This means we can deliver atomic-scale thickness control, high-quality deposition film properties, and large area uniformity.

Such precision allows us to use materials that could not previously be considered, and develop 3D structures vital to the future of electronics. 3D technology provides several benefits, including saving space while delivering chips with higher performance that consume less power.

Many new applications are emerging where ALD is the technology of choice. In some cases it is the only solution able to meet the challenging technology requirements. For example, ALD high-k gates are now in production for high-performance DRAM devices. We are seeing customers wanting more ALD applications for each new technology node, driving high growth in the ALD equipment market.

New applications include high-k metal gates for GAA transistors, high aspect ratio gap-fill, underlayers for EUV lithography, metal ALD, selective ALD, and others.

ASM has the broadest portfolio of ALD products with innovative ALD reactor designs. Our strength in chemistries and applications using new materials means our customers can meet advanced node technology challenges. We offer systems capable of thermal ALD and plasma ALD.

In PEALD, plasma is used to provide the reaction energy for the process, enabling us to use lower temperatures for low-thermal budget applications. This technology

was originally introduced in DRAM and planar NAND flash manufacturing for spacer-defined double patterning (SDDP).

In 2022, ASM acquired Reno Sub-Systems, a supplier of high-performance RF matching networks and RF generators. RF power is used to generate gaseous plasma in various semiconductor manufacturing processes. Today’s complex devices require precise control over the RF power delivered to the plasma reaction chamber, especially when depositing material on atomic scale, such as for PEALD. Reno’s EVC (Electronically Variable Capacitor) technology provides sub-millisecond control over RF power delivery, improving throughput and quality of the deposited film. EVC technology, embedded in ASM’s plasma-based deposition equipment, is an enabler for next generation devices.

On our XP platform, we offer Pulsar and EmerALD single-chamber ALD process modules for high-k dielectric and metal gate films respectively. The Synergis ALD tool uses the XP8 platform with DCM modules, and leverages the core technologies from our Pulsar and EmerALD ALD products for high-productivity thermal ALD applications. Synergis is available for a range of films, including high-k metal oxides, metal nitrides, and metals.

Also on the XP8 common platform architecture, we offer PEALD processes for a wide range of applications. The Eagle XP8 uses DCM module configurations for high-productivity silicon oxides, metal oxides, and nitrides. Our XP8 QCM tool offers PEALD processing on quad chamber modules for very high productivity. A wide range of silicon oxide and silicon nitride process applications are available with the QCM tool.

ASM platforms and products

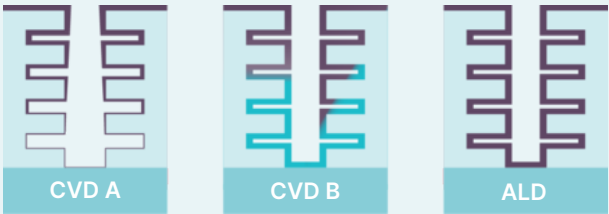
ASM products		Process application
ALD		
XP	<ul style="list-style-type: none"><li>• Pulsar XP ALD system</li><li>• EmerALD XP ALD system</li></ul>	<ul style="list-style-type: none"><li>• High-k gate dielectric</li><li>• Metal gate layers</li></ul>
XP8	<ul style="list-style-type: none"><li>• Synergis ALD system</li></ul>	<ul style="list-style-type: none"><li>• Metal oxides</li><li>• Metal nitrides</li><li>• Metals</li></ul>
PEALD		
XP8	<ul style="list-style-type: none"><li>• Eagle XP8 PEALD system</li><li>• XP8 QCM PEALD system</li></ul>	<ul style="list-style-type: none"><li>• Patterning layers</li><li>• Gate spacers and liners</li><li>• Gap-fill</li></ul>
PECVD		
XP8	<ul style="list-style-type: none"><li>• Dragon XP8 PECVD system</li></ul>	<ul style="list-style-type: none"><li>• Low-k and TEOS oxide</li><li>• Silicon nitride</li></ul>
Diffusion oxidation LPCVD		
Vertical furnace	<ul style="list-style-type: none"><li>• SONORA batch vertical furnace system</li><li>• A400 DUO batch vertical furnace system</li></ul>	<ul style="list-style-type: none"><li>• Diffusion, oxidation</li><li>• Polysilicon</li><li>• Silicon oxide/nitride</li><li>• Aluminum oxide</li></ul>
Epitaxy		
XP	<ul style="list-style-type: none"><li>• Intrepid ES epitaxy system</li><li>• Intrepid ESA epitaxy system</li></ul>	<ul style="list-style-type: none"><li>• Silicon channel</li><li>• Source/drain layers</li><li>• CMOS wafers</li><li>• Analog/power</li></ul>
Epsilon	<ul style="list-style-type: none"><li>• Epsilon 2000 single-wafer epitaxy system</li></ul>	
Silicon carbide epitaxy		
	<ul style="list-style-type: none"><li>• PE106A single-wafer epitaxy system</li><li>• PE108 single-wafer epitaxy system</li><li>• PE208 dual chamber single-wafer epitaxy system</li></ul>	<ul style="list-style-type: none"><li>• Silicon carbide</li></ul>

# ALD tech explainer

### Advantages of ALD

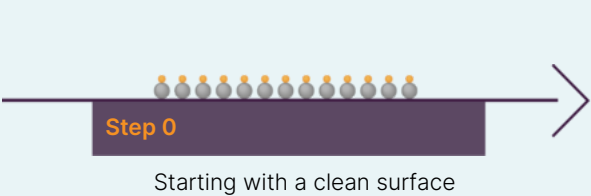
ALD is the only deposition technology capable of meeting the coverage and film-property requirements for complex 3D structures, such as the 3D-NAND example shown below. Compared to CVD methods, ALD has unmatched capability to conformally cover 3D structures with complex materials, with near-perfect chemical composition and electrical properties control.

The graphic of the CVD A (1) case shows that the deposited film (purple) does not fully cover the lower portions of the structure. With some process adjustments for the CVD B (2) case, coverage is achieved but the film properties and chemical composition are poor (blue) in the bottom area. The ALD (3) graphic shows fully conformal coverage – and due to ASM’s ALD technology methods, high-quality and uniform film properties are achieved in all areas of the structure.



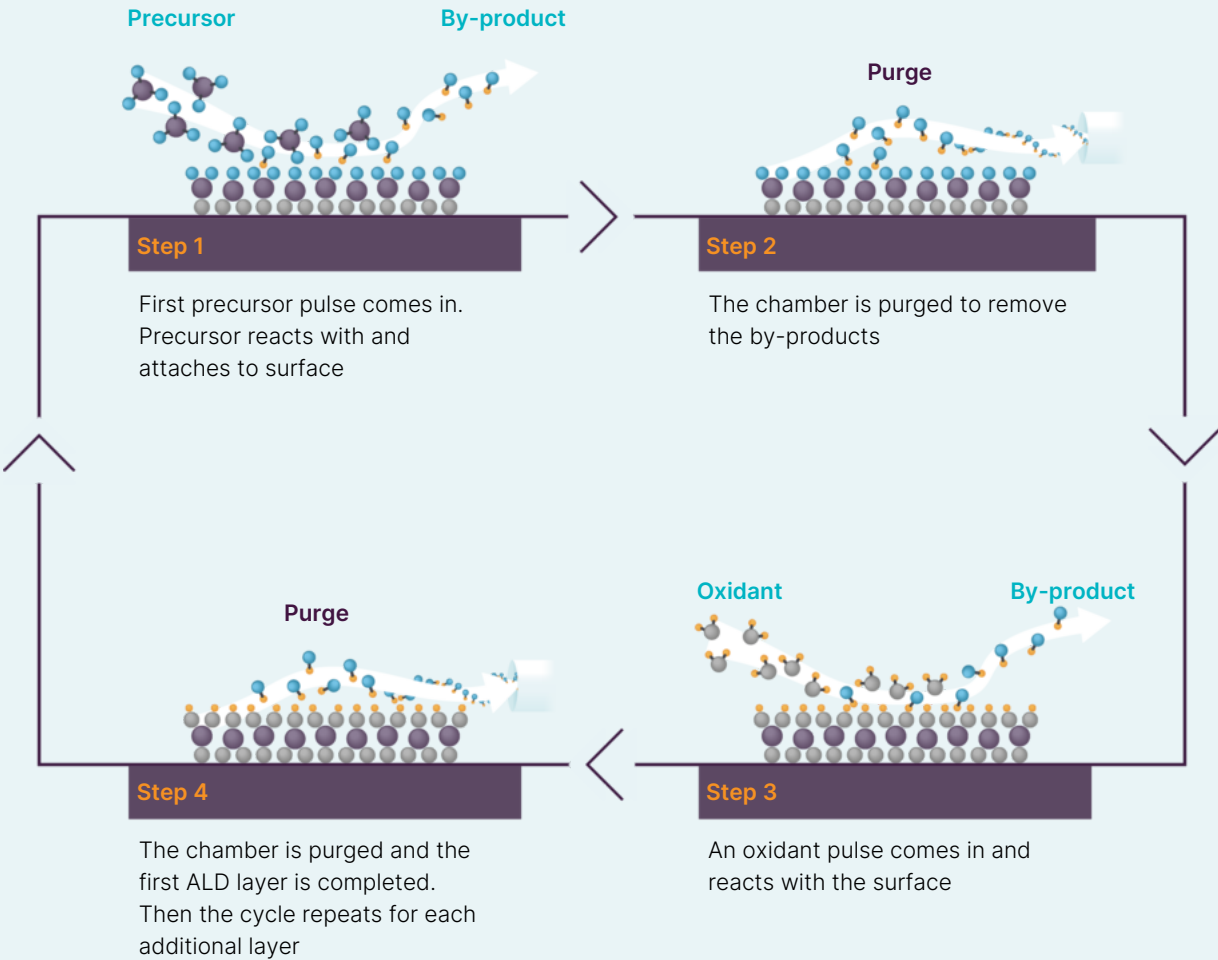
(1) Step coverage not OK  
(2) Step coverage OK, but properties not OK  
(3) Step coverage, composition, and properties all OK

### ALD cycle



ALD is a surface-controlled layer-by-layer process that deposits thin films one atomic layer at a time. Layers are formed during ALD reaction cycles by alternately pulsing precursors and oxidants, and purging by-products with inert gas in between each pulse.

The repetition of the ALD cycles results in a layer-by-layer growth of the deposited film. Because the ALD process is self-limiting, due to the principle of surface saturation, it results in films with a uniform thickness, even over varied surface topographies (conformality). The thickness of the film is precisely controlled by adjusting the number of ALD cycles.





Our XP8 QCM tool excels in the 3D-NAND high aspect ratio dielectric gap-fill application. This is where silicon oxide films are deposited void-free in deep trenches that are up to 100 times deeper than their width. In 2022, we introduced TENZA ALD, an innovative process technology that provides great film quality, conformal coverage through the full trench, and the highest productivity in its class.

#### ASM's XP8 QCM tool



#### Epitaxy (Epi)

Si Epi is used for depositing precisely controlled crystalline silicon-based layers, a critical process technology for creating advanced transistors and memories. The Epi market is growing quickly, driven by increased complexity for advanced node applications such as GAA transistors. ASM has the number two share in the Epi equipment market, and we saw solid growth in our 2024 Epi revenues. In addition to advanced transistors Epi applications, one of our strengths in Epi is in the growing analog/power segment.

Our most advanced Epi tool is the Intrepid ES for transistor applications, using our XP platform to configure up to four Intrepid reactors on the same tool. Temperature control is extremely important in Epi reactors. We have developed new methods of temperature control in our Intrepid ES Epi tool that enable improved film performance and repeatability in volume production. Intrepid's closed-loop reactor temperature control brings enhanced stability in production. Turino-CL is Intrepid's new multi-point pyrometer-based temperature-measurement system that further improves temperature control performance.

For enhanced Epi film performance, we offer the Previum process module, a pre-deposition wafer surface clean technology, integrated with Intrepid epitaxy process modules. The surface clean process is used prior to the epitaxy deposition to create a pristine silicon surface for defect-free epitaxy film deposition. This is critical for achieving the most advanced node transistor-performance requirements.

For silicon-based analog/power devices and wafer-manufacturing applications, we offer our Intrepid ESA tool for 300mm silicon-based epitaxy. The Intrepid reactor architecture allows for thick Epi deposition in a single pass, a significant productivity benefit for our power and wafer customers. For 200mm epitaxy applications, still relatively significant in the analog/power market, we offer the Epsilon 2000 tool.

#### SiC Epi

SiC is ASM's newest product line, following our acquisition of LPE in 2022. The SiC epitaxy equipment market has been growing fast due to the electrification of the automotive industry. SiC devices provide greater battery life and a longer range for EVs. Because of its wide band gap, SiC is efficient at high voltages, offering higher power efficiency, increased power density resulting in reduced component weight and size, and faster battery-charging times. The Power SiC device market is expected to grow strongly at CAGR >25% from 2023-2029, and reach nearly US\$10.4 billion by 2029 (Yole Intelligence 2024).

We have strengthened the SiC product offerings by drawing on our global engineering, quality, supply chain, and customer-support capabilities. Our SiC tools use an epitaxy process to deposit the SiC material on either bare substrates or as part of the transistor device fabrication process.

In 2024, we announced the release of the PE208, a 6" or 8" single wafer epitaxy tool, with dual chambers - that offers benchmark process uniformity as well as high throughput. The transition to 200mm SiC is a major technology inflection, which positions single-wafer reactors like ASM's particularly well since the deposition thickness and material uniformity control is more challenging at 200mm.

#### PECVD and vertical furnaces

ASM is also active in the vertical furnace and plasma-enhanced CVD (PECVD) market segments. While these are each large segments, we are focused on niche portions of the market.

Vertical furnaces use a batch configuration. This means a large number of wafers are processed at the same time for productivity and cost savings. We design our furnace tools with dual-batch reactors for even more productivity. A wide range of process applications are available on our furnace tools, including LPCVD, oxidation, diffusion, and cure.

Our furnace tools include the SONORA vertical furnace for 300mm logic/foundry and memory applications, as well as 300mm analog/power. SONORA has been placed with leaders in advanced logic, and power device manufacturing. We also offer the A400 DUO vertical furnace for 200mm and smaller wafers, targeting analog/power, RF, and MEMS applications. The A400 DUO has achieved significant wins in the China market.

In PECVD, our key position is on low-k for advanced logic interconnects. PECVD processes are offered on our high-productivity XP8 platform. Our Dragon XP8 PECVD tool addresses a broad range of dielectric films for various low-temperature deposition applications, such as interconnect layers, gap-fill, passivation layers, and etch stop layers.

More information about our product technology can be found on our [website](#).

Spares & Services

All of ASM's technologies mentioned above come in the form of sophisticated and complex systems that ship to our worldwide customers. These are installed at their fabs, along with other similar systems used in series to create microchips.

Of course, our service capabilities and performance are a key factor in our customer's equipment-selection process. When customers choose ASM systems, it is also based on how ASM's systems have performed on a very limited scale – within our demo labs or during a single system evaluation at the customer site. Once they choose ASM to ramp into production, the customer trusts that our system will meet their needs and enable their success. Failing a customer during a production ramp could cause them significant problems.

This is where ASM's Spares & Services team comes in. We work on installing the tool in the customer fab, and help to start them up so the tool can perform – with a view to having them in production 24/7 for 20+ years, no matter where they are in the world.

In the past few years, our Spares & Services has grown its support beyond making sure trained maintenance staff and spare parts are available, and systems are running. Today, ASM provides what we call outcome-based services. Its aim is to draw out ever-greater performance from our installed base of systems, through engineering-based improvements to the parts and procedures we use. This can deliver improvements such as fewer defects, longer parts and system life, better film uniformities, more process repeatability, and, ultimately, lower operating costs for our customers.

# Epi tech explainer

Epitaxy is a high-temperature deposition process, requiring precise temperature control to ensure that a pristine crystalline film can be deposited. The graphic below shows the steps in the Si Epi CVD process that lead to the deposition of a crystalline film with the same crystal structure as the material on which the film is deposited. This process is crucial for advanced semiconductor devices and its use is increasing.

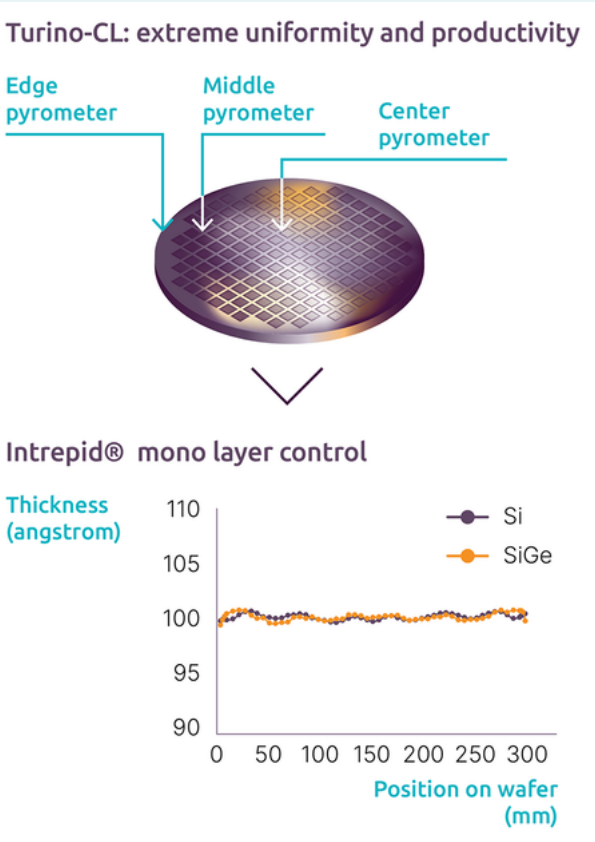
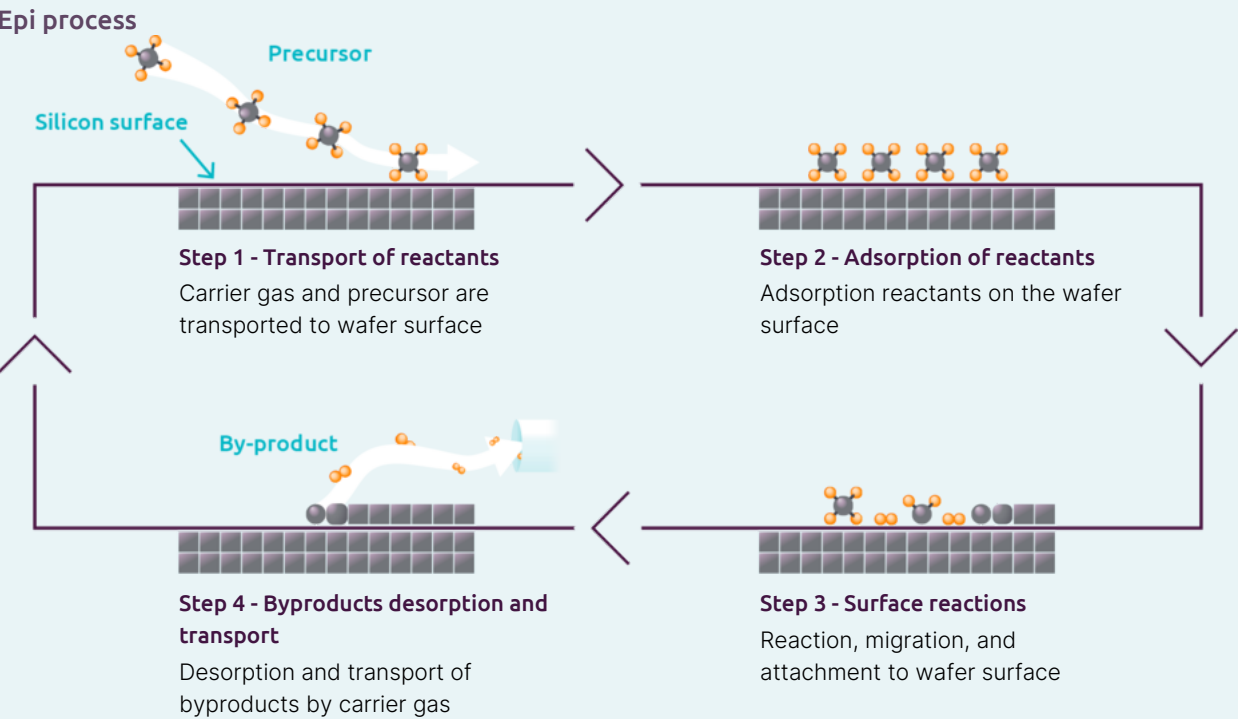
Whether as a blanket film or selectively deposited, high-quality epitaxy films of silicon (Si), silicon germanium (SiGe), silicon germanium boron (SiGe:B) and silicon phosphorus (Si:P) play a key role in semiconductor devices. They enhance electron mobility, which enables faster transistor switching at lower power, and by controlling the dopant (boron or phosphorous) concentration enable just the right amount of electrical conductivity.

Creating a pristine crystalline layer is a challenging task. The ability to control temperature is one of the most important attributes of advanced epitaxy deposition. ASM has advanced the state of the art in temperature control in our epitaxy tools that enable improved film performance and repeatability in volume production.

## ASM’s innovations in Si Epi

Among the many innovations of ASM epitaxy, the Intrepid ES and ESA products both utilize an isothermal chamber, as well as our proprietary Turino-CL direct temperature measurement and feedback system to monitor and manage temperature with high precision, which is needed to make the highest quality epitaxy for high-performance devices. Using multiple pyrometers – which directly measure the top of the wafer surface temperature – we are able to provide a higher-performance temperature control loop in our epitaxy systems, versus the alternative method of measuring the temperature of the susceptor, and from that inferring the wafer temperature. This translates into better thickness uniformity control, faster ramps for higher productivity, and lower energy consumption.

In addition to providing productivity benefits, this precise control has enabled a strengthened position in epitaxy for the current logic GAA transition and has demonstrated the necessary control to apply to other applications as they evolve and grow.





## 5. Engaging our customers closely and early

**ASM is committed to giving customers the best products and services, helping them achieve their device and process technology goals. ASM has an unwavering dedication to innovation, and works with customers closely and early in each development cycle to make sure our products meet their roadmap requirements, with service teams on hand at global fabs providing ongoing equipment and process support.**

We focus on value creation for our customers, continuously improving our products to support their technology roadmaps, increase productivity, lower operating costs per wafer, and enable next-generation chips.

A key goal of our customers is to build faster, cheaper, and increasingly more powerful semiconductors with reduced power consumption for each new technology node. We collaborate with them closely to make this happen, forging mutually beneficial partnerships to help develop next-generation technologies. Through our intensive R&D programs and customer co-development, we continuously improve and extend the capability of our products and processes to meet these advanced technology roadmaps.

Critical to our success is close and early collaboration with leading customers and suppliers, global research institutions, such as imec, and key universities. Having our R&D, engineering, and service professionals engage in these close and early collaborations also drives us to

keep on pushing boundaries, and to continue to focus on advancing new cutting-edge innovations, aiming to stay ahead of what's next. The result is value creation for our customers.

Continuously developing and maintaining strong relationships underpins mutual progress, and ASM engages with our customers throughout our organization. Our account teams are close to our customers' fabs for day-to-day interaction in sales, product and process support, spare parts, etc., and are providing support for our customers' production ramps. Our product development and technical product-support groups, meanwhile, engage with customers on issues in manufacturing, product-improvement projects, joint development programs, and discussions about requirements for next generation technology roadmaps. Periodic customer and ASM executive meetings serve to strengthen our business relationships and share commitments.

ASM is continuing to focus on strengthening our quality organization and processes to support our product performance, customers' goals in fab operations, and efficiencies. We serve society by helping our customers produce chips for the advanced electronics that deliver improvements and opportunities across many aspects of our lives. While doing so, we work at the edge of what is technologically possible, creating an attractive professional and learning environment for our employees, and generating long-term value for all our stakeholders.

We engage with – and are responsive and committed to addressing – the broad range of our customers' sustainability expectations, including detailed inquiries and periodic audits. To expand our contribution and impact, we collaborate with our customers on sustainability topics wherever possible.

### Customer recognition

In 2024, several key customers recognized ASM for equipment performance and support:

- In December, at their Supply Chain Management Forum, TSMC presented ASM with an award for Excellent Performance in 2024, marking the fourth consecutive year ASM has received this recognition. The award highlighted ASM's role in the ongoing expansion of TSMC's global footprint as well as our crucial contribution to its growing production capacity for advanced process technology nodes.
- A large customer in Korea honored us in November with an Outstanding Collaboration Award for our joint research and development work. In December, from the same customer, we also received an Appreciation Award for our outstanding work in improving tool uptime in memory high-volume manufacturing.
- In March 2024, Intel presented ASM with its 2024 EPIC Outstanding Supplier Award, the highest award level within the Intel EPIC Supplier Program, recognizing the highest performance across all measures. Being among the six suppliers chosen by Intel in 2024 is a significant achievement for our team.

- We are also honored to report that in 2024 a total of 14 customers in China gave ASM supplier awards, including awards for fast installation, best support services, and excellent safety management.

# 6. Our business model



ASM's business model emphasizes early phase R&D, collaboration, and wide-ranging customer engagement. At our R&D labs in Helsinki, Finland, we focus on early-stage R&D for developing new materials and precursor chemistries. A critical component is close and early collaboration with global research institutions, such as imec, key universities, suppliers and leading customers.

Early collaborations are particularly beneficial during the new product development phase, when each of our product lines designs and implements new systems and processes to meet upcoming customer roadmap requirements. Next to technical performance and cost of ownership, sustainability targets are an integral part of product design. When new products are ready, ASM often places evaluation tools at key customer sites to demonstrate critical performance factors and to optimize the equipment and process technology.

When evaluations and product enhancements are completed, and ASM has been selected as the production tool of record (PTOR) supplier, new products are ready to be shipped to customers for high-volume manufacturing (HVM). At this point, our manufacturing site is ready for volume manufacturing of the new products. While our customer support teams are already engaged at the evaluation phase, the on-site service, spare parts management and process support activities ramp up substantially for HVM.

Over time, our products already installed and in production are involved in CIP, or continuous improvement program activity, a focused effort to further optimize the product performance based on the learnings and results in the customer fab environment. Furthermore, from a longer term and sustainability and circularity perspective, we look to extend the product's lifecycle with a team that works on refurbishment and upgrade solutions for our installed base. We actively work with customers to implement improvements, so existing products can continue operating even as technical requirements become more challenging.





# Strategy and performance

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# 7. Strategy

We are an innovation leader in the semiconductor industry. This is the result of our focus on key issues and challenges within the industry, enabling us to make a difference to and create value for our customers, employees, investors, and other company stakeholders, while we continue to bring our breakthrough technologies into volume manufacturing.

We operate in a fast-moving industry and ever-changing world. That's why our core values – We Care, We Innovate, We Deliver – are the cornerstones of who we are, what we believe, and how we act. We prioritize a workplace that fosters Accountability, Collaboration and Empowerment (ACE), behaviors that support our values and enable our culture. As our industry continues to develop at speed, this is what guides us, as we work to stay ahead of what's next.

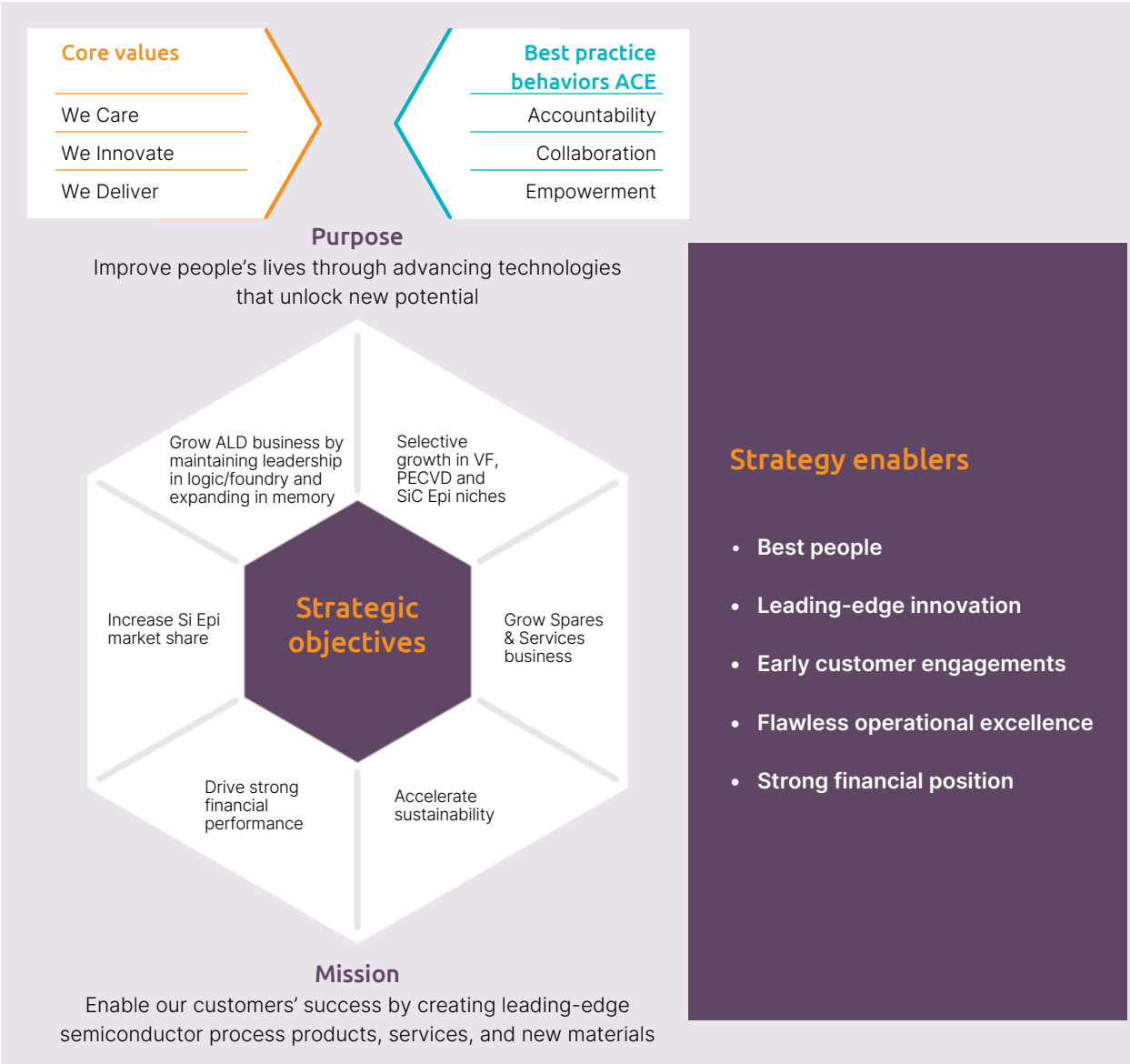
Our purpose is to improve people's lives through advancing technologies that unlock new potential.

Our mission is to enable our customers' success by creating leading-edge semiconductor process products, services and new materials.

## Key elements and enablers of our strategy

Our strategy is based on the following six strategic objectives:

- 1. **Grow ALD business** Our ALD business is a key priority and we aim to grow it by maintaining leadership in logic/foundry and expanding in memory. We also expect the ALD market to be the fastest-growing segment in the deposition market in coming years, as ALD requirements will continue to increase in the next nodes. We are focused on maintaining our leading position in the logic/foundry segment, and increasing our market share in memory. We estimate that the single-wafer ALD market will grow to US\$4.2-5.0 billion in 2027. Our goal is to maintain a market share larger than 55%.
- 2. **Increase Si Epi market share** Silicon epitaxy has become a second growth engine in our product portfolio. Our Intrepid product has enabled us to make successful inroads in the advanced CMOS part of the Epi market, while increasing our presence in the analog/power market. In R&D, we are working with multiple customers on new Epi applications for the next nodes, which should further grow our market share. We estimate the silicon Epi market will increase from US\$2 billion in 2022 to US\$2.3-US\$2.9 billion in 2027. We aim to increase our market share to more than 30% by the end of 2025.
- 3. **Selective growth in vertical furnaces (VF), PECVD and SiC Epi niches** We want to develop our niche positions through targeted growth opportunities. In the vertical furnace business, for example, we have expanded our position in analog/power market on the back of new product introductions. With the acquisition of LPE in 2022, we entered the SiC Epi market, which



4. complements our silicon epitaxy offerings, and is expected to be an attractive long-term growth market.
5. **Grow Spares & Services business** We are growing our Spares & Services business faster by focusing on our differentiated outcome-based services. These services deliver a clear, quantifiable result at a much lower cost than the value brought to them. An example is our Complete Kit Management (CKM), which contributes to improved uptime of our tools in customers' fabs, bringing them operational cost savings. Our focus on new outcome-based services has allowed us to grow our Spares & Services revenue at a higher rate than in the past.
6. **Accelerate sustainability** We aim to be sustainability leaders within our industry and achieved several key milestones in 2024. Our inaugural Climate Transition Plan maps the path to achieving our Net Zero by 2035 target. ASM's global operations are now powered by 100% renewable electricity, reducing the company's environmental footprint. As the continued chair of the Semiconductor Climate Consortium, ASM drives industry-wide collaboration for an accelerated path of climate action. The introduction of our first Human Rights policy reinforces our commitment to ethical and responsible business practices. Focused on transparency and innovation, we continue to deliver progress and lasting value for stakeholders.
7. **Drive strong financial performance** Healthy profitability will allow us to continue investing in growth. To this end, we have drawn up our profitability targets for the period 2024-2027. We strive to achieve gross margins of between 46% and 50%, and an operating margin of 26% to 31%, generating strong free cash flow.

## Our five strategic enablers

To be able to realize our strategy and strategic objectives, we identified five critical enablers. All our activities are focused around these elements:

1. **Best people** Our people are at the heart of our company's success. We strive to create a safe, inclusive, inspiring, and motivating workplace where our employees are able to use their talents, excel, and develop their potential as we work together to deliver the cutting-edge technologies of tomorrow. As our workforce rapidly expands, we are focusing on strengthening ASM. This means developing our talent pool with more long-term career progression and training. It also means strengthening and unifying our culture, based on our core values – We Care, We Innovate, We Deliver – and our ACE behaviors (Accountability, Collaboration, Empowerment).
2. **Leading-edge innovation** The core part of our overall growth strategy is continuous innovation – this is to provide ASM with a leading technological competitive advantage. With R&D centers in seven countries, we have helped shape today's leading-edge semiconductor products by driving innovation through our collaborative R&D models. In addition, we are making capital investments in lab space and equipment to further expand our development capabilities in next-generation technologies. As well as our internal R&D efforts, we are growing and deepening our strategic cooperation with key customers, suppliers, chemical manufacturers, and research institutes.
3. **Early customer engagements** We have strong customer relationships with the leading semiconductor manufacturers, working closely together in the early stages of their device roadmaps. As we have expanded and deepened our R&D engagements with chipmakers, we have developed our understanding of the key requirements of the next generation of device roadmaps. This is enabling us to develop value-added solutions to the industry's critical technology issues.
4. **Flawless operational excellence** While technology leadership remains crucial, we see operational excellence as essential to strengthen our future position. We aim to provide our customers with dependable, leading-edge products and services at a consistent performance level, while providing the best total cost of ownership.
5. **Strong financial position** We strive to maintain a strong balance sheet that allows us to continue investing in R&D and the growth of our company. To this end, our target is to maintain a minimum amount of cash on our balance sheet – €600 million in the period until 2027.

## 8. How we create value for our stakeholders

**Our purpose is to improve people's lives through advancing technologies that unlock new potential. We serve society by helping our customers produce chips for the advanced electronics that deliver improvements and opportunities across many aspects of our lives, as well as the planet. Our innovations and leading-edge technologies, such as our ALD products, enable our customers and our industry to develop faster and more energy-efficient semiconductors.**

Accelerating sustainability is one of the pillars of our strategy. ASM's sustainability focus areas are Innovation, People, Planet, Responsible supply chain, and Governance. In Planet, as an example, we have prioritized focus on climate response. After announcing our Net Zero by 2035 ambition in 2021, our net-zero targets were verified by SBTi in 2023. In 2024, we published our inaugural Climate Transition Plan. We aim to collaborate with stakeholders across our value chain with the ambition to bring faster and more meaningful change to the environmental challenges facing the world today. A key example is our leading role in co-founding the Semiconductor Climate Consortium (SCC), and serving as its chair person.

To further accelerate our sustainability journey, we have taken additional steps to integrate 'Design for Sustainability' considerations into our product portfolio. Our latest equipment innovations prioritize energy efficiency and resource conservation, reducing environmental impact across the semiconductor value

chain. Through these efforts, we aim not only to minimize our own footprint but also to help our customers reduce their environmental impact.

Innovation is in our DNA. We work at the edge of what is technologically possible, creating an attractive professional and learning environment for our people. As we aspire to be an employer of choice for existing and future talents, we are constantly focused on improving our employee experience. Our 2024 employee engagement survey had a high response rate of 95%. On diversity and inclusion, we are focused on increasing the participation rate of women, with a target of 20% women workforce by 2025. We were at 18% at the end of 2024 (2023: 17%). In safety, our vision is ZERO HARM!, where we foster a safety leadership culture regardless of role. This means we strive to prevent all incidents and injuries, regardless of severity or impact. We prioritize and focus on prevention, meaning we aim to remove all exposure to harm. Our 2030 target is to reduce our total recordable injury rate to 0.15, a reduction of 38% compared to 2024 (0.24).

Our mission is to enable our customers' success. We focus on value creation for our customers, by continuously improving our products to support their technology roadmaps, to lower cost of ownership, and enable next-generation chips. Critical to our success is close and early collaboration with our customers, to make sure our products meet their requirements, with service teams for ongoing equipment and process support. To expand our contribution and impact, we collaborate with our customers on sustainability topics wherever possible. As an example, through innovation

we aim to further improve the energy and resource efficiency of our products.

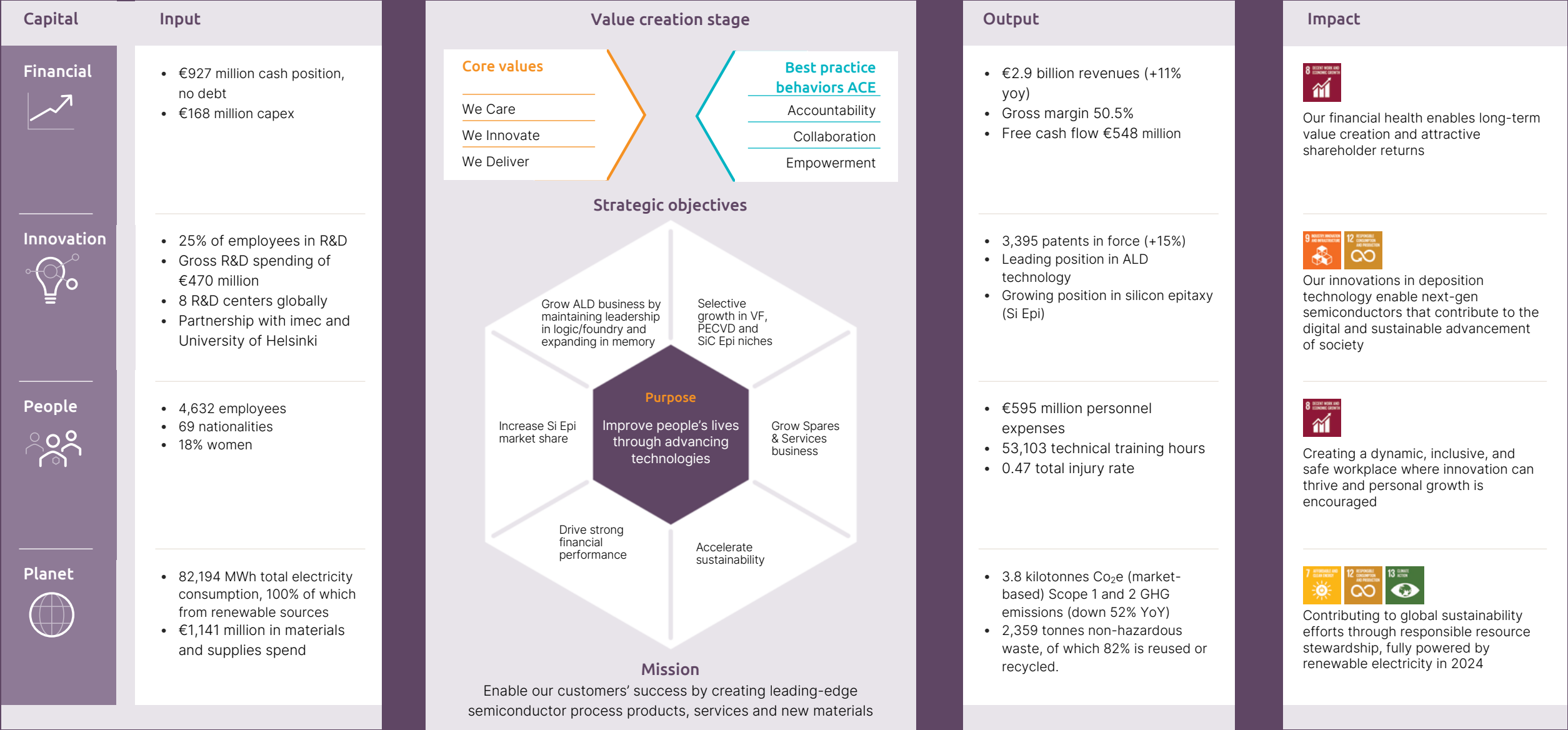
Our suppliers are key partners. As we grow our business, the opportunities for our suppliers increase. ASM continues to expand its global supply chain to support the need for technology, capacity, flexibility, and sustainability. Together with our suppliers, we can create positive impact for our stakeholders, the planet, and society overall – well beyond our individual scale. We strive to further build on a sustainable, responsible supply chain, with a focus on areas such as worker safety, environmental footprint, and human rights.

As part of our responsible supply chain efforts, we have strengthened our supplier engagement framework. This includes enhanced due diligence practices and capacity-building programs that help suppliers align with our stringent environmental and social responsibility standards. By fostering a culture of continuous improvement, we ensure that sustainability remains a shared goal across our entire value chain.

We create value for our shareholders as we focus on long-term sustainable growth. Leveraging our advanced technologies and our positions in fast-growing markets such as ALD, we aim to deliver revenue growth of on average 11%-16% annually in the 2022-2027 period, with healthy operating margins of 26%-31%. We aim to maintain a strong financial position. Our key capital allocation priority is to invest in the growth of our business. We are committed to our sustainable dividend policy and to return excess cash to our shareholders.



8.1 Our value-creation model



## 9. CFO message



**Paul Verhagen**

Member of the Management Board and Chief Financial Officer

**Against a backdrop of mixed market conditions, ASM continued to deliver strong financial results in 2024. AI was the key growth area, fueling investment in the new gate-all-around (GAA) node and high-bandwidth memory (HBM). Our operating result as reported improved by 23% due to continued revenue growth with higher gross margin and strict SG&A cost control, even while we increased R&D investments. Our financial position remains strong, supported by record free cash flow in 2024.**

### **Another year of double-digit performance amidst mixed market conditions <sup>2</sup>**

ASM's revenue increased to a new record-high level of €2.9 billion. Compared to 2023, this was an increase of 12% at constant currencies, outperforming WFE market growth and marking our eighth consecutive year of double-digit growth. The semiconductor end market increased by 18%, recovering from a 10% drop in 2023. This recovery was uneven, however, with AI driving growth while most other end markets were weak.

Strong growth in AI data center investments drove robust demand for advanced logic/foundry devices, such as GPUs, and related high-band memory solutions. The recovery in large-volume segments, such as smartphones and PC, remained slower than industry observers initially predicted at the start of the year, amid continued economic uncertainty, sluggish consumer spending, and geopolitical tensions.

The industrial and automotive semiconductor markets experienced a downturn in 2024. The WFE market increased by a mid-single-digit percentage in 2024.

While we achieved consistent quarter-to-quarter sales growth throughout the year, the mix of our business changed markedly from the first to the second half. In the first part of the year, the Chinese market made an exceptionally strong contribution, while the leading-edge logic/foundry market continued to be relatively soft. In the second half, Chinese sales declined moderately, while leading-edge logic/foundry markets gained momentum, and our memory sales also increased.

### **"AI was the key area of growth for the semiconductor market in 2024."**

#### **GAA: a key driver for ASM**

Our advanced logic/foundry business remained at a lower level in the first half of 2024, following the softer market conditions in 2023. Throughout 2024, the new 2nm GAA node began to generate increased revenue. In the first half, however, this revenue was limited as tool shipments were primarily focused on customers' pilot lines. In the second half of the year, the shipments mix increasingly shifted towards high-volume manufacturing, resulting in a significant increase in related sales compared to the first half. The 2nm GAA node will be a strong inflection for ASM, as more ALD and Epi will be

required in the manufacturing process. This transition is expected to increase our served available market by US\$400 million (per 100K monthly wafer starts capacity). The 2nm GAA technology is expected to enable next-generation semiconductor devices that will meet the computational demands of advanced AI applications in the coming years. In 2025, we anticipate a substantial increase in our GAA sales, driven by customers moving into the high-volume manufacturing phase.

### **"Amidst mixed market conditions, 2024 was again a year of double-digit revenue growth for ASM."**

#### **China sales at exceptional level in first half**

In the first half of 2024, relatively lower sales in our advanced logic/foundry segment were offset by continued strong demand in the Chinese market. Building on the strong growth experienced in 2023, our China sales further increased to an exceptional level in the first part of 2024. Sales in the power/analog/wafer segment were lower in the first half, but were offset by strong demand in the mature logic/foundry segment. Following export regulations in 2022, several logic/foundry players moved their focus to more mature nodes such as 28nm. While ASM's involvement in such older nodes is relatively limited, the substantial number of new 28nm fab projects in China still added to a substantial sales contribution.

<sup>2</sup> Adjusted figures are non-IFRS performance measures. For a reconciliation of non-IFRS performance measures, see the table at the end of section 10.1.

In the second half of 2024, our China sales decreased compared to the first half, in line with the expectation that we first communicated in February 2024. We believe this decrease reflects digestion and a normalization following exceptional spending levels. We expect this normalization to continue in 2025. We expect the contribution of China equipment sales to amount to a low to high 20s percentage of total 2025 ASM revenue, as communicated in December 2024. This forecast takes into account the expected impact from new US export control regulations announced on December 2, 2024.

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### “The GAA node will be a strong inflection for ASM.”

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#### Strong rebound in memory

Memory was the strongest growing segment in 2024, both for ASM and the WFE industry. Following the steep decline in 2023, AI-related demand for high-bandwidth memory triggered a recovery in overall memory market conditions, even though parts that are more exposed to the PC and smartphone markets remained mixed. HBM applications require the most advanced DRAM devices, which is beneficial for ASM as more ALD steps are required for these devices.

Our memory equipment sales strongly increased in 2024, accounting for 25% of total equipment sales, up from a relatively low level of 11% in 2023. This increase was driven for the most part by DRAM, in particular for HBM applications. Our sales to 3D-NAND customers roughly doubled in 2024, but this was compared a very low base in 2023, and accounted for the smaller part of our total memory business in 2024.

The power/analog/segment, which nearly doubled its sales in 2023, experienced a meaningful contraction in 2024. This segment has significant exposure to the industrial and automotive end markets, which slowed down in 2024. Over the past few years, we have expanded our positions in these segments, including in China, on the back of new innovative products such as our SONORA vertical furnace. We are confident our power/analog/wafer segment will recover once market conditions improve, which is however not expected before the end of 2025.

At constant currencies, our equipment sales increased by 9%. Our ALD product lines were the primary driver, accounting for clearly more than half our equipment sales in 2024, supported by robust demand from logic/foundry and DRAM customers. Our Si Epi sales experienced a slight decline. While we saw solid momentum in GAA-related Epi sales, this was offset by the cyclical market downturn in power/analog/wafer markets. After achieving record-high sales in 2023, vertical furnace sales also dropped in 2024, reflecting the softer power/analog/wafer market conditions.

Our SiC Epi sales increased by a mid-single digit percentage in 2024. While this growth is significantly lower than we expected at the start of the year, we believe this is a robust performance compared to overall SiC Epi market, which was impacted by slowing EV end markets in the course of the year.

Following customer wins in the US and Europe in 2023, we further expanded our customer base in 2024. While there is no sign of recovery in 2025, we believe the longer-term outlook for the SiC market remains positive.

#### Strong growth in Spares & Services

Spares & Services had a very strong year, with sales 29% higher at constant currencies. Relative to total sales, Spares & Services increased from 16% in 2023 to 19% in 2024. In Q3 and Q4 of 2024, growth was above the trend line due to accelerated demand from China. More structural drivers for our Spares & Services include the increasing installed base as well as strong growth in our outcome-based services offering. Since we started to roll out these new services in 2020, we have increased our Spares & Services sales at an average annual rate of 19%. As announced with our Q4 2024 results, starting in 2025, we are changing the reporting definition of Spares & Services to include installation & qualification revenue, aligning with our business organization structure at ASM. Based on the new definition, Spares & Service revenue in 2024 would have been 21% of the total.

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### “Gross margin was positively impacted by mix in 2024, supported by a continued strong sales contribution from China.”

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#### Gross margin increased due to mix

Gross margin increased from 49.3% in 2023 to 50.5% in 2024, primarily driven by mix effects, in addition to ongoing cost focus<sup>3</sup>. In the first quarter, adjusted gross margin reached an all-time high of 52.9% thanks to a generally strong mix, including record sales to China. In the second and third quarter, it remained solid at 49.8% and 49.4%, respectively, partly due to the continued contribution of China sales. In the fourth quarter, gross margin came in at 50.3%, due to very strong mix, and despite a lower, though still healthy, contribution from China sales.

For 2025, we expect the gross margin to be in line with our mid-term guidance of 46-50%

#### R&D

Net R&D expenses were up 20% in 2024 (both on a reported and adjusted basis), due to R&D headcount growth – up 6% in 2024 – and to increased amortization charges for several development projects that entered the commercial release phase.

For 2025, we expect adjusted net R&D expenses to be at the top end of our mid-term guidance of high-single to low-double digits as a percentage of revenue, or even slightly higher, in line with our indications at our Investor Day 2023. This is driven by our increasing pipeline of opportunities, including our engagements with key customers for the next-generation GAA applications, and new ALD and Epi layers in next memory nodes.

#### SG&A

SG&A expenses increased 3% in 2024 (both on a reported and adjusted basis). This was a meaningful moderation compared to increases of 12% in 2023 and 46% in 2022. As explained on earlier occasions, the increase in SG&A in prior years reflected increased investments to strengthen the organization and business processes in view of the growth of ASM. Most of these investments were completed in the course of 2023, although we continue to increase spending in areas such as customer support and IT.

In 2025, we expect adjusted SG&A as a percentage of revenue to further decline, reaching a high single-digit percentage of sales, which meets our mid-term target for this metric.

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<sup>3</sup> Gross margin PPA amortization came to an end in 2023. Gross margin amounted to 48.3% on a reported basis.



We remain focused on efficiency improvements. An important digitization project is the transition to S/4HANA. We made good progress in 2024, and while we experienced a delay of a few months, the project remains on track for completion in 2025. The implementation will help us integrate and optimize business processes, enabling real-time data management and streamlining operations in a centralized and scalable way.

**Operating margin**

Our operating result came in at €802 million, up 23% versus 2023 on a reported basis, supported by higher gross profit and a moderation in SG&A, and partially offset by higher R&D expenses. The operating margin as reported increased from 24.8% in 2023 to 27.4% in 2024. Adjusted for PPA, operating margin improved from 26.6% to 28.0%.

**“We generated a strong free cash flow, up 23% in 2024.”**

**Free cash flow, capex, and cash position**

In 2024, we generated a strong free cash flow of €548 million, up from €447 million in 2023, despite higher capex and working capital. Higher working capital led to a cash outflow of €21 million compared to a cash inflow of €44 million in 2023. The increase in working capital was mainly due to a rise in accounts receivable, which resulted from the timing of tool shipments and related payments. This increase was partly offset by higher contract liabilities and accounts payable. The number of working capital days decreased from 60 days in 2023 to 50 days in 2024.

Capex increased to €168 million in 2024, up from €154 million in 2023 and was within our guidance of €100-180 million per year. In 2024, our capex was primarily focused on expanding our R&D facilities. This included: our new facility in Hwaseong, Korea, scheduled for completion in 2025; the start of our investment program for our new R&D facility in Scottsdale, Arizona; and investments in additional lab equipment.

**“Investment in continued future growth remains a top priority.”**

It will be another year of continued investments in 2025 as we advance the upgrade plan for our R&D facilities. Regarding our cash flow outlook in 2025, it's important to note the anticipated earn-out payment of €100 million for LPE, previously disclosed at the time of the acquisition in 2022.

Our cash and cash equivalents position increased to €926 million, up from €637 million at the end of 2023, driven by a strong free cash flow generation.

**Capital allocation**

Our capital allocation priorities are unchanged. Our primary focus continues to be investing in our company's future growth, as demonstrated by our investments in new and expanded innovation infrastructure.

We continue to scan the market for M&A opportunities that could create value and strengthen our position in the deposition markets.

We also strive to maintain a solid balance sheet that enables us to execute on our growth strategy.

**Accelerating sustainability**

In 2024, we made further progress in stepping up our sustainability commitments. Key achievements included the transition to 100% renewable electricity in our global operations, and the launch of our Climate Transition Plan. A highlight is our Annual Report 2024, which marks our first report under the Corporate Sustainability Reporting Directive (CSRD). Preparing this report required significant effort from many ASMers, and we believe it represents a strong initial disclosure that meets CSRD requirements.

A key change in our reporting process was the adoption of the Double Materiality Assessment (DMA). This assessment provided us with valuable insights into two key areas: how our business impacts sustainability factors and how external sustainability priorities affect our business. These insights have helped us refine and sharpen our strategy.

The CSRD helped us to focus assurance of non-financial information on the material topics. This significantly enhanced the transparency and depth of our disclosures.

**2025 outlook**

Market conditions continue to be mixed looking into 2025, with WFE spending expected to increase slightly. Leading-edge logic/foundry is expected to show the highest growth in 2025. In memory, we expect healthy sales in 2025, supported by continued solid demand for HBM-related DRAM, although it is too early to tell if memory sales will be at the same very strong level as in 2024. The power/analog/wafer segments are still in a cyclical correction with no signs of a recovery in the near term. In SiC Epi, the outlook further weakened. Our China revenue is expected to decrease in 2025.

We confirm our target for total ASM revenue in a range of €3.2-3.6 billion in 2025, but it is too early to provide a more specific forecast due to market uncertainty and as visibility for the second half of the year is still limited.

**Paul Verhagen**

March 6, 2025  
Member of the Management Board and Chief Financial Officer

# 10. Financial performance

ASM delivered a robust performance in 2024. Revenue increased by 11%, outperforming the WFE market. Gross margin increased to 50.5%, supported by a positive mix. Operating result improved by 23%, while stepping up investments in R&D. Free cash flow was up 23% to €548 million<sup>4</sup>.

## 10.1 Performance review

### Order intake and backlog

For the full year 2024, bookings increased by 23% to €3.0 billion. This increase compares to a drop of 23% in 2023, when orders were impacted by weakness in the advanced logic/foundry segment and a sharp drop in memory. The main drivers for the increased orders in 2024 were the advanced logic/foundry segment, memory, and Spares & Services.

In memory, orders were sharply higher due to strong demand for high-bandwidth memory-related DRAM (HBM DRAM) solutions. In advanced logic/foundry, orders for GAA-related tools steadily increased in the course of 2024 as customers moved from pilot-line phase towards high-volume manufacturing preparations.

Looking at the pattern within the year, order intake gradually increased to €698 million in the first quarter, and €755 million in the second quarter, on the back of rising gate-all-around (GAA) and HBM orders, and continued strength in China orders. In the third quarter, orders increased further to €815 million, with the upside driven by orders pulled in from the fourth quarter. For mostly that reason, orders in the fourth quarter decreased sequentially to €731 million.

At the end of 2024, our backlog amounted to €1,566 million, up from €1,433 million at the end of 2023. The book-to-bill ratio, measured by orders divided by revenue, was 1.0 in 2024, slightly up from 0.9 in 2023. Equipment bookings in 2024 were led by foundry, followed by memory, logic, and then power/analog/wafer.

(€ million)	Year ended December 31,		
	2023	2024	% Change
Backlog at the beginning of the year	1,669.2	1,433.5	(14) %
New orders	2,438.2	3,000.0	23 %
Revenue	(2,634.3)	(2,932.7)	11 %
FX-effect	(39.6)	64.9	
Backlog at the end of the year	1,433.5	1,565.7	9 %
Book-to-bill ratio (new orders divided by revenue)	0.9	1.0	

<sup>4</sup> Free cash flow is a non-IFRS performance measure and it is calculated as cash flows from operating activities after investing activities. Adjusted figures are non-IFRS performance measures. For more information about non-IFRS performance measures, see chapter 34. For a reconciliation of adjusted and reported figures, see table at the end of this section..

Operating performance overview

(€ million)	2023	2024	Change
Revenue	2,634.3	2,932.7	11 %
Gross profit	1,271.7	1,481.4	16 %
Gross margin	48.3 %	50.5 %	
Adjusted gross profit <sup>1</sup>	1,298.6	1,481.4	14 %
Adjusted gross margin <sup>1</sup>	49.3 %	50.5 %	
Selling, general and administrative expenses	(308.7)	(316.8)	3 %
Adjusted selling, general and administrative expenses <sup>1</sup>	(303.9)	(311.9)	3 %
Net research and development expenses	(309.3)	(369.8)	20 %
Adjusted net research and development expenses <sup>1</sup>	(295.3)	(355.8)	20 %
Operating result	653.7	802.1	23 %
Operating margin	24.8 %	27.4 %	
Adjusted operating result <sup>1</sup>	699.5	821.0	17 %
Adjusted operating margin <sup>1</sup>	26.6 %	28.0 %	
Share in income of investments in associates	17.5	9.6	(7.9)
Reversal of impairment of investments in associates, net	215.4	-	(215.4)
Net earnings	752.1	685.7	(66.4)
Adjusted net earnings <sup>1</sup>	583.2	708.4	125.2
Net earnings per share, diluted	€15.18	€13.89	(1.3)
Adjusted net earnings per share, diluted <sup>1</sup>	€11.77	€14.35	2.6

<sup>1</sup> Adjusted figures are non-IFRS performance measures. For a reconciliation of non-IFRS performance measures, see the table at the end of this section.

Revenue

(€ million)	Year ended December 31,		
	2023	2024	% Change
Equipment revenue	2,205.8	2,385.3	8 %
Spares & Services revenue	428.5	547.4	28 %
<b>Total</b>	<b>2,634.3</b>	<b>2,932.7</b>	<b>11 %</b>

Total revenue grew by 11% year-on-year and by 12% at constant currencies. Equipment revenue, which accounted for 81% of total revenue, grew by 8% in 2024 as reported, and by 9% at constant currencies.

By customer segments, equipment revenue in 2024 was led by the foundry segment, followed by memory, logic, and then power/analog/wafer. Combined logic/foundry sales increased slightly year-on-year and continued to account for more than half of our equipment revenue. Advanced logic/foundry spending was driven by momentum in GAA – in the first half of the year still mostly related to customer pilot lines, with the mix in the second half shifting towards tool sales for the volume manufacturing ramp in 2025, as publicly announced by customers.

China revenue was at a record-high in the first half of the year, supported by strong investments in the mature logic/foundry segment. China sales in the second half were lower than in the first half, as mature logic/foundry investments normalized, following exceptional levels in the first half.

In 2024, memory revenue rebounded strongly compared to 2023, mainly driven by investments in the DRAM segment, especially high-bandwidth memory DRAM for AI-related applications. NAND revenue was the smaller part of memory revenue, despite its robust growth versus the very low level in 2023. As a percentage of total equipment sales, the memory segment was 25% in 2024, up from 11% in 2023.

Revenue in power/analog/wafer decreased double digits compared to 2023, due to sluggish end-market demand, including in the automotive and industrial segments. Silicon carbide revenue increased by a mid single-digit percentage year-on-year thanks to the contribution of newly acquired customers and despite the slowdown in the end market.

In 2024, ALD continued to be our largest product line, accounting for clearly more than half of our equipment sales. ALD sales increased by a significant double-digit percentage year-over-year, with positive momentum in both the logic/foundry and memory markets. Silicon epitaxy, our second-largest product line, was slightly down year-on-year, with higher GAA-related sales offset by decreases in the power and wafer segments. Following a record high year in 2023, vertical furnaces sales dropped double digits in 2024, mostly explained by the downturn in the power/analog/wafer market.



Spares & Services revenue increased by 28% (14% in 2023), and by 29% at constant currencies, thanks to continued growth in our outcome-based services, and also higher sales from the Chinese market, particularly in the second half of the year.

Our 10 largest customers accounted for around 69.7% of revenue in 2024 (2023: 64.9%). The five largest customers accounted for around 50.8% of revenue in 2024 (2023: 48.7%). In 2024, we had three customers (2023: two customers) who contributed more than 10% of total revenue.

The table below shows our revenue breakdown by geography:

(€ million)	Year ended December 31,			
	2023		2024	
United States	555.1	21.1 %	628.5	21.4 %
Europe	302.7	11.5 %	169.2	5.8 %
Asia	1,776.5	67.4 %	2,135.0	72.8 %
<b>Total</b>	<b>2,634.3</b>	<b>100.0 %</b>	<b>2,932.7</b>	<b>100.0 %</b>

Revenue from Asia and the US increased 20% and 13% respectively, while revenue from Europe decreased 44%. The revenue increases in Asia and the US reflected higher demand in the logic/foundry and memory sectors, while the drop in Europe was mostly explained by the slowdown in the power/analog/wafer market.

Gross margin

Total gross profit developed as follows:

(€ million)	Year ended December 31,				Increase (decrease) percentage
	2023	2024	2023	2024	
Gross profit	1,271.7	1,481.4	48.3 %	50.5 %	2.2
Adjusted gross profit	1,298.6	1,481.4	49.3 %	50.5 %	1.2

Gross margin increased from 48.3% to 50.5% in 2024. The higher gross margin was explained by mix, including a continuing strong contribution from the Chinese market. Within the year, gross margin decreased from 51.3% in the first half to 49.9% in the second half. This mainly reflected the impact from lower China sales in the second half. Our mid-term target for adjusted gross margin is a range of 46% to 50%.

Selling, general and administrative (SG&A) expenses

(€ million)	Year ended December 31,		
	2023	2024	% Change
Selling, general and administrative expenses	308.7	316.8	3 %
Adjusted selling, general and administrative expenses	303.9	311.9	3 %

SG&A expenses increased 3% year-on-year. As a percentage of revenue, SG&A expenses were 10.8% (2023: 11.7%).

The strong increase in SG&A in previous years was the result of increased investments to strengthen the organization. With most of these investments completed in 2023, SG&A grew at a moderate pace in 2024. Total headcount was approximately flat compared to the level at the end of 2023, following growth of 7% in 2023 and 29% in 2022.

Adjusted for PPA amortization, SG&A expenses increased by 3%. As a percentage of revenue, adjusted SG&A expenses in 2024 were 10.6%, down from 11.5% in 2023. Our mid-term target for SG&A is high-single digits as a percentage of revenue.

Research and development (R&D) expenses

Gross R&D increased by 15%, mainly due to higher R&D headcount – up 6% in 2024 – and higher level of R&D activities given the growing pipeline of new opportunities. Net R&D increased by 20%. The higher increase in net R&D compared to gross R&D, is for a large part explained by amortization costs, which increased by 50% in 2024. As several product development projects entered the commercial release phase, including new applications for the 2nm GAA technology node, amortization of the related capitalized development expenses started in the course of 2024. As a percentage of revenue, net R&D expenses were 12.6% (2023: 11.7%).

(€ million)	Year ended December 31,		
	2023	2024	% Change
Gross research and development expenses	410.2	469.8	15 %
Adjusted gross research and development expenses	396.2	455.8	15 %
Capitalization of development expenses	(147.2)	(166.3)	13 %
Amortization of capitalized development expenses	43.8	65.9	50 %
Impairment of capitalized development expenses	2.5	0.4	n/a
Net research and development expenses	309.3	369.8	20 %
Adjusted net research and development expenses	295.3	355.8	21 %

Adjusted for PPA amortization, net R&D expenses increased by 21%. As a percentage of revenue, adjusted net R&D was 12.1%, up from 11.2% in 2023. Our mid-term target for adjusted net R&D as a percentage of revenue is in the high-single digits to low-double digits.

Operating result

	Year ended December 31,				
	Operating margin				Increase (decrease) percentage points
(€ million)	2023	2024	2023	2024	
Operating result	653.7	802.1	24.8 %	27.4 %	2.6
Adjusted operating result	699.5	821.0	26.6 %	28.0 %	1.4

Operating result increased 23% year-on-year. Operating profit increased on the back of higher gross profit, and strict cost control in SG&A, partially offset by increased investments in R&D. Adjusted for PPA amortization, operating result increased 17% year-over-year.

Operating margin increased to 27.4% in 2024, up from 24.8% in 2023. Adjusted for PPA amortization, operating margin was 28.0%, up from 26.6% in 2023. Our mid-term target for adjusted operating margin is a range of 26% to 31%.

Financing income and expense

Financing income is mostly driven by interest on our cash and cash equivalents, partially offset by financing expenses related to translation results and the change in fair value of the contingent consideration ('LPE earn-out') of €9 million in 2024 (2023: €10 million). The 2024 translation result included a translation gain of €45 million, compared to a translation loss of €21 million in 2023. The translation results are mainly related to movements in the US dollar in the respective periods. A substantial part of our cash position is denominated in US dollars.

Share in income of investments in associates

The share in income of investments in associates, which reflects our shareholding in ASMPT, decreased to €10 million from €21 million in 2023. This result excludes the amortization of intangible assets related to ASMPT, and the reversal of the impairment of investments in associates in 2023. At the end of 2024, our stake in ASMPT amounted to 24.73% (2023: 24.85%). Cash dividends received from ASMPT during 2023 and 2024 were €31 million and €14 million, respectively. For further information on ASMPT, please visit [www.asmpacific.com](http://www.asmpacific.com).

Income tax

The income tax expense of €182 million (2023: €114 million), adjusted for the realization of temporary differences relating to purchase price allocation, amounted to €187 million (2023: €127 million).

The effective tax rate excluding net income of our investment in ASMPT in 2024 was 21.2% (2023: 18.1%). For further information on tax, see note 23 to the consolidated financial statements. The higher effective tax rate for 2024 is primarily due to the impact of the Global Minimum Tax in 2024.

Net earnings

Net earnings decreased to €686 million in 2024 from €752 million in 2023. Excluding net income of our investment in ASMPT, as well as PPA amortization, adjusted net earnings amounted to €708 million (2023: €583 million, also excluding reversal of the impairment of investments in associates that year).

Cash flow

The following table shows the condensed cash-flow statement:

(€ million)	2023	2024
Net earnings from operations	752.1	685.7
Operating cash flows before changes in working capital <sup>1</sup>	691.6	919.2
Net cash from operating activities	735.9	897.7
Net cash used in investing activities	(289.0)	(350.0)
Free cash flow <sup>1</sup>	446.8	547.7
Net cash used in financing activities	(236.1)	(301.0)
Foreign currency translation effect on cash and cash equivalents	7.2	42.6
Net increase (decrease) in cash and cash equivalents	217.9	289.2

<sup>1</sup> Free cash flow is a non-IFRS performance measure. It is calculated as cash flows from operating activities after investing activities. Please see chapter 34.

We generated cash from operating activities of €898 million (2023: €736 million). We used €350 million cash in investing activities (2023: €289 million) and used €301 million in financing activities (2023: €236 million), consisting of dividend and share buybacks. Free cash flow increased to €548 million (€447 million in 2023), despite the increase in working capital and capital expenditures.

Capex increased from €154 million in 2023 to €168 million in 2024. Our capex guidance for the period 2024-2027 is €100-180 million annually. Key capex projects in 2024 included the progress on our expansion plan of our R&D and manufacturing center in Korea; the start of our expansion plan of our new R&D center in Arizona; and the investments in additional lab equipment.

Working capital

Working capital increased from €425 million to €447 million. This was mainly driven by an increase in the accounts receivable position from €488 million to €789 million, reflecting the timing of tool shipments and related payments, partly offset by higher contract liabilities and accounts payable. Inventories increased slightly from €526 million to €567 million.

The number of outstanding days of working capital, measured against quarterly revenue, decreased from 60 days as at December 31, 2023, to 50 days as at December 31, 2024.

The working capital developed as follows:

(€ million)	December 31, 2023	December 31, 2024
Inventories	525.7	567.0
Accounts receivable	487.7	789.0
Contract assets	59.4	57.7
Other current assets	68.8	70.3
Accounts payable	(177.7)	(282.6)
Provision for warranty	(22.7)	(33.4)
Contract liabilities	(300.2)	(485.7)
Accrued expenses and other payables	(216.2)	(235.3)
Working capital	424.8	447.0

Liquidity

(€ million)	December 31, 2023	December 31, 2024
Cash	637.3	926.5

We were debt-free as of December 31, 2024 (and 2023). Our principal sources of liquidity consisted of €926 million in cash and cash equivalents, and €150 million in undrawn bank lines. The company has had a revolving credit facility (RCF) in place since the end of May 2022. The facility's option to extend the tenor by two years has been exercised and will now mature end May 2029The facility amount is €150 million and it has an accordion option to increase the facility by an amount of €100 million. The facility includes a financial covenant on the consolidated total net debt/ total shareholders' equity ratio. This financial covenant is measured twice a year, on June 30 and December 31. We were compliant with this financial covenant on both measurement periods.

In 2023, ASM converted its revolving credit facility into a sustainability-linked RCF aligned with the Sustainability-Linked Loan Principles by the Loan Market Association. Under the terms of the facility, the interest rate is linked to the achievement of long-term sustainability goals targeting gender diversity, net zero, and value-chain packaging reuse, which are in line with ASM's sustainability strategic focus. Achievement of these targets will impact the interest rate as the lenders will apply a discount on the existing margin or add a penalty to the existing margin, depending on the sustainability achievement against the target. The original terms and conditions of the RCF remain in place.

For the most part, our cash and cash equivalents are not guaranteed by any governmental agency. We place our cash and cash equivalents with high-quality financial institutions to limit our credit-risk exposure.

Our liquidity is affected by many factors. Some of these relate to our ongoing operations, such as the need to invest in R&D projects and expansion. Others are related to the semiconductor and semiconductor-equipment industries – for example, supply-chain constraints and the phase of the industry cycle – and the economies of the countries where we operate. Although our cash requirements fluctuate, based on the timing and extent of these factors, we believe that cash generated by operations – together with the liquidity provided by our existing cash resources and our financing arrangements – will be sufficient to fund working capital, capital expenditures, and other ongoing business requirements for at least the next 12 months.

For more on our on our funding, treasury policies, and long-term debt, see notes 11, 17, and 18 to the consolidated financial statements.

Financial risk factors

We are exposed to market risks (including foreign exchange-rate risk), credit risk, liquidity risk, and capital risk. We may use forward exchange contracts to hedge foreign-exchange risk. We do not enter into financial instrument transactions for trading or speculative purposes. For more on financial risk factors, see note 18 to the consolidated financial statements.



Reconciliation between IFRS and non-IFRS performance measures

	Year ended December 31, 2023			Year ended December 31, 2024		
(€ million)	Reported	delta	Adjusted	Reported	delta	Adjusted
Revenue	2,634.3	-	2,634.3	2,932.7	-	2,932.7
Cost of sales <sup>1</sup>	(1,362.6)	27.0	(1,335.6)	(1,451.4)	-	(1,451.4)
<b>Gross profit <sup>1</sup></b>	<b>1,271.7</b>	<b>27.0</b>	<b>1,298.7</b>	<b>1,481.4</b>	<b>-</b>	<b>1,481.4</b>
Other income	0.1	-	0.1	7.4	-	7.4
Operating expenses:						
Selling, general and administrative <sup>1</sup>	(308.7)	4.8	(303.9)	(316.8)	4.9	(311.9)
Research and development <sup>1</sup>	(309.3)	14.0	(295.3)	(369.8)	14.0	(355.8)
Total operating expenses <sup>1</sup>	(618.0)	18.8	(599.2)	(686.6)	18.9	(667.7)
<b>Result from operations <sup>1</sup></b>	<b>653.7</b>	<b>45.8</b>	<b>699.5</b>	<b>802.1</b>	<b>18.9</b>	<b>821.0</b>
Finance income (expense) <sup>2</sup>	1.2	9.7	10.9	11.1	8.7	19.8
Foreign currency exchange gain (loss)	(21.4)	-	(21.4)	45.0	-	45.0
Net finance income (costs) <sup>2</sup>	(20.1)	9.7	(10.4)	56.1	8.7	64.8
Share in income of investments in associates <sup>1</sup>	17.5	3.7	21.2	9.6	0.3	9.9
Reversal of impairment of investments in associates, net <sup>3</sup>	215.4	(215.4)	-	-	-	-
<b>Result before income taxes <sup>1,2,3</sup></b>	<b>866.5</b>	<b>(156.2)</b>	<b>710.3</b>	<b>867.9</b>	<b>27.9</b>	<b>895.8</b>
Income taxes <sup>4</sup>	(114.4)	(12.7)	(127.1)	(182.2)	(5.2)	(187.4)
<b>Net earnings from operations <sup>1,2,3,4</sup></b>	<b>752.1</b>	<b>(168.9)</b>	<b>583.2</b>	<b>685.7</b>	<b>22.7</b>	<b>708.4</b>

<sup>1</sup> Adjusted for the amortization of fair value adjustments from purchase price allocations.

<sup>2</sup> Adjusted for the change in fair value of the contingent consideration ('LPE earn-out').

<sup>3</sup> Adjusted for the impairment reversal.

<sup>4</sup> Adjusted for the realization of temporary differences resulting from purchase price allocation.

10.2 Capital allocation policy

At our Investor Day 2023, we reiterated our capital allocation policy:

- ASM's first priority remains investing in the growth of our business, both organically – investing in capex and R&D – and also scanning the market for potential M&A opportunities. In 2024, we increased gross R&D spending by 15%, reflecting our strong pipeline of opportunities such as in next-generation GAA technologies. We spent €168 million on capex.
- Second, it is key for us to maintain a strong balance sheet. At the Investor Day in September 2023, we communicated our goal of maintaining a minimum cash position of €600 million.
- Third, we are committed to paying a sustainable dividend. With the publication of our Q4 2024 results on February 25, 2025, we announced a proposed dividend of €3.00 per share to be paid over 2024.
- Finally, our policy regarding excess cash is unchanged: we continue to return excess cash to our shareholders. On February 25, 2025, we also announced a new €150 million share buyback program. In 2024, we executed a buyback program of €150 million, that was completed in July 2024.

10.3 Shareholders

At ASM, management and the investor relations team are committed to maintaining the highest standards of transparent and effective communication. We regularly share information through multiple channels, including press releases, the AGM, presentations, earnings calls, in-person meetings and conferences.

In line with our policy regarding communications with shareholders and the stakeholder dialogue policy, we

actively engage in a year-round dialogue with investors. Discussions include a number of topics, including:

- Industry trends, including the outlook for WFE spending, megatrends such as AI, and the implications of export controls.
- Technology roadmaps, such as the increasing requirements of ALD and Epi in the transition to gate-all-around, and in next-generation memory.
- Financial performance, including quarterly and annual results, and progress against our mid-term guidance.
- Capital-allocation priorities.
- Progress on the execution of our sustainability agenda, such as the launch of our Climate Transition Plan in 2024, and Diversity, Equity & Inclusion targets.

Sell-side research

Throughout the year, we saw a further increase in sell-side research coverage. As of year-end 2024, ASM stock was covered by 27 analysts – both from brokers and independent research firms – two of whom either launched or reinitiated coverage in 2024.

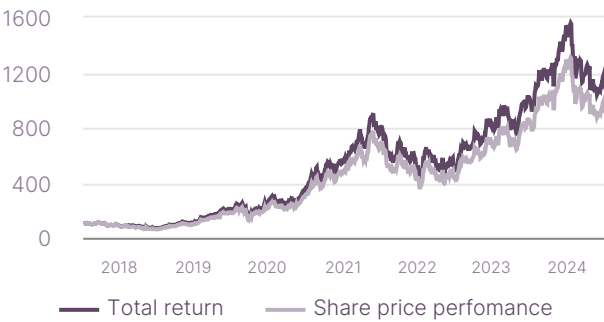
Performance of ASM shares

ASM's shares are listed on Euronext Amsterdam (symbol: ASM). Our shares have been included in the AEX index of Euronext Amsterdam since March 2020, in the MSCI Global indexes since February 2021. ASM shares are also part of the STOXX Europe 600 index.

ASM's market cap at year-end 2024 was €27.4 billion, based on the closing share price of €558.80 on Euronext Amsterdam on December 31, 2024 (€469.95 on December 30, 2023), and 49.1 million total outstanding shares at year-end. The market cap at year-end 2023 was €23.1 billion. The graph below shows the performance of ASM's shares on Euronext. The total share return in this graph is the performance of the

share, including dividends paid and capital returned over the period.

ASM share price and total shareholder return (indexed)



The table below shows key metrics related to ASM's share price on Euronext Amsterdam:

ASM share trading on Euronext Amsterdam

Closing share price Euronext Amsterdam	2022	2023	2024
Year-end	235.65	469.95	558.80
High	390.80	491.60	740.20
Low	198.74	235.65	436.30
Market capitalization year-end (€ million)	11,623.7	23,122.5	27,435.9
Average daily volume (number of shares)	265,174	183,912	139,601
Turnover (€ million)	19,744	18,403	20,802

The highest closing share price during the year was €740.20 on July 15, 2024, and the lowest was €436.30 on January 4, 2024.

The table below shows key metrics related to ASM's per-share data:

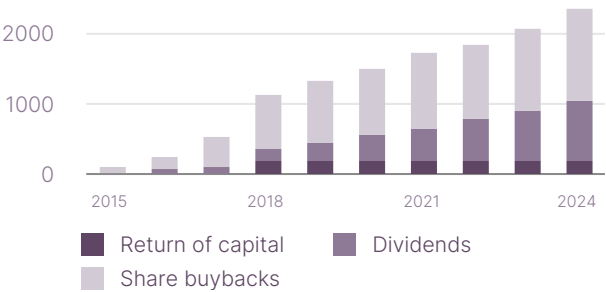
Key per share data (in million, except per share data)	2022	2023	2024
Basic EPS	7.97	15.26	13.95
Diluted EPS	7.93	15.18	13.89
Dividend per share <sup>1</sup>	2.50	2.75	3.00
Basic weighted average number of shares	48.8	49.3	49.2
Diluted weighted average number of shares	49.1	49.6	49.4

<sup>1</sup> 2024 dividend per share proposed

Shareholder return

Shareholder return is one of the key priorities of our capital allocation policy. Over time, ASM has returned significant amounts of cash in different forms to our shareholders. In 2024, we returned around €135 million in the form of dividends and €150 million through share buybacks. Since 2019, we have returned approximately €1.2 billion in cash to our shareholders.

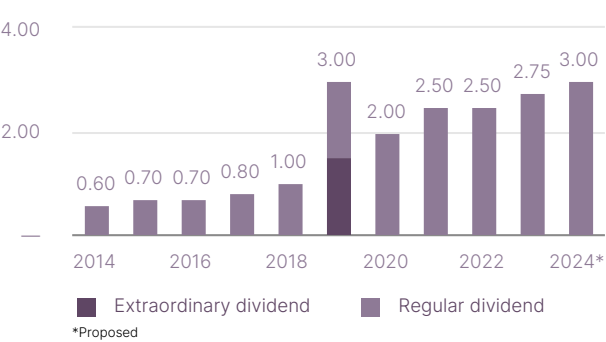
Cumulative cash returned to market in million



Dividends

ASM aims to pay a sustainable annual dividend. ASM has been paying dividends since 2010. On February 25, 2025, we announced that we would propose to the upcoming AGM a regular dividend of €3.00 per common share over 2024 (2023: €2.75 per common share).

Dividend per share in € paid over



Share buyback

On February 27, 2024, ASM announced a new share buyback program of up to €150 million. The program started on May 15, 2024, and was completed on July 25, 2024. In total, we repurchased 228,389 shares at an

average price of €656.77. For more information on our historical share-buyback programs, visit [asm.com](https://asm.com).

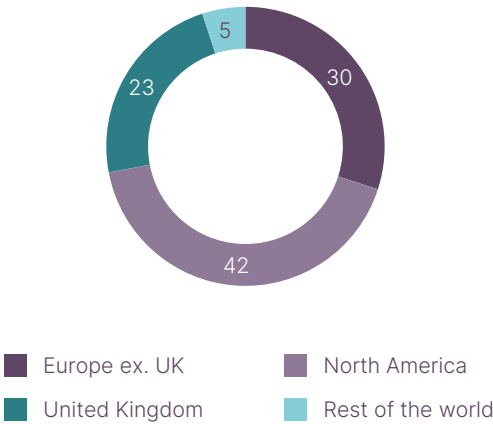
On February 25, 2025, ASM announced the authorization of a new share buyback program of up to €150 million.

Shareholder base and major shareholders

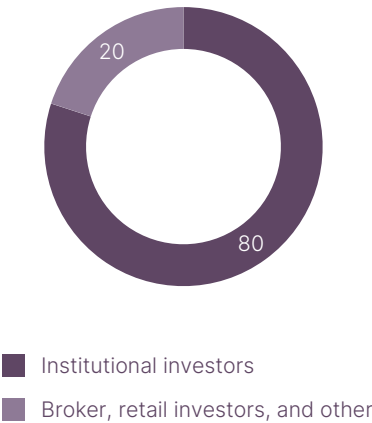
ASM shares are held by an international and diversified shareholder base. At the end of 2024, about 80% of our shares were held by institutional investors, and the remainder by broker, retail, and other investors. Geographically, the shares held by institutional investors were for 42% held in North America, 30% in Europe (excluding the UK), and 23% in the UK.

According to Dutch law, shareholders should notify the AFM when their shareholding equals or exceeds 3% and certain higher thresholds including 5%, 10%, and 15% of the issued capital, and when it subsequently falls below those thresholds. As of December 31, 2024, five investors – BlackRock, Tokyo Electron, WCM, Capital, and Norges Bank – had a shareholding of more than 3%.

Institutional investors by geography in %



Investors by profile in % \*excluding treasury shares



	Number of shares	Percent <sup>1</sup>	Number of voting rights	Percent <sup>1</sup>
ASM International N.V. (treasury shares) <sup>2</sup>	230,731	0.5 %	–	– %
BlackRock, Inc <sup>3</sup>	4,222,310	8.6 %	4,904,810	9.9 %
Tokyo Electron Ltd. <sup>4</sup>	2,699,000	5.5 %	2,699,000	5.5 %
WCM Investment Management, LLC <sup>5</sup>	2,394,569	4.9 %	2,394,569	4.9 %
Capital Research and Management Company <sup>6</sup>	–	– %	2,958,221	6.0 %
Norges Bank <sup>7</sup>	2,397,015	4.9 %	2,397,015	4.9 %

1 Calculated on the basis of 49,328,548 issued common shares as of December 31, 2024.

2 On December 31, 2024, ASM held 230,731 common shares in treasury.

Based on the notifications filed with the AFM: 3 October 19, 2023; 4 July 1, 2013; 5 October 25, 2024; 6 March 19, 2024; 7 October 12, 2023



# 11. Interview with our Chief People Officer



**Edyta Jakubek**  
Chief People Officer

**Edyta Jakubek reflects on her first full year as Chief People Officer, highlighting ASM's initiatives to enhance employees' capabilities and foster growth. She also discusses how a unified and inclusive culture contributes to attracting and retaining talent.**

## **Looking back on the past year, what would you say are the main achievements in human resources?**

It's been a year of progress and positive change. We advanced all four strategic people objectives – attracting diverse talent in technology and innovation, strengthening our leadership pipeline with robust succession planning, expanding our agile organizational model, and continuing to build a strong, creative, and inclusive company culture.

## **What are you most proud of?**

What stands out most is seeing the grassroots energy across our organization. Our people are taking initiative and self-organizing to make ASM a greater place to work. It's not just top-down directives anymore, but genuine bottom-up engagement that's driving positive change.

I'm equally proud of how we've strengthened our People function. In 2024, we significantly expanded our team, bringing in strong new leaders and deep HR expertise. We've also made important strides in digitalizing our HR operations to better serve our people.

## **What are your priorities around talent acquisition?**

Talent truly drives our success, and we recognize it's becoming an even more critical focus. Our industry is expected to require substantially more professionals in the coming years, so we're taking a strategic approach to stay competitive. We're particularly focused on strengthening our employer brand to ensure potential candidates understand the unique opportunities we offer.

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**"Talent truly drives the success of our company."**

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## **How are you personally engaging with the next generation of talent?**

I've been having direct conversations with students and graduates at leading universities globally, sharing our story of innovation, rapid skill development, and meaningful impact, all anchored in our values and culture. The response has been encouraging. Students strongly connect with our dual mission of driving technological innovation while creating positive societal impact. They see ASM as a place to build their careers and shape future innovation.

We're also expanding our university partnerships strategically, including in countries that may not have an established semiconductor industry but offer strong STEM programs. These emerging markets represent a

valuable opportunity to attract talented people who can grow with us and help drive our ambition forward. Our talent strategy delivered strong results, with around 600 new colleagues joining us in 2024.

## **What's your approach to retaining talent in today's competitive market?**

Our investment in leadership, diversity, and talent-development programs is paying off. We're seeing strong retention, with just 4% attrition among our high performers. That's particularly noteworthy in the current environment.

However, the fact that we're successful today doesn't mean we'll be successful in the future. Culture remains fundamental to retaining and attracting great people. Our employee survey results reinforce this, which is why we're continuing initiatives that strengthen our culture across all locations and business units. It's about making sure everyone understands and connects with our vision, values, and strategic direction. Looking ahead, we'll continue to raise the bar. As we grow, we're creating more opportunities for our people to develop new capabilities and advance their careers. ASM's high-performing growth culture is what brings us together, and it's what will help us maintain this momentum.

## **How are you fostering an inclusive culture, and what are your thoughts on progress in gender diversity?**

Our strategy for fostering inclusivity begins with raising awareness across our workforce. In 2024, we implemented several key initiatives, including targeted webinars, where we explored inclusive behaviors and

unconscious bias with more than 2,000 employees. What I find particularly encouraging is the organic growth of our employee resource groups. The Women’s Initiative Network (WIN) builds leadership capabilities and connects women across the organization through peer networks, while Shades, launched by our US-based colleagues, promotes ethnic and cultural diversity. We’ve also seen meaningful engagement from our neurodiversity and LGBTQ+-focused groups.

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**“At ASM, we are building careers and shaping future innovation.”**

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Regarding gender diversity in leadership, while the percentage of women leadership appointments has remained steady at around 17%, we’ve been building a robust and growing pipeline of talented women ready to take on leadership roles. This talent pool gives me confidence in our ability to become an even more diverse company.

What’s most important to emphasize is that at ASM we’re committed to embracing differences across all dimensions and creating an innovative and diverse workplace where everyone can thrive.

**How are you inspiring and empowering employees to drive strategic business growth?**

Our approach focuses on two key pillars. First, we’re making significant investments in developing our people’s capabilities. In 2024, we intensified these efforts, particularly through our ongoing ‘Lead Ahead’ program, which is designed to elevate the leadership skills of our people managers across all levels. We’re also expanding our professional development framework, with a particular focus on enhancing our technical career

ladder for engineers. This structured approach to career development will ensure our technical talent can grow and advance within the organization.

The second pillar involves balancing organizational growth with our signature agility. Through our organization design center of expertise, we’re optimizing business-unit structures and conducting quarterly reviews to keep our organizational design sharp and aligned with our strategy.

# Community engagement



**“Through ASM’s community engagement initiatives, we aim to make a meaningful impact, build stronger connections, and contribute to a healthier planet.”**

**Seraphina Seng**

Head of Government and Community Relations

In 2024, ASM continued its commitment to fostering meaningful connections and creating a positive impact in the communities where we operate. Guided by our core value of ‘We Care’, we focused our efforts on three pillars: promoting STEM education, uplifting underserved communities, and accelerating environmental sustainability. These initiatives not only reinforce our corporate responsibility goals but also highlight the collaborative efforts of our employees and partners across the globe.



## Arizona: planting trees

Our Arizona team collaborated with the Arizona Sustainability Alliance (AZSA) as part of our multi-year urban forestry partnership. In 2024, ASM supported four tree-planting events at Cordova Elementary School, Festival Fields Park, and Orangewood Park, planting a total of 87 native and drought-tolerant trees.

These efforts will contribute to improving local air quality, reducing stormwater runoff, and enhancing community Tree Equity scores, particularly in underserved areas. Each event brought together volunteers from ASM, local schools, and community organizations, fostering a sense of unity and purpose. ASM’s collaboration with AZSA, backed by a €76,000 annual investment, underscores our dedication to sustainability and social impact.



## Ireland: farm initiative

We rolled up our sleeves and volunteered at a local organic community farm in 2024. Colleagues from Ireland donned their brand-new ASM T-shirts before working hard to help prepare the ground for spring planting. The farm grows organic vegetables, distributing them to families in need in the area. The work was challenging yet fulfilling, a small way we could contribute to the local community and the well-being of our planet.



## Singapore: partnership with North West Community

In Singapore, ASM led a series of impactful initiatives aimed at addressing social and environmental needs. One key effort was a large-scale food distribution program in partnership with the North West Community Development Council. This program provided essential supplies to 500 individuals from rental-unit households. Our pop-up market provided a variety of nourishing food items to those facing economic hardships. Together, we’re nurturing a culture of compassion while also making strides in reducing waste through innovating new community outreach models.





**Japan: nurturing creativity and community**

ASM Japan partnered with Habitat for Humanity for a community cleanup around the Bott Memorial Home in Machida City. Around 18 ASMers and 11 student volunteers spent a day improving the orphanage’s outdoor environment by clearing debris and cleaning gutters to revitalize the space. This collaborative effort addressed long-standing maintenance challenges faced by the orphanage, especially during seasonal leaf falls, and enhanced the overall quality of the children’s living environment. ASMers also contributed to the establishment of a craft room at the facility. This dedicated space will provide children with opportunities to explore creativity, develop essential skills, and engage in enriching activities



**Arizona’s Verde river: protecting water resources**

ASM has embarked on a multi-year, US\$300,000 partnership with The Nature Conservancy, TNC, to help them fund critical conservation projects in Arizona. A key project is the Restoring Flows program, which allows local farms to modernize their irrigation systems to restore the watershed and flows to Arizona’s Verde River. Currently, TNC is working with Hauser Farms, located near Sedona, to improve their systems and save nearly 140 million gallons of water per year for the Verde River. This project strengthens the long-term resilience of the Verde River, which is one of the last free-flowing river systems in Arizona and serves as a critical water supply for the Phoenix Metro area.



**Taiwan Science Train**

The Taiwan Science Train program was another highlight, engaging more than 1,000 children with hands-on science experiments designed to spark curiosity and interest in STEM fields. By simplifying complex semiconductor processes into interactive activities, the program encouraged young participants to imagine futures in science and technology. This outreach aligns with ASM’s goal of nurturing the next generation of innovators and fostering a deeper understanding of STEM among young learners.



**The Netherlands: Roparun**

ASM supported palliative cancer care as the main sponsor of Team 201 in the Roparun, a 500-kilometer relay run from Rotterdam to Paris. Our sponsorship helped cover the team’s operational expenses, enabling them to raise substantial funds for palliative care services. Participants highlighted the sense of solidarity and fulfillment they experienced during the event, which brought together individuals united by a shared purpose.



# 12. Leading-edge innovation

Thanks to our decentralized R&D network, we are well suited to expand customer collaborations globally. In 2024, we increased gross R&D by 15%, as we continued to execute on our roadmaps and opportunities in the next-technology nodes. Our R&D employees represent 25% of our total headcount.

## 12.1 ASM R&D strategy and model

ASM has a globally distributed R&D and engineering organization. Our corporate R&D resources are primarily located in Helsinki, Finland, and Leuven, Belgium. Our product-development sites are located in the Netherlands (Almere), US (Phoenix), Japan (Tama), Korea (Hwaseong), and Italy.

The corporate R&D group drives advanced process and materials development, as well as process integration learning for future-generation semiconductors that are four to eight years away from initial production at our customers' sites.

Our Helsinki team focuses on precursor chemistry development for new ALD materials, while our Leuven team concentrates on material application and device characterization through integration and testing.

Each product-development site specializes in specific products and technologies, contributing to our innovative capabilities. We have integrated IP managers across all locations to ensure proactive identification and

protection of our innovative IP, which is crucial to our technical leadership.

## 12.2 Corporate research

In 2024, we continued with increased investments and further grew our R&D employees to accommodate the growing pipeline of new opportunities. The capital investments included demo, R&D, and metrology tools across all our global R&D locations.


Our long-term strategic partnership with the Interuniversity Microelectronics Center (imec) in Leuven, Belgium, the world-leading R&D institute in our industry, continued in 2024. The partnership, which extends through 2025, was renewed for the fourth time in 2022.

The imec collaboration gives us the opportunity to investigate, both jointly and independently, the integration of individual process steps and new materials in electrically active devices. We have partnered with imec since 1990, with significant on-site representation since 1994.


### Our R&D facilities

Corporate R&D

Belgium  
Leuven




Finland  
Helsinki




Product R&D


Japan  
Tokyo




Italy  
Milan & Catania




The Netherlands  
Almere




Korea  
Hwaseong



Current US facility  
Phoenix



Future US facility  
Scottsdale (under construction)



ASM continued its involvement in the Semiconductor Research Corporation (SRC) program on Nanomanufacturing Processes that first started in 2022. Through this membership, ASM gains access to and actively participates in forward-looking pre-competitive semiconductor research at leading universities around the world. We also gain direct access to graduate students, as new hires, who are highly qualified in ALD and other relevant areas of expertise.

Through our network, we collaborate with universities in several countries on a bilateral basis, including, among others, academic institutions in the Netherlands, Belgium, Finland, the United States, Canada, Japan, and South Korea. In 2024, we significantly expanded our collaboration with the Eindhoven University of Technology (TU/e) by signing a new four-year research collaboration agreement.

We contribute to several process and equipment-development projects at the major Dutch technical universities through the Dutch NWO<sup>5</sup> funding organization in the domain TTW<sup>6</sup> (covering applied and engineering sciences). In Belgium, we take part in the industrial users group for several projects supported by the Flemish funding organization VLAIO<sup>7</sup>.

We occasionally cooperate with other semiconductor capital equipment suppliers in complementary fields. Our aim is to learn more about how our own deposition processes perform, in cooperation with other processes, either in bilateral or consortia projects. We continuously engage in formal joint-development programs (JDPs) with customers for 300mm applications of our products. We also actively evaluate our most advanced

technologies with selected customers. The scope of these JDPs span many nodes – from the current node in production to N+2 and beyond nodes in logic, foundry, DRAM and 3D-NAND technologies. For the logic/foundry technologies, there is a significant increase in our engagements related to GAA devices as they enter high-volume manufacturing.

### 12.3 Product development

Our global product-development sites are centers of excellence for a subset of products and technology. The Phoenix location focuses on products for thermal ALD and Epi; Almere, the Netherlands, for vertical furnaces; Hwaseong, Korea, for PEALD, and Tama, Japan, for PECVD and PEALD, in collaboration with Hwaseong. Our R&D and product-development facilities in Italy focus on SiC Epi (Milan and Catania).

Our key product units work with customers on the products and technology currently in volume manufacturing or to be used in manufacturing in less than six years' time. The global platform engineering group addresses the need for common platforms and software for the various products in our product portfolio, and across different key-product units. This helps us drive the standardization of hardware and software throughout the organization.

We continuously drive innovation of our products and services to address the technology needs of our customers, and the industry's focus on reducing costs and improving its environmental footprint. Our development programs aim to increase throughput, equipment reliability, and yield in our customers'

manufacturing line, as well as lower the energy and resource intensity, and cost of ownership. Our customers benefit through reduced operating costs, as many of our products use the same parts and consumables, while a common control architecture improves ease of use.

To support our strong increases in the ALD and Epi growth markets, we are investing in a new cutting-edge R&D center in Scottsdale, Arizona. This facility, announced in 2023, is making progress and will greatly expand our R&D capabilities when completed. Also, the construction of the next phase of our manufacturing and innovation center in Hwaseong, Korea, is progressing and will further expand our R&D footprint there when completed in 2025.

#### Improving cost of ownership and technical performance

Innovation in products and platform technology is one of ASM's most important strengths, bringing continued improvements in technical performance and cost of ownership. In the following section, we highlight a few examples of the many innovations we introduced in our ALD and Epi products.

##### ALD

We have optimized our ALD products and introduced specific innovations for different applications. For example, for metal oxides, we have developed a new reactor with the flexibility to deposit five, six, or even seven elements. This is important because new materials are driving Moore's Law. This ability to mix and match different precursors allows us to develop new materials that are unknown to humanity right now. This has been

an important factor in developing new ALD applications, such as for use in GAA and in selective ALD.

For all metal ALD applications, we have further developed and optimized a surface clean (SC) technology. This technology has been integrated on the same platform with the metal ALD reactors, so as not to break vacuum. SC reactors remove any impurities or moisture from the wafer surface prior to metal ALD deposition.

In memory devices, ALD has seen an increase in use for gap-fill applications. We are able to gap-fill high aspect ratio (>100:1) structures with our innovative TENZA ALD technology. Our ALD technology has been selected for use in several applications in 3D-NAND.

Most of the ALD films are deposited on the XP8 platform in a dual-chamber module (DCM) or quad-chamber module (QCM) architecture, to improve productivity and reduce the cost of ownership.

We expanded our ALD product portfolio in 2024, with an additional range of new applications. However, we kept the key advantages of our core reactor design consistent, such as a small reactor volume. This allows for very fast cycling times and an ALD reactor design that provides excellent uniformity and homogeneity. We are able to purge the precursor very quickly, which is important for gap-fill applications where it is challenging to purge out the precursor from the deep structures.

<sup>5</sup> De Nederlandse Organisatie voor Wetenschappelijk Onderzoek ('Dutch Organization for Scientific Research')

<sup>6</sup> Domein Toegepaste en Technische Wetenschappen ('Domain for Technical and Applied Sciences')

<sup>7</sup> Vlaams Agentschap Innoveren & Ondernemen ('Flemish Agency for Innovation and Entrepreneurship')

# ASM's R&D strengths

## • A legacy of innovation in materials research

ASM's leadership in materials and precursors stems from the acquisition in 1999 of Microchemistry Oy, spearheaded by our visionary founder Arthur del Prado. Home to ASM's early-stage R&D efforts, our R&D lab in Helsinki, Finland, focuses on early-stage R&D for developing new materials and precursor chemistries. Here, ASM also formed and funded the ALD Center of Excellence with the University of Helsinki. This partnership advances novel research methods for developing and adapting the study of mechanistic details of atomic layer processes.



Rudi Cartuyvels (imec COO) and Hichem M'Saad (ASM CEO)

## • Deep precursor chemistry, materials, and plasma expertise

Our geographically diverse R&D teams possess deep expertise in precursor chemistry, complemented by long-term strategic R&D partnerships. In Belgium, ASM is located on the premises of the prominent and independent semiconductor research institute imec, in Leuven. Our 32-year-long collaboration with the institute enables us to investigate, both jointly and independently, the integration of individual process steps and new materials in semiconductor devices in imec's state-of-the-art pilot line.

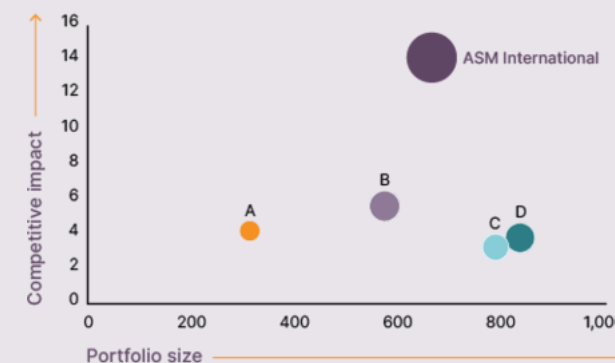
## Increase in the number of ALD layers

2003  
3-4 layers  
2013  
20+ layers  
2024  
80+ layers

## • The largest ALD product portfolio and a growing offering in Si Epi

ASM's atomic layer deposition (ALD) product portfolio expanded from just three to four layers in 2003 (e.g. Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>) to over 80 layers in 2024, reflecting significant advancements in deposition technology. One of the key breakthroughs took place in 2007, when ASM's Pulsar ALD tool became the first system used in high-volume manufacturing of devices featuring a novel hafnium-based high-k gate dielectric at the 45nm node. In 2011, with the transition to 22nm, ASM played an important role in supporting the industry move from planar to FinFET transistors. Today, our large portfolio positions us as a key partner for the leading logic/foundry players in the transition to the GAA transistor architecture, with several applications in ALD and Si Epi.

## ASM has the strongest patent portfolio in ALD



Source: LexisNexis® PatentSight® (November 2024)

## • A strong and impactful IP portfolio

According to the recently updated study from LexisNexis® PatentSight® 'Atomic Layer Deposition Thin Layers Are a Big Thing'<sup>8</sup>, ASM holds a strong and impactful patent portfolio on its core strength of ALD as measured by both Competitive Impact and Patent Asset Index<sup>5</sup>.

**"Each materials challenge we overcome and every process technology breakthrough we achieve showcases our disruptive spirit."**



**Vamsi Paruchuri**  
VP Technical Marketing

<sup>8</sup> <https://www.lexisnexisip.com/resources/atomic-layer-deposition-thin-layers-are-a-big-thing/>

<sup>5</sup> [www.lexisnexisip.com/resources/patent-asset-index](https://www.lexisnexisip.com/resources/patent-asset-index)

### Si Epi

The reaction chamber design of our Epi tools includes several key innovations, important to providing optimal value to our customers as they transition to next-generation device structures. One important example of an innovation we introduced in 2023 is Turino-CL, which enables unmatched with-in-wafer and wafer-to-wafer uniformity. This is the industry's first closed-loop direct-wafer temperature measurement and control system. Refer to Epi tech explainer in chapter 4 for more information. The ability to actually measure and control the wafer temperature makes for accurate matching. This allows thickness control one monolayer at a time, bringing important advantages such as in GAA nanosheet applications. Most new process applications are customer specific, and are typically outcomes from our collaborative joint-development programs.

### Innovation in Spares & Services

The technology-development team in Spares & Services has grown significantly in recent years. Innovations are multiplying worldwide, many more are being developed, and patents are being filed. The focus of these innovations is on the parts making up our systems. We are developing these based on the key issues customers encounter as they use our systems in different ways and over long periods. We focus on how we innovate to overcome these issues, and on making the system perform better on wafer (lower defects, better uniformity, etc.), and more consistently over longer periods of uninterrupted use at lower costs. Primary focuses are on evolving the internal chamber part surfaces to make them more robust for our evolving uses, enabling the refurbishment and reuse of parts rather than replacing them, and making parts last longer. This results in lower costs and more product outs for our customers.

For services support, we make sure lessons do not need to be learned twice. We do this through a 'knowledge net' that captures, stores, and retrieves the information that allows our support to be as efficient as possible and for us to resolve issues faster. As part of our knowledge net, we are developing AI / machine learning-based data capture and learning so we may understand how to make our tools operate most effectively to levels that were previously unobtainable.

The result of these efforts are outcomes for our customers that deliver lower costs, higher device yields, and more output per system footprint in their fabs.

Our complete kit management (CKM) is one example of our new outcome-based service products developed in recent years – a service that aims to make the maintenance process faster, more efficient, and cost effective, through, among others, smart planning and proactive maintenance. With CKM, we can combine the repair, replacement, and preventive maintenance of several different parts, resulting in a significant reduction in the time it takes for a system to be taken down for maintenance until it is back up and running. It also means more time between maintenance. CKM also puts significant focus on reducing the carbon footprint of our maintenance through repairing, refurbishing, and cleaning used parts for reuse, rather than replacing with new parts. In 2024, we booked new multi-year contracts again.

At ASM, we recognize the benefits of a circular economy and the importance of eco-design for addressing systemic issues like climate change, biodiversity loss, and pollution. Our innovation in Spares & Services strives to contribute to this need, working toward ensuring the materials throughout our machines are used in an optimal way.



# Launching our PE208 SiC Epi tool

As the trend towards general electrification continues, more power device manufacturers are utilizing silicon carbide (SiC) for high-power applications, including electric vehicles, green power, and advanced data centers. This increased demand, coupled with the need for lower costs, is driving a transition from 6" to 8" SiC substrates. Future advancements in SiC products and their yields will benefit from pristine and cost-effective SiC epitaxy (Epi) as part of the process.

The PE208 SiC Epi system is a dual-chamber, single-wafer platform designed to meet the needs of the advanced SiC power device segment. This system is engineered to provide low defectivity and high process uniformity, all while maintaining a low cost of ownership. These features are essential for driving down costs and enabling broader adoption of SiC devices.

**"We are at a critical inflection for silicon carbide power products, as our customers transition from 6" to 8" wafers."**



**Steven Reiter**  
Corporate Vice President  
Plasma and Epi

The PE208 system utilizes a unique single wafer chamber that deposits SiC with ultra-precise control of gases and temperature, enabling higher yield. Its highly compact dual-chamber design ensures high productivity and low total costs of operation. Additionally, the system features an easy preventive maintenance approach, which helps to increase uptime.

System deliveries have already begun to multiple customers globally, including leaders in SiC power-device manufacturing.

**"ASM has been the industry benchmark for process uniformity with our novel chamber design. We have now extended our system capability to improve our process control and our value for customers with lower cost of ownership."**

Since 2022, ASM, through its new SiC Epi product unit, has been developing and refining its single-wafer SiC epitaxy system. Following very strong expansion in 2023, we booked a solid 10% increase in our SiC Epi sales in 2024, despite softening conditions in this market segment. This performance was supported by the multiple new customer wins, in the US, Europe and Asia, since the acquisition of LPE in 2022.

## PE208 Tool

Compact single-wafer chambers

Dual-chamber design

6" and 8" wafer processing



Inductive heating system

Hot wall reactors with cross flow

Small footprint

12.4 Intellectual property and patents

ASM’s intellectual property (IP) includes our patents, trade secrets, trademarks, and copyrights. We strategically develop our IP portfolio to:

- grow shareholder value;
- strengthen our competitive advantage in the marketplace; and
- support our position to sell our products and services.

We fully understand that our IP is a critical asset we must protect. Failure to do so can have negative consequences, such as a loss of revenue and market position, disruptions to our supply chain, and a reduction of public trust. IP protection is also a key priority of our stakeholders – as indicated in our sustainability materiality analysis – and for this and other reasons, establishes IP as a priority for ASM.

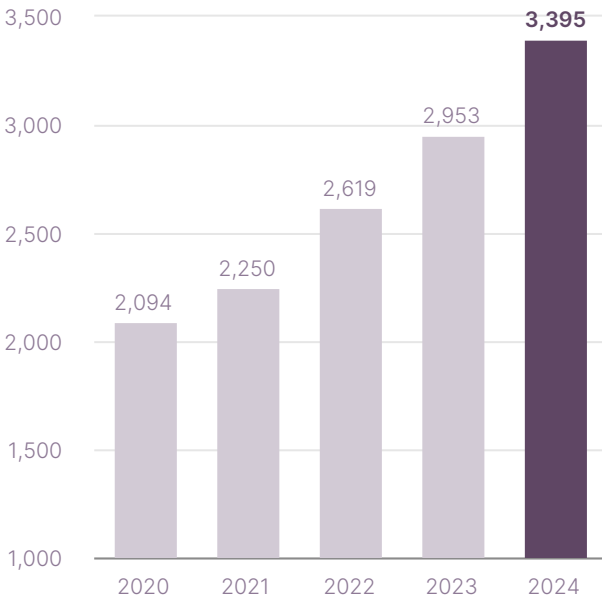
Patents and trade secrets

New deposition technologies and chemistries continue to drive growth in our global patent portfolio. Patents give us the right to protect and license our innovative processes, products, and services. They also make it possible for us to confidently share our innovations with the market. We have developed ASM’s trade secrets through decades of focused R&D. Our IP assets help us design and make industry-leading equipment and processes, and they strengthen our patent portfolio, licensing, and sales processes.

We generally file patents in the principal countries where semiconductor devices and related equipment are made and/or sold. We review our portfolio to make sure it is as effective as possible, while monitoring the increase in maintenance and prosecution costs linked to a growing portfolio. We strategically develop our IP portfolio via strong interaction with ASM’s technical community to

ensure our strong position in the market, in addition to a competitive advantage as a shareholder asset. Our ALD-related patent portfolio was praised in a recent study, validating our patent strength. Refer to ‘ASM’s R&D strengths’ in chapter 12 for further information.

Growth in ASM patents in force



Patents in force

ASM is dedicated to innovation, regularly applying for and receiving patents, and holds a considerable number of pending patent applications globally. As of December 31, 2024, we had 3,395 patents in force worldwide protecting our products and services.

Breakdown ASM patent portfolio by lifetime (2024)

Remaining life of patents in force	# of patents
Within 5 years	525
6-10 years	755
11-15 years	1,682
16-20 years	425

Trademarks and copyrights

We have a number of trademarks covering our product portfolio in the principal countries where we do business (as of December 31, 2024):

ASM, the ASM International logo, AURORA, EAGLE, EMERALD, EPSILON, INTREPID, LPE logo, MONERA, Powering the Future logo, PREVIUM, PULSAR, SILCORE, SONORA, SYNERGIS, XP, and XP8 are our registered trademarks.

The ASM Qualified Licensed Supplier logo, AEGIS, A400, A412, ES, ESA, EVC, GenMatch, Level-to-Level, Precis, PE2O8, TENZA, and TURINO are our trademarks.

‘Ahead of what’s next’ is our service mark.

12.5 Industry technology roadmap

At ASM, we believe that as long as there is growing demand for semiconductors, Moore’s Law – or at least a generalized version of it – will continue. Scaling of the smallest dimension through lithography is no longer enough to increase density and decrease cost-per-function. Increasingly, scaling is complemented with a move to the vertical dimension ‘3D’. A first example of this was the transition from 2D-NAND to 3D-NAND non-volatile memory with, currently, more than 200 transistors aligned vertically along a single vertical channel.

A second example of 3D is the GAA transistor, poised to take over in coming years, following five or more generations of FinFET. This stacks up to four channels on top of each other, significantly multiplying the current a particular transistor can carry. Simultaneously, this improves the control over that current. Third, chips are now stacked vertically in a package to reduce the package size and shorten the connection lengths between the chips. For example, a high-bandwidth DRAM device integrates a logic chip, formerly ‘the periphery’ in a single chip, with multiple vertically stacked memory arrays in a single package. And fourth, the difficulties in scaling the cost and size of a DRAM is expected to lead to a transition to stack transistors vertically in a 3D-DRAM beyond 2026.

**ALD**  
Due to its ability to create substantially uniform and high-quality layers of complex materials over 3D structures (‘conformality’) at relatively low temperature, the share of ALD (including PEALD) in the deposition market is expected to grow substantially with this trend towards 3D. On the one hand, existing technologies like LPCVD are being replaced by single-wafer ALD. On the

other hand, new ALD processes will enable further changes in device architecture that will not be possible with other deposition technologies. New materials, such as better conductors and insulators, for example, will be needed to maintain adequate electrical performance. Materials need to be deposited in narrow, deep gaps, without any holes or seams. More and more of these critical process steps are expected to migrate towards ALD and PEALD.

**Si Epi**  
The GAA transistors will rely on an epitaxial superlattice of as many as eight to 10 silicon and silicon-germanium layers. For 3D-DRAM, this superlattice is expected to be even taller – starting with around 64 layers. This is expected to scale quickly to even more layers. The new GAA transistors will also need new epitaxial contact layers, selectively grown bottom up with high doping. In addition, power electronics for, among others, electric vehicles, will need thick epitaxial layers.

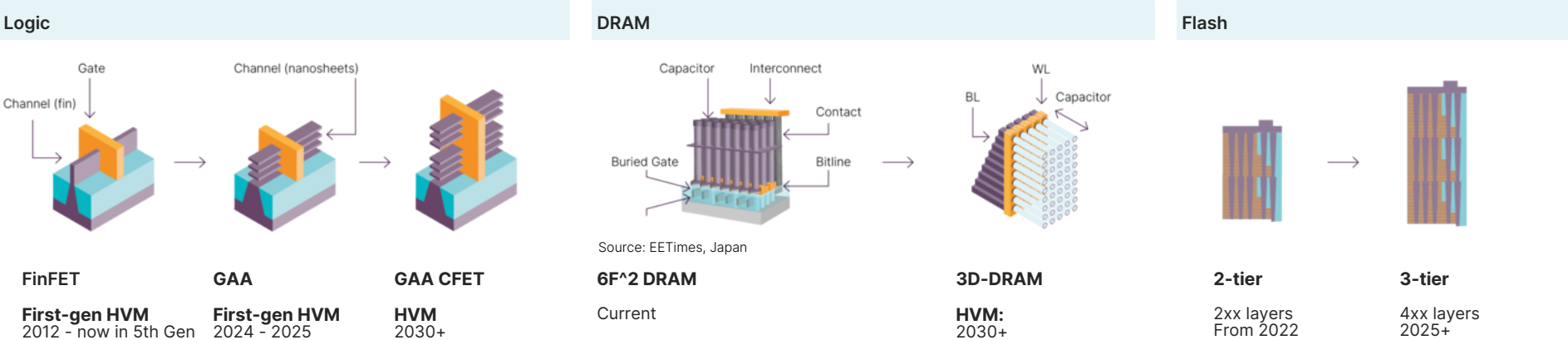
Overall, we believe ALD and Epi are the most important growth markets, at least in the next five years. Accordingly, we have focused most of our R&D spend on these technologies.

**SiC Epi**  
Another area of growing semiconductor demand is for power devices, especially due to the increasing market for electric vehicles and other power applications. Within this growing market, the use of silicon carbide in power devices is expanding rapidly.

SiC devices provide greater battery life and a longer range for electric vehicles. Because of its wide band gap, SiC is highly efficient at high voltages, offering higher power efficiency, increased power density – resulting in reduced component weight and size – and faster battery-charging times. Our SiC tools use an epitaxy process to deposit the SiC materials on either bare substrates or as part of the transistor device

fabrication process. Most SiC epitaxy is currently done on 150mm wafers, but is expected to move to 200mm in coming years to reduce costs. The transition to 200mm SiC is a major technological inflection point that positions single-wafer reactors like ASM’s particularly well, as thickness and material uniformity control are more challenging at 200mm.

Industry technology roadmap for logic, DRAM and 3D-NAND (Flash)



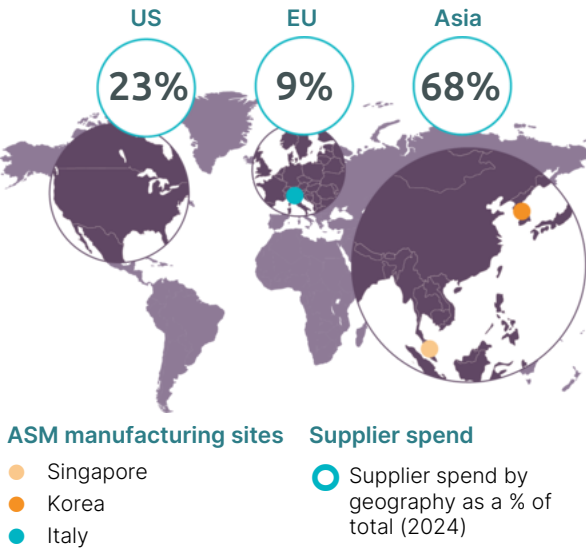
# 13. Operational excellence

ASM's global operations and supply chain combine to give the company the infrastructure to build world-class semiconductor tools.

## 13.1 Our outsourced manufacturing model

We aim to further extend the scope of ASM's manufacturing strategy of distributed manufacturing model in support of our ability to scale. Our business model with regional contract manufacturers will be strengthened to foster stronger collaboration.

Supplier spend by geography



We see these contract manufacturers, who are our key strategic partners, as 'ASM's extended factories'. We will engage them in a bigger way, and support their operations so that they are integral to realizing ASM's vision of staying ahead of what's next.

## 13.2 Manufacturing operations

ASM has global manufacturing sites in Singapore, Korea, and Italy. Korea and Italy are also two of our worldwide research and development centers. Being close to the R&D centers, all our manufacturing sites are adding value as ideal sites for piloting new products, including Singapore. This allows for faster time to market through better collaboration between the design, new product engineering, and manufacturing teams.

To support scalability of the business and the increasing number of new product pilots in our global manufacturing footprints, we will continue to focus on increasing capacity through manufacturing process innovation using advanced technology. This includes lean line design for both high-volume products and applying the same concept to new products, cycle time reduction initiatives, and by enhancing facilities.

Globally, ASM continued to increase its utilization and efficiency in 2024, and this will remain a key focus for 2025:

- In Korea, we are on track to expand our footprint in 2025, to support several of our new applications as they progress into the high-volume manufacturing phase.

- Singapore, our global operation hub, will continue to produce ~80% of ASM's total volume with high efficiency and a strong supply-chain base close to the region.

We continue to invest in innovating our manufacturing processes and are excited about the significant strides we made in 'Build' and 'Test' methodologies in 2024.

Apart from investing in learning and providing our people with overseas exposure, we will hire people with the right skill sets to support the transformation towards a truly state-of-the-art manufacturing entity.

Our manufacturing facilities follow the Responsible Business Alliance (RBA) Code of Conduct. In 2024, we successfully completed a Validated Audit Program (VAP) audit from the RBA at our Singapore manufacturing site.

### Improving product quality

Delighting our customers with overall product quality that exceeds their requirements has always been a top priority. We listen to customer feedback and strive to support them with systemic improvements. We foster strong collaboration with internal stakeholders – field service engineering teams, design engineering, and global product managers – to support start-up quality at customer sites and enhance customers' experience as ONE ASM TEAM. ASM did not have any product quality recalls or related material financial impacts in the period 2020-2024.

Our focus also includes suppliers' quality improvement, and we partner with them to draw on each other's expertise to exceed end-customers' expectations. On new products, our suppliers partner with ASM cross-functional teams on cost, manufacturability, and reliability as early as the design phase. Being able to anticipate potential issues and eliminate them has led to a reduction in the non-conformance of new products.

- In 2024, ASM had many success stories in our manufacturing worldwide. These include:
- Innovation in traceability implementation in our manufacturing and logistic processes;
  - New product quality through engineering initiatives and 'design for manufacturability' for ASM and suppliers; and
  - Collaborating with key suppliers to enhance testing methodologies for better efficiency and quality.



Singapore FEMS manufacturing facility



With these experiences, we have outlined new initiatives for 2025 to further lead our team on our continuous improvement journey, including standardizing manufacturing improvements and digitalization. We will continue our focus on high-value engineering roles to support innovation in manufacturing to stay ahead of what's next.

Coupled with the increased capacity in our Singapore facility and the planned expansion in Korea, we believe we have the internal assembly capacity in place to reach at least the high end of our revenue target for 2027.

13.3 Global supply chain

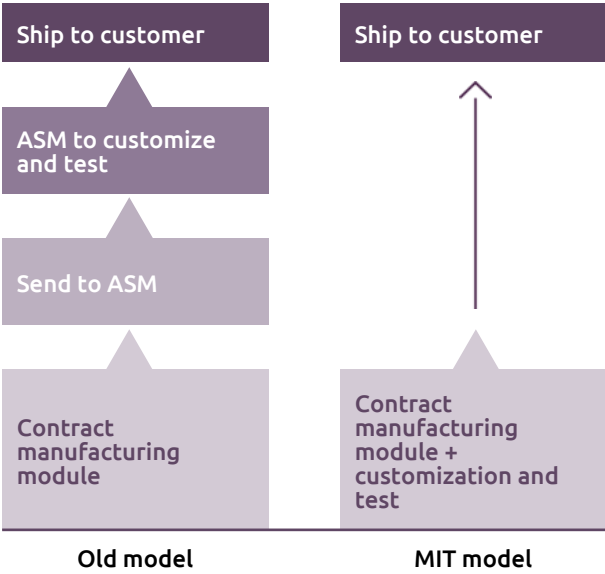
ASM's fast pace of technology, time-to-market pressures, and rapid growth, requires a supply chain that is well aligned with ASM's needs. In 2024, these suppliers not only supported ASM's growth, but also provided valuable partnership and feedback in supporting a record number of new products that quickly went from concept to shipping to customers. We also engaged key suppliers on several projects to add more content and create 'Merge-in-Transit' (MIT) modules that will be able to be shipped directly to customers. This will greatly increase ASM's manufacturing flexibility to grow without additional infrastructure to support.

The global presence of ASM's supply base continues to enable us to better handle the ever-changing restrictions and regulations on rules against sourcing from and to different countries. And with more global demand for many of the same materials, ASM is putting long-term strategies in place to assure continuity of supply and capacity to support our ambitious plans.

Increasing supplier value-add through outsourcing

Historically, ASM has used outsourcing to increase manufacturing flexibility and drive low-IP assemblies with low configurability to a few key contract manufacturers. For some of the assemblies, this created waste for cost, lead-time, and resources. In 2024, ASM created a program for our outsourced partners to add more value to the modules they provide, and ideally test and package them to be shipped to customers or MIT ready.

Supply chain model



Enabling suppliers to manage configurability (customer-specific options), test the modules, and have them 'customer-ready' will save ASM floor space as well as non value-add un-crating and additional labor hours on the module. Moving more value to the outsourced partners also enables future growth with minimal needs to expand facilities to enable growth.

This shift drives a need to ensure we are choosing the right suppliers and have a mutual long-term commitment to working together. In 2024, ASM completed pilot builds of two high-running modules with two different suppliers, and we will look to expand this program in 2025.

Early engagement

Speed to market for new products and technologies is critical to ASM's success. Traditionally, the timeline from engineering concept to lab qualification and, ultimately, customer approval and ramp could take months. With the breakneck speed of innovation, the time from concept to ramp can now almost be simultaneous. These expectations for faster time to market have had to change our supplier engagements. Key suppliers now partner with our engineering teams to drive materials in parallel to designs being completed. This partnership not only improves the speed to a finished product but also gets us to a better-quality product as well. Suppliers provide upfront feedback on manufacturability and other improvements for the designs. Engaging our suppliers earlier also facilitates more seamless ramp-ups for high volumes as the new products get adopted.

With numerous new products launched this year, ASM engaged several suppliers much earlier in the product lifecycle to handle outsourced modules. Going forward, we will target key suppliers to grow that early design engagement and use their expertise and abilities to help us release high quality products faster.

Targeted long-term partnerships and capacity

ASM shares many suppliers and sources of raw materials with end customers and other semiconductor companies. To assure ample capacity and continuity of supply, we have a strategy that involves growing key supplier partnerships and more active engagement in constrained materials.

The ASM supply base has grown over time through various acquisitions and its legacy manufacturing footprint. In some areas, this has lead to a very high number of suppliers for a relatively modest amount of total spend. This situation is not ideal for securing priority with suppliers for delivery and capacity, and also weakens negotiation leverage. ASM has been actively targeting key suppliers by part family and commodity. The goal is to drive new products to those key suppliers, consolidate legacy parts from smaller suppliers, and achieve closer alignment and support from these key suppliers. One example is a commodity where we have over 25 suppliers and are driving a strategy to get to five over the next year. We believe this strategy will better align ASM's interest with those of its suppliers, and also enable a healthier environment for supplier and commodity management.

There were many lessons learned from the COVID pandemic, in particular the importance of understanding and protecting materials and capacity further down supply chains (i.e. raw materials and other key components). We have worked with our suppliers to identify those potential risk areas, especially sole-source or geographic risk, and put agreements and programs in place to enable multi-sourcing as well as driving engagements (through ASM and/or our manufacturers), to secure supply for the future.

Partnering with fewer suppliers creates a better environment for engaging in capacity agreements, ensuring that ASM has the flexibility to react quickly and grow.

Risk and protecting the supply chain

ASM has encountered several areas of risk in the supply chain that we have had to mitigate over the past few years. These include the impact of wars, cybersecurity, chips shortages, and natural disasters. In 2024, these

risks persisted and continued to evolve, especially in the areas of geopolitical tensions and cybersecurity.

We continue to evaluate our supply-chain footprint, including sub-tier suppliers and sources of raw materials to ensure a reliable supply, even with new and emerging restrictions from various governments and organizations on the ever-evolving list of regulations. We believe our global footprint and developed strategies are well positioned to continue supporting our customers, even if restrictions continue to tighten. Additionally, we continue to evaluate all aspects of the supply chain to assess potential continuity threats if new tensions arise.

Cybersecurity remains a major source of concern for our suppliers, and ASM has previously experienced supply shortages and delivery risks due to suppliers being impacted by cybersecurity issues. We have added cybersecurity to our supplier audits and supplier scorecards. From this, we have identified gaps in suppliers’ cyber environments, and driven them to correct these or risk losing ASM’s business. As with all technology, we expect continued advancements from malicious actors, and we will drive our suppliers to keep up with the latest protocols and protections, while ensuring that valid continuity plans are in place in the event of an incident.

**Supplier Day and Supplier Awards**

ASM held its annual Supplier Day in Singapore in November 2024, bringing together over 75 top suppliers and 160 attendees. The event allowed us to share our impressive growth story, explore the cutting-edge technology driving our success, and highlight our strong progress on sustainability initiatives. Attendees had the unique opportunity to connect directly with key ASM executives.

Events like these foster a shared sense of vision and direction with our suppliers. A highlight of the day was recognizing our outstanding suppliers for their exceptional performance and support. Congratulations to our Supplier Performance Award winners:

- Benchmark Electronics;
- Horiba; and
- Foxsemicon.

We also celebrated suppliers who have made significant contributions to our sustainability efforts. These include:

- Horiba for Climate Leadership;
- Celestica for Social Impact, and;
- KLK for Small Business Impact.



Supplier Awards 2024

# 14. Sustainability highlights

## 2024 key achievements

Published our <b>Climate Transition Plan</b>	Grew our female representation <b>to 18% globally</b>
Achieved 100% <b>renewable electricity</b>	<b>Lowered</b> our recordable injury rate <b>to 0.24</b>
<b>Reduced</b> Scope 1+2 GHG emissions by 52%	<b>Retraining 92%</b> of employees on our Code of Business Conduct
<b>Achieved</b> A ratings for CDP Climate and Water	<b>95% participation rate</b> in employee engagement survey

## 2024 performance dashboard

Planet			People		
Target	2024 result	Status	Target	2024 result	Status
Reach 100% renewable electricity by 2024	up 12 percentage points from 2023	Achieved	20% female representation among the sub-board by 2025	Flat with 17%	In progress
Reduction of Scope 1+2 GHG emissions by 90% by 2035*	down 61% since 2021	In progress	20% female representation among all employees by 2025	up 1 p.p. to 18%	In progress
Reduction of Scope 3 GHG emissions by 97% per EUR of value added (gross profit) by 2035*	down 41% since 2021	In progress	Total injury rate ≤0.37 in 2024	down 2% to 0.47	Behind target
			Total recordable injury rate ≤0.17 in 2024	down 14% to 0.24	Behind target

\* Against a 2021 baseline

## SDGs

Innovation is at the heart of our purpose to improve people's lives through advancing technology. Our vision is to lead in sustainability, setting ambitious goals and aligning our priorities with global standards to extend our reach and influence. Our integrated effort aligns with our long-term value-creation goals for all our stakeholders and supports the advancement of five UN SDGs that are intrinsic to our business:



## Rating results

In 2024, ASM continued to be recognized across multiple Sustainability and ESG ratings:

CDP Climate Change and Water security	S&P Global CSA	Sustainalytics (risk rating)	MSCI ESG	ISS ESG Corporate Rating	FTSE Russell
A / A	71	10.4	AA	C+	4.0
First time on A list	and yearbook member Improved from 2023	(low risk) Improved from 2023	On par with 2023	(Prime) Improved from 2023	On par with 2023

## 14.1 Interview with our Head of Sustainability

**John Golightly joined ASM as director environment, health & safety (EHS) in 2012 and became VP and Global Head Sustainability in October 2023. John discusses ASM's sustainability achievements in 2024, and new initiatives in sustainability areas such as climate action and human rights. He also shares his view on the role of the semiconductor industry, and ASM's contributions, in addressing future sustainability challenges and making positive impact.**

### **You've been involved with sustainability-related work for a long time. How did it begin and where did your interest come from?**

As a teenager in the 1980s, I was very much influenced by the burgeoning environmental movement. The depletion of the ozone layer caused by chlorofluorocarbons (CFCs) first made me aware of the significant environmental damage humans can cause. Climate change was emerging as a critical global issue, along with growing concern about industrial pollution and environmental disasters. The Bhopal chemical disaster and widespread famine in Africa highlighted the devastating consequences of environmental neglect. When an opportunity presented itself to work in the area of environment, health, and safety, I jumped at the opportunity. It was a way I could make a real difference.

My interest in technology, and the effect it can have on solving sustainability issues, is one of the main reasons I've been working in the semiconductor industry for almost 25 years. ASM is committed to having a positive impact, and has been a great place for me to continue to grow and play a positive role.

### **What were ASM's main achievements in sustainability in 2024?**

It was a significant year for ASM sustainability, with several major achievements that supported our ambition to lead in sustainability.

For example, for the first time, we achieved 100% renewable electricity across all of our operations globally.

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**"We achieved our target for 100% renewable electricity in 2024, a first milestone towards net zero by 2035."**

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For Scope 1+2, we saw a significant drop in 2024, decreasing emissions by 51% from 2023, primarily from our adoption of renewable electricity. In addition, we released our first Climate Transition Plan that details how we aim to reach net zero by 2035. The plan includes collaboration across our industry and value chain. We are proud of the fact that we are a founding sponsor to the Catalyze program that stimulates and supports our supply chain in accessing renewables. In social sustainability, we released our first comprehensive Human Rights policy, aiming to strengthen our engagement into our supply chain to reduce impact and risks.

### **What strategies are you using to achieve and sustain 100% renewable electricity?**

Our initial strategy was to secure unbundled energy attribute certificates (EACs) and 'Green Premiums'. From the start, we immediately set strict criteria on the quality, location, project types, and traceability of certificates. Additionally, we aimed to bring in all the procurement geographies. Some regions presented significant

challenges, and it took us a few years to build the networks we need to access the right quality. In fact, we joined RE100 in 2023 to raise the bar for ourselves, and the global corporate renewable energy initiative recognized us as 'Best Newcomer' in 2024. We aim to transition to longer-term solutions that bring more additionally to the grids, such as in vPPAs and working with our utilities on new bundled opportunities.

### **In your view, what are the biggest challenges the industry and value chain face in addressing climate change?**

The challenge has been about coming together and organizing. Across the semiconductor value chain, there is undoubtedly a strong desire to make a positive impact. But when you look at the different sectors within the value chain – from fabs, to equipment makers, to material and chemical suppliers – there are varying and unique challenges. Of course our industry is not alone in this, but we have one of the most complex supply chains. Building consensus on how to decarbonize across that complexity can be a challenge. The good news is that we are building momentum and engagement as an industry.

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**"Tackling climate challenges requires collaboration across the semiconductor value chain."**

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Personally, as Chair of the Semiconductor Climate Consortium (SCC), I have had the opportunity to experience the power of collaboration among industry peers and stakeholders, and I know that it's through this collaboration that we will be able to tackle the challenges in front of us.



**John Golightly**  
Head of Sustainability



**You mention the release of the Human Rights policy. How is ASM incorporating this into its operations and supply chain?**

Human rights touch on everything: From forced labor, to wages, to living conditions. ASM and its operations are ‘low risk’, yet regardless of this, we continually monitor our conditions to make sure we remain low risk. The same cannot always be said for a global supply chain. As technology advances and changes, the supply chain must remain dynamic, and this can introduce new risks when new suppliers are introduced.

And deeper down in the supply chain, the risks become less visible. Having a comprehensive Human Rights policy sets the groundwork to drive a stronger and clearer set of expectations for our suppliers to work from, and to dive deeper into our extended supply chain. This is supported by our due-diligence efforts with the supply chain, including risk assessments, training and engagement, supplier capacity building, and audits.

**Employee safety has been an important pillar for ASM for many years – now you've launched a new safety strategy with a strong focus on engagement. How do you see engagement impacting ASM’s safety culture?**

ASM continues to have one of the lowest injury and recordable rates in our industry. But safety is not just about the end result, it’s about the journey. Someone getting injured is a result we want to avoid, and preventing this result is about instilling the right culture. Our safety culture is centered around prevention. In 2024, after years of engagement challenges due to the pandemic, we paid special attention to engagement in our safety programs. We asked our top leadership to share their thoughts on safety and turned their responses into videos we shared during our first ‘Be Safe’ week. Our leadership's key message focuses on ensuring that all employees know they can call a safety

‘Stop Work’ at any time. We have also included a safety update in our quarterly all-employee calls.

**“In 2024, we took further steps to strengthen ASM's safety culture.”**

**New technologies such as AI create value for society and help improve people’s lives. Yet they have also resulted in a steep increase in electricity usage in data centers . What role can ASM and the semiconductor industry play in addressing this?**

Our industry recognizes we have enabling technologies for a green transition. To move from what I call analog to digital in our energy will require our technologies – whether it's in renewable electricity and grid management, or transportation and electric vehicles. And none of this can be accomplished without the technology our industry creates – the movement of electrons. And the more the transition takes hold, the more it will be apparent that semiconductor device power efficiencies are critical.

This is where ASM is excited to be making advancements – such as in ALD and in SiC – for our customers, with both solutions being critical parts of the green transition. We are committed to enabling our customers to drive advances in AI computing power. By taking part in initiatives like the SCC, we aim to continue to be part of the conversation with customers and hyperscale cloud providers, to address critical technological and environmental challenges responsibly.



# Sustainability statements

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# 15. General disclosures

ASM maintains a strong commitment to transparency and accountability in its sustainability practices. Our sustainability governance framework outlines the key policies, processes, and risk-management practices that guide our decision-making. By embedding sustainability throughout our operations, we aim to ensure that our efforts are aligned with stakeholder expectations, and support ASM's long-term value creation.

## 15.1 Company overview

### Our sustainability statements

While the European Corporate Sustainability Reporting Directive has not been transposed and implemented in Dutch law on the date of this Annual Report, our sustainability statements have been prepared in accordance with the European Sustainability Reporting Standards (ESRS). The sustainability statements cover ASM's consolidated performance, similar to our financial statements. No entities were excluded. We incorporate, where needed, relevant financial data derived from our consolidated financial statements, which adhere to IFRS. Our sustainability policies, actions, metrics, and targets include important data from both upstream and downstream value chain activities.

These include:

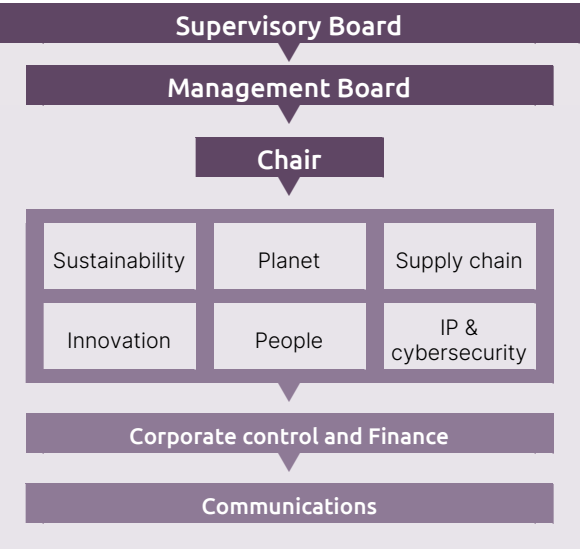
- Scope 3 greenhouse gas (GHG) emissions, covering significant upstream and downstream value chain activities.

- Supply chain disclosures, covering material impacts, risks, and opportunities (IROs) related to workers in ASM's value chain.

For areas outside of these specific disclosures, we concentrate on our internal operations, with qualitative insights into the value chain provided when necessary. Quantitative metrics are generally focused on ASM's direct activities unless specified otherwise. For details about our business model, products, and value chain, refer to chapters 4-8 (in accordance with ESRS SBM-1).

## 15.2 Sustainability governance

### Sustainability leadership council



### Organization of our sustainability framework

Our sustainability governance is fully integrated into the organization, with strategic management residing with the Sustainability Leadership Council (SLC), chaired by the Senior Director Sustainability. The SLC meets monthly to review material IROs related to sustainability and reports to the Management Board. The SLC is comprised of functional leaders, with functions represented in the graphic on the left. Sustainability is overseen by the Management Board, which takes responsibility for managing sustainability risks, setting goals, and integrating these factors into strategic decisions. This includes climate change.

Since Q2 2024, the Management Board has received quarterly updates on performance against key metrics. The Supervisory Board and its Audit Committee also receive quarterly updates. These update reports focus on our sustainability performance against targets, including progress on our net-zero ambition, health and safety programs, and gender-diversity initiatives. The Supervisory Board plays an important oversight role on our sustainability strategy. The Audit Committee plays an important oversight role in ensuring the accuracy and integrity of our sustainability reporting. Refer to chapters 21 to 24 for more information on the composition of the Management Board, Supervisory Board, and Audit Committee, including their roles, responsibilities, charters, and expertise in sustainability matters.

### Sustainability incentive schemes

Sustainability is a key driver of decision-making at ASM, with sustainability-related objectives integrated into incentive schemes across the organization. In 2024, 25% of the short-term incentives (STI) for the Management Board were based on non-financial targets, including:

- Achieving our CO<sub>2</sub> reductions in line with our SBTi-approved reduction target (6% of total);
- Growing the representation of women in our sub-board and across our global workforce;
- Ensuring the quality of our public sustainability disclosures, and obtaining third party-provided limited assurance; and
- Reducing the total injury rate through improved safety measures.

**"I see the Corporate Sustainability Reporting Directive (CSRD) as an opportunity to enhance how we measure and communicate our impact, helping us drive progress and set a benchmark for accountability in our industry."**



**Dylan McNeill**  
Senior Director Sustainability

Performance is evaluated on a sliding scale, with the specific terms approved by the Supervisory Board, as advised by the Nomination, Selection, and Remuneration (NSR) Committee. Beyond the Management Board, sustainability goals are embedded in corporate objectives as well as department-level objectives, ensuring a company-wide focus on sustainability targets.

Sustainability due diligence

Sustainability due diligence is woven into our governance, strategy, and business model. We continuously engage with stakeholders, identify and assess potential adverse impacts, take action to address them, and track the effectiveness of our efforts to ensure meaningful progress.

Due diligence coverage

Core elements of due diligence	Sections in the report
a) Embedding due diligence in governance, strategy, and business model	Section 15.1 Section 15.2
b) Engaging with affected stakeholders in all key steps of the due diligence	Section 15.3 Section 17.1 Section 18.2
c) Identifying and assessing adverse impacts	Section 15.4
d) Taking actions to address those adverse impacts	Sections 16.3-16.5 Chapter 17 Section 18.3
e) Tracking the effectiveness of these efforts and communicating	Section 19.2

Our sustainability reporting principles

Our non-financial information is measured and monitored according to a set of clear reporting principles, which ensures that our sustainability disclosures are both comprehensive and reliable:

- Sustainability context: Integrating sustainability into reporting by considering social, financial, and environmental impacts. We prioritize long-term value for stakeholders and align with global sustainability standards.
- Balance: Providing a balanced view that reflects both strengths and areas for improvement. We offer a fair assessment of our overall performance.
- Comparability: Facilitating meaningful comparisons of performance and metrics over time. We apply consistent methodologies to ensure our reports remain reliable and insightful.
- Clarity: Ensuring information is clear and accessible by all stakeholders. We make it easy to understand and utilize our reports.
- Completeness: Ensuring reports include all relevant non-financial data for a comprehensive view. We regularly reassess our data to maintain its accuracy as our organization evolves.
- Accuracy: Committing to precise data quantification to support informed decision-making. We strive to minimize bias and uncertainty in our reporting.
- Verifiability: Documenting and disclosing processes transparently to allow independent verification. We reinforce trust in our data through accountability.
- Timeliness: Prioritizing timely reporting to ensure information is available when needed. We enable stakeholders to make well-informed decisions.

Through these principles, we have implemented a robust framework to mitigate risks of material misstatement in our sustainability reporting due to human error, incomplete data, or fraud. This framework is backed by an internal control system that helps ensure the integrity of our sustainability disclosures. Key elements of the framework are as follows:

a. Three lines of defense model to ensure effective reporting processes.

- b. Multi-layered internal control system combining preventive, detective, and remediating activities to uphold information integrity.
- c. Quarterly review meetings with topic owners and senior management to assess our key performance indicators.
- d. Bi-annual report-out on the operating effectiveness of our control measures to the Management Board and Supervisory Board.

Our sustainability reporting principles

Purpose
Mitigate risks of material misstatement
Three lines of defence model
Ensures effective reporting processes
Multi-layered internal control system
Combines preventative, detective and remediating activities for information integrity
Quarterly review meetings
Involves topic owners and senior management to assess KPIs
Bi-annual report-out
Reports on control measures to the Management and Supervisory Boards
Outcome
Ensures accurate and reliable sustainability reporting

Data methods, limitations, and estimations

For full details on our data definitions, methods, limitations, estimations, and restatements of historic figures, refer to chapter 31 of this report.

Scope 1 direct emissions originate from primary data sources. For limited cases, ASM applies country approximations.

Scope 2 emissions are determined by converting energy use bills (utility and consumption data) to tonnes CO<sub>2</sub>e, utilizing country-specific emission factors derived from standard emission factor databases. For a limited number of leased sites, consumption figures are estimated based on building size, occupancy, and operational hours.

Scope 3.1 emissions are estimated using an economic-environmental input-output (EEIO) model, applying a spend-based approach that utilizes the EPA NASCI database. While this method may not fully capture the impact of specific greenhouse gas reduction initiatives, methodologies and parameters are reviewed annually to incorporate the latest insights.

Scope 3.4 and 3.9 emissions are calculated using a fuel-based and distance-based method. Uncertainties may arise from variations in supplier reporting and tracking of exact shipment routes. Scope 3.11 emissions are calculated using a process-based method to determine the energy consumption of specific reference products. This calculation follows independent tests aligned with the SEMI S23-1021E standard. Lifetime emissions are assessed and accounted for at the point of sale, using location-based emission factors and assuming an average operational lifespan of 15 years. This timeframe is derived from peer analysis, expert input, and internal analysis of service records.



## 15.3 Stakeholder engagement

### ASM stakeholder framework

Stakeholder engagement is central to our sustainability strategy. We align our policies with global standards and engage with a variety of organizations to advance shared priorities and drive progress on our sustainability goals. ASM's stakeholder framework focuses on regular engagement to reflect stakeholder interests in our sustainability strategy and keep our key IROs up to date.

Below is our stakeholder engagement table, listing the main stakeholders and type of touchpoints we employ. It provides a non-exhaustive list of touchpoints that occurred in 2024, in the context of stakeholder engagement and insights-gathering via regular business operations. This also feeds into our identification process towards ASM's most important IROs. Refer to section 15.4 'Impacts, risks, and opportunities' for more information.

By maintaining strategic relationships with groups like SEMI, the Responsible Business Alliance (RBA), and RE100, we actively contribute to industry-wide efforts to advance sustainability. In 2023, ASM helped establish the Semiconductor Climate Consortium and joined the board of the UN Global Compact Network Netherlands, where we provide strategic leadership on emerging sustainability issues. In 2024, ASM continued to chair the Semiconductor Climate Consortium for its second year. We also continued to serve on the board of the UN Global Compact Network Netherlands. Our active participation in these groups strengthens our approach to corporate responsibility and keeps us at the forefront of sustainability initiatives.

### Stakeholder touchpoints

Touchpoints	Applicable focus areas
<b>Customers</b>	
<ul style="list-style-type: none"><li>Periodic meetings</li><li>Key account management</li><li>Development sessions</li><li>Joint (innovation) projects</li></ul>	<ul style="list-style-type: none"><li>Innovation</li><li>Planet</li><li>People</li><li>Responsible supply chain</li></ul>
<b>Employees</b>	
<ul style="list-style-type: none"><li>All-employee meetings</li><li>Works council, employee resource groups, engagement surveys</li><li>Employee development dialogues</li></ul>	<ul style="list-style-type: none"><li>Innovation</li><li>Planet</li><li>People</li></ul>
<b>Investors</b>	
<ul style="list-style-type: none"><li>Annual General Meetings</li><li>Roadshows</li><li>Conference calls</li><li>Broker conferences</li></ul>	<ul style="list-style-type: none"><li>Innovation</li><li>Planet</li><li>People</li><li>Responsible supply chain</li><li>Governance</li></ul>
<b>Suppliers</b>	
<ul style="list-style-type: none"><li>Commodity manager engagement</li><li>Annual Supplier Day</li><li>Quarterly business reviews</li></ul>	<ul style="list-style-type: none"><li>Innovation</li><li>Planet</li><li>People</li><li>Responsible supply chain</li><li>Governance</li></ul>
<b>NGOs</b>	
<ul style="list-style-type: none"><li>Engagement letters and sessions</li><li>Bilateral dialogues</li></ul>	<ul style="list-style-type: none"><li>Planet</li><li>People</li><li>Responsible supply chain</li></ul>
<b>Industry consortia</b>	
<ul style="list-style-type: none"><li>R&amp;D partnerships</li><li>RBA; SEMI; SIA; SESHA; RE100</li><li>UN Global Compact</li></ul>	<ul style="list-style-type: none"><li>Innovation</li><li>Planet</li><li>People</li><li>Responsible supply chain</li><li>Governance</li></ul>
<b>Communities</b>	
<ul style="list-style-type: none"><li>Employee volunteering</li><li>Company donations</li><li>Contributions to local communities</li></ul>	<ul style="list-style-type: none"><li>Planet</li><li>People</li></ul>

## 15.4 Impacts, risks, and opportunities (IROs)

### Our double materiality assessment (DMA)

We conduct an annual materiality assessment to evaluate our sustainability priorities from two angles: the impacts that ASM has on people and the planet, as well as the financial risks and opportunities that sustainability topics might have on ASM. This process identifies key IROs, ensuring we focus on areas where our sustainability strategy can drive the most value. The process involves four steps:

1. Operating environment analysis: We assess our business context, value chain, and stakeholder landscape. We examine the full scope of our business activities, from upstream suppliers like smelters, component producers, contract manufacturers, and utility providers to downstream customers, including semiconductor manufacturers.
2. Identifying long-list topics: We define our sustainability priorities through stakeholder touchpoints, benchmarking activities, and industry research conducted by our internal experts. Identified topics are informed by the Corporate Sustainability Reporting Directive (CSRD), peer and industry research, and ASM's enterprise risk-management framework.
3. Prioritization and validation: The long-list of sustainability topics is refined through workshops and consultations with both internal and external stakeholders. Methods such as surveys, expert interviews, and desk research are used to capture stakeholder priorities. These topics are then validated and prioritized using both impact and financial materiality lenses, ensuring the most critical issues are identified.

4. Board verification: Once the list of material topics is finalized, it undergoes a multi-tiered approval process. ASM's Management Board, Executive Committee, and Sustainability Leadership Council validate the topics before receiving final approval from the Supervisory Board. This ensures ASM's strategic objectives and sustainability efforts are focused on the most critical issues, enabling us to manage risks effectively and seize opportunities for positive impact.

### Assessing adverse impacts

Our materiality assessment evaluates both direct and indirect impacts across our value chain. Internally, we assess impacts such as energy consumption and employee well-being. For impacts arising from business relationships, we evaluate the processes of upstream suppliers and the energy consumption of our products downstream. This value chain lens enables us to understand the full spectrum of our potential impacts on people and the environment, whether through our direct operations or broader ecosystem. By carefully analyzing these impacts, we can prioritize areas where negative effects are most significant and direct our resources towards tailored mitigation strategies.

### Risk management and opportunity identification

Our process carefully maps the interconnections between risks, dependencies, and opportunities. For example, we assess the risks associated with climate change – such as increased operational costs due to carbon pricing – alongside opportunities to develop energy-efficient products. This matrix approach allows us to visualize how different risks and opportunities interact, informing a more comprehensive sustainability strategy that not only mitigates risks but also capitalizes on emerging opportunities.

Financial materiality and integration with Enterprise Risk Management

Under financial materiality, we evaluate the magnitude and likelihood of gross sustainability risks and opportunities over different time horizons, integrating these with our Enterprise Risk Management (ERM) framework. Key elements include:

- 1. A standardized risk assessment matrix that applies to all risk types, including sustainability-related risks;
- 2. Long-term scenario analysis, particularly for climate-related risks and opportunities;
- 3. Risk-mapping tools that identify cascading effects between sustainability and business risks; and
- 4. Scenario analysis to inform strategic planning and prioritize risks, particularly those related to climate change.

Based on our assessment, we do not anticipate material negative financial effects in the short- to mid-term from the net risks. We expect to maintain effectiveness in our management practices, lowering the chances of material financial impacts over the long term as well, although these outlooks are subject to higher levels of uncertainty. Our risk management measures align with our strategic goals, so reducing the likelihood of significant potential financial impact.

To continue to implement our strategic plans, we rely on a robust financial position that includes a healthy cash balance, sustained free cash flow, and a flexible revolving credit facility. These funding sources ensure we have the necessary resources to execute our strategic initiatives effectively while maintaining financial resilience.

Accelerating sustainability through advocacy

2018	 <b>Titanium Member SESHA</b> SESHA promotes ESH education for the high-tech and associated industries. ASM serves as president of the SESHA board.
2020	 <b>Full Member Responsible Business Alliance (RBA)</b> RBA is the world's largest industry coalition dedicated to corporate social responsibility in global supply chains.
2023	 <b>Board Member UN Global Compact (UNGC)</b> UNGC aims to advance societal goals and support the implementation of the SDGs. ASM is a board member of the UN Global Compact Network Netherlands.
2023	 <b>Founding Member Semiconductor Climate Consortium (SCC)</b> The SCC is developing an industry climate strategy to reduce its carbon footprint. For the second year running, ASM is chairing this consortium.
2023	 <b>Member RE100</b> RE100 is a global initiative led by the Climate Group in partnership with CDP, uniting businesses committed to 100% renewable electricity.
2023	 <b>Founding Member Catalyze</b> Catalyze is a pioneering initiative to accelerate the adoption of renewable electricity across the global semiconductor value chain.













2024 results and continuous improvement

Our 2024 double materiality assessment (DMA) focused on validating the findings from the previous year, ensuring that the identified topics in 2023 remain relevant and complete. No significant changes were made to the methodology, but we continue to refine our process, keeping pace with advancements in stakeholder engagement, impact measurement, and integrated risk management.

It is important to note that various topics considered material in terms of their societal or environmental impact (impact materiality) did not necessarily equate to them being material in financial terms, and vice versa. This distinction highlights the nuanced nature of our DMA process and ensures that both perspectives are considered independently when evaluating IROs. From a timeline perspective, we consider the material impacts identified to be relevant in the short term, and we expect them to remain so in the mid- to long term. Unless communicated otherwise, we adhere to the standard timelines that the European Sustainability Reporting Standards (ESRS) prescribe. None of the metrics related to material topics are validated by an external body other than the assurance provider.

Following the DMA process, the material topics identified – shown in the DMA table on the next page – form the foundation of our sustainability priorities.

Double materiality assessment

		Impact materiality			Financial materiality		
		Value chain	Description of impact	Type of impact +   -	Type of impact +   -		
Topic					Description of impact		
Environment	Climate change adaptation		This topic is only relevant for the financial materiality perspective, not for impact materiality.		Extreme weather events (e.g. floods, storms, heat waves etc.) could impact ASM's operations by causing physical damage to utilities and ASM's facilities.	—	
	Climate change mitigation		ASM contributes to climate change by emitting greenhouse gas (GHG) emissions through its operations and value chain.	—	Compliance to environmental laws and regulations could drive up cost.	—	
					Preference for our low-carbon technology could increase ASM's market share.	+	
	Energy availability		ASM reduces energy availability through energy usage in its operations and across its value chain.	—	Low energy availability from the market might interrupt business processes.	—	
Social	Training and skills development		ASM invests in training and skills development of its workforce, positively impacting long-term employability and workers' morale.	+	Appropriate training and skills development could lead to highly skilled, motivated, and dedicated employees. It supports our ability to attract and retain talent.	+	
	Diversity and gender equality		ASM supports an inclusive and diverse workforce (incl. gender equality), positively influencing workers' morale.	+	Failing to establish a diverse workforce could result in missed opportunities to attract and retain top talent and improve customer orientation and decision-making.	—	
	Equal pay		ASM offers equal pay, resulting in a level playing field for individuals, thereby positively influencing the prospects of minority groups and general workers' morale.	+	This topic did not meet our threshold for financial materiality.		
	Adequate wage		ASM provides employees with an adequate wage, enabling a decent living standard for themselves and their families, increasing their quality of life.	+	This topic did not meet our threshold for financial materiality.		
	Health & safety at ASM and ASM suppliers		If ASM does not facilitate a healthy and safe work environment for its workforce, accidents and harm to personal health can occur.	—	This topic did not meet our threshold for financial materiality.		
			If ASM does not stimulate a healthy and safe work environment for suppliers (incl. further down the chain such as 3TG suppliers), accidents and harm to personal health can occur.	—	This topic did not meet our threshold for financial materiality.		
	Working hours at ASM and ASM suppliers		Excessive working hours could compromise the health and well-being of our own workforce.	—	This topic did not meet our threshold for financial materiality.		
			Excessive working hours could compromise the health and well-being of supply-chain workers.	—	This topic did not meet our threshold for financial materiality.		
	Involuntary labor at ASM suppliers		People working for our suppliers could be working against their will, creating an unsafe work environment and compromising their health, well-being, and worker rights.	—	Involuntary labor in ASM's supply chain could lead to reputational damages and future non-compliance which could impact access to markets.	—	
Governance	(Anti-)Bribery and corruption		This topic did not meet our threshold for impact materiality.		Non-compliance to (anti-)bribery and corruption regulations could lead to severe penalties and financial damages and could impact ASM's reputation towards customers and financial markets.	—	
	Corporate culture		ASM's corporate culture stimulates desired corporate behavior, resulting in respectful and diligent behavior to people and the environment.	+	ASM's corporate culture supports the company's ability to attract and retain talent.	+	

# 16. Climate action

At ASM, we continue to advance our efforts to mitigate climate change and adapt to its impacts. We focus on reducing greenhouse gas emissions, enhancing energy efficiency, and integrating renewable energy solutions across our operations and value chain. Our ambition to achieve net-zero emissions by 2035 is a driver of our long-term strategy.

## 16.1 Climate impacts, risks, and opportunities

ASM acknowledges that climate change is a critical issue facing the entire planet. It increases global risk of extreme weather events, habitat and biodiversity loss, human displacement, and disease, among other impacts. It also poses business risks to ASM and its stakeholders, including our value chain. We recognize these risks and consider climate change to be of high materiality to the organization. This is why we are taking action to do our part to mitigate risks posed by climate change. At the forefront of our efforts is enhanced collaboration – climate change is a risk the whole planet faces, so we must work together to face the challenges head on.

Our manufacturing processes, activities carried out on our behalf in our supply chain, and the use of our products have associated greenhouse gas (GHG)

emissions, and thereby a contributing effect to climate change. As a global semiconductor equipment provider, we recognize our role in the broader environmental impact of the industry. To address this, we aim to improve the energy and resource efficiency of our products, adopting eco-efficient designs, and transitioning to renewable energy sources in our operations, while decarbonizing our supply chain. These efforts are part of our ambition to reduce our Scope 1, 2, and 3 emissions and align with global climate targets.

To set our priorities in managing climate risk, ASM defined a formal annual process in 2022 to identify and manage climate-related risks and opportunities, taking into account the framework provided through the Task Force on Climate-related Financial Disclosures (TCFD).

Energy availability is another critical dimension of climate-related impacts and risks, especially as the global need for energy intensifies. Reliable access to energy is vital for communities, but also ASM's operations and broader value chain. We recognize the potential business risks posed by energy scarcity, such as operational disruptions and increased costs, particularly in regions facing energy shortages or infrastructure challenges.

Since its inception, our climate adaptation risk and opportunity assessment has evolved annually in scope and depth. In 2023, the assessment expanded to include

new regions, such as supplier site locations, reflecting the critical role of supply-chain resilience in addressing climate-related risks.

### Deep-dive and hotspot assessments conducted in 2022 and 2023

Transition risks:

- Stricter regulations on fluorinated gases and other GHG emissions
- Changes in carbon-pricing schemes
- Increased stakeholder scrutiny
- Renewable energy sourcing

Physical risks:

- Windstorms and tropical cyclones
- Heat waves and extreme temperatures
- Heavy precipitation and flooding
- Water scarcity and drought

### Our 2024 assessment

In 2024, ASM concentrated on understanding the direct economic impacts of climate risks and opportunities, enabling more informed decision-making. Engagement was broadened across the organization to incorporate perspectives from a wider range of business units and functions. This effort not only enhanced the assessment process but also strengthened company-wide awareness of climate-related risks and opportunities.

Our process consisted of four main steps:

- a. Identification and monitoring: This step included a review of the ASM Climate risk and opportunity (R&O) long list<sup>9</sup> and determined if any R&O topics must be added to the short list for further assessment. Also, in this step the previously identified R&O short list<sup>10</sup> was reassessed.
- b. Assessment: This step involved conducting a scenario analysis to assess the size and scope of the identified R&O short list and conducting a business-impact assessment to quantify the potential impact of the risks and opportunities for ASM's business strategy and financial planning. The R&O short list was assessed on a short-, medium- and long-term horizon<sup>11</sup>.
- c. Risk prioritization: Risks and opportunities, which have the potential for a substantive financial or strategic impact on ASM business, were prioritized, based on ASM materiality thresholds. The most material risks were integrated into the corporate risk-management process.
- d. Action-planning and execution: This step included planning and taking appropriate actions to mitigate/ manage material risks and opportunities, and review business processes and controls to ensure that activities are performed and acknowledged.

In 2024, ASM used two climate scenarios: one for physical risks aligned to 4°C or higher warming, reflecting a 'high-impact' scenario, and one for transition

<sup>9</sup> ASM Climate R&O long list: Aims to document the full suite of physical and transition risks and opportunities identified by stakeholders across ASM's entire operations and value chain, irrespective of potential materiality, structured into three parts: climate-risk identification and categorization; ASM's perceived vulnerability to and potential business impact of this risk/ opportunity; strength of the climate change signal (i.e. the magnitude of change in frequency and/ or intensity of a specific hazard/ climate impact driver in a 1.5°C (for transition risks and opportunities)/4°C scenario (for physical risks) compared to the baseline).

<sup>10</sup> ASM Climate R&O short list: The list of climate risks and opportunities the business prioritized for further assessment using climate-scenario analysis.

<sup>11</sup> ASM defines short-, medium- and long-term horizon for its climate change risk & opportunity assessment as follows: short-term: 1-5 years; medium-term: 5-15 years; long-term: 15-30 years



risks and opportunities aligned to warming below 1.5°C, reflecting the 'rapid transition' scenario:

- 'High impact' scenario: Shared socioeconomic pathways (SSP) 8.5 scenario.
- 'Rapid transition below 1.5°C aligned scenario': Aligned with a 1.5°C pathway; (International Energy Agency Net Zero Emissions Scenario (NZE) and 1.72°C/2°C pathway (IEA, the Stated Policies Scenario (STEPS)).

Based on their potential materiality, the following two risks and opportunities were prioritized for a deep-dive assessment in 2024:

- Opportunity: Increased demand for low-carbon semiconductor equipment, driven by evolving customer preferences and regulatory demands across different regions.
- Risk: Extreme heat-induced blackouts at the Phoenix facility could potentially grow by 2050, resulting in a potential increase in costs to our demo lab operations.

At this time, we believe the customer preference for low-carbon products represents a material financial opportunity in the near- to mid-term horizon.

The occurrence of prioritized physical risks that were assessed in the period 2022-2024 are not considered to represent a material financial risk in the near- to mid-term horizon. In our 2024 assessment of extreme heat-induced blackouts, ASM assessed the mitigation costs that it would bear to prevent any significant business implications from prolonged blackouts. The associated costs were below our materiality thresholds.

In 2024, ASM completed an impairment test that included sensitivity checks with regard to ASM's asset valuation under different climate-related scenarios. This

assessment did not identify any material financial reporting impacts. Please refer to Note 5 of the financial statements in this report.

**Governance**

Refer to section 15.2 'Sustainability governance' for more information on how sustainability risks and opportunities are governed at ASM. Our net-zero objectives are integrated into the remuneration program of the members of Management Board via a short-term incentive (STI) plan, representing 6%. Refer to chapter 26 'Remuneration report' for more information on Management Board remuneration.

**16.2 Climate action approach and results**

**Our climate and net-zero policies**

Following our identification of climate-related risks and opportunities, ASM has developed Climate and Net Zero policy statements, which are available on our [website](#), establishing our vision for ASM's climate and GHG-reduction goals and objectives, as well as addressing:

- a. acknowledgement of climate-related risks;
- b. identification of risks & opportunities to inform strategic investments, business resiliency, and sustainable operations;
- c. actions to mitigate those risks and impacts;
- d. reduction of emissions through efficiency, abatement, and chemical use reductions & substitutions;
- e. maximizing the sourcing of electricity from renewable sources;
- f. neutralizing remaining emissions; and
- g. collaborating across our value chain for collective global impact.

**Net-zero target**

In 2021, ASM announced its ambition for net-zero GHG emissions by 2035 and has been taking concrete steps

towards building the appropriate support system around this goal. This includes boosting our organizational capabilities, strengthening our support of climate programs, kicking off industry collaboration efforts, and integrating necessary steps into our business strategy and plans.

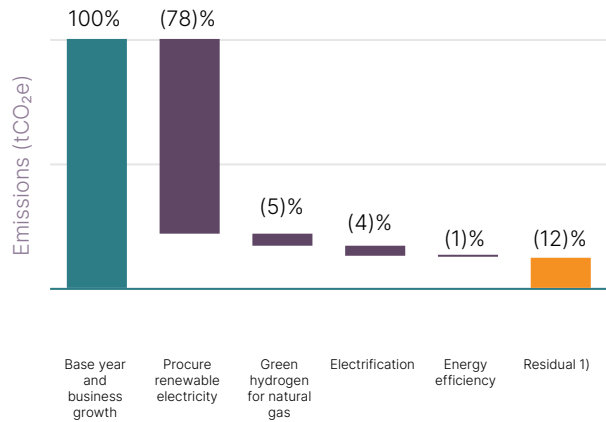
**Our main transition levers**

Decarbonize our supply chain	
<b>Purchased goods and services (PG&amp;S)</b> <i>Scope 3, Category 1</i> 16% of total 2023 GHG footprint	Reducing the emissions associated with the goods and services used to develop our tools requires us to engage with our suppliers to implement decarbonization strategies in partnership with ASM.
Decarbonize our logistics	
<b>Logistics and Transportation</b> <i>Scope 3, categories 4 and 9, 3% of total 2023 GHG footprint</i>	ASM is supporting the push for logistics providers to adopt Sustainable Aviation Fuel (SAF). Additionally, we assess transport routes to optimize source-to-destination efficiency and reduce emissions.
Decarbonize our operations	
<b>Direct emissions and energy procurement</b> <i>Scope 1 &amp; 2</i> 0.3% of total 2023 GHG footprint	This area is most directly within our control, so we are working to implement changes within our organization's operations. This includes efficiency measures, renewable energy procurement, and more.
Decarbonize product use	
<b>Customer use of our products</b> <i>Scope 3, Category 11</i> 77% of total 2023 GHG footprint	Customer use of our products through their productive life represents the most significant portion of our GHG footprint. As a vital area to reduce emissions in pursuit of our targets, we must collaborate across the industry to decarbonize customer use of our products.

In August 2023, we received Science Based Targets initiative (SBTi) verification of our near- and long-term and net-zero GHG targets by the SBTi. The results on page 67 of this report count as our annual update. Our targets include the following from a 2021 baseline year:

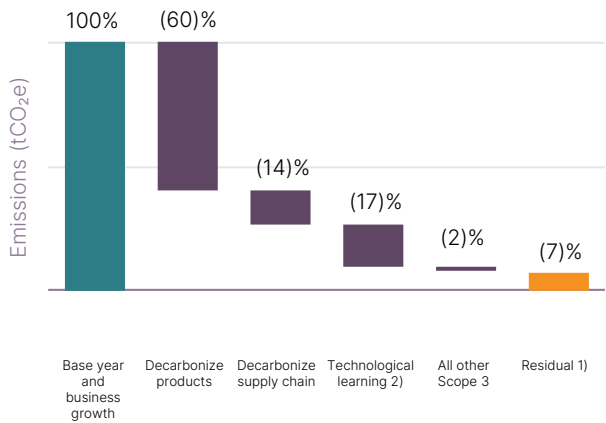
- Reduction of Scope 1 & 2 GHG emissions by 50.4% by 2032, and by 90% by 2035;
- Reduction of Scope 3 GHG emissions by 58.2% per EUR of value added (gross profit) by 2032, and 97% by 2035; and
- Net-zero emissions across all scopes by 2035, allowing for the neutralization of remaining emissions above the long-term targets to achieve net zero through high confidence carbon-removal mechanisms.

**Interventions for Scope 1 and 2**



**78% of the reduction in Scope 1 and 2 GHG emissions by 2035, compared to the 2021 baseline, will be achieved through procuring renewable energy.**

Interventions for Scope 3



Decarbonizing our products will help us reduce Scope 3 GHG emissions by 60% compared to the 2021 baseline.

We selected 2021 as the base year for our GHG emissions targets as it marks the start of detailed GHG-emissions tracking at ASM and represents a typical operational year. This choice ensures the baseline value is representative and reliable for measuring progress towards our targets.

While our primary GHG emissions-reduction targets are set for near-term 2032 and long-term 2035, in accordance with approved pathways, ASM’s interim target for the year 2030 is as follows:

- Reduction of Scope 1 & 2 GHG emissions by 41.2% by 2030 from 2021 base year;

- Reduction of Scope 3 GHG emissions by 47.6% per EUR of value added (gross profit) by 2030 from 2021 base year.

Our net-zero target forms a core part of our broader climate strategy, aimed at mitigating climate change impacts and utilizing sustainable growth opportunities. Progress against our targets is monitored quarterly and reported annually. This tracking helps us to identify areas where our actions and strategies may need adjustments to better align with our net-zero goal. In line with our strategic objective to accelerate sustainability, we ensure that climate initiatives are integrated into our business strategy and financial planning. For this purpose, the VP of Sustainability takes part in business strategy sessions that address the entire organization.

Climate Transition Plan

To turn our policies into action and progress towards our target, ASM published its first Climate Transition Plan (CTP) in March 2024, after developing our internal plan in 2023. Our CTP directly supports our SBTi-verified net-zero target. We have begun to implement the strategies outlined in our CTP towards achieving net-zero emissions, which are detailed in the following sections.

Our transition plan is built around three pivotal decarbonization levers – supply chain, our operations, and product use.

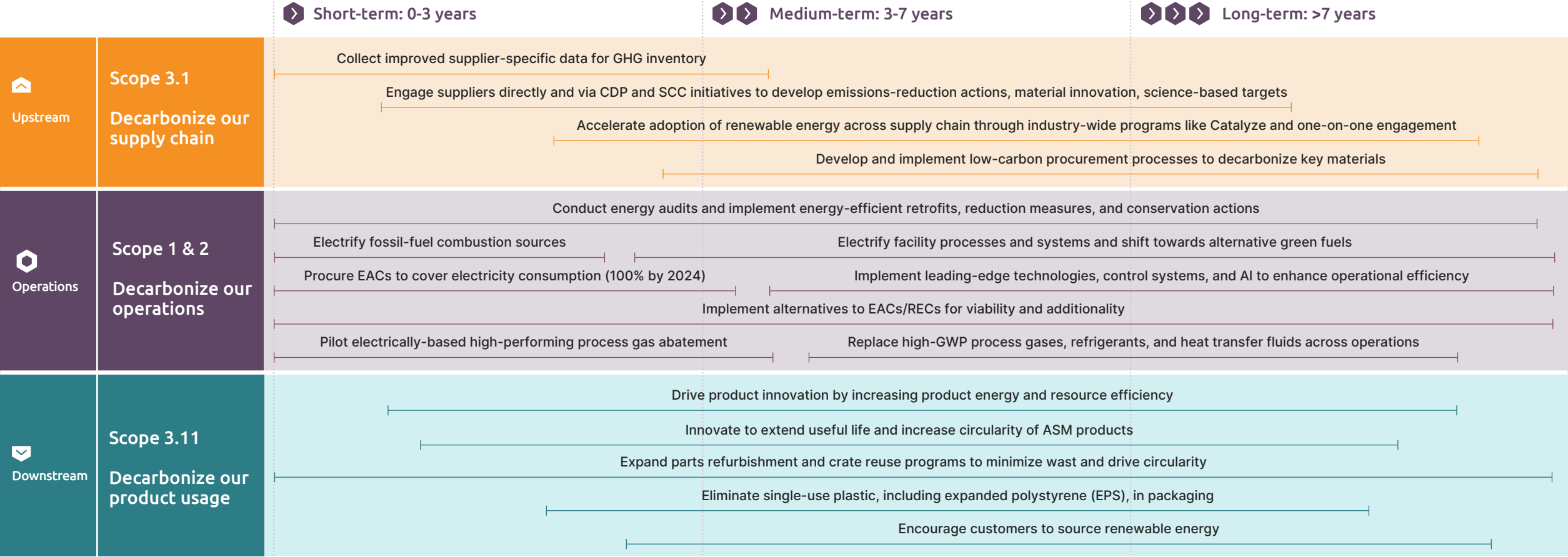
Planned actions to reduce emissions from existing or future potential sources are key to showing how we will achieve our intended decarbonization pathway. Our net-zero roadmap is based on a set of intervention measures and actions across our value chain.

We have mapped out the initial time frames over which we expect to execute the prioritized actions for our decarbonization core pillars across short-, medium-, and long-term time horizons. The timing of these activities will be updated dynamically as we further outline implementation details and update our plans.

In addition to the three decarbonization levers, we are also addressing emissions associated with logistics and transportation. While this represents a smaller percentage of our total footprint, we recognize the importance of decarbonizing this area as part of our comprehensive strategy. We are actively supporting industry initiatives to accelerate the adoption of Sustainable Aviation Fuel (SAF) by large logistics providers. In the future, ASM may also procure SAF credits as the market matures and becomes more substantiated. Furthermore, we are assessing transport routes and methods to identify opportunities for optimizing source-to-destination efficiency, thereby reducing the emissions linked to our logistics activities.

<sup>1</sup> Residual = difference between mapped reduction initiatives and SBTi allowed emissions by target year 2035 (net zero year).  
<sup>2</sup> Technological learning = emissions reductions that will occur due to decarbonization without direct action by ASM (e.g. use of low-carbon, renewable electricity in value chain).

Decarbonization roadmap



To support the implementation of these decarbonization strategies, we have identified capital expenditure (capex) needs to support our decarbonization strategy. These investments are focused on the following areas:

- Investments in energy-efficient technologies and solutions within our sites and operations, as well as our supply chain.
- Investments in infrastructural upgrades to shift away from fossil fuels to viable low-carbon alternatives.
- Investments in R&D for sustainable products, to reduce emissions during customer use.

Our approach to reporting our capex in scope of our CTP is aligned with the standards set by the Commission Delegated Regulation (EU) 2021/2178.

### 2024 greenhouse gas (GHG) emissions results

In 2024, ASM saw a significant reduction in its GHG emissions across Scope 1, 2, and 3, with a 30% total reduction year-over-year. Compared to 2023, our Scope 1 emissions have remained comparable with a 2% increase year-over-year, reflecting our consistent operational efficiency and emissions control measures. This comparable result, despite organizational growth, results from process optimizations and investments in low-carbon alternatives.

For our market-based Scope 2 emissions we saw a 75% reduction compared with 2023, driven by our transition to renewable electricity globally. This year marks a major milestone for ASM, as we have now achieved 100% renewable electricity usage (2023: 88%). The remaining Scope 2 market-based emissions relate to district heating. Compared to our 2021 baseline, we have achieved a total reduction of 61% in our combined Scope 1 and 2 market-based emissions, facilitated by strategic renewable energy procurement. We believe this puts us on-track of our 2032 SBTi approved short-term target, to reduce Scope 1+2 emissions by 50%.

The most significant change occurred in Scope 3 emissions, where we saw an overall absolute decrease of 30% year-over-year, which represents 99% of our total GHG emission reduction in 2024. The primary driver behind this reduction was Scope 3.11, which accounts for the use-phase emissions of our products and represents 70% of our total Scope 3 emissions footprint. This decrease was driven by a favorable product sales mix, with increased adoption of our ALD tools, which have a relatively higher energy-efficiency compared with other deposition technologies, driven by strong demand by logic foundry and DRAM customers. Simultaneously, ASM saw a declining demand in power analog wafers due to cyclical corrections. Furthermore, our Scope 3 intensity, measured as GHG emissions per EUR of value added (gross profits), showed a reduction of 40% year-over-year and 41% against our 2021 base year. We consider it likely that future results will show increases in emissions due to shifts in market demand, as mix will be a strong contributor. For more details on the activities that ASM undertakes to reduce its emissions across its product technologies, see section 16.3 'Product sustainability' of this report.

We confirm that we are not excluded from the EU Paris-aligned benchmarks based on the stated exclusion criteria. We also do not invest in coal, oil, and gas-related activities. This ensures our strategies align with the rigorous environmental standards required to support the Paris Agreement goals.

Through innovation, strategic sourcing, and collaboration with customers and suppliers, we aim to drive meaningful progress toward a lower-carbon future. Our approach to emissions management aims to ensure ASM remains at the forefront of sustainable practices, setting an industry benchmark for corporate environmental responsibility.

### Looking ahead

To maintain our trajectory towards net-zero, we are continuously exploring new innovations and efficiency strategies. Our investment in research and development focuses on next-generation semiconductor manufacturing technologies that further reduce power consumption.

The successful implementation of our decarbonization actions depends on ongoing resource availability and allocation. For 2025, our planned amount for capex and opex investments is €6 million.

A key element of transitioning to net zero is increasing the share of our revenue that comes from products or services with less embodied carbon and lower carbon-intensities. We do not currently use a taxonomy to classify our products or services as low-carbon but will continue to assess opportunities for this in the future.

As we continue to drive our climate transition, achieving our ambitious targets cannot be accomplished in isolation. Our success depends on active collaboration and engagement across the entire value chain – from suppliers to customers and all stakeholders in-between. Only through collective effort and shared commitment can we build a more sustainable future and achieve the full potential of our CTP.

We also analyze potential locked-in GHG emissions from our key assets (stationary and mobile installations) and products to ensure our decarbonization plan remains achievable and aligned with our targets. Various assets were identified as potential risks to our decarbonization roadmap. However, these assets have lifecycles that are aligned with our objectives up to 2032 and 2035. In line with our net-zero target, we are advancing strategies to transform or decommission these assets to mitigate their impact.

Furthermore, our products' emissions are calculated at the point of sale, reflecting their current estimated impact over their significant lifetime duration. Despite this mitigating our own risk of locked-in emissions from our product sales, ASM remains committed to enabling our customers to enhance energy efficiency across the lifecycle of our installed base.

To support this, we aim to provide access to efficiency breakthroughs through retrofit kits. These kits provide an upgrade pathway for existing equipment, integrating the newest energy-efficient components and process optimizations without requiring full system replacements. By leveraging retrofit solutions, we help customers lower their operational emissions, reduce energy consumption, and extend the longevity of our tools.

This approach aligns with ASM's commitment to sustainability while also supporting our customers in achieving their own resource efficiency and environmental goals. Through continuous innovation and collaboration, we reinforce our role in driving sustainability across the semiconductor industry.

Combining this approach with our strategies towards producing more energy-efficient products and engaging customers on renewable energy use, we mitigate the risk of locked-in emissions related to our products.



## Our 2024 greenhouse gas (GHG) emission results

		2023/2024 results				Our targets			GHG intensity***	2023	2024	%
		Base year (2021)	2023	2024	year-over-year %	2030	2032	2035				
Scope 1 GHG emissions	Gross Scope 1 GHG emissions (kilotonnes CO2e)	1.3	2.4	2.5	2 %	41.2%*	50.4%*	90%*	Total GHG emissions (location-based) per net revenue (kilotonnes CO2e /€ thousand)	1.01	0.64	(37)%
	Percentage of Scope 1 GHG emissions from regulated emission trading schemes (%)	-	-	-	n/a				Total GHG emissions (market-based) per net revenue (kilotonnes CO2e /€ thousand)	1.00	0.63	(37)%
Scope 2 GHG emissions	Gross location-based Scope 2 GHG emissions (kilotonnes CO2e)	24.3	32.8	33.0	1 %				Total Gross Scope 3 GHG emissions per gross profit (kilotonnes CO2e /€ thousand)	2.07	1.24	(40)%
	Gross market-based Scope 2 GHG emissions (kilotonnes CO2e)	8.4	5.4	1.3	(75)%							
Scope 3 GHG emissions	Total Gross indirect (Scope 3) GHG emissions (kilotonnes CO2e)	1,728.7	2,630.5	1,839.9	(30)%	47.6%**	58.2%**	97%**	***Revenue and gross profit figures derived from the respective lines of the Consolidated statement of profit and loss in section 28.1.			
	1 Purchased goods and services	311.0	429.7	388.5	(10)%				Biogenic emissions of CO2 from combustion or bio-degradation of biomass not included in Scope 2 GHG emissions (kilotonnes CO2e)			
	2 Capital goods	17.0	34.8	34.5	(1)%							
	3 Fuel and energy-related activities (not included in Scope 1 or Scope 2)	4.9	5.6	5.8	2 %				Biogenic emissions of CO2 from combustion or bio-degradation of biomass that occur in value chain not included in Scope 3 GHG emissions (kilotonnes CO2e)			
	4 Upstream transportation and distribution	20.4	18.4	23.3	26 %							
	5 Waste generated in operations	0.3	0.5	0.5	18 %							
	6 Business travel	7.4	17.6	30.4	72 %							
	7 Employee commuting	8.8	10.0	12.8	28 %							
	8 Upstream leased assets	0.2	0.4	0.3	(19)%							
	9 Downstream transportation	14.3	61.8	38.6	(37)%							
	10 Processing of sold products	n/a	n/a	n/a	n/a							
	11 Use of sold products	1,321.1	2,038.2	1,291.9	(37)%							
	12 End-of-life treatment of sold products	1.3	1.6	1.5	(11)%							
	13 Downstream leased assets	n/a	n/a	n/a	n/a							
	14 Franchises	n/a	n/a	n/a	n/a							
	15 Investments	21.9	11.8	11.8	— %							
Total GHG emissions	Total GHG emissions (location-based) (kilotonnes CO2e)	1,754.4	2,665.7	1,875.4	(30)%							
	Total GHG emissions (market-based) (kilotonnes CO2e)	1,738.5	2,638.4	1,843.7	(30)%							

\*reduction target in percentage of Scope 1&2 market-based emission

\*\*reduction target per EUR of value added (gross profit)

### 16.3 Product sustainability

Our most significant GHG emission impact comes from the products that we deliver to our customers. Our technologies enable advanced and more energy-efficient computing, which is integral to reducing energy consumption across various industries. From powering data centers to enhancing electric vehicles and renewable energy systems, our solutions can play an important role in supporting and enabling sustainable development.

ASM’s approach to product innovation is founded on a deep understanding that our technologies must be designed not only to push the limits of technical performance and cost of ownership, but also to integrate eco-design principles in the operation of our tools to allow for more efficient production of the chips themselves. In line with this, we have set clear sustainability targets across our product portfolio, focusing on reducing chemical usage and enhancing energy efficiency of our systems and processes.

- Our 2035 product sustainability targets include:
- 35% reduction in precursor consumption per wafer in key atomic layer deposition (ALD) processes, optimizing chemical usage to reduce waste and emissions;
  - 35% reduction in thermal energy per wafer for thermally-driven products such as epitaxy (Epi) and vertical furnaces (VF); and
  - 20% reduction in RF energy per wafer for plasma-driven products like PECVD and PEALD.

These targets are critical to our climate strategy as they directly support our ambition to reduce the carbon footprint of our customers.

#### Product sustainability targets

Target	Description of impact
Chemical consumption & usage	• 90% reduction* by 2035 of NF3 usage in key cleaning processes through replacement of NF3 with alternative gases (F2, HF, etc.).
	• 35% reduction* by 2035 of precursor consumption per wafer for key ALD processes.
Energy and resource efficiency	• 35% reduction* by 2035 in thermal energy per wafer for thermally driven products such as Epi & Vertical Furnaces.
	• 20% reduction* by 2035 in RF energy per wafer for plasma-driven products such as PECVD & PEALD.
Customer collaboration <sup>1</sup>	• Drive multiple sustainability initiatives addressing customer fab-wide sustainability focus.
	• Work with customers and suppliers to phase out materials containing PFAS or PIP (3:1).
	• Number of active engagements with customers to align on technology roadmap and product sustainability development.
Design for Sustainability principal <sup>1</sup>	• Develop Design for Sustainability (DfS) simulation tool to simulate equivalent energy consumption during design phase.
	• Baseline and track product sustainability performance year-over-year. In 2023 and 2024, ASM baselined over 18 applications.

<sup>1</sup> 'Customer collaboration' and 'Design for Sustainability principal' are quantitative and qualitative targets. The remaining targets are quantitative.  
\* Against a 2023 baseline

To realize these targets, ASM has embedded sustainability at the core of its research and development processes. Through the use of sustainability simulation tools, we can model the energy and resource impacts of new products during the design phase, allowing us to make informed decisions that enhance sustainability without compromising performance. To further quantify the energy use of our products and the corresponding GHG footprint, 18 SEMI S23 or comparable assessments were also completed on ASM products across our portfolio in 2023 and 2024.

In addition, our advancements in ALD gate dielectrics and novel work function metals have contributed to a thousand-fold reduction in gate leakage current. The precise film conformality of ALD has also been instrumental in transitioning from planar to FinFET semiconductor device structures, which are more power-efficient.

The role of ALD and Epi processes will only become more critical as the industry is currently preparing to transition from FinFET to gate-all-around (GAA) nanosheet transistors, promising a further reduction in power usage. Similarly, transitioning DRAM periphery to high-k dielectric and metal gate technologies can lower power consumption in both dynamic and static states, as previously seen in logic devices. These next-generation devices are expected to play an important role in offering improved performance and reduced power consumption in for instance AI and data-center applications.

Another important technology that ASM is enabling is silicon carbide (SiC) epitaxy, which is supporting the growing electrification of the automotive industry. Vehicle power electronics are transitioning from silicon to SiC-based materials, because SiC devices allow for higher voltage and power handling, which enable more

efficient electric vehicles with longer battery life, greater driving range, and faster charging times. Our SiC tools use an epitaxy process to deposit the SiC materials as part of the transistor device fabrication process. SiC is highly efficient at high voltages, offering higher power efficiency; increased power density, which results in reduced component weight and size; and faster battery-charging times.

An example of a product sustainability innovation is our Turino™-CL technology, representing an important development in epitaxy technology. As the first closed-loop direct-wafer temperature measurement system, it directly measures wafer temperature with pyrometers across the wafer, including at the edge. This functionality helps ensure higher uniformity and monolayer-level thickness control, critical for advanced applications like GAA nanosheet transistors.

This innovation supports cutting-edge transistor architectures like GAA, which enable smaller, more energy-efficient chips with reduced power leakage and improved performance in a wide range of applications. The tool’s ability to align advanced node production with precision that leads to resource efficiency underscores our ambition to embed sustainability within technological innovation.

A second example is our GenMatch™ technology, that supports RF energy in plasma-enhanced products for semiconductor manufacturing. Developed through ASM's Reno Sub-Systems, it enhances energy efficiency and process control through the use of an Electronic Variable Capacitor (EVC), offering superior RF performance compared to traditional methods. Through EVC, GenMatch™ enables the plasma state to be reached more efficiently, which in turn activates precursor materials with greater effectiveness, facilitating high-

quality film deposition at lower temperatures. As a result, it reduces energy waste by up to 5% on a per wafer basis, which is a significant improvement for high-power plasma operations.

The plasma enhancement in deposition technology ensures greater precision in layer formation, leading to uniform film deposition on complex 3D structures. GenMatch™ supports a wide range of plasma-based processes, including Plasma Enhanced Atomic Layer Deposition (PEALD) and Plasma Enhanced Chemical Vapor Deposition (PECVD), making it effective for tackling deposition challenges such as high-aspect ratio gap-fill applications. Moreover, the system's precision enables better process consistency, reducing variability and thereby reducing defects. Similar to the Turino™-CL,

this means that there are less downstream steps required for chip production, saving additional energy from an end-to-end perspective.

GenMatch™ is another example of ASM's vision for sustainable innovation by combining advanced technology with environmental stewardship. It directly contributes to lower greenhouse gas emissions in semiconductor manufacturing. GenMatch™ thereby enables ASM and its customers to address the dual priorities of scaling production while lowering the environmental impact, ensuring readiness for future industry demands.

Product sustainability strategy

Energy efficient plasma sources	Smarter use of chemicals	Advanced thermal technologies
<p><b>What they are:</b> Plasma sources use radio frequency (RF) energy to ionize gas, supporting deposition with higher control and at lower temperatures.</p>	<p>Chemicals (precursors) are deposited onto wafers to create thin-films. The efficient use of precursors is critical to a sustainable deposition process.</p>	<p>Heating technologies are used to disperse precursors uniformly and at the right temperature during deposition processes.</p>
<p><b>Why it matters:</b> RF energy is used in high quantity, efficiencies can significantly reduce energy per wafer, thereby making the layering process more sustainable.</p>	<p>Optimizing chemical use can reduce unnecessary waste and abatement, reducing both environmentally taxing resources and emissions.</p>	<p>As heating is a big source of energy consumption in deposition and epitaxy processes, heating efficiency lowers costs and helps reach sustainability goals.</p>
<p><b>Our approach:</b> We developed RF power delivery technologies that minimize RF energy loss and speed up the plasma process, realizing lower energy requirements.</p>	<p>We use chemicals more efficiently. Through process innovations, our technology reduces precursor consumption and lowers abatement load.</p>	<p>We developed temperature control innovations that reduce the energy required to reach the desired temperatures for deposition, thereby increasing efficiency.</p>

Sustainable Innovation IP

ASM's Intellectual Property (IP) strategy is designed to foster innovation, support environmental sustainability, and enhance resource efficiency. We focus on the development of innovation that drives technological advancements and aligns with our sustainability priorities.

To accelerate our efforts, we established a dedicated, cross-functional committee for sustainability-related IP. ASM follows a well-defined strategy to expand our sustainability-focused patent portfolio in four critical areas: 1) throughput and uptime improvement, 2) chemical usage and selection, 3) abatement technology, and 4) energy efficiency.

Our commitment to sustainability-focussed IP management drives our efforts to tackle global environmental issues, ensuring long-term value for our stakeholders and strengthening ASM's position in this vital area.

Other actions taken in 2024:

As a vital area to reduce emissions associated with our products, we must collaborate across the industry to decarbonize customer use of our products. ASM is dependent on our customers' ability to decarbonize their operations for our Scope 3.11 target to be realized. For this purpose, ASM continues to play an active role in the Semiconductor Climate Consortium, which unites the industry on a path towards decarbonization. We also presented at several customer sustainability summits to better collaborate with our entire value chain on climate action and sharing of learnings.

16.4 Own operations

To meet our decarbonization goals and address energy scarcity, we are implementing several key strategies in our own operations, including energy-efficiency improvements at owned and operated facilities, electrifying our systems, switching to low-carbon fuels, procuring renewable energy, and implementing on-site renewable energy generators. We are also working to reduce and eventually replace non-electric greenhouse gas fuels in our operations.

Renewable electricity

As of 2024, we have achieved 100% renewable electricity usage across our operations, supported by high-quality unbundled Energy Attribute Certificates (EACs), green tariffs, and green premiums.

Our EACs serve as important financial incentives to renewable energy projects, enabling the expansion of renewable energy projects globally and thereby resulting in accelerated additionality. By supporting a range of renewable energy sources through our EAC purchases, we aid broad innovation and technological advancement in the renewable energy sector.

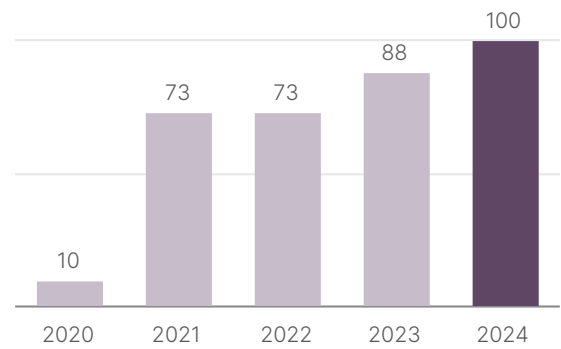
Moreover, we seek premium label certificates such as Green-e and EKOenergy, ensuring our investments positively influence regional clean-energy developments. In combination with other sustainability measures, EACs reinforce our support for the broader shift toward cleaner grids and contribute to the collective growth of the renewable energy landscape.

All our renewable electricity purchases follow the stringent RE100 technical procurement criteria, ensuring:

- 100% in-market purchases;
- Recent commissioning;
- Vintage limitations to electricity generation; and
- Exclusive ownership and attribution

These are all aimed at ensuring validity and reducing the chances of double counting.

Electricity from renewable sources (in %)



In December 2023, we installed our first on-site solar power system at our Singapore facility. This installation marked a key step in our transition to renewable energy, and we achieved full production capacity in 2024.

Source of renewable electricity certificates

Source of renewable electricity certificates* in percentage of total	2023	2024
Renewable electricity from bundled Energy Attribute Certificates (EACs)	4 %	3 %
Renewable electricity from unbundled Energy Attribute Certificates (EACs)	96 %	97 %

\*Bundled EACs are certificates directly linked to electricity that is purchased from a specific renewable energy source, while unbundled EACs are sold independently from the physical electricity and can be acquired to support renewable energy claims.

Looking ahead, we aim to further diversify our renewable energy approach by entering into long-term virtual power-purchase agreements (vPPAs) through consortium partnerships, given that we are unable to reach required volumes as an individual company in market regions where we operate. At this point, ASM is active in two separate consortia initiatives, which aim to realize additional renewable energy projects to be brought to the grid. Furthermore, ASM strives for all of its future construction projects to meet high LEED certification standards, integrating sustainability and decarbonization elements into the design from the outset. This includes, where possible, the on-site generation of electricity. Combined, these measures will further strengthen the resilience and sustainability of our overall energy portfolio.

Energy management and efficiency

Following the energy efficiency audits conducted in 2023, we developed a comprehensive energy efficiency and conservation program to further decarbonize our operations. This plan has led to numerous projects that improve energy efficiency and reduce CO<sub>2</sub> emissions across our facilities.

In 2024, we have allocated operational expenditure of €6 million towards our decarbonization initiatives, including renewable energy and energy efficiency measures.

Energy consumption and mix - fossil

	2023	2024
(1) Fuel consumption from coal and coal products (MWh)		-
(2) Fuel consumption from crude oil and petroleum products (MWh)	2,756	2,035
(3) Fuel consumption from natural gas (MWh)	6,698	8,072
(4) Fuel consumption from other fossil sources (MWh)		-
(5) Consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources (MWh)	10,565	3,261
(6) Total fossil energy consumption (MWh) (calculated as the sum of lines 1 to 5)	20,019	13,368
Share of fossil sources in total energy consumption (%)	23	14

Energy consumption and mix - nuclear and renewable

	2023	2024
(7) Consumption from nuclear sources (MWh)	2,653	-
Share of consumption from nuclear sources in total energy consumption (%)	3	-
(8) Fuel consumption for renewable sources, including biomass (also comprising industrial and municipal waste of biologic origin, biogas, renewable hydrogen, etc.) (MWh)	-	-
(9) Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh)	66,412	81,651
(10) The consumption of self-generated non-fuel renewable energy (MWh)	4	543
(11) Total renewable energy consumption (MWh) (calculated as the sum of lines 8 to 10)	66,416	82,194
Share of renewable sources in total energy consumption (%)	75	86
Total energy consumption (MWh) (calculated as the sum of lines 6, 7, and 11)	89,088	95,562

One notable project in our decarbonization efforts is the implementation of our new Leak Detection Program. Compressed air systems are essential for our manufacturing and engineering processes, but leaks in these systems can be a significant source of energy waste. By using advanced monitoring technologies, we can now detect leaks in real time, quantify energy savings, and calculate the corresponding CO<sub>2</sub> emission reductions. This program has improved our operational reliability by reducing unplanned downtime, contributing



to our emissions-reduction targets. Additionally, we have initiated a pilot program to test high-performance GHG abatement units, aiming to maximize emissions reduction while avoiding the use of fossil fuels, so allowing for alternative energy abatement.

Energy intensity per net revenue

	2023	2024
Total energy consumption from activities in high climate impact sectors per net revenue from activities in high climate impact sectors (MWh/€ thousand)	33.8	32.6

\*All ASM activities are in scope of high climate-impact sectors.

We have also invested in environmental software solutions to facilitate, automate, and streamline our environmental data reporting, including comprehensive GHG emissions calculations, ensuring accurate tracking and assurance of our environmental data.

Overall, our energy efficiency and conservation initiatives, together with our renewable energy purchases, have resulted in a year-on-year reduction of 75% in CO<sub>2</sub> equivalent emissions. These achievements underscore our ambition to reach net zero by 2035 and demonstrate ASM's continued efforts to minimize our environmental footprint while optimizing operational performance.

ASM has set an energy efficiency and renewable electricity generation target for 2025 equivalent to 0.5% of 2024 electricity consumption. This target aligns with ASM's sustainability strategy and SBTi pathway.

The target is based on 2024 electricity usage and a pipeline of identified efficiency projects. Estimated savings are derived from vendor quotes and engineering

assessments. While project completion is what determines our target realization, ASM is actively pursuing their implementation and aims for the savings to be realized upon completion. These estimates represent best available science-based assumptions.

ASM's environmental team and site facilities collaborated to develop this target, ensuring an integrated approach. ASM will track and validate each project's impact, monitoring key metrics such as cost, expected savings, and environmental benefits. Progress will be reviewed to ensure alignment with sustainability commitments and disclosure obligations.

16.5 Supply chain emissions

A significant portion of ASM's Scope 3 greenhouse gas emissions comes from our supply chain. As a result, we have adopted a multi-pronged approach to decarbonizing our supply chain. Our strategy focuses on two key areas: 1) engaging our suppliers to increase transparency and reduce their emissions, and 2) optimizing materials usage and processes that inherently lower or avoid emissions in the supply chain

Supplier climate action

	2023	2024
% of critical/strategic suppliers reporting Scope 1 & 2 emissions	61%	67%
% of critical/strategic suppliers with GHG reduction targets (Scope 1 & 2, 2030 1.5° SBTi aligned)	N/A	21%

Engaging and educating suppliers to decarbonize

Building on the foundation set in 2022, when we first joined the CDP supply-chain program, we have continued to engage our critical and strategic suppliers to complete the CDP climate change disclosure annually. By 2024, 96% of our critical suppliers submitted their disclosures, which was an improvement from the 88% participation rate in 2023.

Despite this progress, data gaps persist. A review of the 2024 CDP climate questionnaires revealed that 33% of our critical and strategic suppliers still lack the ability to disclose both their Scope 1 and Scope 2 emissions (2023: 39%). ASM plans to continue to close these gaps through targeted engagement and tailored support, aiming to improve reporting quality and transparency across the supply chain in the coming years.

One key outcome of this enhanced supplier engagement is the growing awareness of the importance of renewable electricity access. As suppliers recognize the need for cleaner energy sources, ASM has been at the forefront of collaborative efforts to support them. Through our continued co-sponsorship of the Catalyze program, we are helping our suppliers gain access to renewable electricity options.

ASM is also encouraging supplier participation in industry initiatives like the Semiconductor Climate Consortium, fostering deeper collaboration and shared responsibility in driving sustainable progress throughout the semiconductor supply chain.

Avoiding emissions through materials savings

Next to a reduction in costs for our customers in operating the tool, our Complete Kit Management (CKM) program strategically focuses on materials conservation, which prevents emissions throughout our supply chain.

CKM offers an outcome-driven service to our customers that reduces the necessity for new materials through the systematic repair, refurbishment, and reuse of tool parts. By extending the functional lifecycle of durable tool parts, CKM achieves a notable reduction in emissions related to raw material extraction, processing, and transportation. Refer to section 12.3 'Product development' for more information on the CKM program.

In 2024, the CKM initiative further matured, enhancing its efficacy in mitigating supply-chain emissions. We expanded our internal refurbishment capabilities and identified additional components within our bill of materials that could be incorporated into the component refurbishment program. Through these efforts, the overall demand for new parts in existing tools continues to reduce through CKM services. The growing adoption of multi-year CKM contracts underscores its value, not only in maximizing operational efficacy but also in quantifiable reductions in supply-chain emissions.

Avoided supply chain emissions from materials savings

Year	Avoided GHG emissions per year through CKM materials savings (tonnes CO <sub>2</sub> e)
2020	81
2021	916
2022	1,807
2023	2,127
2024	2,592

# Catalyze

## Increasing renewable energy use across our entire value chain

**ASM is a founding sponsor of Catalyze, alongside Intel, Applied Materials, Google, and HP.**

Established in 2023, Catalyze is a pioneering initiative designed to drive the widespread adoption of renewable electricity across our global value chain.

Catalyze is poised to enhance the global availability of renewable electricity by accelerating the deployment of renewable projects through collaborative long-term sourcing agreements. The program also facilitates the pooling of energy needs, offering market access to companies without the capacity to engage in utility-scale power purchase agreements (PPAs).

With a strong focus on regions where ASM's suppliers operate, Catalyze is tied directly to our sustainability

**“Catalyze represents a collective step towards a more sustainable future, exemplifying industry leadership in the pursuit of renewable energy.”**



**Staci Curtis**  
Director Supply Chain Responsibility

roadmap to reduce emissions across key production nodes. The long-term ambition is to extend the reach globally, aligning with renewable-energy market opportunities.

### The Catalyze program

**Amplifies collective impact:** By consolidating energy purchasing power throughout the semiconductor value chain, Catalyze accelerates the implementation of renewable energy projects.

**Encourages inclusive supplier participation:** Recognizing that some suppliers may lack individual capacity, Catalyze offers them an opportunity to engage in the market for utility-scale power purchase agreements (PPAs).

**Strives for universal accessibility:** Open to any company within the semiconductor landscape that supplies to a Catalyze sponsor, the program promotes universal accessibility.

**Delivers education and digital initiatives:** At ASM we also use Catalyze as an educational tool to encourage measurable actions in supply chain decarbonization, furthering the industry's knowledge and dedication to sustainability and climate resilience.





# 17. People

At ASM, we strive to be a home for talent in the semiconductor industry. We aspire to not only be a great place to work but also a great place to grow. Our focus on 'Best People' is a core enabler of our Growth through Innovation strategy. We believe our workforce drives customer success by creating leading-edge semiconductor processes, products, and services that advance technology and improve people's lives. In 2024, we built on these foundations to strengthen our company culture and engage our people.

## 17.1 People practices

### Engaging our people

Following our pulse survey in 2023, we launched a full engagement survey in 2024 with an expanded scope. Led by our Chief People Officer, this survey focused on employee experience and perceptions in areas crucial for our continued success: our values, ACE behaviors (Accountability, Collaboration & Empowerment), and inclusion. We also refreshed the Inclusion Index and introduced a new Manager Index, which emphasizes the impact of managers on team engagement.

Our September 2024 survey achieved our highest-ever participation rate of 95%, surpassing all five previous surveys. This indicates that an increasing number of employees are willing to share their voice and see this survey as a relevant tool.

In addition to annual surveys, we engage our employees through multiple channels, including quarterly global

town-hall meetings with senior leadership, employee resource groups, and development dialogues. Our SpeakUp! program provides a confidential mechanism for reporting concerns about business conduct and human-rights violations, ensuring a safe and responsive platform for all our employees. Refer to section 19.2 'Ethics, Bribery, and Corruption' for more information on our whistleblower channel and raised concerns.

### Our 2024 engagement survey results

In another year of organizational growth and change, most engagement drivers remained stable, with positive improvements in areas such as total rewards, learning & development, and focus on excellence. As part of the deployment, managers were asked to discuss survey results with their respective teams, identify improvement areas, and develop action plans to strengthen ASM's working environment.

As one of the follow-up actions of our engagement survey, we aim to prioritize well-being more strongly, to support our ambition of building a high-performing and sustainable workforce that drives business success and fuels future growth. We aim to also cultivate more space for experimentation and learning from successes and mistakes. And lastly, to accelerate our journey to excellence, we strive to role model collaboration across our organization to foster a culture of shared success.

### Talent attraction and retention

Our refreshed employer brand – 'Ahead of what's next' – aims to capture our commitment to enhance employee engagement, foster employee growth and development, and cultivate a diverse and inclusive culture. This

strengthens employee engagement, promotes collaboration and empowerment, and delivers greater value to our customers, setting us apart from the competition.

Attracting and retaining our talent remains a critical focus for ASM as we expand and fortify our organization in alignment with our Growth through Innovation strategy. In 2024, we successfully integrated 588 new hires globally, increasing our overall headcount to 4,558. Despite the challenges posed by a competitive global labor market, we achieved a strategic expansion of our R&D workforce, which constituted 25% of our total headcount per the end of 2024.

Our initiatives to drive this growth have included targeted employer-branding campaigns, strategic engagement through social media platforms, and the further refinement of our career page, which is fully integrated with our corporate website, and designed to elevate the candidate experience. Additionally, we have maintained our investments in early-talent programs and cultivated our partnerships with industry associations to nurture the forthcoming generation of semiconductor specialists.

In parallel with recruitment efforts, reducing attrition remains an ongoing priority. In 2024, 527 employees left the organization. At 6.8% in 2024, our voluntary attrition rate remained consistent with 2023 (6.6%). The increase in involuntary turnover in 2024 reflects a strategic organizational re-design to reduce organizational complexity and optimize layers and spans of control. This enabled faster communication as well as an enhanced leadership capability. These actions are

aligned with our people transformation plan and support our ongoing commitment to operational excellence. We are committed to continuously reviewing and refining our total rewards strategy globally to ensure that our remuneration frameworks are competitive and compelling for current employees and prospective talent.

### Employee turnover in percentages

Employee turnover (%)	2023	2024
Voluntary	6.6%	6.8%
Involuntary	2.6%	4.8%
<b>Total attrition</b>	<b>9.2%</b>	<b>11.6%</b>

### Our Global Employment Standards

Our organizational commitment is formalized through the Global Employment Standards (GES) and our Human Rights policy, which define ASM's approach to upholding human rights and labor standards throughout our global operations. Both policy documents are publicly available to all employees and encompass our key principles such as equitable compensation for work of equal value, adherence to working time regulations, the elimination of forced labor, and the prohibition of workplace discrimination. We make sure these standards are upheld through onboarding training and periodic refresher sessions, cultivating a deep understanding among our employees of their rights and responsibilities. Our Global Employment Standards and Human Rights policy align with international frameworks, including the United Nations Guiding Principles (UNGPs) on Business and Human Rights, the International Labor Organization's (ILO) conventions, and the Responsible Business Alliance

- (RBA) Code of Conduct. These frameworks inform our practices on several critical dimensions:
- The explicit prohibition of forced or involuntary labor, including human trafficking, and payment of any recruitment fees;
  - Doing our most to achieve a workplace devoid of discrimination or harassment predicated on race, gender, sexual orientation, national origin, disability, age, or other characteristics, including equal rights and opportunities, including remuneration and promotion of employees based on individual merit, results, potential, skills, and experience;
  - Prohibition of child labor, with global policies to prevent employment for individuals under the age of 18;
  - Cultivating a workplace free of corporal punishment, coercion, threats, or harassment; and
  - Compliance with all applicable wage and hour legislation, including regulations related to minimum wages, overtime, and collective bargaining.

In keeping with the tenets of our Global Employment Standards, ASM strives for all employees globally to be compensated with an adequate wage that meets or exceeds the requirements for a decent living standard. Our 2024 assessment was in line with applicable benchmarks, including the Anker methodology, for which we utilized data from Wageindicator. The results showed that an adequate wage and living wage was paid to 100% of our employees globally.

Our rewards philosophy is centered on recognizing the value that each individual brings to the organization, and ensuring fair and competitive compensation that reflects local market conditions, employee skills, experience, and performance. We are committed to a holistic rewards strategy that encompasses not only base pay, but also performance-related incentives, comprehensive benefits, and opportunities for professional growth. This

approach underscores our commitment to the well-being of our workforce, enabling them and their families to meet essential needs while also supporting long-term career development within ASM.

Our CEO pay ratio in 2024 was 35.

**Human rights due diligence**

Human rights due diligence is central to our ethical approach to business operations. Our due diligence protocols involve a systematic periodic review of the risk mapping of potential issues, also in case of mergers and acquisitions. For our operations, this starts with validated annual assessments for all manufacturing and R&D sites, identifying potential risks associated with human rights and labor practices. Where risks are identified, we implement comprehensive audits and corrective measures without delay. In 2024, these assessments indicated a low-risk profile across all ASM sites, with no reported violations of human-rights standards. A deep-dive audit at our manufacturing location in Singapore in August 2024 identified several opportunities to strengthen the site's approach to preventing human rights risks. The site has a mitigation plan in place, which is aimed for completion in early 2025. Our other sites do not have required mitigation plans in place. Our commitment to sound labor practices remains paramount, and we continuously strive to enhance our due-diligence processes to safeguard the well-being of our workforce in accordance with international benchmarks.

As per our Human Rights policy, in cases where it has been identified that ASM caused or contributed to an adverse human-rights impact, we aim to provide for, or to cooperate in, appropriate remediation. We will also take action to prevent future harm through learning from

this process and by taking steps to mitigate future impacts.

ASM's 5-step approach to human-rights due diligence



17.2 Diversity, equity, and inclusion

**Inclusion as a foundation**

At ASM, we are committed to building an inclusive culture where all colleagues contribute to driving strong business results, while bringing their best to ASM - a place where everyone is valued and treated with

respect. We are convinced this will help us enhance problem-solving, increase innovation, and create excellence as a standard. We also believe in meritocracy when making hiring, performance, or promotion decisions.

Our clear expectations of people managers and individual contributors define high standards, and our values and behaviors aren't just words – they're our playbook for success. One of our key priorities in our people transformation strategy is to strengthen ASM's culture to drive business growth. Embracing diversity, equity, and inclusion is what sets us apart, ensuring every individual feels respected, valued, and empowered to contribute meaningfully.

The ASM Diversity, Equity, and Inclusion (DE&I) policy, launched in February 2024 as a replacement to our previous diversity policy, captures our commitment to treating every employee with respect and dignity. We strive for a workplace free from discrimination, based on race, color, ethnicity, national origin, social origin, sex, gender identity or expression, sexual orientation, religion, age, health status, pregnancy, neurodiversity, physical or mental disability, or political affiliation. Harassment, bullying, abuse, or threats of any kind are not tolerated. This policy underlines our ambition to foster an environment in which everyone can work without fear and thrive.

In 2024, we advanced our DEI multi-year strategic roadmap by expanding on our reskilling and upskilling initiatives. We aim to continue our reskilling and upskilling in 2025, amongst others with targeted training for our talent acquisition team, People Partners and People managers



Our global unconscious bias and psychological safety training engaged over 1,000 employees in 2024, fostering a more aware and empathetic culture. These topics were also a focus in our LEAD Ahead program to increase manager excellence. Through these initiatives,

we aim to ensure every employee feels respected, valued, and equipped to contribute to ASM's goals.

In 2024, we expanded the reach and impact of the ASM Women's Initiative Network (WIN), which connects many

Diversity, equity, and inclusion (DE&I)



Diversity

We embrace all the ways that make each of us unique and accept everyone for who they are, so that our diversity of thought can ignite innovation to make us stronger

Equity

We choose to identify and eliminate barriers that prevent us fully participating, so everyone can have access to equal opportunities to thrive and succeed in their ASM journey

Inclusion

We want to create a safe space and invite everyone to contribute and share their voice so that they feel respected, valued and supported

Belonging

We want everyone to feel accepted and connected as a valued member, so that we can be ourselves – bringing our authentic self to work to do our best everyday.

employees across our regions. WIN initiatives are designed to support female talent, foster leadership, allyship, and drive gender inclusivity in the workplace. Highlights from 2024 included skill-building workshops, networking events, and family days. These initiatives contribute to building a sense of community and belonging.

Beyond WIN, our Employee Resource Groups (ERGs) continue to be vital in creating an inclusive culture focused on connection, belonging and allyship. These voluntary groups, initiated and led by employees, currently include WIN, SHADES, the Sustainability Ambassador Network, and We Care, with plans to expand based on the interests of our ASM employees. These ERGs are integral to promoting a workplace that recognizes and embraces the diverse experiences and perspectives of our employees. To our leadership, they also provide insight into the perspectives of employee groups who may be more vulnerable or marginalized.

**Equal pay**

We strive to provide equitable opportunities for all our employees while ensuring advancement and recognition are based on individual merit and performance. Our DEI initiatives are integrated into core people processes, including recruitment, performance reviews, promotions, and compensation. We have developed a global DEI framework that guides local initiatives and informs our global action plans.

In 2024, we implemented several actions to promote equity, including 'hiring manager interview training' across Asia, the US, and Europe, to minimize unconscious bias in the recruitment process. We also launched a referral program aligned with International Women's Day and International Women in Engineering

Day to attract female talent. To further our commitment to equity, members of the Executive Committee have been mentoring female talents, focusing on professional growth and career development. In 2024, we expanded these efforts by designing a leadership acceleration program for women, aimed at expediting their readiness for leadership roles at ASM.

In our pursuit of equity, ASM continuously assesses the gender-pay ratio across all levels, ensuring fairness in our remuneration practices. Our gender-pay review is a formal part of our annual performance evaluation, providing transparency and accountability in compensation and promotion processes.

Equal remuneration results

	2023	2024
Gender pay gap - average	0.98	0.98
Gender pay gap - median	0.98	0.97

**Diversity in perspectives**

We have witnessed progress in the representation of diverse nationalities within ASM, growing from 66 nationalities in 2023 to 69 in 2024. As a global company operating in 15 key locations, we are committed to increasing diversity across all levels of our organization.

To drive gender diversity, we focus on three segments: the Supervisory and Management Boards, Sub board (287 employees, 6% of total), and All employees. For our Supervisory and Management Boards, our DE&I policy aims for no single gender to hold more than two-thirds of seats. Per the end of 2024, our Supervisory Board achieved 43% (3/7) female representation, while the Management Board consisted of two<sup>12</sup> men.

<sup>12</sup> Until May 2024, the Management Board comprised three members (all men)

We aim to increase female representation across all levels of our organization. At the Sub board level, which includes directors, vice presidents, and senior leaders, female representation remained at 17% in 2024, consistent with our 2022 baseline of 17%. Our aim is to increase female leadership representation to 20% by 2025 and 25% by 2030. For our entire workforce, we have set a parallel goal of achieving 20% female representation by 2025 and 25% by 2030. In 2024, female representation grew to 18%, up from 17% in 2023, marking steady progress.

These targets were set by management in 2022 per ASM's baseline levels and an industry benchmark. It was subsequently approved by the Supervisory Board.

Gender diversity across our organization

Group	Headcount (Female)		Headcount (Male)	
	2023	2024	2023	2024
Sub board	17%	17%	83%	83%
Senior managers	18%	23%	82%	77%
Managers	23%	24%	77%	76%
Senior professionals	19%	20%	81%	80%
Professionals	19%	18%	81%	82%
Para-professionals	5%	5%	95%	95%
STEM-related positions	9%	10%	91%	90%
All employees	17%	18%	83%	82%

Age diversity

Age diversity within our workforce is an important element of our inclusion efforts. Employees from different generations bring unique perspectives and strengths, contributing to a well-rounded organizational culture. Our commitment to fostering an inclusive

environment extends to ensuring representation across all age groups, from early-career professionals to seasoned experts.

Age diversity across our organization

Distribution of employees by age group (%)	2023	2024
Under 30	15%	14%
>30 and <50	66%	67%
Over 50 years	19%	19%

Workforce demographics

As a global company, our workforce is composed of employees from diverse regions, and encompasses a variety of contract types, predominantly permanent employees, but also contingent workers. We did not employ people on a non-guaranteed hours basis. Our diversity enables us to maintain a dynamic and adaptable workforce that can meet the evolving needs of our customers.

Workforce demographics in numbers

Employee headcount	By region			
	America	Europe	Asia	Total
Total	1,337	665	2,630	4,632
Permanent	1,337	646	2,575	4,558
Temporary	0	19	55	74
Full-time	1,336	612	2,572	4,520
Part-time	1	34	3	38

Employee headcount	By gender		
	Female	Male	Total
Total	838	3,794	4,632
Permanent	827	3,731	4,558
Temporary	11	63	74
Full-time	812	3,708	4,520
Part-time	15	23	38

By embedding DEI into every aspect of our operations, we continue to strive for a workplace that is innovative, empowering, and inclusive, where each individual, regardless of background, feels valued and has the opportunity to contribute to our collective success.

Top 5 countries by headcount

Country	Number of employees (headcount)
United States	1,337
Singapore	1,064
South Korea	493
Taiwan	408
Japan	330

# Women in leadership

Driving business growth through diversity, equity, and inclusion

Why it matters

- At ASM, we recognize that diversity powers innovation and creativity, leading to shared success.
- Our Women in Leadership program accelerates talent development as part of our focused leadership portfolio.
- This program reflects our commitment to building an inclusive culture and creating opportunities for equitable growth.

Program overview

- Practical leadership tools, exclusive dialogues with Board leaders, and cross-functional networking opportunities across global teams.
- Two-day in-person program in a key business location followed by virtual masterclasses.

Participant impact

- Participant satisfaction: 9.0/10
- Content relevance: 9.2/10



“The Women in Leadership program equipped me with insights and practical skills for navigating gender dynamics, and fostering an inclusive leadership style that drives results.”



Judith Schrijver-Koning

Corporate Director, Business Control

## 17.3 Skilled workforce

### Talent and leadership development

At ASM, we recognize that long-term career progression and skill development are essential to retaining our talented workforce and supporting our organizational growth. In 2024, we remained committed to empowering our people through comprehensive talent and leadership-development initiatives aimed at both upgrading skills and fostering future leaders within ASM. We offer a variety of development programs that ensure the right knowledge is available at the right time, as well as support for both technical and leadership growth.

While we do not have a dedicated global policy for training and skills development, we have chosen an approach that prioritizes individualized growth to support tailored development opportunities that align with the unique needs of each individual.

### Learning programs and employee skill-building

Our approach to learning and development is based on the 70-20-10 model, which emphasizes that 70% of learning occurs through on-the-job experiences, 20% through coaching, mentoring, and networking, and 10% through formal training programs. This balanced model ensures that employees learn by doing, receive valuable guidance from mentors, and have access to structured learning opportunities to enhance their skills. This principle is embedded across our development initiatives, enabling ASM employees to grow effectively and contribute meaningfully to our goals.

To maintain our competitive edge and technological leadership in the semiconductor industry, we invest in skill development and knowledge dissemination across our workforce. This includes access to our in-house technical development centers across different regions,

offering specialized deposition technology training tailored to different employee roles and skill levels. In addition, employees have access to scientific journals and industry publications such as IEEE Xplore, Elsevier, AIP, and TechInsights, supporting continuous learning and keeping our workforce informed of the latest industry developments.

One of ASM's top priorities is equipping managers to lead the business effectively at scale. In today's dynamic business environment, being a people manager requires adopting new skills and mindsets to coach, inspire, and lead their teams with purpose. Our new LEAD Ahead program is designed to accelerate this readiness while offering managers a platform to collaborate, share best practices, and establish a unified approach to team leadership at ASM.

In 2024, 83% of managers completed Levels I and II of the LEAD Ahead program, delivered through virtual and in-person sessions to foster peer collaboration. In total, more than 7,600 training hours were invested by managers to elevate their leadership skills.

In 2024, we also updated our leadership development curricula based on our ASM Leadership Success Profile, combining internal expertise with external faculty for greater impact. Our 'Develop Ahead' program accelerates leadership development for mid-career professionals through hands-on learning and structured feedback, with business leaders serving as coaches. Alumni may opt for internal mentoring to strengthen their skills. We achieved a 91.5% satisfaction rate from the first edition of 'Develop Ahead', with 24 professionals taking part in the program, investing 384 hours.

Women in Leadership accelerates women's leadership growth and fosters connections across the organization. The program strengthens future-focused leadership



skills, builds change management capabilities, and develops talent strategies. Participants create professional networks and personalized career roadmaps while learning from diverse peers – 20 women leaders attended the first edition, achieving a 90% satisfaction rate.

Performance management and career development

Performance management is a critical element of our skilled workforce strategy. At ASM, every employee undergoes a structured annual performance review process that includes setting objectives at individual, team, and company-wide levels. These objectives contribute directly to performance-based incentives, ensuring alignment between employee performance and ASM's strategic goals.

Our performance review process involves mid-year check-ins, year-end evaluations, and 360-degree feedback mechanisms, promoting transparency and facilitating constructive dialogue between managers and their teams. In addition to these formal performance cycles, ASM is stimulating an agile performance-management approach. This unstructured approach supports managing employee performance and development throughout the year rather than relying solely on annual or bi-annual reviews. Agile performance management is collaborative, involving regular conversations and continuous feedback. It not only focuses on achieving annual performance outcomes but also emphasizes the process of getting there, regularly revisiting objectives, identifying barriers, and ensuring effective performance.

In 2024, 99% of our employees took part in performance- and career-development reviews, ensuring that every individual receives feedback on their

performance and has opportunities to align their growth objectives with ASM's goals. This participation rate was consistent across genders, demonstrating our commitment to equitable career development opportunities for all employees.

Employees that participated in annual performance and career development reviews

	2023	2024
Male	100%	99%
Female	99%	98%
<b>Total employees</b>	<b>100%</b>	<b>99%</b>

Training and development metrics

ASM tracks key metrics to ensure the effectiveness of our learning initiatives. In 2024, the average number of training hours per employee was 32 hours. This investment in training reflects our dedication to providing relevant and accessible opportunities for professional growth across our workforce.

Average training hours for our global workforce

Gender	Avg. training hours per employee	Technical training hours
Male	35	48,888
Female	18	4,215
<b>Total employees</b>	<b>32</b>	<b>53,103</b>

The disparity in average training hours between men and women stems from the representation of men in specific roles that require a higher-than-average amount of training annually. For example, in roles such as field service engineering, where training demands are highest, women currently represent 9% of the workforce. The difference therefore reflects function-based training requirements rather than unequal access to development opportunities.

17.4 Health, safety, and employee well-being

Our vision for health and safety

At ASM, our vision is ZERO HARM! – meaning we believe all incidents and injuries are preventable and that health and well-being are fundamental rights for all. This vision is embodied in our Occupational Health & Safety (OHS) policy, which guides our actions in creating a safe, healthy, and supportive environment for everyone working with or for ASM. This policy is available on our [website](#). We strive to care for the safety of our employees, contractors, and partners while ensuring safe operations within ASM and across our value chain.

Occupational Health & Safety (OHS) management system

Our OHS management system is designed to cover all aspects of occupational health and safety across our operations. In line with international standards such as the Responsible Business Alliance (RBA) Code of Conduct and other leading frameworks, our system ensures compliance with applicable legal requirements while being grounded in our vision of ZERO HARM!. In 2024, 100% of ASM employees and on-site contractors were covered by this system, ensuring their safety and well-being are actively managed.

Our management system is based on a structured, globally harmonized framework that includes hazard identification, risk assessment, and safety leadership across all operations. The system integrates internal inspections, proactive risk identification measures such as Safety Management by Walking Around (SMBWA), and regular Good Catch reporting, with the aim to ensure the early detection of potential risks and the effective implementation of preventive measures. External verification of our health, safety, and well-being

management system is planned to be conducted in 2025 according to ISO 45001 standards, providing an independent assessment of our compliance and performance at all our R&D and manufacturing locations.

We also prioritize and integrate action plans with quantified targets to address identified health and safety risks. These action plans are monitored and evaluated to assess progress in reducing or preventing health issues or risks against established targets. To further enhance our preparedness, we have integrated emergency response actions, including trained Emergency Response Teams (ERT) to manage incidents effectively at our key production and R&D sites.

Well-being and work-life balance

At ASM, we recognize that employee well-being is integral to our success. Our working hours and employee well-being policies adhere to local regulations, and align with the RBA guidelines, which dictate a workweek of no more than 60 hours, including overtime, with at least one day off per seven days. To ensure compliance and promote a healthy work-life balance, we actively monitor the hours of our employees that work in manufacturing.

In 2024, we were able to meet RBA working hours standards globally. Our global absenteeism rate remained low at 1% in 2024 (2023: 1%), indicating the effectiveness of our well-being initiatives, which include promoting mental and physical health, and providing access to comprehensive health services. These initiatives are aimed at fostering an environment where our employees can thrive, both professionally and personally.



## Safety leadership and culture

Safety is everyone's responsibility at ASM. Our safety leadership initiatives are built around empowering all employees, regardless of role, to take ownership of their health and safety practices. In 2024, we reinforced our commitment through the 7Es of Safety Leadership program, which includes 'Engage' as the 7th 'E', emphasizing the importance of active engagement in safety practices. Our Safety Leadership Award continues to recognize employees who contribute significantly to creating a safe work environment, reinforcing positive safety behaviors and leadership.

We maintain a safety culture that is both proactive and participatory. Employees are encouraged to call a 'Stop Work' if they encounter a potentially unsafe situation, and actively participate in safety committees and working groups across our sites. Our safety engagement includes sharing best practices and data transparently. In 2024, we extended our safety-leadership collaborations to new customers, promoting a culture of continuous improvement in health and safety performance.

## Safety leadership awards 2024

### Design Engineer - Italy

Making our products and inspiring colleagues to be safer.



### Manufacturing Manager - Korea

Eliminating risks for an overall safer ASM.



### Design Engineer - The Netherlands

Meticulous attention to safety detail in engineering our products.



### Service Engineer - United States

Engaging customers and driving innovative safety.



## Key safety programs

To drive our ZERO HARM! vision, ASM focuses on several key safety programs and strategic initiatives:

### Continuously improving our safety systems

ASM uses a structured procedural approach to investigating health and safety incidents and exposures. Our SHIELD platform continues to be an essential tool in managing safety data, incidents, and performance. The system integrates various mechanisms for conducting an investigation, starting with forming the right team qualified to lead the investigation. It also allows for effective tracking and predictive capabilities, which are crucial for reducing health and safety risks. The OASIS system, first launched in 2022, supports product safety by managing risk assessments and safety validations throughout product development, ensuring safety by design.

### Training our employees to be safety leaders

Safety is not just a part of 'safety training'. We embed it in equipment-specific training, so it is part of the equipment maintenance and manufacturing experience, and not something only covered by policy. This way, we are increasing the knowledge of safety risks, associated with the equipment being used, in job tasks to reduce the potential for future incidents with the equipment. We also engage every new employee around the basics of safety during our new-hire orientation course. This is in addition to the safety training specific to working in high-hazard areas or conditions.

In 2024, we enhanced our Advanced Safety Training program, reaching over 3,000 employees globally. This program empowers teams with practical knowledge, fosters awareness, and prepares them to respond confidently to real-world challenges. Updated quarterly, materials incorporate the latest regulations and technology, making safety knowledge actionable.

In addition, we believe in practical application and engagement, ensuring training reflects daily operational realities. Toolbox talks, formal safety modules for high-risk areas, and scenario-based sessions are key components of our approach to safety training.

### Rolling out our strategic plan

Our multi-year strategic plan, which launched in late 2023, aims to elevate ASM's safety culture, achieve a leading safety performance, and inspire improvements across the industry. The plan focuses on leadership, data-driven learning systems, key risk areas, and enhancing safety through innovation.

### Targeted risk reduction

Specific areas such as R&D labs, manufacturing, and global service environments represent our highest health and safety risks. We implement multi-dimensional risk-reduction plans that focus on these areas by directly addressing risks and making procedural improvements.

### Collaboration and industry engagement

We continue to play an active role in the broader industry to promote safety. Our engagement with SESH and our continued role as president, as well as being a top tier (Titanium) sponsor, reflect our dedication to contributing to industry standards, good practices, and sharing knowledge that can enhance safety globally.

## Our 2024 performance

ASM is committed to transparency and the continuous improvement of our health and safety performance. Our safety performance is measured by the total injury rate, which includes all injuries requiring first aid or more. In 2024, our total injury rate was 0.47 cases per 100 employees (2023: 0.48), above our target of 0.37.

Our recordable injury rate, which includes injuries requiring medical treatment beyond first aid, restricted

work, or lost work days, was 0.22 (2023: 0.28), compared to a target of 0.17. While this metric indicates improved results compared to the previous year, it falls short of our targets. We remain committed to achieving ZERO HARM!

Health and safety results from our own workforce

	2023	2024
Number of fatalities related to work-related injuries and work-related ill health	0	0
Recordable work-related injuries	13	11
Recordable work-related ill health	0	1
Recordable work-related injury rate	0.28	0.24
Injury rate	0.48	0.47
Lost workday injury rate	0.11	0.06
Days lost from work-related injuries and ill health and related fatalities.	54	22

Throughout 2024, we aimed to ensure that safety was top of mind. Each quarter, there were review meetings of Lab, Manufacturing, and Service strategic plans and progress. Health and safety continued to be a standing topic for the Executive Committee meetings. Such reviews focused on our success in reducing and preventing the recurrence of issues from prior incidents or exposures.

While the total injury rate remained close to last year's performance, we noticed a 45% drop this year in more serious injuries occurring, which lead to lost work-days. We believe this drop is due to our efforts of proactive risk mitigation, as well as the increased attention to

safety through growing engagement, making it more top of mind for our colleagues globally.

Looking ahead

Recognizing the importance of sustained improvement, we are transitioning from annual total injury rate targets to a long-term, multi-year strategy focused on reducing total recordable injury rates. This shift allows us to take a more comprehensive approach to workplace safety, emphasizing continuous progress rather than year-over-year fluctuations. By committing to a multi-year target, we can implement more impactful safety initiatives, strengthen proactive risk-mitigation efforts, and foster a lasting safety culture across our global operations.

By 2030, we aim to achieve a recordable injury rate of 0.15, representing a 38% reduction from our 2024 baseline result of 0.24. This target applies to all employees and contractors globally and aligns with international occupational health and safety standards. Our strategy integrates preventative safety measures, ergonomic risk reduction, and behavioral safety programs to drive continuous improvement, in alignment with our 7E framework. Progress will be monitored on a quarterly basis through incident tracking and internal safety audits, with annual disclosures in our public annual reports.

# 18. Supply chain responsibility

ASM is dedicated to upholding human rights and ensuring safe and fair working conditions throughout its supply chain. We prioritize freely chosen employment, workplace safety, and the right to rest for all workers, collaborating closely with our suppliers to consistently maintain these standards.

## 18.1 Supply chain overview

ASM recognizes that our business impact goes beyond our direct operations, reaching across our global network of suppliers. These suppliers provide the critical materials and services that support our ongoing success. Understanding the context of our supply-chain environment – geographic disparities, industry-specific dynamics, and vulnerabilities in commodity sourcing – has informed the policies and practices we have implemented to mitigate risks and uphold responsible conduct across our supply chain.

### Geographic and commodity risk overview

From a geographic risk perspective, ASM's suppliers are located globally, which introduces a range of risk factors associated with different regions. Evaluations of supplier responses, complemented by third-party assessments of human-rights risks, have led to the identification of several geographies within our Tier 1 supply chain that exhibit higher risks for forced, child, or compulsory labor. These geographies include China, Malaysia, Mexico, and Vietnam, where certain suppliers conduct manufacturing activities for ASM.

In addition to geographic risks, ASM directly (Tier 1) and indirectly (Tier 2+) sources several commodities known to be at a higher risk for unsafe working conditions and excessive working hours. These commodities include minerals like tin, tungsten, tantalum, gold, cobalt, copper, mica, silver, and zinc, as well as materials and goods such as ceramics, electronics, glass, iron, rubber, rubber gloves, sand, silicon, sapphires, textiles, and timber. Given the complexities inherent in assessing risks for each specific commodity, ASM is actively expanding its value-chain assessments to better understand these risks and identify areas for mitigation.

### Industry demand fluctuation and its potential impact

As a key player in the semiconductor value chain, ASM, along with our direct material and service suppliers, is subject to the cyclical nature of demand profiles from our end customers. This demand variability presents particular challenges for suppliers relying heavily on manual labor and those that have a high dependence on the semiconductor industry. Fluctuations in demand can lead to increased incentives for excessive working hours, loss of rest days, and heightened use of foreign, migrant, or temporary workers.

In times of economic downturn, reduced demand may force suppliers to adjust their workforce, resulting in reduced working hours, lower associated wages, and even furloughs or layoffs. To mitigate these cyclical effects, we have developed a long-range planning forecasting process that enhances our ability to anticipate and prepare for demand shifts. Additionally, we aim to establish contractual agreements that require

suppliers to carry inventory to smooth out demand cycles and improve lead times.

We also encourage suppliers to consider labor needs that are consistent with appropriate working hours and rest periods while designing their production capacities.

### Supply chain insights

	2023	2024
Total # of ASM suppliers	>1,000	>1,000
# of critical and strategic (C/S) direct materials suppliers	80	87
# of indirect materials and services suppliers in scope of	n.a.	21
% of total spending covered by C/S suppliers	0.58	0.63
% of total spending covered by indirect suppliers in scope of sustainability program	n.a.	0.06

### Policies governing supply-chain risks

At ASM, we establish clear expectations for our suppliers concerning the treatment of workers in their operations and the responsible sourcing of high-risk minerals throughout the upstream supply chain. These expectations require suppliers to not only comply but also ensure that their own supply chains uphold these standards. To formalize these requirements, we have developed three foundational policy documents: (1) the Supplier Code of Conduct policy statement, (2) the Responsible Minerals policy statement, and (3) the Human Rights policy. All three documents ensure that we align with international standards and ethical

business practices, such as the United Nations Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises.

Our responsible supply chain management strategy employs a risk-based approach, enabling us to prioritize engagement with suppliers identified as being at a higher risk of non-compliance with our standards. In instances where non-compliance is detected, ASM works collaboratively with these suppliers to implement effective remediation measures. This process is governed by a predefined escalation mechanism that is based on Responsible Business Alliance (RBA) best practices. It is designed to facilitate corrective actions and bring suppliers into alignment with our expectations. If suppliers fail to meet minimum sustainability requirements within a set timeframe, it will affect their performance scorecard and trigger progressive escalations, which may include restrictions on new business opportunities and, in some cases, the termination of their business relationship with ASM. In reverse, if suppliers perform well on sustainability, this will be positively reflected in their scorecards, which in turn contributes to contract awarding.

The sustainability requirements for suppliers are assessed annually and deployed throughout the commodity organization. This helps ensure our purchasing practices are aligned with the requirements set forth in our policies.

**Supplier Code of Conduct and Human Rights policy statements**

ASM's Supplier Code of Conduct and Human Rights policy statements mandate that all Tier 1 suppliers comply with standards based on the RBA Code of Conduct. This code, along with our Human Rights policy, are linked to key international frameworks such as the United Nations Guiding Principles on Business and Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the Universal Declaration of Human Rights. These policies articulate clear expectations for suppliers in relation to individual rights, worker treatment, environmental footprint minimization, responsible sourcing of high-risk minerals, and cascading these standards through their own supply chains. The Supplier Code of Conduct and our Human rights policy address fundamental labor and human-rights principles, which include but are not limited to:

- a. free and equal in dignity and rights;
- b. freedom from discrimination and equal pay for equal work;
- c. freedom from slavery and freely chosen employment;
- d. right to privacy;
- e. freedom of assembly and association;
- f. right to rest and leisure;
- g. right to safe and healthy working conditions, including access to clean water and sanitation;
- h. a clean, healthy, and sustainable environment;
- i. abolition of child labor; and
- j. access to remedy and grievance mechanisms

Our material impacts, risks, and opportunities are covered under the human rights principles c, f, and g. These policies establish behavioral norms and procedural requirements that we seek our suppliers to adopt to manage human-rights risks effectively.

The health, safety, and well-being of workers in the supply chain is important to ASM, as the conditions in

which supply chain personnel work must be safe and free of unnecessary risk. Our Supplier Code of Conduct also conveys this to our suppliers through both acceptance of the Supplier Code of Conduct and contractual language in purchase agreements.

**Responsible Minerals policy statement**

In addition to labor standards, ASM is committed to safeguarding human rights throughout our extended supply chain, with a particular emphasis on high-risk minerals. Our Responsible Minerals policy applies to all Tier 1 suppliers and aligns with the principles of the Responsible Minerals Initiative (RMI), the US Dodd-Frank Act, and the EU Conflict Minerals Regulation (2017/821). This policy targets Conflict-Affected and High-Risk Areas (CAHRAs) and mandates that direct suppliers source materials responsibly while adhering to relevant regulations. They are required to provide declarations through industry-standard mechanisms.

ASM employs recognized due-diligence frameworks, such as the OECD Due Diligence Guidance on Responsible Business Conduct, to identify and mitigate human-rights risks related to mineral sourcing. Any non-compliance with these frameworks must be disclosed by suppliers during reporting.

**18.2 Engaging our suppliers**

**Supply-chain risk assessments and due diligence**

ASM systematically assesses supply-chain worker risks through proxies like the RBA, RMI, and the Responsible Factory Initiative (RFI). These organizations provide crucial insights into worker-related risks within the supply chain and enable ASM to proactively address potential negative impacts. These insights allow us to consider the inherent sustainability risks associated with countries, commodities, and sectors.



**Responsible Business Alliance**  
Advancing Sustainability Globally

**About the Responsible Business Alliance**

Founded in 2004, RBA is a nonprofit of electronics, retail, auto, and toy companies supporting workers' rights and well-being in global supply chains. Members (like ASM) commit to upholding the RBA Code of Conduct and use RBA tools for continuous improvement in social, environmental, and ethical responsibility.

RBA engages with workers, governments, civil society, investors, and academia to gather perspectives and drive progress towards a responsible global electronics supply chain. RBA and its Initiatives have over 500 members with combined annual revenues exceeding \$7.7 trillion, employing over 21.5 million people, with products made in 120+ countries. Tier 1 suppliers of the 500 members also implement the RBA Code of Conduct, creating a structural pass-down of the norms captured there.

As a member of these organizations, ASM is committed to leveraging their tools and adhering to best practices to facilitate continuous improvement across the supply chain in the space of labor practices, health and safety, ethics, and environmental management.

ASM also integrates third-party evaluations and data insights to identify vulnerable worker groups that may be at risk of human-rights violations. This informs our

efforts to continuously refine our risk-mitigation strategies, with a focus on the most at-risk worker populations. Through collaboration with industry initiatives, such as the RBA and RMI, we work towards enhancing supplier capabilities, with particular emphasis on improving compliance with human-rights standards.

**Engagement methods and tools**

To engage our supply chain effectively, ASM makes use of a variety of methods to assess and support our suppliers, ensuring they adhere to our human-rights standards. Methods include:

- Self-assessments and surveys: Suppliers are required to complete self-assessments to provide information on their practices, which helps ASM identify potential areas for improvement and tailor engagement efforts accordingly.
- Audits: ASM conducts audits through third-party organizations, to monitor adherence to our Supplier Code of Conduct. Suppliers are evaluated on high-risk areas as identified through our risk assessments.
- Training and capability building: ASM provides training to suppliers on human rights, labor standards, and safety. Our training initiatives focus on increasing supplier understanding and building capacity to meet ASM's expectations.
- Collaborative remediation: In instances of non-compliance, ASM seeks to collaborate with suppliers to develop corrective action plans. This approach aims to not only rectify specific issues but also build long-term supplier capabilities in meeting our standards.

Groups identified as higher risk for involuntary labor, health & safety incidents, and/or excessive working hours include:

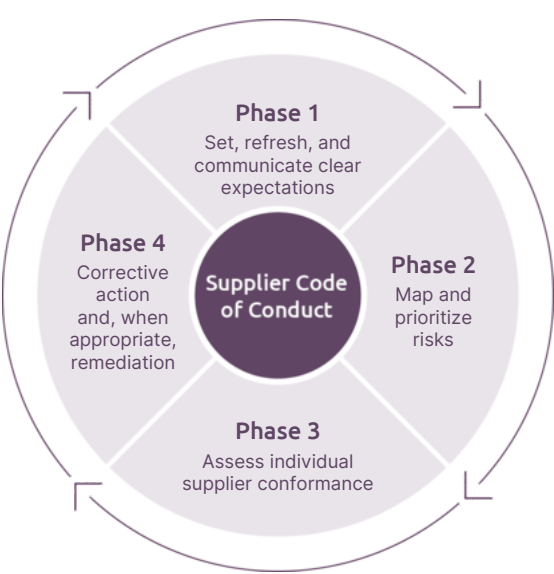


Vulnerable worker groups

	Identified in ASM's direct supply chains	Not identified in ASM's direct supply chains
Upstream	X (Minerals sourcing)	
Distribution providers		X
Franchisees		X
Retailers		X
Logistics	X	
Self-employed		X
Joint venture or special purpose vehicle		X
Home workers		X
Contract or temporary	X	
Union	X	
Young	X	
Female	X	
Foreign or migrant	X	

Our process for managing Code commitment, supplier self-assessment, auditing, and corrective action aligns with industry standards. The RBA Code requires appropriate management systems and risk-mitigation actions to ensure the well-being of workers at our suppliers, and in their respective supply chains. We developed a four-step approach through which we drive our engagement:

Key-supplier compliance process



Our engagement activities focus on the supplier companies, versus individual workers.

Prioritization of supplier engagement

ASM's engagement approach is informed by a structured prioritization process that identifies which suppliers require the most attention based on risk assessments. This prioritization is managed through the Supply Chain Sustainability Management Forum, which comprises executives from ASM's global supply chain and sustainability teams. The forum is responsible for ensuring alignment with ASM's broader corporate sustainability goals and for implementing targeted interventions where they are most needed.

To ensure accountability and a cohesive approach, the Director for Supply Chain Sustainability oversees the forum, which regularly reports to the Sustainability

Leadership Council. This integrated governance structure allows ASM to maintain alignment with our corporate objectives and continuously refine our supplier-engagement strategies to achieve optimal outcomes.

Grievance mechanisms and whistleblower protection

ASM places a strong emphasis on providing accessible grievance mechanisms for workers in our supply chain. Our whistleblower channel is available to all stakeholders, including supply-chain workers, allowing them to report any issues confidentially and without fear of retaliation. Refer to section 19.1 'Corporate culture and ethics' for more information on our channel. ASM also requires suppliers to implement similar whistleblower mechanisms that ensure confidentiality, anonymity, and protection for employees. The effectiveness of these mechanisms is assessed through supplier audits, which often include direct worker interviews to verify accessibility and reliability. In addition, we expect the utilization of these tools to serve as a key indicator of trust in such processes. Higher usage rates reflect increased worker confidence in our ability to address their concerns effectively and fairly.

In addition to our internal mechanisms, ASM benefits from our participation in RBA and RMI programs, which also provide anonymous channels for raising concerns. These multi-channel grievance systems ensure that supply-chain workers have multiple avenues to report grievances and contribute to the continuous improvement of working conditions throughout our value chain.

Tracking effectiveness of our supplier engagement

ASM is utilizing 2024 as a baseline year to assess our supplier-engagement efforts. Based on this data, we aim

to develop concrete targets in 2025 to enhance our strategies and performance. We aim to assess the effectiveness of our remediation efforts through multiple performance indicators, which provide comprehensive insights into critical areas of worker welfare and supply-chain sustainability. We will measure the supplier's risk and progress through RBA Self-Assessment Questionnaire( SAQ) responses, RFI assessments, Code of Conduct Audits, Minerals Reporting Templates, and other relevant assessments as needed.

Our targets will be linked to year-over-year percentage improvement at supplier sites in the following focus areas:

- risk for major health and safety incidents;
- involuntary labor exposures;
- risk of child labor or young worker non-compliance; and
- chance of violating requirements on rest days and working hours standards.

In addition, we will work toward year-over-year improvement in the percentage of in-scope suppliers identifying high-risk Smelters or Refiners (SORs) in ASM's supply chain.

By assessing the changes to these metrics on an annual basis, we are able to monitor the impact of our engagement activities and adjust our strategies accordingly. By maintaining a data-driven approach, ASM ensures that our supplier-engagement programs contribute to reducing risks and improving the overall welfare of workers in our supply chain.

18.3 Taking action

In 2024, ASM implemented comprehensive measures to advance supply-chain responsibility, focusing on conducting risk assessments, enhancing supplier compliance, and building supplier capabilities to align with our Supplier Code of Conduct and sustainability goals. These initiatives reflect ASM's commitment to mitigating human-rights risks throughout our supply chain.

Supplier Code of Conduct commitment and assessment

By the end of 2024, 94% of our critical and strategic suppliers had formally committed to adhering to our Supplier Code of Conduct, covering 85% of our direct material spend. We also required our key suppliers to complete the RBA Self-Assessment Questionnaire (SAQ) for relevant manufacturing sites, providing a thorough assessment of compliance across our value chain.

In 2024, 87% of the requested suppliers completed the RBA SAQ. Among the 87 critical and strategic suppliers who completed the SAQ, nine were classified as high-risk.

Supplier audits and follow-up monitoring

ASM continued its focus on the risk-based sampling of our supply chain through third-party audits, leveraging the RBA's Validated Assessment Program (VAP) to ensure supplier adherence to ASM standards. These audits aimed to ensure compliance with critical human-rights standards.

Supply chain engagement results

	2023	2024
Suppliers acknowledging our Supplier Code of Conduct		
Total # of surveyed suppliers	80	103
% of direct material spending covered by surveyed suppliers	82 %	85 %
% of surveyed suppliers that acknowledged our supplier code of conduct	99 %	94 %
% of requested supplier facilities who completed RBA self-assessment	76 %	87 %
Involuntary labor at ASM suppliers		
# of supplier sites with reported incidents of involuntary labour*	n/a	6
Health & Safety at ASM suppliers		
# of supplier sites reporting work related serious injuries and fatalities*	n/a	4
Working hours at ASM suppliers		
# of supplier sites with reported incidents of egregious working hours or insufficient days of rest*	n/a	2
Supply Chain Worker Voice		
# of Supplier/Supplier Worker issues identified and dispositioned through ASM grievance process (captured through ASM's SpeakUp! channel, RBA or other)	0	0
Total # of Supplier Workers that have been through an RBA on-site audit (or other equivalent social audit)	n/a	6893

\* pending verification

Supplier capability building

ASM invests in building the capabilities of our suppliers, ensuring they are equipped to meet our expectations. Through initiatives like the Responsible Factory Initiative and our supplier-development programs, we provide in-depth technical support to improve the sustainability performance of our suppliers. This includes remote and on-site education sessions, training, and resources to help suppliers improve their performance, their code of conduct compliance, and to close out corrective improvements most effectively.

Our worker safety vision on ZERO HARM! also applies to our suppliers. ASM's safety and supply-chain leadership are committed to helping suppliers to further develop their health & safety programs, and in cases of new supplier selection, making sure those suppliers have appropriate measures in place before bringing them into ASM's value chain. In addition, where safer chemicals or materials can be used, we look to incorporate those opportunities into our product development.

Training initiatives

Throughout 2024 we organized a series of training sessions, with 286 suppliers taking part in our dedicated sustainability training programs. Additionally, we held seven webinars to share best practices in adhering to codes of conduct and reporting conflict minerals. Apart from training our suppliers, we also organized several in-person trainings to equip our global procurement organization and local facilities teams with the skills to effectively engage suppliers on safety and labor practices.

Responsible Factory Initiative

Since 2023, our supplier-development program includes the use of the RBA's Responsible Factory Initiative. This program focuses on the development of a supplier's code of conduct conformance through a multi-phased

approach: Education-oriented gap assessment, deep training for key facility personnel, and coaching through the development and execution of corrective action plans. ASM is also invested in the future success of this industry program by participating in the RFI's Advisory Council.

In 2024, six of ASM's suppliers joined the program, to enhance their sustainability maturity through education programs and targeted capability-building support.

Capability-building activities

	2023	2024
Number of suppliers participating in the Responsible Factory Initiative program	5	6
Number of supplier attendees that joined ASM's sustainability training sessions	359	286
Number of webinars hosted for suppliers in which sustainability best practices are shared	10	7
% of commodity managers trained on sustainability	88 %	93 %

Conflict Minerals survey results

Each year, we survey our suppliers to identify and map the sources of tin, tungsten, tantalum, and gold (3TG) minerals that are used by our critical and strategic suppliers. For the latest survey cycle, completed in May 2024, 96% of surveyed suppliers responded with a Conflict Minerals Reporting Template (CMRT) or confirmed there are no instances of 3TG in their products.

Conflict Minerals survey results

	2023	2024
Total # of surveyed suppliers	70	77
% surveyed who responded	99%	96%
% who declared no 3TG	45%	42%
# of suppliers with high risk SORs reported	24	28
YoY change in % of suppliers with high risk SORs (in p.p.)	n/a	2
Top 5 countries of origin for 3TG minerals (as identified by smelters or refineries)	China, Brazil, Japan, Canada, Chile	China, Brazil, Australia, Indonesia, Japan

A review of the most recent supplier CMRT submissions shows that 68% of suppliers reporting 3TG are meeting ASM standards for quality of the program. A total of 28 suppliers reported high-risk SORs in 2024. This is driven by an increase in the overall number of smelters/ refineries reported by our suppliers and flagged as High-Risk (2 percentage point increase year-over-year).

We are actively working with our impacted suppliers to develop their Conflict Minerals programs and proactive plans to reduce dependence on high-risk SORs. Smelter and refinery risk is determined based on a combination of geographic risks (sourcing from conflict-affected and high-risk areas), audit status (conformance), and other identified sourcing risks (such as credible third-party sources).

# 19. Business conduct

**We aspire to the highest standards of business conduct and to fostering a positive corporate culture. Sound ethical practices are a key component of our company culture, management, and behavior.**

## 19.1 Corporate culture and ethics

Our company culture is expressed through our core values – We Care, We Innovate, We Deliver – as well as our day-to-day behaviors in the workplace. These behaviors center around a workplace that fosters Accountability, Collaboration and Empowerment (ACE).

- Accountability is showing up, accomplishing the things you said you would do and taking personal responsibility for your work
- Collaboration is working together to complete a project or task or develop ideas or processes.
- Empowerment is enabling our people to have the authority, resources and support to make decisions and take actions that affect their work and contribute to ASM's success.

We believe that strong adhesion to our core values and behaviors is key to fostering our positive corporate culture. All employees are expected to role model ACE and always act with integrity. We promote open communication and regularly engage with employees to gather feedback and address their concerns.

In 2024, we took further steps to integrate our ACE behaviors into our way of working by making them part of our performance-management process, allowing employees to reflect on their behaviors and explore ways to foster teamwork and drive personal growth. We also incorporated ACE into our leadership development training. Recognition programs and performance incentives are designed to reinforce positive behavior and motivate employees to achieve excellence.

To further support ASM behaviors, ASM's management system includes 18 underlying business-conduct policies, including fair competition, gifts, entertainment and hospitality, corruption and improper advantages, and anti-fraud. All of these policies apply to our Management Board, Executive Committee, employees worldwide, consultants, contractors, temporary employees, and critical and strategic suppliers.

Our policies are available on our company website, and are designed to promote ethical behavior and integrity in all aspects of our operations. These include:

### Code of Business Conduct policy

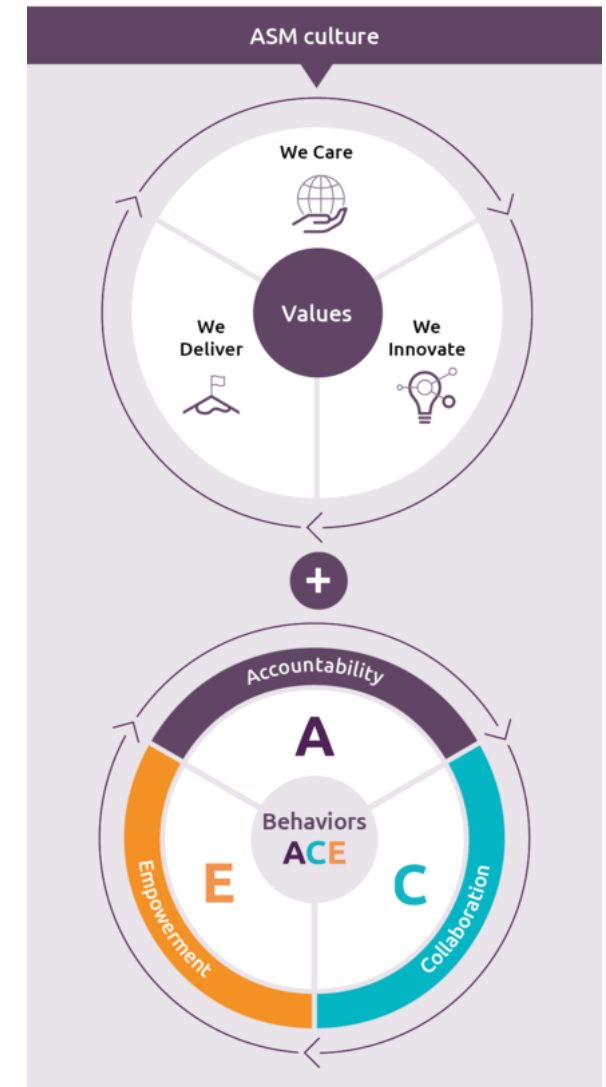
The ASM Code of Business Conduct (COBC) incorporates the RBA Code of Conduct standards framework. Our COBC outlines the principles and standards that govern our business conduct. It provides clear guidance on ethical decision-making and reinforces our commitment to legal compliance, transparency, and accountability. All employees are required to adhere to this code at all times and to speak up in case they observe misconduct.

### (Anti-)Bribery and Corruption policy

We have a zero-tolerance approach to bribery and corruption. Our policy prohibits any form of bribery, whether direct or indirect, and applies to all employees, suppliers, and business partners. ASM periodically conducts audits to ensure adherence to this policy and uses a suite of measures to prevent and detect any unlawful behavior.

### SpeakUp! procedure (whistleblower protection)

Our publicly available SpeakUp! procedure ensures that all reports are treated confidentially and investigated promptly and independently. We have established secure channels for reporting concerns for internal and external stakeholders, such as the third-party hosted SpeakUp! channel. We are committed to always protecting the rights of whistleblowers. Our way of working is set up in accordance with the EU Directive 2019/1937 that helps ensure proper protection measures are in place.





19.2 Ethics, Bribery, and Corruption

Training

The deployment of our business conduct policies comes with training for all employees, including part-time employees and contractors, in multiple languages. The training is designed to effectively promote desired behavior, not just reinforce rules. It also outlines the potential consequences of violations through our disciplinary policy. To support the training, we provide various resources, including a dedicated intranet page, reference materials, and tools for specific areas, such as gifts and entertainment registration, as well as the SpeakUp! procedure – an anonymous channel for reporting concerns or violations of the COBC.

We also provide dedicated anti-bribery and corruption training for those functions considered by nature to have higher exposure to associated risks. At ASM, these include our sales and procurement departments, with employees receiving online training that explains associated policies and tools that help ensure proper conduct.

In 2024, Management Board and Supervisory Board members were offered online refresher trainings on fraud, bribery, and corruption to enhance their up-to-date understanding of associated risks and responsibilities. Content understanding of bribery and corruption are also captured in the Supervisory Board skills matrix which can be found in chapter 24. There, they are integrated under the category 'Governance and Legal Affairs'.

Code of Business Conduct trainings

Category	Target audience	% training completed
Ethics training refresher (bi-annual)	All employees	92 %
Ethics training	New employees	95 %
Anti-Corruption and Bribery training	At-risk functions	97 %

Managing business conduct risks

Our approach to managing anti-bribery and anti-corruption (ABAC) risks aligns with the company's risk-management and internal-control framework, which is based on the three lines of defense model (further detailed in chapter 25 of this report). The Executive Committee, entrusted with risk management and compliance, is supported by operational management (first line), oversight functions (second line), and Internal Audit (third line) to effectively identify, mitigate, and monitor ABAC risks.

Speaking up

The SpeakUp! program remains a vital platform for ASM employees and stakeholders to report business conduct issues confidentially and in their preferred language. As part of its risk-management responsibility, the Executive Committee oversees business conduct at ASM and has established the Ethics Committee – made up of regional leaders from the Legal, People, and sustainability departments – to operationalize the business conduct program and make sure it is deployed globally. The Ethics Committee is supported by the Chief People Officer and General Counsel, with Internal Audit taking part as an independent observer and advisor.

The Ethics Committee ensures effective follow-up to concerns that have been raised, the independence of investigators through ensured separation of the chain of management involved, increased awareness of our Code of Business Conduct, maintenance and deployment of investigator training materials, and support in investigations as needed. Reports of potential violations of our COBC can be made through the SpeakUp! process, directly to management, the People team, or the Global Compliance Officer.

To ensure ongoing compliance and effective risk management, ASM conducts annual ESG desktop audits of its major locations, that also cover our business ethics program. Where needed, we cover deep-dive assessments.

In 2024, 27 concerns were reported (2023: 14), an increase of 93% from 2023. This rise in reported cases signals a growing awareness and trust in the Ethics Committee among our employees, as our utilization rate grew to 0.58. Based on Navex's 2024 Whistleblower & Incident Management Benchmark report, we consider this a positive development as we move towards the median range for utilization.

Of the reported cases, one case was related to discrimination but found to be unsubstantiated. Eight cases were confirmed as violations of our COBC, with five cases still under investigation. Our actions in response to code of conduct violations, including discrimination, can take different forms, including a verbal warning, a written warning, a poor performance review or evaluation, a mandatory training, or a termination. In 2024, actions taken in response to confirmed violations included targeted training, coaching, and, in some cases, dismissal. None of these cases related to discrimination, or to bribery and corruption.

In 2024, there were no convictions and, consequently, no fines for violation of anti-corruption and anti-bribery laws.

Updates on the outcomes of investigations and the status of business-conduct measures, including in relation to anti-bribery and corruption, are reported quarterly to the Management Board, and bi-annually to the Supervisory Board. These updates include reports on significant incidents, findings, actions taken and, depending on the nature of the situation, are provided by the Chief People Officer.

2024 breaches of our code of conduct

Type of complaint	2024 confirmed breaches
Corruption or bribery	0
Discrimination or harassment	0
Employee behavior & workplace respect	7
Customer privacy data	0
Conflicts of interest	1
Money laundering or insider trading	0

# 20. EU taxonomy

## EU Taxonomy explanation

The EU Taxonomy Regulation (EU 2020/852) provides a common language and methodology that helps companies and investors identify 'environmentally sustainable' economic activities.

Companies falling under the Corporate Sustainability Reporting Directive (EU 2022/2464) are required to report on the EU Taxonomy, in accordance with the Climate Delegated Act (EU 2021/2139), Disclosure Delegated Act (EU 2021/2178), Complementary Climate Delegated Act (EU 2022/1214), and Environmental Delegated Act (EU 2023/2486).

Since 2021, companies need to report on the key performance indicators (KPIs) for the proportion of their eligible activities considered to be 'green', or in EU Taxonomy terminology 'aligned' with the six environmental objectives described in Annexes I-IV of the Environmental Delegated Act (EU 2023/2486):

- Climate change mitigation (CCM);
- Climate change adaptation (CCA);
- Sustainable use and protection of water and marine resources (WTR);
- Transition to a circular economy (CE);
- Pollution prevention and control (PPC); and
- Protection and restoration of biodiversity and ecosystems (BIO).

The relevant KPIs for eligibility and alignment are reported as the proportion of turnover, capital

expenditure (capex) and operating expenses (opex) in line with the EU Taxonomy delegated acts.

### Assessment 2024

In 2024, ASM again assessed its economic activities in line with the EU Taxonomy regulation. The evaluation indicated that eligibility of most of our economic activities falls under CE and in small parts under CCM objectives. For alignment with EU Taxonomy, ASM identified a current gap in the Minimum Safeguards requirements, which it expects to resolve in 2025. As a result, no further alignment assessment was conducted.

While ASM reports eligibility under the climate change mitigation (CCM) objective (7.7 Acquisition and ownership of buildings), it is noted that ASM has the potential to be an enabler in reducing the carbon footprint of its customers and end-use customers. ASM's technology and innovation allows its customers and, in turn, their customers down the value chain to introduce electronic devices with superior performance and lower energy consumption. ASM's innovative R&D activities, aimed at continuously improving technologies to help deliver further energy reductions, are a key enabler in this.

ASM does not have any nuclear energy- or fossil gas-related activities and the Complementary Climate Delegated Act of the EU Taxonomy is therefore not relevant.

The EU Taxonomy KPI disclosure templates for turnover, capex and opex are provided at the end of this chapter.

### Turnover

The EU Taxonomy requires alignment with the financial reporting standards. For ASM, this means that the turnover under the EU Taxonomy is equal to 'Revenue' included in the Consolidated statement of profit or loss in the IFRS financial statements.

Although this is the fourth year for reporting, ASM underlines that the taxonomy is still evolving. Furthermore, one specific category within the EU Taxonomy (manufacturing of low-carbon technologies (3.6)) close to the activities of ASM, is subject to interpretation. As in previous years, ASM applied a strict interpretation, which requires that products are directly aimed at substantial GHG-emissions reductions in other sectors of the economy, not being customers down the value chain. Therefore, none of the turnover was considered eligible for this specific economic activity.

Similar to last year, ASM identified economic activities that are described under the CE objective. The cornerstone of ASM's circular approach is the modular design of our products, enabling a system to upgrade to a higher performance level without replacing the entire product. Extending the lifetime of ASM products is also possible by repairing systems.

ASM's revenue can be broken down into sales of systems, spare parts, and services. Within those categories, ASM identified the revenue streams that are associated with the following activities described in the EU Taxonomy:

- 1.2 Manufacture of electrical and electronic equipment, associated with ASM's core activity of

manufacturing semiconductor wafer-processing equipment;

- 5.1 Repair, refurbishment, and remanufacturing, associated with ASM's activity of parts refurbishment and extending product lifecycles through upgrades or refurbishment; and
- 5.2 Sale of spare parts, associated with the sale of spare parts for systems manufactured by ASM.

No other material categories in relevant economic activities were identified. As such, ASM reports that 90.6% of its turnover is eligible under the CE objective. Compared to 2023 EU Taxonomy disclosure (91%), the results are similar and consistent.

ASM employs a prudent approach in assessing which economic activities could be eligible and potentially aligned in the future under EU Taxonomy regulation. For this reason, ASM does not include revenues from installation and qualification as eligible activities, although it is part of any equipment sale. This ASM approach was strengthened by the latest Draft Commission Notice released on November 29, 2024.

### Capital expenditure (capex)

The KPI of capex encompasses certain ASM investments during the financial year before amortization and re-measurements. The total capex under the EU Taxonomy consists of the following IFRS financial statement line items:

- Additions in property, plant, and equipment (Note 3);
- Additions in intangible assets (Note 6); and
- Additions to right-of-use assets (Note 2).

The other elements of the capex denominator in the Disclosure Delegated Act are not applicable to ASM.

Through the assessment in 2024, it was concluded that a large part of ASM's capex relates to machinery and equipment that is essential to ASM's revenue-generating activities. Since a significant portion of ASM's revenue can be directly associated with the activity 1.2 Manufacture of electrical and electronic equipment, as outlined in Annex II (CE) of the Environmental Delegated Act, asset classes linked to machinery and equipment qualify for inclusion under this category. The eligible amount considered by us includes the capitalized R&D costs, expenses on machines and equipment, demo equipment, tools for customer evaluation before a purchase, and machines, equipment, computers, and tools under construction.

Investments in buildings meet the definition of the economic activity 7.7 Acquisition and ownership of buildings, as specified in the Climate Delegated Act, Annex I (CCM). Specifically, this activity includes capitalized expenditure on buildings and right-of-use assets, improvements, furniture and fixtures, as well as buildings and leaseholds under construction.

No other material capital investments in relevant economic activities were identified. As such, ASM reports that 91% of capex is eligible under the CCM and CE objectives.

In 2024 ASM updated our EU Taxonomy capex KPI assessment by incorporating higher quality data and adopting a more granular approach for calculating the numerator. These updates are in line with the Draft Commission Notice released on November 29, 2024, and developing reporting practices, related to the purchase of output from Taxonomy-aligned economic activities. This has resulted in a more detailed and

accurate evaluation of our capital expenditures, better aligning our investments with the EU Taxonomy criteria.

Due to these improvements, the share of capex activities eligible under EU Taxonomy increased. In line with the change of our methodological approach, we restated our EU Taxonomy capex KPI for 2023 to €314 million (94%) eligible but not aligned capex.

**Operational expenditure (opex)**

The opex KPI reporting under the EU Taxonomy focuses on non-capitalized direct costs related to research and development, building renovation measures, short-term leases, maintenance and repair of buildings and machinery, and other day-to-day servicing of assets necessary for their continued effective functioning. The opex denominator includes the following categories of operational expenditure for ASM:

- Building maintenance expense;
- Machinery maintenance expense;
- Cleaning and housekeeping of ASM facilities;
- Facilities-repair expenses; and
- Non-capitalized R&D expenses.

The R&D and machinery maintenance expenses are directly linked to ASM's turnover-generating activity. Consistent with the capex approach, these related expenditures were consequently classified as eligible under the target activity 1.2 Manufacture of electrical and electronic equipment CE objective. In 2024, an assessment revealed gaps in evaluating non-capitalized R&D expenses, especially including staff cost directly employed in R&D. Due to a change in this methodology approach, we restated our EU Taxonomy KPI in 2023 to €274 million (100%) eligible but not aligned opex.

In 2024, the assessment also concluded that building maintenance, cleaning and housekeeping, and facilities repair expenditures should be included in EU Taxonomy

disclosure. All these expenditures were identified as economic activities eligible under 7.7 Acquisition and ownership of buildings, as specified in the Climate Delegated Act, Annex I (CCM).

No additional material operating expenditures in relevant economic activities were identified. As such, ASM reports that 100% of opex meets the eligibility criteria under the CCM and CE objectives.

**Looking forward**

In 2025, ASM is preparing for the next phase of EU Taxonomy reporting. As mentioned above, we aim to resolve the current gaps in Minimum Safeguards requirements, among others, in relation to policies covering the entire reporting year. This is a critical step in aligning our economic activities within the current EU Taxonomy framework.

We conducted a comprehensive review of ASM policies and practices against the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, which resulted in our inaugural Human Rights policy, published in Q4, 2024.

ASM has been performing an assessment of its current initiatives related to the EU Taxonomy environmental objectives to assess whether they support alignment with Substantial Contribution criteria and Do No Significant Harm (DNSH) criteria, as well as the Minimum Safeguards. Certain gaps were identified in this preliminary review.

ASM remains committed to enhancing sustainability practices and ensuring transparency in our reporting. Through ongoing assessments of our economic activities and resolving gaps, we aim to better align with the EU Taxonomy framework in the future.







Opex

Financial year N	2024			Substantial Contribution Criteria						DNSH criteria									
	Code (2)	OpEx (3)	Proportion of OpEx, year N (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards	Proportion of Taxonomy-aligned (A.1) or eligible (A.2) OpEx, year N-1 (18)	Category enabling activity (19)	Category transitional activity (20)
Economic Activities (1)		mEUR	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Opex of environmentally sustainable activities (Taxonomy-aligned)		0	0.0 %														0.0 %		
of which Enabling		0	0.0 %														0.0 %	E	
of which Transitional		0	0.0 %														0.0 %		T
A.2 Taxonomy-eligible but not environmentally sustainable (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Acquisition and ownership of buildings	CCM 7.7	6	2 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2 %		
Manufacturing of electrical equipment	CE 1.2	319	98 %	N/EL	N/EL	N/EL	N/EL	EL	N/EL								98 %		
Opex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		325	100 %	2 %	0 %	0 %	0 %	98 %	0 %								100 %		
A. Opex of Taxonomy eligible activities (A.1+A.2)		325	100 %	2 %	0 %	0 %	0 %	98 %	0 %								100 %		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Opex of Taxonomy-non-eligible activities		0	0.0 %																
Total		325	100 %																



# Leadership and governance

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# 21. Corporate governance

ASM aspires to high standards of corporate governance and ethics practices. Sound corporate governance is a key component of our culture, behavior, and management, and this is consistent with our core values: We Care, We Innovate, We Deliver. Our corporate governance is supported by a strong focus on integrity, transparency, and clear and timely communication. This aims to support our business and meet the needs of our stakeholders.

We continue to review and update our policies and procedures to comply with the applicable Dutch corporate governance requirements – including the Dutch Corporate Governance Code (the Code)<sup>13</sup>, and other relevant laws and regulations – a dynamic and evolving landscape with frequent updates and new legislation, including in the field of corporate social responsibility and sustainability. In chapter 36 (Declarations) we give an overview of where we deviate from the Code and give the reasons for such deviations. ASM continues to monitor applicable laws, regulations and rules, and will be revising and enhancing its constitutional documents and policies with a view to ensure compliance with these.

## Corporate governance framework

The corporate governance framework describes how we embed ASM's strategy, mission, vision, and objectives across our organization. Our Code of Business Conduct (COBC) sets clear standards in different areas of business life. Its purpose is to provide a clear, strong,

and consistent culture of ethics that applies to all at ASM.

ASM's policies and regulatory framework guide how we work. Key components are our financial, ESG, IT, product safety, environment, health and safety (EHS), compliance, and business-continuity frameworks. These are supported by transparency and accountability through our business review cycles, our internal control framework, and our performance management cycle.

Our risk management approach enables us to identify and manage the strategic, operational, financial, sustainability (including climate), and compliance risks to which ASM is exposed. It also helps us develop even more effective and efficient operations. It promotes reliable financial and non-financial reporting and compliance with laws and regulations, increasing transparency and accountability.

Corporate governance-related documents are available on our [website](#), including:

- Supervisory Board Profile and skills matrix
- Supervisory Board Rules
- Management Board Rules
- Executive Committee Rules
- Audit Committee Charter
- Nomination, Selection and Remuneration Committee Charter
- Technology Committee Charter
- Remuneration policy for the Management Board

- Remuneration policy for the Supervisory Board
- Code of Business Conduct
- SpeakUp! procedure (Whistleblower policy)
- Policy Communications and bilateral contacts with shareholders
- Stakeholder dialogue policy
- Diversity, Equity & Inclusion policy
- Policy on prevention of fraud
- Rules concerning insider trading

## Corporate governance framework



\* Management Board, Executive Committee, and Supervisory Board and its committees

## Company structure

ASM International N.V. (with trade register number 30037466) is a limited liability company established under Dutch law and is listed on Euronext Amsterdam. It is a holding company and the parent company of the ASM group of companies. The company's management and supervision structure is organized in a two-tier system, comprising a Management Board, composed of two executive directors, and an independent Supervisory Board, composed of seven independent non-executive directors, which does not include an employee representative. The company also has an Executive Committee.

We conduct our business through wholly owned subsidiaries, including ASM Front-End Manufacturing Singapore Pte Ltd in Singapore, ASM Europe B.V. in the Netherlands, LPE in Italy, ASM America Inc. in the United States, ASM Japan KK in Japan, and ASM Korea Ltd. in South Korea. The location of our facilities allows us to interact closely with customers in the world's major geographical market segments: Europe, the United States, and Asia.

<sup>13</sup> Available on [www.mccg.nl](http://www.mccg.nl). For a list of deviations from the Code, please see chapter 36 Declarations.



## Management Board and Executive Committee

### Management Board

The Management Board is responsible for the day-to-day management of the company. The duties of the Management Board are stipulated by law and regulations, the company's Articles of Association and the Code. It manages and is responsible for defining and executing the strategy, including sustainable long-term value creation and managing the risks associated therewith. For more information on its responsibilities see the paragraph 'Responsibility and accountability of the Management Board' below.

When executing its tasks, it takes into account the interests of ASM's stakeholders. The Management Board has its own Rules of the Management Board as published on the [website](#). ASM's Management Board has divided the roles in line with the Articles of Association and approval from the Supervisory Board. The Management Board meets regularly to discuss, evaluate, and review the performance of the company. The Management Board held various meetings throughout 2024.

For certain matters, for example amending the Articles of Association and the issuance and repurchase of shares, the Management Board requires approval from the Supervisory Board, the General Meeting or both, in each case as set out in Dutch law, the company's Articles of Association and the Rules of the Management Board.

### Appointment of Management Board members

The General Meeting appoints a Management Board member based on a binding nomination drawn up by the Supervisory Board. The decision to nominate a member to the Management Board follows from the

recommendation by the Nomination, Selection and Remuneration (NSR) Committee. When considering candidates for the Management Board, the NSR takes into account the company's Diversity, Equity & Inclusion (DE&I) policy and the Rules of the Management Board. The General Meeting may set aside a binding nomination by a resolution taken with an absolute majority of the votes cast, representing at least one third of the share capital. If such a binding nomination is set aside, a new binding nomination will be drawn up by the Supervisory Board and submitted to a newly called General Meeting. If such binding nomination is also set aside, the General Meeting is free to appoint a Management Board member, but only with an absolute majority of the votes cast representing at least one third of our issued share capital.

Members of the Management Board are appointed for a maximum term of four years, expiring at the close of the Annual General Meeting held at the end of the term for which the member of the Management Board is appointed. Members of the Management Board may be reappointed.

All members of the Management Board have entered into a management services agreement (MSA) for the term of their assignment. The MSA also contains specific provisions with respect to severance payments in the event of termination in line with the Code. Reference is made to the Remuneration report (see chapter 26 of this Annual Report).

### Suspension or dismissal of Management Board members

The Supervisory Board may suspend a Management Board member at any time. In addition, a Management Board member may, in accordance with a proposal by the Supervisory Board, be dismissed by the General Meeting through a majority vote representing at least one third of the issued capital. A resolution to suspend or

dismiss a member of the Management Board, other than in accordance with a proposal of the Supervisory Board, requires the affirmative vote of a majority of the votes cast at a meeting. These votes must represent at least one third of the issued capital.

### Executive Committee

#### Appointment of other Executive Committee members

The Executive Committee comprises the Management Board members, as well as other senior executives. These senior executives are appointed by the Management Board following consultation with the Supervisory Board and further to the Rules of the Executive Committee and ASM's Diversity, Equity & Inclusion (DE&I) policy. The same applies with respect to the Executive Committee's size and composition.

#### Suspension or dismissal of Executive Committee members

The Management Board may suspend or dismiss a member of the Executive Committee subject to consultation with the Supervisory Board.

#### Tasks and responsibilities of the Executive Committee

The Executive Committee's responsibilities are divided based on business and functional areas, each of which will be reviewed regularly. The current business and functional areas are: sales, global operations and supply chain, products, and people. The Executive Committee has its own Rules of the Executive Committee as published on the [website](#).

The Executive Committee shall assist the Management Board in managing the company, in particular with the day-to-day management, including driving the strategic agenda, and in respect of compliance, leadership, culture, and sustainability.

The Management Board may delegate one or more specific tasks and duties to one or more Executive Committee members. The Executive Committee shall be guided by the interests of the company and its stakeholders in executing its tasks, taking the interests of all stakeholders into account. The Executive Committee members are accountable and report to the Management Board.

The Executive Committee is chaired by the Chief Executive Officer (CEO) and meets on a regular basis. In 2024, the Executive Committee met five times, sometimes in sessions taking multiple days. Meetings took place in person as well as via video call, taking into account sustainability and costs. All of the then current Executive Committee members attended the meetings. Meetings of the Executive Committee may be combined with Management Board meetings if so decided. The Management Board shall regularly, but at least once a year, review and assess the effectiveness of the Executive Committee's governance structure.

In 2024, the Executive Committee discussed market developments, investments and investment opportunities, strategic projects, succession planning of senior leaders, financials, cost reductions, global operations and the organization thereof, export controls, employee engagement and ASM's culture, the employee value proposition, and Diversity, Equity and Inclusion strategy, also in conjunction with its core values.

ASM focuses on developing a workplace that fosters Accountability, Collaboration and Empowerment (ACE), which the Management Board believes contributes to sustainable long-term value creation. For more, see chapter 17. Sustainability was also a recurring topic, including the effect ASM's products, services, and activities have had on people and the environment,

stakeholder management, and sustainability objectives. For more, see chapter 15.

**Responsibility and accountability of the Management Board**

Regardless of the activities of the Executive Committee and its role, the Management Board remains collectively responsible and accountable for the management of ASM. Its members are collectively and individually accountable to the Supervisory Board and the General Meeting for executing its responsibilities. The Management Board and the Executive Committee are responsible for providing the Supervisory Board with all the information it needs to fulfil its obligations and exercise its powers, and the General Meeting with all information it needs to exercise its powers in a timely fashion.

The Management Board is also responsible for the quality and completeness of financial, sustainability, and other (non-financial) reports that are publicly disclosed by or on behalf of the company, including all reports and documents the company is required to file. In addition to the duties of the Management Board stipulated by law and regulations and our Articles of Association, the Management Board has the following responsibilities:

- Achieving the aims, strategy for sustainable long-term value creation, policy, and results of ASM;
- Management of the operational, organizational, and financial objectives;
- The risk management framework, including managing the risks associated with the activities of ASM culture;
- Ensuring proper financing of ASM;
- Establishing and maintaining disclosure controls and procedures that make sure all major financial information is known to the Management Board so that the external financial reporting is achieved in a timely, complete, and accurate manner; and

- Determining relevant aspects and achieving aims relating to ESG and sustainability and reporting thereon in accordance with applicable laws and regulations.

**Supervisory Board**

The Supervisory Board supervises and advises the Management Board and Executive Committee in the execution of their tasks and responsibilities. The members of the Supervisory Board are guided by the interests of the company and its affiliates, through which the interests of the stakeholders are taken into account.

**Independence of the Supervisory Board**

Under Dutch law, the Supervisory Board is a separate body independent of the Management Board, which constitutes a so-called two-tier structure.

The members of the Supervisory Board assess their independence on an annual basis as set out in the Code, and confirm this in writing. All members of the Supervisory Board are to be regarded as independent on December 31, 2024.

**Tasks and responsibilities of the Supervisory Board**

- The Supervisory Board supervises and advises the Management Board and Executive Committee in executing their responsibilities, in particular regarding:
- The achievement of the company’s objectives;
  - The corporate strategy and the risks inherent in the business activities;
  - The structure and operation of the internal risk; management and control systems;
  - The financial reporting process;
  - The non-financial and sustainability reporting process;
  - The compliance with legislation and regulations;
  - The relation of the company to its shareholders; and
  - The relevant aspects of ESG and sustainability-related matters.

Apart from supervising and advising, the Supervisory Board must also approve important decisions by the Management Board. Such approvals include – but are not limited to – those with respect to: defining objectives of the company’s strategy, issuance and repurchasing of ASM shares, a proposal to the General Meeting to amend the Articles of Association, important acquisitions and mergers, and dividend payments. The Management Board, and where needed and so decided, the Executive Committee, provide all the information needed to be able to make these decisions. This allows the Supervisory Board to carry out its duties properly.

In addition to its supervision and advising role, the Supervisory Board establishes the Management Board members’ individual remuneration, within the boundaries of the Remuneration policy for the Management Board approved by the General Meeting and the recommendations by the Nomination, Selection and Remuneration (NSR) Committee.

**Appointment and dismissal of Supervisory Board members**

The members of the Supervisory Board are appointed by the General Meeting following a binding nomination drawn up by the Supervisory Board. The General Meeting may overrule the binding nature of a binding nomination at a General Meeting by an absolute majority of the votes cast, representing at least one third of the issued share capital. In that event, the Supervisory Board may draw up a new binding nomination to be submitted to a subsequent General Meeting. Should such a second nomination also be deprived of its binding character, then the General Meeting shall be free to appoint a member, provided that such a resolution shall require an absolute majority of the votes cast, representing at least one third of the company’s issued capital. In the event the second binding nomination is overruled without the required proportion of the capital represented – but an

absolute majority of the votes cast was in favor of overruling the binding nomination – then a new General Meeting shall be convened, at which the resolution may be passed by an absolute majority of the votes cast. The appointment of a Supervisory Board member is for a period of maximum four years and will last until the General Meeting at the end of the term. For reappointment, the candidate’s performance during the previous period shall be taken into account.

A Supervisory Board member who is available for reappointment must be interviewed by the Chair of the Supervisory Board and the Chair of the NSR Committee. The Chair of the NSR Committee must be interviewed by the Chair of the Supervisory Board. Following a first term, a member may be reappointed for a subsequent term of four years. Subsequently, a member who has served eight years on the Supervisory Board may be appointed for another two-year period, followed by another period of two years. However, the Supervisory Board must provide the reasons for such reappointment after eight years. The rotation schedule of the Supervisory Board members is included on the next page.

A member of the Supervisory Board may at any time be suspended or dismissed by the General Meeting. A resolution to suspend or dismiss a Supervisory Board member, other than in accordance with a proposal of the Supervisory Board, shall require an absolute majority of the votes cast representing at least one third of ASM's issued capital. If, however, the required proportion of the capital is not represented, but an absolute majority of the votes cast is in favor of a resolution to suspend or dismiss a Supervisory Board member, a new meeting shall be convened at which the resolution may be passed by an absolute majority of the votes cast, regardless of the proportion of the capital present at the meeting

All members of the Supervisory Board follow an induction program after their first appointment, in which financial, legal, financial reporting, and specific features, including technological, are taken into consideration.

Supervisory Board composition

In accordance with Dutch law and the Code, the Supervisory Board has drawn up a profile for its own composition. This Supervisory Board Profile is available

on our [website](#). For the selection of future members of the Supervisory Board, the Supervisory Board seeks candidates that support the realization of diversity as per the criteria mentioned therein, as well as in ASM's Diversity, Equity & Inclusion (DE&I) policy available on our [website](#), and complies with the diversity requirements in the Dutch Civil Code. Any appointment or reappointment to the Supervisory Board shall be based on the candidate's match with the Supervisory Board Profile. In case of a vacancy in the Management Board, the Supervisory Board prepares a profile based on the required educational and professional background. In the search, it will seek candidates that support the realization of diversity on the criteria set out in the DE&I policy.

The Rules of the Supervisory Board are available on our [website](#). The Supervisory Board determines the number of members required. The members should operate independently of each other. The Supervisory Board as a whole must be experienced in the management of an international, publicly-listed company, and have sufficient time available to fulfill the role. Moreover, the Supervisory Board members appoint a Chair from among

themselves. The Supervisory Board currently consists of seven members. In 2024, Monica de Virgiliis retired and Tania Micki and Martin van den Brink became members.

Supervisory committees

To more efficiently fulfill its role, and in compliance with the Code, the Supervisory Board currently has three committees: the Audit Committee, the NSR Committee, and the Technology Committee. The Supervisory Board may expand the number of committees as it deems appropriate in the discharge of its duties. The committees assist the Supervisory Board in performing its duties.

Committees structure and members

	Audit Committee	Nomination, Selection and Remuneration Committee	Technology Committee	Supervisory Board
Name				
P.F.M. van der Meer Mohr	M	M		C
M.A. van den Brink	M		C	M
S. Kahle-Galonske €	C	M		M
M.J.C. de Jong	M		M	M
D.R. Lamouche		C	M	VC
T. Micki €	M			M
A.T. Sanchez		M	M	M

C Chair M Member € Financial expert VC Vice Chair

Note: Ms De Virgiliis was part of the Audit Committee and Supervisory Board until the expiry of her term in May 2024.

Audit Committee

The Audit Committee assists the Supervisory Board in its responsibility to oversee, among others, ASM's financing, financial statements, financial reporting process, non-financial and sustainability reporting, and system of

internal business controls, risk management and internal audit function. The Audit Committee also advises the Supervisory Board on the nomination of the external auditor of the company.

The Audit Committee consists of:

- Stefanie Kahle-Galonske (Chair)
- Martin van den Brink
- Marc de Jong
- Pauline van der Meer Mohr
- Tania Micki

The Audit Committee supervises the activities of the Management Board and fulfills its supervision responsibilities with respect to:

- Integrity and quality of ASM's financial statements.
- Release of financial information.
- Accounting and financial-reporting processes and the audits of the financial statements.
- Release of sustainability reporting.
- Effectiveness and operation of the internal risk management and control systems, including supervision of the enforcement of the relevant legislation and regulations and supervising the operation of codes of conduct, the internal audit function regarding the financial reporting and where applicable the sustainability reporting, including its electronic reporting process.
- Applications of information and communication technology.
- Financing of the company.
- How sustainability commitments impact the ASM's financial statements.
- Compliance with recommendations and observations of internal and external auditors.
- Relations with the internal and external auditor and any other party involved in auditing the sustainability reporting, including, in particular, its qualifications,

performance, independence, remuneration, and any non-audit services performed for the company.

The Audit Committee meets periodically to:

- consider the adequacy and effectiveness of the internal risk management and control procedures;
- Review the operating results with management and the external auditors.
- Review the scope and results of the audit with the external auditors.
- Review the scope and results of internal audits with internal audit.
- Review performance evaluations relating to the auditor's independence.
- Review performance and services of the external auditor.
- Review adequateness of the financing structure and tax structure of the company.

The Chief Executive Officer, Chief Financial Officer, Senior Director Internal Audit, Vice President Group Control, and representatives of the external auditor are invited to, and also attend, the Audit Committee meetings.

Ms. Kahle-Galonske, Chair of the Audit Committee and member of the Supervisory Board, and Ms. Micki, who will become the Audit Committee Chair in 2025, are the financial experts, taking into consideration their extensive financial background and experience. The Charter of the Audit Committee is available on the ASM [website](#).

**Nomination, Selection and Remuneration (NSR) Committee**

The NSR Committee advises the Supervisory Board on matters relating to the selection and nomination of the members of the Management Board and Supervisory Board. Also, the Management Board consults the NSR

Committee on the appointment and dismissal of members of the Executive Committee and discusses the remuneration of the Executive Committee with the NSR Committee. Moreover, the NSR Committee is entrusted by the Supervisory Board to prepare and review onboarding of new Management Board and Supervisory Board members, training of the Supervisory Board, culture and diversity and inclusion matters within ASM. The NSR Committee further designs, monitors and evaluates the Remuneration policy for the Management Board and the Remuneration policy for the Supervisory Board. Moreover, the NSR Committee is entrusted with the preparation of the self-evaluation of the Supervisory Board and its committees and the performance evaluation of the Management Board members.

The NSR Committee consists of:

- Didier Lamouche (Chair)
- Pauline van der Meer Mohr
- Adalio Sanchez
- Stefanie Kahle-Galonske

The NSR Committee makes sure that a competitive remuneration structure is provided by benchmarking with other multinational companies of comparable size and complexity operating in comparable geographical and industrial markets. The NSR Committee evaluates the achievement of performance criteria specified per Management Board member. After the evaluation, it recommends the level of remuneration to the Supervisory Board.

On an annual basis, the NSR Committee reports to the Supervisory Board on the application of the Remuneration policy in the previous year, and recommends the Remuneration policy and Remuneration report for the following years.

The CEO and the Senior Vice President Global People are invited to, and also attend, the NSR Committee meetings, except that the NSR occasionally also meets with only NSR members. It is noted that the CEO in principle does not take part in meetings relating to his own remuneration.

The Charter of the NSR Committee is available on our [website](#).

**Technology Committee**

The Technology Committee assists the Supervisory Board in its responsibility to oversee, among others, the technology aspects of ASM's business strategy, i.e. technology trends and investments required, technical resources and operational performance in R&D, as well as ASM's annual R&D budget and material technology investments brought forward by the Management Board.

The Technology Committee consists of:

- Martin van den Brink (Chair)
- Didier Lamouche
- Adalio Sanchez
- Marc de Jong

Without prejudice to the collegiate responsibility of the Supervisory Board, also for all decisions taken by the Technology Committee, the Technology Committee is responsible for advising the Supervisory Board in relation to any of the following matters and proposed resolutions:

- Periodically overseeing the R&D budget and the decisions what projects to invest in.
- Reviewing the technology plans required to execute ASM's business strategy.
- Making recommendations to the Supervisory board on products and technology strategy brought by the Management Board to the Supervisory Board.

- Periodically overseeing the intellectual property portfolio and risk profile.
- Reviewing the technology-related aspects of investments brought to the Supervisory Board (which may include, but not be limited to, acquisitions of legal entities).
- Performing any other activities related to technology as the Supervisory Board shall specifically delegate to it from time to time.

The Charter of the Technology Committee is available on our [website](#).

**Diversity, equity, and inclusion**

The Supervisory Board attaches value to diversity among its members and the members of the Management Board and the Executive Committee, as further set out in ASM's DE&I policy. As set out above, in the case of open positions on the Supervisory Board or Management Board, the Supervisory Board prepares a profile based on the required educational and professional background. While the final selection is based on merit, in the search it will seek candidates that support the realization of diversity against the criteria set out in the policy.

Pursuant to the Dutch Civil Code:

- For Dutch companies listed on Euronext Amsterdam, a quota of at least one-third for both women and men on their supervisory boards apply. If a new appointment does not contribute to the gender balance, such appointment will in principle be declared invalid (null and void) if the company has not yet met the one-third quota.
- All large companies that meet the criteria set out in the Dutch Civil Code will need to set appropriate and ambitious gender-balance targets for the management board, supervisory board and other senior management. What the latter category consists



of, is up to the company to determine. Moreover, these large companies will need to have an action plan to achieve such targets. In addition, they will need to report annually to the Dutch Social Economic Council on the total number of men and women on the supervisory board, management board, and other senior management, the annual targets, and the aforementioned action plan.

Under the Code, companies are required to implement a broader diversity and inclusion policy. The policy should, in any case, set specific, appropriate, and ambitious targets in order to achieve a good balance in gender diversity and other company-relevant diversity and inclusion aspects with regard to the composition of the Management Board, the Supervisory Board, the Executive Committee and a category of employees in management positions ('senior management') to be determined by the Management Board.

ASM has defined the 'senior management' as referred to above as any person holding the position of 'Director' and up. In February 2024, ASM published its updated Diversity, Equity & Inclusion (DE&I) policy, including the aforementioned targets. Refer to Section 17.2 for more information.

**2024 gender-diversity numbers**

The Supervisory Board has discussed diversity with the Management Board, including gender diversity. For more information on the targets adopted for the male and female composition of the Supervisory Board, Management Board, Executive Committee, and senior management for 2024, as well as the actual numbers and the percentages and the plans to meet these targets, see section 17.2.

Based on the composition of our Supervisory Board, we have reached our target of 33% of the seats being held

by either gender at the same time in the Supervisory Board, currently the gender percentage is at 42.9% female members. Our Management Board currently stands at 100% male participation (also target of 33% of the seats being held by either gender at the same time). We have achieved diversity of background, with members of the Management Board having varied cultural and ethnic backgrounds, knowledge, skill sets, education, work background, and national origins, to name a few. In case of open positions in the Management Board, the Supervisory Board prepares a profile based on the required educational and professional background and in the search will seek for candidates that support the realization of diversity on the earlier mentioned criteria, including gender, with the final selection being based on merit.

The Executive Committee consists of one female member, and six male members. When the Executive Committee was established in February 2022, it was actually a formalization of the status quo, not a selection of new senior executives. This also means that there was no specific target for the Executive Committee at the time. In 2024, two new Executive Committee members were appointed from internal candidates. They already have the most senior positions in their area of expertise.

**General Meeting**

ASM's shareholders exercise their rights through Annual and Extraordinary General Meetings. ASM is required to convene an Annual General Meeting in the Netherlands each year, no later than six months after the end of the company's financial year, ending for ASM on December 31 of each year. This allows the shareholders to discuss the financial statements, management report, and any topics related to applicable laws and regulations. The Supervisory Board or Management Board may convene additional Extraordinary General Meetings at any time.

The convocation date is legally set at 42 days prior to the date of the General Meeting. The voting results are generally published on the ASM website within one week following the relevant Annual or Extraordinary General Meeting. The draft minutes of the meeting are published on the same site within three months following the meeting. In the event that no comments are received, the minutes are signed by the Chair of the Supervisory Board and the secretary of the meeting and made final.

**Powers**

The powers of the General Meeting are defined by Dutch law, the Code, and our Articles of Association. The main powers of the General Meeting are to:

- Appoint, suspend, and dismiss members of the Management Board and Supervisory Board;
- Approve the financial statements; declare dividends; adopt the Remuneration policy of the Management Board and Supervisory Board;
- Discharge the Management Board and Supervisory Board from responsibility for the performance of their respective duties for the previous financial year;
- Appoint the external auditors;
- Approve amendments to the Articles of Association after a proposal of the Management Board and the Supervisory Board (a copy of the proposed amendment will be available for inspection by every shareholder at the office of ASM free of charge);
- Authorize the Management Board to issue shares and grant subscriptions for shares;
- Authorize the Management Board to withdraw preemptive rights of shareholders upon issuance of shares; and
- Authorize the Management Board to repurchase or cancel outstanding shares.

**Voting rights**

At the General Meeting, each ordinary share with a nominal value of €0.04 entitles the holder to cast one vote, each financing preferred share with a nominal value of €40 entitles the holder to cast 1,000 votes, and each preferred share with a nominal value of €40 entitles the holder to cast 1,000 votes. Pursuant to Dutch law, no votes may be cast at a General Meeting in respect of treasury shares, i.e. shares which are held by the company.

There were no preferred or financing preferred shares issued on December 31, 2024. Financing preferred shares are designed to allow ASM to finance equity with an instrument paying a preferred dividend, linked to Euribor loans and government.

The record date is legally set at 28 days prior to the date of a General Meeting. Those who are registered as shareholders at the record date are entitled to attend the meeting and exercise voting rights. Shareholders may be represented by written proxy.

**2024 Annual General Meeting**

ASM held its Annual General Meeting on May 13, 2024. It was organized as a physical meeting, so shareholders could attend in person. Shareholders were also given the opportunity to vote through different means: (i) by providing a power of attorney with voting instructions prior to the meeting and (ii) electronically during the meeting while present in person. The attendance rate was 78.07% of the total issued share capital of ASM as at the registration date. The voting results and the minutes of the Annual General Meeting – and other Annual and Extraordinary General Meetings – are published on our [website](#).

During the Annual General Meeting of 2024, it was resolved to authorize the Management Board to issue shares or to grant rights to acquire up to 10% of the

outstanding shares in ASM as well as to restrict or exclude the pre-emption rights. This is, however, subject to approval by the Supervisory Board, and the authorization applies for 18 months.

### ASM shares

ASM's common stock trades on the Euronext Amsterdam Stock Exchange (symbol: ASM). ASM common shares, which are held in the United States as New York Registry Shares, trade on the OTC market.

The company's authorized capital amounts to 82,500,000 common shares of €0.04 par value, 88,500 preferred shares of €40 par value, and 6,000 financing preferred shares of €40 par value. As at December 31, 2024, there were 49,328,548 common shares issued and fully paid.

### Preferred and financing preferred shares

Preferred and financing preferred shares may be issued in registered form only and are subject to transfer restrictions. Essentially, a preferred or financing preferred shareholder must obtain the approval of the ASM Supervisory Board to transfer shares. If the approval is denied, the Supervisory Board will provide a list of acceptable prospective buyers who are willing to purchase the shares at a cash price agreed by the Supervisory Board and the seller within two months of the approval being denied. If the transfer is approved, the shareholder must complete the transfer within three months, after which time the approval expires. Preferred shares are entitled to a cumulative preferred dividend based on the amount paid up on such shares. Financing preferred shares are entitled to a cumulative dividend based on the par value and share premium paid on such shares.

### Stichting Continuïteit agreement

ASM is party to an agreement with Stichting Continuïteit ASM International (Stichting), pursuant to which the Stichting is granted an option to acquire up to a number of our preferred shares corresponding with a total par value equal to 50% of the par value of our common shares issued and outstanding at the date of the exercise of the option. The Stichting is a non-membership foundation organized under Dutch law. The objective of the Stichting is to serve the interests of ASM. For that objective, the Stichting may, among other things, acquire, own, and vote on preferred shares.

The members of the board of the Stichting are:

- Dick Bouma (Chair), retired Chair of the Board of Pels Rijcken & Droogleevers Fortuijn
- Rinze Veenenga Kingma, President of Archeus Consulting B.V.
- Elsbeth van Rhijn, lawyer
- Gosse Boon, (non-) executive board member and (lay) judge (expert member) at the Enterprise Court/Chamber Amsterdam.

The purpose of the above-mentioned option is to protect the independence, continuity, and identity of ASM against influences that are contrary to the interests of ASM, its enterprise, and the enterprises of all its subsidiaries and stakeholders.

Other than the above, the company has not established any other anti-takeover measures.

### Conflicts of interest

As provided for in the Rules of the Supervisory Board, a Supervisory Board member facing a conflict of interest, potential or otherwise, shall inform the Chair of the Supervisory Board immediately. The course of action shall be discussed in consultation with the other members of the Supervisory Board. The member facing

the possible conflict of interest shall not be part of these discussions.

Each Management Board member shall immediately report any potential conflict of interest to the Chair of the Supervisory Board and to the other Management Board members. In such cases, a Management Board member shall provide the Chair of the Supervisory Board and the other Management Board members with all information relevant to the conflict, and follow the procedures as set out in the Rules of the Management Board.

The provisions of the Rules of the Management Board regarding conflict of interest of Management Board members shall apply mutatis mutandis to members of the Executive Committee, provided however that a member of the Executive Committee not being a Management Board member, shall report any potential conflict of interest to the CEO. In addition, an Executive Committee member shall not participate in the deliberation and/or any decision-making, if his/her participation and/or decision-making would be contrary to applicable legislation, regulations and/or internal policies.

### Publication in English

The Annual Report, the financial statements, and other regulated information as defined in the Dutch Act on Financial Supervision ('Wet op het financieel toezicht') will only be published in English on our [website](#).

### External relations

At ASM we believe that an open dialogue with our external stakeholders is important. We provide accurate and timely information through, among other things, press releases, our annual reports, quarterly earnings calls and webcasts, and meetings. At these meetings we discuss the company strategy and performance, and request input for our materiality assessment. These meetings often include investors. Reference is made to

the policy regarding communications with shareholders, which can be found on our [website](#). Moreover, ASM has adopted a Stakeholder dialogue policy, which can be found on our [website](#), which covers interactions with internal and external stakeholder groups, specifically on the sustainability aspects of ASM's strategy. It provides a non-exhaustive overview of touchpoints between ASM and its stakeholders and covers its approach to engagement.

### Risk management and control framework

The Management Board ensures that the company has an adequately functioning internal risk management and control framework. A comprehensive risk management and control framework, based on the 'three lines of defense model', has been established. This provides the Audit Committee and the Management Board with a clear overview of the effectiveness of internal controls and risk management. For more, see chapter 25. The Management Board periodically discusses the internal risk-management and control systems with the Supervisory Board and the Audit Committee.

### Remuneration

During the Annual General Meeting, which took place on May 13, 2024, a new Remuneration policy was adopted for the Supervisory Board. In 2023, the Annual General Meeting adopted a new Remuneration policy for the Management Board.

For information regarding the remuneration of the Management Board, see the Remuneration policy of the Management Board posted on our [website](#), the Remuneration report (chapter 26), and Note 26 to the consolidated financial statements.

For information regarding the remuneration of the Supervisory Board, see the Remuneration policy of the Supervisory Board posted on our [website](#), chapter 26, and Note 26 to the consolidated financial statements.

# 22. Management & Executive Committee biographies

Management Board		Executive Committee				
						
<b>Hichem M'Saad</b> <b>Chairman of the Management Board and CEO</b> Male, US and Tunisian, 1965 Initial appointment 2022 Term expires 2026	<b>Paul Verhagen</b> <b>Member of the Management Board and CFO</b> Male, Dutch, 1966 Initial appointment 2021 Term expires 2025 <sup>14</sup>	<b>Brian Birmingham</b> <b>Senior Vice President Global Sales</b> Male, US, 1968	<b>Edyta Jakubek</b> <b>Senior Vice President Global People; Chief People Officer</b> Female, Polish, 1974	<b>Paul Ma</b> <b>Corporate Vice President Thermal ALD and VF</b> Male, US, New Zealand and Taiwanese, 1976	<b>Steven Reiter</b> <b>Corporate Vice President Plasma and Epi</b> Male, US, 1975	<b>Kent Rossman</b> <b>Senior Vice President Global Operations</b> Male, US, 1969
<b>Other positions:</b> <ul style="list-style-type: none"><li>• ASMPT Ltd, Non-executive Director</li></ul> <b>Prior experience:</b> <ul style="list-style-type: none"><li>• Applied Materials, several positions, Corporate Vice President and General Manager of the DSM and CMP divisions</li><li>• CEO of a start-up in the solar photovoltaic industry</li></ul>	<b>Other positions:</b> <ul style="list-style-type: none"><li>• ASMPT Ltd, Non-executive Director</li><li>• Delft University of Technology, Member Supervisory Board</li><li>• PSV, Member Supervisory Board</li></ul> <b>Prior experience:</b> <ul style="list-style-type: none"><li>• Royal Philips, several CFO positions</li><li>• Fugro, CFO and Member Management Board</li></ul>	<b>Prior experience:</b> <ul style="list-style-type: none"><li>• Lam Research, Corporate VP and General Manager</li><li>• Various VP positions at semiconductor equipment manufacturers supporting both logic/foundry, MtM and memory customers</li></ul>	<b>Prior experience:</b> <ul style="list-style-type: none"><li>• Royal Philips, various senior HR positions</li><li>• Akzo Nobel, Global Head of HR of the Paints &amp; Coating</li><li>• Heineken, Head of HR Region Europe, Senior Vice President</li></ul>	<b>Prior experience:</b> <ul style="list-style-type: none"><li>• Applied Materials, several positions, Managing Director and KPU head of the Metal Deposition Products division</li></ul>	<b>Prior experience:</b> <ul style="list-style-type: none"><li>• Applied Materials, several positions, supporting dielectric CVD film development and customer qualification in various areas, including SACVD, PECVD, and low-k ILD/barrier</li></ul>	<b>Prior experience:</b> <ul style="list-style-type: none"><li>• Applied Materials, Vice President in charge of business management for chemical mechanical polishing and packaging, plating and cleans product families, business development for new markets and alliances</li><li>• Head of Sourcing for global services and spares group</li></ul>

<sup>14</sup> In its press release of December 10, 2024, the company announced the Supervisory Board's intention to nominate him for reappointment for two years.

# 23. Supervisory Board bios



Pauline van der Meer Mohr

**Chair**  
Female, Dutch, 1960

Initial appointment **2021**  
Term expires **2025**<sup>15</sup>

- Other current positions:**
- Deputy chair Supervisory Board NN
  - Member Supervisory Board Ahold Delhaize



Martin van den Brink

**Member**  
Male, Dutch, 1957

Initial appointment **2024**  
Term expires **2028**

- Other positions:**
- Advisor to ASML
  - Advisor to IMEC
- Until his retirement in 2024, he was Chief Technology Officer and President of ASML and key to driving ASML's growth and technological innovations.



Marc de Jong

**Member**  
Male, Dutch, 1961

Initial appointment **2018**  
Term expires **2026**

- Other positions:**
- Member Supervisory Board Fugro N.V.
  - Member Supervisory board Nissens A/S
  - Member Supervisory Board FiberSail SA
  - Chair Supervisory Board BDR Thermea Group B.V.
  - Chair Advisory Board Sioux B.V.



Stefanie Kahle-Galonske

**Member**  
Female, German/Swiss, 1969

Initial appointment **2017**  
Term expires **2025**<sup>15</sup>

- Principal position:**
- Group CFO Egon Zehnder International AG
- Other positions:**
- Non-executive Member Supervisory Board Smart Photonics B.V.



Didier Lamouche

**Vice-Chair**  
Male, French, 1959

Initial appointment **2020**  
Term expires **2028**

- Other positions:**
- Non-executive Director Board Adecco
  - Chair Advisory Board Utimaco
  - Director Imagination Technologies Group Ltd.
  - Non-executive Board Chair Quadiant



Tania Micki

**Member**  
Female, Swiss/French, 1971

Initial appointment **2024**  
Term expires **2028**

- Principal position:**
- CFO and Member of the Management Board Tecan
- Other positions:**
- Non-executive Member of the Board of Directors Ecole Hôtelière



Adalio Sanchez

**Member**  
Male, US, 1959

Initial appointment **2021**  
Term expires **2025**<sup>15</sup>

- Other positions:**
- Non-executive Member Board of Directors Avnet, Inc.
  - Non-executive Board Chair ACI Worldwide, Inc.

<sup>15</sup> In its press release of December 10, 2024, the company announced the Supervisory Board's intention to nominate these members for reappointment for four years and nominate Ms Kahle-Galonkse for reappointment for one year given her unique skill set and to ensure a smooth transition of her role of Chair of the Audit Committee to Tania Micki



# 24. Supervisory Board report

## 24.1 Message of the Chair

Dear stakeholder,

For ASM, 2024 was another memorable year in which the company's dynamic teams around the world collaborated to drive innovation, pioneer breakthrough technologies, deliver impressive results, and outperform the markets. True to its tagline, at every step, ASM stayed ahead of what's next.

From artificial intelligence (AI) applications to gate-all around (GAA) technology, and from high-bandwidth-memory (HBM) devices to advances in ALD, epitaxy, and beyond – ASM's key strengths and its clear focus on next-generation deposition technologies make it a true industry leader and key driver for the digital revolution.

On a personal note, I was happy to have the opportunity this year to see some of these innovations up close by participating in training sessions involving technology developments, including opportunities for ASM, and more.

### Leadership changes

A notable change in 2024 was Benjamin Loh's retirement as ASM's CEO and Chairman of the Management Board. We are grateful for everything he achieved for ASM during his term. We are equally pleased that we found a worthy successor in Hichem M'Saad, who has already played a prominent role in many of ASM's technology breakthroughs – first as executive vice president and general manager of Global Products and then, since

2022, as Chief Technology Officer and member of the Management Board. We are confident that ASM is ready for the future under his leadership. The changes he has made to the organization so far have been impressive and inspiring.

The Executive Committee was enhanced by two additional members: Paul Ma (Corporate Vice President Thermal ALD and VF) and Steven Reiter (Corporate Vice President Plasma and Epi). As they bring invaluable experience on ASM's key product lines to the Executive Committee, we are pleased to see that our core technologies will be prominently represented within the company and its leadership.

### Developing tomorrow's leaders

ASM has been growing rapidly in recent years and its ambitions for further growth are as high as ever. That's why, at Supervisory Board meetings, leadership and succession planning have been recurring themes for many years. We applaud the Executive Committee's initiatives in this field in 2024: leadership training for all leaders, a specific program for junior to mid-level talents, and a special program for female leaders.

### Our people, our culture

Over the year, my board members and I travelled to ASM's offices in Italy and Singapore, as well as the corporate headquarters in the Netherlands. We were pleased to personally meet many ASMers at the different sites and greatly appreciated the opportunity to talk to them in open two-way conversations and Q&A sessions. Getting to know the company from different angles

enriches our understanding of the business and helps us to make more informed decisions.

These face-to-face events included meals with groups of talents, our global Women's Initiatives Network (WIN) ERG, and a 'speed-dating' event with over 100 participants. Encounters like these reaffirm that building a strong culture is an important pillar of ASM's success, and that both our core values (We care, We Innovate, We Deliver) and our ACE cornerstone behaviors (accountability, collaboration, empowerment) are important in everything we do, and contribute to the collective success of the company.

### Sustainability

ASM is driving the development of critical technologies such as AI, EVs, medical devices, and cloud computing, improving lives the world over.

Our Net Zero by 2035 targets were independently validated by SBTi, the Science Based Targets initiative, last year for Scopes 1, 2 and 3. ASM is the first WFE player to publish its Climate transition plan, which we discussed in 2024 with the Management Board. We also discussed the double materiality assessment and steps taken to complete it. We are impressed by the concrete measures the company is taking to decrease its own carbon footprint and replace certain materials and consumables to otherwise enhance our sustainability efforts.

This year was also the first year for ASM to publish a Sustainability Statement as part of its Annual Report, in line with the Corporate Sustainability Reporting Directive.



**Pauline van der Meer Mohr**  
Chair of the Supervisory Board

Going forward, sustainability legislation will continue to evolve, including the Corporate Sustainability Due Diligence Directive. In the Audit Committee and the Supervisory Board as a whole, we often discussed these developments with management to get a detailed understanding of the challenges, efforts, and results.

**Supply-chain management**

One of the lessons of recent years has been the importance of supply-chain resilience and fine-tuned inventory management. The Supervisory Board has monitored working capital developments, and in particular inventory and is pleased to see the company focus and improvement plans to reduce this. We will continue to monitor this and are pleased to see that recent changes have already led to improvement programs, a reduction in inventory, and an improvement in working capital.

We also discussed ASM’s investments in IT to improve – among other things – the supply chain, which will enable better planning and ordering of parts required for our tools. Moreover, we discussed management’s program for outsourced partners to add more value to the modules they provide and package them to be shipped to customers by merge-in-transit.

**Future focus**

To remain ahead of what’s next in the years to come, ASM needs to invest. In the broadest sense of the word – invest in people, in R&D innovations, in product development, in sustainability, and in unlocking new opportunities. This also includes investing, as the company has done, in a dedicated team of specialists to comply with the ever-changing geopolitical landscape of export control restrictions and other national and international rules and regulations. The Supervisory Board often discussed these challenges with management, as well as other investment opportunities,

like the expansions in Scottsdale and Korea announced last year.

**Changes to the Supervisory Board**

Going forward, technological innovations will be more important than ever as a catalyst for ASM’s growth, development, and relevance. That is also what the Supervisory Board discussed as part of its self-evaluation. Therefore, we agreed to reinforce our deep technology expertise by adding a tech profile member in 2024 and establishing a Technology Committee. This resulted in the addition of Martin van den Brink. who has four-decades experience in the industry. The Technology Committee will assist us in monitoring the tech aspects of ASM’s business strategy, such as technology trends, the investments required, technical resources, and operational performance in R&D.

Moreover, we saw two additional changes in the Supervisory Board: Monica de Virgiliis retired, and Tania Micki joined us as a new member. From 2025, she will succeed Stefanie Kahle-Galonske as Chair of the Audit Committee. We are grateful that Stefanie can extend her membership for another year, in light of her unique skill set and her role in handing over the chairmanship of the committee and will nominate her to the Annual General Meeting in 2025 for reappointment with a one-year term.

**Conclusion**

It was a year of progress for ASM, during which the company took important steps. On behalf of the entire Supervisory Board, I would like to compliment the Management Board, Executive Committee, and all other colleagues at ASM on yet another successful year. We appreciate the hard work you all do and look forward to the many exciting developments yet to come.



24.2 Supervisory Board report

Members of the Management Board generally joined the regular Supervisory Board meetings. Prior to and following the regular Supervisory Board meetings, the Supervisory Board had meetings among themselves, sometimes inviting the CEO. The Supervisory Board-only meetings allow members to discuss and reflect on specific items of interest and importance without the involvement of the Management Board, such as the succession of the Supervisory Board. Outside of the collective and organized meetings, there was regular interaction between the Chairs of the committees and the Chair of the Supervisory Board to ensure the proper distribution of information, as well as between the Chair of the Supervisory Board and the CEO, the Chair of the Audit Committee and the CFO, the Chair of the NSR and Ms. Jakubek and the Chair of the Technology Committee and senior technology executives.

Members of the Executive Committee also attended some regular Supervisory Board meetings, where agenda items concerning the relevant Executive Committee member were discussed. The same applies to meetings of the Audit Committee (generally attended by the Management Board and in any case the CFO), and the NSR (for the main part attended by the CEO and Ms. Jakubek). During the strategy meeting in December, the entire Executive Committee joined the Supervisory Board meeting, except for one member who had a conflict in his schedule. The Executive Committee's participation enables the Supervisory Board to have direct contact with these members, and allows for better supervision by the Supervisory Board. The relationship between the Supervisory Board and the Executive Committee has been codified in the Rules of the Supervisory Board and the ExCo Rules.

Board meetings attendance

Name	Supervisory Board (with management)	Supervisory Board (Board-only)	Audit Committee	NSR Committee	Technology Committee
Pauline van der Meer Mohr	7/7	9/9	4/5	6/6	N/A
Adalio Sanchez*	7/7	9/9	4/5	6/6	3/3
Didier Lamouche	7/7	9/9	1/5	6/6	3/3
Marc de Jong	7/7	8/9	5/5	N/A	3/3
Martin van den Brink*	5/7	5/9	2/5	N/A	3/3
Monica de Virgiliis *	3/7	3/9	2/5	N/A	N/A
Stefanie Kahle- Galonske	7/7	9/9	5/5	3/6	N/A
Tania Micki*	7/7	9/9	5/5	N/A	N/A

\* While Mr Sanchez is no longer a member of the Audit Committee since July 2024, he continued to attend the meetings. Although Ms Micki was not appointed until the AGM in May 2024, she attended prior meetings as an observer. Mr Van den Brink attended meetings as of his appointment at the AGM and Ms de Virgiliis until her retirement as of the AGM. Ms. Kahle Galonske attended the NSR from July onwards.



Supervisory Board visiting ASM's Singapore facility

In April 2024, the Supervisory Board travelled to Italy, where it visited LPE S.p.A., the subsidiary ASM acquired in 2022. There, the integration of LPE was discussed. Also, the Supervisory Board met with talents and said goodbye to Monica de Virgiliis, who retired as of the Annual General Meeting (AGM) in May 2024.

In October 2024, the Supervisory Board met talents in the Almere headquarters. In December 2024, the Supervisory Board travelled to Singapore, where it met talents during a dinner, and female talents as part of a WIN event. Also, there was a meet-and-greet with all employees.

During the meetings, the Supervisory Board had discussions with the Management Board on a wide range of topics, and on occasion with other members of the Executive Committee. These related to, among others, and not listed in order of importance:

- a. The updated Diversity, Equity and Inclusion (DE&I) policy.
- b. The establishment of a Technology Committee.
- c. Succession planning of the Supervisory Board and its committees.
- d. Succession planning of the Management Board and the Executive Committee, including succession of the CEO, the position of the CTO and enhancement of the Executive Committee by the appointment of two additional members.
- e. Organizational changes of ASM, including a rearrangement of the business units, new departments and appointments of new leaders with new responsibilities.
- f. The execution of ASM's sustainable long-term value-creation strategy, including investments.
- g. The annual budget (including deviations therefrom), the quarterly financial results review and performance by the company, and the preparation of the quarterly earnings press releases.
- h. The performance of the company and its underlying businesses from a business and operational perspective.
- i. Oversight of the risk management and internal controls and the business processes at large, including developments in the Netherlands around the Declaration on risk management (*Verklaring omtrent risicobeheersing*) and the impact thereof on ASM.
- j. The increasing focus on sustainability matters. The double materiality assessment and the Climate Transition Plan were discussed, as well as measurements and initiatives to reduce ASM's Scope 1, Scope 2 and Scope 3 emissions.

- k. Company culture, where the Supervisory Board supported and challenged the Executive Committee's efforts to enhance it.
- l. The 'People' strategy, succession planning of senior management, leadership trainings, talent reviews and retention, results of the engagement survey, diversity, equity and inclusion.
- m. Geopolitical environment and the impact of the US export-control regulations,
- n. The execution and organization of the global operations and supply chain, inventory and supply-chain challenges and an improvement strategy of the supply chain.
- o. Cybersecurity and the cyber resilience of the organization was discussed.
- p. A number of specific procedural and financial matters were discussed, including but not limited to the organization of the Annual General Meeting, dividend distribution, a share buyback program and a withdrawal of shares.
- q. A proposal to amend the articles of association to include an indemnity for the members of the Management Board and the Supervisory Board.
- r. The regular updates around developments, opportunities, and risks related to key customers and market trends.
- s. Regular reviews and monitoring of (potential) acquisitions, divestments, and partnerships.
- t. The remuneration of the Management Board; the evaluation of the Management Board based on the achievement of specific targets approved by the Supervisory Board.
- u. Product and market developments, management and financial structure, and financial and non-financial performance.
- v. ASM's investment in ASMPT, including the preliminary non-binding approach from an independent third party the board of ASMPT received and that the possible privatization talks ceased.

- w. The appointment of the new auditor, which was selected in 2023 and proposed to the AGM to become the auditor as of reporting year 2025, as well as the handover of the existing auditor to the new auditor.

In the Supervisory Board meetings without management, the Supervisory Board discussed amongst other things:

- The retirement of Mr Loh as CEO, his remuneration at retirement, and the nomination of Mr M'Saad as his successor;
- The nomination of Mr Van den Brink as new member of the Supervisory Board and nomination of Mr Lamouche for reappointment;
- The remuneration of the Supervisory Board; the proposal to the Annual General Meeting of a new Remuneration Policy of the Supervisory Board and to amend the remuneration of the Supervisory Board and its committees; and
- The nomination of Ms Van der Meer Mohr, Ms Kahle-Galonske and Mr Sanchez for reappointment as members of the Supervisory Board. Ms Van der Meer Mohr and Mr Sanchez are nominated to be reappointed for a second four-year term and Ms. Kahle-Galonske for a third one-year term given her unique skill-set and to ensure a smooth transition of her role of Chair of the Audit Committee to Supervisory Board member Tania Micki in 2025.

### Strategy

Every year, the last Supervisory Board meeting of the year is tasked with discussing with the Management Board and rest of the Executive Committee ASM's strategy, sustainable long-term value creation, and the planned implementation and risks attached with realizing it. This meeting lasted a full day. In this year's strategy meeting, discussions included inter alia:

- The semiconductor and semiconductor equipment market and outlook;
- The development of ASM's market share in the different segments it serves;
- The development of the competitive environment;
- The new technology and market trends for the coming years;
- The progress with ASM's strategic priorities;
- Investments;
- ASM's long-term revenue and profit or loss forecasts;
- The strategy for people; and
- Strategic initiatives to improve the company's sustainable long-term value-creation strategy.

For efficiency reasons two topics of the strategy were discussed in the Supervisory Board meeting of October, namely the sustainability strategy (including ASM's Climate Transition Plan) and the strategy for risk and risk mitigation. Throughout the year in its regular meetings, the Supervisory Board monitors the implementation of the strategy.

The execution of the sustainable long-term strategy of Growth through Innovation means that apart from profitability and growth goals, the Supervisory Board also monitors results vis-à-vis the sustainability targets. The continued focus on and importance of sustainability resulted in regular discussions with the Management Board and other senior executives around this topic as part of the sustainability topics, including the company's double materiality assessment, the Climate Transition Plan, and the steps the company is taking to deliver the sustainability statements in this Annual Report to comply with the Corporate Sustainability Reporting Directive (CSRD).

Scope 1 and 2 emissions are being addressed by ASM's target to reach 100% use of electricity from renewable sources by 2024, and further GHG emissions-reduction



efforts within our company boundary. Addressing Scope 3 emissions is considerably more challenging, and requires collaboration in the value chain. This has been discussed on several occasions with the Management Board and specialists. An important way this is currently addressed is by designing products to be more energy efficient. We strive to accelerate industry value-chain progress through, inter alia, the Semiconductor Climate Consortium, of which ASM is a founding member, and which sets out to provide methods and standards for addressing Scope 3 collaboratively across the semiconductor industry value chain. The Science Based Targets initiative verified ASM's measurements and targets for all scopes in the summer of 2023, and ASM continued on this path in 2024. In the October meeting, the Supervisory Board discussed the concrete steps ASM is taking to decrease its CO<sub>2</sub> emissions, and other sustainability measures.

With respect to the execution of the strategy, both boards also discussed M&A possibilities and other investment opportunities regularly throughout the year. The Supervisory Board reviewed and challenged the opportunities from a technology, financial, strategic, economic, commercial, and competitive point of view.

**Corporate governance**

The Supervisory Board established a Technology Committee chaired by Martin van den Brink, who was appointed as a member to the Supervisory Board as of the AGM on May 13, 2024. A Technology Committee Charter was adopted for this committee. Moreover, the AGM approved an amendment to the Articles of Association, which included an indemnity in favor of the Management Board and Supervisory Board. Moreover, the Supervisory Board amended its profile and the skills matrix. Because of the addition of two new members and the establishment of a Technology Committee, the

Supervisory Board decided to rearrange the composition of the various committees as of July 2024.

**Risk management**

One of the Supervisory Board's responsibilities is to oversee risk management. It gave attention to the risk landscape, any developments, the risk appetite, risk mitigation measures, and the risk mitigation strategy. The effectiveness and results of the internal control assessments were reviewed. The Audit Committee and the Supervisory Board as a whole also discussed developments in the Netherlands around the Declaration on risk management (*Verklaring omtrent risicobeheersing*) – which is an in-control statement – and its impact on ASM.

Refer to chapter 25 'Risk management' for more information on those risks and uncertainties currently most relevant to our company. For 2024, particular areas of attention the Supervisory Board focused on in its meetings are highlighted.

The first is employee retention, also in view of the 'war on talent'. Talent development, new leadership programs, succession planning and culture were regular agenda items. ASM aspires to become and remain the employer of choice, so the Supervisory Board discussed succession, leadership and talent-retention activities, improvements in diversity, equity and inclusion, how the engagement survey results were followed up on, and the leadership program.

The second is cyber and IP security and resilience and automated business controls to improve these. ASM is upgrading its internal IT system, which was discussed with the Audit Committee and the full Supervisory Board.

The geopolitical tension between the US and China is also highlighted. In an effort to reduce the technology

access of Chinese chip manufacturers and prevent them from being able to develop and manufacture their own high-end chips, the US has issued numerous regulations in recent years, and introduced further ones in December 2024. The impact of these regulations is regularly discussed with the Management Board, including the extent to which ASM is impacted by these regulations, as well as the sector as a whole.

Lastly, the Supervisory Board also discussed supply-chain risks. In recent years, ASM has faced supply-chain constraints, and for some parts and components these have remained a challenge. For others this is no longer relevant, and it is important to reduce inventory and improve working capital. The improvement strategy, including new initiatives in 2024, was discussed and monitored.

**Diversity, equity, and inclusion**

The Supervisory Board recognizes the value of diversity among the members of the Supervisory Board, the Management Board, Sub board and the whole of the organization. The Supervisory Board and Management Board discussed the company's performance in this field, including targets and measures.

Refer to section 17.2 for more information.

**Ethics**

The Supervisory Board received an update on the Ethics Committee twice in 2024, including the ethics report, all incidents reported, and areas of continuous improvement.

Expertise

The Supervisory Board's profile describes the range of expertise that should be represented within the Supervisory Board. For an overview of the skills and expertise of the individual members, see the chart below.

Supervisory Board skills and expertise matrix

	Pauline van der Meer Mohr	Adalio Sanchez	Stefanie Kahle-Galonske*	Didier Lamouche	Marc de Jong	Martin van der Brink	Tania Micki*
General							
Financial and non-financial reporting matters and corporate finance	■	■	■ ■	■	■	■	■ ■
Governance and legal affairs	■ ■	■	■	■	■ ■	■	■
Human resources matters and employee relations	■ ■	■	■	■	■	■	■
Remuneration	■ ■	■ ■	■ ■	■ ■	■	■	■
(Previous) executive board member of (listed) international company	■ ■	■ ■	■	■ ■	■ ■	■ ■	■ ■
Sustainability, including climate change	■ ■	■	■ ■	■	■ ■	■ ■	■ ■
IT, cyber, AI, and digitization	■	■ ■	■	■	■	■ ■	■ ■
Industry specific							
Semiconductor ecosystem	■	■ ■	■ ■	■ ■	■ ■	■ ■	■
Deep understanding of semiconductor technology and products	■	■ ■	■	■ ■	■	■ ■	■
High-tech manufacturing/integrated supply chain management	■	■ ■	■	■ ■	■	■ ■	■ ■

■ No specific and sufficient experience and knowledge. ■ Sufficient experience and knowledge to be able to take an informed decision. ■ ■ Considered an expert given previous or current roles, other than with ASM

\*Financial expert

## Supervisory Board Committees

In 2024, the Supervisory Board established a Technology Committee. Also, two new members were appointed to the Supervisory Board: Ms Micki and Mr Van den Brink. Therefore, the Supervisory Board decided to rearrange the composition of the various committees in July.

### Audit Committee

The Audit Committee's role is described in its Charter, available on the company's [website](#). The Audit Committee consists of five members: Stefanie Kahle-Galonske (Chair), Tania Micki, Marc de Jong, Pauline van der Meer Mohr, and Martin van den Brink. The Audit Committee assists the Supervisory Board in fulfilling its supervisory responsibilities to oversee ASM's financing, financial statements, financial-reporting process, non-financial and sustainability reporting, system of internal business controls, internal audit, and risk management.

The Audit Committee met four times in person in 2024, and always before the publication of the quarterly, half-year, and annual financial results. In addition to the Audit Committee members, the Management Board, the Group Controller, head of Internal Audit, and the external auditors are invited to the meeting. The Audit Committee also met separately with the external auditors in 2024 and with the CFO to evaluate the internal audit function.

The following lists the main topics discussed by the Audit Committee in 2024:

- The company's financial reporting, including the application of accounting principles;
- The company's financial position and financing programs, and tax structure;
- Tax reporting and tax, including changes to legislation;
- The company's internal risk-management systems and market developments regarding disclosure

thereof, including developments in the Netherlands around the Declaration on risk management (*Verklaring omtrent risicobeheersing*) and the impact thereof on ASM;

- The effectiveness of internal controls;
- The internal audits performed and its findings, as well as the annual internal audit plan;
- The Annual Report and financial statements, and the budget and quarterly progress reports prepared by the Management Board;
- A presentation on export controls;
- Progress on the company's investment in an upgrade of the IT system to, inter alia, harmonize business processes, as well as the company's investment in an upgrade of the PLM system;
- The appointment of the new external auditor as of reporting year 2025 and the transition from the existing auditor;
- Margin developments of certain products; and
- Developments in the legal and regulatory landscape, including in terms of ESG and sustainability (such as the CSRD and CSDDD, each as defined below) and risk.

In addition, the following matters were discussed:

Each quarter, the CFO provides the Audit Committee with a detailed look into ASM's key financial performance. ASM's operational and financial short-term and long-term performance were extensively addressed in each quarter's discussion. In 2024, topics of particular interests included customer demand, developments in supply-chain constraints, obsolete inventory, working capital, and investments for the future. Accounting matters and the ASMPT investment were discussed in depth. The interim and annual reports were reviewed and discussed prior to publication.

Furthermore, the committee was regularly updated on non-financial reporting matters relating to sustainability and the EU taxonomy. This includes ASM's investments to prepare for and progress of the non-financial reporting required under the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD).

In addition, the Audit Committee reviewed the capital allocation model. This included a discussion on the amount of the dividend payment per share, the feasibility of share buyback programs and withdrawal of shares. In addition, ASM's tax policy was discussed, as well as regulatory tax developments, such as the global minimum top-up tax as a part of the OECD's Pillar 2, the tax report for 2024, the tax risk assessment and disclosure requirements around tax.

The Audit Committee reviewed ASM's enterprise risk-management framework, focusing on top key risks identified by management and the external auditors. Additionally, observations made by the internal auditor and the external auditor on the design and effectiveness of internal controls were discussed with the Audit Committee, and the committee discussed and monitored follow-up actions.

The Audit Committee reviewed on a quarterly basis an update of the progress of the internal audit plan approved by the Supervisory Board, audit scope, detailed outcomes of each audit, and remediation status of the follow-up action plans. The internal audit plan was continuously reviewed. Where appropriate, amendments were made to give priority to certain matters.

The Audit Committee reviewed and approved the 2024 external audit plan, key audit matters, audit scope (including additional assignments or projects with the external auditor), audit teams, materiality levels, and

fees. The Audit Committee also reviewed and approved any non-audit services provided by the external auditor, in accordance with ASM's policies on audit and non-audit services provided by the external auditor. Each quarter, the Audit Committee received a quarterly update from the external auditor on the progress of the external audit activities. Moreover, the Audit Committee discussed non-financial reporting and the external auditor's role therein with the external auditor.

The Audit Committee evaluated the performance, qualifications, and independence of the external auditor in 2024.

Given the mandatory rotation, 2024 is the last year KPMG could be appointed as auditor, which the General Meeting approved in 2023. In 2023, the Audit Committee and management worked on the selection of a new auditor, which the Supervisory Board proposed to the AGM in May 2024 for the reporting year 2025. In 2024, the Audit Committee had a separate call with the new auditor to discuss the transition from the existing auditor to the new one.

In addition, during the year, the Audit Committee reviewed fraud risk assessments and litigation claims.

For more information on the Audit Committee, please see chapter 21.

### Nomination, Selection and Remuneration (NSR) Committee

The role of the NSR Committee is described in its Charter, available on the company's [website](#). In general, the NSR Committee advises the Supervisory Board on matters relating to the selection and nomination for the appointment or reappointment of new or existing individual Management Board and Supervisory Board members. It includes the respective remuneration

policies and Remuneration report, and the remuneration levels of the individual members of the Management Board and Supervisory Board.

The NSR Committee is chaired by Didier Lamouche. The other members are Pauline van der Meer Mohr, Adalio Sanchez and, since July 2024, Stefanie Kahle-Galonske. In addition to the NSR Committee members, the NSR Committee invites the CEO, and the Senior Vice President Global People to attend (parts of) its meetings.

In 2024, the NSR Committee met five times in person (additional conference calls were held on an ad hoc basis), with all NSR Committee members attending each of these meetings.

Topics discussed by the NSR in 2024 are based on the NSR's regular calendar (recurring topics) or are related to specific matters:

- The retirement of Mr Loh and his remuneration at retirement;
- The appointment of Mr M'Saad as Chief Executive Officer, as successor to Mr Loh;
- The nomination of Mr Lamouche for reappointment and Mr Van den Brink for appointment to the Supervisory Board;
- Revisions to the Diversity, Equity and Inclusion (DE&I) policy;
- Composition of the Management Board;
- CEO pay ratio;
- Management Board remuneration outcome over previous performance year and planned actions for the new performance year 2024, and in the final meeting for the performance year 2025;
- Long-term incentive dilution;
- New Remuneration Policy Supervisory Board and revision of the fees of the Supervisory Board and its

- committees (in preparation of the Annual General Meeting, May 2024) following a benchmark;
- Remuneration report 2023, final editing;
- Management Board evaluation and performance reviews;
- Management Board short-term incentive targets 2024 and outlook and Management Board long-term incentive targets;
- Monitoring of progress of results compared to short-term incentive targets;
- Training Supervisory Board;
- Management Board shareholding requirements status overview;
- Employee engagement survey results 2024;
- Succession planning and talent reviews, including composition of the Management Board and Executive Committee;
- Diversity, equity and inclusion efforts and progress within ASM;
- Succession planning Supervisory Board;
- Amendment to LTI policy;
- Transition to new CEO;
- Nomination of CFO for reappointment;
- Remuneration report 2024 (in preparation of the Annual Report 2024); and
- Management Board short-term and long-term incentive targets 2025.

After a benchmark with peers, the decision was taken to adopt a new Remuneration Policy for the Supervisory Board and revise the remuneration of the Supervisory Board and its committees, and to propose this policy and revised remuneration to the Annual General Meeting on May 13, 2024. Key differences proposed to the Annual General Meeting, which were approved and adopted after voting included:

- The removal of the cap on the travel allowances;

- The introduction of a fee per additional meeting in excess of two hours above the regular cadence of the Supervisory Board or its committees in special business circumstances after prior approval by the Chair of the Supervisory Board; and
- The introduction of a Technology committee and the option to establish additional committees.

For more information on the NSR Committee, see chapter 21.

**Technology Committee**

The Technology Committee was newly established in 2024 and had its first meeting in July. The role of the Technology Committee is described in its Charter, available on the company's [website](#). In general, the Technology Committee advises the Supervisory Board on matters relating to ASM's technology roadmap, product roadmap, R&D investments and other technology-related items.

The Technology Committee is chaired by Martin van den Brink. The other members are Adalio Sanchez, Didier Lamouche and Marc de Jong. In addition to the Technology Committee members, the Technology Committee invites the CEO and members of senior management responsible for the technology and product roadmap and platform engineering and technology.

In 2024, the Technology Committee met three times in person, with all Technology Committee members attending each of these meetings.

Topics discussed by the Technology Committee in 2024 included:

- The adoption of the Technology Committee Charter;
- Meeting frequency, sequence and agenda;

- Technology-related aspects of investment opportunities;
- Advanced packaging and hybrid bonding; and
- The product roadmap to prepare for the strategy meeting of the Supervisory Board.

**Performance evaluation**

Every year the Supervisory Board reviews and discusses the functioning of the Supervisory Board, its committees, and its individual members through an internal assessment, as conducted by the members of the Supervisory Board and led by the Committee. The composition, competencies, and functioning of the Supervisory Board, as also described in the Supervisory Board Profile, are part of the assessment. Once the answers to the self-assessment forms are received by the Committee, he will share these with the entire Supervisory Board. Throughout the year, the Chair of the Supervisory Board had bilateral meetings with the individual Supervisory Board members to discuss any items coming from the evaluation and any other matters.

The conclusion of the assessment was that the Supervisory Board, the Management Board, the Executive Committee and their individual members function properly and effectively, and that the cooperation between the Supervisory Board and Management Board and Executive Board is functioning well. The outcome of this evaluation included board dynamics and lessons learned, which included:

- The desirability of an additional Supervisory Board member who is an expert in technology and the need for a Technology Committee;
- The need for additional Supervisory Board meetings without an agenda so members can spend more time together to discuss current affairs.

The Supervisory Board also annually assesses the composition and performance of the Management Board



and their individual members. In 2024, this was done by the Supervisory Board in its meetings without management present to prepare for the performance appraisals of the Management Board. Moreover, the performance of the Management Board is also assessed when determining if and to what extent the Management Board achieved its annual targets.

**Corporate governance**

The Supervisory Board is responsible for overseeing the company's compliance with corporate governance standards and best practices. The Supervisory Board is of the opinion that the company complies with the Dutch Corporate Governance Code, subject to the deviations set out in chapter 36.

**Shareholders**

The Annual General Meeting was held on May 13, 2024 in Almere, the Netherlands. Shareholders were invited to attend in person, and were also offered the option of following the meeting virtually via a live webcast (view and hear only). Voting was possible by proxy before the meeting, as well as during the meeting. Shareholders were also given the option to pose questions prior to and during the Annual General Meeting.

During the meeting, the new Remuneration Policy of the Supervisory Board was approved. The regular dividend proposal of €2.75 per share was also approved.

On February 27, 2024, ASM announced the authorization of a new share buyback program of up to €150 million. The program started on May 15, 2024, and was completed on July 25, 2024. In total, we repurchased 228,389 shares at an average price of €656.77, under the 2024 program.

Following the share buyback program, we withdrew 100,000 shares, which withdrawal was completed on November 28, 2024.

**Induction, education, and training**

ASM has a comprehensive induction program for newly appointed members of the Supervisory Board, designed to present a good view of the company. This includes the group's strategy, technical developments, commercial status and outlook, financial position and outlook, and relevant legal aspects and risks. The program includes meetings with other Supervisory Board members, Management Board members, Executive Committee members, KPU, and other leaders in the company. In 2024, two new Supervisory Board members were appointed.

In 2024, as is the case every year, the Supervisory Board discussed their education and training needs. The result was that they received a training on specific technology developments and opportunities for ASM. The training was prepared and given by inside experts to the Supervisory Board and Management Board. Furthermore, the Supervisory Board was trained on risk management.

Moreover, the Supervisory Board performed a site visit in April 2024 to Milan, Italy and in December 2024 to Singapore, where it also visited ASM's cleanroom there.

**Independence**

The Supervisory Board has determined that its current members are all independent, as defined by the Dutch Corporate Governance Code. Neither the Chair nor any other member of the Supervisory Board is a former member of ASM's Management Board or has another relationship with ASM which can be judged 'not independent' of ASM.

Furthermore, the Supervisory Board reviews and discusses all of its members' other executive and non-executive positions on an annual basis. It approves any intended outside positions, to safeguard – among others – the level of engagement, conflicts of interest, compliance with laws, and the Corporate Governance Code. In 2024, there were no conflicts of interest to report between Management Board members and the company or Supervisory Board members and the company.

**Financial statements**

We present the ASM 2024 Annual Report in accordance with IFRS, as prepared by the Management Board and reviewed by the Supervisory Board. ASM's independent and external auditors, KPMG Accountants N.V., have audited these financial statements and issued an unqualified opinion. Their report appears in chapter 30. All of the members of the Supervisory Board have signed the financial statements in respect of the financial year 2024.

**Supervisory Board**

Pauline van der Meer Mohr - Chair  
Martin van den Brink  
Marc de Jong  
Stefanie Kahle-Galonske  
Didier Lamouche  
Tania Micki  
Adalio Sanchez

Almere, the Netherlands  
March 6, 2025

# 25. Risk management

To stay ahead of what's next, our risk management cycle is a continuous process aimed at having a deep understanding of our risks and opportunities and embedding mitigation in our key processes. We prioritize key risks by performing a top-down risk assessment, and ensure effective risk mitigation in line with our risk appetite through our bottom-up (process level) controls. Our risk committee meets monthly to stay on top of key developments impacting our risk landscape, enabling proactive and continuous risk mitigation. Our risk management cycle focuses on our two main risk clusters:

1. Maintaining quality and operational execution while dealing with the challenges of attracting, retaining, and developing people.
2. Staying ahead of competition in a demanding and evolving technological environment.

In addition to our risk clusters, we also focus on risks related to our supplier base, trade regulations, and cyber.

### Risk management framework



### Risk management approach

ASM's approach to managing risk is based on the reference model of the Committee of Sponsoring Organizations (COSO). It is a key part of our corporate governance framework, which describes how we embed our strategy, mission, and objectives across our organization.

Through our structured risk management approach we continuously identify, manage, and monitor risks to enable a robust understanding of risks and opportunities in pursuit of our strategic objectives. It helps us make our operations more effective and efficient, promotes

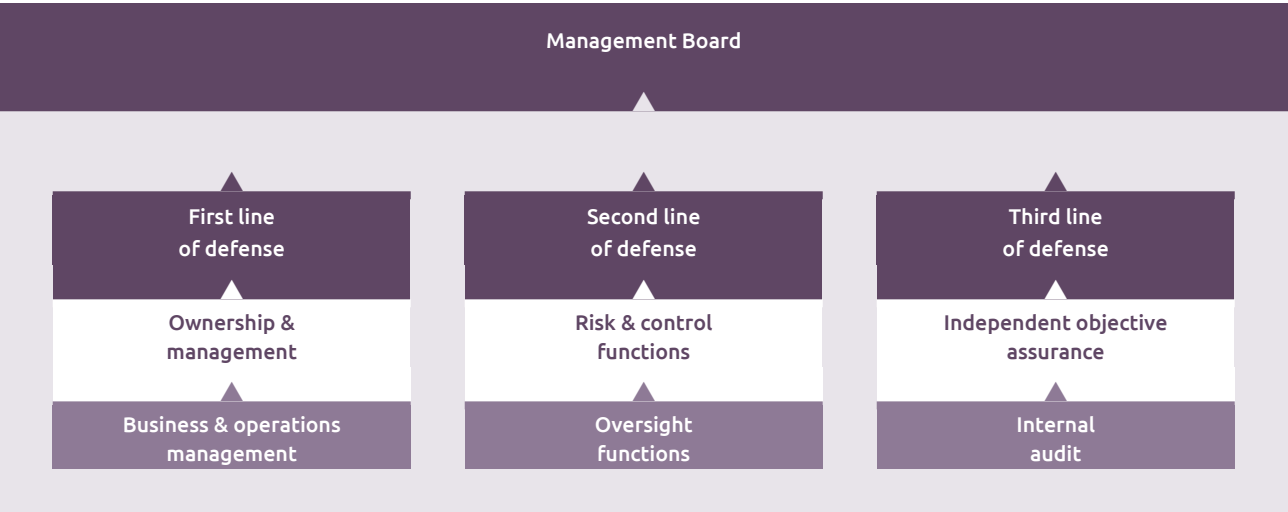
reliable financial and non-financial reporting, and supports our compliance with laws and regulations.

Every year, we assess the risks that could prevent us from achieving our strategic objectives. We do this at a consolidated level (top-down approach) with our risk committee and Executive Committee, and on a process level (bottom-up approach). In 2024, we focused on further streamlining our controls framework, updating our key risk-management indicators and gaining a deeper understanding of our risk mitigation capabilities in line with our ambition level which is based on our risk appetite.

Our key business controls are assessed on a quarterly basis. The outcomes as well as the results of our key risk indicators and risk developments are reviewed by the risk committee to enable appropriate follow up actions.

Our financial reporting controls are also assessed each quarter. In addition to our self-assessment cycle, business management provides the Executive Committee with an annual assurance letter concluding on the reliability of their financial reporting, the effectiveness of their internal controls, risk management, and compliance with internal policies, as well as laws and regulations.

### Three lines of defense model



Our risk management and internal control activities are organized through the three lines of defense model. The Executive Committee – consisting of the Management Board and five senior executive leaders who are considered essential in driving and executing the strategy – is entrusted with risk management and compliance in line with the risk appetite, and is supported by:

- First line of defense: Business and operations management owns and manages risk, which includes identifying, assessing, controlling, and mitigating risks. Our risk owners monitor risks that are part of their process and drive risk responses based on our top-down risk assessment and continuous reviews.
- Second line of defense: Oversight functions support business and operations management and help make sure the risk and control procedures have effective metrics and are operating as intended. Our quarterly control assessments and key risk indicator reporting are key elements of our risk oversight.
- Third line of defense: Internal Audit provides independent objective assurance on the effectiveness of governance, risk management, and internal controls, including how business and operations management and the oversight functions manage and control risk. Internal Audit brings a systematic, disciplined approach to evaluating and improving the effectiveness of risk-management, control, and governance processes.

The risk assessment as well as the risk committee follow-up actions are key input for the internal audit plan. In return, key risk-management outcomes are audited and audit findings feed back into the risk-management process.

Our Supervisory Board provides independent oversight of managements response to critical risk areas. The

Audit Committee provides independent oversight of our risk-management process and key follow-up actions taken based on our quarterly control assessments, developments in our key risk indicators, and the follow-up actions taken by the risk committee.

**Risk culture**

In line with our core values (We Care, We Innovate, We Deliver) and our ACE behaviors, ASM strives for a culture of openness and transparency. In this culture, we proactively disclose identified risks, report unexpected events as soon as they occur, and discuss and follow up on improvement opportunities. The risk committee plays a key role in our risk culture. It meets monthly, is chaired by the Corporate Vice President & Group General Counsel (reports into the CFO), and, to ensure that all products and services are represented, has members from all key business units and departments. Through the monthly committee meetings, quarterly control self-assessments, and key metrics on the development of our top-down risks, we are continually increasing risk awareness. In addition, the risk committee members drive follow-up actions in our primary processes as well as our products and services as needed.

As part of our quarterly control self-assessment process, our risk committee members and all key business risk owners are trained on risk-management principles and focus areas. Our corporate incentives include specific risk-management elements to make sure that risk mitigation in line with our risk appetite is top of mind. Our ACE behaviors as well as key corporate initiatives such as our S4 program are an integral part of our performance-evaluation process.

**Risk categories and factors**

In an ever-changing world, risks, opportunities, and uncertainties are part of our operations. To stay ahead of what's next, we continuously monitor the risk landscape

to enable risk-informed decision-making and risk mitigation in line with our risk appetite. The ASM risk universe, which is detailed on the following pages, is a top-down overview of the risks that may have a material adverse impact on our ability to achieve our strategic objectives, and forms the basis of our annual top-down risk assessment as well as our quarterly risk updates. The risk universe is reviewed and updated annually or more frequently when there are significant internal and/or external developments.

Our risk-management process is set up to facilitate a company-wide understanding of the nature of these risks, the impact they may have on our business, and the way they develop over time. These risks are not the only ones we face and actively mitigate. Some risks may not yet be known to us, and certain risks we do not currently believe to be material could become material in the future. On the next page, we have listed the most important risks and risk clusters, along with our response. This list is not exhaustive.

**Risk appetite**

We deal with our risks in a way that aligns with the risk appetite established by the Executive Committee. Risk appetite is the level of risk we deem acceptable to achieve our strategic objectives. ASM's risk appetite is determined based on the nature of the risk and specifies the total residual impact of the risks ASM is willing to accept in pursuing its strategic objectives, and ranges from open to averse. Risk mitigation in line with our appetite is evaluated on an ongoing basis in the risk committee as events occur throughout the year.

**Risk universe and risk appetite**

Risk category	Key risk
<b>Strategy</b>  Flexible/cautious	Innovation
	People
	Competition
	Geopolitical
	Intellectual property
	Climate change
	Acquisitions
<b>Financial</b>  Minimalist/averse	Industry change
	Financial reporting
	Liquidity
	Foreign currency
<b>Compliance</b>  Averse	Tax
	Laws & regulations
<b>Operations - product</b>  Cautious/minimalist	Legal liability
	Key capabilities
	R&D program execution
	Product delivery
	Manufacturing disruption
<b>Operations - partners</b>  Cautious/minimalist	Product lifecycle
	Supplier performance
	Supplier dependency
	Customer dependency
<b>Operations - process</b>  Flexible/cautious	Operational excellence
	Information security
	Information technology
	Environment, health & safety

We have listed the most important risks and risk clusters below, along with our response. This list is not exhaustive

**Strategy**  
**The realization of growth through our innovation strategy may be impacted by our ability to continuously innovate and stay ahead of competition in a demanding and evolving technological environment.**

Innovation has been the core of ASM for more than 50 years. Continuous innovation and customer focus enable us to outperform the wafer fab-equipment market and realize our strategic objectives. To stay ahead of what's next, in 2024 we focused on the following:

- Our Growth through Innovation strategy is anchored in continuous investment in innovation. We have a global, networked R&D model to collaborate closely and early with customers, industry partners and universities. In 2024, we invested €470 million in R&D. Our long-term strategic partnerships with imec and the University of Helsinki continued and we also expanded our collaboration with TU Eindhoven as well as other external partners. Furthermore, we are adopting new ways to deepen our understanding around our deposition processes and have increased our process emulation capabilities.
- To provide a solid foundation for future R&D expansion and support a resilient semiconductor supply chain, we are consolidating our Arizona operations into a new cutting-edge facility. For more information on innovation, see chapter 12.
- Product intelligence holds immense potential, adding to the differentiation of ASM's products. In 2024, we expanded our scope to focus on two key areas: R&D acceleration and high volume manufacturing (HVM) enhancement. For R&D acceleration, our scope is to accelerate time-to-market by speeding up the new process/application development/qualification. In

- HVM, we focus on optimizing our tool uptime and improving our advanced process control capability.
- In 2024, we continued to invest in strategic field resources to deepen our understanding of our customers' technology roadmaps to target our key innovation investments. These investments in the field not only help build a strong technical understanding of industry inflections, but also aid in building strong relationships with key partners and customers.
  - The tense geopolitical environment and export restrictions may continue to have a certain impact on our sales and deployment of international knowledge workers. Export restrictions are increasing, impacting our ability to sell and service systems in certain jurisdictions and for certain customers. In addition, new restrictions could be implemented and could impact the movement of certain of our employees from certain nationalities across countries, and access to certain technology. In response to the geopolitical environment, nations are increasingly focusing on securing their domestic semiconductor supply chains. This emerging risk could disrupt global cooperation in R&D and manufacturing. To mitigate these risks, we monitor geopolitical developments as well as laws and regulations on a continuous basis. We comply with laws and regulations, and apply for export licenses as required.

**Climate risk: Disruptive impacts on ASM, its customers, and its supply chain**

In 2024, the acceleration of disruptive weather events underscored the escalating risk of climate change, posing potential challenges for ASM, our customers, and supply chain. Climate scientists increasingly indicate that global warming is occurring at a pace faster than previously anticipated, heightening the global urgency to address its impact.

Following our initial climate-change risk assessment in 2022, we have continuously been updating our strategies to try to address these challenges. Our double materiality assessment has identified both climate-change adaptation and climate-change mitigation as important topics for ASM. For details on which specific climate-change implications are most critical to our organization, and how we are addressing these challenges, see section 16.1. of this report.

**Operations**  
**We may face challenges in maintaining product quality and seamless operational execution while dealing with a competitive labor market.**

- In 2024, we focused on the following key elements to further mitigate our key operational risks:
- Attracting, retaining and developing our diverse workforce remained a strategic priority. In a competitive labor market, we focused on talent engagement and development, fostering an inclusive and high-performance culture, and implementing strategic workforce planning. While successful in hiring top talent, we will strengthen retention by offering clear career paths, competitive reward solutions, and development opportunities alongside exposure to world-class technical expertise. Our People agenda drives the execution of ASM's strategy and remains central to our success in 2025. For more information, see chapter 17.
  - To increase our flexibility to deliver on projected revenue targets, we are expanding our manufacturing site in Korea. In addition, we continue to streamline our manufacturing processes and quality management systems. We recognize we are on a continuous improvement journey.
  - In 2024, we made good progress on our SAP system upgrade to enable a smooth go-live in 2025, enhance our company-wide processes, and enable business

- transformation in support of seamless operational execution.
- In addition to executing our processes to mitigate risk, our service team continues to focus on technically driven solutions to add value to our services and products. Our service teams continue to deliver outcome-based services and provide clear benefits to our customers such as improved on-wafer performance, increased productivity, cost-reduction roadmaps, and increased sustainability.

**Suppliers that do not deliver on time or on specification may impact our manufacturing and service processes.**

- ASM relies on its suppliers to deliver the materials and parts we need in the shortest possible time at the required quality to enable us to deliver our solutions to customers. At the end of 2024, we initiated a range-based inventory program, which we expect to further improve part availability, enabling our manufacturing and after-market support.
- Being able to support rapid changes in the business requires an agile supply chain. Short lead times are a key part of that. In 2024, ASM saw good progress reducing lead times and in 2025 we will continue to expand this through programs to ensure raw materials and other gating items are available.
- An emerging risk related to our supply chain concerns the ever-changing regulations related to restrictions on sales of certain products and materials between certain countries. Additionally, there are risks of certain goods and raw materials being restricted from export by certain countries. ASM continues to evaluate its supply chain all the way down to raw materials to make sure we use the right geographical sources to maintain supply continuity for years to come.



**Cyber attacks may impact our operations and could lead to a loss of intellectual property**

In an increasingly interconnected digital world, and given that we operate in a high cyber-target industry, ASM is constantly vulnerable to cybersecurity threats as attack methods evolve to be more sophisticated. Some examples of this emerging risk include advancements in quantum computing that could render current cryptography protocols obsolete, and developments in artificial intelligence that could result in unauthorized information disclosure.

If successful, these could impact our data security and business operations and/or lead to the loss of intellectual property, resulting in a loss of revenue and market position, disruptions, and regulatory penalties. Protecting ourselves against such attacks continues to be one of our highest business priorities. The Global CIO is responsible for ASM's overall cybersecurity, and the Corp, Global IP and Licensing is responsible for intellectual property and physical security. These leaders collaborate closely to ensure a harmonized approach to protecting ASM's core assets throughout our global locations.

ASM deploys protection targeted at people, technology, and process. To protect our data and systems, ASM deploys an in-depth defense, using solutions/controls, such as advanced detection mechanisms, anti-malware, anti-phishing protection, and identity threat-prevention. In addition, we have implemented around-the-clock monitoring to detect and respond to any potential vulnerability or weakness that may arise from a cyber threat. Our employees are at our core and we focus on their continuous education through cybersecurity programs and exercises (e.g. anti-phishing) to maintain threat alertness in the ASM community. We are also focused on how we respond to threats, with a

continuous process to conduct cyber-drills to test and improve the procedure.

**Control effectiveness statement**

The Management Board is ultimately responsible for ASM's internal risk management and control framework. This system is designed to manage the main risks that may prevent ASM from achieving its objectives. The internal risk management and control framework, and the evaluation of the effectiveness of our internal controls and areas for improvement, are regularly discussed with the Audit Committee. The Audit Committee reports on these matters to the Supervisory Board.

The Management Board has conducted an assessment of the design and operating effectiveness of the internal risk management and control framework. Based on this assessment and the current state of affairs, to the best of its knowledge and belief, the Management Board confirms that:

- The internal risk management and control framework provides reasonable assurance that the financial reporting does not contain any material inaccuracies.
- The management report provides sufficient insights into any failings in the effectiveness of the internal risk management and control systems.
- The management report states those material risks and uncertainties that are relevant to the expectation of ASM's continuity for at least 12 months after the date of this Annual Report. Based on the current state of affairs, it is justified that the financial reporting is prepared on a going-concern basis.

For the declaration of the Management Board required pursuant to Section 5:25c of the Dutch Act on Financial Supervision on the principal risks ASM faces, see chapter 36.

All internal control systems, no matter how well designed and implemented, have inherent limitations. Even systems determined to be effective may not prevent or detect misstatements or fraud, and can only provide reasonable assurance with respect to disclosure and financial statement presentation and reporting. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate due to changed conditions, and that the degree of compliance with the policies or procedures may deteriorate.

In view of all of the above, the Management Board believes it complies with the requirements of best practice provisions 1.2 and 1.4 of the Dutch Corporate Governance Code.

# 26. Remuneration report

## 26.1 Message of the Chair

Dear shareholders,

On behalf of the Nomination, Selection & Remuneration (NSR) Committee, I am pleased to present the 2024 Remuneration report, which provides a summary of the remuneration policies for the Management Board and the Supervisory Board, as well as an explanation of how these were applied in 2024.

### 2024: A well-managed year of transition

On the back of our success demonstrated in previous years, 2024 proved to be another year of significant progress for ASM. Our products and technologies continue to be strongly adopted by our customers, resulting in outstanding business results. We achieved this despite an environment which continues to be extremely volatile and difficult given the geopolitical tensions across our largest markets.

It was also a very active year for management and governance transitions. This included the CEO succession, the strengthening of the Supervisory Board with the appointment of Martin van den Brink and Tania Micki, and the implementation of a Technology Committee to support the strategic and technical growth of ASM. Additionally, the NSR Committee has been leading the succession planning for both the Supervisory Board and the Management Board members to support ASM's continued success.

In this context, rethinking our processes, strengthening our leadership, adjusting our governance structure, and

attracting and retaining the best talents in the market continue to be paramount. All of this has a great impact on our remuneration policies and their application.

### Very solid results in 2024

Despite these changes and significant uncertainty at the start of the year, the company achieved record-high financial results in 2024. Our revenues grew by 12% at constant currencies, outperforming the WFE market yet again. Our operating profit grew more than in recent years, illustrating the wise piloting of growth and investments, which translated into a record-high free cash flow. Given these excellent results, it is understandable that the short-term incentive (STI) realization for 2024 reached very high payout levels, demonstrating our commitment to the 'pay-for-performance' remuneration philosophy. Similarly, we are very proud that the vesting of the 2022 long-term incentive (LTI) grant has reached the highest level of achievement, reflecting the impressive value creation since 2022.

### New Supervisory Board remuneration policy in 2024

Following the AGM approval of the remuneration policy for the Management Board in 2023 (votes in favor: 95.3%), a new remuneration policy for the Supervisory Board was adopted at the Annual General Meeting on May 13, 2024.

After engaging with shareholders and proxy advisors, the previous remuneration policy has been updated to ensure ASM remains able to attract Supervisory Board members with broad skill sets and backgrounds to

support ASM's high-growth pace by offering attractive and competitive remuneration.

The new remuneration policy was adopted by 99.6% of shareholder votes. The details of the changes to the previous policy are outlined in paragraph 26.5. For 2025, the Supervisory Board does not intend to make any further changes to the remuneration policy.

### Engagement

To ensure our policies align with good corporate governance criteria and the interests of our broader stakeholder community, we proactively communicated and engaged with shareholders through our annual governance and remuneration roadshow – a practice we have institutionalized over the past few years. This was done in 2024 to discuss the intended changes to the remuneration policy for the Supervisory Board, the intended appointment of Mr M'Saad as ASM's new CEO, and any other topics relevant to our shareholders. We continued this practice at the start of 2025.

During these engagement sessions, our shareholders have largely confirmed their support for the changes we considered and the direction the company is taking. During the CEO succession in 2024, a topic was raised regarding the accelerated vesting of shares for exiting 'good leavers'. Following conversations with shareholders and in accordance with benchmark data, we decided to adjust the long-term incentive plan rules for Management Board members. We moved to a time-based, pro-rated 'at target' vesting of shares instead of full accelerated vesting.



**Didier Lamouche**

Chair of the Nomination, Selection and Remuneration (NSR) Committee

Remuneration report 2024

The Remuneration report for the financial year 2023 was submitted to the 2024 Annual General Meeting for an advisory vote, with 95.6% of the votes casting in favor.

In previous years, steps have been taken to increase the level of transparency and disclosure of targets and how these are linked to remuneration. In doing so, ASM always keeps in mind the business-sensitive (commercial and/or strategic) nature of the information. This consideration is particularly important for ASM, given the nature of our main competitors.

In the 2024 engagement sessions with shareholders and proxy advisors, we received positive feedback on the increased transparency regarding our remuneration policies and their application.

However, while expressing a high level of support for our actions and the remuneration report, some shareholders asked for more transparency regarding the disclosure of targets, especially with regards to non-financial STI performance indicators and LTI performance indicators ex-post. We have therefore taken further action in this year’s remuneration report to increase transparency and disclosure on these metrics. This year’s report has a more straightforward structure and includes all relevant information on remuneration for the Management Board and the Supervisory Board in one place, rather than across several sources as was unintentionally done in previous years.

We trust you welcome these changes.

Outlook

In 2025, the Supervisory Board will propose to the AGM the reappointment of Mr Paul Verhagen as CFO for a two-year term, with remuneration in line with the remuneration policy for the Management Board. To

further secure the capabilities of the Supervisory Board, the Supervisory Board will also propose to the AGM in 2025 to reappoint Ms Pauline van der Meer Mohr, Mr Adalio T. Sanchez, and Ms Stefanie Kahle-Galonske as members of the Supervisory Board. Ms Kahle-Galonske’s re-election is for one year only to ensure a smooth transition as Chair of the Audit Committee to Ms Tania Micki.

Additionally, as always, the NSR Committee and Supervisory Board will continue to monitor trends in the labor market and our (internal and external) business environment. We’ll continue to focus on providing fair and competitive remuneration, ensuring the right balance between fixed and variable pay, and appropriate pay in line with business performance. All of this is done with the interests of the company, our shareholders, and other stakeholders in mind.

We will continue to engage with our stakeholders on an ongoing basis to make sure we capture any insights, potential concerns, and valuable market practices that might require us to constantly evaluate some elements of our policy and practices. Another important focus area is maintaining competitive remuneration policies to attract and retain the best skills and competencies, ensuring our continued success. This also means the NSR Committee and the Supervisory Board will be actively involved, working together with the Management Board to strengthen the company’s business processes and further develop our succession plans for critical roles. Finally, since the remuneration policy for the Management Board has been in place since 2023, and the remuneration policy for the Supervisory Board since 2024, there are no plans to make changes to either policy in 2025.

As always, I’d like to thank my colleagues in the NSR Committee for the intensive and fruitful discussions in

the past year, and their support in making sure our remuneration practices remain in line with our stakeholders’ expectations, and are instrumental to the company’s continued success.

Didier Lamouche  
Committee

26.2 Changes to the Management Board remuneration policy

The remuneration policy for the Management Board was approved at the 2023 AGM. In 2024, following questions from investors during engagement sessions in February 2024, the Supervisory Board decided to update the practice of accelerated ‘at target’ vesting of outstanding LTI grants at the moment of exit of a member of the Management Board and changed this into time-based, pro-rated ‘at target’ vesting for ‘good leavers’. No other changes were made to the remuneration policy for the Management Board in 2024. The Supervisory Board also does not intend to make any changes to the policy in 2025.

Under the remuneration policy and its STI plan, financial and non-financial objectives are set on an annual basis and in accordance with the tactical and strategic priorities of the company. In 2024, in contrast to 2023 when the same non-financial objectives and relative weight per objective applied to both the CEO as well as the CFO, different non-financial objectives were applicable to the different members of the Management Board (for more information, see the table later in this section).

For the performance year 2025, the financial metrics will be the same as in 2024. In 2025, the non-financial

objectives will be set around (i) sustainability (i.e. Planet), as ASM remains committed to being responsible stewards of the planet and its resources; (ii) safety, as it remains important to maintain focus on safety progress, even though ASM is doing very well in this area; and (iii) people & organization, as the Management Board needs to constantly build an organization and human resources capable of handling high-growth pace, including the continued transformation and enhancement of ASM’s global business processes.

Together with the financial objectives, the following measures and respective weights will be applicable to the performance year 2025:

- Financial objectives (total weight 75%): Sales (25%), EBIT (25%), and Free Cash Flow (25%). Please note that given the ongoing volatility in the external environment, the Supervisory Board could review the appropriateness of free cash flow as a metric in due course.
- Non-financial objectives (total weight 25%): Sustainability (5%) and safety (5%) will apply to both the CEO and CFO. The CEO will have specific objectives related to ASM’s People agenda (15%), while the CFO will have objectives related to the transformation of ASM’s global businesses process (7.5%) and of the Finance function (7.5%).

The metrics for the long-term incentive plan in 2025 will also remain unchanged and are the same as the metrics that were applicable in 2024: Revenue growth compared to the WFE industry (50%), EBIT % (50%) and – as a modifier – relative TSR (+/-35% adjustment).

In 2025, the NSR Committee will review the compensation packages for the Executive Committee members reporting to the Management Board to ensure internal and external alignment and competitiveness.

## 26.3 Management Board remuneration policy

### Introduction

ASM's Management Board remuneration policy was adopted by the AGM on May 15, 2023. The 2023 integral version of ASM's remuneration policy can be found on our [website](#).

As ASM's remuneration philosophy for the Management Board is to incentivize and reward performance, while ensuring retention, motivation, competitiveness and

fairness, the purpose of the remuneration policy for members of the Management Board of ASM is to provide compensation that:

- motivates and rewards executives with a balanced and competitive remuneration, in line with their role and responsibilities;
- allows ASM to attract, reward, and retain highly qualified executives with the required background, skills and experience to implement ASM's strategy in a global, fairly concentrated, highly competitive, and

- dynamic industry with main competition being much larger companies from the United States and Asia;
- ensures that short-term operational results and long-term sustainable value creation are balanced;
  - is transparent, fair, and reasonable, and aligns with the interests of ASM, shareholders, and other stakeholders in the medium- and long-term to deliver sustainable performance in line with ASM's strategy, purpose, and values; and
  - leads to internally consistent pay levels considering other remuneration programs and conditions for all employees.

### Overview of policy components

The aim of the remuneration policy for the members of ASM's Management Board is to support the company's overall performance and sustainable long-term value creation in a highly dynamic and competitive environment, by directly linking remuneration to our strategy, mission, and vision. The Management Board remuneration policy is summarized in the below table.

### Summary of 2023 remuneration policy Management Board

Remuneration element and its purpose	Design and link to strategy	Value
<b>Total Direct Compensation (TDC)</b> Basis for benchmark against remuneration peer group (more details on remuneration peer group later in this section)	Market positioning for TDC is based on market median position for Target Total Cash (TTC, base salary plus STI) complemented with a long-term incentive that is based on differentiated market levels per geographical location, as defined for each member of the Management Board (Europe, and rest of the world, and the US) based upon the Remuneration peer group.	Value of respective items is specified in rest of the table.
<b>Base salary (fixed remuneration)</b> Basic pay for the job responsibilities of each Management Board position	<ul style="list-style-type: none"><li>• Base salary for the members of the Management Board is derived from the outcome of the benchmark analysis.</li><li>• The Supervisory Board reviews base salary on an annual basis and can, at their discretion, apply an annual increase to the base salary based on market movement as well as adjustments made by the Remuneration peer group.</li></ul>	Annualized amounts: <ul style="list-style-type: none"><li>• CEO: €710,000</li><li>• CFO: €604,800</li></ul> Reflecting base salary as per May 2024
<b>Short-term incentive (STI)</b> Aligning annual business objectives and long-term strategy to drive pay for performance	<ul style="list-style-type: none"><li>• Performance is measured against pre-set performance criteria, both financial and non-financial, as determined by the Supervisory Board at the beginning of the financial year.</li><li>• Performance criteria and targets are defined by the Supervisory Board and may vary per year (depending on the specific focus that the Supervisory Board wants to have in the year) and per member of the Management Board.</li><li>• The financial performance criteria (aggregated relative weight in principle 75%) may include among other measures: Revenue measures, margin measures, return measures and/or cash flow measures.</li><li>• The non-financial indicators (aggregated relative weight in principle 25%) are set in accordance with ASM's long-term plan and are based on the strategic focus. They may include, among others: ESG measures, operational measures, strategic measures, customer measures and/or leadership measures.</li></ul>	<ul style="list-style-type: none"><li>• CEO: 'At target' up to 125% of annual base salary, with a maximum up to 187.5% (i.e. 150% of the target incentive level, i.e. stretch level).</li><li>• Other Members of the Management Board: Up to 80% of annual base salary, with a maximum up to 120% (i.e. 150% of the target incentive level).</li><li>• Performance targets are defined at 'target' level (representing the expected nominal level of performance), 'threshold' level (below which performance is deemed insufficient and hence triggers 'zero' pay-out for these criteria), and 'stretch' level (representing exceptional level of performance awarding maximum level of pay-out).</li><li>• For 2024 the following target incentive levels apply: 100% for the CEO and 80% of base salary for the CFO.</li></ul>



Remuneration element and its purpose	Design and link to strategy	Value
<b>Long-term incentive (LTI)</b> Reward long-term value creation and enhance alignment of the long-term interests of the Management Board with those of the company and shareholders	<ul style="list-style-type: none"><li>• Performance-based share plan, providing for conditional rights to receive a certain amount of ASM shares, after a three-year cliff vesting period, and subject to fulfilling the predetermined performance conditions and upon continued employment of the participant at the vesting date.</li><li>• Performance shares are granted in April of each year and the number of performance shares granted for 'on target' performance is determined by the Supervisory Board at the beginning of the new three-year performance period.</li><li>• ASM applies a face-value approach to define the number of shares to be granted, which is calculated as follows: Target level (calculated based on annual base salary) divided by the average share price of ASM on the Euronext Amsterdam stock exchange on the award date and the following four consecutive days. The award date is immediately following the date of the announcement of the first quarter financial results in April for the year the award takes place.</li><li>• Performance indicators are set for the duration of the remuneration policy and are revenue growth compared to market (WFE) and average EBIT percentage measured over a three-year performance period. Both performance measures are equally weighted (50% each).</li><li>• It should be noted that WFE is a publicly available indicator, ASM publishes its revenue every quarter and the EBIT progression roadmap is in line with long-term goals as communicated to the market in the CMD.</li><li>• In addition, a relative Total Shareholder Return (TSR) indicator is applied as a modifier to the results. Based upon relative TSR performance against the TSR peer group (more details later in this section) vesting will be adjusted. This modifier adds 35% if the ranking is in the top quartile of the peer group and subtracts 35% if it is in the bottom quartile of the peer group with straight line interpolation from 25th percentile to 75th percentile, only rewarding if TSR performance is above the median of the peer group.</li><li>• Members of the Management Board are required to hold the vested performance shares for two years ('Holding Period') after the vesting date. However, they are allowed to sell a part of the unconditional shares after three years for tax purposes.</li></ul>	<ul style="list-style-type: none"><li>• The target level of the LTI is differentiated for Management Board members based on geographical location of the respective individuals, whereby distinction is made between Management Board members in Europe (and rest of the world) and the US:<ul style="list-style-type: none"><li>– Up to 200% of annual base salary 'at target' for Management Board members in Europe (and rest of the world other than US), with an overall maximum up to 200% of target.</li><li>– Up to 450% of annual base salary 'at target' for Management Board members in the US, with an overall maximum of 200% of target.</li><li>– This percentages applies when (i) the working location or contractual terms of the Management Board member is the US, at the moment of hiring or internal promotion or (ii) when a Management Board candidate, employed outside the US, has an existing employment contract that is US home-based (expat conditions).</li></ul></li><li>• For 2024, the following on-target grant levels apply: 450% of annual base salary for the CEO (US-reference) and 160% for the CFO (Europe-reference).</li><li>•</li></ul>
<b>Share Ownership Guidelines (SOG)</b> Aligning reward with the interests of stakeholders and emphasizing confidence in performance and strategy of ASM	<ul style="list-style-type: none"><li>• Members of the Management Board are required to hold ASM shares.</li><li>• All vested shares granted under ASM share-based compensation plans and any shares privately purchased are considered.</li></ul>	<ul style="list-style-type: none"><li>• Minimum shareholder requirement is at least twice the base salary as measured at the start of each financial year.</li></ul>
<b>Pension and other elements</b> Post-retirement and other benefits create alignment with market practice	<ul style="list-style-type: none"><li>• Management Board members are entitled to pension and fringe benefits or perquisites such as a company car (or allowance), representation and expense allowance, and medical, disability, and other insurances in line with local market practice.</li><li>• Additional benefits and allowances may be applicable in case of relocation or international assignment.</li><li>• Members of the Management Board are given the opportunity to participate in a defined contribution plan for their salary up to the fiscal maximum (2024: €137,800).</li><li>• For the salary above this maximum, members of the Management Board are compensated with an amount equal to the age-dependent employer pension contribution. The members of the Management Board have the option to participate in a net pension plan offered by the company or to have the compensation paid out in cash.</li></ul>	<ul style="list-style-type: none"><li>• Pension contributions are age dependent and vary from 7.2% to 28.4% of the pensionable salary.</li><li>• Members of the Management Board contribute 4.6% of their pensionable salary, and ASM pays the remaining part.</li></ul>

**Remuneration peer group**

The remuneration peer group in principle consists of companies ASM could hire from or could lose people to. These companies are selected according to industry comparability (complexity and geographical span), size (revenues), (labor market) competition and is a mix of European (2/3) and US companies (1/3). Market capitalization is only a second factor. The peer group includes the following 17 companies:

Aixtron SE, ams Osram AG, Applied Materials Inc, ASML Holding NV, BE Semiconductor Industries NV, Entegris Inc, Infineon Technologies AG, KLA Corp, Koninklijke KPN NV, Lam Research Corp, MKS Instruments Inc, NXP Semiconductors NV, Siltronic AG, SMA Solar Technology, Soitec SA, Teradyne Inc, and VAT Group AG.

**TSR peer group**

The TSR peer group comprises companies that are comparable to ASM on the following criteria: industry (same and/or adjacent industry provided the company operates in the same industry cycle), geographic focus, size, share-price correlation and volatility, and market cap. Currently, the TSR peer group consists of the following 21 companies that have been selected by the Supervisory Board, based on these criteria:

Aixtron SE, Alphawave IP Group PLC, ams Osram AG, Applied Materials Inc, ASML Holding NV, BE Semiconductors Industries NV, Entegris Inc, Globalfoundries Inc, Infineon Technologies AG, KLA Corp, Lam Research Corp, MKS Instruments Inc, NXP

Semiconductors NV, Siltronic AG, Soitec SA, STMicroelectronics NV, SUESS MicroTec SE, Teradyne Inc, Tokyo Electron Ltd, VAT Group AG and X Fab Silicon Foundries EV.

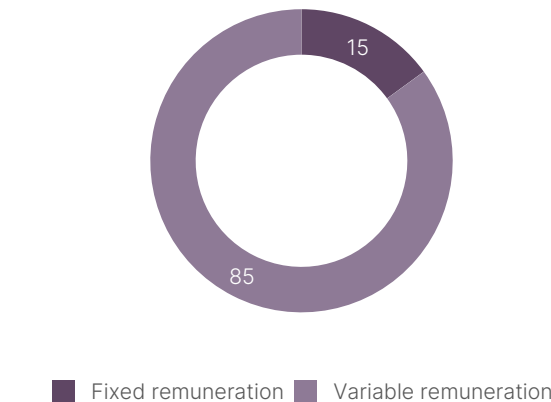
The composition of the group may be adjusted over time. In the case of a delisting of a peer group company, the Supervisory Board will carefully consider an appropriate replacement company.

**Pay mix for members of the Management Board**

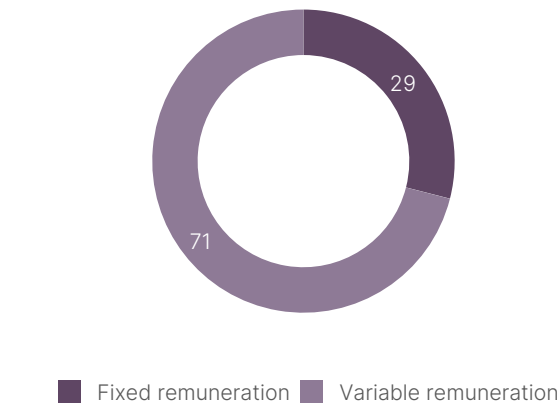
The graphs below show the relative levels of fixed and variable remuneration for ‘at target’ performance level for the members of the Management Board:

Overall, the ‘at risk’ portion of the annual compensation is 85% for the CEO position and 71% for the CFO position.

**CEO target performance**  
in %



**CFO target performance**  
in %



26.4 Remuneration of the Management Board in 2024

The 2024 Remuneration report refers to ASM's remuneration policy as outlined in paragraph 26.3.

The remuneration of the Management Board for the financial year 2024 reflects the implementation of and complies with the 2023 remuneration policy for the Management Board.

Total remuneration of Management Board

The following table provides an overview of the 2024 remuneration elements in € thousands for the CEO (former and current) and the CFO, as recognized by the company.

Name of director	1				2				3		4		5		6	
	Fixed remuneration (K€)				Variable remuneration (K€)											
	Base salary		Fringe benefits		Short-term cash incentive (STI)		Share-based payment expenses (LTI) <sup>3</sup>		Pension expense (K€)		Other items (K€)		Total remuneration (K€)		Proportion of fixed and variable remuneration	
	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024
H. M'Saad <sup>1,2</sup>	570	791	106	87	631	1,000	572	1,864	32	69	-	-	1,911	3,811	59 %	33 %
P.A.H. Verhagen	558	595	46	48	618	656	849	1,127	90	95	-	-	2,161	2,521	47 %	41 %
G.L. Loh <sup>4,5</sup>	722	268	61	23	1,263	-	1,459	313	120	64	-	10,036	3,625	10,704	33 %	113 %
Total	1,850	1,654	213	158	2,512	1,656	2,880	3,304	242	228	-	10,036	7,697	17,036		

<sup>1</sup> CTO since May 16, 2022 and CEO since May 13, 2024. The amounts shown reflect his remuneration during his MB membership.

<sup>2</sup> The amount for 2024 also includes the payout of accrued vacation hours in the US up to the appointment as CEO.

<sup>3</sup> The remuneration reported as part of the LTI (share awards) is based on costs incurred under accounting values EU-IFRS. The costs of share awards are charged to the consolidated statement of profit or loss over the three-year vesting period based on the number of awards expected to vest. For the first year we account at target, subsequently we apply the estimated number of share awards, and in the final performance year of the awards we update this estimate to the best estimated number of awards which are anticipated to vest.

<sup>4</sup> The 2024 amounts for Fixed remuneration, Variable remuneration and Pension expenses for Mr Loh reflect his departure in 2024.

<sup>5</sup> The 2024 Other items include Mr Loh's STI payout over 2024.

Explanation of the table

1. Fixed remuneration

(1.1) Base salary is the fixed annual gross salary. The salary for the CEO, Mr M'Saad, was set at €710,000 at the moment of his appointment as CEO as per May 13, 2024. A salary increase of 7% for the CFO, Mr Verhagen, has been implemented as of April 1, 2024, in line with market movement in the Netherlands. The base salary for the former-CEO, Mr Loh, remained unchanged in 2024 at €738,733. No salary increase was given to him given that he stepped down as CEO as per May 13, 2024.

(1.2) Fringe benefits represent the value of benefits and perquisites awarded, such as a company car, a representation and expense allowance, the premium for health and disability insurance, and social-security contributions.

2. Variable remuneration

(2.1) Short-term incentive (STI). Each year, a short-term incentive can be earned based on achieving specific challenging targets. The short-term incentive recognizes three levels: threshold, on-target, and stretch. The target level is generally aligned with the budget as reviewed and approved by the Supervisory Board. The target performance level represents the expected performance in a performance year. Achievement at target level results in a payout of 100%. The stretch level is set to promote extra-performance and results in 150% payout. If the performance does not meet the threshold level, the minimum performance level, the related part of the bonus will be zero. If the actual realization is between threshold and on-target or between on-target and stretch, the payout will be based on the relative deviation against these levels.

The targets are 75% based on company financial targets (equally divided between revenue, EBIT, and free cash flow) and 25% based on non-financial targets (consisting of targets related to sustainability, safety, people, and organizational effectiveness in 2024). The non-financial, strategic targets are aligned with ASM's most important strategic priorities in a performance year.

STI realization

The excellent financial performance in 2024 resulted in the realization of all financial metrics above the stretch level. Performance on the non-financial objectives differs between the objectives. Outstanding performance was achieved on the sustainability (i.e. planet)-related objectives, while performance on safety was just above the threshold level. In addition, given the complexity of the project to improve ASM's enterprise business systems and processes, and given the various operational priorities, it was decided not to rush various implementations and mitigate risks by allowing for somewhat more time to secure realization. The performance related to CSRD-readiness scored at stretch levels and, in total, this results in an over-achievement on STI (136% rounded – see table below) for Mr Verhagen.

The results on the people-related objectives for Mr M'Saad were above target. Therefore, in combination with the above stretch level performance on the financial objectives, Mr M'Saad overall realized an over-achievement on STI too. The overall STI performance achievement for Mr. M'Saad amounts to 141% (rounded – see table below). The overall performance achievement resulted in a STI payment of € 655,845 for Mr Verhagen and € 999,680 for Mr M'Saad.

Mr Loh received a pro-rated STI pay-out 'at target' amounting to €385,000 for the year 2024.



STI performance measures

STI realization 2023 performance year: (achievement rate)				
Financials (Total weight: 75%)				
Targets in accordance with budget as approved by Supervisory Board				
Average result:			150%	
Sales (Weight: 25%)	Revenue achievement at constant currencies (actual revenue recalculated at budget currency).			<div><div></div><div>ThresholdTargetStretch</div><div>150%</div></div>
EBIT (Weight: 25%)	EBIT excluding one-off non-budgeted items (e.g. M&A and related PPA amortization).			<div><div></div><div>ThresholdTargetStretch</div><div>150%</div></div>
Free cash flow (Weight: 25%)	Net cash flow from operating activities after investment activities excluding non-budgeted M&A and excluding ASMPT dividends.			<div><div></div><div>ThresholdTargetStretch</div><div>150%</div></div>
Non-financials (Total weight: 25%)				
Average result:			CEO: 113.2% CFO: 92.2%	
Planet (Weight: 6% for CEO and CFO)	Continuation net-zero pathway			
	Threshold:	Target:	Stretch:	
	1. Renewable electricity <ul style="list-style-type: none"><li>95% renewable electricity (global operations).</li></ul> 2. Establish roadmap <ul style="list-style-type: none"><li>Establish Scope 3.1 and 3.11 roadmaps for 2024-2027 by year-end.</li></ul>	1. Renewable electricity <ul style="list-style-type: none"><li>100% renewable electricity (global operations).</li></ul> 2. Establish roadmap <ul style="list-style-type: none"><li>Establish Scope 3.1 and 3.11 roadmaps for 2024-2027 by Q3, incl. setting relevant GHG reduction targets.</li></ul>	. Renewable electricity <ul style="list-style-type: none"><li>100% renewable electricity plus no increase in Scope 1 &amp; 2 GHG emissions despite growth.</li></ul> 2. Establish roadmap <ul style="list-style-type: none"><li>Establish Scope 3.1 and 3.11 roadmaps for 2024-2027 by Q3, incl. setting relevant GHG reduction targets and realize first results in 2024.</li></ul>	<div><div></div><div>ThresholdTargetStretch</div><div>150%</div></div>
Safety (weight: 4% for CEO and CFO)	Total injury rate			
	Threshold:	Target:	Stretch:	
	<ul style="list-style-type: none"><li>≤ 0.40</li></ul>	<ul style="list-style-type: none"><li>≤ 0.33</li></ul>	<ul style="list-style-type: none"><li>≤ 0.28</li></ul>	<div><div></div><div>ThresholdTargetStretch</div><div>70%</div></div>

STI realization 2023 performance year: (achievement rate)			
Trans4M! (weight: 7.5% for CFO only)	Three-year program transforming and enhancing ASM's global business processes through the upgrade of ASM's enterprise systems.		
	<b>Threshold:</b> <ul style="list-style-type: none"><li>Achieved critical milestones towards 'Go Live' with three months delay vs plan.</li></ul>	<b>Target:</b> <ul style="list-style-type: none"><li>Achieved critical milestones towards 'Go Live' as per plan.</li></ul>	<b>Stretch:</b> <ul style="list-style-type: none"><li>Achieved critical milestones towards 'Go Live' three months ahead of plan.</li></ul>
CSRD readiness (weight: 7.5% for CFO only)	Prepare and be ready for all in-scope CSRD required disclosures.		
	<b>Threshold:</b> <ul style="list-style-type: none"><li>All in-scope CSRD required disclosures ready in Jan 2025 as part of the 2024 Annual Report.</li></ul>	<b>Target:</b> <ul style="list-style-type: none"><li>All in-scope CSRD required disclosures ready before year-end, incl. unqualified assurance statement for its CSRD reporting.</li></ul>	<b>Stretch:</b> <ul style="list-style-type: none"><li>All in-scope CSRD required disclosures ready before November 2024, incl. unqualified assurance statement for its CSRD reporting.</li></ul>
People (weight: 15% for CEO only)	Continuation of ASM's people roadmap, reflecting 1. Leadership & talent, 2. Culture & engagement, 3. Organizational design		
	<b>Threshold:</b> <ol style="list-style-type: none"><li>Leadership &amp; talent:<ul style="list-style-type: none"><li>Identify at least one 'ready-now' and one 'ready-later' successor</li><li>All positions have emergency replacement</li></ul></li><li>Culture &amp; engagement - Via engagement survey:<ul style="list-style-type: none"><li>Progress on ASM ACE behaviors across all questions: 3.8 score.</li><li>Inclusion index: 4.1 score.</li><li>Diversity: 18% females in sub-board pool.</li></ul></li><li>Organizational design<ul style="list-style-type: none"><li>Fit-for-future organizational design defined.</li></ul></li></ol>	<b>Target:</b> <ol style="list-style-type: none"><li>Leadership &amp; talent:<ul style="list-style-type: none"><li>Identify at least one 'ready-now' and one 'ready-later' successor</li><li>Concrete individual development plans (IDP) for identified successors implemented</li><li>All positions have emergency replacement</li></ul></li><li>Culture &amp; engagement - Via engagement survey:<ul style="list-style-type: none"><li>Meaningful change across all questions on ACE behaviors: 3.9 score.</li><li>Inclusion index: 4.25 score.</li><li>Diversity: 19% females in sub-board pool.</li></ul></li><li>Organizational design<ul style="list-style-type: none"><li>Defined organizational design implemented.</li></ul></li></ol>	<b>Stretch:</b> <ol style="list-style-type: none"><li>Leadership &amp; talent:<ul style="list-style-type: none"><li>Identify at least one 'ready-now' and one 'ready-later' (ensure diverse pool) internal successor</li><li>Concrete individual development plans (IDP) for identified successors implemented</li><li>If no successor identified, defined hiring plan for potential.</li><li>All positions have emergency replacement</li></ul></li><li>Culture &amp; engagement - Via engagement survey:<ul style="list-style-type: none"><li>Meaningful change and 'best practice' benchmark for some questions re ACE behaviors.</li><li>Inclusion index: 4.5 score.</li><li>Diversity: 20% females in sub-board pool.</li></ul></li><li>Organizational design<ul style="list-style-type: none"><li>Fit-for-future organizational design implemented and retention of all critical job holders.</li><li>Organizational design parameters (e.g. span of control, layers from CEO) significantly improved.</li></ul></li></ol>

(2.2) Share-based payments or long-term incentives (LTI). This is a multi-year variable payment of which the value is the value of a performance share award that has become unconditional after a performance period of three years. At the end of 2024, the three-year performance period for the 2022 performance share award came to an end. The unconditional award is the result of targets on revenue growth compared to market and average EBIT as set in 2022. As per the grant of 2023, relative TSR performance will also be applied to determine the unconditional award to vest in 2026.

Revenue growth is being communicated publicly every quarter and after every calendar year and can be compared to a publicly available index (WFE industry growth) making this measure and its achievement transparently disclosed. Performance on relative TSR is

also transparent given the ex-ante disclosure of the peer group and publicly available information. As information on EBIT achievement is considered to be commercially sensitive, ASM therefore only discloses achievement relative to target.

As of the end of 2024, the three-year performance period of the performance shares granted to Mr Verhagen on April 21, 2022 (2,204 shares), has been completed. Over the three-year performance period, ASM's revenue growth outperformed the WFE market indicator by 34%, resulting in an achievement of 150% on this specific measure. Performance on EBIT % exceeded the stretch level as pre-set by the Supervisory Board, resulting in an actual achievement of 150% on this metric too. ASM clearly delivered a strong EBIT performance. Even with continuously increasing investments in R&D

throughout the period and significant planned increases in SG&A in 2022-2023 to strengthen the organization, the EBIT % margin improved in the course of the three-year period to a solid level of 28% by 2024. In absolute terms, EBIT increased by 67% during the three-year period. Overall, this therefore results in a vesting percentage of the performance shares on April 21, 2025 of 150%. The performance shares granted to Mr Loh in his capacity as CEO in April 2022 (3,631 shares) and April 2023 (4,052 shares) have all vested 'at target' performance level as per May 14, 2024. At the moment of the 2022 grant (April 21, 2022), Mr M'Saad was not yet appointed as member of the Management Board (appointment as per May 16, 2022) and hence didn't receive performance shares.

Outstanding performance shares

For 2024, based on the remuneration policy, the Supervisory Board awarded the following on-target values to:

- Mr M'Saad, CEO: €3,195,000 (5,349 shares)
- Mr Verhagen, CFO: €967,680 (1,620 shares)
- No conditional performance shares were granted to Mr Loh.

The following table shows the outstanding performance shares granted to members of the Management Board up until and including 2024, and held by members of the Management Board as per December 31, 2024:

Management Board member	Grant date	Status	Number of shares at grant date	Performance adjustment	Vested in 2024	Outstanding December 31, 2024	Fair value at grant date	Vesting date	End of holding period
G.L. Loh <sup>1</sup>	Apr 21, 2021	Conditional	4,184	1,602	(5,786)	-	€245.40	Apr 21, 2024	Apr 21, 2026
G.L. Loh <sup>1</sup>	Apr 21, 2022	Conditional	3,631	-	(3,631)	-	€313.72	Apr 21, 2025	May 13, 2024
G.L. Loh <sup>1</sup>	Apr 26, 2023	Conditional	4,052	-	(4,052)	-	€311.47	Apr 27, 2026	May 13, 2024
P.A.H. Verhagen <sup>2 4</sup>	Jul 28, 2021	Conditional	2,159	756	(2,915)	-	€291.97	Jul 28, 2024	Jul 28, 2026
P.A.H. Verhagen <sup>2</sup>	Apr 21, 2022	Conditional	2,204	1,102	-	3,306	€313.72	Apr 21, 2025	Apr 21, 2027
P.A.H. Verhagen <sup>2</sup>	Apr 26, 2023	Conditional	2,583	-	-	2,583	€311.47	Apr 27, 2026	Apr 27, 2028
P.A.H. Verhagen <sup>2</sup>	Apr 24, 2024	Conditional	1,620	-	-	1,620	€581.81	Apr 24, 2027	Apr 24, 2029
H. M'Saad <sup>3</sup>	Apr 26, 2023	Conditional	8,099	-	-	8,099	€311.47	Apr 27, 2026	Apr 27, 2028
H. M'Saad <sup>3</sup>	Apr 24, 2024	Conditional	5,349	-	-	5,349	€581.81	Apr 24, 2027	Apr 24, 2029
<b>Total</b>			<b>33,881</b>	<b>3,460</b>	<b>(16,384)</b>	<b>20,957</b>			

<sup>1</sup> CEO until May 13, 2024.  
<sup>2</sup> CFO since June 1, 2021.  
<sup>3</sup> CTO since May 16, 2022 and CEO since May 13, 2024.  
<sup>4</sup> As part of the approved contractual terms and conditions 997 restricted share units have been granted to the CFO at hire on July 28, 2021 with a grant value of € 300.000, of which 332 did vest on July 28, 2022, 332 on July 28, 2023 and 333 on July 28,2024.

The shares will become unconditional after three years, depending on whether predetermined targets are achieved or not.

**3. Pension**

As of 2015, members of the Management Board no longer participate in the industry-wide pension fund. They have opted to participate in a defined contribution plan for their full-time salary up to €137,800. ASM reimburses an amount equal to the employer pension contribution for their full-time salary above this amount. Members of the Management Board can opt either to participate in a net pension plan offered by the company or to have the cost for participating paid out directly. Pension contributions vary from 7.2% to 28.4% of the pensionable salary, depending on age. Members of the Management Board contribute 4.6% of their pensionable salary, and ASM pays the remaining part. There are no arrangements regarding early retirement. Mr M'Saad continued his participation in the US 401(k) retirement savings plan for his salary that is being paid out in the US.

**4. Other items**

Non-recurring items, which represent in 2024 an additional payroll tax to the company due to the vesting of already granted shares in previous years related to Mr Loh's departure as CEO as per the AGM of May 13, 2024, subject to article 32bb of the Dutch Wage Tax Act, including the pro-rated 'at target' payout of Mr Loh's short-term incentive over 2024.

**5. Total remuneration**

Value equals sum of 1, 2, 3, and 4 as described above.

**6. Proportion of fixed and variable remuneration**

- (6.1) The relative proportion of fixed remuneration: By dividing the sum of fixed components (column 1, column 4, and the fixed part of the pension expenses

in column 3) by the amount of total remuneration (column 5), multiplied by 100.

- (6.2) The relative proportion of variable remuneration: By dividing the sum of the variable components (column 2 and the variable part of the pension expense in column 3, if any) by the amount of total remuneration (column 5), multiplied by 100.

**Management services agreements**

All members and former members of the Management Board have a management services agreement with ASM or one of its related subsidiaries, in accordance with Dutch law:

- Mr M'Saad started on May 16, 2022 as a Management Board member, and was appointed for a four-year term based on a management services agreement. At the 2024 AGM he was appointed CEO until the AGM in 2026 under an amended management services agreement.
- Mr Verhagen started on June 1, 2021, and was appointed for a four-year term based on a management services agreement. The Supervisory Board intends to nominate Mr Verhagen for a second term as member of the Management Board and Chief Financial Officer for a two-year term until the AGM in May 2027, when Mr Verhagen plans to retire. His intended reappointment will be submitted to the AGM on May 12, 2025. In light of his reappointment, Mr Verhagen entered into a new, restated management service agreement.
- Mr Loh started on May 18, 2020, and was appointed for a four-year term based on a management services agreement. His term ended as per the AGM of May 13, 2024. Mr Loh's exit conditions are fully in line with the remuneration policy without exceptions.

All management services agreements with members of the Management Board contain specific provisions

regarding benefits upon termination of those agreements. If ASM gives notice of termination of the agreement for reasons which are not exclusively or mainly found in acts or omissions on the side of the Management Board member or in case of a termination of the agreement of a Management Board member with mutual consent between such Management Board member and the company, the member of the Management Board is eligible for a severance payment of maximum one-year base salary and to garden leave. The treatment of incentive awards will be determined by the Supervisory Board and depends on the reason and circumstances for termination, considering usual practices for these types of situations as well as applicable plan rules. The notice periods are set at six months if the termination of the agreement is initiated by ASM and at three months if the member of the Management Board terminates the agreement.

**Claw-back and ultimum remedium**

In exceptional circumstances, the Supervisory Board will have the discretionary authority to recover any paid bonus and awarded shares if evidence shows payments and awards have been awarded based on incorrect financial or other data (claw-back).

If a variable component conditionally awarded in a previous financial year would, in the opinion of the Supervisory Board, produce an unfair result due to extraordinary circumstances during the period in which the predetermined indicators have been or should have been achieved, the Supervisory Board has the authority to adjust the value of bonus and shares downwards or upwards (ultimum remedium).

The NSR Committee concluded for 2024 that no circumstances have been identified that result in any adjustments or claw-back of variable remuneration.



Comparative information on the change of remuneration and company performance

The figures presented are indexed compared to the previous financial year.

Annual change	2020/2019	2021/2020	2022/2021	2023/2022	2024/2023	Information regarding 2024
Management Board remuneration						
G.L. Loh, CEO (as of May 18, 2020, until May 13, 2024)	- %	210 %	120 %	132 %	295 %	Former CEO retired May 13, 2024
P.A.H. Verhagen, CFO (as of June 1, 2021)	- %	- %	159 %	121 %	117 %	
H. M'Saad, CTO (as of May 16, 2022) and CEO (as of May 13, 2024)	- %	- %	- %	212 %	199 %	
P.A.M. van Bommel, CFO (until May 17, 2021)	101 %	66 %	- %	- %	- %	Former CFO retired May 17, 2021
C.D. del Prado, CEO (until May 18, 2020)	64 %	- %	- %	- %	- %	Former CEO retired May 18, 2020
Company performance						
Revenue	103 %	130 %	139 %	109 %	111 %	
EBIT	142 %	150 %	128 %	103 %	123 %	
Free cash flow	48 %	222 %	25 %	667 %	123 %	
Qualitative/non-financial strategic objectives/targets	88 %	98 %	98 %	80 %	102 %	
Average remuneration of employees (K€)						
Average remuneration of employees	88	87	99	111	130	
CEO pay ratio	27	29	27	31	33	

The ratio of the CEO's remuneration and the average remuneration of all other employees (the pay ratio) is calculated by dividing the CEO's remuneration by the average remuneration of all employees. The CEO's remuneration is the total annualized base salary and bonus of the CEO as well as share-based payment (extrapolated to a full-year LTI value based upon three consecutive yearly grants with each a 36-month vesting period). The average remuneration of all employees is calculated by dividing the total personnel costs (wages, salaries, bonuses, and share-based payments), minus the CEO's remuneration, by the total number of employees (minus CEO). Although the pay ratio is in line with the anticipated internal development of pay levels,

it is higher compared to last year because of the higher LTI 'at target', but still at risk, for the new CEO. The pay ratio is at the lower end compared to the AEX listed companies.

The 2024 ASM Remuneration report considers the draft guidelines to specify the standard presentation of the Remuneration report as stated in Directive 2007/36EC of the European Parliament, and amended by Directive (EU) 2017/828, Article 9b (6).

This report is the Remuneration report required in accordance with article 2:135b of the Dutch Civil Code and the Dutch Corporate Governance Code.

26.5 Remuneration of the Supervisory Board

The 2024 Remuneration report refers to the remuneration policy for members of the Supervisory Board of ASM, which can be found on [asm.com](https://asm.com).

Supervisory Board remuneration policy changes

The current remuneration policy was adopted by the AGM on May 13, 2024, and took effect from January 1, 2024.

The intent of the remuneration policy is to provide remuneration aligned with comparable peer companies in the Netherlands and Europe, considering the scope of the company. It aims to motivate and reward Supervisory Board members with balanced compensation that matches their roles and responsibilities. Additionally, it helps ASM to attract, reward, and retain highly qualified, independent, and high-caliber Supervisory Board members with the necessary background, experience, and broad skill set.

The main changes in the remuneration policy as adopted by the AGM in 2024 compared to the previous remuneration policy of the Supervisory Board include the following:

- Increased fee for Supervisory Board members and its committees;
- Removal of the cap on travel allowances;
- Introduction of a fee per additional meeting in excess of two hours above the regular cadence of the Supervisory Board or its committees in special business circumstances after prior approval by the Chair of the Supervisory Board; and

- Introduction of a Technology Committee and the option to establish other committees.
- The Supervisory Board doesn't intend to make any changes to the remuneration policy in 2025.

Summary of remuneration of the Supervisory Board

This table provides an overview and description of the elements of the 2024 remuneration policy for the Supervisory Board.

Fixed remuneration

Description	Value
Fixed remuneration in cash consisting of a retainer fee for the Chairperson and Members, and additional fees related to the responsibilities in the respective Committees	Chair of the Supervisory Board
	€ 130,000
	Member of the Supervisory Board
	€ 80,000
	Chair of the Audit Committee
	€ 25,000
	Member of the Audit Committee
	€ 18,000
	Chair of the Nomination, Selection and Remuneration Committee
	€ 22,000
	Member of the Nomination, Selection and Remuneration Committee
	€ 15,000
	Chair of the Technology Committee
	€ 22,000
	Member of the Technology Committee
	€ 15,000
	Chair other committee
	€ 22,000
	Member other committee
	€ 15,000

Travel expenses

Description	Value
Actual and reasonable travel expenses are reimbursed together with a travel allowance following physical attendance of meetings	Continental travels
	€2,500 (per meeting)
	Intercontinental travels
	€5,000 (per meeting)

Other expenses

Description	Value
Compensation for additional meetings (lasting more than two hours in excess of the regular meeting cadence in case of special business circumstances, provided that the Chair of the Supervisory Board has given prior approval).	€2,500 (per extra meeting).
Reimbursement of actual expenses	Actual expenses

Loans and guarantees

Description	Value
No personal loans, guarantees, or advance payments are provided.	Not applicable

Shares and share ownership

Description	Value
No shares or rights on shares are granted as part of the remuneration.	Not applicable

Other arrangements

Description	Value
No severance, change-in-control, or claw-back arrangements are in place.	Not applicable

The following tables present information on the sole remuneration from the company (including its subsidiaries) for services in all capacities to all current and former members of the Supervisory Board:

	Year ended December 31,				
	Annual fee	Committee fee	Allowances <sup>4</sup>	Total remuneration	
	2024	2024	2024	2024	2023
<b>Supervisory Board:</b>					
P.F.M. van der Meer Mohr	130.0	26.4	17.5	173.9	117.4
S. Kahle-Galonske	80.0	34.5	17.5	132.0	96.0
M.J.C. de Jong	80.0	24.6	7.5	112.1	81.0
D.R. Lamouche	80.0	28.6	17.5	126.1	92.0
M. de Virgiliis <sup>1</sup>	29.5	6.6	5.0	41.1	88.5
A.T. Sanchez	80.0	31.5	30.0	141.5	105.9
T. Micki <sup>2</sup>	80.0	18.0	17.5	115.5	-
M. van den Brink <sup>3</sup>	50.8	21.2	5.0	77.0	-
<b>Total</b>	<b>610.3</b>	<b>191.4</b>	<b>117.5</b>	<b>919.2</b>	<b>580.8</b>

<sup>1</sup> Until May 13, 2024  
<sup>2</sup> As of January 1, 2024  
<sup>3</sup> As of May 13, 2024  
<sup>4</sup> Consist of allowances for (inter)continental meetings.

Annual change	2020/2019	2021/2020	2022/2021	2023/2022	2024/2023
<b>Supervisory Board remuneration</b>					
P.F.M. van der Meer Mohr <sup>1</sup>	- %	- %	806 %	114 %	148 %
J.C. Lobbezoo	100 %	38 %	- %	- %	- %
M.C.J. van Pernis	100 %	119 %	60 %	- %	- %
U.H.R. Schumacher	38 %	- %	- %	- %	- %
S. Kahle-Galonske	100 %	100 %	168 %	95 %	138 %
M.J.C. de Jong	100 %	106 %	141 %	94 %	138 %
D.R. Lamouche	- %	166 %	168 %	95 %	137 %
M. de Virgiliis	- %	161 %	167 %	92 %	46 %
A.T. Sanchez <sup>2</sup>	- %	- %	827 %	100 %	134 %
T. Micki	- %	- %	- %	- %	- %
M. van den Brink	- %	- %	- %	- %	- %

<sup>1</sup> Due to her appointment in 2021, Ms Van der Meer Mohr received limited payments in 2021 compared to 2022 (€12,800 vs €103,200).  
<sup>2</sup> In 2021, Mr Sanchez received limited payments compared to 2022 (€12,800 vs €105,900).

Any recommended changes to the remuneration of members of the Supervisory Board will be submitted to the Annual General Meeting for approval.

Derogations from remuneration policy

The Supervisory Board has not derogated or deviated from the remuneration policy.

ASM does not provide any loans, advanced payments, deposits, or related guarantees to the Supervisory Board. In the 2024 Annual General Meeting, an amendment to the articles of association was approved pursuant to which an indemnity was added to the articles in favor of the members of the Management Board and the Supervisory Board.

## 27. External auditor

In accordance with Dutch law, ASM's external auditor is appointed by the Annual General Meeting of Shareholders and is nominated for appointment by the Supervisory Board upon advice from the Audit Committee and the Management Board. Our current external auditor, KPMG Accountants N.V. ('KPMG'), was reappointed as external auditor by the 2023 AGM for the reporting years 2023 and 2024.

The external auditor is present at our AGM to respond to questions, if any, from the shareholders about the auditor's report on the financial statements.

The Audit Committee has determined that the provision of services by KPMG and its member firms is compatible with maintaining KPMG's independence. All audit and permitted audit-related services provided by KPMG and its member firms during 2024 were pre-approved by the Audit Committee.

### Audit committee policies and procedures

The Audit Committee has adopted the following policies and procedures for pre-approval of all audit and permitted non-audit services provided by our external auditor.

#### Audit services

Management submits to the Audit Committee for pre-approval the scope and estimated fees for specific services directly related to performing the independent

audit of our statutory and consolidated financial statements for the current year.

#### Audit-related services

The Audit Committee may preapprove expenditures up to a specified amount for services included in identified service categories that are related extensions of audit services and are logically performed by the auditors. Additional services exceeding the specified preapproved limits require specific Audit Committee approval.

#### Tax services

The Audit Committee may preapprove expenditures up to a specified amount per engagement and in total for identified services related to tax matters. Additional services exceeding the specified preapproved limits, or involving service types not included in the preapproved list, require specific Audit Committee approval.

#### Other services

In the case of specified services for which utilizing our external auditor creates efficiencies, minimizes disruption or preserves confidentiality, or for which management has determined that our external auditor possesses unique or superior qualifications to provide such services, the Audit Committee may preapprove expenditures up to a specified amount per engagement and in total. Additional services exceeding the specified preapproved limits, or involving service types not included in the preapproved list, require specific Audit Committee approval.





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# 28. Consolidated financial statements

## 28.1 Consolidated statement of profit or loss

(€ thousand, except per share data)	Notes	Year ended December 31,	
		2023	2024
Revenue	22	2,634,331	2,932,724
Cost of sales		(1,362,635)	(1,451,351)
<b>Gross profit</b>		<b>1,271,696</b>	<b>1,481,373</b>
Other income		69	7,391
<b>Operating expenses:</b>			
Selling, general and administrative	24	(308,727)	(316,811)
Research and development	24	(309,297)	(369,818)
<b>Total operating expenses</b>		<b>(618,024)</b>	<b>(686,629)</b>
<b>Result from operations</b>		<b>653,741</b>	<b>802,135</b>
Finance income	18	14,826	21,658
Finance expense	18	(13,600)	(10,582)
Foreign currency exchange gain (loss)	18	(21,375)	45,048
<b>Net finance income (costs)</b>		<b>(20,149)</b>	<b>56,124</b>
Share in income of investments in associates	7	17,540	9,643
Reversal of impairment of investments in associates, net	7	215,389	-
<b>Result before income taxes</b>		<b>866,521</b>	<b>867,902</b>
Income taxes	23	(114,448)	(182,168)
<b>Net earnings from operations, attributable to common shareholders</b>		<b>752,073</b>	<b>685,734</b>

(€ thousand, except per share data)	Notes	Year ended December 31,	
		2023	2024
Per share data	25		
<i>Basic net earnings per share (€):</i>			
<b>From operations</b>		<b>15.26</b>	<b>13.95</b>
<i>Diluted net earnings per share (€):</i>			
<b>From operations</b>		<b>15.18</b>	<b>13.89</b>
<i>Weighted average number of shares (thousand):</i>			
Basic		49,286	49,165
Diluted		49,555	49,386

The notes on the following pages are an integral part of these consolidated financial statements.

28.2 Consolidated statement of comprehensive income

		Year ended December 31,	
(€ thousand)	Notes	2023	2024
Net earnings from operations, attributable to common shareholders		752,073	685,734
Other comprehensive income, net of income tax			
Items that will not be reclassified subsequently to profit or loss:			
Remeasurement of defined benefit obligation	13	479	725
Share in other comprehensive (loss) income of investments in associates	7	(618)	(1,276)
		(139)	(551)
Items that may be subsequently reclassified to profit or loss:			
Foreign currency translation effect <sup>1</sup>		(90,908)	69,957
Other comprehensive income for the year, net of income tax		(91,047)	69,406
Total comprehensive income, attributable to common shareholders	12	661,026	755,140

<sup>1</sup> The year-on-year change is mostly explained by a weakened € compared to USD in 2024, while in 2023 the € strengthened against all major currencies (HKD, USD, SGD, KRW, JPY).

The notes on the following pages are an integral part of these consolidated financial statements.



## 28.3 Consolidated statement of financial position

		December 31,	
(€ thousand)	Notes	2023	2024
<b>Assets</b>			
Right-of-use assets	2	35,395	36,525
Property, plant and equipment	3	384,949	482,901
Evaluation tools at customers	4	79,597	109,539
Goodwill	5	320,167	321,318
Other intangible assets	6	705,624	815,590
Investments in associates	7	861,937	903,625
Other investments		11,307	19,821
Deferred tax assets	23	179	34,651
Other non-current assets		15,778	18,810
Employee benefits	13	2,919	3,816
<b>Total non-current assets</b>		<b>2,417,852</b>	<b>2,746,596</b>
Inventories	8	525,690	567,007
Accounts receivable	9	487,727	788,958
Contract assets	22	59,392	57,745
Income taxes receivable	23	29,957	4,836
Other current assets	10	68,845	70,277
Cash and cash equivalents	11	637,264	926,501
<b>Total current assets</b>		<b>1,808,875</b>	<b>2,415,324</b>
<b>Total assets</b>		<b>4,226,727</b>	<b>5,161,920</b>

		December 31,	
(€ thousand)	Notes	2023	2024
Equity and liabilities			
Equity	12	3,226,811	3,747,155
Other liabilities		22,684	23,589
Contingent consideration payable	16	88,304	-
Deferred tax liabilities	23	150,147	190,944
Total non-current liabilities		261,135	214,533
Accounts payable		177,686	282,554
Provision for warranty	14	22,716	33,401
Income taxes payable	23	21,925	66,243
Contract liabilities	22	300,241	485,732
Accrued expenses and other liabilities	15	216,213	235,300
Contingent consideration payable	16	-	97,002
Total current liabilities		738,781	1,200,232
Total liabilities		999,916	1,414,765
Total equity and liabilities		4,226,727	5,161,920

The notes on the following pages are an integral part of these consolidated financial statements.

## 28.4 Consolidated statement of changes in equity

(€ thousand except for share data)	Notes	Number of common shares outstanding	Common shares	Capital in excess of par value	Treasury shares at cost	Retained earnings	Other reserves <sup>1</sup>	Total equity
<b>Balance as of January 1, 2023</b>		<b>49,326,319</b>	<b>1,974</b>	<b>47,960</b>	<b>(3,446)</b>	<b>2,507,949</b>	<b>194,882</b>	<b>2,749,319</b>
Net earnings		-	-	-	-	752,073	-	752,073
Other comprehensive income	12	-	-	-	-	-	(91,047)	(91,047)
<b>Total comprehensive income</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>752,073</b>	<b>(91,047)</b>	<b>661,026</b>
Dividend paid to common shareholders		-	-	-	-	(123,383)	-	(123,383)
Compensation expense share-based payments	13	-	-	37,308	-	-	-	37,308
Exercise stock options out of treasury shares	13	18,249	-	(1,965)	2,828	-	-	863
Vesting restricted shares out of treasury shares	13	41,681	-	(11,980)	11,980	-	-	-
Purchase of common shares	12	(264,503)	-	-	(100,928)	-	-	(100,928)
Issue of common shares used for share-based performance programs	12	80,000	3	-	(3)	-	-	-
Other movements of investments in associates:								
Dilution	7	-	-	-	-	2,606	-	2,606
<b>Balance as of December 31, 2023</b>		<b>49,201,746</b>	<b>1,977</b>	<b>71,323</b>	<b>(89,569)</b>	<b>3,139,245</b>	<b>103,835</b>	<b>3,226,811</b>
Net earnings		-	-	-	-	685,734	-	685,734
Other comprehensive income	12	-	-	-	-	-	69,406	69,406
<b>Total comprehensive income</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>685,734</b>	<b>69,406</b>	<b>755,140</b>
Dividend paid to common shareholders		-	-	-	-	(135,487)	-	(135,487)
Cancellation of common shares out of treasury shares	12	-	(4)	(59,230)	59,234	-	-	-
Compensation expense share-based payments <sup>2</sup>	13	-	-	48,557	-	-	-	48,557
Vesting restricted shares out of treasury shares	13	124,460	-	(51,325)	51,325	-	-	-
Purchase of common shares	12	(228,389)	-	-	(151,366)	-	-	(151,366)
Issue of common shares used for share-based performance programs	12	-	-	-	-	-	-	-
Other movements in investments in associates:								
Dilution	7	-	-	-	-	3,500	-	3,500
<b>Balance as of December 31, 2024</b>		<b>49,097,817</b>	<b>1,973</b>	<b>9,325</b>	<b>(130,376)</b>	<b>3,692,992</b>	<b>173,241</b>	<b>3,747,155</b>

<sup>1</sup> Other reserves consist of the currency translation reserve, remeasurement on net defined benefit and the reserve for proportionate share in other comprehensive income of investments in associates. See note 12.

<sup>2</sup> Share-based payments include income taxes recognized directly in shareholders' equity of €7.0 million income.

The notes on the following pages are an integral part of these consolidated financial statements.

28.5 Consolidated statement of cash flows

		Year ended December 31,	
(€ thousand)	Notes	2023	2024
<b>Cash flows from operating activities</b>			
Net earnings from operations		752,073	685,734
<b>Adjustments to reconcile net earnings to net cash from operating activities</b>			
Depreciation, amortization and impairments	2,3,4,6	180,896	195,800
Net loss (gain) on sale of property, plant and equipment	3	185	(7,036)
Share-based compensation	13	37,308	41,576
Net finance (income) costs		(9,466)	(24,759)
Share in income of investments in associates	7	(17,539)	(9,643)
Impairment (reversal of impairment) of investments in associates, net	7	(215,389)	-
Income tax	23	114,448	182,168
Changes in evaluation tools at customers	4	(32,218)	(47,080)
Changes in employee benefits pension plans		98	(11)
Income tax paid		(118,766)	(97,563)
<b>Operating cash flows before changes in working capital</b>		<b>691,630</b>	<b>919,186</b>
<b>Decrease (increase) in working capital:</b>			
Accounts receivable		67,660	(294,635)
Other current assets		(21,817)	(1,522)
Inventories		(3,537)	(31,961)
Provision for warranty		(10,220)	9,933
Contract assets and liabilities		21,485	184,598
Accounts payable, accrued expenses and other payables		(9,314)	112,055
<b>Net cash from operating activities</b>		<b>735,887</b>	<b>897,654</b>

		Year ended December 31,	
(€ thousand)	Notes	2023	2024
<b>Cash flows from investing activities</b>			
Capital expenditures property, plant and equipment	3	(154,103)	(167,895)
Proceeds from sale of property, plant and equipment	3	3,558	8,817
Capitalized development expenditures	6	(147,220)	(166,343)
Capital expenditures intangible assets	6	(16,389)	(30,492)
Dividend received from associates	7	30,753	13,668
Other investments		(5,641)	(7,721)
<b>Net cash used in investing activities</b>		<b>(289,042)</b>	<b>(349,966)</b>
<b>Free cash flow <sup>1</sup></b>		<b>446,845</b>	<b>547,688</b>
<b>Cash flows from financing activities</b>			
Payment of lease liabilities	2	(12,602)	(14,177)
Purchase of treasury shares	12	(100,928)	(151,366)
Proceeds from issuance of treasury shares	13	863	-
Dividends to common shareholders		(123,383)	(135,487)
<b>Net cash used in financing activities</b>		<b>(236,050)</b>	<b>(301,030)</b>
<b>Foreign currency translation effect on cash and cash equivalents</b>		<b>7,154</b>	<b>42,579</b>
<b>Net increase (decrease) in cash and cash equivalents</b>		<b>217,949</b>	<b>289,237</b>
Cash and cash equivalents at beginning of year	11	419,315	637,264
<b>Cash and cash equivalents at end of year</b>	11	<b>637,264</b>	<b>926,501</b>

<sup>1</sup> Free cash flow is a non-IFRS performance measure. It is calculated as cash flows from operating activities after investing activities. Refer to chapter 34 'Non-IFRS performance measures'.

The notes on the following pages are an integral part of these consolidated financial statements.

28.6 Notes to the consolidated financial statements

Note 1. General information

ASM International N.V. (ASM, or the company) is a Dutch public liability company domiciled in the Netherlands with its principal operations in Europe, the United States of America, and Asia. The company dedicates its resources to the research, development, manufacturing, marketing and servicing of equipment and materials used to produce mainly semiconductor devices. The company is registered at Versterkerstraat 8, 1322 AP Almere, the Netherlands.

The company is registered with the Dutch Commercial Register under number 30037466.

The company's shares are listed for trading on the Euronext Amsterdam Stock Exchange (symbol ASM).

The accompanying consolidated financial statements include the financial statements of ASM International N.V. and its consolidated subsidiaries (together also referred to as ASM, or the company). ASM's subsidiaries are listed in Note 29 and investments in associates are listed in Note 7.

Basis for accounting

The consolidated financial statements for the year ended December 31, 2024 have been prepared in accordance with IFRS as endorsed by the European Union (EU-IFRS) and also comply with the financial reporting requirements included in Section 362(9) of Part 9, Book 2 of the Dutch Civil Code.

The consolidated financial statements have been prepared by the Management Board of the company and authorized for issue on March 6, 2025, and will be submitted for adoption to the Annual General Meeting of Shareholders (AGM) on May 12, 2025.

The consolidated financial statements will be filed with the AFM and at the Trade Register of the Chamber of Commerce in Almere, the Netherlands, after ASM publishes them on its website, and in addition within eight days of adoption by the 2025 AGM.

Functional and presentation currency

The consolidated financial statements are presented in euros (€), which is the company's functional currency. All amounts have been stated in thousands of euros and rounded to the nearest thousand (which might result in rounding differences), unless otherwise indicated.

Basis of preparation

The consolidated financial statements have been prepared under the historical cost convention, unless otherwise indicated. The company applies the going concern basis in preparing its consolidated financial statements.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

A number of the company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique.

The company has an established approach with respect to the measurement of fair values. If third-party information, such as broker quotes or pricing services, is used to measure fair values, the company assesses and documents the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of IFRS, including the level in the fair-value hierarchy, in which such valuations should be classified.

Fair values are categorized into different levels in a fair-value hierarchy based on the inputs used in the valuation techniques as follows:

**Level 1:** quoted prices (unadjusted) in active markets for identical assets or liabilities;

**Level 2:** inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

**Level 3:** inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair-value hierarchy, then the fair-value measurement is categorized in its entirety in the same level of the fair-value hierarchy as the lowest level input that is significant to the entire measurement.

Further information about the assumptions made in measuring fair values is included in the following notes:

- Note 7 - Investments in Associates;
- Note 13 - Employee benefits; and
- Note 18 - Financial instruments and financial risk management.

Use of estimates

In preparing these consolidated financial statements, management has made judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to estimates are recognized prospectively.



Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the year ended December 31, 2024 is included in the following notes:

- Notes 3, 4, 5, 6 - Valuation of non-financial assets; and
- Note 8 - Valuation of allowance for obsolescence inventories.

Consideration has been given to the potential financial impacts of climate change related risks on the carrying value of the company's non-current assets (e.g., goodwill, other intangibles, PP&E) through a qualitative review of the company's climate change risk assessment. In addition, the company included sensitivity tests into the impairment test to address the potential increase in expenses due to climate change.

This review did not identify any material financial reporting impacts.

## Summary of material accounting policies

### Accounting policies

The company has consistently applied the following accounting policies to all periods presented in these consolidated financial statements, except for changes in material accounting policies and reclassification adjustment listed below.

### Changes in material accounting policies

Application of new and revised IFRS.

### New and amended IFRS Standards that are effective for the current year

The accounting policies applied in the financial statements are the same as those applied in the last annual financial statements, except for the IFRS standards and interpretations effective on January 1, 2024. These include amendment to IAS 1, IFRS 16, IAS 7 and IFRS 7. The amendments have been assessed for their potential impact and do not have a material effect on ASM's (consolidated) financial statements. The company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

### Business combinations

The company accounts for business combinations using the acquisition method when the acquired set of activities and assets meets the definition of a business and control is transferred to the company. In determining whether a particular set of activities and assets is a business, the company assesses whether the set of assets and activities acquired includes, at a minimum, an input and substantive process and whether the acquired set has the ability to produce outputs.

The company accounts for business combinations using the acquisition method when control is transferred to the company. The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired.

Goodwill is capitalized as the excess of the costs of an acquired subsidiary, net of the amounts assigned to identifiable assets acquired and liabilities incurred or assumed. Acquisition-related costs are expensed when incurred in the period they arise or the service is received.

Any contingent consideration payable is measured at fair value at the acquisition date. The contingent consideration is remeasured at fair value at each reporting date and subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

### Consolidation

The consolidated financial statements include the accounts of ASM and all of its subsidiaries where ASM holds a controlling interest. Non-controlling interest is disclosed separately, where appropriate, in the consolidated financial statements.

Control is achieved when ASM has the power over an investee; exposure, or rights, to variable returns from its involvement with the investee; and the ability to use its power over the investee to affect the amount of the investor's returns. ASM reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

As from the date these criteria are met, financial data of the relevant subsidiary are included in the consolidation and deconsolidated from the date on which ASM's control ceases.

### Loss of control

Upon loss of control, ASM derecognizes the assets and liabilities of the subsidiary. Any surplus or deficit arising on the loss of control is recognized in profit or loss. ASM retains any interest in this subsidiary, then such interest is measured at fair value at the date on which control is lost. Subsequently, it is accounted for as an equity-accounted investee or as an available-for-sale financial asset, depending on the level of influence retained.

### Subsidiaries

Subsidiaries are entities controlled by the company. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

### Foreign currency translation

The individual financial statements of each group entity are presented in their local functional currency. For the purpose of the consolidated financial statements, the results and financial position of each entity is expressed in euros, which is ASM's functional currency and the presentation currency for the consolidated financial statements.

Foreign currency transactions

In preparing the financial statements of the individual entities, transactions in foreign currencies are recorded at the exchange rates on the date of the transactions. At each balance sheet date, monetary items denominated in foreign currencies are translated at the rates prevailing on the balance sheet date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing on the date when the fair value was determined.

Exchange rate differences arising on the settlement of monetary items, and on the translation of monetary items, are recognized in the consolidated statement of profit or loss in the period in which they arise. Exchange rate differences arising on the translation of non-monetary items carried at fair value are recognized in the consolidated statement of profit or loss for the period except for differences arising on the translation of non-monetary items in respect of which gains and losses are recognized directly in equity.

Foreign operations

For the purpose of presenting consolidated financial statements, assets and liabilities of foreign operations are translated into euros at the exchange rates at the reporting date. The income and expenses of foreign operations are translated into euros at the exchange rates at the dates of the transactions.

Foreign currency differences are recognized in OCI and accumulated in the translation reserve.

When a foreign operation is disposed of in its entirety or partially such that control or significant influence is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the company disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interest. When the company disposes of only part of an associate while retaining significant influence, the relevant proportion of the cumulative amount is reclassified to profit or loss.

Segment reporting

ASM has one reportable segment, consistent with the internal reporting provided to the Chief Executive Officer (CEO), who is the Chief Operating Decision Maker (CODM).

The company manufactures and sells equipment used in wafer processing, encompassing the fabrication steps in which silicon wafers are layered with semiconductor devices. The operation is a product-driven organizational unit comprised of manufacturing, service, and sales operations in Asia, Europe, and the United States. The performance of the individual product lines is reviewed by the CODM based on its revenues, gross margin and EBIT. The company operates under a uniform global operating strategy. The CODM alone makes operating decisions regarding strategic investments and resource allocation based on aggregated information of the overall company's operation. Therefore, the company's operation do not represent separate operating nor reportable segments.

Property, plant and equipment

Items of property, plant and equipment are measured at cost, less accumulated depreciation and any accumulated impairment losses.

If significant parts of an item of property, plant and equipment have different useful lives, then they are accounted for as separate items (major components) of property, plant and equipment.

Depreciation is calculated to write off the cost of items of property, plant and equipment less their estimated residual values using the straight-line method over their estimated useful lives, and is generally recognized in profit or loss. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

The estimated useful lives of property, plant and equipment for current and comparative periods are as follows:

Land	Infinite
Building and leasehold improvements	1-25 years
Machinery equipment	2-10 years
Furniture and fixtures and other equipment	2-10 years

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain on disposal of an item of property, plant and equipment is recognized in profit or loss and included in 'other income'. Any loss is recognized as part of impairment expenses.

Intangible assets

Goodwill

The company accounts for business combinations using the acquisition method when control is transferred to the company. The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any goodwill that arises is tested annually for impairment.

Goodwill represents the excess of the costs of an acquisition over the fair value of the amounts assigned to assets acquired and liabilities incurred or assumed of the acquired subsidiary at the date of acquisition. Goodwill on acquisition of subsidiaries is allocated to cash generating units (CGUs) for the purpose of impairment testing. The allocation is made to those CGUs that are expected to benefit from the business combination in which the goodwill arose. Goodwill is tested for impairment annually and whenever events or changes in circumstances indicate that the carrying amount of the goodwill may not be recoverable. If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is recognized. An impairment loss recognized for goodwill is not reversed in a subsequent period. Goodwill is stated at cost less accumulated impairment losses.

The company’s goodwill arising on the acquisitions of subsidiaries is described in Note 5 'Goodwill'.

The company’s goodwill arising on the acquisition of an associate is described in Note 7 'Investments in Associates'.

**Other intangible assets**

Other intangible assets include capitalized development expenses, software, purchased technology, and remaining other intangible assets. Other intangible assets that are acquired by the company with finite useful lives are measured at cost less accumulated amortization and any accumulated impairment losses.

In determining the capitalization of development expenses, the company makes estimates and assumptions based on expected future economic benefits generated by products that are the result of these development expenses. Other important estimates and assumptions are the required internal rate of return, the distinction between research, development and high-volume manufacturing, and the estimated useful life.

Development expenses are capitalized when all of the following criteria are demonstrated by the entity:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale;
- Its intention to complete the intangible asset and use or sell it;
- Its ability to use or sell the intangible asset;
- How the intangible asset will generate probable future economic benefits;
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- Its ability to reliably measure the expenditure attributable to the intangible asset during its development.

The company capitalizes development expenses that meet the above-mentioned criteria in its consolidated financial statements. Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

Amortization of capitalized development expenses is calculated using the straight-line method over the estimated useful lives of the developed product. Amortization starts when the developed product is ready for its intended use. In the development cycle, this is when the product is transferred from the validation (beta) phase to high-volume manufacturing.

Amortization method, useful life, and residual value are reviewed at each reporting date with the effect of any changes in estimate accounted for on a prospective basis.

The estimated useful lives of other intangible assets for current and comparative periods are as follows:

Development cost	5 years
Software	3 years
Purchased technology	5-15 years
Other intangibles	1-17 years

**Investments in associates**

Investments in associates are investments in entities in which ASM can exert significant influence but which ASM does not control, generally having between 20% and 50% of the voting rights. These entities are accounted for using the equity method and are initially recognized at cost. Dividend income from the company's associated companies is recognized when the right to receive payment is established. Their carrying value includes goodwill identified upon acquisition, net of any accumulated impairment.

When ASM’s share of losses in an associate equals or exceeds its interest in the associate, including any other receivables for which settlement is neither planned nor likely to occur in the foreseeable future, ASM does not recognize further losses, unless ASM has obligations to or made payments on behalf of the associate.

At each reporting date, the company determines if there is any objective evidence that the associate is impaired. An impairment, being the difference between the recoverable amount of the associate and its carrying value, is recognized in the consolidated statement of profit or loss.

ASM does not separately test associates' underlying assets for impairment. However, ASM recognizes its share of any impairment charge recorded by an investee and considers the effect, if any, of the impairment on the basis difference in the assets giving rise to the investee’s impairment charge. A loss in value of an investment which is significant or prolonged will be an indicator to test for impairment. Significant is defined as at least 20% on reporting date. Prolonged is defined as measured below cost for more than nine months.

Equity method investments are tested for prolonged decline in value. If the fair value of an investment is less than its carrying value, the company determines whether the decline in value is temporary or prolonged. A prolonged decline in value is measured as of a balance sheet date. If after a prior recognized impairment the fair value is more than its carrying value, this impairment is reversed to the extent that the recoverable amount of the net investment subsequently increases. The determination of whether an investment is impaired is made at the individual security level multiplied by our number of shares held in each reporting period.

**Evaluation tools at customers**

Evaluation tools at customers are systems generally delivered to customers under evaluation and include substantial customization by our engineers and R&D staff in the field. Evaluation tools are recorded at cost and depreciated using the straight-line method over their estimated useful life of five years, or their shorter economic life. The depreciation expenses are in general reported as research and development expenses, unless the evaluation tool primarily serves commercial activities it is reported as cost of sales.

On final written technical acceptance and purchase order from the customer, the purchase consideration is recognized as revenue at a point in time and the carrying value of the evaluation system is recognized as cost of sales. In the circumstance that the system is returned, at the end of the evaluation period, a detailed impairment review takes place, and future sales opportunities and additional costs are identified. It is only when the recoverable amount is below the carrying value of the evaluation tool that an additional depreciation is recognized. The remaining carrying value is recognized as finished goods in inventories.

**Inventories**

Inventories are stated at the lower of cost or net realizable value. The cost of inventories is based on the first-in, first-out principle. Costs include net prices paid for materials purchased, charges for freight and custom duties, production labor costs and factory overhead. Allowances are made for slow-moving, obsolete or unsellable inventory.

Allowances for obsolescence of inventory are determined based on the expected demand as well as the expected market value of the inventory. The company regularly evaluate the value of our inventory of components and raw materials, work in progress, and finished goods, based on a combination of factors including the following: forecasted sales, historical usage, product end of lifecycle, estimated current and future market values, service inventory requirements, and new product introductions, as well as other factors. Purchasing requirements and alternative uses for the inventory are explored within these processes to mitigate inventory exposure. The company record write-downs for inventory based on the above factors and take into account worldwide quantities and demand into our analysis.

**Financial instruments**

The company classifies non-derivative financial assets based on the business model for managing the assets and their contractual cash flow characteristics. These assets are categorized as either: Amortized cost, fair value through other comprehensive income (FVOCI), or fair value through profit or loss (FVTPL). The company classifies non-derivative financial liabilities as amortized costs.

**Non-derivative financial assets and financial liabilities – Recognition and derecognition**

The company initially recognizes receivables on the date when they are originated. Receivables comprise account (trade) and other receivables and cash and cash equivalents. Receivables are measured at amortized cost using the

effective interest method, less any impairment. Financial assets and financial liabilities are initially recognized on the trade date when the entity becomes a party to the contractual provisions of the instrument.

The company derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred, or it neither transfers nor retains substantially all of the risks and rewards of ownership and does not retain control over the transferred asset. Any interest in such derecognized financial asset that is created or retained by the company is recognized as a separate asset or liability. The company derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expired.

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the company currently has a legally enforceable right to offset the amounts and intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

**Non-derivative financial assets – Measurement**

Loans and receivables are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortized cost using the effective interest method.

**Accounts receivable**

A significant percentage of accounts receivable is derived from revenue to a limited number of large multinational semiconductor device manufacturers located throughout the world. In order to monitor potential credit losses, the company performs ongoing credit evaluations of our customers' financial condition. An allowance for doubtful accounts is maintained for potential credit losses based upon management's assessment of the expected collectability of all accounts receivable. The allowance for doubtful accounts is reviewed periodically to assess the adequacy of the allowance. In making this assessment, management takes into consideration any circumstances of which the company are aware regarding a customer's inability to meet its financial obligations, aging of the accounts receivable, expected lifetime losses; and our judgments as to potential prevailing economic conditions in the industry and their potential impact on the company's customers.

The expected credit loss allowance is based on historical experience, credit evaluations, specific customer-collection history, and any customer-specific issues ASM has identified. Changes in circumstances, such as an unexpected adverse material change in a major customer's ability to meet its financial obligation to ASM or its payment trends, may require us to further adjust our estimates of the recoverability of amounts due to ASM. This could have an adverse material effect on ASM's financial condition and results of operations.

**Cash and cash equivalents**

Cash and cash equivalents consist of bank deposits and investment in money market funds that invest in marketable debt obligations and securities of governments, corporates and financial institutions and other short-term highly



liquid investments with original maturity of three months or less. Bank overdrafts are included in notes payable to banks in current liabilities.

**Non-derivative financial liabilities – Measurement**

Other non-derivative financial liabilities are initially measured at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortized cost using the effective interest method.

**Share capital**  
**Preference share capital**

Preference share capital is classified as equity if it is non-redeemable, or redeemable only at the company's option, and any dividends are discretionary. Discretionary dividends thereon are recognized as distributions within equity upon approval by the company's shareholders.

Preference share capital is classified as a financial liability if it is redeemable on a specific date or at the option of the shareholders, or if dividend payments are not discretionary. Non-discretionary dividends thereon are recognized as interest expense in profit or loss as accrued.

**Repurchase and reissue of common shares (treasury shares)**

When shares recognized as equity are repurchased, the amount of the consideration paid, which includes directly attributable costs, is recognized as a deduction from equity. Repurchased shares are classified as treasury shares and are presented in the treasury share reserve. When treasury shares are sold or reissued subsequently, the amount received is recognized as an increase in equity and the resulting surplus or deficit on the transaction is accounted for at average cost and presented within capital in excess of par value.

**Issuance of shares by an equity-accounted investee**

Associates might yearly issue common shares pursuant to their employee share incentive scheme. The effect of these issuances is a dilution of the company's ownership in the associate. The company recognizes the impact of these issuances directly into equity.

**Comprehensive income**

Comprehensive income consists of net earnings (loss) and other comprehensive income. Other comprehensive income includes gains and losses that are not included in net earnings, but are recorded directly in equity.

**Impairment**  
**Non-derivative financial assets**

Financial assets, other than those at fair value through profit or loss, are assessed using an 'expected credit loss' (ECL) model. In accordance with the model the company allocate a probability of loss to each financial asset, based on data that is determined to be predictive of the risk of loss and applying experienced credit judgment.

ASM measures loss allowances at an amount equal to lifetime ECLs, except for the following, which are measured at 12-month ECLs:

- Debt securities that are determined to have low credit risk at the reporting date; and
- Other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, ASM considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on ASM's historical experience and informed credit assessment, that includes forward-looking information. Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months). The maximum period considered when estimating ECLs is the maximum contractual period over which ASM is exposed to credit risk.

**Measurement of ECLs**

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that ASM expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

**Equity-accounted investees**

An impairment loss in respect of an equity-accounted investee is measured by comparing the recoverable amount of the investment with its carrying amount. An impairment loss is recognized in profit or loss, and is reversed if there has been a favorable change in the estimates used to determine the recoverable amount.

**Non-financial assets**

At each reporting date, the company reviews the carrying amounts of its non-financial assets (other than inventories and deferred tax assets) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and assets not yet available for its intended use are tested annually for impairment.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Goodwill arising from a business combination is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs of disposal. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss. They are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset’s carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Commitments and contingencies

The company has various contractual obligations such as purchase commitments and commitments for capital expenditure. These obligations are generally not recognized as liabilities on the company's statement of financial position but are disclosed in the notes to the consolidated financial statements.

Cash flow statement

The cash flow statement has been prepared using the indirect method.

Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The company recognizes revenue when it transfers control over a product or service to a customer. Depending on the contract, the company obtain normally a right to payment for our equipment upon shipment and on completion of installation. Right to payment for our spares and services occurs upon shipment or completion of the service unless described otherwise.

Revenue streams

The company generates revenue primarily from the sales of equipment and sales of spares & services. The products & services described below by nature, can be part of both revenue streams. The revenue streams are disclosed in Note 22 'Revenue'.

Nature of goods and services

The following table contains a description of principal activities from which the group generates its revenue.

The company applied the practical expedient of IFRS 15.121 and therefore have not disclosed information on the remaining performance obligations of a contract (in aggregate) as the performance obligation is part of a contract that has an original expected duration of one year or less. Generally, the remaining performance obligations of a contract concern the tools to be shipped, unsatisfied promises as part of a bundled agreement or volume purchase agreement and installation and qualification services.

Products and services	Nature, timing of satisfaction of performance obligation and significant payment terms
Equipment	Revenue from equipment is recognized at a point in time when the performance obligation is satisfied, when control transfers. This is usually upon shipment depending on incoterms. The amount of revenue recognized is based on the amount of the transaction price that is allocated to the performance obligation. The total consideration of the contract is allocated between all distinct performance obligations in the contract based on their stand-alone selling prices. The stand-alone selling prices are mostly determined based on other stand-alone sales that are directly observable or based on the expected cost plus a margin approach. Any customer discounts and credits, within volume purchase agreements or bundled agreements, are considered as a reduction of the transaction price, unless this is/can be considered as consideration for a distinct good or service.
Installation	The customer simultaneously consumes and receives the benefits provided by the performance of the installation. As such, transfer of control takes place over the period of installation from delivery through customer acceptance, measured on a straight-line basis, as our performance is satisfied evenly over this period of time.
Spares	Revenue from spares is recognized at a point in time when the performance obligation is satisfied, when the control transfers. This is usually upon shipment depending on incoterms. The amount of revenue recognized is based on the amount of the transaction price that is allocated to the performance obligation. Any customer discounts and credits, within a volume purchase agreements, are considered as a reduction of the transaction price, unless this is/can be considered as consideration for a distinct good or service.
Revenue on royalties and licenses for technology included in equipment and/or spares	The fixed price royalty is a right to use the licenses and revenue is recognized at a point in time that the license is transferred to the customer. For the sales-based royalty, the performance obligation is satisfied when the license is transferred to the customer. Given this is earlier than when the sales occur, revenue should be recognized when the sales occur.
Outcome based ("support") services	The customer simultaneously consumes and receives the benefits provided by the performance of the support. For the majority of support services transfer of control takes place over the period of support.

**Cost of sales**

Cost of sales mainly comprises direct costs such as labor, materials, cost of warranty, depreciation, shipping and handling costs, and related overhead costs.

**Research and development expenses**

Research and development expenses are expenditures relating to a company's efforts to develop, design, and enhance its products, services, technologies, or processes. Research and development expenses comprise of direct costs allocated to research and development projects and mainly consists of labor. Research and development expenses also includes depreciation expenses of evaluation tools at customers supporting the companies research and development activities, allocated cost center costs like lab costs, and costs relating to prototype and experimental products.

**Selling, administrative and general expenses**

Selling, general and administrative expenses comprise all direct and indirect selling costs, operational overhead costs, and administrative expenses unrelated to cost of sales or research and development expenses.

**Warranty**

The company provides maintenance on our systems during the warranty period, on average one year after installation & qualification (or 15 months upon shipment, whichever comes first). Costs of warranty includes the cost of labor and material necessary to repair a product during the warranty period. The company accrues for the estimated cost of the warranty on products shipped in a provision for warranty, upon recognition of the sale of the product. The costs are estimated based on historical expenses incurred and on estimated future expenses related to current revenue, and are updated periodically. Actual warranty costs are charged against the provision for warranty. The actual warranty costs may differ from estimated warranty costs, and adjusted our provision for warranty accordingly. Future warranty costs may exceed our estimates, which could result in an increase of our cost of sales.

**Income tax**

Income tax expense comprises current and deferred tax. It is recognized in the statement of profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

**Current tax**

The current corporate income tax charge recognized in the consolidated statement of profit or loss is calculated in accordance with the prevailing tax regulations and rates, taking into account non-taxable income and non-deductible expenses. The current income tax expense reflects the amount for the current reporting period that the company expects to recover from or pay to the tax authorities. Current income tax related to items recognized directly in equity is recorded in equity and not in the consolidated statement of profit or loss. ASM's management periodically evaluates positions taken in the tax returns regarding situations in which applicable tax regulations are subject to interpretation, and establishes provisions when deemed appropriate. The amount of current tax payable or

receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income tax, if any. Measurement of the tax payable or receivable for uncertain tax positions is based on management's best estimate of the amount of tax benefit that will be lost. Current tax also includes any tax arising from dividends and royalties. Current tax assets and liabilities are offset only if certain criteria are met (IAS 12).

**Deferred tax**

Deferred income tax positions are recognized for temporary differences between the tax basis of assets and liabilities and their carrying values in ASM's consolidated statement of financial position.

Deferred tax assets are recognized for deductible temporary differences, the carry forward of unused tax credits, and any unused tax losses. Deferred tax assets are recognized only to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilized. Both the recognized and unrecognized deferred tax assets are reassessed at each reporting date. Deferred tax assets are recorded for deductible temporary differences associated with investments in subsidiaries and are recorded only to the extent that it is probable that the temporary differences will reverse in the foreseeable future, and taxable profit will be available against which the temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences except when they affect neither the profit or loss reported in the consolidated statement of profit or loss nor the taxable profit or loss. Also, no deferred tax liabilities are recorded for taxable temporary differences associated with investments in subsidiaries when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax positions are stated at nominal value and are measured at the corporate income tax rates the company expects to be applicable in the year when the asset is realized or liability is settled based on enacted or substantially enacted tax laws and reflects uncertainty related to income tax, if any.

Deferred income tax assets and liabilities are netted if there is a legally enforceable right to set off current tax assets against current tax liabilities, deferred income tax assets and deferred income tax liabilities related to income taxes levied by the same taxation authority on the same taxable entity, and there is an intention to settle on a net basis.

**Retirement benefit costs**

The company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the company's operations in the Netherlands and Japan. The company's employees in the Netherlands participate in a multi-employer defined benefit plan. Payments to defined contribution plans and the multi-employer plan are recognized as an expense in the consolidated statement of profit or loss as they fall due. The company accounts for the multi-employer plan as if it were a defined contribution plan, since the manager of the plan is not able to provide the company with the required company-specific information to enable the company to account for the plan as a defined benefit plan.

The company's employees in Japan participate in defined benefit plans. Pension costs in respect to this defined benefit plan are determined using the projected unit credit method. These costs primarily represent the increase in the actuarial present value of the obligation for pension benefits based on employee service during the year and the interest on this obligation in respect to employee service in previous years, net of the expected return on plan assets.

For the defined benefit plan, the company recognizes in its consolidated statement of financial position an asset or a liability for the plan's over funded status or underfunded status respectively. When the calculation results in a potential asset for the company, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements. Actuarial gains and losses are recognized when incurred.

Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

Share-based payments

The costs relating to employee shares (compensation expense) are recognized based upon the grant date fair value of the shares. The estimated fair value at grant date of shares is based on the share price of the ASM share at grant date minus the discounted value of expected dividends during the vesting period.

The grant date fair value of the shares is expensed on a straight-line basis over the vesting period, based on the company's estimate of shares that will eventually vest. The impact of the true-up of the estimates is recognized in the consolidated statement of profit or loss in the period in which the revision is determined. The total estimated share-based compensation expense, determined under the fair value-based method is amortized proportionally over the option vesting periods.

Note 2. Right-of-use assets

The company leases many assets, including land, buildings, houses, motor vehicles, machinery and equipment. Leases typically run up to a period of five years, some with an option to renew the lease after the end of the non-cancellable period. Lease payments are renegotiated on a periodic basis; timing is dependent on the region and type of lease. The company has not entered into any sublease arrangements.

The company has applied the exception not to recognize right-of-use assets and lease liabilities for short-term leases (lease term of 12 months or less) and leases of low-value assets (up to the amount of €5,000 new asset value, such as water/ air purifiers).

Right-of-use assets

	Land and buildings	Motor vehicles	Other machinery and equipment	Total
Balance January 1, 2023	29,476	1,417	770	31,663
Additions	9,824	1,096	1,320	12,240
Modifications and reassessments	5,383	(71)	483	5,795
Depreciation for the year	(10,905)	(1,104)	(613)	(12,622)
Impairment charges	(940)	-	-	(940)
Foreign currency translation effect	(690)	(33)	(18)	(741)
Balance December 31, 2023	32,148	1,305	1,942	35,395
Additions	7,900	1,113	110	9,123
Modifications and reassessments	4,557	162	236	4,955
Depreciation for the year	(11,947)	(1,286)	(634)	(13,867)
Impairment charges	-	-	-	-
Foreign currency translation effect	874	(8)	53	919
Balance December 31, 2024	33,532	1,286	1,707	36,525



Amounts recognized in profit or loss

(€ thousand)	2023	2024
Leases under IFRS 16		
Interest on lease liabilities	705	800
Depreciation expenses	12,622	13,867
Impairment charges	(940)	-
Expenses relating to short-term and low value leases	500	634
Total	12,887	15,301

Amounts recognized in statement of cash flows

	2023	2024
Total cash outflow for leases	12,602	14,177

Extension options

The extension options held are exercisable only by the company and not by the lessors. The company assesses at lease commencement date whether it is reasonably certain to exercise the extension options. The company reassesses whether it is reasonably certain to exercise the options at year-end for material lease components, if there is a significant event or significant changes in circumstances within its control.

Note 3. Property, plant and equipment

The changes in the amount of property, plant and equipment are as follows:

	Land, buildings and leasehold improvements	Machinery and equipment	Furniture and fixtures and other equipment	Assets under construction	Total
<b>At cost</b>					
Balance January 1, 2023	171,450	349,978	44,355	43,096	608,879
Additions	440	4,237	460	148,966	154,103
Disposals	(10,569)	(8,323)	(2,208)	-	(21,100)
Transfer from assets under construction	36,305	84,933	20,741	(141,979)	-
Foreign currency translation effect	(7,320)	(17,155)	(2,176)	(123)	(26,774)
<b>Balance December 31, 2023</b>	<b>190,306</b>	<b>413,670</b>	<b>61,172</b>	<b>49,960</b>	<b>715,108</b>
Additions	2,487	615	2,823	161,970	167,895
Disposals	(275)	(7,580)	(2,616)	-	(10,471)
Transfer from assets under construction	5,455	49,435	12,325	(67,215)	-
Foreign currency translation effect	2,008	7,702	225	1,880	11,815
<b>Balance December 31, 2024</b>	<b>199,981</b>	<b>463,842</b>	<b>73,929</b>	<b>146,595</b>	<b>884,347</b>
<b>Accumulated depreciation and impairment</b>					
Balance January 1, 2023	44,422	227,707	24,697	-	296,826
Depreciation for the year	9,433	45,002	8,225	-	62,660
Impairment charges	-	-	-	1,223	1,223
Disposals	(10,081)	(5,906)	(1,543)	-	(17,530)
Foreign currency translation effect	(1,374)	(10,404)	(1,242)	-	(13,020)
<b>Balance December 31, 2023</b>	<b>42,400</b>	<b>256,399</b>	<b>30,137</b>	<b>1,223</b>	<b>330,159</b>
Depreciation for the year	10,552	52,516	9,661	-	72,729
Impairment charges	-	-	-	-	-
Disposals	(171)	(6,814)	(2,130)	-	(9,115)
Foreign currency translation effect	648	6,774	251	-	7,673
<b>Balance December 31, 2024</b>	<b>53,429</b>	<b>308,875</b>	<b>37,919</b>	<b>1,223</b>	<b>401,446</b>
<b>Carrying amounts</b>					
December 31, 2023	147,906	157,271	31,035	48,737	384,949
<b>December 31, 2024</b>	<b>146,552</b>	<b>154,967</b>	<b>36,010</b>	<b>145,372</b>	<b>482,901</b>
<b>Useful lives in years</b>	1-25	2-10	2-10		

Note 4. Evaluation tools at customers

The changes in the amount of evaluation tools are as follows:

	December 31,	
	2023	2024
At cost		
Balance at beginning of year	101,073	107,411
Evaluation tools shipped	50,639	63,328
Evaluation tools sold and returns	(39,047)	(33,049)
Foreign currency translation effect	(5,254)	3,841
Balance at end of year	107,411	141,531
Accumulated depreciation		
Balance at beginning of year	32,397	27,814
Depreciation for the year	17,529	20,425
Evaluation tools sold and returns	(20,626)	(16,801)
Foreign currency translation effect	(1,486)	554
Balance at end of year	27,814	31,992
Carrying amount at beginning of year	68,676	79,597
Carrying amount at end of year	79,597	109,539
Useful lives in years:		5

Evaluation tools enable ASM to win new business and expand its technological footprint by gaining penetration at new customers and with new applications.

Note 5. Goodwill

The carrying amount of the goodwill is related to acquisitions in the following cash-generating units:

	ALD	PEALD	SiC Epi	Total
Balance January 1, 2023	2,611	27,388	290,819	320,818
Foreign currency translation effect	-	(651)	-	(651)
Balance December 31, 2023	2,611	26,737	290,819	320,167
Foreign currency translation effect	-	1,151	-	1,151
Balance December 31, 2024	2,611	27,888	290,819	321,318

We perform an annual impairment test at the same moment of each year (performed in the fourth quarter, with the figures as of 30 September) or if events or changes in circumstances indicate that the carrying amount of the assets at risk (goodwill, other non-current assets, purchased technology, capitalized development, working capital) exceeds its recoverable amount. For our impairment test and the determination of the recoverable amount, a discounted future cash flow approach is used which makes use of our estimates of future revenues, driven by assumed market growth and estimated costs as well as appropriate discount rates.

The material assumptions used for the discounted future cash flows of the cash-generating units (CGUs) are:

- an average discount rate of 8.6% (2023: 9.5%) representing the pre-tax weighted average cost of capital;
- external market segment data (e.g., TechInsights, Gartner), historical data and strategic plans to estimate cash-flow growth per product line; and
- cash-flow calculations are limited to four years of cash flow; after these four years, perpetuity growth rates are set based on the market maturity of the products. For all products, the perpetuity growth rates used are 1% or less.

These estimates are consistent with the plans and estimated costs we use to manage the underlying business. We expect the demand for these technologies to continue beyond a period of four years and therefore we have included perpetuity growth rates in our assumptions. Based on this analysis, management concluded that as per December 31, 2024 the recoverable amount of the CGUs exceeded the carrying value.

Sensitivity analysis showed that no reasonable possible change in the estimated cash flows or the discount rate used in calculating the fair value would result in the carrying amount of the assets at risk (including goodwill) materially exceed the fair value. Sensitivity analysis also includes additional sensitivity checks to address the potential increase in costs due to climate change.

Note 6. Other intangible assets

Other intangible assets include capitalized development expenditure, software developed or purchased (including licenses) for internal use, and purchased technology from third parties. The changes in the amount of other intangible assets are as follows:

	Development costs	Software	Purchased technology	Other intangibles	Total
<b>At cost</b>					
Balance January 1, 2023	545,165	40,628	220,862	89,400	896,055
Additions	147,220	15,602	-	787	163,609
Reclassification	-	-	(613)	613	-
Disposals	-	(152)	-	-	(152)
Foreign currency translation effect	(28,435)	(357)	(687)	7	(29,472)
<b>Balance December 31, 2023</b>	<b>663,950</b>	<b>55,721</b>	<b>219,562</b>	<b>90,807</b>	<b>1,030,040</b>
Additions	166,343	30,086	-	406	196,835
Disposals	-	(862)	-	-	(862)
Derecognition	(103,265)	-	-	-	(103,265)
Foreign currency translation effect	(860)	1,541	1,387	(120)	1,948
<b>Balance December 31, 2024</b>	<b>726,168</b>	<b>86,486</b>	<b>220,949</b>	<b>91,093</b>	<b>1,124,696</b>
<b>Accumulated amortization and impairment losses</b>					
<b>Balance January 1, 2023</b>	<b>204,735</b>	<b>30,452</b>	<b>13,196</b>	<b>1,568</b>	<b>249,951</b>
Amortization for the year	43,802	3,057	14,021	22,567	83,447
Impairments	2,475	-	-	-	2,475
Reclassification	-	-	(92)	92	-
Disposals	-	-	-	-	-
Foreign currency translation effect	(11,293)	(211)	44	5	(11,455)
<b>Balance December 31, 2023</b>	<b>239,719</b>	<b>33,298</b>	<b>27,169</b>	<b>24,232</b>	<b>324,418</b>
Amortization for the year	65,901	3,497	14,065	4,868	88,331
Impairments	448	-	-	-	448
Derecognition	(103,265)	-	-	-	(103,265)
Disposals	-	(862)	-	-	(862)
Foreign currency translation effect	(248)	183	241	(140)	36
<b>Balance December 31, 2024</b>	<b>202,555</b>	<b>36,116</b>	<b>41,475</b>	<b>28,960</b>	<b>309,106</b>
<b>Carrying amounts</b>					
<b>December 31, 2023</b>	<b>424,231</b>	<b>22,423</b>	<b>192,393</b>	<b>66,575</b>	<b>705,622</b>
<b>December 31, 2024</b>	<b>523,613</b>	<b>50,370</b>	<b>179,474</b>	<b>62,133</b>	<b>815,590</b>



The carrying amount of other intangibles consists of customer relationships €59 million (2023: €63.0 million), trade name €1.5 million (2023: €2.3 million), and other €1.6 million (2023: €1.3 million).

We perform an annual impairment test in the fourth quarter of each year or if events or changes in circumstances indicate that the carrying amount of development costs exceeds its recoverable amount. A discounted future cash flow approach is used which makes use of our estimates of future revenues, driven by assumed market growth and estimated costs as well as appropriate discount rates. For the impairment test, reference is made to Note 5.

Impairment charges on capitalized development costs are included in operating expenses under research and development. Impairment of capitalized development expenses primarily related to development of new hardware for which customer demand has shifted out in time, new process technologies that were not successful, and purchased technology which became obsolete. The impairment charges for 2024 related to customer-specific projects.

Capitalized development costs are amortized over their estimated useful lives of five years. Amortization starts when the developed asset is ready for its intended use. For the company, this occurs when the application is transferred to high-volume manufacturing. Capitalized development costs are derecognition upon disposal; or when no future economic benefits are anticipated from its use or disposal. The derecognition in 2024 pertain to fully amortized projects that were either previously impaired or succeeded by subsequent development projects, thus no future economic benefits are expected from these projects.

The company estimated a useful life of purchased technology of 15 years; other intangibles assets are amortized over their estimated useful lives of, respectively, four years (trade name) and 17 years (customer relationships). The amortization of development costs and purchased technology is included in R&D expenses in the P&L (2024: EUR 80m). The amortization of the trade name and customer relationships is included in SG&A.

Actual / estimated amortization expenses relating to other intangible assets are as follows:

	Development costs			Software	Purchased technology	Other intangibles	Total
2024 (actual)	65,901	-	65,901	3,497	14,065	4,868	88,331
Estimated	Amortization started ("in use")	Future amortization start date ("in development")	Total expected amortization				
2025	82,716	17,770	100,486	10,945	14,131	5,255	130,817
2026	73,643	38,824	112,467	16,896	14,131	5,046	148,540
2027	65,394	44,504	109,898	15,528	14,131	4,215	143,772
2028	52,273	44,943	97,216	6,997	14,131	4,183	122,527
2029	24,834	44,943	69,777	4	14,131	4,098	88,010
Years thereafter	-	33,769	33,769	-	108,819	39,336	181,924
Estimated amortization	298,860	224,753	523,613	50,370	179,474	62,133	815,590

Note 7. Investments in associates

The location included below is the principal place of business of the specified associates. The principal place of business and country for ASMPT deviates from the place of incorporation (Cayman Islands).

		% Ownership December 31,	
		2023	2024
Name	Location		
<b>Associates</b>			
Levitech BV	Almere, the Netherlands	26.64 %	26.64 %
SiC systems AB	Lunds Kommun, Sweden	50.00 %	50.00 %
ASMPT Ltd	Singapore	24.85 %	24.73 %

Levitech BV is valued at nil (2023: nil).

The changes in the investment in associates are as follows:

	ASMPT						Other	Total
	Net equity share	Other (in) tangible assets	Goodwill	Total ASMPT (before impairment)	Impairment, net	Total ASMPT (after impairment)	Net equity share	
<b>Balance January 1, 2023</b>	<b>475,725</b>	<b>7,233</b>	<b>418,272</b>	<b>901,230</b>	<b>(215,389)</b>	<b>685,841</b>	<b>500</b>	<b>686,341</b>
Reversal of impairments of investments in associates, net	-	-	-	-	215,389	215,389	-	215,389
Share in net earnings of investments in associates	21,206	-	-	21,206	-	21,206	-	21,206
Other comprehensive income of investments in associates	(618)	-	-	(618)	-	(618)	-	(618)
Amortization recognized intangible assets	-	(3,666)	-	(3,666)	-	(3,666)	-	(3,666)
Dividends	(30,753)	-	-	(30,753)	-	(30,753)	-	(30,753)
Dilution ASMPT share to 24.85%	2,607	-	-	2,607	-	2,607	-	2,607
Foreign currency translation effect	(13,158)	(141)	(15,270)	(28,569)	-	(28,569)	-	(28,569)
<b>Balance December 31, 2023</b>	<b>455,009</b>	<b>3,426</b>	<b>403,002</b>	<b>861,437</b>	<b>-</b>	<b>861,437</b>	<b>500</b>	<b>861,937</b>
Reversal of impairments of investments in associates, net	-	-	-	-	-	-	-	-
Share in net earnings of investments in associates	10,021	-		10,021	-	10,021	-	10,021
Other comprehensive income of investments in associates	(1,276)	-		(1,276)	-	(1,276)	-	(1,276)
Amortization recognized intangible assets	-	(378)		(378)	-	(378)	-	(378)
Dividends	(13,668)	-		(13,668)	-	(13,668)	-	(13,668)
Dilution ASMPT share to 24.73%	3,500	-		3,500	-	3,500	-	3,500
Foreign currency translation effect	15,162	221	28,106	43,489	-	43,489	-	43,489
<b>Balance December 31, 2024</b>	<b>468,748</b>	<b>3,269</b>	<b>431,108</b>	<b>903,125</b>	<b>-</b>	<b>903,125</b>	<b>500</b>	<b>903,625</b>

The company's interests in Levitech and SIC systems AB are, individually and in aggregate, immaterial to the consolidated financial statements, therefore no further disclosures included.

On March 15, 2013, the company divested a controlling stake in its subsidiary ASMPT Ltd (ASMPT). After the initial accounting of the sale transaction and related gains, future income from ASMPT was adjusted for the fair value adjustments arising from the basis differences as if a business combination had occurred under IFRS 3R, Business Combinations, i.e. a purchase price allocation (PPA).

The purchase of the associate has been recognized at fair value, being the value of the ASMPT shares on the day of closing of the purchase transaction. The composition of this fair value was determined through a PPA. The PPA resulted in the recognition of intangible assets for customer relationship, technology, trade name, product names, and goodwill. For inventories and property, plant & equipment, a fair value adjustment was recognized.

The ASMPT investment is accounted for under the equity method on a go-forward basis. Equity method investments are tested for prolonged impairment. An investment is considered impaired if the higher of fair value of the investment or value in use is less than its carrying value. If the higher of fair value of an investment or value in use is less than its carrying value at the balance sheet date, the company determines whether the impairment is temporary or prolonged. Management concluded that there is no objective evidence for impairment as of 31 December 2024 (2023 contains a €215 million impairment reversal as a result of an increase in the recoverable amount).

The amount per share recognized as per December 31, 2024, under equity accounting amounts to HK\$70.74, whereas the level 1 fair value per share (being the market price of a share on the Hong Kong Stock Exchange) was HK\$74.9 as per December 31, 2024.

In December 2024, 1,953,200 common shares of ASMPT were issued, for cash at par value of HK\$0.10 per share, pursuant to the Employee Share Incentive Scheme of ASMPT. ASM's ownership in ASMPT has diluted to 24.73% as of December 31, 2024 due to the shares issued under the plan in 2024.

Per December 31, 2024, the book value of our equity method investment in ASMPT was €903.1 million. The historical cost basis of our 24.73% share of net assets on the books of ASMPT under IFRS was €468.7 million as of December 31, 2024, resulting in a basis difference of €434.4 million. €3.3 million of this basis difference has been allocated to intangible assets. The remaining amount was allocated to equity method goodwill. Each individual, identifiable asset will periodically be reviewed for any indicators of potential impairment. We amortize the basis differences allocated to the assets on a straight-line basis, and include the impact within the results of our equity method investments. Amortization and depreciation are adjusted for related deferred tax impacts. Included in net income attributable to ASM for 2024 was an after-tax expense of €0.4 million, representing the depreciation and amortization of the basis differences.

Summarized 100% earnings information for ASMPT equity method investment excluding basis adjustments (foreign currency exchange rate average 2024: 1 HK\$: €0.11782 for December 31, 2023: 1 HK\$: €0.11812).

(HK\$ million)	2023	2024
Revenues	14,697	13,229
Income before income tax	1,036	502
Net earnings from continuing operations	712	342
Other comprehensive income	116	(575)
<b>Total comprehensive income</b>	<b>828</b>	<b>(233)</b>

Summarized 100% statement of financial position information for ASMPT equity method investment excluding basis adjustments (foreign currency exchange rate per December 31, 2024, was 1 HK\$: €0.12394 for December 31, 2023: 1 HK\$: €0.11586).

(HK\$ million)	December 31,	
	2023	2024
Current assets	15,241	15,095
Non-current assets	8,722	8,579
Current liabilities	6,013	4,072
Non-current liabilities	2,146	4,310
<b>Total equity</b>	<b>15,804</b>	<b>15,292</b>

Shareholder's equity of ASMPT per December 31, 2024, translated into euros at a rate of 0.12394 was €1,895 million (our 24.73% share: €469 million).

The ASMPT Board is responsible for ongoing monitoring of the performance of ASMPT. The actual results of ASMPT are discussed with the ASMPT Audit Committee, which includes the representative of ASM. The ASM representative reports to the ASM Management Board and the Audit Committee of ASM on a quarterly basis.

Our share of income taxes incurred directly by the associates is reported in income of investments in associates and as such is not included in income taxes in our consolidated financial statements.

Note 8. Inventories

Inventories consist of the following:

	December 31,	
	2023	2024
Components and raw materials	409,478	425,996
Work in progress	91,633	131,340
Finished goods	65,363	96,773
<b>Total inventories, gross</b>	<b>566,474</b>	<b>654,109</b>
Allowance for obsolescence	(40,784)	(87,102)
<b>Total inventories, net</b>	<b>525,690</b>	<b>567,007</b>

The changes in the allowance for obsolescence are as follows:

	December 31,	
	2023	2024
<b>Balance at beginning of year</b>	<b>(16,386)</b>	<b>(40,784)</b>
Additions	(36,536)	(62,262)
Reversals	10,042	14,642
Utilization of the provision	1,552	2,510
Foreign currency translation effect	544	(1,208)
<b>Balance at end of year</b>	<b>(40,784)</b>	<b>(87,102)</b>

On December 31, 2024, our allowance for inventory obsolescence amounted to €87.1 million, which is 13.3% of total gross inventory. The major part of the allowance is related to components and raw materials. The additions for 2024 and 2023 mainly relate to inventory items which ceased to be used due to technological developments and design changes resulting in obsolescence of certain parts. Allowance for obsolescence increased due to prior years measures to increase stock levels to minimize the impact of supply chain constraints, in conjunction with softening market conditions.

The cost of inventories recognized as costs and included in cost of sales amounted to €1,082.0 million (2023: €1,023.0 million).

Note 9. Accounts receivable

A significant percentage of our accounts receivable is derived from sales to a limited number of large multinational semiconductor device manufacturers located throughout the world. In order to monitor potential expected credit losses, we perform ongoing credit evaluations of our customers’ financial condition.

The carrying amount of accounts receivable is as follows:

	December 31,	
	2023	2024
Current	427,111	681,904
Overdue <30 days	30,328	47,648
Overdue 31-60 days	5,710	18,242
Overdue 61-120 days	9,752	19,309
Overdue >120 days	14,826	21,856
<b>Total</b>	<b>487,727</b>	<b>788,959</b>

An allowance for doubtful accounts receivable is maintained for potential expected credit losses based upon management’s assessment of the expected collectability of all accounts receivable. The allowance for doubtful accounts is reviewed periodically to assess the adequacy of the allowance. In making this assessment, management takes into consideration any circumstances of which we are aware regarding a customer’s inability to meet its financial obligations, and our judgments as to potential prevailing economic conditions in the industry and their potential impact on the company’s customers.

The changes in the allowance for doubtful accounts receivable are as follows:

	December 31,	
	2023	2024
<b>Balance at beginning of year</b>	<b>(642)</b>	<b>(1,454)</b>
Charged to selling, general and administrative expenses	(845)	(384)
Utilization of the provision	37	886
Foreign currency translation effect	(4)	(5)
<b>Balance at end of year</b>	<b>(1,454)</b>	<b>(957)</b>

Accounts receivable are impaired and provided for on an individual basis. As of December 31, 2024, accounts receivable of €107.1 million were past due but not impaired. These balances are still considered to be recoverable



because they relate to customers for whom there is neither recent history of default nor expectation that this will incur. Refer to Note 18 for further information on credit risk.

Note 10. Other current assets

Other current assets consist of the following:

	December 31,	
	2023	2024
Prepayments	39,010	25,888
VAT receivable	23,154	29,647
Others	6,681	14,742
<b>Total</b>	<b>68,845</b>	<b>70,277</b>

Note 11. Cash and cash equivalents

Cash and cash equivalents at December 31, 2024, include bank deposits and investments in money market funds that invest in marketable debt obligations and securities of governments, corporates and financial institutions. The amount invested in deposits and money market funds at the end of 2024 was €472 million (2023: €191 million) and interest-bearing bank accounts of €455 million (2023: €446 million). Our cash and cash equivalents are predominantly denominated in US dollars, and partly in euros, Singapore dollars, Korean won, and Japanese yen. Bank guarantees are in place for an amount of €1.1 million at December 31, 2024 (€1.8 million as per December 31, 2023). These guarantees mainly relate to lease and tax payments.

Cash and cash equivalents have insignificant interest-rate risk and remaining maturities of maximum three months or can be converted into cash without no more than 30 days' notice. Except for an amount of €0.5 million (2023: €0.5 million), there are no restrictions on usage of cash and cash equivalents. The carrying amount of these financial assets approximates their fair value. The company has not recognized a provision for expected credit loss for cash and cash equivalents due to the insignificance of the amount.

Note 12. Equity

Our Management Board has the power to issue common shares and (financing) preferred shares insofar as the Management Board has been authorized to do so by the Annual General Meeting of Shareholders (AGM). The Management Board requires the approval of the Supervisory Board for such an issue. The authorization by the AGM can only be granted for a certain period. In the case that the AGM has not authorized the Management Board to issue shares, the AGM shall have the power to issue shares.

Capital management

The Board's policy is to maintain a strong capital base in order to retain investor, creditor and market confidence and to sustain future development of the business. Management strives to maintain a cash position of at least €600 million to reflect a balance between investing in growth of the business, its policy to pay a sustainable dividend and returning excess cash to shareholders. With the publication of the Q4 2024 results on February 25, 2025, we announced a new €150 million share buyback program. The Company's objective is to achieve a sound return on shareholders' equity. The Company is monitoring its capital ratio of net debt to total shareholders' equity which should not exceed 1.5. There were no changes to the Board's approach to capital management during the year.

Common shares, preferred and financing preferred shares

Following the amendment of the articles of association on August 3, 2018, the authorized capital of the company amounts to 82,500,000 common shares of €0.04 par value, 88,500 preferred shares of €40 par value and 6,000 financing preferred shares of €40 par value.

As per December 31, 2024, 49,328,548 common shares with a nominal value of €0.04 each were issued and fully paid up, of which 230,731 common shares are held by us in treasury. All shares have one vote per €0.04 par value. Treasury shares held by the company cannot be voted on. Of our 49,097,817 outstanding common shares at December 31, 2024, 47,132,271 are registered with our transfer agent in the Netherlands, ABN AMRO Bank N.V., and 1,965,546 are registered with our transfer agent in the United States, Citibank, NA, New York.

Financing preferred shares are designed to allow ASM to finance equity with an instrument paying a preferred dividend, linked to Euribor loans and government loans, without the dilutive effects of issuing additional common shares.

Preferred and financing preferred shares are issued in registered form only and are subject to transfer restrictions. Essentially, a preferred or financing preferred shareholder must obtain the approval of the company's Supervisory Board to transfer shares. If approval is denied, the Supervisory Board will provide a list of acceptable prospective buyers who are willing to purchase the shares at a cash price to be fixed by consent of the Supervisory Board and seller within two months after the approval is denied. If the transfer is approved, the shareholder must complete the transfer within three months, at which time the approval expires.

Preferred shares are entitled to a cumulative preferred dividend based on the amount paid up on such shares. Financing preferred shares are entitled to a cumulative dividend based on the par value and share premium paid on such shares.

As per December 31, 2024, no preferred shares and no financing preferred shares are issued.

Purchases of common shares by the issuer and affiliated purchasers

On May 13, 2024, the AGM authorized the company, for an 18-month period, to be calculated from the date of the AGM, to repurchase its own shares up to 10% of the issued capital, at a price at least equal to the shares’ nominal value and at most a price equal to 110% of the shares' average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the purchase date.

On February 22, 2022, ASM announced a share buyback program to purchase up to an amount of €100 million of its own shares within the 2022/2023 time frame. This program started on April 27, 2023, and was completed on September 19, 2023.

Period	Total number of shares purchased	Average price paid per share (€)	Cumulative number of shares purchased
April, 2023	8,548	€324.79	8,548
May, 2023	60,288	€341.17	68,836
June, 2023	69,817	€383.07	138,653
July, 2023	23,575	€376.75	162,228
August, 2023	5,727	€421.79	167,955
September, 2023	96,548	€399.93	264,503
Total	264,503	€378.07	

On February 27, 2024, ASM announced a share buyback program to purchase up to an amount of €150 million of its own shares within the 2024 time frame. This program started on May 15, 2024, and was completed on July 25, 2024.

Period	Total number of shares purchased	Average price paid per share (€)	Cumulative number of shares purchased
May, 2024	72,961	€653.45	72,961
June, 2024	17,360	€654.77	90,321
July, 2024	138,068	€658.78	228,389
Total	228,389	€656.77	

The share buyback programs were executed by intermediaries through on-exchange purchases or through off-exchange trades. ASM updated the markets on the progress of the share buyback programs on a weekly basis.

The following table shows the change in number of treasury shares and outstanding shares:

Number of shares	Treasury shares	Outstanding shares
Balance at beginning of year	226,802	49,201,746
Purchase common shares	228,389	(228,389)
Vesting restricted shares out of treasury shares	(124,460)	124,460
Cancellation treasury shares	(100,000)	-
Balance at end of year	230,731	49,097,817

ASM intends to use part of the shares for commitments under the employee share-based compensation schemes and the performance shares program for the Management Board.

Treasury shares

On December 31, 2024, we had 49,097,817 outstanding common shares excluding 230,731 treasury shares. This compared to 49,201,746 outstanding common shares and 226,802 treasury shares at December 31, 2023. The change in the number of treasury shares in 2024 was the result of 228,389 repurchased shares, cancellation of 100,000 treasury shares and 124,460 treasury shares that were used as part of share-based payments.

	2023	2024
<b>As per January 1:</b>		
Issued shares	49,348,548	49,428,548
Treasury shares	22,229	226,802
<b>Outstanding shares</b>	<b>49,326,319</b>	<b>49,201,746</b>
<b>Changes during the year:</b>		
Share buybacks	264,503	228,389
Treasury shares used for share-based performance programs	121,681	124,460
Treasury shares used for exercise stock options	18,249	-
Issue of common shares used for share-based performance programs	80,000	-
Cancellation of treasury shares	—	(100,000)
<b>As per December 31:</b>		
Issued shares	49,428,548	49,328,548
Treasury shares	226,802	230,731
<b>Outstanding shares</b>	<b>49,201,746</b>	<b>49,097,817</b>

Retained earnings

Distributions to common shareholders are limited to the extent the total amount of shareholders’ equity exceeds the amounts of nominal paid-in share capital (exclusive any share premium) and any reserves to be formed pursuant to law or the company’s Articles of Association. The amounts are derived from the company financial statements of ASM.

ASM aims to pay a sustainable annual dividend. The Supervisory Board, upon proposal of the Management Board, will annually assess the amount of dividend that will be proposed to the AGM. The decision that a dividend be proposed to the AGM will be subject to the availability of distributable profits as well as retained earnings and may

be affected by our potential future funding requirements. Accordingly, dividend payments may fluctuate and could decline or be omitted in any year.

Over 2023, we paid in total a dividend of €2.75 per common share as regular dividend, and was paid after the 2024 AGM in May 2024. We will propose to the forthcoming 2025 AGM to declare a regular dividend of €3.00 per share over 2024.

Results on dilution of investments in associates are accounted for directly in equity. For 2024 and 2023, these dilution results were €3,500 and €2,607, respectively.

Other reserves

The changes in the amounts of other reserves are as follows:

	Proportionate share in other comprehensive income of investments in associates	Remeasurement on net defined benefit	Foreign currency translation reserve	Total other reserves
<b>Balance January 1, 2023</b>	<b>2,279</b>	<b>1,057</b>	<b>191,546</b>	<b>194,882</b>
Proportionate share in other comprehensive income of investments in associates	(618)	-	-	(618)
Remeasurement on net defined benefit	-	479	-	479
Foreign currency translation effect on foreign operations	-	-	(90,908)	(90,908)
<b>Balance December 31, 2023</b>	<b>1,661</b>	<b>1,536</b>	<b>100,638</b>	<b>103,835</b>
Proportionate share in other comprehensive income of investments in associates	(1,276)	-	-	(1,276)
Remeasurement on net defined benefit	-	725	-	725
Foreign currency translation effect on foreign operations	-	-	69,957	69,957
<b>Balance December 31, 2024</b>	<b>385</b>	<b>2,261</b>	<b>170,595</b>	<b>173,241</b>

Note 13. Employee benefits

Pension plans

The company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the company’s operations in the Netherlands and Japan.

Multi-employer plan

There are 190 eligible employees in the Netherlands. These employees participate in a multi-employer union plan (pension fund Metalektrø PME) determined in accordance with the collective bargaining agreements effective for the industry in which we operate. This multi-employer union plan, accounted for as a defined contribution plan, covers approximately 1,533 companies and approximately 183,000 contributing members. Our contribution to the multi-employer union plan was less than 5% of the total contribution to the plan. The plan monitors its risks on a global basis, not by participating company or employee, and is subject to regulation by Dutch governmental authorities. By law (the Dutch Pension Act), a multi-employer union plan must be monitored against specific criteria, including the coverage ratio of the plan’s assets to its obligations. As of July 1, 2023, new pension legislation has been enacted, however the new legislation will become effective as of January 2027, no impact identified on the 2023 and 2024 financial statements. The current effective legislation results in, amongst others, an increase of legally required coverage levels. The coverage percentage is calculated by dividing the funds capital by the total sum of pension liabilities and is based on actual market interest rates. The coverage ratio as per December 31, 2024, of 113.1% (December 31, 2023: 109.4%) is calculated giving consideration to the pension legislation. We have no obligation to pay off any deficits the pension fund may incur, nor do we have any claim to any potential surpluses.

Every company participating in the PME contributes a premium calculated as a percentage of its total pensionable salaries, with each company subject to the same contribution rate. The premium can fluctuate yearly based on the coverage ratio of the multi-employer union plan. For 2024, the contribution percentage was 27.98%. The pension rights of each employee are based upon the employee’s average salary during employment.

Our net periodic pension cost for this multi-employer union plan for any period is the amount of the required employer contribution for that period minus the employee contribution.

Defined benefit plan

The company’s employees in Japan participate in a defined benefit plan. The company makes contributions to defined benefit plans in Japan that provide pension benefits for employees upon retirement. These are average-pay plans, based on the employees' years of service and compensation near retirement.

The most recent actuarial valuations of plan assets and the present value of the defined benefit obligation were carried out on December 31, 2024. The present value of the defined benefit obligation and the related current service cost and past service cost were measured using the projected unit credit method. Significant actuarial

assumptions for the determination of the defined obligation are discount rate, future general salary increases, and future pension increases.

The net liability (asset) of the plan developed as follows:

	December 31,	
	2023	2024
Defined benefit obligations	8,615	8,311
Fair value of plan assets	11,534	12,127
<b>Net liability (asset) for defined benefit plans</b>	<b>(2,919)</b>	<b>(3,816)</b>

The company does not provide for any significant post-retirement benefits other than pensions.

Deferred compensation plan

Our non-qualified deferred compensation plan enables more senior US employees to postpone a percentage of their salary and/or bonuses. At its sole discretion, we may credit participant accounts with company contributions. Participants can allocate their deferrals among the plan's numerous investment options. At least three years after deferral, participants choose to receive their funds in subsequent periods following the earlier of their employment termination or their withdrawal election.

Expenses were close to nil relating to this plan in 2024 and 2023. As of December 31, 2024, our liability under deferred compensation plans was €17.2 million (2023: €8.1 million). The related compensation plan assets are €15.9 million (2023: €7.4 million).



Long-term incentive plan for Management Board and employee

The company has adopted multiple share plans, including a restricted share plan and a performance share plan. It has entered into share agreements with the Management Board and included eligible employees to participate in the restricted share plan. Under the restricted share plan, employees receive per the vesting date a specific number of shares of the company's common stock. In 2024, 64% of our global headcount was eligible to the restricted share plan. Under the performance share plan, the Management Board and Executive Committee members receive per the vesting date, and provided the performance criteria have been met, a specific number of shares of the company's common stock.

Authority to issue shares

By resolution of the Annual General Meeting of Shareholders (AGM) of May 14, 2024, the formal authority to issue shares was allocated to the Management Board subject to the approval of the Supervisory Board. This authority is valid for 18 months and needs to be refreshed by the 2025 AGM to allow the continued application of the long-term incentive (LTI) plans beyond November 14, 2025. The company hasn't granted new options since its last grant date per April 2017.

The ASM 2014 long-term incentive plan for employees (ELTI) is principally administered by the Management Board and the ASM 2014 long-term incentive plan for members of the Management Board (MLTI) is principally administered by the Supervisory Board. This complies with applicable corporate governance standards. However, the Supervisory Board has no power to represent the company. For external purposes, the Management Board remains the competent body under both LTI plans. The LTI plans envisage that the Supervisory Board, or in the case of the ELTI the Management Board with the approval of the Supervisory Board, will determine the number of shares to be granted to the Management Board members and to employees.

2014 long-term incentive plan

The current long-term incentive plan was adopted in 2014. In the plan to limit potential dilution, the amount of outstanding (vested and non-vested) shares granted to the Management Board and to other employees will not exceed 5% of the issued ordinary share capital of ASM. The new long-term incentive plan 2014 consists of two sub-plans: the ELTI and the MLTI.

Performance shares are primarily issued to Management Board and Executive Committee members and regularly restricted shares are issued to employees once per annum on the date following the publication of the first-quarter results of the relevant year. Possible grant to newly hired employees can be issued once a quarter, on the date following the publication of the financial results of the relevant quarter. The number of shares outstanding under the long-term incentive plans or under any other plan or arrangement in aggregate may never exceed 5% of ASM's share capital.

Performance and restricted shares outstanding

The following table is a summary of changes in performance shares and restricted shares outstanding under the 2014 long-term incentive plan.

	Status	Number of performance shares	Number of restricted shares	Fair value at grant date (weighted average)
Balance January 1, 2023		23,069	239,710	
Shares granted, employees	Unconditional	-	120,200	€317.51
Shares granted, Management Board and ExCo	Conditional	18,017	-	€313.46
Shares granted, Management Board	Unconditional	-	-	€0.00
Shares vested		(8,087)	(113,594)	
Shares forfeited		-	(9,879)	
Balance December 31, 2023		32,999	236,437	
Shares granted, employees	Unconditional	-	80,896	€579.25
Shares granted, employees	Conditional	4,461	-	€584.53
Shares granted, Management Board and ExCo	Conditional	9,001	-	€581.81
Shares granted, Management Board	Unconditional	2,358	-	€260.33
Shares vested		(16,384)	(108,076)	
Shares forfeited		(644)	(20,038)	
Balance December 31, 2024		31,791	189,219	

In 2024, treasury shares were sold for the vesting of 124,460 restricted shares.

Share-based payments expenses

The grant date fair value of the restricted shares and the performance shares is expensed on a straight-line basis over the vesting period, based on the company's estimate of restricted shares, and performance shares that will eventually vest. The impact of the true-up of the estimates is recognized in the consolidated statement of profit or loss in the period in which the revision is determined. We recorded compensation expenses of €48,557 for 2024 (2023: €37,308).

Note 14. Provision for warranty

The changes in the amount of provision for warranty are as follows:

	December 31,	
	2023	2024
Balance January 1	34,219	22,716
Additions	36,360	41,536
Utilization	(29,238)	(25,305)
Releases of expired warranty	(17,352)	(6,298)
Foreign currency translation effect	(1,273)	752
Balance December 31	22,716	33,401

Provision is made for estimated warranty claims in respect of products sold which are still under warranty at the end of the reporting period. Costs of warranty include the cost of labor and materials to repair a product during the warranty period. The main term of the warranty period is one year. The company accrues for the estimated cost of the warranty on its products shipped in the provision for warranty, upon recognition of the sale of the product. The costs are estimated based on actual historical expenses incurred and on estimated future expenses related to current revenue, and are updated periodically. Actual warranty costs are charged against the provision for warranty. The assumptions made in relation to the current period are consistent with those in the prior year. Factors that could impact the estimated claim information include the success of the group’s productivity and quality initiatives, as well as parts and labor costs. The main part of the claims is expected to be settled in the next financial year.

Note 15. Accrued expenses and other payables

Accrued expenses and other payables consist of the following:

	December 31,	
	2023	2024
Personnel-related items	132,813	164,691
Current lease liabilities	10,874	11,672
Supplier-related items	39,996	32,522
Other	32,530	26,415
Total accrued expenses and other payables	216,213	235,300

Personnel-related items comprise accrued management bonuses, accrued vacation days, accrued wage tax, social securities, and pension premiums. Other includes accruals for VAT, other taxes, and invoices to be received for services.

Note 16. Contingent consideration payable

According to the SPA (Sale and Purchase Agreement of LPE S.p.A., hereafter LPE ) dated 15 July 2022, ASM agreed with the seller that in the event certain predetermined sales targets (including specific targets for certain markets) are achieved by LPE over the period 2023-2024, an additional consideration of up to €100 million ('LPE earn out') may be payable in cash in Q2 2025.

The company determined that the combined revenues over the performance period exceed the upper threshold of the predetermined sales targets and therefore accounted for 100% of the LPE earn-out. The payout will remain conditional until approval of the 2024 statutory annual report of LPE, which is expected to occur in the 2nd quarter of 2025.

The fair value of the contingent consideration of €97 million represents the discounted value of the expected related €100 million cash payment as of 31 December, 2024 (2023: €88 million).

Note 17. Credit facility

As per December 31, 2024, ASM was debt-free. ASM may borrow under separate short-term lines of credit with banks under an unsecured €150 million standby revolving credit facility (RCF)with a consortium of banks.

The amount outstanding as at December 31, 2024 was nil, so the undrawn portion totaled €150 million. The undrawn portion represents the company's standby revolving credit facility of €150 million with a consortium of banks. The initial five-year tenor 2022 facility included a two-year extension option, which has been exercised, bringing the maturity date to 2029. The facility amount is €150 million with an accordion option to increase the facility by an amount of €100 million.

The credit facility of €150 million includes one financial covenant:

- Consolidated total net debt/total shareholders' equity ratio.

This financial covenant is measured twice each year: on June 30 and December 31.

The net debt/total shareholders' equity ratio should not exceed 1.5. For the year ended December 31, 2024, the company has no net debt, cash and cash equivalents amount to €927 million, and total equity equals the amount of consolidated tangible net worth.

The company is in compliance with these financial covenants as of December 31, 2024.

The RCF agreement stipulates that in the event of a change of control of ASM, the amounts outstanding under the arrangement may become immediately due.

Next to the RCF ASM has an unsecured €15 million Uncommitted Overdraft Facility Agreement with one of its cash management banks. The amount outstanding on December 31, 2024, was nil, so the undrawn portion totaled €15 million.

Note 18. Financial instruments and financial risk management

Financial instruments

Financial instruments include:

Year ended December 31, 2023	Financial assets at fair value through profit or loss <sup>1</sup>	Financial assets as amortized costs	Other financial liabilities	Total
<b>Financial assets:</b>				
Cash and cash equivalents	191,232	446,032	-	637,264
Accounts receivable	-	487,727	-	487,727
<b>Financial liabilities:</b>				
Accrued expenses and other liabilities	-	-	238,897	238,897
Contingent consideration payable	-	-	88,304	88,304
Accounts payable	-	-	177,686	177,686

Year ended December 31, 2024	Financial assets at fair value through profit or loss <sup>1</sup>	Financial assets as amortized costs	Other financial liabilities	Total
<b>Financial assets:</b>				
Cash and cash equivalents	471,847	454,654	-	926,501
Accounts receivable	-	788,959	-	788,959
<b>Financial liabilities:</b>				
Accrued expenses and other liabilities	-	-	258,889	258,889
Contingent consideration payable	-	-	97,002	97,002
Accounts payable	-	-	282,554	282,554

<sup>1</sup> Consists of investments in money market funds that invest in marketable debt obligations and securities of governments, corporates and financial institutions and dual currency deposits ( less then 3 months). Fair value measurement of the money market funds is based on Level 1 (fair value hierarchy), remainder based on Level 2.

The carrying amounts of cash and cash equivalents, accounts receivable, and accounts payable are a reasonable approximation of their fair values.

Gains or (losses) related to financial instruments are as follows:

	2023	2024
Interest income	14,826	21,658
Interest expense	(3,945)	(1,884)
Change in fair value of contingent consideration	(9,655)	(8,698)
Result from foreign currency exchange	(21,375)	45,048
Addition to allowance for doubtful accounts receivable	(845)	(384)

Financial risk factors

ASM is exposed to a number of financial risks such as market risk (including foreign currency risk), credit risk, liquidity risk, and capital risk. Our overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potentially adverse effects on our financial performance. Our financing policy is based on the following elements:

- Liquidity: Maintain a minimum amount of €600 million in cash and cash equivalents, which allows us to continue investing in R&D and in the growth of our company;
- Capital structure: Maintain a strong capital base so as to maintain investor-, creditor-, and market confidence, and to sustain future development of the business;
- Cash return: We intend to return cash to our shareholders on a regular basis in the form of dividend payments and, subject to our actual and anticipated liquidity requirements and other relevant factors, share buybacks.

We might use derivative financial instruments to hedge certain risk exposures, we won't enter into such instruments for trading or speculative purposes. We use market information to determine the fair value of our derivative financial instruments

Market risk

Market risk includes changes in market prices – e.g. foreign currencies and interest rates, which will affect the group’s income or the value of its holdings of financial instruments. The objective of market-risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

Foreign currency risk

ASM and its subsidiaries conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of the company (euro) or one of its subsidiaries conducting the business. The purpose of the company's foreign currency management is to manage the effect of exchange-rate fluctuations on income, expenses, cash flows, and assets and liabilities denominated in selected foreign currencies, in particular denominated in US dollars.

We may use forward exchange contracts to hedge our foreign exchange risk of anticipated sales or purchase transactions in the normal course of business which occur within the next twelve months, for which we have a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. There is no hedge accounting applied on the hedges therefore change in fair value (gain or loss) on the hedges will be recognized in profit or loss.

We do not use forward exchange contracts for trading or speculative purposes.

Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date, and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the consolidated statement of profit or loss.

Financial assets and financial liabilities are recognized on the company's consolidated statement of financial position when the company becomes a party to the contractual provisions of the instrument.

To the extent that exchange rate fluctuations impact the value of the company’s investments in its foreign subsidiaries, they are not hedged. The cumulative effect of these fluctuations is separately reported in consolidated equity. Reference is made to Note 12.

Per December 31, 2024, there were no forward exchange contracts outstanding (none as per December 31, 2023).

The foreign currency exchange results in 2024 pertains to translation gain of €45.0 million, compared to translation loss of €21.4 million in 2023. A substantial part of ASM's cash position is denominated in US dollar, which is the key driver of the exchange gain in 2024 and the loss in 2023.



The following table analyzes the company’s exposure to currency risk in our major currencies.

(thousand)	December 31,							
	2023				2024			
	USD	JPY	KRW	SGD	USD	JPY	KRW	SGD
Accounts receivable	430,219	1,896,633	9,828,588	510	715,072	2,032,556	9,863,787	496
Cash and cash equivalents	557,922	2,538,412	20,238,173	30,384	538,118	146,687	12,805,931	28,853
Accounts payable	(77,837)	(3,041,465)	(28,425,737)	(36,840)	(182,843)	(3,148,769)	(40,305,139)	(47,070)
<b>Total</b>	<b>910,304</b>	<b>1,393,580</b>	<b>1,641,024</b>	<b>(5,946)</b>	<b>1,070,347</b>	<b>(969,526)</b>	<b>(17,635,421)</b>	<b>(17,721)</b>

The following table analyzes the company’s sensitivity to a hypothetical 10% strengthening and 10% weakening of the US dollar, Singapore dollar, Korean won and Japanese yen against the euro as of December 31, 2024, and December 31, 2023. This analysis includes foreign currency-denominated monetary items and adjusts their translation at year-end for a 10% increase and 10% decrease against the euro.

	Impact on financial instruments	
	2023	2024
10% increase of US dollar versus euro	82,381	103,027
10% decrease of US dollar versus euro	(82,381)	(103,027)
10% increase of Singapore dollar versus euro	(408)	(1,251)
10% decrease of Singapore dollar versus euro	408	1,251
10% increase of Korean won versus euro	115	(1,146)
10% decrease of Korean won versus euro	(115)	1,146
10% increase of Japanese yen versus euro	892	(594)
10% decrease of Japanese yen versus euro	(892)	594

A hypothetical 10% strengthening or 10% weakening of any other currency against the euro as of December 31, 2024, and December 31, 2023, could have a material impact on net earnings for certain currencies.

Interest risk

We are exposed to interest rate risk through our cash deposits. The company does not enter into financial instrument transactions for trading or speculative purposes, or to manage interest-rate exposure. As per December 31, 2024, the company had no debt and was not exposed to interest rate risk on borrowings.

Credit risk

Financial instruments that potentially subject the company to concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable, and derivative instruments. These instruments contain a risk of counterparties failing to discharge their obligations. We monitor credit risk and manage credit risk exposure by type of financial instrument by assessing the creditworthiness of counterparties. We do not anticipate non-performance by counterparties, given their high creditworthiness.

Our customers are semiconductor device manufacturers located throughout the world. We perform ongoing credit evaluations of our customers' financial condition. We take additional measures to mitigate credit risk when considered appropriate by means of down payments or letters of credit. We generally do not require collateral or other security to support financial instruments with credit risk.

Concentrations of credit risk (whether on- or off-balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

We derive a significant percentage of our revenue from a small number of large customers. The 10 largest customers accounted for approximately 69.7% of revenue in 2024 (2023: 64.9%). The five largest customers accounted for approximately 50.8% of revenue in 2024 (2023: 48.7%). In 2024, we had 3 customers (2023: two customers) who contributed more than 10% of total revenue. Revenue to these large customers may also fluctuate significantly from time to time, depending on the timing and level of purchases by these customers. Significant orders from such customers may expose the company to a concentration of credit risk, and difficulties in collecting amounts due,

which could harm the company’s financial results. However, given the creditworthiness of our customers and historical experience, we have not accounted for an expected credit loss over the outstanding balances in general. Refer to Note 9 for further information.

We invest our cash and cash equivalents in short-term deposits, money-market funds, and derivative instruments with high-rated financial institutions. We only enter into transactions with a limited number of major financial institutions that have high investment grade credit ratings (e.g., S&P), and we closely monitor the creditworthiness of our counterparties. Concentration risk is mitigated by not limiting the exposure to a single counterparty.

The maximum credit exposure is equal to the carrying values of cash and cash equivalents and accounts receivable.

Liquidity risk

Our policy is to maintain a strong capital base so as to maintain investor-, creditor-, and market confidence, and to sustain future development of the business.

Our liquidity needs are affected by many factors, some of which are based on the normal ongoing operations of the business, and others that relate to the uncertainties of the global economy and the semiconductor industry. Although our cash requirements fluctuate based on the timing and extent of these factors, we believe that cash generated from operations, together with our principal sources of liquidity, are sufficient to satisfy our current requirements, including our expected capital expenditures in 2025.

We intend to return cash to our shareholders on a regular basis in the form of dividend payments and, subject to our actual and anticipated liquidity requirements and other relevant factors, share buybacks.

The following table summarizes the company’s contractual obligations:

Year ended December 31, 2023	Total	Less than 1 year	1-5 years	More than 5 years
Accounts payable	177,686	177,686	-	-
Accrued expenses and other payables	216,213	216,213	-	-
Non-current lease liabilities	22,684	-	19,839	2,845
Contingent consideration payable	100,000	-	100,000	-
<b>Purchase obligations:</b>				
Purchase commitments to suppliers	665,657	579,941	85,716	-
Capital expenditure and other commitments	49,287	31,669	17,618	-
<b>Total contractual obligations</b>	<b>1,231,527</b>	<b>1,005,509</b>	<b>223,173</b>	<b>2,845</b>

Year ended December 31, 2024	Total	Less than 1 year	1-5 years	More than 5 years
Accounts payable	282,554	282,554	-	-
Accrued expenses and other payables	235,300	235,300	-	-
Non-current lease liabilities	25,018	-	21,360	3,658
Contingent consideration payable	100,000	100,000	-	-
<b>Purchase obligations:</b>				
Purchase commitments to suppliers	616,688	523,636	93,052	-
Capital expenditure and other commitments	109,147	107,599	1,548	-
<b>Total contractual obligations</b>	<b>1,368,707</b>	<b>1,249,089</b>	<b>115,960</b>	<b>3,658</b>

Total short-term lines of credit amounted to €150 million at December 31, 2024. The amount outstanding at December 31, 2024 was nil and the undrawn portion totaled €150 million. The standby revolving credit facility of €150 million with a consortium of banks will be available through May 31, 2027.

For the majority of purchase commitments, the company has flexible delivery schedules depending on the market conditions, which allows the company, to a certain extent, to delay delivery beyond originally planned delivery schedules.

Capital risk

The Board’s policy is to maintain a strong capital base in order to retain investor, creditor and market confidence and to sustain future development of the business.

Our objectives when managing our capital structure are to safeguard our ability to satisfy our capital providers by maintaining a capital structure that ensures strong financial position. The capital structure is mainly altered by, among other things, our financial results, adjusting the amount of dividends paid to shareholders, the amount of share buybacks or capital repayment, and (if applicable) any changes in the level of debt. Our capital structure is formally reviewed with the Supervisory Board each year in connection with our updated long-term financial plan and relevant scenarios. The outcome of this year’s review confirmed to maintain our existing financing policy in relation to our capital structure.

## Note 19. Commitments and contingencies

Per December 31, 2024, the company entered into purchase commitments with suppliers in the amount of €523,636 (2023: €579,941) for purchases within the next 12 months and €93,052 (2023: €85,716) after 12 months. Commitments for capital expenditures and other commitments per December 31, 2024 were €107,599 (2023: €31,669) within the next 12 months and €1,548 (2023: €17,618) after 12 months.

## Note 20. Litigation

ASM and its subsidiaries are, and may become, a party to various legal proceedings incidental to their business. As is the case with other companies in similar industries, ASM faces exposure from actual or potential claims and legal proceedings. Although the ultimate result of legal proceedings cannot be predicted and may have material effects, and in many events cannot be reasonably estimated, it is the opinion of the company's management that the outcome of any claim which is currently pending, either individually or on a combined basis, will not have a material effect on ASM's consolidated financial position, cash flows and result of operations.

## Note 21. Segment disclosure

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer (CEO), who is the Chief Operating Decision Maker (CODM).

The accounting policies used to measure the net earnings and total assets in each segment are consistent with those used in the consolidated financial statements. The measurement methods used to determine reported segment earnings are consistently applied for all periods presented. There were no asymmetrical allocations to segments.

Geographical information is summarized as follows:

	Year ended December 31,			
	2023		2024	
	Revenue	Non-current assets <sup>1</sup>	Revenue	Non-current assets <sup>1</sup>
United States	555,079	505,677	628,477	346,561
Europe	302,746	639,628	169,247	1,119,841
Asia	1,776,506	395,756	2,135,000	317,962
<b>Total</b>	<b>2,634,331</b>	<b>1,541,061</b>	<b>2,932,724</b>	<b>1,784,364</b>

<sup>1</sup> Other than financial instruments, deferred tax assets and post-employment benefit assets

We refer to Note 18. Financial instruments and financial risk management for information on the extent of reliance on major customers.

Note 22. Revenue

Geographical information is summarized as follows:

	Year ended December 31,	
	2023	2024
	Revenue	Revenue
United States	555,079	628,477
Europe	302,746	169,247
Asia	1,776,506	2,135,000
<b>Total</b>	<b>2,634,331</b>	<b>2,932,724</b>

For geographical reporting, the revenue is attributed to the geographical location in which the customer's facilities are located.

Revenue stream

The company generates revenue primarily from the sales of equipment and spares and services. The products and services are described by nature in the summary of significant accounting policies, and are recognized within these revenue streams as follows:

- Equipment revenue: This revenue stream captures the sale of equipment and installation services. Revenues from royalties and licenses are included to the extent that these licenses relate to equipment; and
- Spares & Services revenue: The revenues included under this line relate to the sale of spares and support services. Revenues from royalties and licenses are included to the extent that these licenses relate to spares.

	Year ended December 31,	
	2023	2024
Equipment revenue	2,205,846	2,385,352
Spares & Services revenue	428,485	547,372
<b>Total</b>	<b>2,634,331</b>	<b>2,932,724</b>

Total revenue increased by 11%, driven mainly by increases in our ALD and Spares & Services business.

Contract balances

	2023	2024
Contract assets (current)	59,392	57,745
Contract Liabilities	300,241	485,732

The current contract assets primarily relate to the company’s right to consideration for work completed and revenue recognized but not billed at the reporting date. The contract asset is transferred to accounts receivables when the rights become unconditional. This usually occurs when the company issues an invoice to the customer.

Contract liabilities relates to the advance consideration received from customers for which revenue is not yet recognized because the performance obligation has not been satisfied yet. Deferral of revenues is based on the transaction price allocated to the performance obligations and recognized upon fulfillment of each performance obligation. An amount of €121 million included in the contract liabilities at December 31, 2023, has been recognized in 2024.



Note 23. Income taxes

Amounts recognized in profit or loss

The total income tax expense amounts to €182.2 million (2023: €114.4 million). The components of income tax expense were as follows:

	Year ended December 31,	
	2023	2024
<b>Current:</b>		
Current tax expense	(101,079)	(156,687)
Pillar Two Global minimum tax	—	(18,835)
Prior year benefit	15,531	3,324
	<b>(85,548)</b>	<b>(172,198)</b>
<b>Deferred:</b>		
Origination and reversal of tax losses, tax credits and temporary differences	(28,900)	(7,732)
Prior year expense	—	(2,238)
	<b>(28,900)</b>	<b>(9,970)</b>

Reconciliation of effective tax rate

The provisions for income taxes as shown in the consolidated statements of profit or loss differ from the amounts computed by applying the Dutch statutory income tax rate to earnings before taxes. A reconciliation of the provisions for income taxes and the amounts that would be computed using the Dutch statutory income tax rate is set forth as follows:

	Year ended December 31,			
	2023		2024	
<b>Result before income taxes from continuing operations</b>	<b>866,521</b>	<b>100.0 %</b>	<b>867,902</b>	<b>100.0 %</b>
Income tax provision based on Dutch statutory income tax rate	(223,562)	25.8 %	(223,919)	25.8 %
Non-deductible expenses	(12,584)	1.5 %	(6,342)	0.7 %
Foreign taxes at a rate other than the Dutch statutory rate	17,752	(2.0) %	24,967	(2.9) %
Tax incentives and non-taxable income <sup>1</sup>	33,532	(3.9) %	35,873	(4.1) %
Prior year tax adjustments	15,531	(1.8) %	1,086	(0.1) %
Non-taxable income / impairment reversal on investments in associates <sup>2</sup>	58,054	(6.7) %	2,624	(0.3) %
Pillar Two Global Minimum Tax	—	— %	(18,835)	2.2 %
Other	(3,172)	0.4 %	2,378	(0.3) %
<b>Tax income (expense)</b>	<b>(114,449)</b>	<b>13.2 %</b>	<b>(182,168)</b>	<b>21.0 %</b>

<sup>1</sup> Tax incentives primarily relate to Singapore  
<sup>2</sup> This item consists of impairment reversal in 2023 and income from investments in associates to which the Dutch participation exemption applies.

The consolidated group effective tax rate for 2024 is higher compared to previous year mainly due to an incidental non-taxable impairment reversal on ASMPT reported in 2023 and the impact of Pillar II Global Minimum Tax in 2024. The adjusted effective tax rate, excluding the impairment reversal on, and net income of our investment in ASMPT, for 2024 is 21.2% (2023: 18.1%).

The Dutch statutory tax rate is 25.8%. Taxation for other jurisdictions is calculated at the rates prevailing in the relevant jurisdictions. During 2024, there was no significant change in the statutory tax rates of the relevant jurisdictions. The company's deferred tax assets and liabilities have been determined in accordance with these statutory income tax rates.

## Movement in deferred tax balances

	Net balance at January 1, 2023	Consolidated statement of profit and loss	Other	Net balance at December 31, 2023	Deferred tax assets at December 31, 2023	Deferred tax liabilities at December 31, 2023
Right-of-use assets & lease liabilities	262	68	(11)	319	319	—
Property plant and equipment	(2,203)	(1,079)	47	(3,235)	-	(3,235)
Other intangible assets	(147,663)	(35,004)	2,965	(179,702)	-	(179,702)
Evaluation tools	1,934	44	(66)	1,912	1,912	—
Employee benefits	(1,061)	5,750	(331)	4,358	4,358	—
Inventories	3,569	2,449	(58)	5,960	5,960	—
Provision for warranty	6,941	(2,321)	(198)	4,422	4,422	—
Accrued expenses	10,310	150	(428)	10,032	10,032	—
Tax losses carried forward	4,652	(782)	(143)	3,727	3,727	—
R&D tax credits	(363)	2,663	(61)	2,239	2,239	—
Set-off deferred taxes	—	—	—	—	(32,790)	32,790
<b>Total deferred tax</b>	<b>(123,622)</b>	<b>(28,062)</b>	<b>1,716</b>	<b>(149,968)</b>	<b>179</b>	<b>(150,147)</b>

	Net balance at January 1, 2024	Consolidated statement of profit and loss	Other	Net balance at December 31, 2024	Deferred tax assets at December 31, 2024	Deferred tax liabilities at December 31, 2024
Right-of-use assets & lease liabilities	319	502	18	839	849	(10)
Property plant and equipment	(3,235)	(16,675)	(436)	(20,346)	292	(20,638)
Other intangible assets	(179,702)	(21,187)	(89)	(200,978)	12	(200,990)
Evaluation tools	1,912	3,610	121	5,643	5,654	(11)
Employee benefits	4,358	17,427	3,290	25,075	25,075	—
Inventories	5,960	10,359	357	16,676	16,676	—
Provision for warranty	4,422	2,282	147	6,851	6,851	—
Accrued expenses	10,032	(3,383)	145	6,794	9,681	(2,887)
Tax losses carried forward	3,727	(642)	68	3,153	3,153	—
R&D tax credits	2,239	(2,263)	24	—	-	—
Set-off deferred taxes	—	-	-	—	(33,592)	33,592
<b>Total deferred tax</b>	<b>(149,968)</b>	<b>(9,970)</b>	<b>3,645</b>	<b>(156,293)</b>	<b>34,651</b>	<b>(190,944)</b>

The column 'Other' includes foreign currency translation differences, the impact of the remeasurement of the deferred tax balance relating to post-employment benefits and the impact of the remeasurement of the deferred tax balance related to Share-based compensation.

Deferred tax assets and/or liabilities for temporary differences are mainly recognized in the Netherlands, United States, and Italy.

**Income tax receivable and income tax payable**

At December 31, 2024, the income tax receivable amounts to €4.8 million (2023: €30 million). The income tax payable amounts to €66.2 million (2023: €21.9 million).

During 2024, the company paid income taxes of €97.6 million (2023: €118.8 million).

**Unrecognized deferred tax assets**

The credits concern R&D credits generated in the US, in the state of Arizona. However, ASM does not recognize these credits stemming from prior years due to the fact that utilization of prior-year credits is only possible if and when the credits generated in the current year are fully utilized. Given the level of R&D activity in the US, the company does not expect it could fully utilize the credits generated in the current year and, hence, does not expect to benefit from the available credits generated in prior years.

	2024	
	Gross amount	Tax effect
Credits	31,571	31,571
<b>Unrecognized deferred tax assets</b>	<b>31,571</b>	<b>31,571</b>

**Tax risks**

The calculation of the company's tax liabilities involves dealing with uncertainties in the application of complex tax laws. The company's estimate for the potential outcome of any unrecognized tax benefits is highly judgmental. Settlement of unrecognized tax benefits in a manner inconsistent with the company's expectations could have a material impact on the company's financial position, net earnings and cash flows. The company is subject to tax audits in its major tax jurisdictions, and local tax authorities may challenge the positions taken by the company.

**Pillar Two Global Minimum Tax**

ASM operates in the Netherlands, which, along with other countries, has enacted legislation to implement the Pillar Two Global Minimum top-up tax as of FY 2024. The Pillar Two Global Minimum Tax rules aim to ensure large multinational enterprises pay a minimum level of tax on the income arising in each jurisdiction where they operate. ASM has applied the mandatory temporary exemption, under which a company does not recognize or disclose information about deferred tax assets and liabilities related to Pillar Two Global Minimum Taxes.

ASM made an assessment of the Pillar Two Minimum Tax due per year-end 2024. For this assessment, the company made use of, amongst others, preliminary 2024 country-by-country reporting data, and the effective tax rate reported by the ASM group entities to first determine the applicability of the county-by-country transitional safe harbors. Based on this assessment, it is concluded that that for a majority of the jurisdictions in which ASM operates the transitional safe harbor rules are met.

For a limited number of jurisdictions ASM is subject to Pillar Two top-up tax for which the tax impact has been assessed in line with the Pillar Two Global Minimum Tax rules at €18.8 million.

Note 24. Expenses by nature

Expenses by nature were as follows:

	Year ended December 31,	
	2023	2024
Materials and supplies	1,048,119	1,141,354
Personnel expenses	563,589	595,300
Depreciation and amortization	176,258	195,352
Impairments	4,638	448
Other personnel-related expenses	103,076	114,882
Professional fees	44,825	49,382
Other <sup>1</sup>	40,154	41,262
<b>Total cost of sales, selling, general and administrative and research and development expenses</b>	<b>1,980,659</b>	<b>2,137,980</b>

<sup>1</sup> Other relates to facility expenses, IT expenses and other expenses minus capitalized expenses.

Research and development consists of the following:

	Year ended December 31,	
	2023	2024
Gross research and development expenses	410,240	469,812
Capitalization of development expenses	(147,220)	(166,343)
Amortization of capitalized development expenses	43,802	65,901
<b>Total research and development expenses</b>	<b>306,822</b>	<b>369,370</b>
Impairment of capitalized development expenses	2,475	448
<b>Net research and development expenses</b>	<b>309,297</b>	<b>369,818</b>

The impairment expenses in 2023 and 2024 are related to customer-specific projects.

Personnel expenses for employees were as follows:

	December 31,	
	2023	2024
Wages and salaries	471,263	496,114
Social security	33,172	39,331
Pension expenses	22,059	18,832
Share-based payment expenses	37,095	41,023
<b>Total</b>	<b>563,589</b>	<b>595,300</b>

Personnel expenses are included in cost of sales and in operating expenses in the consolidated statement of profit or loss.

The number of employees, exclusive of temporary workers, by geographical area were as follows:

Geographical location	December 31,	
	2023	2024
Europe:		
- the Netherlands	226	190
- EMEA	455	456
United States	1,159	1,337
Japan	353	330
South Korea	473	493
Singapore	1,152	1,064
Asia, other	724	688
<b>Total</b>	<b>4,542</b>	<b>4,558</b>



The number of employees, exclusive of temporary workers, by function at year-end was as follows:

Per function	December 31,	
	2023	2024
Research and development	1,075	1,135
Manufacturing	1,390	1,158
Marketing and sales	397	405
Customer service	1,226	1,392
Corporate and support functions	454	468
<b>Total</b>	<b>4,542</b>	<b>4,558</b>

Note 25. Earnings per share

Basic net earnings per common share is calculated by dividing net income attributable to common shareholders by the weighted average number of common shares outstanding for that period. The dilutive effect is calculated using the treasury stock method. The calculation of diluted net income per share assumes the exercise of options issued under our stock option plans (and the issuance of shares under our share plans) for periods in which exercises (or issuances) would have a dilutive effect.

The calculation of basic and diluted net income per share attributable to common shareholders is based on the following data:

	December 31,	
	2023	2024
Net earnings used for purposes of calculating net income per common share		
<b>Net earnings from operations</b>	<b>752,073</b>	<b>685,734</b>
Basic weighted average number of shares outstanding during the year	49,286	49,165
Effect of dilutive potential common shares from stock options and restricted shares	269	221
<b>Dilutive weighted average number of shares outstanding</b>	<b>49,555</b>	<b>49,386</b>
<b>Basic net earnings per share:</b>		
from operations	15.26	13.95
<b>Diluted net earnings per share:</b>		
from operations	15.18	13.89

Note 26. Board remuneration

During 2024, the company considered the members of the Management Board, the Executive Committee, and the Supervisory Board to be the key management personnel. Total remuneration for key management personnel in 2024 amounts to €25,360 (2023: €15,424). ASM does not provide any loans, deposits or related guarantees to the members of the Management Board, the Executive Committee or the Supervisory Board.

Management Board and the Executive Committee

The table that sets out information concerning all remuneration from the company (including its subsidiaries) for services in all capacities to all current and former members of the Management Board and the Executive Committee of the company.

Management Board (excl. Executive Committee)	December 31,	
	2023	2024
Short-term employee benefits	4,576	3,468
Post-employment benefits	242	227
Other long-term benefits	-	-
Termination benefits	-	10,036
Share-based payment	2,880	3,304
<b>Total remuneration</b>	<b>7,698</b>	<b>17,035</b>

Management Board and the Executive Committee	December 31,	
	2023	2024
Short-term employee benefits	7,448	7,814
Post-employment benefits	310	292
Other long-term benefits	-	-
Termination benefits	1,159	10,036
Share-based payment	5,926	6,299
<b>Total remuneration</b>	<b>14,843</b>	<b>24,441</b>

The remuneration reported as part of the LTI (share-based payments) is based on costs incurred in accordance with EU-IFRS. The costs of performance share awards are charged to the consolidated statement of profit or loss over the three-year vesting period based on the number of awards expected to vest. The first year is accounted for at target, subsequently the company applied the estimated number of share awards, and in the final performance year

of the awards this estimate is updated to the best estimated number of awards which are anticipated to vest. Costs of restricted share awards represent the vesting expenses related to the financial year.

As a result of the termination of the employment of one of the companies Executive Committee members, the executive receives a termination benefit which has been expensed within the year of €10,036 (2023: €1,159).

Supervisory Board

The total remuneration (base compensation, no bonuses or pensions were paid) from the company (including its subsidiaries) for services in all capacities to all current and former members of the Supervisory Board of the company in 2024 amounts to €919 (2023: €581). No stock options or performance shares have been granted to members of the Supervisory Board.

Note 27. Related party transactions

The company has a related party relationship with its subsidiaries, equity-accounted investees, and members of the Supervisory Board and the Management Board. Related party transactions, if any, are conducted on an arm’s-length basis with terms comparable to transactions with third parties.

During our most recent fiscal year, there has been no, and at present there is no, outstanding indebtedness to the company owed by or owing to any director or officer of the company. Furthermore, the company has not granted any personal loans, guarantees, or the like to key management personnel.

For more information on key management personnel – comprising our Management Board, Executive Committee and Supervisory Board – see note 26 Board Remuneration.

Note 28. Principle Auditor's fees and services

KPMG Accountants N.V. has served as our external auditor for the years 2024 and 2023. The table sets out the aggregate fees for professional audit services and other services rendered by the external auditors and its member firms and/or affiliates in 2024 and 2023. The fees mentioned in the table for the audit of the financial statements 2024 (2023) relate to the total fees for the audit of the financial statements 2024 (2023), irrespective of whether the activities were performed during the financial year 2024 (2023). Other audit-related fees are related to assurance services on non-financial information. The following fees were charged by KPMG Accountants N.V. to the company, its subsidiaries and other consolidated companies, as referred to in Section 2:382a(1) and (2) of the Dutch Civil Code.

	2023			2024		
	KPMG Accountants NV	KPMG network	KPMG Total	KPMG Accountants NV	KPMG network	KPMG Total
Audit fees	1,005	312	1,317	1,062	326	1,388
Audit-related fees	110	-	110	500	-	500
Tax fees	-	-	-	-	-	-
Other fees	-	-	-	-	-	-
<b>Total</b>	<b>1,115</b>	<b>312</b>	<b>1,427</b>	<b>1,562</b>	<b>326</b>	<b>1,888</b>

Audit Committee preapproval policies

The Audit Committee has determined that the provision of services by KPMG described in the preceding paragraphs is compatible with maintaining KPMG’s independence. All audit and permitted non-audit services provided by KPMG during 2024 were preapproved by the Audit Committee.

The Audit Committee has adopted the following policies and procedures for preapproval of all audit and permitted non-audit services provided by our external auditor:

Audit services

Management submits to the Audit Committee for preapproval the scope and estimated fees for specific services directly related to performing the independent audit of our consolidated financial statements for the current year.

Audit-related services

The Audit Committee may preapprove expenditures up to a specified amount for services included in identified service categories that are related extensions of audit services and are logically performed by the auditors (e.g., assurance services on non-financial information). Additional services exceeding the specified pre-approved limits require specific Audit Committee approval.

Tax services

The Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total for identified services related to tax matters. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, require specific Audit Committee approval.

Other services

Any permitted other services that the external auditor provides are subject to preapproval by the Audit Committee. The Audit Committee monitors compliance with the Dutch and EU regulation on non-audit services provided by an external auditor, which outlines strict separation of audit and advisory services for Dutch public interest entities.

Note 29. Subsidiaries

Unless otherwise indicated, these are, directly or indirectly, wholly-owned subsidiaries. The location included below is the principal place of business of the specified subsidiaries. There is no difference between the principal place of business and country of incorporation.

Subsidiaries (consolidated)		% Ownership December 31,	
		2023	2024
Name	Location		
ASM Europe B.V. <sup> 1</sup>	Almere, the Netherlands	100%	100%
ASM IP Holding B.V. <sup> 1</sup>	Almere, the Netherlands	100%	100%
ASM Pacific Holding B.V. <sup> 1,2</sup>	Almere, the Netherlands	100%	100%
ASM Netherlands Holding B.V. <sup> 1</sup>	Almere, the Netherlands	100%	100%
ASM United Kingdom Sales B.V. <sup> 1</sup>	Almere, the Netherlands	100%	100%
ASM Germany Sales B.V. <sup> 1</sup>	Almere, the Netherlands	100%	100%
ASM Czech s.r.o.	Nové Město, Czech Republic	100%	100%
LPE S.p.A. <sup> 3</sup>	Baranzate, Italy	100%	100%
Pilegrowth Tech S.r.l.	Cernobbio, Italy	100%	100%
LPE Shanghai Int. Trading Co.	Shanghai, China	100%	100%
ASM France S.A.R.L.	Crolles, France	100%	100%
ASM Italia S.r.l.	Milano, Italy	100%	100%
ASM Belgium N.V.	Leuven, Belgium	100%	100%
ASM Services and Support Ireland Ltd.	Dublin, Ireland	100%	100%
ASM Services and Support Israel Ltd.	Kiryat Gat, Israel	100%	100%
ASM Microchemistry Oy	Helsinki, Finland	100%	100%
ASM America Inc.	Phoenix, Arizona, United States of America	100%	100%
ASM NuTool Inc.	Phoenix, Arizona, United States of America	100%	100%
ASM Japan KK	Tokyo, Japan	100%	100%
ASM Wafer Process Equipment Singapore Pte Ltd	Singapore	100%	100%
ASM Front-End Manufacturing Singapore Pte Ltd	Singapore	100%	100%
ASM Services & Support Malaysia SDN. BHD.	Kulim, Malaysia	100%	100%
ASM Korea Ltd.	Dongtan, South Korea	100%	100%
ASM Front-End Sales & Services Taiwan Co Ltd.	Hsin-Chu, Taiwan	100%	100%
ASM Semiconductor Equipment India Private Limited	Bangalore, India	100%	100%
ASM China Ltd	Shanghai, People's Republic of China	100%	100%

<sup>1</sup> For these subsidiaries, ASM International N.V. has filed statements at the Dutch Chamber of Commerce assuming joint and several liability in accordance with Article 403, Part 9 of Book 2 of the Dutch Civil Code.

<sup>2</sup> ASM Pacific Holding BV holds 24.73% of the shares in ASMPT Ltd.

<sup>3</sup> LPE S.p.A. holds 4.32%, 2.3%, 10.5% and 50% of the shares in Anvil semiconductors Ltd., Kubo's, Kiselkarbid AB and SiC Systems AB respectively.

**Note 30. Subsequent events**

Subsequent events were evaluated up to March 6, 2025, which is the issuance date of this Annual Report 2024.

There are no other subsequent events to report.

**Signing**

Almere, the Netherlands  
March 6, 2025

**Supervisory Board**

Pauline van der Meer Mohr, Chair  
Stefanie Kahle-Galonske  
Didier Lamouche  
Marc de Jong  
Adalio Sanchez  
Tania Micki  
Martin van den Brink

**Management Board**

Hichem M'Saad  
Paul Verhagen

# 29. ASM International N.V. Financial statements

## 29.1 Company balance sheet

(before proposed appropriation of net earnings for the year)

		December 31,	
(€ thousand)	Notes	2023	2024
<b>Non-current assets</b>			
Goodwill	2	302,089	302,089
Right-of-use assets		299	299
Investments in subsidiaries and associates	3	3,144,789	3,077,621
Loans to subsidiaries	3	1,469	-
Other non-current assets		6,428	6,297
<b>Total non-current assets</b>		<b>3,455,074</b>	<b>3,386,306</b>
<b>Current assets</b>			
Amounts due from subsidiaries	6	111,846	150,994
Income tax receivable		5,780	-
Other current assets		1,334	1,346
Cash and cash equivalents	4	193,671	475,248
<b>Total current assets</b>		<b>312,631</b>	<b>627,588</b>
<b>Total assets</b>		<b>3,767,705</b>	<b>4,013,894</b>

		December 31,	
(€ thousand)	Notes	2023	2024
<b>Equity</b>			
Common shares		1,977	1,973
Capital in excess of par value		71,323	9,326
Treasury shares		(89,569)	(130,376)
<b>Legal reserves</b>			
Translation reserve		100,408	170,365
Other legal reserves		1,240,027	1,401,469
Accumulated net earnings		1,150,571	1,608,664
Net earnings current year		752,073	685,734
<b>Total equity</b>	5	<b>3,226,810</b>	<b>3,747,155</b>
<b>Non-current liabilities</b>			
Lease liabilities		171	171
Contingent consideration payable		88,304	-
<b>Total non-current liabilities</b>		<b>88,475</b>	<b>171</b>
<b>Current liabilities</b>			
Accounts payable		549	612
Amounts due to subsidiaries	6	444,424	142,727
Income tax payable		-	10,366
Accrued expenses and other payables		7,447	15,861
Contingent consideration payable		-	97,002
<b>Total current liabilities</b>		<b>452,420</b>	<b>266,568</b>
<b>Total liabilities</b>		<b>540,895</b>	<b>266,739</b>
<b>Total equity and liabilities</b>		<b>3,767,705</b>	<b>4,013,894</b>

The notes on the following pages are an integral part of these company financial statements.



29.2 Company statement of profit or loss

(€ thousand)	Notes	Year ended December 31,	
		2023	2024
Operating expenses:			
Selling, general and administrative		(35,634)	(43,329)
Research and development		(1,795)	(490)
<b>Total operating expenses</b>	7	<b>(37,429)</b>	<b>(43,819)</b>
<b>Result from operations</b>		<b>(37,429)</b>	<b>(43,819)</b>
Finance income		14,706	(15,611)
Finance expense		(17,437)	(9,584)
Foreign currency exchange gain (loss)		(27,124)	(8,304)
<b>Result before income taxes</b>		<b>(67,284)</b>	<b>(77,318)</b>
Income taxes		11,040	(17)
<b>Net earnings from holding activities</b>		<b>(56,244)</b>	<b>(77,335)</b>
Net earnings from subsidiaries and associates		808,317	763,068
<b>Total net earnings</b>		<b>752,073</b>	<b>685,733</b>

The notes on the following pages are an integral part of these company financial statements.

## 29.3 Notes to the Company financial statements

### Note 1. Summary of material accounting policies

ASM International N.V. (ASM or the company) is a Dutch public liability company. Statutory seat: Versterkerstraat 8, 1322 AP Almere, the Netherlands.

The description of our activities and our structure, as included in the notes to the consolidated financial statements, also apply to the company financial statements.

The accompanying company financial statements are stated in thousands of euros unless otherwise indicated.

#### Accounting policies applied

The financial statements of the company included in this section are prepared in accordance with Part 9 of Book 2 of the Dutch Civil Code. For setting the principles for the recognition and measurement of assets and liabilities and determination of results for the company financial statements, the company makes use of the option provided in section 2:362(8) of the Dutch Civil Code. This means that the principles for the recognition and measurement of assets and liabilities and determination of the result (hereinafter referred to as principles for recognition and measurement) of the company financial statements of the company are the same as those applied for the consolidated EU-IFRS financial statements. These principles also include the classification and presentation of financial instruments, being equity instruments or financial liabilities. In case no other principles are mentioned, refer to the accounting principles as described in the consolidated financial statements. For an appropriate interpretation of these statutory financial statements, the company financial statements should be read in conjunction with the consolidated financial statements.

Information on the use of financial instruments and on related risks for the group is provided in the notes to the consolidated financial statements of the group.

#### Corporate income tax

The company is the head of the Dutch fiscal unity. The company recognizes the portion of corporate income tax that it would owe as an independent taxpayer, taking into account the allocation of the advantages of the fiscal unity.

Settlement within the fiscal unity between the company and its subsidiaries takes place through current account positions.

#### Participating interests in group companies

Group companies are all entities in which the company has directly or indirectly control. The company controls an entity when it is exposed, or has rights, to variable returns from its involvement with the group company and has the

ability to affect those returns through its power over the group company. Group companies are recognized from the date on which control is obtained by the company and derecognized from the date that control by the company over the group company ceases. Participating interests in group companies are accounted for in the company financial statements according to the net equity value, with the principles for the recognition and measurement of assets and liabilities and determination of results as set out in the notes to the consolidated financial statements.

Participating interests with a negative net equity value are valued at nil. This measurement also covers any receivables provided to the participating interests that are, in substance, an extension of the net investment. In particular, this relates to loans for which settlement is neither planned nor likely to occur in the foreseeable future. A share in the profits of the participating interest in subsequent years will only be recognized if and to the extent that the cumulative unrecognized share of loss has been absorbed. If the company fully or partially guarantees the debts of the relevant participating interest, or if has the constructive obligation to enable the participating interest to pay its debts (for its share therein), then a provision is recognized accordingly to the amount of the estimated payments by the company on behalf of the participating interest.

#### Share of result of participating interests

The share in the result of participating interests consists of the share of the company in the result of these participating interests. Results on transactions involving the transfer of assets and liabilities between the company and its participating interests and mutually between participating interests themselves, are eliminated to the extent that they can be considered as not realized.

### Note 2. Goodwill

The carrying amount of the goodwill is related to acquisitions in the following cash-generating units, remained consistent throughout both the reporting and comparative periods.

- ALD: €2.6 million
- PEALD: €8.7 million
- SiC Epi: €290.8 million

Reference is made to Note 5 of the consolidated financial statements for further disclosure on the accounting and valuation of goodwill.

### Note 3. Investments and loans to subsidiaries

	Investments in subsidiaries	Loans to subsidiaries	Total
<b>Balance January 1, 2023</b>	<b>3,161,858</b>	<b>2,259</b>	<b>3,164,117</b>
Net result of subsidiaries and associates	808,317	-	808,317
Capital contribution	9,123	-	9,123
Other comprehensive income investments	(138)	-	(138)
Dividend received	(746,125)	-	(746,125)
Repayment of loans	-	(790)	(790)
Settlement through capital contribution	-	-	-
Dilution	2,607	-	2,607
Foreign currency translation effect	(90,854)	-	(90,854)
<b>Balance December 31, 2023</b>	<b>3,144,788</b>	<b>1,469</b>	<b>3,146,257</b>
Net result of subsidiaries and associates	763,068	-	763,068
Capital contribution	2,694	-	2,694
Other comprehensive income investments	(549)	-	(549)
Dividend received	(913,475)	-	(913,475)
Repayment of loans	-	(1,469)	(1,469)
Compensation expense share-based payments	6,982	—	6,982
Dilution	3,500	-	3,500
Foreign currency translation effect	70,613	-	70,613
<b>Balance December 31, 2024</b>	<b>3,077,621</b>	<b>—</b>	<b>3,077,621</b>

	December 31,	
	2023	2024
Loans due from subsidiaries – non-current portion	1,469	-
Loans due from subsidiaries – current portion	-	-
<b>Total</b>	<b>1,469</b>	<b>-</b>

### Note 4. Cash and cash equivalents

The amounts of cash and cash equivalents are mainly related to the cash pool and in-house bank operated by the company. At December 31, 2024, the cash pool and in-house bank arrangement resulted in a liability which is recorded in amounts due to subsidiaries.

The amount presented as cash and cash equivalents at December 31, 2024 include bank deposits and investments in money market funds that invest in marketable debt obligations and securities of governments, corporate and financial institutions. The amount invested in deposits and money market funds at the end of 2024 was €471.8 million and interest-bearing bank accounts of €3.4 million. Our cash and cash equivalents are predominantly denominated in US dollars and partly in euros.

Bank guarantees are in place for an amount of €0.6 million at December 31, 2024. These guarantees mainly relate to lease and tax payments.

Cash and cash equivalents have insignificant interest-rate risk and remaining maturities of maximum three months or can be converted into cash without no more than 30 days' notice. The carrying amount of these financial assets approximates their fair value. The company has not recognized a provision for expected credit loss for cash and cash equivalents due to the insignificance of the amount.

## Note 5. Equity

The changes in equity are as follows:

(€ thousand)	Common shares	Capital in excess of par value	Treasury shares	Accumulated net earnings	Net earnings current year	Legal reserves		Total equity
						Translation reserve	Other legal reserves	
<b>Balance as of January 1, 2023</b>	<b>1,974</b>	<b>47,960</b>	<b>(3,446)</b>	<b>924,438</b>	<b>389,113</b>	<b>191,317</b>	<b>1,197,963</b>	<b>2,749,319</b>
Appropriation of net earnings:	-	-	-	389,113	(389,113)	-	-	-
Components of comprehensive income								
Net earnings	-	-	-	-	752,073	-	-	752,073
Other comprehensive income	-	-	-	-	-	(90,909)	(139)	(91,048)
<b>Total comprehensive income (loss)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>752,073</b>	<b>(90,909)</b>	<b>(139)</b>	<b>661,025</b>
Dividend paid to common shareholders	-	-	-	(123,383)	-	-	-	(123,383)
Compensation expense share-based payments	-	37,308	-	-	-	-	-	37,308
Exercise stock options out of treasury shares	-	(1,965)	2,828	-	-	-	-	863
Vesting restricted shares out of treasury shares	-	(11,980)	11,980	-	-	-	-	-
Purchase of common shares	-	-	(100,928)	-	-	-	-	(100,928)
Issuance of common shares out of treasury shares	3	-	(3)	-	-	-	-	-
Change in retained earnings subsidiaries	-	-	-	22,521	-	-	(22,521)	-
Fair value accounting investments	-	-	-	19,077	-	-	(19,077)	-
Capitalized development expenses subsidiaries	-	-	-	(83,801)	-	-	83,801	-
<b>Other movements in investments in associates:</b>								
Dilution	-	-	-	2,606	-	-	-	2,606
<b>Balance as of December 31, 2023</b>	<b>1,977</b>	<b>71,323</b>	<b>(89,569)</b>	<b>1,150,571</b>	<b>752,073</b>	<b>100,408</b>	<b>1,240,027</b>	<b>3,226,810</b>
Appropriation of net earnings:	-	-	-	752,073	(752,073)	-	-	-
Components of comprehensive income:								
Net earnings	-	-	-	-	685,734	-	-	685,734
Other comprehensive income	-	-	-	-	-	69,957	(549)	69,408
<b>Total comprehensive income (loss)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>685,734</b>	<b>69,957</b>	<b>(549)</b>	<b>755,142</b>
Dividend paid to common shareholders	-	-	-	(135,487)	-	-	-	(135,487)
Compensation expense share-based payments	-	48,557	-	-	-	-	-	48,557
Vesting restricted shares out of treasury shares	-	(51,325)	51,325	-	-	-	-	-
Purchase of common shares	-	-	(151,366)	-	-	-	-	(151,366)
Change in retained earnings subsidiaries	-	-	-	(34,660)	-	-	34,660	-
Fair value accounting investments	-	-	-	(27,949)	-	-	27,949	-
Capitalized development expenses subsidiaries	-	-	-	(99,382)	-	-	99,382	-
Cancellation of common shares out of treasury shares	(4)	(59,230)	59,234	-	-	-	-	-
<b>Other movements in investments in associates:</b>								
Dilution	-	-	-	3,500	-	-	-	3,500
<b>Balance as of December 31, 2024</b>	<b>1,973</b>	<b>9,326</b>	<b>(130,376)</b>	<b>1,608,664</b>	<b>685,734</b>	<b>170,365</b>	<b>1,401,469</b>	<b>3,747,155</b>

Common shares, preferred and financing preferred shares

Following the amendment of the articles of association on August 3, 2018, the authorized capital of the company amounts to 82,500,000 common shares of €0.04 par value, 88,500 preferred shares of €40 par value, and 6,000 financing preferred shares of €40 par value.

As per December 31, 2024, 49,328,548 common shares with a nominal value of €0.04 each were issued and fully paid up, of which 230,731 common shares are held by us in treasury. All shares have one vote per €0.04 par value. Treasury shares held by the company cannot be voted on. Of our 49,097,817 outstanding common shares at December 31, 2024, 47,132,271 are registered with our transfer agent in the Netherlands, ABN AMRO Bank N.V., and 1,965,546 are registered with our transfer agent in the United States, Citibank, NA, New York.

As at December 31, 2024, no preferred shares and no financing preferred shares are issued.

Treasury shares

With respect to treasury shares, reference is made to Note 12 to the consolidated financial statements.

Other legal reserves

The other legal reserve for participating interests regarding retained earnings and OCI, which amounts to €877,856 (2023: €815,796), pertains to participating interests that are accounted for according to the equity accounting method. The reserve represents the difference between the participating interest retained earnings and direct changes in equity, as determined on the basis of the company's accounting policies, and the share thereof that the company may distribute. As to the latter share, this takes into account any profits that may not be distributed by participating interests that are Dutch limited companies based on the distribution tests to be performed by the management of those companies. The legal reserve is determined on an individual basis.

In accordance with applicable legal provisions, a legal reserve for the carrying amount of €523,613 (2023: €424,231) has been recognized for capitalized development costs.

Changes in other legal reserves in 2023 and 2024 were as follows:

	Reserve for participating interests, regarding retained earnings and OCI	Reserve for participating interests, regarding capitalized development expenses	Total other legal reserves
<b>Balance as of January 1, 2023</b>	<b>857,533</b>	<b>340,430</b>	<b>1,197,963</b>
Other comprehensive income	(139)	-	(139)
Retained earnings subsidiaries and investments	(22,521)	-	(22,521)
Fair value accounting investments	(19,077)	-	(19,077)
Development expenditures	-	83,801	83,801
<b>Balance as of December 31, 2023</b>	<b>815,796</b>	<b>424,231</b>	<b>1,240,027</b>
Other comprehensive income	(549)	-	(549)
Retained earnings subsidiaries and investments	34,660	-	34,660
Fair value accounting investments	27,949	-	27,949
Development expenditures	-	99,382	99,382
<b>Balance as of December 31, 2024</b>	<b>877,856</b>	<b>523,613</b>	<b>1,401,469</b>

For detailed information, reference is made to Note 12 to the consolidated financial statements.

Employee stock plan, and employee restricted shares plan

The company has adopted various restricted share plans, and has entered into related agreements with various employees. For detailed information, reference is made to Note 13 to the consolidated financial statements.



Appropriation of result  
Appropriation of net earnings of 2023

The financial statements for the reporting year 2023 have been adopted by the General Meeting on May 13th, 2024. The General Meeting has adopted the appropriation of net earnings for the reporting year 2023 as proposed by the Management Board.

Proposal for net earnings appropriation 2024

It is proposed that net earnings for the year 2024 are carried to the accumulated net earnings.

Note 6. Amounts due from / to subsidiaries

The amounts due from, and to subsidiaries, are mainly related to the cash pool and in-house bank operated by the company. The amounts due to subsidiaries decreased as a result of intercompany dividend distributions to the ultimate parent (ASM International N.V.).

Note 7. Expenses by nature

Expenses by nature were as follows:

	Year ended December 31,	
	2023	2024
Personnel expenses	16,960	19,756
Depreciation and amortization	179	151
Other personnel-related expenses	3,544	11,841
Professional fees	9,971	7,319
Other	6,775	4,752
<b>Total operating expenses</b>	<b>37,429</b>	<b>43,819</b>

Note 8. Personnel expenses

The average number of employees of ASM during 2024 was 32 (2023: 35). All employees have corporate and support functions and were based in the Netherlands.

	Year ended December 31,	
	2023	2024
Salaries	12,265	12,677
Social security charges	371	335
Pension expenses	1,068	1,024
Share-based payment expenses	3,256	5,720
<b>Total</b>	<b>16,960</b>	<b>19,756</b>

Detailed information on the number of employees can be found in Note 24 to the consolidated financial statements.

For information on the parent company's defined benefit pension plan, the remuneration of the Management Board and the Supervisory Board, and the parent company's share-based compensation plans, see notes 13 and 26 to the consolidated financial statements.

Note 9. Commitments and contingencies

With respect to certain Dutch subsidiaries, ASM has assumed joint and several liability in accordance with Article 403, Part 9 of Book 2 of the Dutch Civil Code. These Dutch subsidiaries are disclosed in Note 29 of the consolidated financial statements.

ASM forms a fiscal unity (tax group for corporate income tax purposes) together with its Dutch subsidiaries for purposes of Dutch tax laws and is as such jointly and severally liable for the tax debts of the unity. The tax unity consists of ASM International N.V. and the following subsidiaries:

- ASM Europe BV;
- ASM IP Holding BV;
- ASM Pacific Holding BV;
- ASM Netherlands Holding BV;
- ASM United Kingdom Sales BV; and
- ASM Germany Sales BV.

Consistent with the IAS 12 amendment regarding global minimum top-up tax as issued by the IASB and adopted by the EU, ASM does not recognize and disclose deferred taxes arising from tax laws regarding global minimum top-up tax. Furthermore, ASM recognized and disclosed the impact from the global minimum income tax on current tax effective as of 2024. Refer to section 'Global minimum tax' in income taxes as part of Note 23 of the consolidated financial statements for further clarification on the impact for 2024.

For VAT purposes in the Netherlands, ASM forms a fiscal unity together with ASM Europe BV and ASM IP Holding BV.

Note 10. Share ownership of the Management Board and Supervisory Board

With respect to share ownership of the Management Board and Supervisory Board, reference is made to Note 27 to the consolidated financial statements.

Note 11. Auditor's fees and services

For information regarding auditor's fees and services we refer to Note 28 to the consolidated financial statements.

Note 12. Subsequent events

Subsequent events were evaluated up to March 6, 2025, which is the issuance date of this Annual Report 2024.

There are no other subsequent events to report.

Signing

Almere, the Netherlands  
March 6, 2025

Supervisory Board

Pauline van der Meer Mohr, Chair  
Stefanie Kahle-Galonske  
Didier Lamouche  
Marc de Jong  
Adalio Sanchez  
Tania Micki  
Martin van den Brink

Management Board

Hichem M'Saad  
Paul Verhagen

## 30. Other information

### 30.1 Articles of association: appropriation of profit and voting rights

The additional information below includes a brief summary of several significant provisions of our Articles of Association.

#### Information on the provisions in the articles of association relating to the appropriation of profit

The Articles of Association of ASM International N.V. (the company) provide the following with regard to distribution of profit and can be summarized as follows:

- From the profits, distributions shall in the first place, if possible, be made on the preferred shares equal to the Euribor rate for six-months loans, increased by one and a half, on the paid-up amount which had to be paid on the preferred shares, weighted to the number of days to which this was applicable. If profits are insufficient, the dividend will be paid from the reserves with priority over any dividends. If the reserves are insufficient, the dividend deficit has to be made up in future years;
- Second, a dividend, if possible, is distributed on financing preferred shares. The dividend is a percentage of the par value, plus share premium paid, on the financing preferred shares. The percentage is determined by the Management Board, subject to approval of the Supervisory Board. The percentage is related to the average effective yield on government loans with a weighted average remaining term of no more than 10 years, if necessary increased or decreased by no more than 3%, subject

to the then prevailing market conditions. If profits are insufficient, the dividend shall be paid from the reserves. If the reserves are insufficient, the dividend deficit has to be made up in future years;

- With the approval of the Supervisory Board, the Management Board will determine which part of the profit remaining after adoption of the provisions of the previous paragraphs will be reserved. The profit after reserving will be at the disposal of the Annual General Meeting of Shareholders;
- The company may only make distributions to the shareholders and other persons entitled to profit insofar as its equity exceeds the amount of the paid-up and called amounts of the share capital increased with the reserves that must be kept by virtue of law; and
- Article 33, paragraph 3 of the Articles of Association provides that dividend claims expire after the lapse of five years.

For the full text, please see our [website](#).

#### Special statutory control rights

Article 27 of the Articles of Association provides that each common share gives the right to cast one vote, each preferred financing share to cast 1,000 votes, and each preferred share to cast 1,000 votes.

Article 29 of the Articles of Association provides that meetings of holders of preferred shares or of financing preferred shares shall be convened as often and insofar as a decision of the meeting of holders of preferred shares or financing shares desires this, and furthermore as often as the Management Board and or the

Supervisory Board shall decide to hold such a meeting. At the meeting, resolutions will be passed with an absolute majority of the votes. In the event that there is a tie of votes, no resolution will take effect.

As per December 31, 2024, there were no outstanding preferred shares or financing preferred shares issued.

The following resolutions and actions can only be taken on a proposal by the Management Board and the Supervisory Board:

- any amendment to the Articles of the company; and
- the dissolution of the company.

#### Treasury shares

Pursuant to Dutch law, no votes may be cast at a General Meeting in respect of treasury shares, i.e. shares which are held by the company. As set out in note 12, as of December 31, 2024, a total number of 230,731 treasury shares was outstanding. For the complete text, please see our website.

### 30.2 Branch offices

ASM has branch offices in the United Kingdom and Germany that operate under the respective trade names ASM UK Sales B.V. ASM Germany Sales B.V.

### 30.3 Independent auditor’s report

To: The General Meeting of Shareholders and the Supervisory Board of ASM International N.V.

#### Report on the audit of the financial statements 2024 included in the annual report

##### Our opinion

In our opinion:

- the accompanying consolidated financial statements give a true and fair view of the financial position of ASM International N.V. as at December 31, 2024 and of its result and its cash flows for the year then ended, in accordance with IFRS Accounting Standards as endorsed by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- the accompanying company financial statements give a true and fair view of the financial position of ASM International N.V. as at December 31, 2024 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

##### What we have audited

We have audited the financial statements 2024 of ASM International N.V. (the Company) based in Almere. The financial statements include the consolidated financial statements and the company financial statements. The consolidated financial statements comprise:

- the consolidated statement of financial position as at December 31, 2024;
- the following consolidated statements for 2024: the statement of profit or loss, the statement of comprehensive income, changes in equity and cash flows; and
- the notes comprising material accounting policy information and other explanatory information.

The company financial statements comprise:

- the company balance sheet as at December 31, 2024;
- the company statement of profit or loss for 2024; and
- the notes comprising a summary of the accounting policies and other explanatory information.

##### Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the ‘Our responsibilities for the audit of the financial statements’ section of our report. We are independent of ASM International N.V. in accordance with the ‘Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten’ (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the ‘Verordening gedrags- en beroepsregels accountants’ (VGBA, Dutch Code of Ethics). We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The information in respect of going concern, fraud and non-compliance with laws and regulations, climate and the key audit matters was addressed in this context, and we do not provide a separate opinion or conclusion on these matters. We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Information in support of our opinion

##### Summary

Materiality
<ul style="list-style-type: none"><li>Materiality of EUR 43 million</li><li>4.95% of normalized result before income taxes</li></ul>
Group audit
<ul style="list-style-type: none"><li>Audit coverage of 89% of total assets</li><li>Audit coverage of 94% of revenue</li></ul>
Risk of material misstatements related to Fraud, NOCLAR, Going concern and Climate-related risks
<ul style="list-style-type: none"><li>Fraud risks: presumed risks of management override of controls and revenue recognition identified and further described in the section ‘Audit response to the risk of fraud and non-compliance with laws and regulations’</li><li>Non-compliance with laws and regulations (NOCLAR) risks: no reportable risk of material misstatements related to NOCLAR risks identified.</li><li>Going concern risks: no going concern risks identified.</li><li>Climate risks: we have considered the impact of climate-related risks on the financial statements and described our approach and observations in the section ‘Audit response to climate-related risks’. We found that climate-related risks have no material impact on the current financial statements under the requirements of EU-IFRS and no material impact on our key audit matters.</li></ul>
Key audit matters
<ul style="list-style-type: none"><li>Revenue recognition (risk of fraud)</li><li>Accounting for capitalized development costs (risk of error)</li></ul>

##### Materiality

Based on our professional judgment, we determined the materiality for the financial statements as a whole at EUR 43 million (2023: EUR 33 million). The materiality is determined with reference to the result before income taxes, resulting in a percentage of 4.95%. We consider the result before income taxes as the most appropriate benchmark because the Company is a profit-oriented company and the key users of the financial statements are primarily focused on this metric.

We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that misstatements identified during our audit in excess of EUR 2.15 million would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

**Scope of the group audit**

ASM International N.V. is at the head of a group of components (hereafter “Group”). The financial information of this group is included in the financial statements of ASM International N.V.

This year, we applied the revised group auditing standard in our audit of the financial statements. The revised standard emphasizes the role and responsibilities of the group auditor. The revised standard contains new requirements for the identification and classification of components, scoping, and the design and performance of audit procedures across the group.

We performed risk assessment procedures throughout our audit to determine which of the Group’s components are likely to include risks of material misstatement to the Group financial statements. To appropriately respond to those assessed risks, we planned and performed further audit procedures, either at component level or centrally. We identified eight components associated with a risk of material misstatement. For one out of these components we involved a component auditor. We audited the remaining components. We set component performance materiality levels considering the component’s size and risk profile.

We have performed substantive procedures for 94% of Group revenue and 89% of Group total assets. At group level, we assessed the aggregation risk in the remaining financial information and concluded that there is less than reasonable possibility of a material misstatement.

In supervising and directing our component auditor, we:

- Held risk assessment discussions with the component auditor to obtain their input to identify matters relevant to the group audit.

- Issued group audit instructions to the component auditor on the scope, nature and timing of their work, and received written communication about the results of the work they performed.
- Held meetings with the component auditor virtually to discuss relevant developments, understand and evaluate their work and attended a meeting with local management.
- Inspected the work performed by the component auditor and evaluated the appropriateness of audit procedures performed and conclusions drawn from the audit evidence obtained, and the relation between communicated findings and work performed. In our inspection we mainly focused on key audit matters, significant risks, key judgments and audit findings as well as the observations reported to us as the group auditor.

We consider that the scope of our group audit forms an appropriate basis for our audit opinion. Through performing the procedures mentioned above we obtained sufficient and appropriate audit evidence about the Group’s financial information to provide an opinion on the financial statements as a whole.

**Audit response to the risk of fraud and non-compliance with laws and regulations**

In the risk management and the business conduct chapters of the annual report, the Management Board describes its procedures in respect of the risk of fraud and non-compliance with laws and regulations and the Supervisory Board reflects on this.

As part of our audit, we have gained insights into the Company and its business environment and the Company’s risk management in relation to fraud and non-compliance with laws and regulations. Our procedures included, among other things, assessing the Company’s code of business conduct, whistle-blower

program, incidents register and its procedures to investigate indications of possible fraud and non-compliance. Furthermore, we performed relevant inquiries with management, those charged with governance and other relevant functions, such as Internal Audit and Legal Counsel and included correspondence with relevant supervisory authorities and regulators in our evaluation.

We have also incorporated elements of unpredictability in our audit, such as: modifying the nature and extent of our inventory count procedures, and involved forensic specialists in our audit procedures.

As a result from our risk assessment, we identified the following laws and regulations as those most likely to have a material effect on the financial statements in case of non-compliance:

- Trade sanctions and export controls laws and regulations (reflecting the Company’s exposure to international trading restrictions); and
- Anti-bribery and corruption laws and regulations (reflecting the Company’s significant and geographically diverse operations).

Based on the above and on the auditing standards, we identified the following fraud risks that are relevant to our audit, and responded as follows:

**Management override of controls (a presumed risk)**  
**Risk:**

Management is in a unique position to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively.

**Responses:**

- We evaluated the design and the implementation of internal controls that mitigate fraud risks, such as processes related to journal entries.
- We performed a data analysis of high-risk journal entries including a search for journal entries related to debiting revenue with an unexpected associated credit, and evaluated key estimates – for example in the valuation of share-based compensation – and judgments for bias by the Company’s management.

**Revenue recognition (a presumed risk)**  
**Risk:**

We identified a cut-off fraud risk in relation to completeness of equipment sales as a result of recognition in the incorrect period. This risk inherently includes the fraud risk that management deliberately understates revenue, as management may feel pressure to achieve planned results for the next year.

**Responses:**

- We refer to the key audit matter 'Revenue Recognition'.

Other than the above matter, our evaluation of procedures performed related to fraud did not result in an additional key audit matter.

We communicated our risk assessment, audit responses and results to management and the Audit Committee of the Supervisory Board.

Our audit procedures did not reveal indications and/or reasonable suspicion of fraud and non-compliance that are considered material for our audit.



**Audit response to going concern**

The Management Board has performed its going concern assessment and has not identified any going concern risks. To assess the Management’s Board assessment we have performed, inter alia, the following procedures.

- we considered whether the Management Board’s assessment of the going concern risks includes all relevant information of which we are aware as a result of our audit; and
- we analyzed the Company’s financial position as at year-end and compared it to the previous financial year in terms of indicators that could identify going concern risks.

The outcome of our risk assessment procedures did not give reason to perform additional audit procedures on management’s going concern assessment.

**Audit response to climate-related risks**

The Company has set out its ambitions relating to climate change in the chapter “Climate Action” of the annual report. The Company publicly communicated their key ambition to achieve carbon neutrality with net zero emissions in its operations and its value chain (Scope 1, 2 and 3) by 2035 in their “Climate Transition Plan”.

Management has assessed, against the background of the Company’s business and operations, in detail how climate-related risks and opportunities and the Company’s own ambitions could have a significant impact on its business or could impose the need to adapt its strategy and operations. Management has considered the impact of both transition and physical risks on the financial statements in accordance with the applicable financial reporting framework, more specifically the valuation of non-current assets, as

described in section 16.1 Climate impacts, risks and opportunities of the Annual Report.

Management prepared the financial statements, including considering whether the implications from climate-related risks, ambitions and the current financial effects relating to sustainability matters as disclosed in the sustainability statements have been appropriately accounted for and disclosed. As part of our audit, we performed a risk assessment of the impact of climate-related risk and the ambitions of the Company in respect of climate change on the financial statements and our audit approach. In doing this we performed the following:

- To understand management’s assessment, against the background of the Company’s business and operations of the potential impact of climate-related risk and opportunities on the Company’s Annual Report and financial statements and the Company’s preparedness for this we:
  - performed inquiries with relevant functions in the company including the Management Board, the Corporate VP of Sustainability, the Company’s legal counsel and the Audit Committee of the Supervisory Board; and
  - inspected relevant supporting documentation, such as management’s climate risk, scenario and resilience analysis and the corresponding financial impact assessment.
- The Company has disclosed that it has prepared its sustainability statements in accordance with the European Sustainability Reporting Standards (ESRS). We have read, and considered as part of our risk assessment, these sustainability statements, which includes information over material sustainability matters relating to material impacts, risks and opportunities relating to climate change. As part of

this, we have read and considered the information reported over the connectivity of the sustainability statements with the financial statements.

- We have evaluated climate related fraud risk factors, including the KPI’s related to climate in Management’s remuneration. We have assessed whether this results in a risk of material misstatement of the financial statements due to fraud.
- We have made use of KPMG climate risk expert to:
  1. support in understanding how climate-related risks and opportunities may affect the entity, in order to understand (potential) implications on its accounting in the current year’s financial statements;
  2. support in obtaining an understanding of management’s processes and procedures with regards to climate-related risks, inspecting the Company’s climate risk scenario analysis (including climate change strategy) and the resilience analysis, including assessing follow-up actions taken by management compared to prior year;
  3. and obtaining insights into potential business implications of the identified climate risks and opportunities on the Company. These insights provided us with a better understanding how climate-related risks and opportunities may affect the Company and the preparation of the financial statements.

Based on the risk assessment procedures performed we found that climate-related risks have no material impact on the current financial statements and no material impact on our key audit matters.

Furthermore we have read the ‘Other information’, including the information over material sustainability matters relating to material impacts, risks and

opportunities relating to climate change, with respect to climate-related risks as included in the Annual Report and considered whether such information contains material inconsistencies with the financial statements or our knowledge obtained through the audit, in particular as described above and our knowledge obtained otherwise.

**Our key audit matters**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters discussed.

**Revenue recognition (risk of fraud)  
Description**

As disclosed in the notes to the consolidated financial statements, equipment sales are measured taking into account multiple element arrangements as contracts with customers typically include separately identifiable performance obligations that are recognized based on their relative selling price. Typically, this includes a single sales transaction that combines the delivery of goods and rendering of (installation) services. Furthermore, equipment sales are recognized when the customer obtains control of the products and services, often coinciding with shipment or delivery of goods.

We identified a cut-off risk that equipment sales could be misstated as a result of recognition in the incorrect period. This risk inherently includes the fraud risk that management deliberately understates revenue, as management may feel pressure to achieve planned results for the next year. We consider revenue recognition a key audit matter, due to the thereto related risk of management override of controls, as well as the

fraud risk concerning the completeness of equipment sales in the cut-off period of the financial year.

**Our response**

Our audit procedures to address this key audit matter included, among others:

- evaluating the design and implementation of the Company's internal control in the sales process that would identify a misstatement as a result of revenue recognition in the incorrect accounting period;
- assessing the appropriateness of the Company's accounting policies relating to revenue recognition and assessing compliance with IFRS 15;
- assessing the completeness of sales by selecting samples during the cut-off period, with specific focus on the equipment sales recorded from January 1, 2025 through January 14, 2025, to agree the timing of revenue recognition to underlying supporting documents such as shipping documents;
- inquiring with management and those who have responsibilities for initiating, preparing or authorizing journal entries at period end whether there was inappropriate or unusual activity relating to the processing of journal entries and other adjustments during the period;
- searching for high-risk journal entries (such as journal entries debiting revenue with an unexpected associated credit) from the population of journal entries from the ERP system with the involvement of our IT auditors; and
- assessing the adequacy of the revenue disclosures included in Note 22 of the financial statements.

**Our observation**

The results of our procedures related to the revenue recognition of equipment sales are satisfactory. We consider the disclosure in Note 22 of the financial statements as adequate.

**Accounting for capitalized development costs (risk of error)**

**Description**

Capitalized development costs are deemed to be significant to our audit, given the significance of the capitalized balance of EUR 524 million including additions of EUR 166 million in 2024, as well as the specific criteria that have to be met for capitalization. This involves management judgment on capitalized development costs not in use including the additions for the year, with respect to technical feasibility, intention and ability to complete the intangible asset, the ability to use or sell the asset, the generation of future economic benefits and the ability to measure the costs reliably.

**Our response**

Our audit procedures to address this key audit matter included, among others:

- assessing the appropriateness of the Company's accounting policies relating to internal and external cost capitalization and assess compliance with IFRS;
- evaluating the design and implementation of the Company's internal control in the R&D process that would identify a misstatement as an incorrect capitalization of development expenses;
- challenging the key assumptions used, or judgments made, in capitalizing development costs, such as technical feasibility, intention and ability to complete the intangible asset, the ability to use or sell the asset and generation of future economic benefits, the accuracy of costs included and the useful economic life attributed to the asset based on development plans, pre-orders and customer communications; and
- assessing the adequacy of the other intangible assets disclosures included in note 6 of the financial statements.

**Our observation**

The results of our procedures related to the accounting for capitalized development costs are satisfactory. We consider the disclosure in Note 6 of the financial statements as adequate.

**Report on the other information included in the Annual Report**

In addition to the financial statements and our auditor's report thereon, the Annual Report contains other information.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements; and
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code for the management report and other information.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is less than the scope of those performed in our audit of the financial statements.

The Management Board of the Company is responsible for the preparation of the other information, including the information as required by Part 9 of Book 2 of the Dutch Civil Code.

**Report on other legal and regulatory requirements and ESEF**

**Engagement**

We were initially appointed by the Annual General Meeting of Shareholders as auditor of ASM International N.V. on May 21, 2014, as of the audit for the year 2015 and have operated as statutory auditor ever since that financial year.

**No prohibited non-audit services**

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audits of public-interest entities.

**European Single Electronic Format (ESEF)**

ASM International N.V. has prepared its annual report in ESEF. The requirements for this are set out in the Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (hereinafter: the RTS on ESEF).

In our opinion the annual report prepared in XHTML format, including the (partly) marked-up consolidated financial statements as included in the reporting package by ASM International N.V., complies in all material respects with the RTS on ESEF. The Management Board of the Company is responsible for preparing the Annual Report including the financial statements in accordance with the RTS on ESEF, whereby the Management Board combines the various components into one single reporting package. Our responsibility is to obtain reasonable assurance for our opinion whether the annual report in this reporting package complies with the RTS on ESEF. We performed our examination in accordance with Dutch law, including Dutch Standard 3950N 'Assurance-opdrachten inzake het voldoen aan de criteria voor het opstellen van een

digitaal verantwoordingsdocument’ (assurance engagements relating to compliance with criteria for digital reporting). Our examination included, among others:

- obtaining an understanding of the entity's financial reporting process, including the preparation of the reporting package;
- identifying and assessing the risks that the annual report does not comply in all material respects with the RTS on ESEF and designing and performing further assurance procedures responsive to those risks to provide a basis for our opinion, including:
  - obtaining the reporting package and performing validations to determine whether the reporting package containing the Inline XBRL instance document and the XBRL extension taxonomy files have been prepared in accordance with the technical specifications as included in the RTS on ESEF; and
  - examining the information related to the consolidated financial statements in the reporting package to determine whether all required mark-ups have been applied and whether these are in accordance with the RTS on ESEF.

**Description of responsibilities regarding the financial statements**

**Responsibilities of the Management Board and the Supervisory Board of the Company for the financial statements**

The Management Board is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code.

Furthermore, the Management Board is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error. In that respect the

Management Board, under supervision of the Supervisory Board, is responsible for the prevention and detection of fraud and non-compliance with laws and regulations, including determining measures to resolve the consequences of it and to prevent recurrence. As part of the preparation of the financial statements, the Management Board is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Management Board should prepare the financial statements using the going concern basis of accounting unless the Management Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Management Board should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

**Our responsibilities for the audit of the financial statements**

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A further description of our responsibilities for the audit of the financial statements is located at the [website](#) of de ‘Koninklijke Nederlandse Beroepsorganisatie van Accountants’ (NBA, Royal Netherlands Institute of Chartered Accountants). This description forms part of our auditor's report.

Amstelveen, March 6, 2025  
KPMG Accountants N.V.

F.A.M. Croiset van Uchelen RA

### 30.4 Limited assurance report of the independent auditor on the sustainability statements

To: The Supervisory Board of ASM International N.V.

#### Our conclusion

We have performed a limited assurance engagement on the consolidated sustainability statements for 2024 of ASM International N.V. based in Almere (hereinafter: the company) in the section ‘Sustainability statements’ of the accompanying annual report, including the information incorporated in the sustainability statements by reference (hereinafter: the sustainability statements).

Based on the procedures performed and the assurance evidence obtained, nothing has come to our attention that causes us to believe that the sustainability statements are not, in all material respects:

— prepared in accordance with the European Sustainability Reporting Standards (ESRS) as adopted by the European Commission and in accordance with the double materiality assessment process carried out by the company to identify the information reported pursuant to the ESRS; and

— compliant with the reporting requirements provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation).

#### Basis for our conclusion

We performed our limited assurance engagement on the sustainability statements in accordance with Dutch law, including Dutch Standard 3810N ‘Assurance-opdrachten inzake duurzaamheidsverslaggeving’ (Assurance engagements relating to sustainability reporting) which is a specified Dutch standard that is based on the International Standard on Assurance Engagements (ISAE) 3000 (Revised) ‘Assurance engagements other than audits or reviews of historical financial information’. Our responsibilities under this standard are further described in the section ‘Our responsibilities for the assurance engagement on the sustainability statements’ section of our report.

We are independent of ASM International N.V. in accordance with the ‘Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten’ (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). Furthermore, we have complied with the ‘Verordening gedrags- en beroepsregels accountants’ (VGBA, Dutch Code of Ethics for Professional Accountants).

We believe the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

#### Emphasis of matter

We draw attention to chapter 15 ‘General disclosures’ on page 57 of the sustainability statements. This disclosure sets out that the sustainability statements have been prepared in a context of new sustainability reporting standards requiring entity-specific interpretations and

addressing inherent measurement or evaluation uncertainties.

This section also outlines the value chain estimation and sources of estimation and outcome uncertainty in the sustainability statements that identify circumstances around the quantitative metrics that are subject to a high level of measurement uncertainty and discloses information about the sources of measurement uncertainty and the assumptions, approximations and judgements the company has made in measuring these in compliance with the ESRS.

The comparability of sustainability information between entities and over time may be affected by the lack of historical sustainability information in accordance with the ESRS and by the absence of a uniform practice on which to draw, to evaluate and measure this information. This allows for the application of different, but acceptable, measurement techniques.

Furthermore these disclosures explain the double materiality assessment process, including robust engagement with affected stakeholders. Due diligence is an on-going practice that responds to and may trigger changes in the company’s strategy, business model, activities, business relationships, operating, sourcing and selling contexts. The double materiality assessment process may also be impacted in time by sector-specific standards to be adopted. The sustainability statements may not include every impact, risk and opportunity or additional entity-specific disclosure that each individual stakeholder (group) may consider important in its own particular assessment.

Our conclusion is not modified in respect to these matters.

#### Corresponding information not subject to assurance procedures

No reasonable or limited assurance procedures have been performed on the comparative figures in accordance with ESRS in the sustainability statements of prior year. Consequently, the corresponding sustainability information and thereto related disclosures for the period 2023 have not been subject to assurance procedures.

Our conclusion is not modified in respect to this matter.

#### Limitations to the scope of our assurance engagement

In reporting forward-looking information in accordance with the ESRS, the Management Board of the company is required to prepare the forward-looking information on the basis of disclosed assumptions about events that may occur in the future and possible future actions by the company. The actual outcome is likely to be different since anticipated events frequently do not occur as expected. Forward-looking information relates to events and actions that have not yet occurred and may never occur. We do not provide assurance on the achievability of this forward-looking information

The references to external sources or websites in the sustainability information are not part of the sustainability information as included in the scope of our assurance engagement. We therefore do not provide assurance on this information.

Our conclusion is not modified in respect to these matters.

**Responsibilities of the Management Board and the Supervisory Board for the sustainability statements**

The Management Board is responsible for the preparation of the sustainability statements in accordance with the ESRS, including the double materiality assessment process carried out by the company as the basis for the sustainability statements and disclosure of material impacts, risks and opportunities in accordance with the ESRS. As part of the preparation of the sustainability statements, management is responsible for compliance with the reporting requirements provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation). The Management Board is also responsible for selecting and applying additional entity-specific disclosures to enable users to understand the company’s sustainability-related impacts, risks or opportunities and for determining that these additional entity-specific disclosures are suitable in the circumstances and in accordance with the ESRS.

Furthermore, the Management Board is responsible for such internal control as it determines is necessary to enable the preparation of the sustainability statements that is free from material misstatement, whether due to fraud or error.

The Supervisory Board is responsible for overseeing the sustainability reporting process including the double materiality assessment process carried out by the company.

**Our responsibilities for the assurance engagement on the sustainability statements**

Our responsibility is to plan and perform the assurance engagement in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Our assurance engagement is aimed to obtain a limited level of assurance to determine the plausibility of sustainability information. The procedures vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in a limited assurance engagement is therefore substantially less than the assurance that is obtained when a reasonable assurance engagement is performed.

A further description of our responsibilities for the assurance engagement on the sustainability statements is included in the appendix of this assurance report. This description forms part of our assurance report.

Amstelveen, 6 March 2025

KPMG Accountants N.V.

F.A.M. Croiset van Uchelen RA



## Appendix:

We apply the quality management requirements pursuant to the Nadere voorschriften kwaliteitsmanagement (NV KM, regulations for quality management) and accordingly maintain a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. Our limited assurance engagement included among others:

- a. Performing inquiries and an analysis of the external environment and obtaining an understanding of relevant sustainability themes and issues, the characteristics of the company, its activities and the value chain and its key intangible resources in order to assess the double materiality assessment process carried out by the company as the basis for the sustainability statements and disclosure of all material sustainability-related impacts, risks and opportunities in accordance with the ESRS;
- b. Obtaining through inquiries a general understanding of the internal control environment, the company's processes for gathering and reporting entity-related and value chain information, the information systems and the company's risk assessment process relevant to the preparation of the sustainability statements and for identifying the company's activities, determining eligible and aligned economic activities and prepare the disclosures provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation), without obtaining assurance evidence about the implementation, or testing the operating effectiveness, of controls;
- c. Assessing the double materiality assessment process carried out by the company and identifying and assessing areas of the sustainability statement, including the disclosures provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation) where misleading or unbalanced information or material misstatements, whether due to fraud or error, are likely to arise ('selected disclosures'). We designed and performed further assurance procedures aimed at assessing that the sustainability statements are free from material misstatements responsive to this risk analysis;
- d. Considering whether the description of the double materiality assessment process in the sustainability statements made by Management Board is consistent with the process carried out by the company;
- e. Performing analytical review procedures on quantitative information in the sustainability statement, including consideration of data and trends in the information submitted for consolidation at corporate level;
- f. Assessing whether the company's methods for developing estimates are appropriate and have been consistently applied for selected disclosures. We considered data and trends, however, our procedures did not include testing the data on which the estimates are based or separately developing our own estimates against which to evaluate management's estimates;
- g. Analysing, on a limited sample basis, relevant internal and external documentation available to the company (including publicly available information or information from actors throughout its value chain) for selected disclosures;
- h. Reading the other information in the annual report to identify material inconsistencies, if any, with the sustainability statements and reconciling the relevant financial information with the financial statements;
- i. Considering whether:
  - the disclosures provided to address the reporting requirements provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)
  - for each of the environmental objectives reconcile with the underlying records of the company and are consistent or coherent with the sustainability statement;
  - appear reasonable, in particular whether the eligible economic activities meet the cumulative conditions to qualify as aligned and whether the technical screening criteria are met; and
  - the key performance indicators disclosures have been defined and calculated in accordance with the Taxonomy reference framework as defined in Appendix 1 Glossary of Terms of the CEA OB Guidelines on limited assurance on sustainability reporting adopted on 30 September 2024 , and in compliance with the reporting requirements provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation), including the format in which the activities are presented.
- j. Considering the overall presentation, structure and the fundamental qualitative characteristics of information (relevance and faithful representation: complete, neutral and accurate) reported in the sustainability statement, including the reporting requirements provided for in Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation); and
- k. Considering, based on our limited assurance procedures and evaluation of the assurance evidence obtained, whether the sustainability statements as a whole, is free from material misstatements and prepared in accordance with the ESRS.



# Appendix

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# 31. Sustainability statements appendix

## 31.1 Content and structure of the Sustainability statements

ESRS 2: General disclosures	
BP-1	15.1 Company overview - Our sustainability statements.
BP-2	15.1 Company overview - Our sustainability statements.
GOV-1	15.2 Sustainability governance; <i>DRs 21a, 21b, 21d, 21e are incorporated by reference to chapter 21. DRs 20a and 22a are incorporated by reference in chapters 22 and 23. DRs 20c and 21c are incorporated by reference in chapter 24.</i>
GOV-2	15.3 Stakeholder engagement - ASM stakeholder framework
GOV-3	15.2 Sustainability governance - Sustainability incentive schemes
GOV-4	15.2 Sustainability governance - Sustainability due diligence
GOV-5	15.2 Sustainability governance - Our sustainability reporting principles
SBM-1	15.1 Company overview. <i>DRs 40a and 40e are incorporated by reference in chapter 4.1; DR 41 is incorporated by reference in section 16.2; DR42a and 42b are incorporated by reference in section 8.1. DR42c is incorporated by reference in chapter 6.</i>
SBM-2	15.3 Stakeholder engagement
SBM-3	15.4 Impacts, risks and opportunities at ASM - 2024 Results and continuous improvement; 16.1 Climate risks and opportunities
IRO-1	15.4 Impacts, risks and opportunities at ASM
MDR-M	15.1 General disclosures, MDR-M is incorporated by reference in section 31.2
MDR-P	15.1 General disclosures, MDR-P is incorporated by reference in section 31.4
ESRS E1: Climate change	
SBM-3	16.1 Climate risks and opportunities
E1-1	16.2 Climate action approach and results - Climate Transition Plan. <i>Disclosure requirement 14 is derived from Regulation (EU) 2021/1119, Article 2(1).</i>
E1-2	16.2 Climate action approach and results - Our climate and net-zero policies
E1-3	16.2 Climate action - Climate Transition Plan, 16.3 Product sustainability; 16.4 Own operations; 16.5 Supply chain emissions
E1-4	16.2 Climate action approach and results - Net-zero target
E1-5	16.4 Own operations - Energy management and efficiency
E1-6	16.2 Climate action approach and results - Our 2024 greenhouse gas emission results
E1-9	16.1 Climate risks and opportunities; DR 68 is included in Note 5 and incorporated by reference

ESRS S1: Own workforce	
S1-1	17.1 People practices - Our Global Employment Standards; 19.1 Corporate culture and ethics
S1-2	17.1 People practices - Engaging our people
S1-3	19.2 Ethics, Bribery, and Corruption - Speaking up
S1-4	17.1 People practices - Talent attraction and retention; Human rights due diligence; 17.2 Inclusion, Equity, and Diversity; 17.3 Skilled workforce; 17.4 Health, safety, and employee well-being
S1-5	17.1 People practices - Talent attraction and retention; 17.2 Inclusion, equity, and diversity - Equal pay and gender equity; Diversity in perspectives; Age diversity; 17.3 Skilled workforce - Performance management and career development; 17.4 Health, Safety, and employee well-being - Our 2024 performance
S1-6	17.2 Inclusion, equity, and diversity - Workforce demographics
S1-9	17.2 Inclusion, equity, and diversity - Equal pay and gender equity; Diversity in perspectives; Age diversity;
S1-10	17.2 Inclusion, equity, and diversity - Equal pay and gender equity
S1-13	17.3 Skilled workforce - Performance management and career development
S1-14	17.4 Health, Safety, and employee well-being - Our 2024 performance
S1-16	17.2 Inclusion, equity, and diversity - Equal pay and gender equity
S1-17	19.2 Ethics, bribery, and corruption - Speaking up; 2024 breaches or our code of conduct
ESRS S2: Workers in the value chain*	
S2-1	18.1 Supply chain overview - Policies governing supply-chain risks; Supplier Code of Conduct and Human Rights policy statement
S2-2	18.2 Engaging our suppliers
S2-3	18.2 Engaging our suppliers - Grievance mechanisms and whistleblower protection
S2-4	18.3 Taking action
S2-5	18.2 Engaging our suppliers - Tracking effectiveness of our supplier engagement; 18.3 Taking action
ESRS G1: Business conduct*	
G1-1	19.1 Corporate culture and ethics; DR 5b is incorporated by reference in chapter 24.
G1-3	19.2 Ethics, Bribery, and Corruption, 24. Supervisory Board report
G1-4	19.2 Ethics, Bribery, and Corruption

31.2 Minimum disclosure requirements for metrics (MDR-M)

This section presents the key performance indicators included in the 2024 Annual Report to track ASM's sustainability performance. These metrics encompass those aligned with the sustainability matters identified in the 2024 double materiality assessment (DMA), as well as other relevant metrics (marked with an asterisk) that provide a broader understanding of ASM's sustainability performance. The section is prepared in accordance with the European Sustainability Reporting Standards (ESRS), Minimum Disclosure Requirements – Metrics (MDR-M).

Environment

Scope 1 and 2 emissions

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Scope 1 emissions #16.2	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Direct greenhouse gas (GHG) emissions from sources owned or controlled by the organization (e.g., on-site fuel combustion, company vehicles).	ASM follows best-known methods, including the GHG Protocol (GHGP) and IPCC Guidelines for GHG inventories, 2019 edition (IPCC 2019). Main direct emissions are related to process gases, refrigerants, mobile and stationary combustion, natural gas, and LPG. Calculated using emission factors from recognized sources and activity data (e.g., fuel consumption, distance traveled).	In a few cases, where direct measurement is not available, estimations and country-specific approximations are applied based on relevant characteristics (e.g., office size, vehicle type or contractual maximum values).
Energy consumption [table] #16.4	Megawatt hours (MWh)	The total energy consumption KPI is measured in absolute terms, reflecting improvements in energy efficiency, exposure to coal, oil and gas-related activities, and the share of biogenic and renewable energy in the overall energy mix of ASM's own operations.	Energy consumption data for ASM sites is gathered from invoices, meters, contracts or relevant databases, aiming for the highest data-quality available, while accounting for differences in reporting units. It includes grid electricity, district heating, cooling, and steam, electric vehicle (EV) charging, and on-site electricity generation.	Extrapolations are at times made for the last period of the reporting year to accommodate timely reporting. The extrapolation factor is based on assumptions stemming from historic results combined with known factors that could influence the usage. For smaller locations, (e.g., shared sales offices) where source data may be limited, estimates are made. These locations represent a non-material portion of our total global operations.
Percentage renewable electricity #16.4	Percentage	Rate of electricity consumed from renewable sources in ASM's total electricity consumption, demonstrating progress towards renewable energy targets.	Proportion of total electricity consumption from bundled and unbundled renewable sources.	
Renewable electricity from Energy Attribute Certificates (EACs) [table] #16.4	Percentage	Share of bundled renewable electricity is purchased from a specific renewable energy source. In comparison, unbundled EACs are sold independently from the physical electricity and can be acquired to support renewable energy claims.	Proportion of bundled and unbundled electricity of the total renewable electricity consumption. Bundled electricity reflects ASM's on-site electricity generation, while unbundled electricity accounts for the global qualified EAC purchases against purchased electricity.	
Energy intensity #16.4	MWh/ million EUR	Energy consumed per million EUR of revenue for contextualizing energy consumption.	Calculated dividing total energy consumption by total revenue for the reporting period for all ASM operations.	
Fluorinated GHG emissions #32.4*	tonnes CO <sub>2</sub> e	These are emissions of fluorinated greenhouse gases (F-gases), which are potent synthetic GHGs used in various applications, such as refrigerants, air-conditioning, and industrial processes.	Emissions are calculated using activity data (e.g., refrigerant usage) and IPCC-based emission factors for each F-gas.	
Scope 2 emissions (location-based) #16.2	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Scope 2 emissions are indirect emissions from sources that are not owned and/or operationally controlled by ASM, considering energy sources the organization is physically connected to, and the corresponding emissions intensities of those source(s) in each geography they are located.	Location-based emissions are calculated utilizing country and/or regional specific emission factors that account for the electricity generation sources within each respective region. These emission factors can be applied per unit energy (e.g., per kWh/ MWh) to determine the location-based tonnes CO <sub>2</sub> e from procured energy.	
Scope 2 emissions (market-based) #16.2	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Scope 2 emissions are indirect emissions from sources that are not owned and/or operationally controlled by ASM, considering market-based accounting of Energy Attribute Certificate (EAC) procurement, which accounts for renewable energy generation and accounting of source-to-sink usage of such energy.	Market-based GHG Scope 2 emissions are calculated by accounting for the global qualified EAC purchases against purchased electricity. As part of our Scope 2 reporting we account for procured energy in all its forms (grid electricity, district heating/cooling, EV charging, generation) as well as associated environmental attributes of EACs for market-based accounting.	Assumptions and limitations inherent to the Energy Consumption Metric.

Scope 3 emissions - All metrics presented in this section align with the disclosures outlined in Chapter 16.2 of the Annual Report.

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Scope 3 emissions	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Scope 3 emissions encompass all peripheral activities that occur in the value chain, excluding those already included in Scope 2.	As part of comprehensive GHG accounting and calculation practices, ASM follows the GHG Protocol, where GHG Scope 3 emissions are calculated by converting the relevant activity data (e.g, spend, distance) to tonnes CO <sub>2</sub> e using emission factors.	While Scope 3 encompasses 15 categories, ASM has determined that categories 10, 13, and 14 are not applicable to our business according to the GHG Protocol.
Scope 3.1 Purchased goods and services	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the extraction, production, and transportation of purchased goods and services.	ASM uses a spend-based methodology, aligning company financial tracking system commodity codes with the EPA's GHG emission factor (NASCI) and recommended GHG databases, excluding categories covered by other Scope 3 reporting. Inflation adjustments ensure ongoing calculation accuracy.	The spend-based approach may not fully capture the impact of supplier-specific greenhouse gas (GHG)-reduction initiatives, methodologies and parameters are reviewed annually to incorporate the latest insights.
Scope 3.2 Capital goods	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the extraction, production, and transportation of capital goods purchased by the company.	The spend-based method estimates emissions by multiplying the financial expenditure on capital goods (e.g., machinery, equipment, buildings) by relevant emission factors.	Average emission factors may not capture the variability in emissions across different production processes for specific capital goods.
Scope 3.3 Fuel & energy related	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions related to the extraction, production, and transportation of fuels and energy purchased and consumed by the reporting company (not already included in Scope 1 or Scope 2).	The fuel- and energy-based method estimates emissions by multiplying the quantity of fuel and energy consumed by the respective emission factors).	Emission estimates are based on average factors and may not capture variations in actual operating conditions.
Scope 3.4 Upstream transportation & distribution	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the transportation and distribution of purchased goods (inbound logistics) in vehicles and facilities not owned or controlled by the reporting company.	Emissions are calculated based on detailed emission report of logistics partners. For suppliers where a carbon footprint report including GHG protocol standards is not yet available, ASM calculates the emissions based on distance, shipping weight, and method.	Average transportation emission factors may not fully account for shipment-specific conditions such as vessel type, cargo weight and density, and weather conditions.
Scope 3.5 Waste	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the disposal and treatment of waste generated in the reporting company's operations.	The waste-type specific method estimates emissions by categorizing waste generated into different types (e.g., paper, plastic, electronic, organic) and applying specific emission factors to each waste type based on its treatment method (e.g., landfill, incineration, recycling).	The waste-type specific method may not fully account for complexities in waste management, including waste-stream mixing, evolving treatment technologies, and potential for unintended emissions.
Scope 3.6 Business travel	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the transportation of employees for business-related activities in vehicles not owned or operated by the reporting company. <sup>1</sup>	The fuel-based method calculates emissions based on the amount of fuel consumed (e.g., gasoline, jet fuel) for business travel. The distance-based method calculates emissions based on the distance traveled and the mode of transport (e.g., car, plane, train).	Variability in vehicle type, driving conditions, and maintenance can lead to actual emissions that differ from those estimated using average fuel-specific factors.
Scope 3.7 Commuting / WFH	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the transportation of employees between their homes and their regular places of work.	The distance-based method calculates emissions based on the distance traveled by employees between their homes and their workplaces. Emission factors are applied based on the mode of transportation (e.g., car, public transport, cycling).	Distance-based commuting emissions may not accurately reflect actual emissions due to variations in vehicle type, occupancy, driving habits, and routes.
Scope 3.8 Leased facilities (upstream leased assets)	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the operation of assets leased by the reporting company and not included in Scope 1 and Scope 2.	Emissions are estimated based on the energy consumption of these assets, using relevant emission factors, based on owner reports.	Where direct energy consumption data from landlords is unavailable, estimated emissions are calculated based on asset type, country averages, and building space. This approach can lead to potential inaccuracies due to variations in building characteristics, energy efficiency, and local energy grids.
Scope 3.9 Downstream transportation & distribution	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the transportation and distribution of sold products (outbound logistics) in vehicles and facilities not owned or controlled by the reporting company.	Emissions are calculated based on detailed emission report of logistics partners. For suppliers where a carbon footprint report including GHG protocol standards is not yet available, ASM calculates the emissions based on distance, shipping weight, and method.	Average transportation emission factors may not fully account for shipment-specific conditions such as vessel type, cargo weight and density, and weather conditions.
Scope 3.11 Use of sold products	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the use of goods and services sold by the reporting company.	Scope 3.11 use of sold products is calculated using a process-based method, evaluating the energy consumption over the lifetime of our machines installed at our customers' fabs during the reporting year. The use cases are selected by product sustainability experts, where independent tests aligned with the SEMI S23-1021E standard determine the energy usage, expressed in MWh.	Lifetime emissions are calculated at the point of sale, based on location-specific emission factors and assuming an average operational lifespan of 15 years. This assumed lifespan is derived from peer analysis, expert input, and internal analysis of service records, and may vary on a case-by-case basis.
Scope 3.12 End-of-life treatment of sold products	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions from the waste disposal and treatment of products sold by the reporting company at the end of their life.	The waste-type specific method estimates emissions by categorizing waste generated into different types (e.g., paper, plastic, electronic, organic) and applying specific emission factors to each waste type based on its treatment method (e.g., landfill, incineration, recycling).	The waste-type specific method may not fully account for complexities in waste management, including waste-stream mixing, evolving treatment technologies, and potential for unintended emissions.
Scope 3.15 Investments	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	Emissions associated with investments in companies or projects.	Portfolio-weighted method based on the proportional ownership stake and emissions data from investee companies.	Due to the timing of ASMPT's annual report release, data is estimated based on the prior year's reported figures.



The metrics below measure supply chain transparency and engagement related to environmental performance.

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
% of critical/strategic Suppliers reporting Scope 1 & 2 emissions #16.5	Percentage	The percentage of ASM's critical or strategic suppliers that publicly disclose their Scope 1 and Scope 2 GHG emissions.	This involves identifying the company's critical/strategic suppliers (based on spend, risk, or other criteria) and then determining whether these suppliers publicly report their Scope 1 and 2 emissions data (e.g., through sustainability reports, CDP disclosures).	
% of critical/strategic suppliers with GHG reduction targets #16.5	Percentage	The percentage of ASM's critical or strategic suppliers that have set science-based GHG-reduction targets aligned with a 1.5°C warming scenario by 2030, as validated by the Science Based Targets initiative (SBTI).	Identification of critical/strategic suppliers with publicly committed to SBTI-validated targets.	
Avoided supply chain emissions from material savings #16.5*	kilotonnes CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	The weight of avoided GHG emissions per year through Complete Kit Management (CKM) reducing the necessity for new materials through systematic repair, refurbishment, and reuse.	Emissions reduction is calculated by combining refurbished part counts with raw material weights (sourced from system records, specification sheets, or volume/density) and raw material processing emission factors.	Due to estimated raw material weights and generic emission factors, the resulting CO <sub>2</sub> reductions are indicative of trends and may differ from actual values.

Water\*

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Water Withdrawn Absolute #32.1	cubic meters (m3)	The total volume of water withdrawn from all sources (surface water, groundwater, municipal water supply, etc.)	Measured using water meters, invoices from water utilities, or estimations based on water-usage patterns and equipment specifications.	Extrapolations are at times made for the last period of the reporting year to accommodate timely reporting. The extrapolation factor is based on assumptions stemming from historic results combined with known factors that could influence the usage. For smaller locations, (e.g., shared sales offices) where source data may be limited, estimates are made. These locations represent a non-material portion of our total global operations.
Water intake per revenue (water intensity) #32.1	cubic meters (m3) per million EUR	The volume of water withdrawn per unit of revenue generated. This metric provides a measure of the organization's water-use efficiency relative to its economic output.	Water withdrawal figure, which is the same as the water intake figure, divided by net revenue to obtain a water intensity figure.	
Water withdrawn from water-stressed regions #32.1, 35	cubic meters (m3)	The percentage of water withdrawn from high or extremely high water-stressed regions as per the most recent information from the World Resource Institute (WRI) Aqueduct analysis.	This metric is defined by WRI as the ratio of total water withdrawals to the available renewable surface and groundwater supplies.	The Aqueduct analysis may not fully capture the specific water-stress levels at the exact location of water withdrawal, due to the spatial resolution of the data and the potential for localized variations in water availability and demand.

Environmental releases\*

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Significant chemical spills or releases to the environment #32.2	# of incidents	Releases directly to the environment that are unanticipated and meeting a material threshold for reporting per the jurisdiction of release.	Based on records of all chemical spills and releases, including the type and quantity of chemicals released, the location of the release, and the impacts on the environment.	The assessment significance is based on environmental impacts, as determined through expert judgment and scientific analysis, and includes violations with significant fines or penalties (greater than US\$10,000).
Hazardous waste #32.3	metric tonnes	Waste materials that pose substantial or potential threats to public health or the environment. These are defined by national or regional regulations based on characteristics such as ignitability, corrosivity, reactivity, or toxicity.	Measured through weighing or using certified waste-management company records. Waste is classified according to applicable regulations (e.g., EU Waste Framework Directive, US Resource Conservation and Recovery Act (RCRA)).	Variations in waste composition can affect the accuracy of emissions calculations associated with waste treatment.
Liquid chemical waste #32.3	cubic meters (m3)	Liquid waste containing chemical substances that may be hazardous or require specific treatment before disposal.	Measured using flow meters, volume calculations based on container size, or waste-disposal records from certified waste management companies. Chemical composition is documented where relevant.	Variations in chemical composition can affect treatment requirements and associated environmental impacts.
Volatile Organic Compounds (VOCs) #32.5	metric tonnes	Organic chemical compounds that have high vapor pressures at ordinary room temperature. Many VOCs are hazardous air pollutants and contribute to the formation of ground-level ozone.	Measured using direct monitoring equipment (e.g., gas chromatography), emission factors based on production processes or solvent usage, or mass balance calculations.	Emission factors may not always be representative of specific operations.

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Reuse/recycle rate (ASM operations) #32.2	Percentage	Percentage of total non-hazardous solid waste from ASM operations that is reused or recycled.	Measured by tracking the quantity (e.g., weight or number of units) of waste collected for reuse. The total non-hazardous solid waste generated by ASM operations is used as the denominator.	Accuracy based on internal tracking systems, collaboration with customers on return programs, and partnerships with third-party collection and reuse organizations.
Waste to landfill rate (ASM operations) #32.2	Percentage	Percentage of total non-hazardous solid waste from ASM operations that is sent to landfill for disposal.	Measured by tracking the quantity (e.g., weight) of non-hazardous solid waste sent to landfill for disposal. The total non-hazardous solid waste generated by ASM operations is used as the denominator.	
Waste incinerated with/ without energy recovery	metric tonnes	The quantity of waste incinerated, categorized by whether the heat generated during combustion is recovered for energy production (with energy recovery) or not (without energy recovery).	Waste incineration data is gathered from waste-management facilities, differentiating between facilities with and without energy recovery systems (e.g., boilers, turbines) for waste with sufficient heat content.	Incomplete reporting on energy recovery by some facilities may lead to underestimation of waste incinerated with energy recovery.
Waste disposal avoided through our reusable packaging program #32.2	metric tonnes	This table presents the quantity of packaging waste avoided through ASM's reusable crating program, which aims to reduce reliance on single-use wood crates in the shipping and movement of production materials, final products, and spares.	Calculated by determining the weight or volume of materials returned to customers through the ASM program that would have otherwise been disposed of.	Actual landfill waste avoidance may differ from calculated amounts due to variations in lifecycle assessment assumptions (return rates, refurbishment, amortization) and program performance.

Our people. The listed metrics support the information presented in sections 17.1 - 17.3 of this report

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
CEO pay ratio	Ratio	The ratio of the CEO's annual total compensation to the median annual total compensation of all other employees.	CEO remuneration divided by the median remuneration of all employees excluding the highest-paid individual.	The pay ratio assessment was done against ASM's current CEO's remuneration, H. M'Saad. The 'other items' offered to G.L. Loh were not considered for the assessment, making the remuneration offered to H. M'saad that of the highest paid individual.
Gender pay ratio	Ratio	Gender-based pay ratio, calculated using headcount and adjusted for purchasing power differences between countries, with disclosure of both average and median values.	The gender pay gap is calculated using both average and median pay levels. For each calculation, the difference between female and male pay is expressed as a percentage of the male pay level. Data is sourced from the ASM HR system on the last day of the reporting period.	
Gender diversity	Percentage	Total number of employees (in headcount) on the last day of the reporting period by gender in percentages.	Employee headcount as of the last day of the reporting period is categorized by gender within predefined categories (e.g., grade). The percentage of employees in each gender category is then calculated. Data is extracted from the HR system.	
Voluntary and total attrition rate [table]	Percentage	Employee attrition rate, including the percentage of total employee departures, as well as separate percentages for voluntary (employee-initiated) and involuntary (employer-initiated) departures, during the reporting year.	Number of people who have left the company voluntarily and involuntarily during the reporting year divided by the number of employees at the end of the reporting year (in percentages).	
Employee age bracket statistics	Percentage	The distribution of employees across different age groups.	The share of employees in each age group at the end of the reporting period. The age groups are under 30, 30-50, and over 50.	
Training hours per gender [table]	Hours	The average number of training hours completed by male and female employees. Additional break down provided as average and technical training.	Training hours per employee are calculated based on data from ASM's internal training system. This includes the duration of assigned training courses and records of employee completion. Employee gender data is sourced from the ASM HR system.	The assigned duration of training courses may not accurately reflect the actual duration of sessions attended by employees.
Working hours compliance according to RBA standards	Qualitative score	Compliance assessment based on the RBA (Responsible Business Alliance) Code of Conduct standards on working hours (including overtime limits).	Employee working hours records assessed according to the RBA standards.	The KPI is limited to workers as per the definition of the RBA: direct and indirectly hired workers subject to hourly increases or decreases due to volume production and/or covered by local laws governing overtime.
% of employees participated in regular performance and career development reviews	Percentage	The percentage of employees who took part in regular performance and career-development reviews during the reporting period.	Completion of performance reviews is logged within ASM's internal performance management system. Individual employee completion records are subsequently extracted and aggregated as part of the metric calculation.	

Health and safety. The listed metrics support the information presented in section 17.4 of this report

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Number of fatalities related to work-related injuries and work-related ill health	Number	Number of employee deaths resulting from work-related incidents or work-related ill health.	ASM uses the US OSHA (Occupational Safety and Health Administration) recordkeeping criteria. These criteria include fatalities, loss of consciousness, days away from work, restricted work or job transfer, medical treatment beyond first aid, diagnosed cases of cancer, chronic irreversible diseases, fractured or cracked bones or teeth, punctured eardrums, and specific criteria for needlestick/sharp injuries, medical removal, hearing loss, and tuberculosis. Records are based on incident reports and medical documentation.	Our incident reporting platform, trainings and governance ensures the correct recording, classification and follow up of the relevant cases.
Recordable work-related injuries and work-related ill health	Number	Total number of recordable injuries and illnesses reported separately.		
Recordable work-related injury rate	Number per 100 FTE	The number of recordable injuries and illnesses as compared to the average number of 100 FTE during the reporting year. This metric normalizes injury data for variations in workforce size.		
Injury rate	Number per 100 FTE	The total number of work-related injuries and illnesses (both recordable and first-aid) as compared to the average number of 100 FTE during the reporting year.		
Lost workday injury rate	Number per 100 FTE	The total number of lost time recordable-injury cases as compared to the average number of 100 FTE. If an injury case has lost time, that automatically makes it recordable.		
Days lost from work-related injuries and ill health and related fatalities.	Number of days	Total number of days lost due to lost-time cases of work-related injury, ill health, and fatalities.		

Supply chain responsibility. The listed metrics support the information presented in chapter 18 of this report.

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
RBA Code of Conduct Acknowledgement	Percentage	Percentage of critical and/or strategic suppliers acknowledging the RBA Code of Conduct.	Number of signed acknowledgments or other forms of formal commitment from suppliers regarding the RBA Code of Conduct.	
RBA Code of Conduct self-assessment questionnaire (SAQ)	Percentage	Percentage of critical and/or strategic suppliers who completed a required RBA SAQ.	Critical and strategic suppliers are identified at the beginning of each year. These suppliers are then requested to complete the RBA Self-Assessment Questionnaire (SAQ) for their relevant facilities within the RBA online platform. Facility IDs are mapped to ASM supplier codes, and the year-end status of each SAQ submission linked accordingly.	
Supplier sites with reported incidents of involuntary labor	Number	The number of supplier sites with incidents of involuntary labor identified.	Data is based on facility Self-Assessment Questionnaires (SAQs) submitted through the RBA online platform by critical and strategic suppliers. The scope includes selected on-site Tier 1 suppliers, where on-site due-diligence assessments have been conducted. Findings from these on-site assessments are incorporated into the KPI.	
Supplier sites reporting work-related serious injuries and fatalities	Number	The number of supplier sites reporting work-related serious injuries and fatalities.		
Supplier sites with reporting incidents of egregious working hours or insufficient days of rest	Number	The number of supplier sites reporting incidents of egregious working hours or insufficient days of rest (in violation of labor standards) have been identified.		

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Supplier/Supplier worker issues identified and dispositioned through ASM grievance process	Number	The number of issues raised by suppliers or supplier workers and resolved through the ASM grievance mechanism (SpeakUp!, or other channels) as presented in Chapter 19.	The number of grievances received through the grievance process described under the Ethics section.	
Supplier workers that have been through an RBA on-site audit	Number	The total number of supplier workers at facilities that have undergone an RBA on-site audit (or other equivalent social audit).	The number of workers at audited facilities is based on records submitted through the RBA online platform or collected by the Supply Chain Sustainability team.	
Suppliers participation in the Responsible Factory Initiative (RFI) program	Number	Number of direct suppliers participating in RFI.	The number of suppliers participating in the RFI program, as recorded in the relevant system.	
CMRT (Conflict Minerals Reporting Template) Completion	Percentage	Percentage of critical and/or strategic suppliers that have submitted compliant CMRT responses.	Critical and strategic suppliers are requested to submit their CMRTs through the designated system. Supplier information is mapped to ASM supplier codes for data tracking and analysis.	The data reflects CMRT submissions from critical and strategic suppliers identified in the previous year, as the CMRT cycle typically commences mid-year. This may not fully capture the performance of all critical and strategic suppliers active during the current reporting year, given that the list of critical and strategic suppliers may be updated annually.
YoY change in % of suppliers with high-risk smelters or refineries (SORs)	Percentage point (p.p.)	The change from the previous year in the percentage of suppliers identified as having high-risk smelters or refineries (SORs) in their supply chain.	Year-on-year change of in-scope suppliers identifying 'high-risk' SORs in ASM's supply chain. The CMRT survey cycle is a reporting process based on prior-year sourcing activities related to critical and strategic suppliers.	Due to the mid-year to mid-year survey cycle, the data used to identify critical and strategic suppliers reflects a one-year delay. Therefore, the supplier list from the previous year is used for scoping.
Supplier attendees that joined ASM's sustainability training sessions	Number	The number of supplier representatives who attended ASM's sustainability training sessions.	Data is based on training records and attendance lists collected by the supply chain sustainability team.	
Webinars hosted for suppliers in which sustainability best practices are shared	Number	The number of webinars hosted by ASM for its suppliers on sustainability best practices.		
% of commodity managers trained on sustainability	Percentage	The percentage of commodity managers who have completed sustainability training.		

Business conduct. The listed metrics support the information presented in chapter 19 of this report.

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Ethics training, e.g. Anti-Corruption and Bribery training	Percentage	Percentage of the total number of employees, as of the end of the reporting year, that completed the required ethics trainings, including Anti-Corruption and Bribery training.	Ethics training and Anti-Corruption and Bribery training completion rate is calculated as the percentage of internal active employees, new college graduates, expat employees, and managed contractors who completed all required ethics trainings during the reporting year, as tracked in the company's learning management system.	
Reported confidential concerns via SpeakUp! or other channels [table]	Count	Count of events reported via SpeakUp!, the globally available anonymous reporting channel or other channels to report ethical or whistleblower concerns. The scope is ASM worldwide, including other stakeholders with a valid business interest (for example, suppliers, contractors, seconded personnel).	Reported confidential concerns are managed by the Ethics Committee. Data is collected from all available channels, including the anonymous SpeakUp! hotline and direct outreach to Ethics Committee members. Cases are reviewed by the Ethics Committee to ensure data accuracy and to avoid double-counting of similar or identical issues.	To maintain data consistency across reporting periods, confidential concerns reported through various channels in prior years have been consolidated with current data from the SpeakUp! system.

Metric name	Unit of measure	Definition	Methodology	Assumptions and limitations
Code of Business Conduct (COBC) confirmed cases of non-compliance	Count	Count of COBC confirmed cases of non-compliance.	Reported confidential concerns are reviewed and categorized by the Ethics Committee, and those associated with violations of the Code of Business Conduct (COBC) are counted for this metric.	
RBA self-assessment rating	Rating	The rating obtained by the organization through a self-assessment questionnaire (SAQ) based on the Responsible Business Alliance (RBA) Code of Conduct. The RBA Code sets standards for social, environmental, and ethical responsibilities in global supply chains.	The RBA self-assessment rating is determined through a comprehensive self-assessment conducted by ASM based on the Responsible Business Alliance (RBA) Code of Conduct. The self-assessment utilizes the RBA Self-Assessment Questionnaire (SAQ) and adheres to the RBA's guidelines and scoring methodology.	



31.3 Restatements of historic figures

As part of our commitment to continuous improvement in reporting, we have revised several historic sustainability results in the 2024 Annual Report. We also restated 2023 figures in our EU Taxonomy disclosures due to a found error. The updates incorporate enhanced methodologies and the latest available data to ensure comparability across reporting periods.

Energy and Scope 1&2 KPIs

The 2023 Energy and Scope 1&2 KPI data has been restated to incorporate actual invoice data received subsequent to the initial reporting period. Additionally, calendarization was adopted for enhanced allocation of energy consumption to specific reporting periods. To offset increased consumption, supplemental energy attribute certificates (EACs) were procured, and these are reflected in the updated 2023 figures detailed in Chapter 33.

Scope 3 metrics

Consistent with the GHG Protocol, we have re-baselined our Scope 3 metrics using the latest available methodologies. The most significant change resulted from updates to the ASM product energy consumption database, which directly enhanced the accuracy of our Category 3.11 (Use of Sold Products) emissions calculation.

A further significant change impacted Category 3.1 (Purchased Goods and Services), where we transitioned to a new emission factor database as part of our implementation of a new environmental database platform to improve reporting efficiency and maintain consistency of application of emission factor across geographies.

The changes in reported GHG values described above are summarized as follows.

Restatement GHG values		
	Old value	New value
Electrical Consumption 2023 (MWh)*	74,432	76,371
Energy intensity 2023 (MWh/million EUR)	33	33.8
Scope 1 2023 (ktCO <sub>2</sub> e)	2.5	2.4
Scope 2 (location-based) 2023 (ktCO <sub>2</sub> e)	32.3	32.8
Scope 3.1 2021 (ktCO <sub>2</sub> e)	402.2	311
Scope 3.11 2021 (ktCO <sub>2</sub> e)	1,354.6	1,321.1

*\*For restated 2023 values of the energy sources, please refer to section 16.4, Table: Energy Consumption and Mix.*

Avoided GHG emissions through CKM materials savings (tonnes CO<sub>2</sub>e)

Prior year GHG avoidance values have been updated to reflect additional data received after the original reporting period. These have increased the total GHG avoidance value for prior years, fully covering the positive impact of ASM's refurbishment program.

The changes in reported GHG avoidance from the CKM refurbishment program values are summarized as follows.

Restatement GHG avoidance from CKM (mtCO <sub>2</sub> e)		
	Old value	New value
2020	36	81
2021	775	916
2022	1,620	1,807
2023	1,650	2,127

Supply chain-related metrics

To ensure consistency, the scope of prior years' supply chain metrics has been adjusted to align with the 2024 criteria for identifying relevant suppliers.

The changes in values reported in the 2023 Annual Report for the year 2023 are summarized as follows.

Restatement supplier spend 2023		
	Old Value	New Value
Total direct supplier spend by region		
Asia	68 %	74 %
North America	23 %	19 %
Europe	9 %	7 %
Conflict minerals		
Total # of surveyed suppliers	84	70
# of suppliers with high risk SORs reported	27	24

Water KPIs

As part of ASM's continuous improvement of reported metrics, ASM has updated its estimation factors for site water usage where the actual utility consumption data is unavailable.

The changes in water withdrawal reported values are summarized as follows.

Restatement water withdrawal (m <sup>3</sup> )		
	Old value	New value
2020	121,000	140,506
2021	198,000	175,774
2022	194,000	168,517
2023	252,000	221,406

Waste-related metrics

ASM has updated its reported waste to landfill values, as we gained new insights that enable us to distinguish waste handling methods in more detail, specifically measuring the amount of our non-hazardous waste that was incinerated.

The changes in waste to landfill reported values are summarized as follows.

Restatement waste to landfill (metric tons)		
	Old value	New value
2020	156	56
2021	362	97
2022	441	101
2023	420	92

EU Taxonomy KPIs

In 2024, ASM updated its methodology for assessing expenditure KPIs under the EU Taxonomy. The more refined data inputs have led to reevaluated numerators and denominators for both capex and opex. For more details refer to chapter 20 of this Annual Report.

The changes are summarized as follows.

Restatement proportion of capex, opex (mln. Eur)		
	Old value	New value
Capex	83 / 215	314 / 336
Opex	45 / 47	274 / 274

31.4 Minimum Disclosure Requirements  
for Policies

This section presents key policies relevant to ASM's sustainability performance. These policies provide a broader understanding of ASM's sustainability governance and are categorized by their scope and ownership within ASM.

Policy	Owner within ASM	Scope	Relevant section in the Annual Report
<u>Stakeholder dialogue policy</u>	Management Board	ASM Global	15.3
<u>Climate and Net Zero policy statement</u>	VP Sustainability	ASM Global	16.2
<u>Global Occupational Health and Safety policy statement</u>	VP Sustainability	ASM Global	17.4
<u>ASM Supplier Code of Conduct</u>	VP Global Supply Chain	Direct and indirect suppliers	18.1
<u>Responsible Minerals policy statement</u>	VP Sustainability	ASM Global	18.1
<u>Human Rights policy</u>	VP Sustainability	ASM Global	17.1, 18.1
<u>Global employment standards</u>	Head of People, Europe	ASM Global	17.1
<u>Diversity, Equity &amp; Inclusion policy</u>	Management Board	ASM Global	17.2, 21
<u>Anti-Fraud policy</u>	Ethics Committee	ASM Global	19.1, 21
<u>Policy On Anti-Corruption</u>	Ethics Committee	ASM Global	19.1, 21
<u>SpeakUp! procedure</u>	Ethics Committee	ASM Global	19.1, 21
<u>Code of Business Conduct</u>	Ethics Committee	ASM Global	19.1, 21
<u>Remuneration policy Management Board</u>	Supervisory Board	Management Board	15.1, 21

# 32. Additional sustainability information

In this section, we detail ASM's approach to environmental, social, and governance stewardship in relation to various topics not subject to the Corporate Sustainability Reporting Directive (CSRD) as these topics did not meet our double materiality thresholds. ASM's overall sustainability program is broad, encompassing many interrelated but distinct topics. Certain topics have reached critical levels of importance within our company and are being prioritized accordingly. We also recognize that other sustainability topics are often interconnected, despite not reaching the same critical levels of impact. This section of the report offers a more holistic overview to our environmental, social, and governance sustainability efforts, to provide a complete account of activities undertaken.

ASM has been globally certified to the ISO 14001 Environmental Management System (EMS) standard since 2003. The scope of a global EMS supports consistency in practice across our operations, and provides a foundation for continuous improvement. The EMS ensures the organization is appropriately evaluating and managing environmental aspects related to our business. Our certification was last refreshed in Q4 2024.

Our EMS provides a framework to be compliant with all applicable environmental laws and regulations with a goal of no Notices of Violation (NOVs), and we maintain an environmental legal register to assess regulatory applicability annually at a minimum.

In 2024, we did not sustain any environmental-related violations with significant (> US\$10,000) fines or penalties.

## 32.1 Water efficiency and quality

ASM published its dedicated [water policy](#) in 2023. This policy sets out how we collaborate and engage in water security, align to recognized water stewardship standards, and set targets to measure our progress. In 2024, ASM continued implementation of our water policy, prioritizing key facilities for water efficiency and reclaim and recycling improvements based on water intensity and water stress.

ASM ensures full compliance with water-effluent quality within regulatory control parameters, adhering strictly to regulatory discharge limits and permit conditions. We actively take steps to ensure our discharges meet local quality requirements, enabling adequate treatment before returning to natural ecosystems. In some regions, ASM pre-treats effluents before discharging to a publicly owned treatment works (POTW) facility, following stringent quality protocols to prevent disruptions to downstream treatment processes, infrastructure issues, worker safety risks, or adverse effects on receiving water bodies. In other regions where the municipality does not directly accept industrial wastewater, we collect and transport wastewater offsite for appropriate treatment and management. Across all scenarios, we ensure that there are no leaks or unintended releases within our wastewater collection system, safeguarding the surrounding environment.

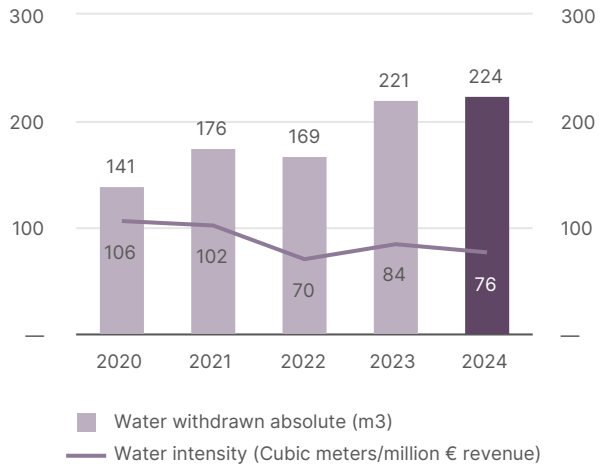
ASM does not make use of ultra pure water (UPW) in any of its operations. ASM's water objective for the period 2021-2025 is to maintain or reduce our normalized water withdrawal intensity at or below our 2020 level of 91 m³/€ million revenue. This target applies across all operations, and we aim to achieve it by leveraging reduction, reuse, or restoration methods. In 2024, our normalized water withdrawal per revenue was 76m³/€ million revenue.

Our four primary research and development centers in South Korea, Japan, Phoenix (U.S.), and Catania, Italy, accounted for 63% of our water consumption in 2024. This water is mainly used for cooling and abatement processes related to our equipment operations.

Previously, we identified our Phoenix site as having a potential climate-related water risk, considering regional water scarcity, site usage, and overall supply versus demand challenges. Since 2019, we have been operating a wastewater treatment and reclaim and recycling system, which has saved an estimated 225,200 m³ of water annually, including in 2024. In 2024, we realized an upgrade to our cooling tower auto-controller which saves an additional 2,000 m³ per year. In addition, we realized upgrades to our waste water treatment system in Catania, enabling additional reclaim at that site.

ASM is planning additional water management improvements in 2025, including a cooling tower automation in our R&D facility in Hwaseong, Korea, and implementing enhanced metering at key facilities. These steps are part of our ongoing effort to optimize water use efficiency and advance our stewardship goals.

### Water withdrawals



## 32.2 Circularity and waste

ASM published its first waste reduction and circularity policy in 2023, focusing on minimizing resource use, optimizing raw material use, transitioning to a circular economy, and reducing waste-related risks. In 2024, ASM expanded its current waste-reduction programs, seeking new opportunities to optimize raw materials usage through reuse, recycling, and resource reductions. Minimizing resource use is the most impactful part of our waste reduction strategy. By reducing consumption, we lower emissions, water use, pollution, and resource depletion, supporting also our Net Zero by 2035 target.

Product refurbishment

ASM recognizes the value of refurbishing durable parts to extend their life. Through our Complete Kit Management (CKM) program, we are expanding in-house capabilities to refurbish more components than before. In 2024, our refurbishment initiatives extended the useful life of numerous tool parts, reducing waste, and providing sustainable options for our customers.

Reusable crates to avoid packaging waste

Shipping and movement of production materials, final products, and spares are major sources of waste in ASM's global value chain. Historically, our packaging has relied on one-time-use wood crating, which may be recycled or disposed of depending on the region. In 2024, ASM continued its action plans to expand the reuse crating program, partnering globally to disassemble, refurbish, and return crates for reuse. We aim to expand our reusable crates approach to all tools and tool-sets in the future. In 2024, our reusable crates initiative avoided 539 tonnes of landfill disposal.

Our percentage coverage of downstream customer reuse crating decreased from 9% to 8% in 2024, representing our reuse achievement compared to the total potential for this category. We expect the percentage in 2025 to increase as more reusable crates were shipped, which we expect to see returned in the periods to come.

Waste avoidance values for 2024 are presented below by program area:

Reusable packaging program	Description	Tonnes of waste disposal avoided
ASM to customer	Product and supporting equipment sales to customers	144.4
ASM to supplier	Parts an sub-assemblies shipped between ASM and suppliers as part of the production process	0.98
ASM to contract manufacturer	Assembled equipment and sub-assemblies	393.9

According to a comprehensive Life Cycle Assessment (LCA) that spans across our entire product portfolio, our reusable crates significantly outperform single-use crates in all analyzed indicators, including human health, ecosystems, resources, global warming, cumulative energy demand, and water scarcity. Key results, measured over the lifetime of a reusable crate, include:

- A 68% reduction in CO<sub>2</sub> emissions
- 55% in materials savings
- 94% decrease in water usage

The full LCA results are available on request.

Waste management at our sites

In 2024, we achieved 82% of our non-hazardous waste to be recycled or reused, which is the same as in 2023. Our 2025 target is to grow this percentage to 90%. Previously, our target focused on landfill avoidance. Clarifying this goal to recycling and reuse is helping us refocus our priorities to not only avoid landfill, but pursue more positive circular material dispositions. Part of our efforts to further grow recycling and reuse has been to

train specific functions into effective waste management methods. This resulted in five waste management workshops given globally, amongst others to our site EHS leaders and local facilities departments. Our main manufacturing location in Singapore received a deep-dive assessment to spot improvement opportunities.

32.3 Chemical waste management

ASM is focused on managing its chemical and hazardous waste responsibly. As an R&D and engineering company, we are constantly evaluating new processes at our engineering sites. We have robust controls to make sure all chemicals and gases are handled properly from 'cradle to grave' or 'cradle to cradle'.

- The controls include:
- a. Chemical approval process – A strict chemical request and approval process that engages experts from across the organization for all new chemicals, gases, and change of use requests. Experts involved in the process at all sites include EHS, product safety, facilities, and the requesting process R&D team. The process evaluates the request for legal compliance, health and safety, and environmental management – including proper effluent and abatement, and, if required, waste disposal.
  - b. Physical controls – Once in use, we use leading technology and controls to monitor for leak detection, exposure controls, emission controls for gas abatement and wastewater treatment, and robust storage rooms and secondary containment to prevent release to the environment should there be a leak.
  - c. Emissions and hazardous-waste management – This involves chemical or other hazardous content materials that must be properly managed. Our controls help minimize the risk of unabated emissions to air or water-treatment systems. When chemicals

are not managed as part of process exhaust or by-products, they are properly collected and stored for potentially hazardous waste disposal. All chemical waste is properly characterized and managed, according to local regulations and capabilities. The regions in which waste is generated at ASM are covered by the Basel Convention definition of waste, and properly managed – in some cases as hazardous waste, and our goal is to have zero hazardous waste to landfill where landfill is not the best known method for disposal. ASM first focuses on minimizing hazardous waste. For example, our Phoenix, Arizona, site has been a very small quantity generator (VSQG) for several years. This is the lowest classification of hazardous waste generation status in the United States.

- d. Industry associations – We are engaged in industry associations to stay informed of the latest developments and knowledge related to chemicals and gases in our industry, including SEMI, SIA, SESHA, IEEE, and regional associations. This helps us stay informed, improve our operational safety, and collaborate with customers to support transitioning processes safely from R&D to their production processes.

Year	Hazardous waste (mtons)	Liquid chemical waste (m3)
2022	20.2	719.5
2023	8.7	985.3
2024	10.3	927

32.4 Fluorinated process GHG emissions

Fluorinated chemicals are used extensively across the semiconductor industry for etching and cleaning in the manufacturing process. These chemicals have unique

properties that allow for efficient plasma etching of wafer surfaces and cleaning of tool-chamber residues from wafer processing. They are also used as tracer gases to test and validate gas lines prior to shipping out ASM products. These compounds are stable when released into the atmosphere, and absorb radiation, resulting in high global-warming potentials. As such, they represent a significant portion of the semiconductor industry's GHG footprint.

Early industry action has allowed for abatement of a significant portion of the total potential emissions from these used chemistries, both from the utilized species and the by-product species resulting from their use. Investment in abatement by ASM has similarly resulted in a large reduction of the potential impact from utilizing these necessary process gases. In fact, recent years have shown installed abatement at ASM sites removing approximately 90% of process-gas GHG emissions that otherwise would have been emitted to the atmosphere. Emissions are provided below for ASM's direct F-GHG emissions (in tonnes CO<sub>2</sub> equivalents):

Year	NF3	CF4	SF6
2022	27.0	52.7	3.2
2023	43.5	62.3	50.6
2024	36.2	67.6	29.5

Values are reported in metric tonnes CO<sub>2</sub> equivalents.

### 32.5 Volatile Organic Compounds

Volatile Organic Compounds (VOCs) are another class of chemicals used extensively across the semiconductor industry, primarily in solvents and cleaning applications. They are able to remove contaminants in high-purity

semiconductor environments. Their effectiveness in use applications are due to their chemical properties, which also include high vapor pressures. This means that the chemicals will quickly volatilize (vaporize) into the gaseous phase, which can cause micro-contamination and safety concerns if not properly vented.

These chemicals represent a very small footprint by ASM, mostly resulting from cleaning applications at ASM sites. Emissions values are provided assuming 100% volatilization of purchased solvents to the atmosphere, which is therefore a conservative approach.

Year	Emissions (tonnes)
2022	1.05
2023	1.99
2024	1.40

### 32.6 Biodiversity

In 2024, we continued with our biodiversity roadmap, taking action to add biodiversity requirements into how we manage our own physical footprint. ASM published its first biodiversity policy in 2022, with the intention of integrating biodiversity considerations into relevant ASM business programs. In 2023, we performed our first-ever biodiversity risk assessment of our new greenfield site in Scottsdale, Arizona, where we plan to build our new North American headquarters. The risk assessment followed four steps: we conducted 1) a biodiversity baseline study, 2) performed a desk-based assessment, followed by 3) a field-based assessment, which concluded in 4) a biodiversity impact report. The assessment was based on the International Finance Corporation Performance Standard 6 framework. Various risks were identified, including birds with a high presence and invasive species. We integrated the

findings from that risk assessment into our Green Buildings program. This includes repotting all large trees for reintroduction on the property, to ensure a native ecosystem for the birds, and removing all invasive species and replacing them with native plantings.

Aligned with our Green Buildings program, we integrate biodiversity requirements within leading site certifications like Leadership in Energy and Environmental Design (LEED). The LEED certification framework covers pollution prevention, habitat protection, open space creation, rainwater management, heat island reduction, and light pollution reduction. These elements contribute to the points allocation under LEED's 'Sustainable Sites' category, guiding the biodiversity focus in our site design.

At our future Scottsdale facility, we aim for LEED Gold certification, focusing on reducing our environmental footprint and enhancing local biodiversity. Our biodiversity action plan, developed with third-party experts, outlines our approach to integrate biodiversity throughout the design, construction, and operational phases. In 2024, ASM completed native plants survey and developed plans for using native plants in landscape design.

The expansion of our Hwaseong Korea facility also targets LEED Gold certification. Situated in a developed high-tech park, our biodiversity impacts are limited, but efforts still focus on minimizing impacts and promoting biodiversity through heat island reduction, habitat restoration, and providing open spaces while minimizing light pollution.

Our Singapore manufacturing operations feature biodiversity-supporting elements in a Green Mark Gold+ certified building. Sustainable landscaping, water-scaping, sustainable product use, and heat island

reduction contribute to supporting local biodiversity, aligning with Singapore's vision of a green, sustainable city.

We also took steps to encourage biodiversity within our supply chain through the prescribed use of wood from certified sources for our packaging. With this requirement, we aim to reduce the risk of habitat destruction of native species. In 2024, we conducted a supplier survey to better understand adherence to our packaging specifications. While most suppliers meet these requirements, the survey highlighted areas for improvement, including the continued use of non-compliant materials by a small number of our partners.

These insights help us identify opportunities to reduce our packaging footprint and focus our future efforts. By engaging suppliers in conversations about sustainable practices, we aim to foster a collective commitment to preserve biodiversity and promote sustainable sourcing across the semiconductor industry, with ecosystem services in mind.

Moving forward, ASM will continue to prioritize biodiversity within our site designs. This includes seeking high building standards, and further addressing our impact on biodiversity through roadmaps for footprint reduction.

### 32.7 Supplier diversity

In 2024, ASM continued to track the diversity of our supply chain and continues to seek out new avenues to support opportunities within the broader supply chain. Building on our efforts from previous years, we have maintained our engagement with SEMI's Manufacturing Ownership Diversity working group. Through this collaboration, we can deepen our connections with



diverse-owned businesses worldwide, leveraging the working group's collective knowledge to create efficiencies, align approaches, and open new channels for engagement.

With a more targeted strategy in place, we aim to prioritize supplier engagement based on specific topics, risk profiles, and each supplier's scale and capabilities. By focusing on these areas, we seek to foster an inclusive supply chain that not only benefits our business, but also contributes to the growth and resilience of diverse-owned businesses in the semiconductor industry and beyond.

### 32.8 Living wage in the supply chain

In 2024, we continued building on our existing partnership with the Responsible Business Alliance (RBA) to establish a standard to engage our value chain on the topic of living wage. We remain focused on highlighting the critical importance of providing a living wage globally.

Our advocacy efforts over the past year helped maintain momentum with the RBA's Living Wage Task Force, to examine the broad impacts of a living wage and develop actionable guidelines for adoption across the industry. The Task Force is currently finalizing a practical guide for companies to help integrate living wage principles into their operations and supplier engagements. We aim to use these guides to survey our suppliers in 2025, and begin our engagement on the topic.

ASM remains actively engaged in supporting the RBA's efforts for standardization and will continue to collaborate with the RBA and our partners to drive tangible progress for employees throughout our value chain.

### 32.9 Supplier summits

ASM hosted two supplier summits in 2024 to enhance collaboration, share best practices, and drive responsible sourcing in the semiconductor supply chain. The first summit took place in April at ASM's Phoenix offices. This event provided a platform for suppliers to engage directly with ASM leadership on critical sustainability issues, including supply chain decarbonization, responsible minerals sourcing, and ensuring human rights are upheld. Participants shared insights on industry challenges, exchanged innovative solutions, and explored opportunities to strengthen collaborative sustainability initiatives. Through best-practice discussions, suppliers gained a deeper understanding of ASM's environmental and social expectations, reinforcing collective efforts toward more sustainable manufacturing processes.

The second summit was held in November at ASM's Singapore location, where the focus shifted towards collaboration opportunities for social and environmental impact. Key discussions covered upcoming regulatory requirements, good practices to supply chain engagement, and strategies for reducing waste and emissions across the value chain. This summit emphasized ASM's commitment to fostering transparency and long-term partnerships in the supply chain, ensuring alignment with global sustainability standards. It coincided with ASM's Supplier Day, for which details can be found in section 13.3 of this report.

As part of ASM's ongoing efforts to recognize and incentivize sustainability leadership, the company awarded three of its suppliers the PRISM Award for their sustainability contributions. These awards highlight suppliers who have demonstrated exceptional commitment to sustainability, whether through carbon

footprint reduction, innovative solutions, or ethical labor practices. By recognizing these achievements, ASM aims to encourage continuous improvement and inspire broader industry action toward a more resilient and responsible supply chain.

### 32.10 Tax principles

We see tax as an integrated part of doing business and believe that tax should follow business. It is embedded in the company's core values to care for societies in which ASM operates. This includes complying with tax legislation, and making sure we pay the correct amount of tax in the jurisdictions in which ASM operates, in line with the added value of the business operations in that jurisdiction.

ASM sees tax not only as a cost factor, but as a means to contribute to the societies and jurisdictions we operate. We are committed to provide timely, regular and reliable information on ASM's tax position.

ASM embraces the Dutch Tax Governance code, as published by the Confederation of Netherlands Industry and Employers (VNO-NCW). For 2024, ASM prepared a separate Tax Report in which the company provides transparency on tax related matters, including its tax principles and strategy. The Tax Report includes an overview of ASM's total tax contribution for 2024.

The 2024 Tax Report can be found on our [website](#).

### 32.11 Tax governance, risk management and compliance

ASM's tax department is responsible for tax management. The Management Board reviews and signs off on the tax strategy and tax principles, at a minimum on an annual basis. The Management Board (which is

ultimately responsible for tax-related matters) supervises the tax team via the CFO, who discusses adherence to the tax strategy and principles, together with the Head of Tax, with the Supervisory Board's Audit Committee.

ASM has a tax control framework in place to mitigate risks and the testing of our tax control processes and procedures takes place periodically by way of self-assessment. Our tax control framework is updated from time to time considering, for example, new tax (legislative) developments, changes in ASM business, and other external developments. The finance and tax team periodically review the tax controls, and the tax positions are part of the financial audit performed by our external auditor.

We are dedicated to the timely, accurate and correct filing of our tax returns and accompanying disclosures and making the respective tax payments when required.

#### Relationship with stakeholders

ASM proactively engages with tax authorities to establish and develop an open and transparent working relationship, including, where applicable, early engagement ahead of transactions and the filing of tax returns. If we seek certainty upfront, the company provides full disclosure of all relevant facts and circumstances. We engage constructively in national and international dialogue with governments, business groups and tax associations to support the development of new tax legislation and administration. This resonates with our tax strategy, through which we want to create an open and transparent dialogue and consider the interests of all stakeholders. We also take part in meetings of business groups and peer companies to learn, improve, and provide our view on tax developments.

32.11 Cybersecurity

Protecting ASM's physical and digital assets are crucial elements in preserving our business, fostering innovation, and upholding our position as a global leader in the semiconductor space. To achieve this, ASM Cybersecurity Management has introduced the Cybersecurity Assurance Framework, which aligns with industry best practices such as ISO 27001 and NIST. This framework provides a robust foundation for our cybersecurity initiatives and ensures a level of assurance and maturity in our cybersecurity posture.

One of our key targets is data loss prevention. In 2024, we have further implemented capabilities such as Information Rights Management (IRM), which bolsters our capacity to proactively prevent potential data loss, thereby safeguarding our invaluable assets.

Recognizing that the cornerstone of a robust cyber posture is physical security, ASM IP & Licensing and Global IT have collaborated on conducting periodic site audits. These audits not only drive strict adherence to security requirements but also align with our overarching business resiliency and risk-management activities, further strengthening our commitment to comprehensive security measures.

We have expanded our capabilities in detecting and responding to advanced threats to address the ever-evolving cyber-threat landscape. Our around-the-clock enhanced threat intelligence now covers internal and external threats, and continuous third-party monitoring of our key suppliers' cyber posture. This comprehensive expansion aims to achieve early detection and swift response to potential attacks.

We have a strong emphasis on readiness in response to threats in our continued focus on cyber drills. These

exercises simulate real-world scenarios and help us keep our response teams and playbooks current. They also help us maintain our vigilance towards evolving cyber threats.

# 33. Five-year non-financial table

Categories	Indicators	Units or Definition	2020	2021	2022	2023	2024
Employees	Employees	Number	2,583	3,312	4,258	4,542	4,558
	Employees including temp	Number	2,689	3,462	4,397	4,654	4,632
	New hires	Number	515	1,146	1,453	730	588
Diversity & inclusion	Employees	Male (% globally)	85 %	85 %	83 %	83 %	82 %
		Female (% globally)	15 %	15 %	17 %	17 %	18 %
	Supervisory Board	% Female/% Male	33 / 67%	43 / 57%	50 / 50%	50 / 50%	43 / 57%
	Management Board	% Female/% Male	0 / 100%	0 / 100%	0 / 100%	0 / 100%	0 / 100%
	Gender pay ratio (median)	Female-Male (total)	99 %	95 %	98 %	98 %	97 %
	Nationalities	Number	40	47	59	66	69
		Asia	58 %	63 %	62 %	59 %	57 %
		US	28 %	25 %	24 %	26 %	29 %
		Europe	14 %	12 %	14 %	15 %	14 %
	Foreign nationals workforce split	Asia	59 %	66 %	66 %	62 %	55 %
		US	29 %	23 %	21 %	24 %	31 %
		Europe	12 %	11 %	13 %	14 %	14 %
Other segmentation	Employees in R&D	Percent	24 %	20 %	22 %	24 %	25 %
	Employees covered by collective bargaining	Number	328	254	408	514	486
	Percent of worker under collective bargaining	Percent	11.7 %	7.7 %	9.6 %	11.3 %	10.7 %
	Voluntary attrition rate	Percent	8.3 %	11.1 %	10.2 %	6.6 %	6.8 %
	Total attrition rate	Percent	10.8 %	12.5 %	12.0 %	9.2 %	11.6 %
	% performance management completion	Percent	99.0 %	100.0 %	100.0 %	100.0 %	99.0 %
Health and safety	Injury rate	per 100 employees	0.58	0.50	0.55	0.48	0.47
	Recordable injury rate	per 100 employees	0.23	0.26	0.30	0.28	0.24
	Number of recordable injuries	Number	6	8	12	13	11
	Asia		3	2	5	4	4
	Europe		—	2	2	3	1

Categories	Indicators	Units or Definition	2020	2021	2022	2023	2024
	US		3	4	5	6	6
	Lost time injury rate (LTIR)	per 100 employees	0.16	0.17	0.17	0.11	0.06
	Fatality rate	per 100 employees	0	0	0	0	0
	Efforts to assess, monitor, reduce exposures	Qualitative	*See Health & safety, People section				
Training	Ethics training (bi-annual)	All employees	100.0 %	97 %	97 %	97 %	92 %
	Ethics training	New hire employees	99.2 %	98 %	99 %	94 %	95 %
	Technical training hours of ASM employees	Hours annually	28,624	46,727	87,134	53,418	53,103
Environmental	Electrical consumption <sup>1</sup>	MWh	44,915	56,286	62,366	76,371	82,194
	Grid electricity <sup>1</sup>	Percent from grid	100 %	100 %	100 %	100 %	99 %
	Renewable EACs purchased <sup>1</sup>	MWh (or EAC units)	366	41,563	45,787	67,281	82,194
	Renewable electricity <sup>1</sup>	Percent from renewable sources	10.0 %	74.0 %	73.0 %	88.0 %	100.0 %
	Scope 1 and 2 (market-based) GHG emissions <sup>1,2</sup>	Kilotonnes CO2e	25.0	9.8	11.1	7.9	3.8
	Gross global Scope 1 GHG emissions <sup>1</sup>	Kilotonnes CO2e	1.0	1.3	2.0	2.4	2.5
	Gross global Scope 2 (location-based) GHG emissions <sup>1</sup>	Kilotonnes CO2e	24.0	24.3	27.1	32.8	33.0
	Gross global Scope 2 (market-based) GHG emissions <sup>1,2</sup>	Kilotonnes CO2e	24.0	8.4	9.1	5.4	1.3
	Scope 1 and 2 (market-based) GHG per revenue (emission intensity) <sup>1,2</sup>	Tonnes CO2e/million €	18.8	5.6	4.5	3.0	1.3
	Water withdrawn absolute <sup>1</sup>	Cubic meters	140,506	175,774	168,517	221,406	223,884
	Water withdrawn from water-stressed regions <sup>1</sup>	Percent from high or extremely high water-stressed regions	47.0 %	43.0 %	37.0 %	41.0 %	44.0 %
	Water intake per revenue (water intensity) <sup>1</sup>	Cubic meters/million €	106	102	70	84	76
	Significant chemicals spills or releases to the environment	Number	0	0	0	0	0
	Non-hazardous solid waste recycle	Tonnes	714	1,429	1,981	1,557	1,545
	Non-hazardous solid waste landfill <sup>1</sup>	Tonnes	56	97	101	92	102
	Non-hazardous solid waste incinerated with energy recovery <sup>1</sup>	Tonnes	—	—	—	—	—
	Non-hazardous solid waste incinerated without energy recovery <sup>1</sup>	Tonnes	104	264	340	323	316
	Non-hazardous reuse - ASM diversion	Tonnes	122	215	453	352	395
	Reuse/recycle rate (ASM operations)	% solid waste reused or recycled	84 %	82 %	85 %	82 %	82 %
	Waste to landfill rate (ASM operations)	% solid waste sent to landfill	6 %	5 %	4 %	4 %	4 %
	Landfill diversion (in scope packaging reuse across ASM value chain)	Tonnes (through all reuse sectors)	163	260	542	500	539

Categories	Indicators	Units or Definition	2020	2021	2022	2023	2024
<b>Ethics compliance</b>	Reported confidential concerns via SpeakUp! and other channels	Number	9	8	8	14	27
	Confirmed cases of non-conformity to our Code of Business Conduct	Number	2	1	1	6	8
<b>RBA Risk assessment</b>	RBA self-assessment rating	RBA rating (corporate + all applicable facilities)	Low	Low	Low	Low	Low
<b>Supply chain</b>	Total direct supplier spend by region 1	Asia percent	71 %	72 %	72 %	74 %	77 %
		North America percent	22 %	20 %	20 %	19 %	20 %
		Europe percent	7 %	8 %	8 %	7 %	3 %
<b>Supply chain (critical, strategic suppliers)</b>	RBA Code of Conduct acknowledgement	Percentage	100 %	99 %	100 %	99 %	94 %
	RBA self-assessment questionnaire (SAQ) with low/medium risk	Percentage	77 %	84 %	84 %	84 %	89 %
<b>Material sourcing</b>	Critical/strategic suppliers conflict minerals CMRT received	Percentage	100 %	100 %	100 %	99 %	96 %
<b>Intellectual property</b>	Patents in force	Number	2,094	2,250	2,619	2,953	3,395
	Intellectual property protection & competitive behavior	Monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	0	0	0	0	0

<sup>1</sup> Where reported numbers for prior years have been revised, explanations are provided in the ESG Supplement.

<sup>2</sup> As ASM did not procure market-based renewable electricity in 2020, the table reflects location-based sourcing.



# 34. Non-IFRS financial performance measures

Certain parts of this Annual Report contain non-IFRS financial performance measures, which are not recognized measures of financial performance or liquidity under IFRS. These are commonly referred to as non-IFRS financial measures.

ASM uses items such as working capital and free cash flow as internal measures of financial performance. ASM's definition of these measures may not be comparable with similarly titled financial performance measures and disclosures by other entities.

These measures may not be indicative of the company's historical operating results nor are such measures meant to be predictive of the company's future results.

The presentation of the non-IFRS measures and non-financial operating data in this report should not be construed as an implication that ASM's future results will be unaffected by exceptional or non-recurring items.

ASM presents non-IFRS financial measures in this Annual Report because it monitors these performance measures at a consolidated level, and it believes that these measures are relevant to an understanding of the group's underlying financial performance, adjusted for the impact of purchase price accounting, earn-out expenses and impairment (reversal) on its investments in associates.

## Non-IFRS financial performance measures

Financial performance measures	Definitions
Adjusted cost of sales	Cost of sales adjusted for the amortization expenses of fair value adjustments from purchase price allocation
Adjusted gross profit	Gross profit adjusted for the amortization expenses of fair value adjustments from purchase price allocation
Adjusted gross research & development expenses	Gross research & development expenses adjusted for the amortization expenses of fair value adjustments from purchase price allocation
Adjusted selling, general and administrative expenses	Selling, general and administrative expenses adjusted for the amortization expenses of fair value adjustments from purchase price allocation
Adjusted operating result	Operating result adjusted for the amortization expenses of fair value adjustments from purchase price allocation
Adjusted finance income (expenses)	Finance income (expenses) adjusted for the change in fair value of the contingent consideration ("LPE earn-out")
Adjusted share in income of investments in associates	Share in income of investments in associates adjusted for the amortization expenses of fair value adjustments from purchase price allocation
Adjusted income taxes	Income taxes adjusted for the realization of temporary differences resulting from purchase price allocation
Adjusted net earnings	Net earnings adjusted for the amortization of fair value adjustments from purchase price allocations (net of tax), change in fair value of the contingent consideration ("LPE earn-out") and (impairment) reversal of ASMPT.
Cash flows from operating activities after investing activities	Cash flows from operating activities after investing is also referred to as free cash flow.
Operating cash flows before changes in working capital	Cash flows from operating activities excluding the impact of movements in working capital during the period.
Working capital	The sum of accounts receivable, contract assets, other current assets, inventories, provision for warranty, accounts payable, contract liabilities, accrued expenses and other payables.

# 35. Five-year financial tables

## Consolidated statement of profit or loss

(€ thousand, except per share data)	2020	2021	2022	2023	2024
Revenue	1,328,122	1,729,911	2,410,927	2,634,331	2,932,724
Cost of sales	(704,553)	(901,780)	(1,268,046)	(1,362,635)	(1,451,351)
<b>Gross profit</b>	<b>623,569</b>	<b>828,131</b>	<b>1,142,881</b>	<b>1,271,696</b>	<b>1,481,373</b>
Other income	(621)	4,071	40	69	7,391
<b>Operating expenses:</b>					
Selling, general and administrative	(156,802)	(189,547)	(276,620)	(308,727)	(316,811)
Research and development	(139,002)	(151,197)	(233,866)	(309,297)	(369,818)
<b>Total operating expenses</b>	<b>(295,804)</b>	<b>(340,744)</b>	<b>(510,486)</b>	<b>(618,024)</b>	<b>(686,629)</b>
<b>Result from operations</b>	<b>327,144</b>	<b>491,458</b>	<b>632,435</b>	<b>653,741</b>	<b>802,135</b>
Finance income	141	23	2,246	14,826	21,658
Finance expense	(2,304)	(2,012)	(4,098)	(13,600)	(10,582)
Foreign currency exchange gain (loss)	(22,862)	33,473	25,011	(21,375)	45,048
<b>Net finance income (costs)</b>	<b>(25,025)</b>	<b>31,484</b>	<b>23,159</b>	<b>(20,149)</b>	<b>56,124</b>
Share in income of investments in associates	31,950	74,382	<b>64,771</b>	17,540	9,643
Reversal of impairment of investments in associates, net	—	—	(215,389)	215,389	—
<b>Result before income taxes</b>	<b>334,069</b>	<b>597,324</b>	<b>504,976</b>	<b>866,521</b>	<b>867,902</b>
Income taxes	(48,673)	(102,615)	(115,863)	(114,448)	(182,168)
<b>Net earnings from operations, attributable to common shareholders</b>	<b>285,396</b>	<b>494,709</b>	<b>389,113</b>	<b>752,073</b>	<b>685,734</b>
<b>Per share data</b>					
<b>Basic net earnings per share (€):</b>					
<b>From operations</b>	<b>5.84</b>	<b>10.17</b>	<b>7.97</b>	<b>15.26</b>	<b>13.95</b>
<b>Diluted net earnings per share (€):</b>					
<b>From operations</b>	<b>5.78</b>	<b>10.11</b>	<b>7.93</b>	<b>15.18</b>	<b>13.89</b>
<b>Weighted average number of shares (thousand):</b>					
Basic	48,907	48,645	48,820	49,286	49,165
Diluted	49,359	48,909	49,097	49,555	49,386

## Consolidated statement of financial position

(€ thousand)	2020	2021	2022	2023	2024
<b>Assets</b>					
Right-of-use assets	23,387	26,938	31,663	35,395	36,525
Property, plant and equipment	213,967	257,017	312,053	384,949	482,901
Evaluation tools at customers	69,474	63,717	68,676	79,597	109,539
Goodwill	11,270	11,270	320,818	320,167	321,318
Other intangible assets	209,924	274,833	646,104	705,624	815,590
Investments in associates	742,714	848,812	686,341	861,937	903,625
Other investments	-	-	5,814	11,307	19,821
Deferred tax assets	196	69	181	179	34,651
Other non-current assets	6,590	6,792	7,071	15,778	18,810
Employee benefits	1,431	1,982	2,556	2,919	3,816
<b>Total non-current assets</b>	<b>1,278,953</b>	<b>1,491,430</b>	<b>2,081,277</b>	<b>2,417,852</b>	<b>2,746,596</b>
Inventories	162,199	211,841	538,425	525,690	567,007
Accounts receivable	280,061	446,724	580,823	487,727	788,958
Contract assets <sup>1</sup>	38,277	26,302	63,982	59,392	57,745
Income taxes receivable	553	18,614	18,778	29,957	4,836
Other current assets <sup>1</sup>	34,668	24,670	48,189	68,845	70,277
Cash and cash equivalents	435,228	491,507	419,315	637,264	926,501
<b>Total current assets</b>	<b>950,986</b>	<b>1,219,658</b>	<b>1,669,512</b>	<b>1,808,875</b>	<b>2,415,324</b>
<b>Total assets</b>	<b>2,229,939</b>	<b>2,711,088</b>	<b>3,750,789</b>	<b>4,226,727</b>	<b>5,161,920</b>
<b>Equity and liabilities</b>					
<b>Equity</b>	<b>1,854,724</b>	<b>2,241,754</b>	<b>2,749,319</b>	<b>3,226,811</b>	<b>3,747,155</b>
Other liabilities	13,045	15,886	18,604	22,684	23,589
Contingent consideration payable	-	-	78,649	88,304	-
Deferred tax liabilities	21,892	45,748	123,803	150,147	190,944
<b>Total non-current liabilities</b>	<b>34,937</b>	<b>61,634</b>	<b>221,056</b>	<b>261,135</b>	<b>214,533</b>
Accounts payable	124,507	175,436	243,499	177,686	282,554
Contingent consideration payable	-	-	-	-	97,002
Provision for warranty	18,987	27,181	34,219	22,716	33,401
Income taxes payable	67,857	14,519	43,785	21,925	66,243
Contract liabilities <sup>1</sup>	51,136	81,374	295,180	300,241	485,732
Accrued expenses and other payables <sup>1</sup>	77,791	109,190	163,731	216,213	235,300
<b>Total current liabilities</b>	<b>340,278</b>	<b>407,700</b>	<b>780,414</b>	<b>738,781</b>	<b>1,200,232</b>
<b>Total liabilities</b>	<b>375,215</b>	<b>469,334</b>	<b>1,001,470</b>	<b>999,916</b>	<b>1,414,765</b>
<b>Total equity and liabilities</b>	<b>2,229,939</b>	<b>2,711,088</b>	<b>3,750,789</b>	<b>4,226,727</b>	<b>5,161,920</b>

<sup>1</sup> Contract assets and liabilities are retrospectively separated from 'other current assets' and 'accrued expenses and other payables'.

Consolidated statement of cash flows

	Year ended December 31,				
(€ thousand)	2020	2021	2022	2023	2024
<b>Cash flows from operating activities</b>					
Net earnings from operations	285,396	494,709	389,113	752,073	685,734
<b>Adjustments to reconcile net earnings to net cash from operating activities</b>					
Depreciation, amortization and impairments	89,029	95,580	122,434	180,896	195,800
Net loss (gain) on sale of property, plant and equipment	-	(4,071)	(40)	185	(7,036)
Share-based compensation	12,792	17,242	29,877	37,308	41,576
Net finance (income) costs	11,974	(23,510)	3,886	(9,466)	(24,759)
Share in income of investments in associates	(31,950)	(74,382)	(64,771)	(17,539)	(9,643)
Impairment (reversal of impairment) of investments in associates, net	-	-	215,389	(215,389)	-
Income tax	48,673	102,615	115,863	114,448	182,168
Changes in evaluation tools at customers	(39,710)	(7,980)	(20,516)	(32,218)	(47,080)
Changes in employee benefits pension plans	(407)	(339)	198	98	(11)
Income tax paid	(8,055)	(151,623)	(90,481)	(118,766)	(97,563)
<b>Operating cash flows before changes in working capital <sup>1</sup></b>	<b>367,742</b>	<b>448,241</b>	<b>700,952</b>	<b>691,630</b>	<b>919,186</b>
<b>Decrease (increase) in working capital: <sup>1</sup></b>					
Accounts receivable	(93,000)	(154,030)	(125,068)	67,660	(294,635)
Other current assets	(724)	2,670	(14,081)	(21,817)	(1,522)
Inventories	498	(39,148)	(276,914)	(3,537)	(31,961)
Provision for warranty	3,814	7,140	5,097	(10,220)	9,933
Contract assets and liabilities	(28,036)	39,473	131,178	21,485	184,598
Accounts payable, accrued expenses and other payables	14,059	76,294	120,324	(9,314)	112,055
<b>Net cash from operating activities</b>	<b>264,353</b>	<b>380,640</b>	<b>541,488</b>	<b>735,887</b>	<b>897,654</b>

	Year ended December 31,				
(€ thousand)	2020	2021	2022	2023	2024
<b>Cash flows from investing activities</b>					
Capital expenditures property, plant and equipment	(95,441)	(72,199)	(101,184)	(154,103)	(167,895)
Proceeds from sale of property, plant and equipment	2,348	6,159	940	3,558	8,817
Capitalized development expenditures	(64,126)	(81,973)	(102,627)	(147,220)	(166,343)
Capital expenditures intangible assets	(3,230)	(2,680)	(4,662)	(16,389)	(30,492)
Dividend received from associates	16,142	36,297	48,919	30,753	13,668
Acquisition of subsidiaries, net of cash acquired	-	-	(314,295)	-	-
Other investments	-	-	(1,971)	(5,641)	(7,721)
<b>Net cash used in investing activities</b>	<b>(144,307)</b>	<b>(114,396)</b>	<b>(474,880)</b>	<b>(289,042)</b>	<b>(349,966)</b>
<b>Cash flows from operating activities after investing activities <sup>1</sup></b>	<b>120,046</b>	<b>266,244</b>	<b>66,608</b>	<b>446,845</b>	<b>547,688</b>
<b>Cash flows from financing activities</b>					
Payment of lease liabilities	(7,819)	(7,854)	(10,289)	(12,602)	(14,177)
Credit facility renewal fee paid	-	-	(660)	-	-
Purchase of treasury shares	(66,715)	(140,142)	-	(100,928)	(151,366)
Proceeds from issuance of treasury shares	2,774	4,630	-	863	-
Dividends to common shareholders	(98,688)	(96,893)	(121,650)	(123,383)	(135,487)
<b>Net cash used in financing activities</b>	<b>(170,448)</b>	<b>(240,259)</b>	<b>(132,599)</b>	<b>(236,050)</b>	<b>(301,030)</b>
<b>Foreign currency translation effect on cash and cash equivalents</b>	<b>(12,244)</b>	<b>30,294</b>	<b>(6,201)</b>	<b>7,154</b>	<b>42,579</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(62,646)</b>	<b>56,279</b>	<b>(72,192)</b>	<b>217,949</b>	<b>289,237</b>
Cash and cash equivalents at beginning of year	497,874	435,228	491,507	419,315	637,264
<b>Cash and cash equivalents at end of year</b>	<b>435,228</b>	<b>491,507</b>	<b>419,315</b>	<b>637,264</b>	<b>926,501</b>

<sup>1</sup> Non-IFRS performance measure. Please refer to chapter 34 'Non-IFRS performance measures'.



# 36. Declarations

## Corporate governance statement

The Dutch Corporate Governance Code was last updated in 2022. As of the reporting year 2024, Dutch-listed companies are required to report on compliance with this code.

The full text of the Dutch Corporate Governance Code can be found on the website of the [Monitoring Commission Corporate Governance Code](#).

ASM complies with the Dutch Corporate Governance Code, save for the deviations set out herein. ASM applies the relevant principles and best practices of the Dutch Corporate Governance Code applicable to the company, the Management Board, the Executive Committee and to the Supervisory Board, in the manner set out in the Corporate Governance section, as long as it does not entail disclosure of commercially sensitive information and other than as set out below:

- The Supervisory Board has delegated the contacts with the internal auditor to the Audit Committee. The Audit Committee is the body with the most financial experience, best equipped to properly discuss with the internal auditor, in which five out of seven Supervisory Board members are represented. However, the internal auditor may always contact the Chair of the Supervisory Board directly in case there are any matters to escalate which is also laid down in the Audit Committee Charter. The internal audit plan, the remuneration of the internal auditor and an appointment or dismissal of the internal auditor require approval from the Supervisory Board.

Moreover, the Audit Committee shares full minutes of all its meetings with the Supervisory Board, so that the Supervisory Board remains informed of all items discussed. This means that ASM deviates from best practice provisions 1.3 (as the Supervisory Board does not oversee the internal auditor directly, but through the Audit Committee). Moreover, pursuant to best practice provision 1.3.5, the internal auditor should report hierarchically to a member of the Management Board, preferably to the CEO. The internal auditor does report to a member of the Management Board, but to the CFO as ASM believes the CFO is best equipped with this task.

- For the same reasons as included in the previous bullet, the Audit Committee, rather than the Supervisory Board, has maintained the contact with the external auditor, and KPMG Accountants N.V. has attended several Audit Committee meetings. This means that ASM deviates from best-practice provisions 1.6.2 (it is the Audit Committee instead of the Supervisory Board that gives the external auditor a general idea of the content of the reports relating to its functioning).
- Pursuant to best-practice provision 3.1.3, the Management Board should inform the Supervisory Board about the remuneration of the members of the Executive Committee who are not Management Board members and discuss this remuneration with the Supervisory Board annually. As management had not finalized the benchmark it was conducting on executive committee remuneration, it will share and discussed the remuneration in the first half of 2025,

rather than in 2024, which means ASM has not managed the finalizing of this in reporting year 2024.

Corporate governance-related documents are available on our [website](#). These include, among others, the Articles of Association, Supervisory Board Profile, Rules of the Supervisory Board, Rules of the Management Board, Rules of the Executive Committee, the Audit Committee Charter, the NSR Committee Charter, the Technology Committee Charter, the COBC, the Stakeholder dialogue policy, the anti-fraud policy, the rules concerning Insider Trading, the Remuneration Policy of the Management Board, the Remuneration Policy of the Supervisory Board, the Diversity, Equity & Inclusion (DE&I) policy, the SpeakUp! procedure and policy regarding communications and bilateral contacts with shareholders.

## Responsibility statement

The members of the Management Board state that, to the best of their knowledge, the statutory financial statements prepared in accordance with EU-IFRS and Title 9 of part 2 of the Dutch Civil Code as included in this Annual Report 2024 provide a true and fair review of the assets, liabilities, financial position, and results of the company and its subsidiaries included in the consolidated statements, and that the management report provides a true and fair review of the position and the business of the company and its subsidiaries, and the Annual Report 2024 provides a fair review of the state of affairs at the balance sheet date, the development / performance during the financial year of

the business (and group as a whole) and the principal risks that ASM faces.

For more on the risks ASM faces, the internal risk management and control framework and the declarations provided in relation thereto pursuant to the Dutch Corporate Governance Code, see chapter 19.

## Article 10 EU takeover directive decree

The Management Board states that the information required under Article 10 of the EU Takeover Directive Decree is disclosed herein to the extent that it is applicable to ASM:

- This includes a change of control clause, which could lead to prepayment of any outstanding amount. See note 17 'Credit facility';
- ASM is party to commercial agreements, including lease agreements, which occasionally include change of control clauses;
- ASM is party to an agreement with the Stichting Continuïteit ASM International pursuant to which the Stichting is granted an option to acquire up to a pre-determined number of our preferred shares in the event of a potential public takeover. See chapter 21, section Stichting Continuïteit Agreement; and
- In case of a change of control, Management Board members may be entitled to a severance amount as set out in the Remuneration Policy for the Management Board and the Remuneration report in chapter 26.

# Ahead of what's next

## **Feedback and questions**

Please feel free to contact us if you have any feedback on or questions about our Annual Report:  
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Published on March 6, 2025