

INTERIM REPORT

2022

FOR THE SIX MONTH PERIOD
ENDED JUNE 30, 2022



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COMPANY PROFILE

ASMI supplies wafer processing equipment to the leading semiconductor manufacturers, primarily for the deposition of thin films. We design, manufacture, sell, and service our deposition tools to supply our customers with the advanced technologies to produce semiconductor devices, or integrated circuits (ICs). We also provide maintenance service, spare parts, and process support to our customers globally at their fabs.

BASICS OF SEMICONDUCTOR MANUFACTURING

The process of making semiconductor chips at our customers' fabs is highly complex and costly. Semiconductor 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 contamination from small particles that could negatively affect the circuitry on the chips. There are many steps to creating a semiconductor chip, involving various types of wafer-processing equipment. These include photolithographic patterning, depositing thin-film layers, etching to remove material, and thermal treatments.

ASMI's systems are designed for deposition processes when 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 necessary to manufacture a chip.

OUR PRODUCT TECHNOLOGIES

ASMI's ALD, epitaxy, PECVD and vertical furnace systems are all used in the manufacturing process for the world's most advanced semiconductor chips. It is increasingly difficult for the semiconductor industry to achieve each subsequent technology node, which is fueling the demand for more advanced process steps and new materials. Our equipment is a key component in enabling the industry to advance its technology roadmap.

ALD

ASMI has a leading position in atomic layer deposition (ALD), which is our largest product line and the most advanced deposition method in the market. ALD makes it possible to create ultra-thin films of exceptional material quality, uniformity, and conformality.

EPITAXY

Our second largest product line is epitaxy (Epi), which is the process of depositing highly controlled silicon-based crystalline films. It is one of the fastest-growing segments in the deposition market. The number of Epi steps is increasing as logic/foundry customers move to smaller nodes, and more powerful devices are needed for mobile applications and electric vehicles.

PECVD AND VERTICAL FURNACES

The relatively large size of the PECVD and vertical furnace segments makes them attractive to ASMI where ASMI addresses some niche segments in these markets. We have seen solid increases in the total revenue of these two product lines in last years.

SERVICE AND SPARE PARTS

Technical service and spare parts are important product offerings for our business. To ensure speedy availability, our global service teams are based close to our customers at regional and local service centers. We are expanding our offering with new outcome-based services.

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 challenges and opportunities will change over time, we continue to bring our breakthrough technologies into volume manufacturing.

PURPOSE

Our purpose is to improve people's lives through advancing technologies that unlock new potential. ASMI is a leader in innovation for the semiconductor industry. With our technology, we help move the industry roadmap forward, driving innovation in the electronics market and improving people's lives.

MISSION

Our mission is to enable our customers' success by creating leading-edge semiconductor process products, services, and new materials. Our deposition technology helps our customers address their device and process-development challenges. By partnering with leading chipmakers to develop new materials, processes, and technologies that support their roadmaps, we drive innovation in semiconductor technology. This helps create new, improved semiconductor devices. We have a deep understanding of the important requirements of the next generations of device roadmaps. This enables us to develop value-added service solutions to the industry's critical issues.

STRATEGY

Our strategy is Growth through Innovation. Innovation is at the core of what we do at ASMI. With our global, networked R&D model, we can collaborate closely and early with our customers, industry partners, and universities. Over the past 20 years, we have accumulated a vast amount of know-how in ALD materials and chemistries. Coupled with decades of experience in developing reactors and processes, ASMI has a legacy of innovation of more than half a century.

SIX KEY ELEMENTS OF OUR STRATEGY:

Our strategy is based on the following six strategic objectives:

› GROW ALD BUSINESS BY MAINTAINING LEADERSHIP IN LOGIC/FOUNDRY AND EXPANDING IN MEMORY

Our ALD business is a key priority. ALD will continue to grow as a core technology as our customers transition to the next nodes. We expect the ALD market to be the fastest-growing segment in the deposition market in coming years. We are focused on maintaining our leading position in the logic/foundry segment, and increasing our market share in the memory segment. We estimate that the single-wafer ALD market will grow to US\$3.1-3.7 billion in 2025. Our goal is to have a market share larger than 55% in 2025.

› INCREASE EPI MARKET SHARE

Epitaxy has become a second growth engine in our product portfolio. Our Intrepid product has enabled us to make successful inroads in advanced CMOS part, while increasing our presence in the analog/power Epi segment. We estimate the Epi market will grow from US\$0.8 billion in 2020 to US\$1.5-1.8 billion in 2025. Our goal is to have a market share of more than 30% by that time.

› SELECTIVE GROWTH IN VF AND PECVD NICHES

In vertical furnaces and PECVD, we want to further develop our current niche positions by addressing targeted growth opportunities.

› GROW SPARES & SERVICES BUSINESS

We aim to accelerate the growth of our spares & services business through continued expansion of our installed base, and growing our offerings to include differentiated outcome-based services. These are in addition to our existing offering of spare parts, maintenance and support services. The focus of the new offerings will be on creating value for our customers. For us, it means being able to expand our service to our entire installed base, not all of which is maintained by ASMI today. Through approaches like this, we are able to unlock our latent installed base as a solid business-growth driver.

› ACCELERATE SUSTAINABILITY

Our focus is to deliver long-term sustainable value creation for all our stakeholders and have a positive impact on the world. We aspire to be a sustainability leader in our industry, evidenced for example by: our recent Net Zero by 2035 target which is among the most ambitious in our industry, being consistently recognized and awarded as an industry safety leader by key customers, and by improving our CDP Climate and Water scores. Furthermore, we will do so by continuing to address the key ESG topics and opportunities that are aligned with and responsive to our stakeholder priorities.

› DRIVE STRONG FINANCIAL PERFORMANCE

Healthy profitability will allow us to continue investing in growth. To this end, we have formulated our profitability targets for the period 2021-2025. We strive to achieve sustainably higher gross margins between 46% and 50%, and an improved operating margin of 26% to 31%, generating strong free cash flow.

FIVE KEY ENABLERS FOR OUR STRATEGY

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

› BEST PEOPLE

Our employees are our biggest asset. We strive to create a safe, inspiring, and motivating workplace where our people have the opportunity to use their talents, excel, and develop their potential as we work together to deliver the cutting-edge technologies of tomorrow. Following the continued rapid expansion in our workforce, we are focusing on strengthening ASMI. This means developing our talent pool with more long-term career progression and training. It also means strengthening and unifying our ASMI culture. Our core values – We Care, We Innovate, We Deliver – will help us grow employee engagement, and shape an inclusive and diverse culture. This will support us in attracting, retaining, and developing the talent we need to support ASMI's growth.

› LEADING-EDGE INNOVATION

The core element in our overall growth strategy is continuous innovation. This provides ASMI with a leading technological competitive advantage. Our R&D spending is focused on developing new materials and process solutions that enable additional applications. Continuous product improvements in performance, reliability and cost of ownership is key. We are also focused on improving the energy and resource efficiency of our products. 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.

› 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.



› FLAWLESS OPERATIONAL EXCELLENCE

While technology leadership remains crucial, operational excellence is essential to further strengthen our future position. We aim to provide our customers with dependable, leading-edge products ownership. We continuously focus on further improving the effectiveness and efficiency of our organization. Following our strong growth in recent years, we need to strengthen our organization and business processes in specific areas. We aim to strengthen our new product introductions processes to provide our customers with additional on-site support, as the pace of technological change continues to accelerate.

› STRONG FINANCIAL POSITION

We strive to maintain a strong balance sheet that allows us to continue investing in R&D. To this end, our target is to increase the minimum amount of cash on our balance sheet from €300 million to €600 million in the period until 2025 (as announced at our Investor Day in September 2021). At the end of June 2022, we had €552 million in cash and cash equivalents. In the first half 2022, ASMI generated a healthy free cash flow of €181 million. We intend to continue paying a sustainable dividend, and use excess cash for the benefit of our shareholders through share buybacks.



LONG-TERM VALUE CREATION

We create value through our technologies by enabling leading semiconductor manufacturers to deliver the world of tomorrow through our innovative processing solutions, equipment, and services. The process solutions delivered on our equipment enable a range of chip technologies, such as more powerful microprocessors and higher density memory devices, all operating at lower power. The advancements of new semiconductor technologies benefit our society and improve people's lives.

GREATER PERFORMANCE, REDUCED ENERGY CONSUMPTION

Our advanced deposition technologies support cost-effective products that enable the electronic devices of today and of the future. The industry's relentless push to follow Moore's Law, and complex new device architectures, leads to the continuous demand for smaller, faster, and cheaper semiconductor components. The technologies required to achieve these advancements depend heavily on equipment such as ASMI's process tools. Furthermore many advanced processes require developing new materials. Innovation is the growth engine that drives our R&D programs to develop the equipment and processes that our customers' roadmaps require. For example, ASMI's ALD and Epi tools enable high-performance transistors that can operate at lower power levels. This is a key enabler for products such as smartphones, Internet-of-Things (IoT) devices, which have substantial functionality in a small form factor with good battery life. More powerful and energy-efficient processors and memory chips also enable new end-market applications such as artificial intelligence, which in turn can contribute to advances in healthcare, education, and many other industries.

This value creation benefits all our stakeholders. Our people are our key asset, our role is to create an inclusive workplace and culture. Thanks to our leading position in advanced deposition solutions, our employees can enjoy the challenge of developing cutting-edge solutions. Our suppliers, in addition to a higher activity level, benefit from improved quality and efficiencies resulting from our supplier process control program. Consumers benefit from the enhanced functionality and added value provided by the new electronic products enabled by advanced semiconductors. A great example of this is the widespread use of smartphones. Continuous advancements in chips empower global consumers: they have extensive computing power in the palm of their hand that increasingly drives their daily activities.

OUR BUSINESS MODEL

We strive to create value for the company and all of our stakeholders. Our technology enables the precision deposition of thin films in various steps in the fabrication of semiconductor chips. This helps our customers build the most advanced chips used in electronics systems throughout society. To achieve this, we are working with our customers to develop innovative solutions, while constantly looking at what is best for our investors, employees, society, and other stakeholders. Our products and process solutions benefit society by helping to enable a wide range of advanced logic and memory chips used in most of the world's electronic systems. Fundamental to our model is R&D investment, including basic chemical, materials, and feasibility research, followed by process and product developments. One of our strengths is more than two decades of accumulated know-how in ALD materials and chemistries.

We aim to continuously recruit world-class technologists in the semiconductor process and equipment technology fields. We cooperate with research institutes and our customers to understand the technology roadmap challenges, and to develop the appropriate process and equipment solutions required. Our manufacturing facilities allow us to deliver high-quality systems on schedule so our customers can ramp their fabrication plants. We support our customers globally with process and equipment services, and spare parts. We are increasing our focus on integrating sustainability and circularity in our product lifecycle in the areas of innovation, design, system operation, refurbishment, and services.



HOW WE ENHANCE SUSTAINABILITY

Our focus is on long-term sustainable value creation for all our stakeholders. Sustainability is an integral part of our Growth through Innovation strategy. In 2021, we defined our sustainability focus and priorities for the next horizon – the years 2021 to 2025, and beyond. These are: innovation, people, planet, responsible supply chain, and sustainability governance. Below is an overview of our five sustainability focus areas.



INNOVATION

- **Product sustainability**
Improving the energy and resource efficiency of our products
- **Product safety**
Improving the safety of our products and our customer's operations



PEOPLE

- **Safety**
Making a positive impact on the safety of our industry
- **Our team**
Unleashing everyone's potential at ASMI
- **Community, industry, society impact**
Positively impacting our communities, industry, and the world around us



PLANET

- **Net Zero**
Achieving our Net Zero 2035 target
- **Climate adaptation**
Addressing climate change risks and opportunities



RESPONSIBLE SUPPLY CHAIN

- **Safety**
Ensuring safety throughout our supply chain
- **Net Zero**
Collaborating to address our carbon footprint
- **Product sustainability**
Improving ASMI product sustainability
- **Human rights**
Ensuring the ethical treatment of people throughout our supply chain



SUSTAINABILITY GOVERNANCE

- **Cybersecurity and IP protection**
Assuring robust cybersecurity and IP protection
- **Disclosures**
Providing transparency, integrity, and assurance



CUSTOMERS AND MARKETS

MARKETS

The wafer fab equipment (WFE) market amounted to US\$89 billion in 2021 (VLSI, May 2022). Within wafer processing equipment, our focus is on deposition equipment, which comprises about a 20-25% of WFE. Within deposition, ALD and Epi are fast-growing market segments and are expected to outgrow the total WFE market.

LOGIC, FOUNDRY AND MEMORY SEGMENTS

The semiconductor market can be split into three primary segments: logic, foundry and memory. ASMI supplies equipment to the leading semiconductor manufacturers in all of these segments:

- › The logic market is made up of manufacturers that create chips, such as microprocessors, that are used to process data and are used in smartphones, laptops and computers;
- › The foundry market consists of businesses that operate semiconductor fabrication plants to manufacture the designs of other so-called fabless semiconductor companies; and
- › The memory market covers manufacturers that make chips that store information either temporarily, such as Dynamic Random Access Memory (DRAM), or permanently, such as NAND non-volatile memory.

OTHER SEGMENTS

There are other smaller yet still important segments for which ASMI supplies equipment, such as analog and power. Analog and power semiconductors are devices used in a wide range of electronic systems for mobile products, vehicles, telecommunications, and other applications. Wafer manufacturing is another relatively small segment we participate in. This is for the processing of bare silicon wafers before they are delivered to semiconductor fabs.

CUSTOMERS

The goal of customers is to build faster, cheaper, and increasingly more powerful semiconductors for each new technology node. We work closely with our customers to make this a reality, forging mutually beneficial partnerships to help develop their technology roadmap. 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, increase productivity, and lower operating costs per wafer. The result is value creation for our customers.

While doing so, we work on the edge of what is technologically possible. This creates a very attractive professional and learning environment for our employees, and generates long-term value for all our stakeholders. We serve society by helping our customers produce the chips needed for the advanced electronics that deliver a world of improvements and opportunities.

We are engaged with, responsive, and committed to addressing the collectively broad range of our customer's sustainability expectations, which include detailed inquiries and periodic audits. We collaborate with our customers on sustainability topics wherever possible, to expand our contributions and impact.

INNOVATION AND PRODUCTS

GLOBAL RESEARCH

The industry's relentless push to follow Moore's Law, and complex new device architectures, leads to the continuous demand for smaller, faster, and cheaper semiconductor components. The technologies required to achieve these advancements depend heavily on equipment such as ASMI's process tools. Furthermore, many advanced processes require developing new materials. Innovation is the growth engine that drives our R&D programs to develop the equipment and processes our customers' roadmaps require.



ASMI has a globally decentralized R&D and engineering organization, with a corporate R&D group. Resources are located mainly in Helsinki, Finland, and Leuven, Belgium, with additional resources in our product-development sites in the Netherlands (Almere), the US (Phoenix), Japan (Tama) and South Korea (Dongtan). The R&D effort is centrally managed from our headquarters in the Netherlands.

The corporate R&D group addresses common needs for advanced process and materials development. It also looks at process integration work for the advanced nodes that are four to eight years away from initial semiconductor production at our customers.

The product-development sites are centers of excellence for a subset of products and technology. We collaborate globally with R&D partners, suppliers, and customers. Our R&D portfolio, and technology and product roadmaps, are aligned with our customers, and mutually, with a defined controlled process. We perform quarterly reviews of our R&D programs and portfolio to make sure they align with our strategy and short-term industry needs. We also perform annual roadmap and technology reviews to match up with the long-term needs of the industry.

GLOBAL OPERATIONS

MANUFACTURING OPERATIONS

ASMI has global manufacturing sites in Singapore, the Netherlands, and South Korea. Our manufacturing strategy is guided by a Plan of Record (PoR) process. This consists of detailed analyses of all the critical parameters that will allow us to deliver tools in the most efficient manner – maximizing our global footprint while aiming to be closer to our customers. Our manufacturing facilities comply with RBA Code of Conduct requirements, and have self-assessed as ‘low risk’ using the RBA SAQ tool.

On top of ASMI’s new facility in Singapore, which we completed at the end of 2020, our manufacturing footprint and capacity have increased steadily through initiatives such as innovative line design, modular test expansion, and facility enhancements. Globally, ASMI will continue to expand even more in 2022 and beyond. We started the work on the second manufacturing floor in our new Singapore facility, which we expect to be ready for production in early 2023. This will further expand our capacity, and provide us with the flexibility to deliver on our 2025 growth plans.

GLOBAL SUPPLY CHAIN

ASMI operates globally and has partnerships with suppliers in more than 20 countries across Asia, North America, and Europe. ASMI has high expectations of suppliers around operational flexibility and responsiveness. This means working proactively with supplier partners to make sure they are able to assess and manage risks. The impact of COVID-19, global shortages, and limited labor force, have tested this flexibility and responsiveness over the past two years. ASMI mitigated the impact through, amongst others early ordering, alternative sourcing and working closely with customers and suppliers. Hence, we were able to deliver on the largest part of our customer requirements and to meet our sales guidance for the first half of 2022.

In spite of the COVID-19 related supply chain challenges, ASMI continues to strive to build a global, world-class supply chain to enable its growth and innovation. The speed and volume of product development and production ramps, continues to challenge the supply chain. With engineering teams located around the world, setting up improved support and faster turnaround of supply is key to feeding the innovation and product-development engine.

PEOPLE

To ensure the long-term success of our employees and our company, ASMI's people initiatives and roadmap focus on establishing us as an industry employer of choice. Since 2021, we have been introducing numerous employee branding initiatives to help ASMI achieve its growth ambitions by attracting the best in our industry. We had 3,805 employees as of June 30, 2022, an increase of 15% compared to December 31, 2021.

Long-term career progression is core to retaining our employees. We are in a strong, new growth phase and need to continually develop our people and managers. To this end, ASMI implemented a talent-management approach built around employees' strengths. This provides tailored support and career development opportunities. We are also committed to achieving 20% women working at ASMI by 2025 (compared to 15% at the end of 2021).

At ASMI, we aim to be a truly inclusive and diverse company, a place where everyone is enabled to be able to do their best and be their whole self. ASMI has a proven track record for equal pay, a key component to any successful, fair, inclusive, and diverse workforce.

ASMI is dedicated to creating a safe and healthy workplace. We also take responsibility for international employment standards across our supply chain. Our Global Employment Standards (GES) summarize our policy and standards regarding human rights throughout our global operations. They are written with everyone in our value chain in mind. The GES reflect the principles laid out by the United Nations in the Guiding Principles on Business and Human Rights, and support the RBA Code of Conduct labor standards framework.

SHAREHOLDERS

SHARE LISTING

ASMI's shares are listed on Euronext Amsterdam under the symbol ASM and are included in the AEX index. Our NY Registry Shares have been eligible for trading on the over-the-counter (OTC) market in the United States under the symbol ASMIY since 2015. Further information can be found on: www.otcm Markets.com.

ASMI's market capitalization as of the end of June 2022 was €11,615 million, based on the closing share price of €238.60 on Euronext Amsterdam on June 30, 2022, and 48,681,531 total outstanding shares at the end of June (excluding 615,863 treasury shares).

SHARE PERFORMANCE

On June 30, 2022, the closing price of ASMI's shares on Euronext Amsterdam was €238.60. The highest closing share price since January 2022 was €390.80, on January 03, 2022, and the lowest was €233.60, on June 23, 2022.

CAPITAL ALLOCATION POLICY

The key priority for ASMI is to invest in the growth of our business. That means spending on CapEx and R&D, and also scanning the market for potential M&A opportunities. Next to that, it remains key for us to maintain a strong balance sheet. We intend to gradually increase towards a cash target of €600 million. This is up from a cash target of €300 million in earlier years, as we also communicated last September, and reflects the increased size of our company.

We remain committed to paying a sustainable dividend. We paid a dividend of €2.50 per share over 2021. This is a 25% increase, compared to the regular dividend of €2.00 paid over 2020.

Our policy regarding excess cash is also unchanged. We plan to return excess cash to our shareholders. Last December, we completed the €100 million share buyback program that started in July 2021. With the publication of our Q4 2021 results we announced a new €100 million buyback program, to be executed in the 2022-2023 timeframe.



MANAGEMENT BOARD AND EXCO (EXECUTIVE COMMITTEE)

The Management Board is assisted by the ExCo in managing the Company, including day-to-day management, strategic matters, leadership, culture and sustainability. The ExCo was established as announced on February 1, 2022, consists of the Management Board members and, currently, four other senior executive leaders.

The Management Board, supervised and advised by the Supervisory Board, manages ASMI's strategic, commercial, financial, and organizational matters, and appoints senior managers. The Supervisory Board supervises and advises the Management Board in the execution of its tasks and responsibilities, and establishes members' individual remuneration within the boundaries of the remuneration policies approved by the Annual General Meeting of Shareholders and the recommendations by the Nomination, Selection and Remuneration Committee.

On May 16, 2022, the Annual General Meeting of Shareholders appointed Hichem M'Saad as the third member of the Management Board.

COMPOSITION

Benjamin Loh, President and Chief Executive Officer

Paul Verhagen, Chief Financial Officer

Hichem M'Saad, Chief Technology Officer

SUPERVISORY BOARD

The Supervisory Board oversees strategic and commercial policymaking by the Management Board and the way in which it manages and directs ASMI's operations and affiliated/associated companies. Members of the Supervisory Board are appointed by the Annual General Meeting of Shareholders upon binding nomination by the Supervisory Board.

COMPOSITION

Pauline van der Meer Mohr, Chairperson

Stefanie Kahle-Galonske

Didier Lamouche

Marc de Jong

Adalio Sanchez

Monica de Virgiliis

KEY FIGURES

(EUR million, except employees and per share data)	Six months ended June 30,	
	2021	2022
New orders	926.3	1,648.4
Backlog	445.6	1,408.3
Book-to-bill	1.1	1.5
Revenue	805.7	1,076.4
Gross profit	392.9	513.1
Gross profit margin %	48.8%	47.7%
Operating result	242.9	290.6
Operating margin %	30.1%	27.0%
Share in income of investments in associates	27.3	43.9
Net earnings from operations, attributable to common shareholders	230.9	302.9
Non-current assets	1,343.4	1,682.1
Current assets	1,041.4	1,456.5
Total assets	2,384.8	3,138.6
Non-current liabilities	46.2	71.2
Current liabilities	347.9	531.3
Total equity	1,990.6	2,536.2
Net working capital	252.1	385.9
Net debt ¹⁾	(465.1)	(552.1)
Cash flows from operating activities	195.5	283.1
Cash flows from investing activities	(38.0)	(101.7)
Cash flows from financing activities	(138.3)	(126.9)
Number of employees	2,780	3,805
Per share data		
Basic net earnings per share	4.75	6.23
Diluted net earnings per share	4.71	6.19
Weighted average number of shares (thousand)		
Basic	48,650	48,629
Diluted	49,018	48,915

¹⁾ Net debt is defined as debt minus cash and cash equivalents.

INTERIM MANAGEMENT BOARD REPORT ¹

ASMI CONSOLIDATED RESULTS FOR THE SIX MONTHS ENDED JUNE 30, 2022

The following table shows the operating performance for the six months ended June 30, 2022, compared to the same period of previous year:

(EUR million)	Six months ended June 30,		Change
	2021	2022	
New orders	926.3	1,648.4	78%
Backlog	445.6	1,408.3	216%
Book-to-bill	1.1	1.5	
Revenue	805.7	1,076.4	34%
Gross profit	392.9	513.1	31%
Gross profit margin %	48.8%	47.7%	
Other income	0.5	–	(100)%
Selling, general and administrative expenses	(86.3)	(128.2)	49%
Research and development expenses	(64.3)	(94.4)	47%
Operating result	242.9	290.6	20%
Operating margin %	30.1%	27.0%	
Net finance income (expense)	(1.1)	(0.3)	0.8
Foreign currency exchange gain (loss)	13.9	35.5	21.6
Income taxes	(52.1)	(66.8)	(14.7)
Share in income of investments in associates			
ASMI share in net earnings ASMPT	33.3	50.5	17.2
Amortization of fair value adjustments from PPA	(6.0)	(6.6)	(0.6)
Net earnings from operations, attributable to common shareholders	230.9	302.9	72.0

Backlog includes orders for which purchase orders or letters of intent have been accepted, typically for up to one year. Orders are subjected to the risk of cancellation or rescheduling by customers. In addition, orders could be subject to price negotiations and changes in specifications as a result of changes in customers' requirements. Due to possible customer changes in delivery schedules and requirements and to cancellation of orders, our backlog at any particular date is not necessarily indicative of actual revenue for any succeeding period.

The following table shows the level of new orders for the six months ended June 30, 2022, and the backlog as per June 30, 2022, compared to the comparable period of 2021:

(EUR million)	Six months ended June 30,		% Change
	2021	2022	
Backlog at the beginning of the year	323.6	811.3	151%
New orders	926.3	1,648.4	78%
Revenue	(805.7)	(1,076.4)	34%
FX-effect	1.4	25.0	
Backlog as per reporting date	445.6	1,408.3	216%
Book-to-bill ratio (new orders divided by revenue)	1.1	1.5	

¹ Amounts are rounded to the nearest tenth of million euro; therefore amounts may not equal (sub) totals due to rounding.

The backlog increased from €446 million at the end of June 30, 2021 to €1,408 million as per June 30, 2022. New orders for the first half year 2022 increased to €1,648 million, up 70% at constant currencies. The book-to-bill ratio for the first half year was 1.5. In terms of customer segments, new orders in the first half year 2022 were led by foundry, followed by memory and then logic.

REVENUE

(EUR million)	Six months ended June 30,		% Change
	2021	2022	
Equipment revenue	654.0	894.8	37%
Spares & services revenue	151.7	181.6	20%
Total	805.7	1,076.4	34%

Revenue for the six months ended June 30, 2022 increased to €1,076 million, up 27% at constant currencies (34% as reported). Revenue in the first half year 2022 were led by foundry, followed by logic and then memory.

Equipment revenue in the first half year 2022 increased by 31% at constant currencies (37% as reported). Spares & services revenue in the first half year 2022 increased by 13% at constant currencies (20% as reported).

GROSS PROFIT

(EUR million)	Six months ended June 30,	
	2021	2022
Gross profit	392.9	513.1
Gross profit margin	48.8%	47.7%

The gross profit margin for the six months ended June 30, 2022, slightly decreased to 47.7% compared to 48.8% in the same period last year. The change was largely explained by mix. The impact of currency changes on gross profit was an increase of 5% year-on-year.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses (SG&A) increased by 49% compared to the level in the first half year-on-year. This is mainly explained by increased headcount and employee compensation and some other investments to support the growing business. As a percentage of revenue, the SG&A expenses increased to 11.9% in the first half last year from 10.7% in the same period this year. The impact of currency changes for the first half year was an increase of 4% year-on-year.

RESEARCH AND DEVELOPMENT (R&D) EXPENSES

(EUR million)	Six months ended June 30,		% Change
	2021	2022	
Gross research and development expenses	(90.0)	(130.1)	45%
Capitalization of development expenses	37.7	50.9	35%
Amortization of capitalized development expenses	(11.0)	(15.2)	38%
Impairment of capitalized development expenses	(1.1)	–	(100)%
Net research and development expenses	(64.3)	(94.4)	47%

Net R&D expenses increased by 47% compared to the first half year-on-year. The increase was mainly due to increased headcount and R&D projects, partly offset by higher capitalization, which increased from €38 million to €51 million. Excluding impairments and IFRS effects, the gross research and development expenses increased by 45% year-on-year. The impact of currency changes for the first half year was an increase of 3% year-on-year.

OPERATING RESULT

(EUR million)	Six months ended June 30,	
	2021	2022
Operating result	242.9	290.6
Operating result margin	30.1%	27.0%

The operating margin in the first half year 2022 was 27.0%, a decrease of 3.1% points compared to the same period last year due to slightly lower gross margins and higher operating expenses. The impact of currency changes for the first half year was an increase of 6% year-on-year.

FINANCING COSTS

(EUR million)	Six months ended June 30,		Change
	2021	2022	
Interest income	–	0.4	0.4
Interest expenses	(1.1)	(0.7)	0.4
Foreign currency exchange results	13.9	35.5	21.6
Total	12.8	35.2	22.4

Financing costs are mainly related to translation results. The first half year 2022 results included a translation gain of €36 million compared to a gain of €14 million included in the first half year 2021 results. The translation results are mainly related to movements in the US dollar in the respective periods. A substantial part of ASMI's cash position is denominated in US dollar.

SHARE IN INCOME OF INVESTMENTS IN ASSOCIATES

Result from investments, which reflects our approximate 25% shareholding in ASMPT, increased by €17 million compared to the same period previous year. ASMPT's net earnings, on a 100% basis, increased by €69 million to €202 million compared to the same period previous year. For further information on the half year results of ASMPT, please visit ASMPT's website www.asmpacific.com.

Amortization intangible assets, resulting from the sale of the 12% stake of ASMPT in 2013, amounted to €7 million in the first half year. For 2022, on a currency comparable basis, this amortization is expected to amount to €13.1 million.

Reporting ASMI share in net earnings of ASMPT in the consolidated statement of profit or loss:

(EUR million)	Six months ended June 30,	
	2021	2022
ASMI share in net earnings ASMPT	33.3	50.5
Amortization of fair value adjustments from PPA	(6.0)	(6.6)
Total	27.3	44.0

INCOME TAX

Income tax in the first half year increased to €67 million compared to €52 million in the first half of 2021.

CASH FLOW, BALANCE SHEET, LIQUIDITY AND CAPITAL RESOURCES

CASH FLOW

The following table shows the cash flow statements for the six months ended June 30, 2022, compared to the same period of previous year:

(EUR million)	Six months ended June 30,	
	2021	2022
Net earnings from operations	230.9	302.9
Adjustments to reconcile net earnings to net cash from operating activities:		
Depreciation, amortization and impairments	44.9	52.6
Net loss (gain) on sale of property, plant and equipment	(0.5)	0.1
Share-based compensation	7.9	12.3
Net finance (income) costs	(8.8)	(4.1)
Share in income of investments in associates	(27.3)	(44.0)
Income tax	52.1	66.8
Changes in evaluation tools at customers	(16.3)	(7.9)
Changes in employee benefits	(0.2)	0.1
Income tax paid	(83.6)	(41.8)
Operating cash flows before changes in working capital	199.1	337.0
Decrease (increase) in working capital:		
Accounts receivable	(40.4)	(33.2)
Other current assets	(3.0)	(9.6)
Inventories	(8.3)	(116.5)
Provision for warranty	2.9	2.3
Accounts payable, accrued expenses and other payables	45.3	103.1
Net cash from operating activities	195.5	283.1
Cash flows from investing activities		
Capital expenditures	(23.9)	(43.0)
Proceeds from sale of property, plant and equipment	2.0	0.3
Capitalized development expenditures	(37.7)	(50.9)
Purchase of intangible assets	(0.1)	(1.2)
Dividend received from associates	21.8	31.9
Acquisition of a subsidiary, net of cash acquired	–	(38.7)
Net cash used in investing activities	(38.0)	(101.7)
Cash flows from operating activities after investing activities	157.5	181.4
Payment of lease liabilities	(4.1)	(4.7)
Purchase of treasury shares	(37.3)	–
Debt issuance fees paid	–	(0.6)
Dividend to common shareholders	(96.9)	(121.7)
Net cash used in financing activities	(138.3)	(126.9)

The cash flow from operating activities was positively impacted by higher activities and lower tax payments, partly off-set by increased working capital needs. Cash used in investing activities during the first half year 2022 increased compared to the first half of 2021 mainly due to higher capital and capitalized development expenditures and the acquisition of Reno Sub-Systems for a net amount of €39 million. Cash used by financing activities in the first half year of 2021 was higher due to the share buyback.

WORKING CAPITAL

Net working capital is composed as follows:

(EUR million)	June 30, 2021	December 31, 2021	June 30, 2022
Inventories	172.8	211.8	340.6
Accounts receivable	324.0	446.7	483.5
Other current assets	77.9	51.0	60.8
Accounts payable	(148.5)	(175.4)	(245.7)
Provision for warranty	(22.1)	(27.2)	(30.7)
Accrued expenses and other payables	(152.0)	(190.6)	(222.5)
Working capital	252.1	316.4	385.9

The number of outstanding days of working capital, measured against quarterly revenue, increased to 62 days on June 30, 2022 (June 30, 2021: 55 days).

SOURCES OF LIQUIDITY

As per June 30, 2022, the Company's principal sources of liquidity consisted of €552 million in cash and cash equivalents and €150 million in undrawn bank lines. The company has renewed its RCF facility end of May 2022 with improved terms and conditions compared to the previous one. The new facility has a tenor of five years with an option to extend two times one year. The facility amount is €150 million with an accordion option increase the facility amount by €100 million.

SUBSEQUENT EVENTS

Subsequent events have been evaluated by the Company until July 20, 2022, the issuance date of this interim report 2022.

AGREEMENT TO ACQUIRE LPE S.P.A

On July 18, 2022, ASMI announced an agreement to acquire all outstanding shares of LPE S.p.A. ("LPE"), a manufacturer of epitaxial reactors for silicon carbide (SiC) and silicon, based in Italy. The acquisition will complement ASMI's leading position in silicon epitaxy solutions for the power electronics, analog and wafer markets with LPE's offering of advanced SiC epitaxy tools.

ASMI will finance the transaction using a combination of cash and shares, representing an enterprise value of €425 million, on a cash and debt free basis, at the date of signing. An additional amount of up to €100 million will be paid by way of an earn out based on certain performance metrics over a two-year period after the closing of the transaction. The earn outs are to be paid out exclusively in cash.

The transaction is subject to FDI and anti-trust approval in a limited number of countries and other customary closing conditions which are expected to be met by the long stop date of November 10, 2022. Further reference is made to the press release issued on July 18, 2022.

REPORTING RESPONSIBILITIES AND RISKS

RELATED PARTY TRANSACTIONS

There have been no significant related party transactions or changes in related party transactions described in ASMI's 2021 Annual Report that could have a material effect on the financial position or performance of the Company in the first six months of the 2022 financial year.

AUDITORS' INVOLVEMENT

The contents of this Interim Financial Report have not been audited or reviewed by an external auditor.

RISKS AND UNCERTAINTIES

In conducting our business, we face a number of principal risks and uncertainties that each could materially affect our business, revenues, income, assets and liquidity and capital resources. For a detailed description of our assessment of the major risk factors, see Risk management in our 2021 Annual Report. Those risk factors are deemed incorporated and repeated in this report by reference. ASMI believes that these risks similarly apply for the second half of 2022.

We monitor our primary risks and emerging risks on a continuous basis and implement appropriate measures as promptly as practicable to address known and new risks as they emerge and change. Additional risks not known to us or now believed to be not material could later turn out to have material impact on us.

RESPONSIBILITY STATEMENT

The Management Board of the Company hereby declares that, to the best of its knowledge:

- › the condensed consolidated interim financial statements of the first six months ended June 30, 2022, prepared in accordance with IAS 34, Interim Financial Reporting give a true and fair view of the assets, liabilities, financial position and results of the Company and the undertakings included in the consolidation taken as a whole; and
- › the Interim report of the Management Board gives a fair review of the information required pursuant to section 5:25d(8)/(9) of the Dutch Financial Markets Supervision Act ("Wet op het Financieel Toezicht").

Almere, the Netherlands

July 20, 2022

Management Board ASM International N.V.

G.L. Loh, Chairman of the Management Board, President and Chief Executive Officer

P.A.H. Verhagen, Member of the Management Board and Chief Financial Officer

H. M'Saad, Member of the Management Board and Chief Technology Officer



CONDENSED CONSOLIDATED INTERIM FINANCIAL STATEMENTS

FOR THE SIX MONTHS ENDED JUNE 30, 2022

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CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

(EUR thousand, except share data)	Notes	Six months ended June 30,	
		2021	2022
Revenue	5,6	805,707	1,076,401
Cost of sales		(412,763)	(563,295)
Gross profit		392,944	513,106
Other income		527	–
Operating expenses:			
Selling, general and administrative		(86,282)	(128,155)
Research and development		(64,301)	(94,383)
Total operating expenses		(150,583)	(222,538)
Operating result		242,888	290,568
Finance income		10	415
Finance expense		(1,076)	(703)
Foreign currency exchange gain (loss)		13,945	35,543
Net finance income (costs)		12,879	35,255
Share in income of investments in associates	3	27,284	43,959
Result before income taxes		283,051	369,782
Income taxes		(52,137)	(66,842)
Net earnings from operations, attributable to common shareholders		230,914	302,940
Per share data	8		
Basic net earnings per share (EUR)		4.75	6.23
Diluted net earnings per share (EUR)		4.71	6.19
Weighted average number of shares (thousand)			
Basic		48,650	48,629
Diluted		49,018	48,915



CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(EUR thousand)	Six months ended June 30,	
	2021	2022
Net earnings from operations, attributable to common shareholders	230,914	302,940
Other comprehensive income, net of income tax		
Items that will not be reclassified subsequently to profit or loss:		
Share in other comprehensive income (loss) of investments in associates	474	2,989
Items that may be subsequently reclassified to profit or loss:		
Foreign currency translation effect	29,902	97,903
Other comprehensive income, net of income tax	30,376	100,892
Total comprehensive income, attributable to common shareholders	261,290	403,832

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(EUR thousand)	Notes	June 30, 2021	December 31, 2021	June 30, 2022
Assets				
Right-of-use assets		22,823	26,938	26,839
Property, plant and equipment		216,307	257,017	283,864
Goodwill		11,270	11,270	32,755
Other intangible assets	2	237,408	274,833	345,395
Investments in associates	3	769,036	848,812	917,916
Deferred tax assets		–	69	84
Other non-current assets		6,671	6,792	7,117
Evaluation tools at customers	4	78,317	63,717	66,454
Employee benefits		1,591	1,982	1,713
Total non-current assets		1,343,423	1,491,430	1,682,137
Inventories		172,804	211,841	340,587
Accounts receivable		324,001	446,724	483,492
Income taxes receivable		1,521	18,614	19,521
Other current assets		77,943	50,972	60,815
Cash and cash equivalents		465,139	491,507	552,052
Total current assets		1,041,408	1,219,658	1,456,467
Total assets		2,384,831	2,711,088	3,138,604
Equity				
Lease liabilities		12,511	15,886	15,516
Deferred tax liabilities		33,722	45,748	55,635
Total non-current liabilities		46,233	61,634	71,151
Accounts payable		148,527	175,436	245,702
Provision for warranty		22,145	27,181	30,741
Income taxes payable		25,304	14,519	32,274
Accrued expenses and other payables		151,973	190,564	222,542
Total current liabilities		347,949	407,700	531,259
Total liabilities		394,182	469,334	602,410
Total equity and liabilities		2,384,831	2,711,088	3,138,604

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(EUR thousand, except share data)	Number of common shares outstanding	Common shares	Capital in excess of par value	Treasury shares at cost	Retained earnings	Other reserves ¹⁾	Total equity
Balance January 1, 2021	48,714,682	1,992	34,502	(104,962)	1,897,007	26,185	1,854,724
Net earnings	-	-	-	-	230,914	-	230,914
Other comprehensive income	-	-	-	-	-	30,376	30,376
Total comprehensive income	-	-	-	-	230,914	30,376	261,290
Dividend paid to common shareholders	-	-	-	-	(96,893)	-	(96,893)
Compensation expense share-based payments	-	-	7,858	-	-	-	7,858
Exercise stock options out of treasury shares	-	-	-	-	-	-	-
Vesting restricted shares out of treasury shares	173,543	-	(16,824)	16,824	-	-	-
Purchase of common shares	(170,872)	-	-	(36,330)	-	-	(36,330)
Other movements in investments and associates:							
Dilution	-	-	-	-	-	-	-
Balance June 30, 2021	48,717,353	1,992	25,536	(124,468)	2,031,028	56,561	1,990,649
Net earnings	-	-	-	-	263,795	-	263,795
Other comprehensive income	-	-	-	-	-	72,911	72,911
Total comprehensive income	-	-	-	-	263,795	72,911	336,706
Dividend paid to common shareholders	-	-	-	-	-	-	-
Compensation expense share-based payments	-	-	9,384	-	-	-	9,384
Exercise stock options out of treasury shares	123,521	-	(7,344)	11,974	-	-	4,630
Vesting restricted shares out of treasury shares	19,919	-	(2,295)	2,295	-	-	-
Purchase of common shares	(292,116)	-	-	(102,820)	-	-	(102,820)
Cancellation of common shares out of treasury shares	-	(20)	-	57,622	(57,602)	-	-
Other movements in investments and associates:							
Dilution	-	-	-	-	3,205	-	3,205
Balance December 31, 2021	48,568,677	1,972	25,281	(155,397)	2,240,426	129,472	2,241,754
Net earnings	-	-	-	-	302,940	-	302,940
Other comprehensive income	-	-	-	-	-	100,892	100,892
Total comprehensive income	-	-	-	-	302,940	100,892	403,832
Dividend paid to common shareholders	-	-	-	-	(121,650)	-	(121,650)
Compensation expense share-based payments	-	-	12,258	-	-	-	12,258
Exercise stock options out of treasury shares	-	-	-	-	-	-	-
Vesting restricted shares out of treasury shares	112,854	-	(24,066)	24,066	-	-	-
Purchase of common shares	-	-	-	-	-	-	-
Other movements in investments and associates:							
Dilution	-	-	-	-	-	-	-
Balance June 30, 2022	48,681,531	1,972	13,473	(131,331)	2,421,716	230,364	2,536,194

¹ Other reserves consist of the currency translation reserve, remeasurement on net defined benefit and the reserve for proportionate share in other comprehensive income investments in associates.

CONSOLIDATED STATEMENT OF CASH FLOWS

(EUR thousand)	Six months ended June 30,	
	2021	2022
Cash flows from operating activities		
Net earnings from operations	230,914	302,940
Adjustments to reconcile net earnings to net cash from operating activities		
Depreciation, amortization and impairments	44,883	52,595
Net loss (gain) on sale of property, plant and equipment	(527)	65
Share-based compensation	7,858	12,258
Net finance (income) costs	(8,777)	(4,114)
Share in income of investments in associates	(27,284)	(43,959)
Income tax	52,137	66,842
Changes in evaluation tools at customers	(16,298)	(7,944)
Changes in employee benefits pension plans	(216)	121
Income tax paid	(83,627)	(41,768)
Operating cash flows before changes in working capital	199,063	337,036
Decrease (increase) in working capital:		
Accounts receivable	(40,439)	(33,166)
Other current assets	(2,979)	(9,599)
Inventories	(8,336)	(116,502)
Provision for warranty	2,867	2,258
Accounts payable, accrued expenses and other payables	45,297	103,104
Net cash from operating activities	195,473	283,131
Cash flows from investing activities		
Capital expenditures	(23,943)	(43,003)
Proceeds from sale of property, plant and equipment	2,001	279
Capitalized development expenditures	(37,706)	(50,901)
Purchase of intangible assets	(123)	(1,193)
Dividend received from associates	21,756	31,858
Acquisition of a subsidiary, net of cash acquired	-	(38,733)
Net cash used in investing activities	(38,015)	(101,693)
Cash flows from operating activities after investing activities	157,458	181,438
Cash flows from financing activities		
Payment of lease liabilities	(4,058)	(4,669)
Purchase of treasury shares	(37,321)	-
Debt issuance fees paid	-	(617)
Dividends to common shareholders	(96,893)	(121,650)
Net cash used in financing activities	(138,272)	(126,936)
Foreign currency translation effect on cash and cash equivalents	10,725	6,043
Net increase (decrease) in cash and cash equivalents	29,911	60,545
Cash and cash equivalents at beginning of year	435,228	491,507
Cash and cash equivalents at balance sheet date	465,139	552,052

NOTES TO CONDENSED CONSOLIDATED INTERIM FINANCIAL STATEMENTS

NOTE 1. GENERAL INFORMATION / SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

GENERAL INFORMATION

ASM International N.V. (ASMI or the Company) is a Dutch public liability company domiciled in the Netherlands with its principal operations in Europe, the United States 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's shares are listed for trading on the Euronext Amsterdam Stock Exchange (symbol ASM).

The accompanying condensed consolidated interim financial statements include the financial statements of ASM International N.V., headquartered in Almere, the Netherlands, and its consolidated subsidiaries (together referred to as ASMI or the Company).

The condensed consolidated interim financial statements for the six months ended June 30, 2022 were authorized for issue by the Management Board on July 20, 2022.

The condensed consolidated interim financial statements have not been audited or reviewed by an external auditor. In the condensed consolidated interim financial statements amounts are rounded to the nearest thousand euro; therefore amounts may not equal (sub) totals due to rounding.

ACCOUNTING POLICIES

These condensed consolidated interim financial statements have been prepared in accordance with IAS 34, Interim Financial Reporting. The condensed consolidated interim financial statements do not include all of the information required for full annual financial statements and should be read in conjunction with ASMI's 2021 Annual Report. In addition, the notes to these condensed consolidated interim financial statements are presented in a condensed format. The applied accounting principles are in line with those as described in ASMI's 2021 Annual Report and are based on IFRS as endorsed by the European Union.

Changes in accounting policies

The accounting policies applied in these interim 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, 2022. These include among others amendments to IAS 16, IAS 37 and IFRS 3. These changes have been assessed for their potential impact and do not have a material effect on ASMI's consolidated financial statements.

USE OF ESTIMATES AND JUDGMENTS

The preparation of the Company's condensed consolidated interim financial statements requires management to make judgments, estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates. We evaluate our estimates and underlying assumptions on an ongoing basis. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

COVID-19

The impact of COVID-19 on the supply chain combined with strong end demand led to supply chain challenges in our industry in the second half of 2021, which even further increased in the first half of 2022 as strong demand continued to outstrip supply. These supply chain challenges impacted our business in the first half of 2022, illustrated for instance by extended lead times for certain of our products. ASMI mitigated the impact through, amongst others early ordering, alternative sourcing and working closely with customers and suppliers. Hence, we were able to deliver on the largest part of our customer requirements and to meet our sales guidance for the first half of 2022.

ACQUISITION OF RENO SUB-SYSTEMS

On March 11, 2022, ASMI acquired 100% of the share capital of Reno Sub-Systems Inc. (Reno), a supplier of RF matching sub-systems for semiconductor manufacturing equipment.

Reno designs and sells innovative RF matching sub-systems and is based in New Jersey, the US. Reno's high-performance RF matching networks and RF generators will enhance ASMI's ALD products and solutions.

ASMI has paid an amount of €41.6 million, of which an amount of €22.5 million has been allocated to identified intangible assets and an amount of €19.0 million to goodwill.

Due to its limited size, the acquisition is not expected to have a material impact on 2022 earnings.

NOTE 2. 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:

(EUR thousand)	Development costs	Software	Purchased technology and other intangible assets	Total
Balance January 1, 2021	204,319	5,585	20	209,924
Additions	37,706	123	–	37,829
Amortization for the period	(10,966)	(704)	(5)	(11,675)
Impairments	(1,078)	–	–	(1,078)
Foreign currency, translation effect	2,337	71	–	2,408
Balance June 30, 2021	232,318	5,075	15	237,408
Additions	44,267	2,557	–	46,824
Amortization for the period	(14,218)	(720)	(5)	(14,943)
Impairments	(889)	–	–	(889)
Foreign currency, translation effect	6,198	235	–	6,433
Balance December 31, 2021	267,676	7,147	10	274,833
Additions	50,901	1,113	80	52,094
Acquisitions through business combinations	–	–	22,516	22,516
Amortization for the period	(15,185)	(785)	(24)	(15,994)
Impairments	(6)	–	–	(6)
Foreign currency, translation effect	10,879	327	746	11,952
Balance June 30, 2022	314,265	7,802	23,328	345,395

As a result of the acquisition of Reno, as disclosed in note 1, an amount of €22.5 million has been recognized as intangible assets.

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 the customers demand has shifted out in time, and technology which became obsolete. The impairment charges for 2021 and 2022 are related to customer specific projects.

Capitalized development costs are amortized over their estimated useful lives of five years, other intangible assets are amortized over their estimated useful lives of three to seven years.

NOTE 3. INVESTMENTS IN ASSOCIATES

The changes in the investments in associates are as follows:

(EUR thousand)	ASMPT			Total ASMPT
	Net equity share	Other intangible assets	Goodwill	
Balance January 1, 2021	347,088	30,016	365,610	742,714
Share in net earnings of investments in associates	33,257	–	–	33,257
Other comprehensive income of investments in associates	474	–	–	474
Amortization recognized intangible assets	–	(5,973)	–	(5,973)
Dividends	(21,756)	–	–	(21,756)
Foreign currency translation effect	8,258	792	11,270	20,320
Balance June 30, 2021	367,321	24,835	376,880	769,036
Share in net earnings of investments in associates	53,338	–	–	53,338
Other comprehensive income of investments in associates	11,359	–	–	11,359
Amortization recognized intangible assets	–	(6,240)	–	(6,240)
Dividends	(14,541)	–	–	(14,541)
Dilution ASMPT share to 24.96%	3,205	–	–	3,205
Foreign currency translation effect	14,776	974	16,905	32,655
Balance December 31, 2021	435,458	19,569	393,785	848,812
Share in net earnings of investments in associates	50,531	–	–	50,531
Other comprehensive income of investments of associates	2,989	–	–	2,989
Amortization recognized intangible assets	–	(6,572)	–	(6,572)
Dividends	(31,858)	–	–	(31,858)
Foreign currency translation effect	19,671	1,299	33,044	54,014
Balance June 30, 2022	476,791	14,296	426,829	917,916

On March 15, 2013, the Company divested a controlling stake in its subsidiary ASM Pacific Technology 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.

If the fair value of an investment is less than its carrying value at the balance sheet date, the Company determines whether the lower fair value is temporary or prolonged. The amount per share recognized as per June 30, 2022 under equity accounting amounts to HK\$72.62 (December 31, 2021: HK\$72.79) whereas the level 1 fair value per share (being the market price of a share on the Hong Kong Stock Exchange) was HK\$66.65 as per June 30, 2022 (December 31, 2021: HK\$84.25). Management performed an impairment trigger analysis and concluded that no impairment of the carrying value of ASMPT was required as per June 30, 2022.

In December 2021 1,907,900 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. The shares under the plan in 2021 have diluted ASMI's ownership in ASMPT to 24.96% as of December 31, 2021.

At June 30, 2022, the book value of our equity method investment in ASMPT was €917.9 million. The historical cost basis of our 24.96% share of net assets on the books of ASMPT was €476.8 million as of June 30, 2022 resulting in a basis difference of €441.1 million. €14.3 million of this basis difference has been allocated to intangibles assets. The remaining amount was allocated to goodwill. Each individual, identifiable asset will periodically be reviewed for any indicators of potential impairment which, if required, would result in acceleration of basis difference amortization. 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 ASMI for the six months period ending June 30, 2022 was after-tax expense of €6.6 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 for 2022: 1 HK\$: €0.11715 and for 2021: 1 HK\$: €0.10686):

(HK\$ million)	Six months ended June 30,	
	2021	2022
Revenue	9,514.2	10,471.1
Earnings before income tax	1,616.7	2,214.0
Net earnings	1,260.7	1,734.7

Summarized 100% statement of financial position information for ASMPT equity method investment excluding basis adjustments (foreign currency exchange rate as per June 30, 2022: 1 HK\$: €0.12271, December 31, 2021: 1 HK\$: €0.11321 and as per June 30, 2021: 1 HK\$: €0.10835):

(HK\$ million)	June 30, 2021	December 31, 2021	June 30, 2022
Current assets	17,173	18,251	17,899
Non-current assets	8,264	8,250	8,425
Current liabilities	7,547	6,889	6,864
Non-current liabilities	4,339	4,200	3,892
Equity	13,551	15,412	15,568

NOTE 4. EVALUATION TOOLS AT CUSTOMERS

The changes in the amount of evaluation tools are as follows:

(EUR thousand)	June 30, 2021	June 30, 2022
At cost		
Balance at beginning of year	100,774	98,352
Evaluation tools shipped	22,479	13,054
Evaluation tools sold and returns	(8,490)	(13,140)
Foreign currency translation effect	280	3,923
Balance at end of period	115,043	102,189
Accumulated depreciation		
Balance at beginning of year	31,300	34,635
Depreciation for the year	7,985	8,280
Evaluation tools sold and returns	(2,309)	(8,030)
Foreign currency translation effect	(250)	850
Balance at end of period	36,726	35,735
Carrying amount at beginning of year	69,474	63,717
Carrying amount at end of period	78,317	66,454

Useful lives in years:

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NOTE 5. 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 company has one reportable segment that manufactures and sells equipment used in wafer processing, encompassing the fabrication steps in which silicon wafers are layered with semiconductor devices. The segment is a product driven organizational unit comprised of manufacturing, service, and sales operations in Europe, the United States and Asia.

Geographical information is summarized as follows:

(EUR thousand)	Six months ended June 30,			
	2021		2022	
	Revenue	Non-current assets ¹⁾	Revenue	Non-current assets ¹⁾
United States	194,830	244,635	267,731	378,496
Europe	71,384	64,146	142,233	81,533
Asia	539,493	263,920	666,437	301,246
Total	805,707	572,701	1,076,401	761,275

¹⁾ Other than financial instruments, deferred tax assets and post-employment benefit assets.

For geographical reporting, revenue are attributed to the geographic location in which the customer's facilities are located.

NOTE 6. REVENUE**Contract balances**

(EUR thousand)	June 30, 2021	June 30, 2022
Accrued revenue	37,675	35,425
Deferred revenue	76,206	112,853

The increase in the total contract balances is the result of the higher activity level of the company.

The accrued revenue relates to the company's right to consideration for work completed and revenue recognized but not billed at the reporting date. The accrued revenue is transferred to accounts receivables when the company issues an invoice to the customer.

Deferred revenue relates to the advance consideration received from customers for which revenue is not yet recognized because the performance obligation has not been satisfied yet. Deferred revenue consists of the revenue relating to undelivered elements of the arrangement with customers. This part of the revenue is deferred at the transaction price allocated to the performance obligations until fulfillment.

Revenue Streams

The Company generates revenue primarily from the sales of equipment and sales of spares & services.

(EUR thousand)	Six months ended June 30,	
	2021	2022
Equipment revenue	654,046	894,792
Spares & services revenue	151,661	181,609
Total	805,707	1,076,401

Total revenue increased by 34% as reported is driven by solid increases in our ALD business and our spares & services revenue.

NOTE 7. LITIGATION MATTERS

ASMI is and may become a party to various legal proceedings incidental to its business. As is the case with other companies in our industry and similar industries, the Company faces exposure from actual or potential claims and legal proceedings. Although the ultimate result of legal proceedings cannot be predicted with certainty 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 the financial position of the Company, its cash flows and result of operations.

NOTE 8. EARNINGS PER SHARE

Basic net earnings per common share is calculated by dividing net earnings 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 earnings 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 exercised (or issuances) would have a dilutive effect. The calculation of diluted net earnings per share does not assume exercise of options (or issuance of shares) when such exercises (or issuances) would be anti-dilutive.

The calculation of basic and diluted net earnings per share attributable to common shareholders is based on the following data:

(EUR thousand, except share data)	Six months ended June 30,	
	2021	2022
Net earnings used for purposes of calculating net income per common share		
Net earnings from operations	230,914	302,940
Basic weighted average number of shares outstanding during the year (thousands)	48,650	48,629
Effect of dilutive potential common shares from stock options and restricted shares	368	286
Dilutive weighted average number of shares outstanding	49,018	48,915
Basic net earnings per share:		
from operations	4.75	6.23
Diluted net earnings per share:		
from operations	4.71	6.19

NOTE 9. 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 are conducted on an at arm's length basis with terms comparable to transactions with third parties.

The Company has no other significant transactions or outstanding balances with its equity-accounted investees other than its equity-interest holdings.

There have been no significant related party transactions or changes in related party transactions described in ASMI's Annual Report 2021 that could have a material effect on the financial position or performance of the Company in the first six months of the 2022 financial year.



SAFE HARBOR STATEMENT

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 ASM Pacific Technology 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 certain projections and business trends, which are ‘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’, 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 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 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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