Almere, The Netherlands
February 27, 2024, 6 p.m. CET

ASM reports fourth quarter 2023

ASM International N.V. (Euronext Amsterdam: ASM) today reports its fourth quarter 2023 operating results (unaudited).

Double-digit full-year revenue growth, outperforming softer WFE market in 2023

Financial highlights

€ million	Q4 2022	Q3 2023	Q4 2023
New orders	828.6	627.4	677.5
YoY change % at constant currencies	26%	0%	(14%)
Revenue	724.8	622.3	632.9
YoY change % at constant currencies	42%	9%	(7%)
Normalized gross profit margin [1]	46.9%	48.9%	47.9%
Normalized operating result [1]	189.8	157.2	141.0
Normalized operating result margin [1]	26.2%	25.3%	22.3%
Share in income of investments in associates (excluding amortization intangible assets resulting from the sale of ASMPT stake 2013)	8.3	0.4	2.2
Amortization intangible assets (resulting from the sale of ASMPT stake in 2013)	(3.5)	(0.1)	(0.1)
Reversal of impairment of investments in associates	106.1	0.0	0.0
Net earnings	236.6	129.6	90.9
Normalized net earnings [2]	142.4	139.1	100.3

[1] Excluding amortization of fair value adjustments from purchase price allocations (before tax)
[2] Excluding 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

- New orders of €678 million for the fourth quarter 2023 representing a decrease of 14% over the same period last year on a constant currency basis (decreased by 18% as reported).
- Year-on-year revenue decrease for the fourth quarter 2023 was 7% at constant currencies (decreased by 13% as reported).
- Normalized gross profit margin of 47.9%, improved compared to 46.9% in the same quarter last year, mainly explained by mix, including a continued strong contribution from China sales.
- Normalized operating result for the fourth quarter 2023, decreased from €190 million last year to €141 million this year, largely explained by lower sales and increased operating expenses (€13 million).
- Normalized net earnings for the fourth quarter 2023 were €100 million, down from €142 million in Q4 last year. This decrease was primarily due to a decline in normalized operating result, partially offset by a lower translation loss of €25 million compared to a translation loss of €36 million in Q4 2022 (Q3 translation gain of €3 million).
- Net earnings for the fourth quarter 2023 included a negative impact of €9 million (net of tax) relating to PPA expenses (Q4 2022 €8 million). Details of (estimated) amortization and earn-out expenses (PPA expenses) relating to the 2022 acquisitions of LPE and Reno are found in Annex 2.

Comment

“2023 was another successful year for ASM. Sales increased by 13% at constant currencies, despite softening market conditions, and marking the seventh consecutive year of double-digit growth.” said Benjamin Loh, CEO of ASM. “Revenue in Q4 2023 amounted to €633 million, in line with our guidance of €600-640 million and down compared to the level in Q4 2022. Revenue in the quarter was supported by strong sales in the power/analog/ wafer segment. Bookings at €678 million were slightly better than our expectation and were driven by GAA pilot-line orders and continued strength in China demand.

Our full-year revenue increased to a record-high level of €2.6bn, outperforming the WFE market which was slightly down in 2023. Our sales dropped in memory in 2023, reflecting significant cuts in investment in this segment, and despite relatively healthy demand for high-performance DRAM. The leading-edge logic/foundry segment was also lower in 2023, impacted by weak end-market conditions and delays in some new customers’ fab, as already reported earlier in 2023. This was offset by strong growth in the mature node market segments: in power/analog/wafer, and in mature logic/foundry, particularly in China. Our silicon carbide (SiC) Epi business grew strongly in 2023, comfortably meeting the revenue target of more than €130 million in 2023, and with synergies already paying off. In the fourth quarter of 2023, two more customers selected our latest 200mm SiC Epi tool, with multiple tool orders expected in 2024.

Normalized gross margin increased to 49.3% in 2023, supported by mix, including a substantial increase in sales from China with above-average profitability. Free cash flow increased by 17% in 2023 (on an adjusted basis, excluding cash spent on acquisitions in 2022), even with a further increase in capex.

We remain on track towards our strategic targets and continue to invest in our people, in innovation and expansion. In December, we announced to invest in a new state-of-the-art R&D center in Scottsdale, Arizona. It will be twice as big as the current R&D facility, in Phoenix, Arizona, and will enhance our ALD and Epi product-development efforts.

We also made further progress in accelerating sustainability in 2023. A highlight was the verification of our Net Zero by 2035 targets by SBTi in August 2023, a first in the semiconductor industry. In addition, we increased the use of renewable electricity from 73% to 88% in 2023, and we remain on track to achieve 100% by 2024.”

Outlook

While the broader semiconductor market is expected to recover in 2024, the softer WFE market conditions we saw in the second half of 2023 are expected to continue into the first part of 2024. For the first quarter of 2024, we expect revenue of €600-640 million, with a similar level in the second quarter. For the second half of 2024, we expect revenue to be up compared to the level in the first half year, but it is too early to provide more specific guidance for the second half or for the full year. Looking at the expectations for WFE demand, memory and leading-edge logic/foundry demand is expected to gradually recover in the course of 2024. The revenue contribution from the Chinese market is expected to be still relatively high in the first part of the year, but likely to normalize in the rest of the year. For our SiC Epi business, we expect a continued strong performance in 2024.

We expect ASM to benefit from an expected rebound of the WFE market in 2025. Based on this, we remain confident ASM revenue will increase to the forecasted range for 2025 (€3.0-3.6 billion). The move of GAA 2nm technology into high-volume manufacturing in 2025 is expected to be a significant driver for ASM.

Benjamin Loh to retire, Hichem M’Saad to succeed him as new CEO

ASM announced on February 12, 2024, that CEO Benjamin Loh will retire and step down as per the AGM on May 13, 2024. He will be succeeded by Hichem M’Saad, currently member of the Management Board and CTO.

ASM announced €300M expansion of U.S. operations in Scottsdale, Arizona

ASM announced on December 5, 2023, its plans for a new North American expansion to accommodate growing demand for research and development in the semiconductor industry.

ASM is investing €300 million over a period of up to five years to design and construct the new state-of-the-art site on more than 20 acres (8.5 hectares) in Scottsdale, Arizona. This total investment is a combination of capital expenditures related to infrastructure and lab equipment, and includes operational expenses such as the additional research and engineering jobs created with the expansion.

Share buyback program

ASM announces today that its Management Board authorized a new repurchase program of up to €150 million of the company's common shares within the 2024/25 timeframe. This buyback program will be executed by intermediaries and will end as soon as the aggregate purchase price of the common shares acquired by ASM has reached €150 million.

Dividend proposal

ASM will propose to the forthcoming 2024 Annual General Meeting on May 13, 2024, to declare a regular dividend of €2.75 per common share over 2023, increased from the regular dividend paid over 2022 (€2.50 per common share).

About ASM International

ASM International N.V., headquartered in Almere, the Netherlands, and its subsidiaries design and manufacture equipment and process solutions to produce semiconductor devices for wafer processing, and have facilities in the United States, Europe, and Asia. ASM International's common stock trades on the Euronext Amsterdam Stock Exchange (symbol: ASM). For more information, visit ASM's website at www.asm.com.

Cautionary Note Regarding Forward-Looking Statements: All matters discussed in this press release, except for any historical data, are forward-looking statements. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. These include, but are not limited to, economic conditions and trends in the semiconductor industry generally and the timing of the industry cycles specifically, currency fluctuations, corporate transactions, financing and liquidity matters, the success of restructurings, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholders or other issues, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or political instability, changes in import/export regulations, pandemics, epidemics and other risks indicated in the company's reports and financial statements. The company assumes no obligation nor intends to update or revise any forward-looking statements to reflect future developments or circumstances.

This press release contains inside information within the meaning of Article 7(1) of the EU Market Abuse Regulation.

Quarterly earnings conference call details

ASM will host the quarterly earnings conference call and webcast on Wednesday, February 28, 2024, at 3:00 p.m. CET.

Conference-call participants should pre-register using this link to receive the dial-in numbers, passcode and a personal PIN, which are required to access the conference call.

A simultaneous audio webcast and replay will be accessible at this link.

Contacts

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Annex 1

Operating and financial review

Bookings

The following table shows the level of new orders for the fourth quarter of 2023 and the backlog at the end of the fourth quarter of 2023, compared to the previous quarter and the comparable quarter previous year:

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Backlog at the beginning of the period	1,524.8	1,399.9	1,404.2	811.3	1,669.2
Backlog increase through business combinations	106.8	—	—	106.8	—
New orders for the period	828.6	627.4	677.5	3,152.5	2,438.2
Revenue for the period	(724.8)	(622.3)	(632.9)	(2,410.9)	(2,634.3)
FX-effect for the period	(66.3)	(0.9)	(15.3)	9.5	(39.6)
Backlog at the end of the period	**1,669.2**	**1,404.2**	**1,433.5**	**1,669.2**	**1,433.5**
Book-to-bill ratio (new orders divided by revenue)	1.1	1.0	1.1	1.3	0.9

The backlog increased from €1,404 million at the end of the third quarter 2023 to €1,433 million as per December 31, 2023. New orders for the fourth quarter 2023 increased to €678 million, up 7% at constant currencies compared to previous quarter.

The book-to-bill ratio for Q4 was 1.1. In terms of customer segments, new orders in the fourth quarter 2023 were led by foundry, followed by logic and power/analog/wafer.

Revenue

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Equipment revenue	627.3	515.1	521.4	2,033.7	2,205.8
Spares & service revenue	97.6	107.2	111.5	377.2	428.5
Revenue	**724.8**	**622.3**	**632.9**	**2,410.9**	**2,634.3**

Revenue for the fourth quarter 2023 decreased to €633 million, down 7% year-on-year at constant currencies (down by 13% as reported). Compared to the previous quarter, revenue increased 1% at constant currencies (increased by 2% as reported). Revenue in the fourth quarter was mainly driven by foundry, followed by power/analog/wafer and then memory.

Equipment revenue in the fourth quarter decreased by 12% year-on-year at constant currencies (decreased by 17% as reported). Compared to the previous quarter, equipment revenue remained stable at constant currencies (increased by 1% as reported).

Spares & service revenue in the fourth quarter grew by 22% year-on-year at constant currencies (grew by 14% as reported). Compared to the previous quarter, spares & service revenue increased by 3% at constant currencies (4% as reported).

Normalized gross profit margin

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Normalized gross profit	339.6	304.6	303.4	1,146.0	1,298.6
Normalized gross profit margin	46.9%	48.9%	47.9%	47.5%	49.3%

Normalized gross profit margin of 47.9% in the fourth quarter 2023 improved compared to 46.9% in the same quarter last year. This is a decrease compared to third quarter 2023 for which we showed gross profit margin of 48.9%. While the mix remained favorable in Q4 2023, including a continued strong contribution from China sales with above average profitability, the gross margin in Q4 2023 was impacted by approximately 1% due to a one-off restructuring cost in relation to further optimization of our global manufacturing footprint.

Normalized selling, general and administrative expenses

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Normalized SG&A expenses	74.7	76.8	83.3	275.4	303.9

Normalized selling, general and administrative (SG&A) expenses increased by 9% compared to the level in the previous quarter and increased by 12% year-on-year. The year-on-year increase in SG&A expenses relates to increased headcount and variable compensation, and continued investments in IT initiatives to support business growth. As a percentage of revenue, normalized SG&A expenses increased to 13.2% compared to 10.3% in Q4 2022 and 12.3% in Q3 2023. The impact of currency changes for the fourth quarter was an increase of 1% quarter-on-quarter and a decrease of 5% year-on-year.

Normalized research and development expenses

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Normalized gross research and development expenses	89.5	98.1	107.3	297.2	396.2
Capitalization of development expenses	(25.0)	(38.6)	(41.9)	(102.6)	(147.2)
Amortization of capitalized development expenses	10.6	11.0	11.2	34.9	43.8
Impairment of capitalized development expenses	—	—	2.5	—	2.5
Normalized net research and development expenses	75.2	70.5	79.1	229.4	295.3

The normalized gross research and development (R&D) expenses increased by 9% compared to the previous quarter and increased 20% year-on-year.

Normalized net R&D expenses increased to 12% compared to the previous quarter and increased by 5% year-on-year. The year-on-year increase in R&D is driven by continued investment in R&D capabilities to support future growth. Normalized net R&D expenses were 12.5% of revenue in Q4 2023 compared to 11.3% in Q3 2023 and 10.4% in the same period in 2022. The impact of currency changes for the fourth quarter was an increase of 1% quarter-on-quarter and a decrease of 5% year-on-year.

Normalized operating result

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Normalized operating result	189.8	157.2	141.0	641.2	699.5
Normalized operating result margin	26.2%	25.3%	22.3%	26.6%	26.6%

Normalized operating result of 22.3% decreased by 3.9% points compared to the same period last year and decreased by 3.0% points compared to the previous quarter, due to the sequential decrease in gross margin and increase in SG&A and R&D expenses. Including PPA expenses, operating margin was 20.8% in Q4 2023. Full-year 2023 normalized operating margin of 26.6% was in line with the guidance of slightly above 26% that we provided with the Q3 2023 results publication.

Normalized financing income (expense)

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Normalized net interest income	0.3	3.2	3.5	0.7	10.9
Foreign currency exchange gains (losses)	(35.6)	3.0	(25.2)	25.0	(21.4)
Normalized financing income (expense)	**(35.3)**	**6.2**	**(21.7)**	**25.7**	**(10.5)**

Financing income is based on the currency translation results and interest income. The fourth quarter in both 2022 and 2023 included a significant currency translation loss, mainly reflecting the depreciation of the US dollar in the respective periods. A substantial part of ASM's cash position is denominated in US dollars. Financing expense was normalized for the impact from the LPE earn-out expense of €2 million.

Share in income of investments in associates

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Share in income of investments in associates (excluding amortization intangible assets resulting from the sale of the 12% stake of ASMPT)	8.3	0.4	2.2	78.4	21.2
Amortization intangible assets (resulting from the sale of the 12% stake of ASMPT)	(3.5)	(0.1)	(0.1)	(13.6)	(3.7)
Share in income of investments in associates	**4.8**	**0.4**	**2.1**	**64.8**	**17.5**

Share in income of investments in associates (excluding amortization intangible assets resulting from the sale of the 12% stake of ASMPT), which reflects our approximate 25% shareholding in ASMPT, increased by €2 million compared to the previous quarter. For further information on the Q4 results of ASMPT, please visit ASMPT's website www.asmpt.com.

For 2024, full year amortization of intangible assets resulting from the sale of the 12% stake of ASMPT in 2013, on a currency-comparable basis, is expected to amount to €0.4 million.

Impairment of investment in associates

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Impairment of investments in associates, at beginning of period	321.4	—	—	—	215.3
Impairment of investments	—	—	—	321.4	—
Reversal of impairments	(106.1)	—	—	(106.1)	(215.3)
Impairment of investments in associates, at end of period	**215.3**	**—**	**—**	**215.3**	**—**

The remaining impairment of €215 million in Q4 2022, related to the earlier Q3 2022 impairment charge of €321 million on investments in associates, was fully reversed during the year, Q1 2023.

The impairment reversal is in line with our accounting policy under which, at each reporting date, we will determine if there is any objective evidence for impairment. If the fair value of an investment is less than its carrying amount, the company determines whether the decline in value is significant or prolonged. The impairment charge will be subsequently reversed only to the extent that the recoverable amount of the investment increases.

Income taxes

Income taxes in the fourth quarter 2023 amounted to an expense of €19 million, up from €18 million the same period 2022. The effective tax rate, excluding the share in income and impairment of ASMPT for full year 2023 is 18.1% (2022: 17.7%).

Net earnings

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Net earnings	236.6	129.6	90.9	389.1	752.1
Normalized for:					
Amortization of purchase price allocation (resulting from the acquisitions of Reno and LPE)	(7.9)	(9.9)	(9.4)	(8.7)	(45.8)
Income taxes (realization of temporary differences)	2.2	2.7	2.6	2.4	12.7
Finance expense (earn-out)	(2.6)	(2.4)	(2.4)	(2.6)	(9.7)
Amortization intangible assets (resulting from the sale of the 12% stake of ASMPT)	(3.5)	(0.1)	(0.1)	(13.6)	(3.7)
Impairment of investments in associates	—	—	—	(321.4)	—
Reversal of impairment of investments in associates	106.1	—	—	106.1	215.4
Normalized net earnings	**142.4**	**139.1**	**100.3**	**627.0**	**583.2**

Normalized net earnings in the fourth quarter 2023 decreased by €39 million to €100 million compared to previous quarter mainly due to lower operating results.

Cash flows

€ million	Q4 2022	Q3 2023	Q4 2023	YTD 2022	YTD 2023
Net cash from operating activities	103.8	207.6	165.5	541.5	735.9
Net cash from investing activities	(340.8)	(95.2)	(71.7)	(474.9)	(289.0)
Cash flows from operating activities after investing activities	**(237.0)**	**112.5**	**93.8**	**66.6**	**446.8**
Net cash from financing activities	(2.8)	(52.7)	(4.5)	(132.6)	(236.1)
Total net cash provided (used)	**(239.8)**	**59.8**	**89.3**	**(66.0)**	**210.8**

The cash flow from operating activities decreased compared to the level in the previous quarter mainly due to lower operating results. Net cash used in investing activities in Q4 2023 is lower compared to previous quarter, which included the purchase of a plot of land in Scottsdale, Arizona, that was reported on August 21, 2023. We generated a quarterly cash flow from operating activities and after investing activities (free cash flow) of €94 million. Cash used in financing activities during Q4 2023 was in line with Q4 2022, and lower compared to previous quarter which included an outflow of approximately €51 million to complete the €100 million share buyback program.

Working capital

€ million	December 31, 2022 [1]	September 30, 2023	December 31, 2023
Inventories	538.4	574.5	525.7
Accounts receivable	580.8	526.2	487.7
Other current assets	112.2	100.6	128.2
Accounts payable	(243.5)	(207.5)	(177.7)
Provision for warranty	(34.2)	(24.2)	(22.7)
Accrued expenses and other payables	(458.9)	(499.2)	(516.5)
Working capital	**494.8**	**470.3**	**424.8**

1 Comparatives have been adjusted for the effects of remeasurement adjustments to the acquisition of LPE in 2022. As a result of the remeasurement, other current assets have been decreased by €2.4 million and goodwill increased by €2.4 million.

Net working capital decreased to €425 million compared to €470 million per September 30, 2023 (€495 million per December 31, 2022), mainly explained by lower levels of inventories and accounts receivable (-87 million), partly offset by an increase of other current assets (+€28 million) and lower current liabilities (€14 million) compared to previous quarter.

The number of outstanding days of working capital, measured against quarterly sales, decreased to 60 days on December 31, 2023, compared to 68 days on September 30, 2023 (62 days on December 31, 2022).

Sources of liquidity

As per December 31, 2023, the company's principal sources of liquidity consisted of €637 million in cash and cash equivalents and €150 million in undrawn bank lines.

Annex 2

Consolidated statement of profit or loss

€ thousand, except per share data	Three months ended December 31, 2022	2023	Full year 2022	2023
Revenue	724,765	632,895	2,410,927	2,634,331
Cost of sales	(388,261)	(334,203)	(1,268,046)	(1,362,635)
Gross profit	**336,504**	**298,692**	**1,142,881**	**1,271,696**
Other income	182	—	40	69
Operating expenses:				
Selling, general and administrative	(75,998)	(84,564)	(276,620)	(308,727)
Research and development	(78,764)	(82,580)	(233,866)	(309,297)
Total operating expenses	**(154,762)**	**(167,144)**	**(510,486)**	**(618,024)**
Operating result	**181,924**	**131,548**	**632,435**	**653,741**
Net interest income (expense)	(2,292)	1,082	(1,852)	1,226
Foreign currency exchange gain (loss)	(35,572)	(25,214)	25,011	(21,375)
Share in income of investments in associates	4,787	2,119	64,771	17,540
Impairment of investments in associates	—	—	(321,440)	—
Reversal of impairment of investments in associates	106,051	—	106,051	215,389
Earnings before income taxes	**254,898**	**109,535**	**504,976**	**866,521**
Income taxes	(18,261)	(18,597)	(115,863)	(114,448)
Net earnings	**236,637**	**90,938**	**389,113**	**752,073**
Per share data:				
Basic net earnings	4.80	1.85	7.97	15.26
Diluted net earnings [1)]	4.77	1.84	7.93	15.18
Weighted average number of shares used in computing per share amounts (in thousand):				
Basic	49,326	49,202	48,820	49,286
Diluted [1)]	49,603	49,471	49,097	49,555
Outstanding shares:	49,326	49,202	49,326	49,202
Treasury shares:	22	227	22	227

1) The calculation of diluted net earnings per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in earnings of the company. Only instruments that have a dilutive effect on net earnings are included in the calculation. The calculation is done for each reporting period individually. The possible increase of common shares caused by employee stock options and restricted shares for the three months ended December 31, 2023, is 269,436 common shares, and for full year 2023, the possible increase is 269,436 common shares. Adjustments have been reflected in the diluted weighted average number of shares and net earnings per share for this period.

Consolidated statement of financial position

€ thousand	December 31, 2022 [1)]	December 31, 2023
Assets		
Right-of-use assets	31,663	35,395
Property, plant and equipment	312,053	384,949
Evaluation tools at customers	68,676	79,597
Goodwill	320,818	320,167
Other intangible assets	646,104	705,624
Investments in associates	686,341	861,937
Other investments	5,814	11,307
Deferred tax assets	181	179
Other non-current assets	9,627	18,697
Total non-current assets	**2,081,277**	**2,417,852**
Inventories	538,425	525,690
Accounts receivable	580,823	487,727
Income taxes receivable	18,778	29,957
Other current assets	112,171	128,237
Cash and cash equivalents	419,315	637,264
Total current assets	**1,669,512**	**1,808,875**
Total Assets	**3,750,789**	**4,226,727**
Equity and liabilities		
Equity	**2,749,319**	**3,226,811**
Lease liabilities	18,604	22,684
Contingent consideration payable	78,649	88,304
Deferred tax liabilities	123,803	150,147
Total non-current liabilities	**221,056**	**261,135**
Accounts payable	243,499	177,686
Provision for warranty	34,219	22,716
Income taxes payable	43,785	21,925
Accrued expenses and other payables	458,911	516,454
Total current liabilities	**780,414**	**738,781**
Total Liabilities	**1,001,470**	**999,916**
Total Equity and Liabilities	**3,750,789**	**4,226,727**

1 Comparatives have been adjusted for the effects of remeasurement adjustments to the acquisition of LPE in 2022. As a result of the remeasurement, other current assets have been decreased by €2.4 million and goodwill increased by €2.4 million.

Consolidated statement of cash flows

€ thousand	Three months ended December 31, 2022	Three months ended December 31, 2023	Full year 2022	Full year 2023
Cash flows from operating activities:				
Net earnings from operations	236,637	90,938	389,113	752,073
Adjustments to reconcile net earnings to net cash from operating activities				
Depreciation, amortization and impairments	38,296	51,720	122,434	180,896
Net loss (gain) on sale of property, plant and equipment	(182)	103	(40)	185
Share-based compensation	9,606	10,726	29,877	37,308
Net finance (income) costs	7,910	3,187	3,886	(9,466)
Share in income of investments in associates	(4,787)	(2,119)	(64,771)	(17,539)
(Reversal of) impairment of investments in associates, net	(106,051)	—	215,389	(215,389)
Income tax	18,261	18,597	115,863	114,448
Changes in evaluation tools at customers	2,233	(14,758)	(20,516)	(32,218)
Changes in employee benefits pension plans	17	3	198	98
Income tax paid	(23,337)	(23,264)	(90,481)	(118,766)
Operating cash flows before changes in working capital	**178,603**	**135,133**	**700,952**	**691,630**
Decrease (increase) in working capital:				
Accounts receivable	(68,007)	30,559	(125,068)	67,660
Other current assets	(26,649)	(31,119)	(53,273)	(22,859)
Inventories	(46,355)	42,080	(276,914)	(3,537)
Provision for warranty	287	(1,034)	5,097	(10,220)
Accounts payable, accrued expenses and other payables	65,913	(10,097)	290,694	13,214
Net cash from operating activities	**103,792**	**165,522**	**541,488**	**735,888**
Cash flows from investing activities				
Capital expenditures of property, plant and equipment	(36,782)	(25,432)	(101,184)	(154,103)
Proceeds from sale of property, plant and equipment	426	237	940	3,558
Capitalized development expenditure	(25,050)	(41,935)	(102,627)	(147,220)
Capital expenditures of intangible assets	(1,831)	(3,792)	(4,662)	(16,389)
Dividend received from associates	—	—	48,919	30,753
Acquisitions of subsidiaries, net of cash acquired	(275,561)	—	(314,295)	—
Other investments	(1,971)	(792)	(1,971)	(5,641)
Net cash used in investing activities	**(340,769)**	**(71,714)**	**(474,880)**	**(289,042)**
Cash flows from operating activities after investing activities	**(236,977)**	**93,808**	**66,608**	**446,845**
Cash flows from financing activities				
Payment of lease liabilities	(2,781)	(4,470)	(10,289)	(12,602)
Purchase of treasury shares	—	—	—	(100,928)
Proceeds from issuance of treasury shares	—	—	—	863
Credit facility renewal fee paid	—	4	(660)	—
Dividends to common shareholders	—	—	(121,650)	(123,383)
Net cash used in financing activities	**(2,781)**	**(4,466)**	**(132,599)**	**(236,050)**
Foreign currency translation effect	(11,187)	693	(6,201)	7,154
Net increase (decrease) in cash and cash equivalents	**(250,945)**	**90,035**	**(72,192)**	**217,949**
Cash and cash equivalents at beginning of period	670,260	547,229	491,507	419,315
Cash and cash equivalents at end of period	419,315	637,264	419,315	637,264

(Estimated) amortization and earn-out expenses

(Estimated) purchase price allocation amortization and earn-out expenses relating to the 2022 acquisitions of Reno and LPE are as follows:

€ million	Q4 2022 Actual	Q3 2023 Actual	Q4 2023 Actual	YTD 2022 Actual	YTD 2023 Actual	2024 Estimate	2025 Estimate	2026 Estimate	2027 Estimate
Cost of sales	(3.1)	(5.2)	(4.7)	(3.1)	(27.0)	—	—	—	—
Net research and development	(3.6)	(3.5)	(3.5)	(4.4)	(14.0)	(14.0)	(14.0)	(14.0)	(14.0)
Selling, general and administrative	(1.2)	(1.2)	(1.2)	(1.2)	(4.8)	(4.9)	(4.9)	(4.7)	(4.0)
Total impact on operating results	**(7.9)**	**(9.9)**	**(9.4)**	**(8.7)**	**(45.8)**	**(18.9)**	**(18.9)**	**(18.7)**	**(18.0)**
Finance expense[1]	(2.6)	(2.4)	(2.4)	(2.6)	(9.7)	(8.7)	(3.0)	—	—
Income taxes (realization temporary differences)	2.2	2.7	2.6	2.3	12.7	5.2	5.2	5.1	4.9
Total impact on net	**(8.3)**	**(9.6)**	**(9.2)**	**(9.0)**	**(42.8)**	**(22.4)**	**(16.7)**	**(13.6)**	**(13.1)**

[1] Finance expenses include the change in fair value of the contingent consideration (LPE earn-out).

Notes to the consolidated financial statement

Basis of presentation

ASM's annual accounts are prepared in accordance with International Financial Reporting Standards as adopted by the European Union ('IFRS-EU'). In preparing the financial information in this document, except as described otherwise, the same accounting principles are applied as in the 2022 ASM International N.V. consolidated annual accounts.

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

All reported data is unaudited.

Principles of consolidation

The Consolidated Financial Statements include the accounts of ASM and its subsidiaries, where ASM holds a controlling interest. All unrealized intercompany profits, transactions and balances have been eliminated in consolidation. Associates are investments in entities in which ASM can exert significant influence but which ASM does not control, generally by ASM having between 20% and 50% of the voting rights. These entities are accounted for using the equity method.