



# ASM Q4 and FY 2023 results

February 27, 2024

# Cautionary note regarding forward-looking statements

All matters discussed in this presentation, 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.

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# Investment highlights

# Investment highlights

## Strong long-term prospects

- ASM is focused on enabling deposition technologies, with key strengths in innovation
- Leader in the ALD market, which is expected to grow by a CAGR of 10%-14% from 2022 to 2027
- Expanding our position in the silicon epitaxy (Si Epi) market (CAGR of 10%-15% from 2022 to 2027 for the leading-edge Si Epi segment)
- Selective growth in PECVD and Vertical Furnaces, and healthy growth in spares & services
- Have added a rapidly growing product line in silicon carbide epitaxy (SiC Epi) with significant demand growth

## A healthy profitability

- FY 2023 normalized gross margin of 49.3% and normalized operating margin of 26.6%

## Strong balance sheet

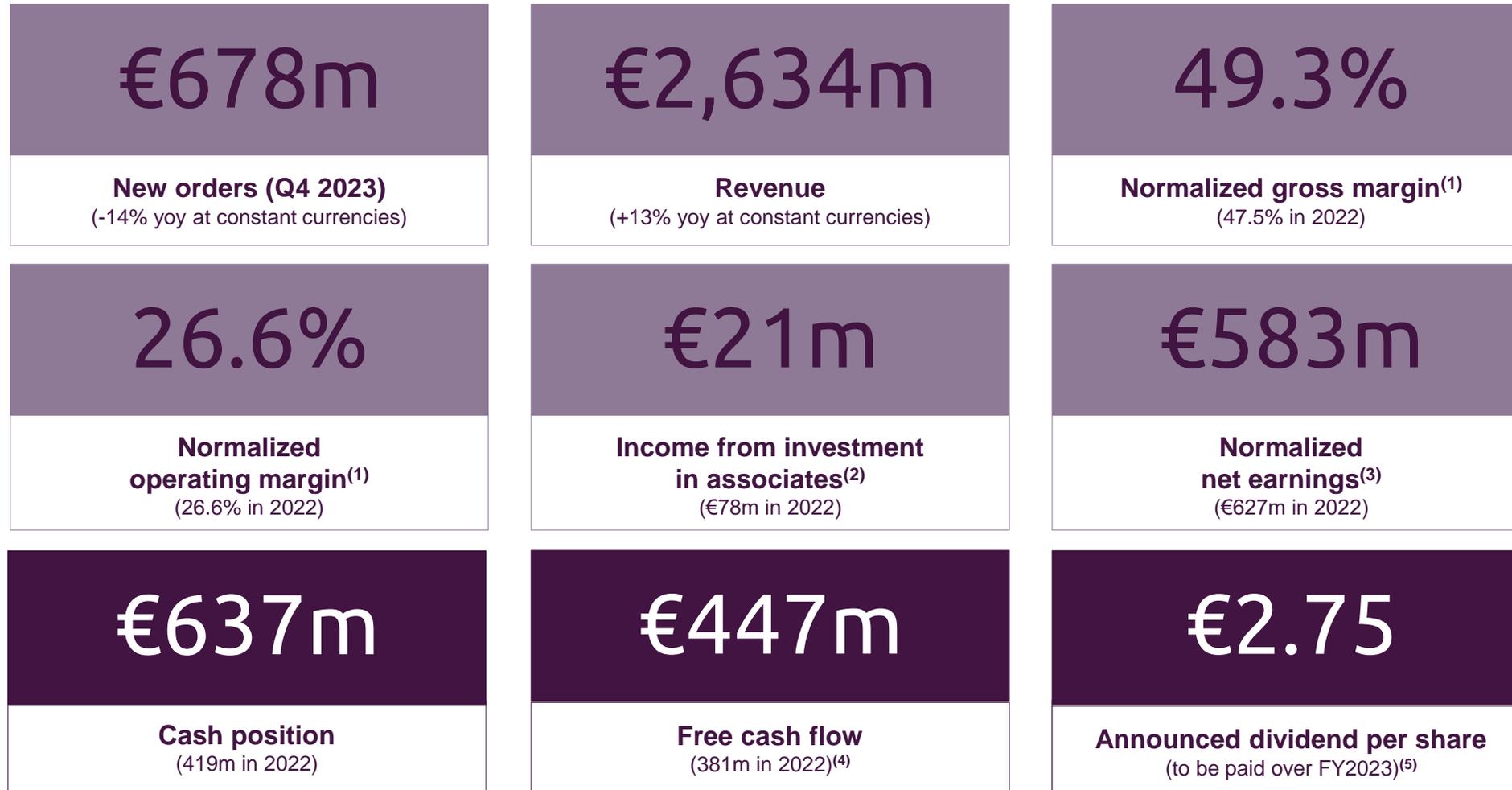
- Solid cash position of €637m at the end of Q4 2023, no debt
- A dividend of €2.75 per share will be proposed at the next AGM
- New share buyback of €150m announced on February 27, 2024, to be executed over the 2024/2025 timeframe

## Stepping up our focus on ESG

- Net Zero targets to 2035 for scope 1, 2, and 3 were verified by the SBTi in August 2023
- Increased use of renewable electricity, from 73% in 2022 to 88% in 2023
- We are targeting an increase in the female participation rate to 20% of the total workforce by 2025, up from 17% in 2023.

# Q4 and FY 2023 results

# FY 2023 financial highlights



(1) Excluding amortization of fair value adjustments from respective purchase price allocations (before tax)

(2) Excluding amortization intangible assets resulting from the sale of ASMPT stake in 2013

(3) 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

(4) 2022 free cash flow excluding cash spent on acquisitions

(5) Proposed

# Q4 and FY 2023 financial highlights

## Orders and revenue

- Q4 2023 orders of €678 million driven by GAA-pilot line orders and continued strength in China demand
- Q4 2023 revenue of €633 million, in line with our guidance of €600-640 million
- FY 2023 revenue came in at €2,634 million (+13% yoy at constant currencies), outperforming the WFE market

## Margins and profitability

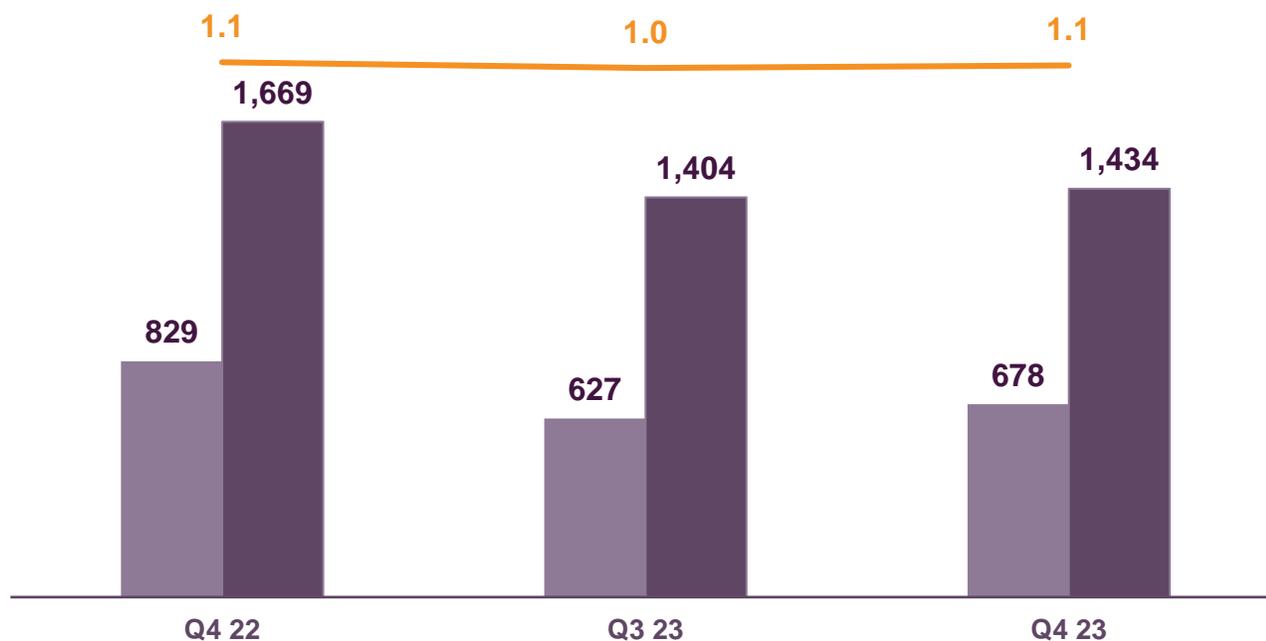
- Q4 2023 normalized gross margin was 47.9% (46.9% in Q4 2022) and FY 2023 gross margin of 49.3% (47.5% in FY 2022) were supported by application mix, including an increased contribution from China sales
- Q4 2023 operating margin was 22.3% and 26.6% for FY 2023, impacted by an increase in operating expenses
- Free cash flow increased by 17% in 2023, even with a further increase in capex

## End-market demand and outlook

- Our memory revenue dropped in 2023, due to significant investment cuts in the segments, and despite relatively healthy demand for high-performance DRAM
- Leading-edge logic/foundry was lower in 2023, impacted by weak end-markets and delays in some new customers' fabs
- This was offset by strong demand in mature nodes: in power/analog/wafer, and in mature logic/foundry, particularly in China
- Our SiC Epi business grew strongly in 2023, comfortably meeting the revenue target of more than €130 million and with synergies already paying off
- In December 2023 we announced an investment of around €300 million over a period of five years to build a new state-of-the-art R&D center in Arizona

# Q4 orders led by GAA & continued China strength

## Orders and backlog (€m)



■ New orders ■ Backlog — Book-to-bill

Q4 2023 new orders came in at €678m, -14% yoy at constant currencies (cc) and -18% as reported. Compared to Q3 23, new orders were up 7% at constant currencies.

New orders were led by foundry, followed by logic and power/analog/wafer.

Q4 2023 orders were driven by GAA pilot-line, and continued strength in China demand.

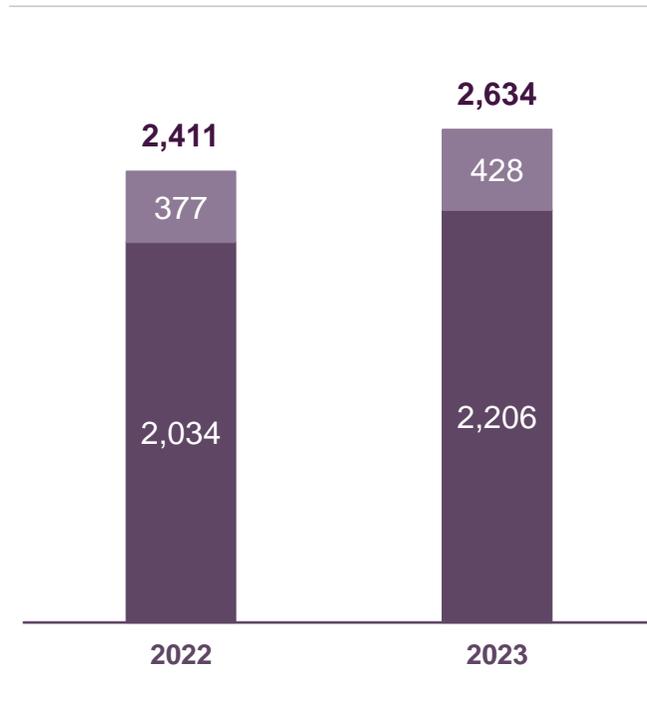
# FY23 revenue up 13% at cc, outperforming WFE

## Quarters (€m)



■ Equipment revenue ■ Spares & services revenue

## Annuals (€m)



### Q4 2023 revenue

Q4 2023 revenue increased to €633 million, down 8% yoy at cc but up 1% qoq at cc. Revenue was driven by foundry, followed by power/analog/wafer, and then memory.

### FY 2023 revenue

FY 2023 revenue increased +13% yoy at cc, marking our seventh consecutive year of double-digit growth.

Equipment revenue was led in 2023 by foundry, followed by power/analog/wafer, logic, and then memory.

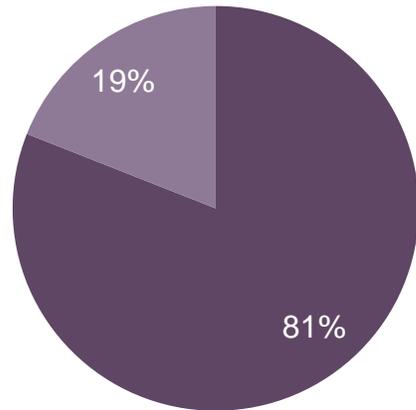
Spares & services revenue increased 12% yoy at cc.

# Demand for mature nodes was a key driver in 2023

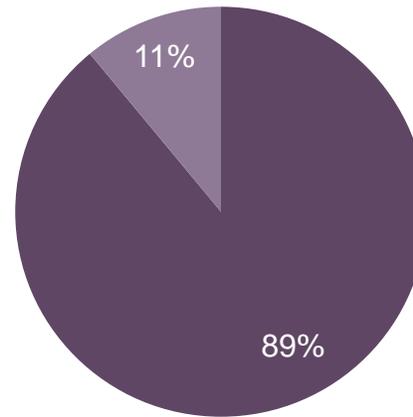


## Revenue by customer segment as % of equipment revenue

2022



2023



■ Logic/foundry/other ■ Memory

In 2023 combined logic/foundry sales were up moderately and continued to account for the larger part of equipment sales.

In Q1 2023, the advanced part of the logic/foundry market was still solid, but starting in Q2 2023, conditions softened, impacted by soft end-markets, and delays in some new customers' fabs.

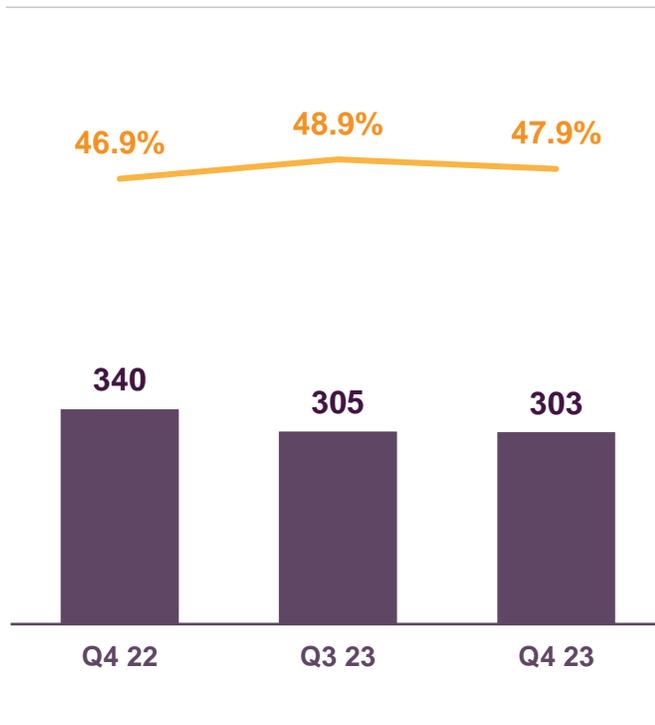
The weakness in the advanced segment was offset by a strong increase in mature logic/foundry sales, particularly in the Chinese market.

Memory sales decreased by around 40%, dropping from 19% in 2022 to 11% in 2023, reflecting the sharp correction in this segment.

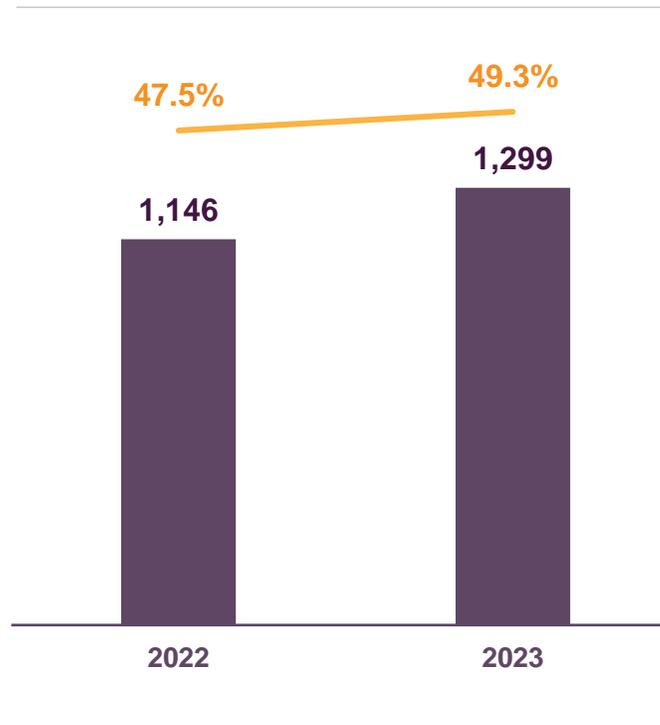
Power/analog/wafer revenue almost doubled, mainly driven by strong China demand. Sales were also positively impacted by the consolidation of LPE (SiC Epi), with sales comfortably meeting our target of more than €130 million in 2023.

# Gross margin increased due to healthy mix in '23

## Quarters (€m)



## Annuals (€m)



■ Normalized gross profit    — Normalized gross margin

### Q4 2023 normalized gross margin

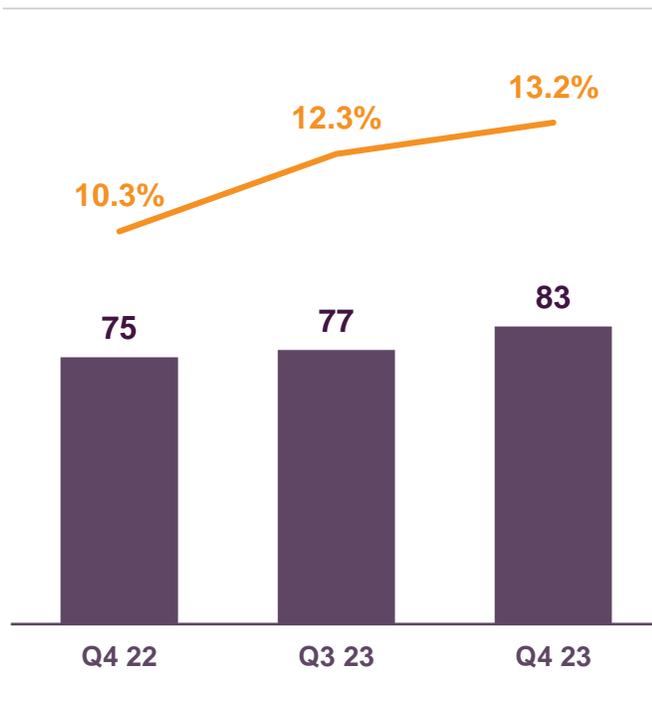
While the mix remained favorable in Q4 2023, including a continued strong contribution from China sales with above average profitability, the gross margin in Q4 2023 was impacted by approximately 1% due to a one-off restructuring cost in relation to further optimization of our global manufacturing footprint.

### FY 2023 normalized gross margin

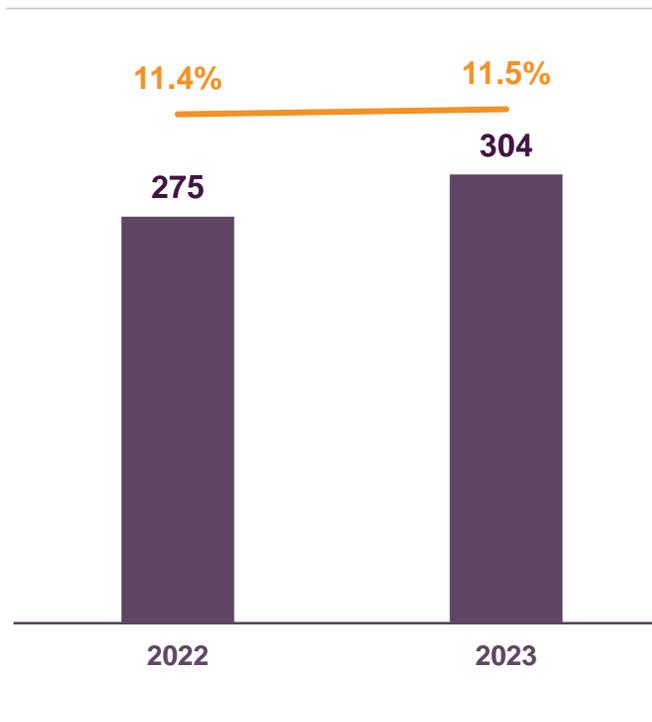
Gross margin improved by 1.8 percentage points in 2023, explained by mix effects, including increased contribution from China sales, and, especially in Q1 2023, a favorable application mix within our ALD sales.

# SG&A: yoy growth rate moderated in '23

## Quarters (€m)



## Annuals (€m)



■ Normalized SG&A    — Normalized SG&A as % of revenue

### Q4 2023 normalized SG&A

SG&A increased 12% yoy and 9% qoq.

The increase is mainly due to increased headcount and variable compensation, as well continued investments in IT initiatives.

The impact of currency changes for Q4 2023 was a decrease of 5% yoy, and an increase of 1% qoq.

### FY 2023 normalized SG&A

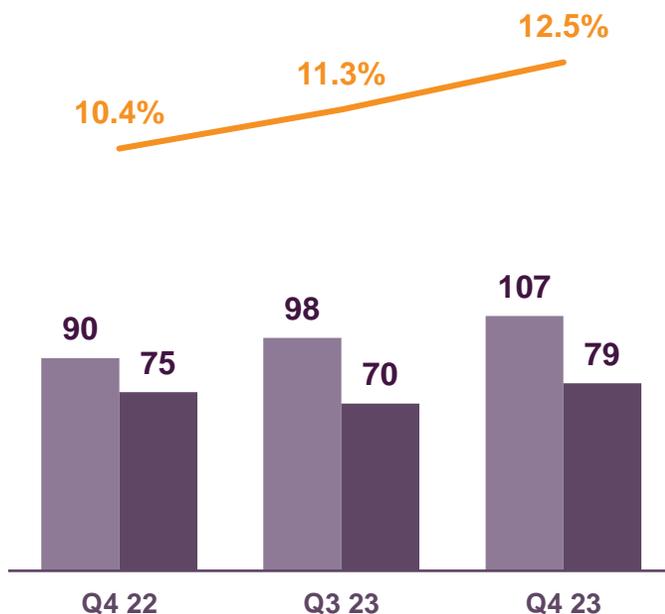
SG&A increased by 10% yoy. The SG&A growth rate in 2023 moderated compared to the increase of 45% in 2022. In 2022 we stepped up investments in strengthening the organization, which were for a large part completed in 2023.

In 2023 we continued our focus on cost control, also in view of the softer market conditions.

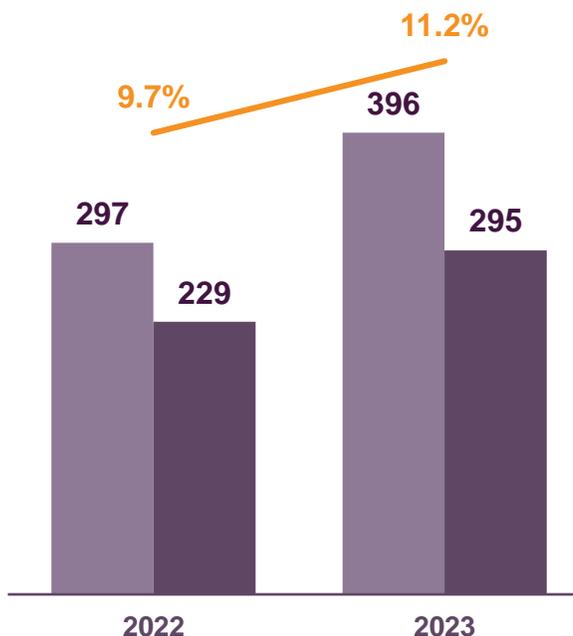
In 2023, our headcount grew 7%, compared to an increase of 29% in 2022.

# Continued investments in R&D

## Quarters (€m)



## Annuals (€m)



- Normalized gross R&D
- Normalized net R&D
- Normalized net R&D as % of revenue

### Q4 2023 normalized R&D

R&D increased to 12% compared to the previous quarter and increased by 5% year-on-year. The yoy increase in R&D is driven by continued investment in R&D capabilities to support future growth.

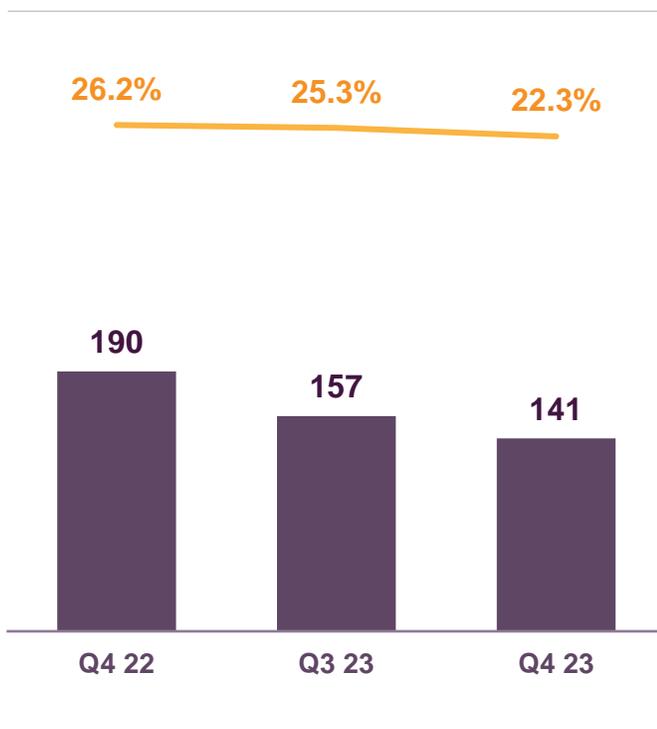
The impact of currency changes for Q4 2023 was an increase of 1% qoq, and a decrease of 5% yoy.

### FY 2023 normalized R&D

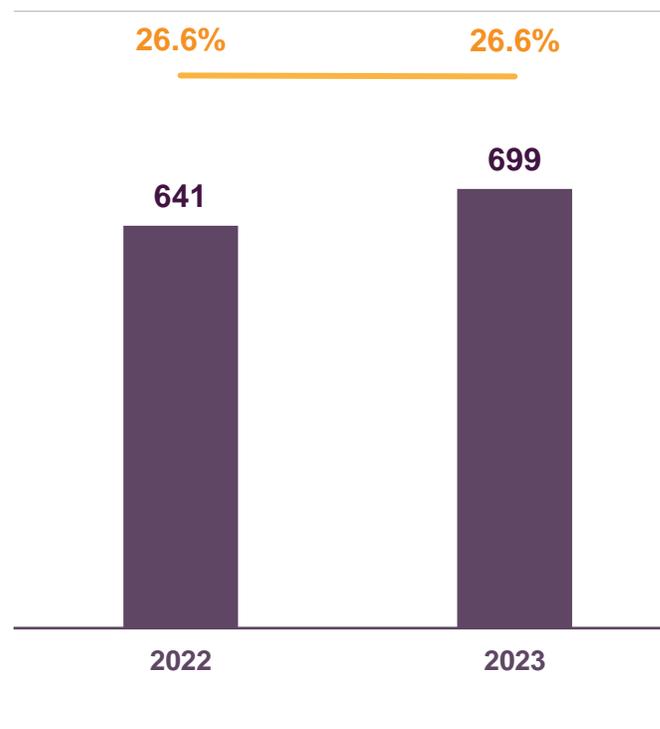
Net R&D increased by 29% yoy, driven by a higher headcount - up 11% in 2023 - as well as more R&D projects and engagements with customers for new products and applications in the future technology nodes.

# FY23 operating margin was flat yoy

## Quarters (€m)



## Annuals (€m)



■ Normalized operating result  
— Normalized operating margin

### Q4 2023 normalized operating result

The decrease in operating result reflected lower gross profit due to lower sales and higher SG&A and R&D expenses.

### FY 2023 normalized operating result

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.

Operating result increased 9% year-on-year supported by higher gross profit, and partially offset by higher SG&A and R&D expenses.

# Net earnings at €583 million

## Interest expense, investment in associates, net earnings (€m)

	Q4 22	Q3 23	Q4 23	FY 2022	FY 2023
Normalized net interest income (expense)	0	3	4	1	11
Foreign currency exchange gains (losses)	(36)	3	(25)	25	(21)
Normalized share in income of investments in associates	8	0	2	78	21
Normalized income taxes	(20)	(25)	(21)	(118)	(127)
<b>Net earnings</b>	<b>237</b>	<b>130</b>	<b>91</b>	<b>389</b>	<b>752</b>
Amortization of purchase price allocation	(11)	(10)	(10)	(22)	(50)
Income taxes (realization of temporary differences) and finance expenses (earn-out)	(0)	0	0	(0)	(3)
Impairment of investments in associates	-	-	-	(321)	-
Reversal of impairment of investments in associates	106	-	-	106	215
<b>Normalized net earnings</b>	<b>142</b>	<b>139</b>	<b>100</b>	<b>627</b>	<b>583</b>

### Normalized income from investments in associates (25% shareholding in ASMPT)

Q4 2023 share in income investments in associates increased by €2 million in comparison to Q3 2023.

FY 2023 normalized income from investments in associates amounted to €21 million, decreasing by 73% YOY.

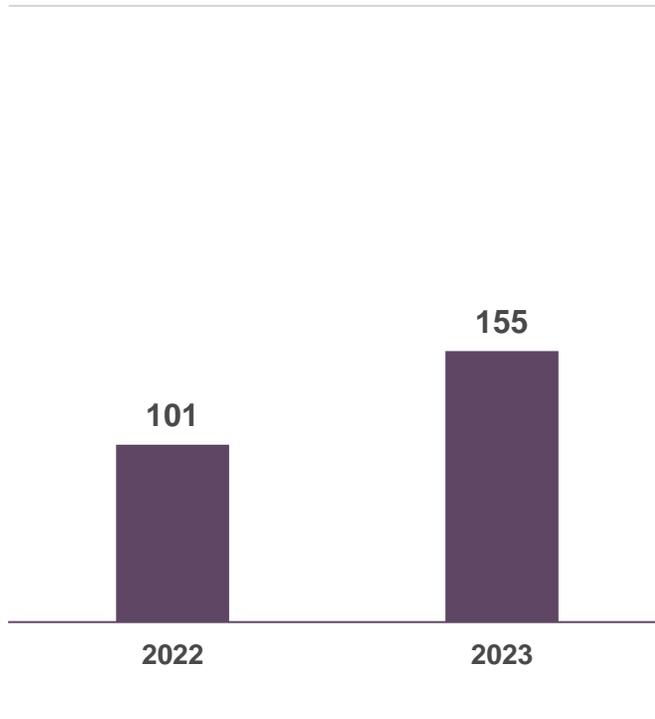
### Normalized income tax

The normalized effective tax rate, excluding the share in income and impairment of ASMPT for full year 2023 is 18.1% (2022: 17.7%).

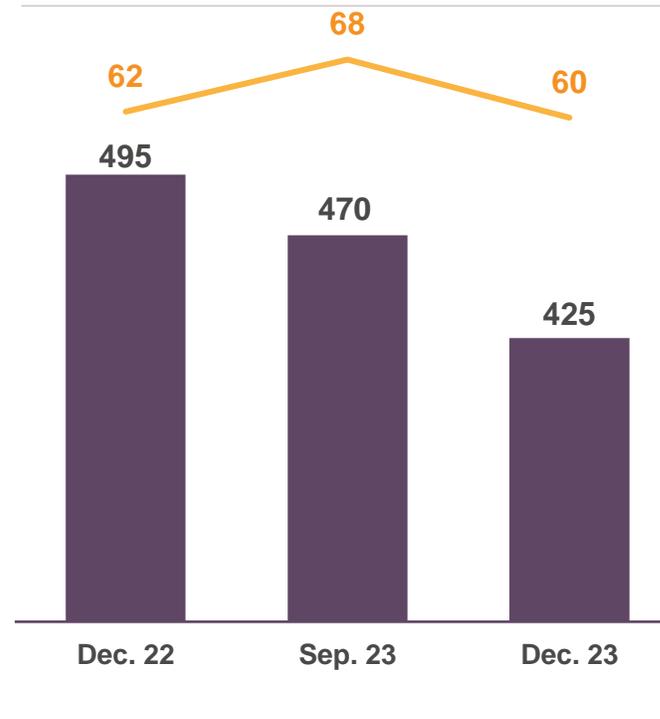
# Capex in line with target; working capital improved



## Capital expenditures (€m)



## Working capital (€m)



■ Working capital    — Days of working capital

### Capital expenditures

Capex increased to €155 million for 2023, from €101 million in 2022, mainly related to the expansion of our R&D labs.

Capex guidance for the period 2024-2027 is €100-180 million per year.

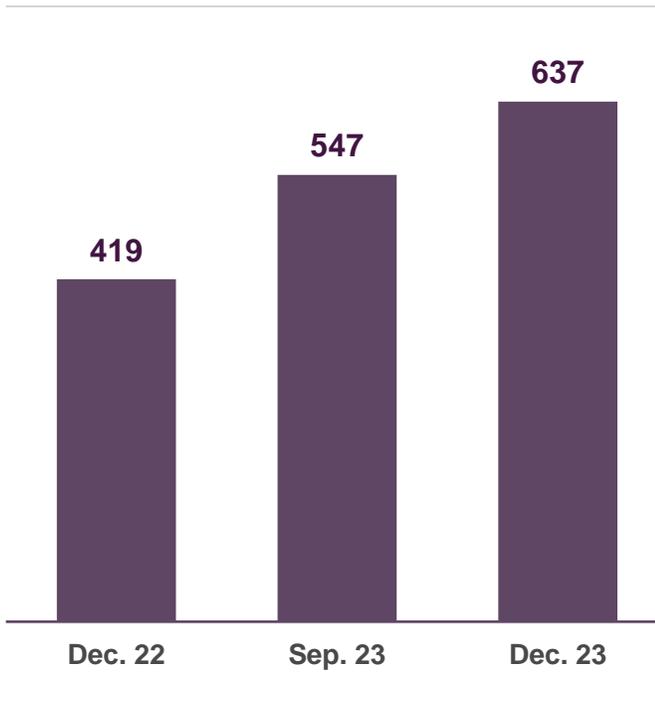
### Working capital

Decrease in net working capital reflected:

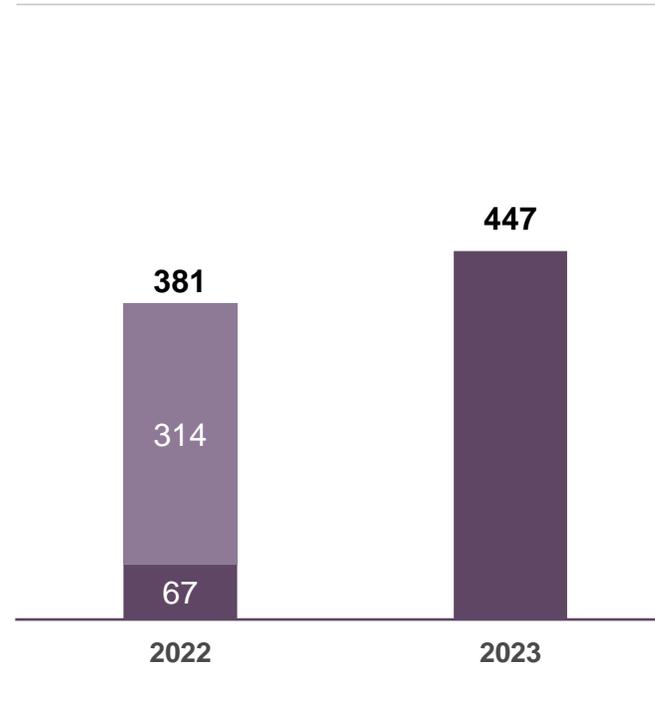
- a decrease in accounts receivable, as we managed good cash collection from customers, and reflecting the lower revenue level in Q4 2023 compared to Q4 2022.
- A decrease in inventories thanks to lower WIP levels on the back of the normalization of supply-chain conditions. At the same time, we still maintained higher buffer inventories of critical parts and materials to increase our flexibility

# Solid cash of €637m, FCF up 17% yoy

## Cash (€m)



## Free cash flow (€m)



■ Cash spent on acquisitions

### Cash

Cash position increased to €637 million

### Free cash flow

FY23 free cash flow improved 17% yoy, mainly thanks to improved working capital and despite an increase in capex

# Financial outlook

## As included in the Q4 2023 earnings press release published on February 27, 2024:

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.

# Business environment, strategy, and targets

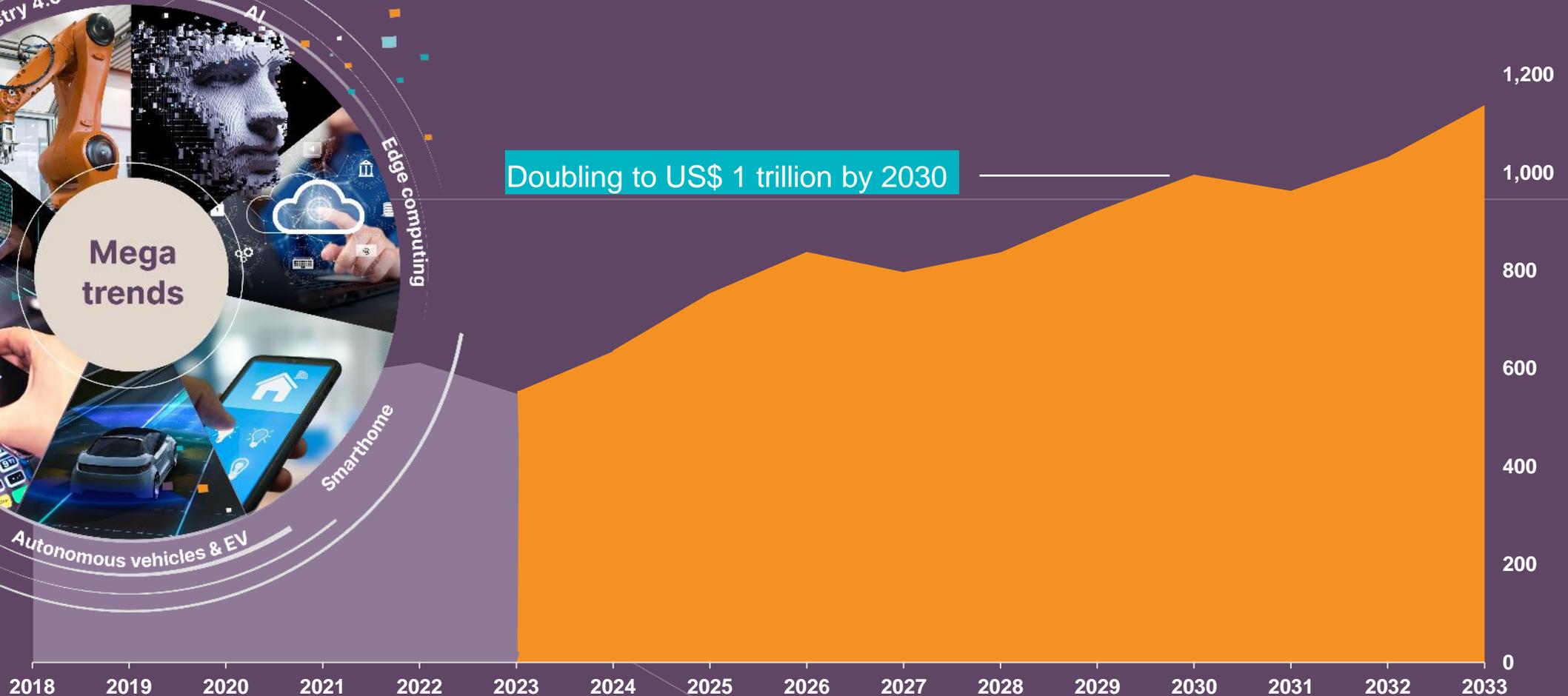
# Digital transformation drives structural growth

## Megatrends driving the semiconductor market



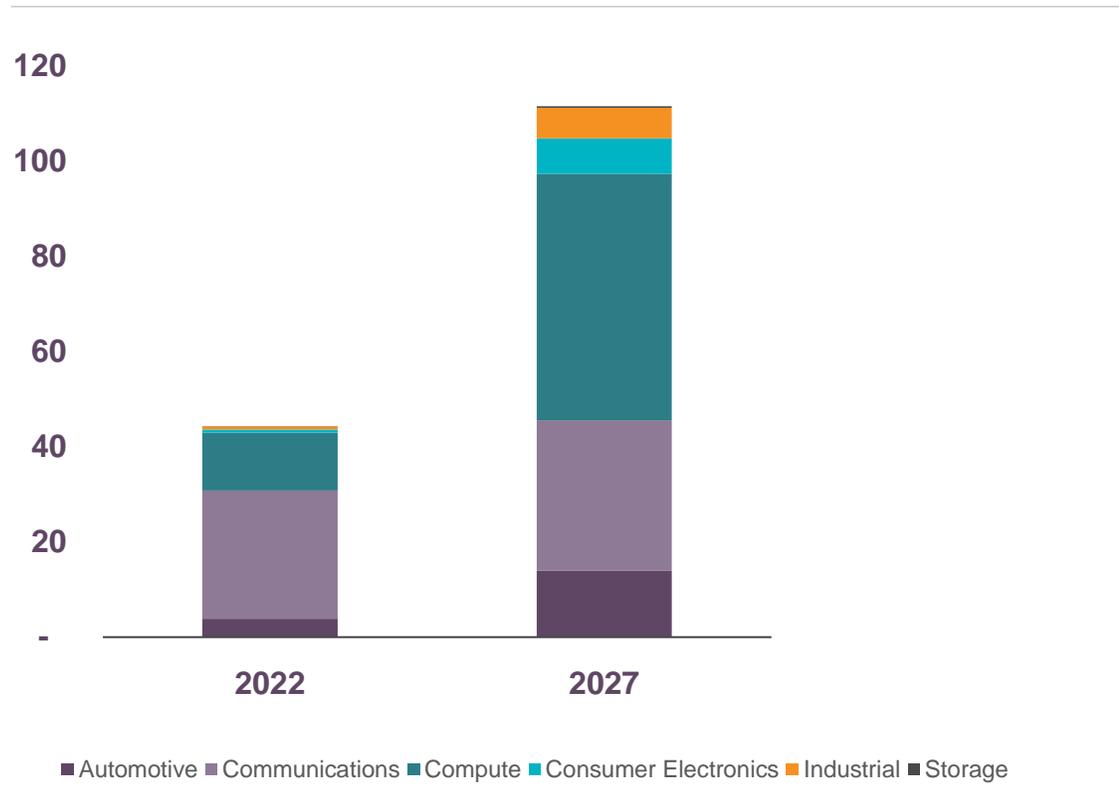
Semiconductor revenue (US\$ billion)

Doubling to US\$ 1 trillion by 2030



# AI to drive increased capacity requirements

## AI semiconductor sales outlook (US\$b)



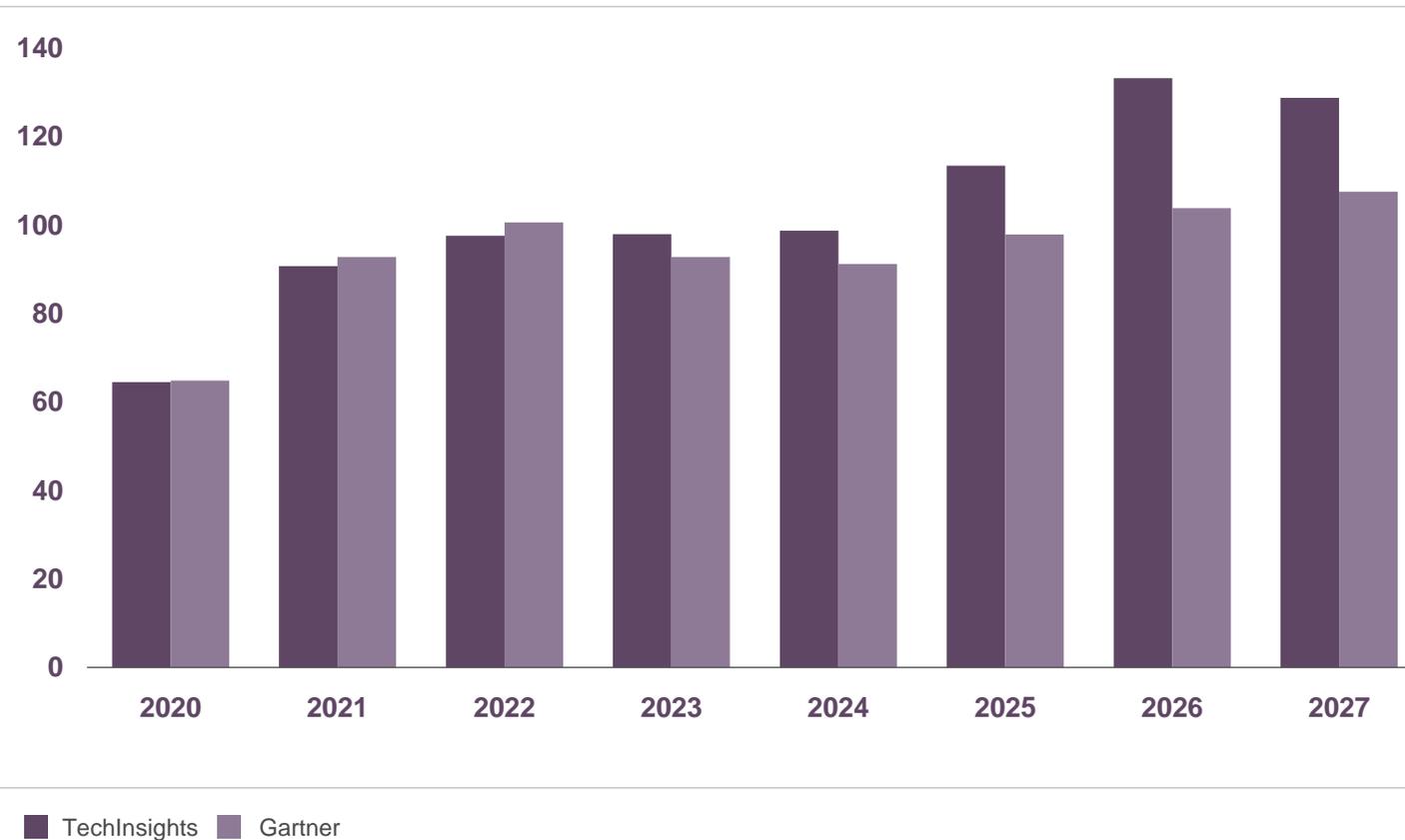
### What it means for ASM:

- **Increased capacity**
  - More datacenters with higher content servers GPU, ASIC, communications, HB DRAM
  - More silicon content edge device (ex. phone GPU, NPU, Auto ADAS systems)
    - More fabs
- **Inflections**
  - Acceleration of Finfet to GAA → more single-wafer ALD and Epi steps
  - High performance/ bandwidth DRAM drives high-k adoption, metals → more single-wafer ALD and Epi steps

**AI-specific functions in >30% of logic devices by 2027 with significant upside**

# WFE spending expected to grow in 2024-2027

## WFE market forecast (US\$b)



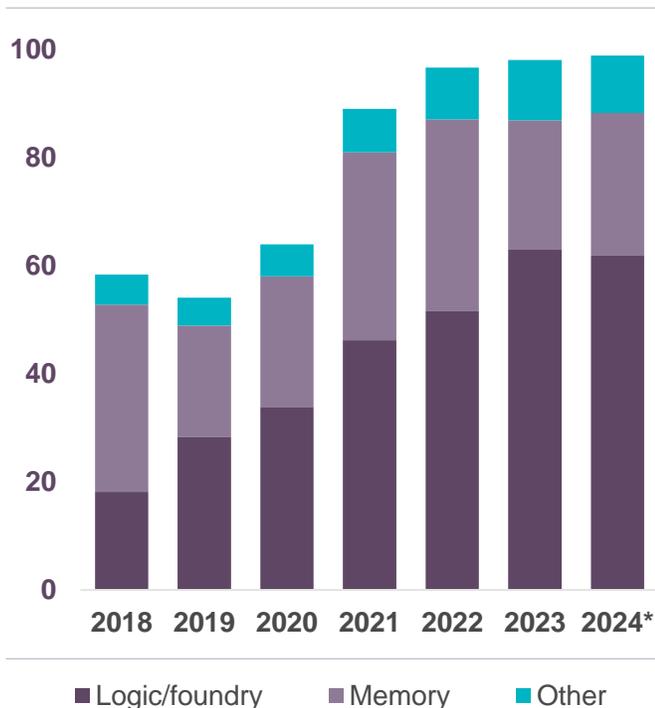
## WFE growth driven by secular trends of AI, 5G, EV, edge computing, etc.

- Longer-term trend supported by multi-year investments
- Further scaling, 3D transitions and GAA driving investments in advanced CMOS
- In recent years, particularly in 2023, increased investments in China have contributed to WFE growth

# WFE by application & ASM customer concentration

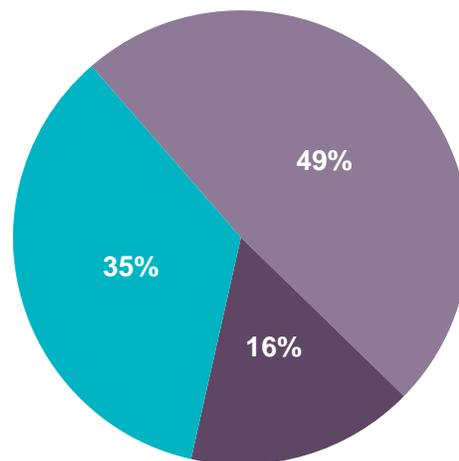
## WFE market by application

in US\$b



## ASM FY23 revenue by customer concentration

in %



- 5 largest customers
- From 6th to 10th customer
- Rest of customers

## WFE market by application

Logic and foundry to account for more than half of total WFE sales in 2024

## ASM FY 2023 revenue by customer concentration

The 5 largest customers accounted for 49% of revenue in FY2023

The next 5 largest customers, 6<sup>th</sup> to 10<sup>th</sup>, accounted for 16% of revenue in FY2023

\* 2024 estimates

Source: TechInsights December 2023

# Growth through Innovation - strategy unchanged



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

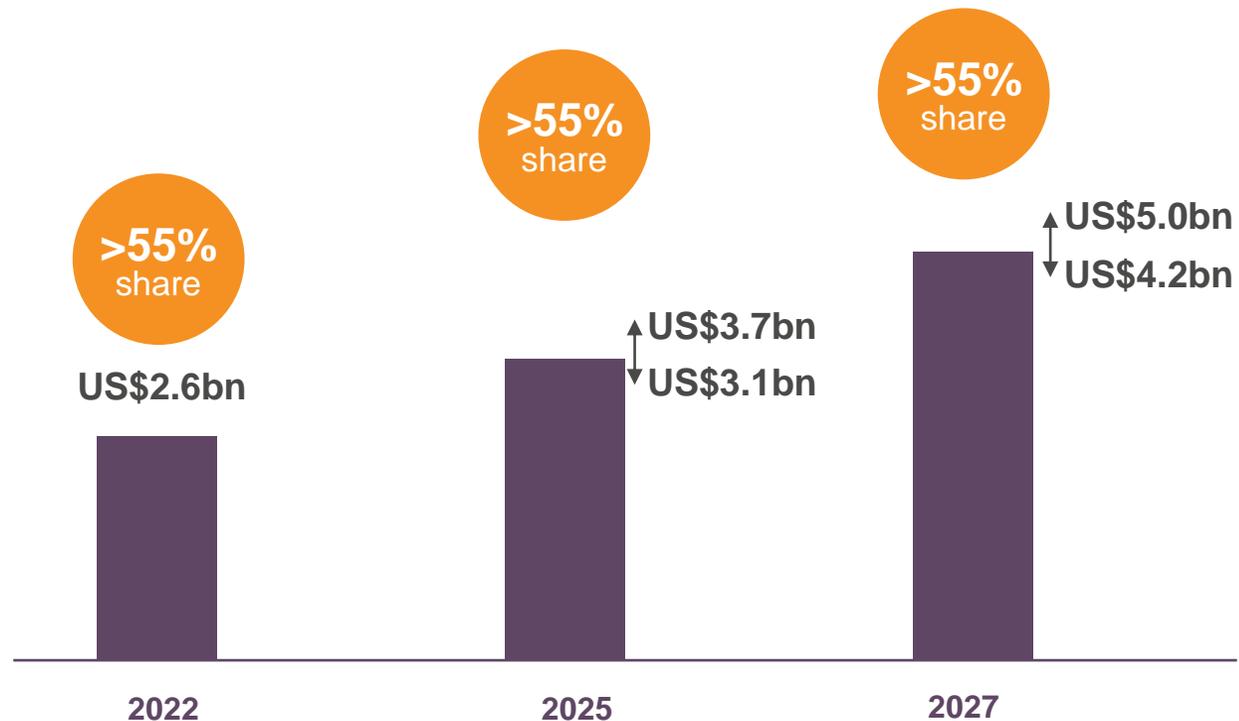


## Strategy enablers



# ALD market to increase to \$4.2-5.0b by 2027

## Single-wafer ALD market outlook (US\$b)



Note: estimated range for 2025 is unchanged compared to 2021 Investor Day, forecast for 2027 was introduced in Investor Day 2023

### → Logic/foundry

- GAA transition
- High-k gate & Vt tuning
- Sacrificial layers, HM, ESL
- Metals
- Selective ALD
- High aspect ratio TSV

### → Memory

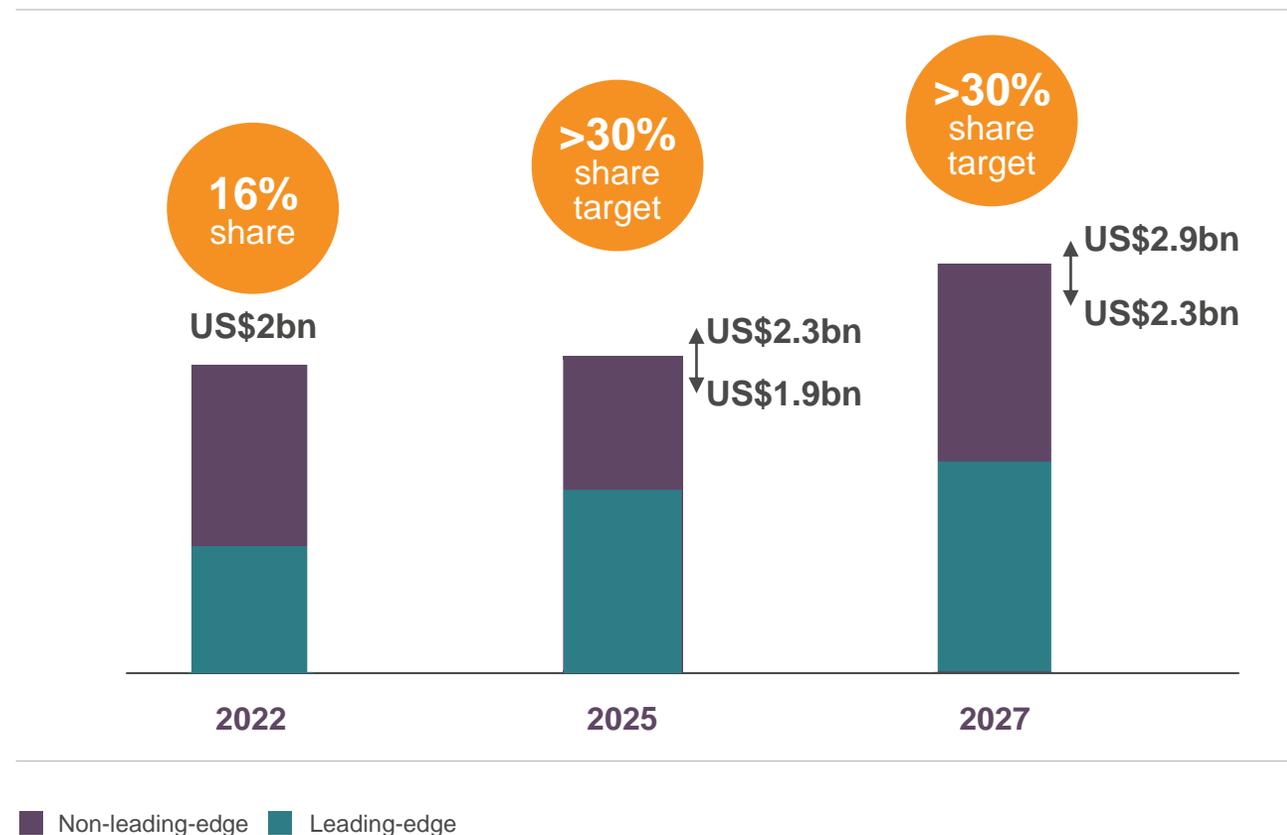
- High-k gate & Vt tuning
- Metals
- High aspect ratio gap-fill
- Selective ALD

### → CAGR ALD market '22-'27 10-14%

# Si epi market to reach \$2.3-2.9b by 2027

## Si epitaxy market outlook

(US\$b)



Note: estimated range for 2025 has been increased compared to US\$1.5-1.8bn presented in Investor Day 2021, forecast for 2027 was introduced in Investor Day 2023

Source TechInsights, ASM  
2025 estimates based on US\$100 billion WFE; 2027 estimates based on US\$120 billion WFE

### → Leading-edge

- Continued growth in leading-edge driven by GAA and high-performance DRAM

### → Non-leading-edge

#### • Wafer, power, analog

- Continued growth in wafer, power, analog compared
- Strong momentum driven by Intrepid ESA

#### • Non-leading-edge foundry

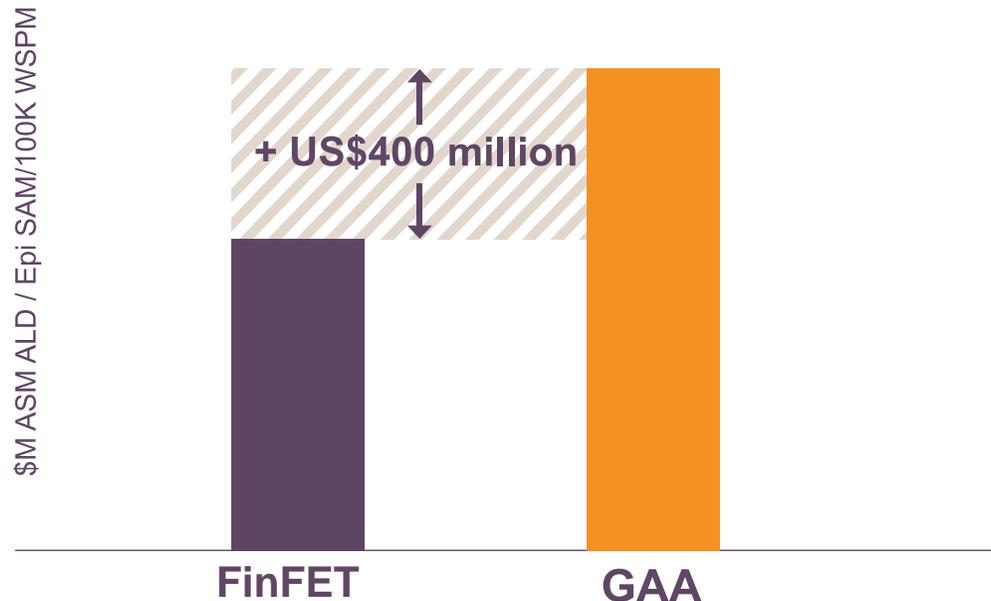
- Investments in 2025-2027 expected to be at lower level compared to 2022
- ASM continues to have a limited position

### → Change in market mix towards leading edge expected in 2024-2027 with move to GAA

### → CAGR Si epitaxy market '22-'27 3-8%, with leading-edge segment outgrowing epi market with CAGR '22-'27 of 10-15%

# Increased ALD and Epi SAM with move to GAA

Increases served available market for ASM by ~ US\$400 million per 100k wafer starts per month (WSPM)



## → Single-wafer ALD

- High-k gate & Vt tuning
- Sacrificial layers, HM, ESL
- Metals
- Selective ALD
- High aspect ratio TSV

## → Epitaxy

- GAA nanosheet stack
- Source/drain contact

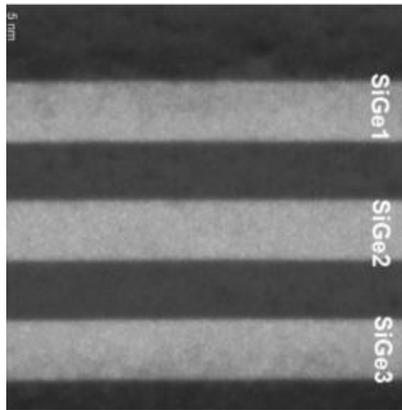
### In the transition to gate-all-around:

- We expect to maintain our leading market share in single-wafer ALD
- We expect to gain market share in Epi

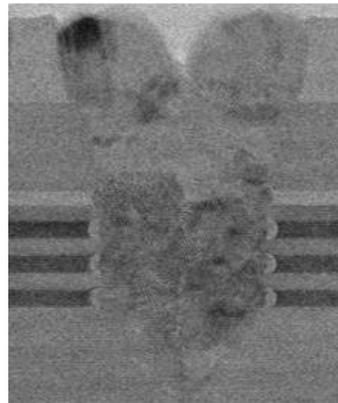
**First meaningful orders of GAA pilot line booked in H2 2023**

ASM internal market data, figure not to scale

# Logic GAA creates new ALD/Epi opportunities

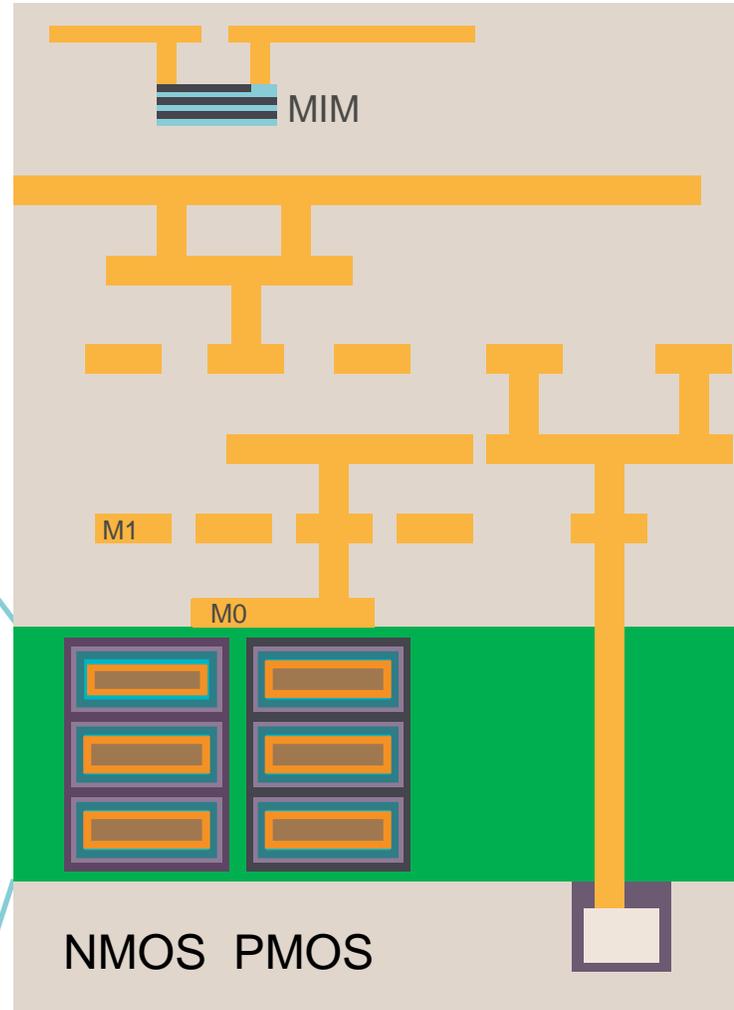
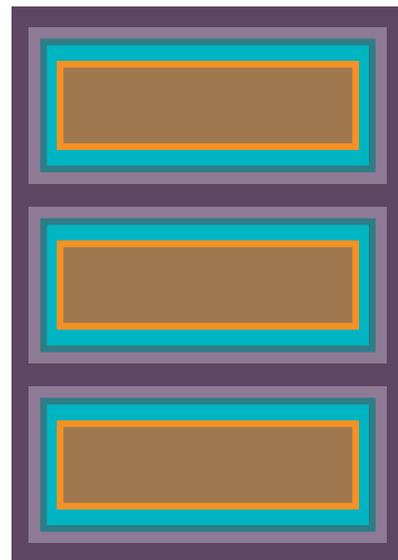


Channel Epi



Source/Drain Epi

- Epi Si
- IL
- High-k
- Dipole
- TiN
- WFMs



Simplified Schematic. Not all layers are shown, and each layer may consist of few individual ones.

## New interconnect metals:

- Molybdenum replacing CVD Tungsten and PVD Copper

## Selective deposition processes for performance and Yield:

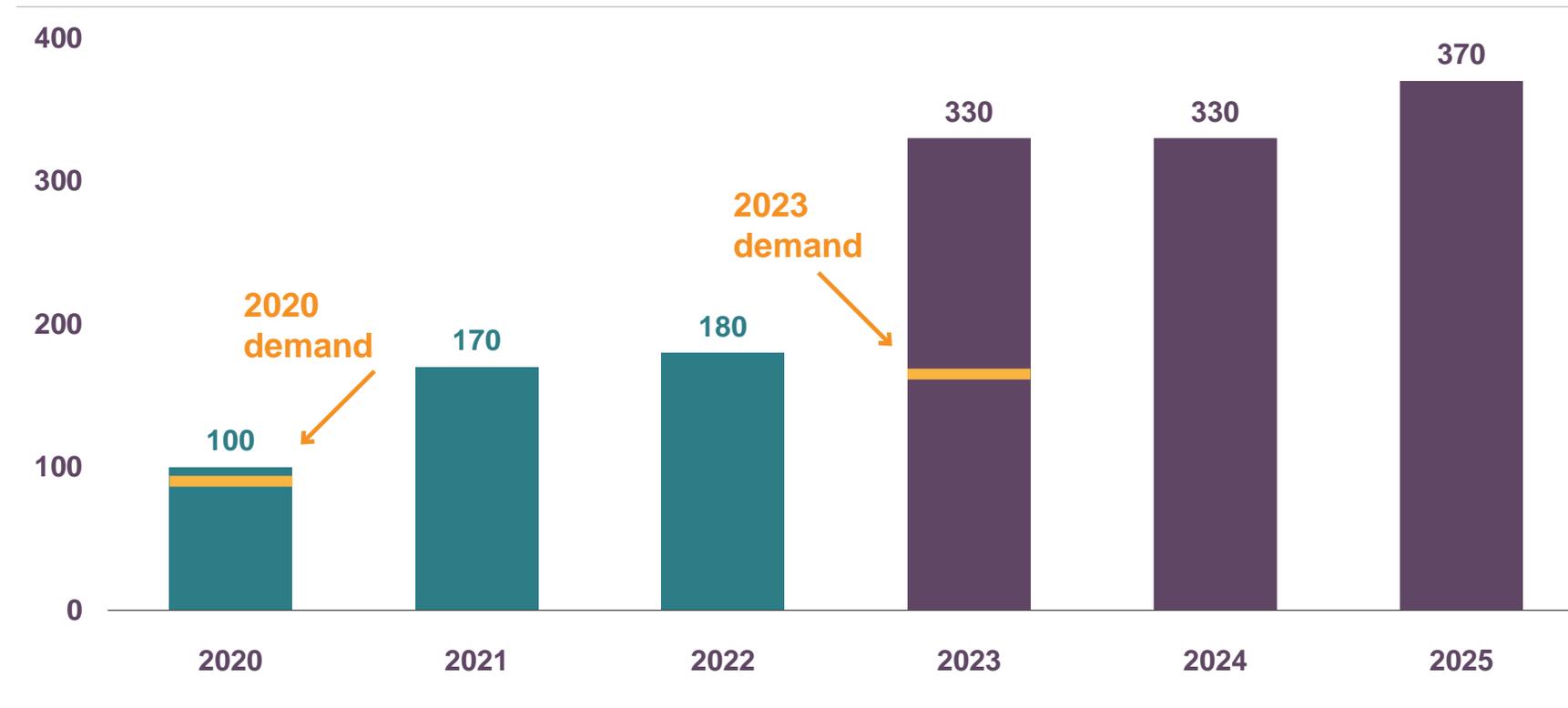
- DoD and MoD

## Increasing embedded functionality:

- a) additional memory with MIMCAP (Hf-based ALD dielectrics) and
- b) Power Management using IGZO channels for TFT

# ASM investing in capacity ahead of needs

## Indexed manufacturing capacity (2020=100)



→ Capacity in place for targeted growth through 2027 following Singapore second floor expansion, completed in 2023, and Korea expansion, to be completed in 2025

# Target net zero by 2035



**SBTi verified ASM Net Zero 2035 target, announced in August 2023**



**Target 100% renewable electricity (RE) by 2024**

- Use of RE increased from 73% to 88% in 2023



**Scope 3 use of our products is the majority of our GHG footprint**

- Product sustainability fully incorporated in the product development and improvement process



**ASM - originator, founding member, and chair of Semiconductor Climate Consortium**

- Recognized through inaugural SEMI Sustainability Leadership Award at SEMICON West 2023

# Sustainability fully integrated into product development



**Our vision is to develop differentiated & eco-efficient tools & processes, while maximizing energy saving through product innovation.**



**Our aim is to lower energy/precursor usage, emissions and cost per wafer**

# FY23 results, in line with our FY25 & FY27 targets

	FY2022 <sup>(1)</sup>	FY2023 <sup>(1)</sup>	FY2025	FY2027
Revenue	€2.4 billion	€2.6 billion	€3.0 - €3.6 billion	€4.0 - €5.0 billion
Revenue growth	33% yoy <sup>(2)</sup>	9% yoy <sup>(2)</sup>	16 - 21% CAGR (FY20-FY25)	11 - 16% CAGR (FY22-FY27)
Gross margin %	47.5%	49.3%	46 - 50% (FY21-FY25)	46 - 50% (FY25-FY27)
SG&A % revenue	11.4%	11.5%	High single digit (FY25)	High single digit (FY25-FY27)
R&D (net) % revenue	9.5%	11.2%	High single digit to low teens (FY25)	High single digit to low teens (FY25-FY27)
Operating margin %	26.6%	26.6%	26-31% (FY21-FY25)	26-31% (FY25-FY27)
Capex	€101 million	€154 million	€100 - €180 million (FY25)	€100 - €180 million (FY27)
Effective Tax Rate	17.7% <sup>(3)</sup>	18.1% <sup>(3)</sup>	High teens to low twenties (FY25)	High teens to low twenties (FY25-FY27)
Total working capital	62 days	60 days	55-75 days (FY25)	55-75 days (FY25-FY27)

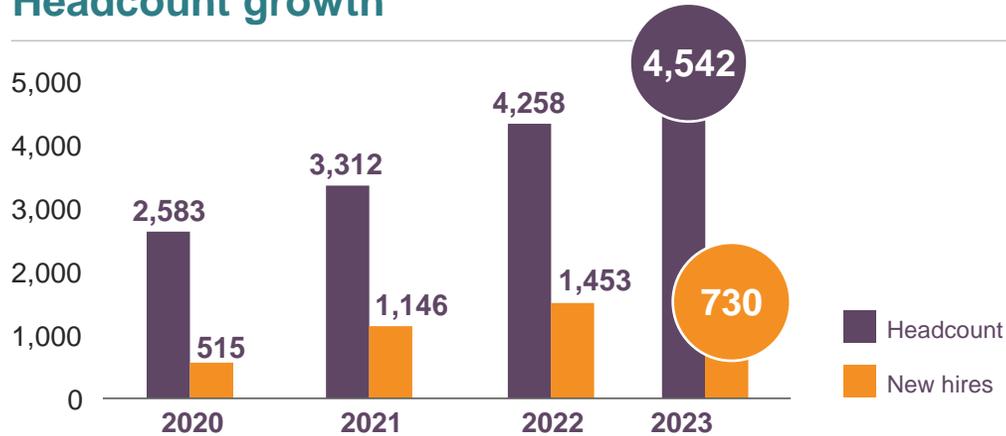
1 Refers to normalized numbers excluding purchase price allocation adjustments

2 Refers to constant currencies

3 Effective tax rate is based on reported results excluding impairment on, and net income of our investment in ASMPT. ETR guidance is based on normalized results

# People are at the heart of our success

## Headcount growth



## Retention

	All employees
2020	89.3%
2021	87.5%
2022	88.1%
2023	90.8%



## Culture



**ACE**

**Accountability**

**Collaboration**

**Empowerment**

### 2023 engagement study

- Our employees understand how their role supports the overall business strategy: 4.25 (85% of favorable answers)
- Meaningful progress on Accountability, Collaboration, Empowerment ( +0.18)

## Diversity



### Gender

- Target of 20% female employees by 2025
- Female participation at 17% in 2023

### Nationalities

- ASM is present in 16 countries
- 66 nationalities - TOP: US, Korea, Singapore.

# Annex: detailed financials

# (Estimated) amortization and earn-out expenses

€ million	Q4 2023 Actual	2023 Actual	FY 2024 Estimate	FY 2025 Estimate	2026 Estimate
Cost of sales	(4.7)	(27.0)	—	—	—
Net research and development expenses	(3.5)	(14.0)	(14.0)	(14.0)	(14.0)
Selling, general and administrative expenses	(1.2)	(4.8)	(4.9)	(4.9)	(4.7)
<b>Total impact on operating results</b>	<b>(9.4)</b>	<b>(45.8)</b>	<b>(18.9)</b>	<b>(18.9)</b>	<b>(18.7)</b>
Finance expense <sup>(1)</sup>	(2.4)	(9.7)	(8.7)	(3.0)	—
Income taxes (realization temporary differences)	2.6	12.7	5.2	5.2	5.1
<b>Total impact on net earnings</b>	<b>(9.3)</b>	<b>(42.8)</b>	<b>(22.4)</b>	<b>(16.7)</b>	<b>(13.6)</b>

<sup>(1)</sup> Finance expenses include the change in fair value of the contingent consideration (LPE earn-out).

# Normalized and reported P&L reconciliation

€ million	Q4 2023 normalized	Δ	Q4 2023 Reported	FY 2023 Normalized	Δ	FY 2023 reported
Revenue	633		633	2,634		2,634
Gross profit	303	(5)	299	1,299	(27)	1,272
Gross margin	47.9%		47.2%	49.3%		48.3%
SG&A	(83)	(1)	(85)	(304)	(5)	(309)
SG&A as a % of revenue	13.2%		13.4%	11.5%		11.7%
Net R&D	(79)	(4)	(83)	(295)	(14)	(309)
Net R&D as a % of revenue	12.5%		13.0%	11.2%		11.7%
Operating profit	141	(9)	132	699	(46)	654
Operating margin	22.3%		20.8%	26.6%		24.8%
Finance income (expense)	(22)	(3)	(24)	(10)	(10)	(20)
Income from investment in associates	2	-	2	21	(4)	18
Net earnings	100	(9)	91	583	169	752

# Income statement (reported)

€ million	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	FY 2022	FY 2023
New orders	829	647	486	627	678	3,153	2,438
Backlog	1,669	1,584	1,400	1,404	1,434	1,669	1,434
Book-to-bill ratio	1.1	0.9	0.7	1.0	1.1	1.3	0.9
<b>Revenue</b>	<b>725</b>	<b>710</b>	<b>669</b>	<b>622</b>	<b>633</b>	<b>2,411</b>	<b>2,634</b>
Cost of sales	(388)	(359)	(346)	(323)	(334)	(1,268)	(1,363)
<b>Gross profit</b>	<b>337</b>	<b>351</b>	<b>323</b>	<b>299</b>	<b>299</b>	<b>1,143</b>	<b>1,272</b>
Selling, general and administrative	(76)	(71)	(75)	(78)	(85)	(277)	(309)
Research and development	(79)	(75)	(77)	(74)	(83)	(234)	(309)
<b>Operating result</b>	<b>182</b>	<b>204</b>	<b>171</b>	<b>147</b>	<b>132</b>	<b>632</b>	<b>654</b>
Net interest income (expense)	(2)	(1)	0	1	1	(2)	1
Foreign currency exchange gain (loss)	(36)	(7)	8	3	(25)	25	(21)
Share in income of investments in associates	5	6	9	0	2	65	18
Reversal of impairment of investments in associates, net	106	215	-	-	-	(215)	215
Earnings before income taxes	255	418	188	152	110	505	867
Income taxes	(18)	(37)	(36)	(22)	(19)	(116)	(114)
<b>Net earnings</b>	<b>237</b>	<b>380</b>	<b>151</b>	<b>130</b>	<b>91</b>	<b>389</b>	<b>752</b>

# Balance sheet

€ million	Dec. 22	Mar. 23	Jun. 23	Sep. 23	Dec. 23
Right-of-use assets	32	34	34	36	35
Property, plant and equipment	312	315	338	384	385
Evaluation tools at customers	69	73	71	71	80
Goodwill	318	318	320	321	320
Other intangible assets	646	647	664	696	706
Investments in associates	686	892	873	886	862
Other investments	6	6	10	11	11
Deferred tax assets	0	0	0	0	0
Other non-current assets	10	10	9	15	19
<b>Total non-current assets</b>	<b>2,079</b>	<b>2,294</b>	<b>2,319</b>	<b>2,418</b>	<b>2,418</b>
Inventories	538	575	582	574	526
Accounts receivable	581	568	535	526	488
Income taxes receivable	19	32	20	6	30
Other current assets	115	98	84	101	128
Cash and cash equivalents	419	573	490	547	637
<b>Total current assets</b>	<b>1,672</b>	<b>1,846</b>	<b>1,710</b>	<b>1,754</b>	<b>1,809</b>
<b>Total Assets</b>	<b>3,751</b>	<b>4,140</b>	<b>4,030</b>	<b>4,172</b>	<b>4,227</b>
<b>Equity</b>	<b>2,749</b>	<b>3,088</b>	<b>3,046</b>	<b>3,181</b>	<b>3,227</b>
Lease liabilities	19	21	21	22	23
Contingent consideration payable	79	81	83	86	88
Deferred tax liabilities	124	118	122	118	150
<b>Total non-current liabilities</b>	<b>221</b>	<b>220</b>	<b>226</b>	<b>226</b>	<b>261</b>
Accounts payable	243	252	218	208	178
Provision for warranty	34	31	27	24	23
Income taxes payable	44	69	50	34	22
Accrued expenses and other payables	459	479	464	499	516
<b>Total current liabilities</b>	<b>780</b>	<b>831</b>	<b>758</b>	<b>765</b>	<b>739</b>
<b>Total Equity and Liabilities</b>	<b>3,751</b>	<b>4,140</b>	<b>4,030</b>	<b>4,172</b>	<b>4,227</b>

# Cash flow statement

€ million	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	FY 2022	FY 2023
<b>Net earnings from operations</b>	<b>237</b>	<b>380</b>	<b>151</b>	<b>130</b>	<b>91</b>	<b>389</b>	<b>752</b>
Adjustments to reconcile net earnings to net cash from operating activities	(73)	(188)	23	27	16	280	(123)
Depreciation, amortization and impairments	38	42	44	44	52	122	181
Income tax paid	(23)	(30)	(38)	(28)	(23)	(90)	(119)
Decrease (increase) in working capital	(75)	6	(28)	36	30	(159)	44
<b>Net cash from operating activities</b>	<b>104</b>	<b>210</b>	<b>152</b>	<b>208</b>	<b>166</b>	<b>541</b>	<b>736</b>
Cash flows from investing activities	-	-	-	-	-	-	-
Capital expenditures	(37)	(26)	(44)	(59)	(25)	(101)	(155)
Proceeds from sale of property, plant and equipment	0	1	0	2	0	1	4
Capitalized development expenditure	(25)	(29)	(38)	(39)	(42)	(103)	(147)
Purchase of intangible assets and other investments	(2)	(1)	(8)	(8)	(5)	(5)	(6)
Dividend received from associates	-	-	23	7	-	49	31
Acquisitions of subsidiaries, net of cash acquired	(278)	-	-	-	-	(316)	-
<b>Net cash used in investing activities</b>	<b>(341)</b>	<b>(56)</b>	<b>(66)</b>	<b>(95)</b>	<b>(72)</b>	<b>(475)</b>	<b>(289)</b>
Payment of lease liabilities	(3)	(3)	(3)	(3)	(4)	(10)	(13)
Purchase of treasury shares	-	-	(50)	(51)	-	-	(101)
Proceeds from issuance of treasury shares and other	-	(0)	(0)	1	0	-	0
Dividends to common shareholders	-	-	(123)	-	-	(122)	(123)
<b>Net cash used in financing activities</b>	<b>(3)</b>	<b>(3)</b>	<b>(176)</b>	<b>(53)</b>	<b>(4)</b>	<b>(133)</b>	<b>(236)</b>
<b>Free cash flow excluding cash spent on acquisitions<sup>(1)</sup></b>	<b>41</b>	<b>155</b>	<b>86</b>	<b>112</b>	<b>94</b>	<b>381</b>	<b>447</b>

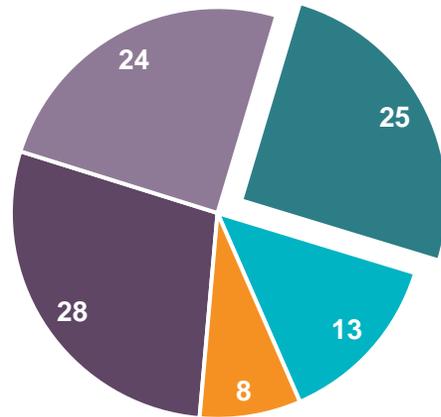
(1) Free cash flow is defined as cash flows from operating activities after investing activities

# Gross and net R&D expenses (reported)

€ million	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	FY 2022	FY 2023
<b>Gross R&amp;D expenses</b>	<b>93</b>	<b>94</b>	<b>104</b>	<b>102</b>	<b>111</b>	<b>302</b>	<b>410</b>
Capitalization of development expenses	(25)	(29)	(37)	(39)	(42)	(103)	(147)
Amortization of capitalized development expenses	11	11	11	11	11	35	44
Impairment capitalized development expenses	-	-	-	-	2	0	2
<b>Net R&amp;D expenses</b>	<b>79</b>	<b>75</b>	<b>77</b>	<b>74</b>	<b>83</b>	<b>234</b>	<b>309</b>
Gross R&D as % of revenue	12.8%	13.2%	15.5%	16.3%	17.5%	12.5%	15.6%
Net R&D as % of revenues	10.9%	10.6%	11.6%	11.9%	13.0%	9.7%	11.7%

# ASM is focused on deposition equipment

## WFE market segments in 2023 (\$b)

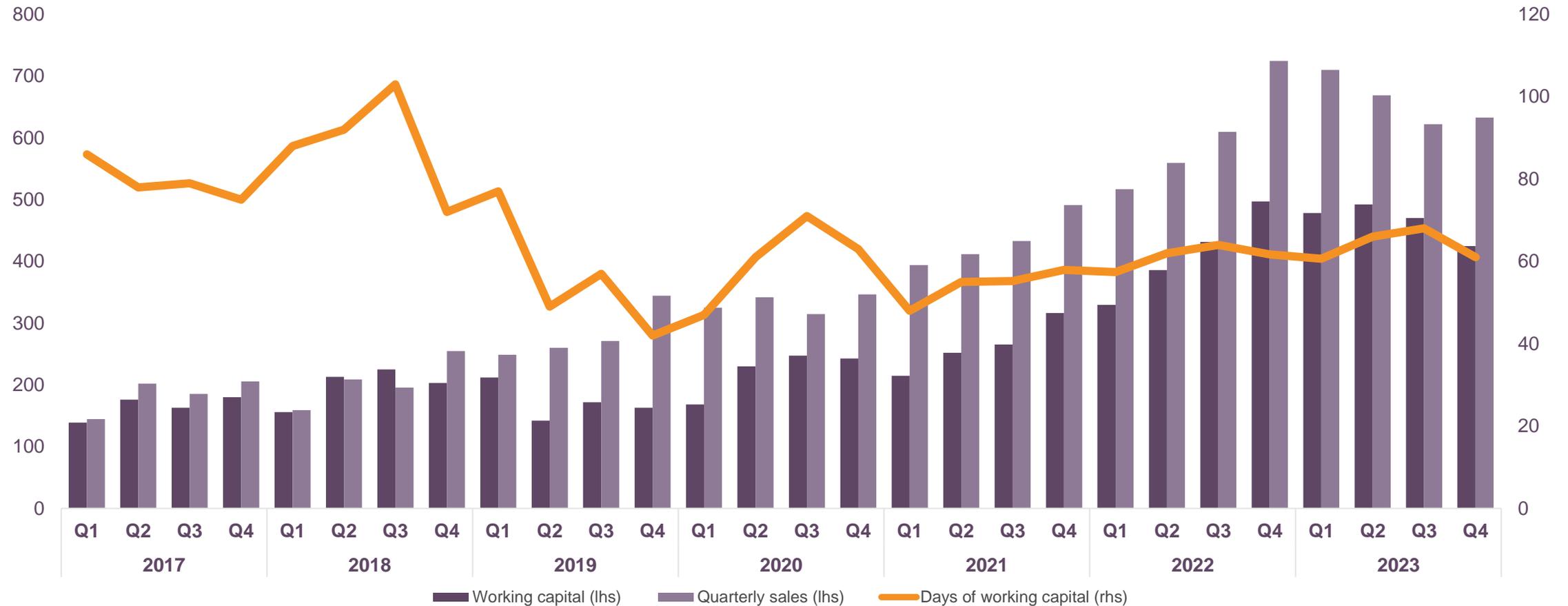


- Lithography
- Deposition
- Other wafer processes
- Etch & clean
- Process diagnostics

- ASM’s focus is on deposition
- We are market leader in ALD (mid 50s% share). ALD accounts for more than half of our total equipment revenue
- Expanding our position in the Si Epi market and entered the high-growth SiC Epi market
- Selective growth in PECVD and vertical furnaces and healthy growth in spares and services

# Working capital: historical development

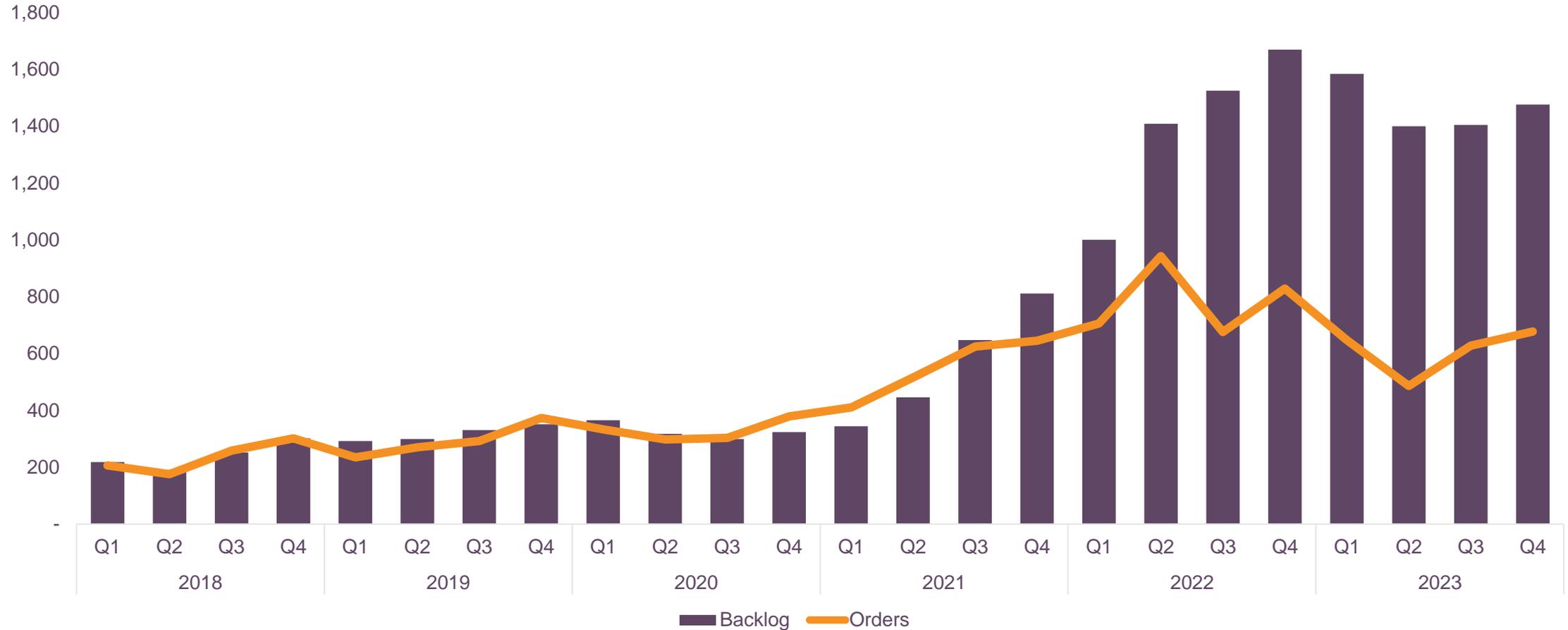
€m



Numbers based on reported financials  
Q1 and Q4 2019 exclude the impact of patent litigation and arbitration settlements

# Orders and backlog: historical development

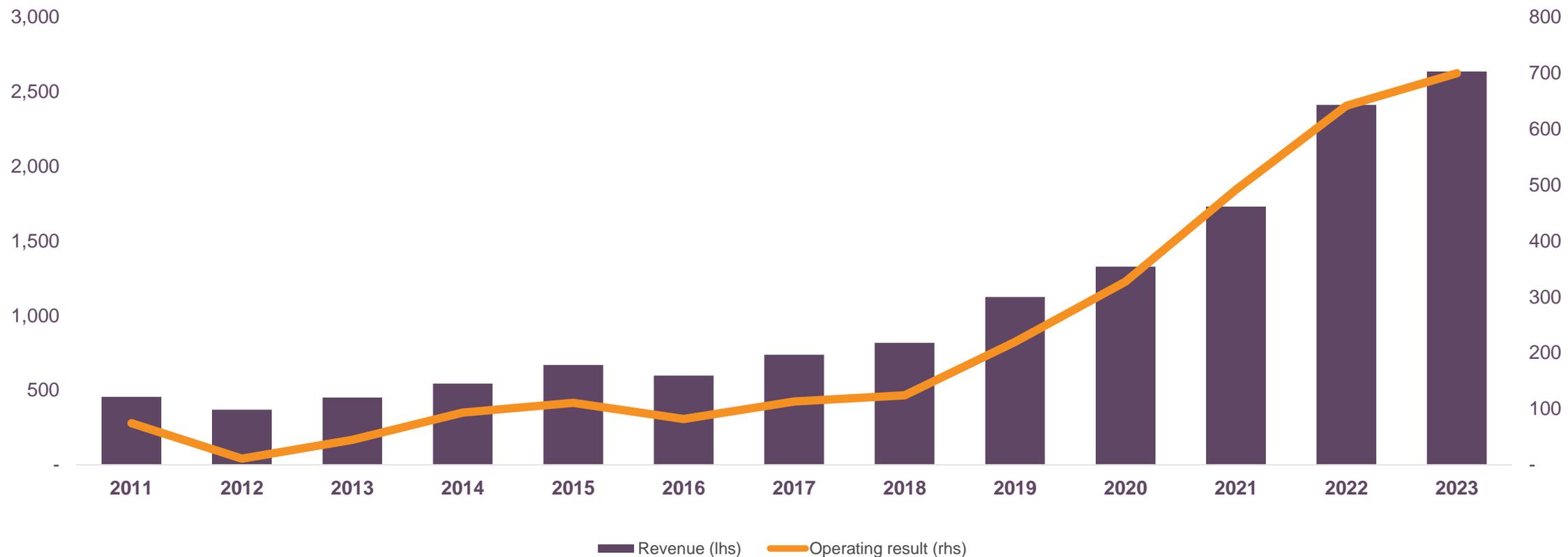
€m



Numbers based on reported financials  
 Q1 and Q4 2019 exclude the impact of patent litigation and arbitration settlements

# Revenue and operating result: historical development

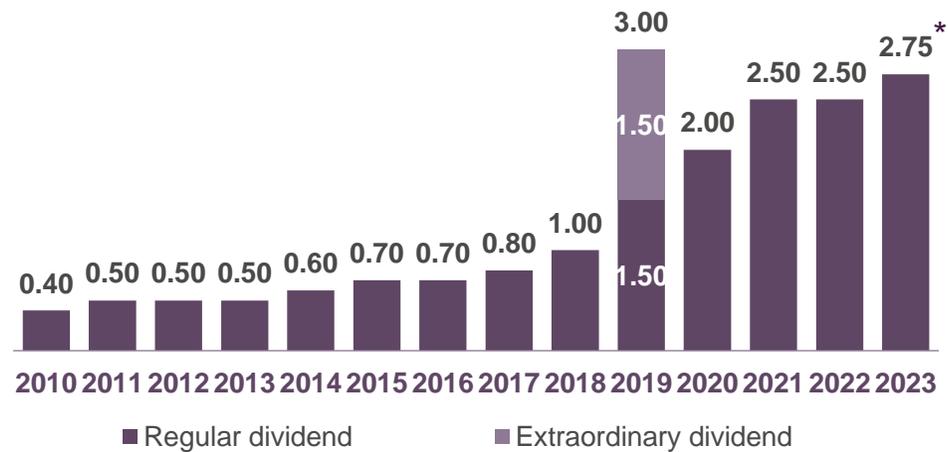
€m



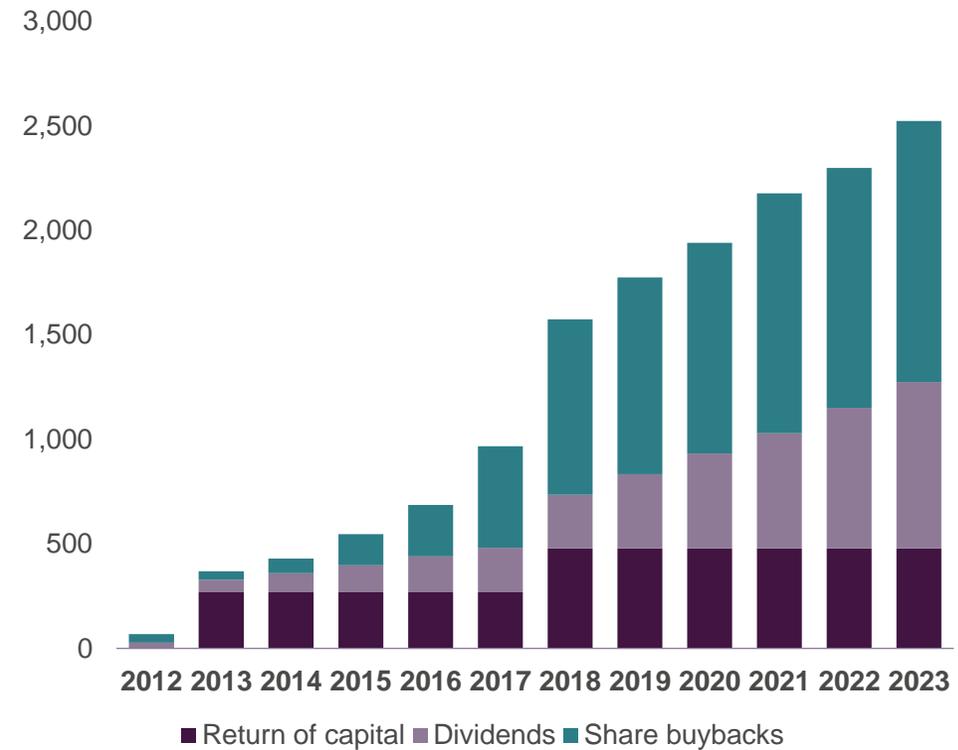
2019 numbers exclude settlement gains of €159m  
 2022 and 2023 operating margin exclude amortization of fair value adjustments from respective purchase price allocations (before tax)

# Cash returned to shareholders

## Dividend per share (€ paid over)



## Cumulative cash returned to market (€m)



\* Proposed

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