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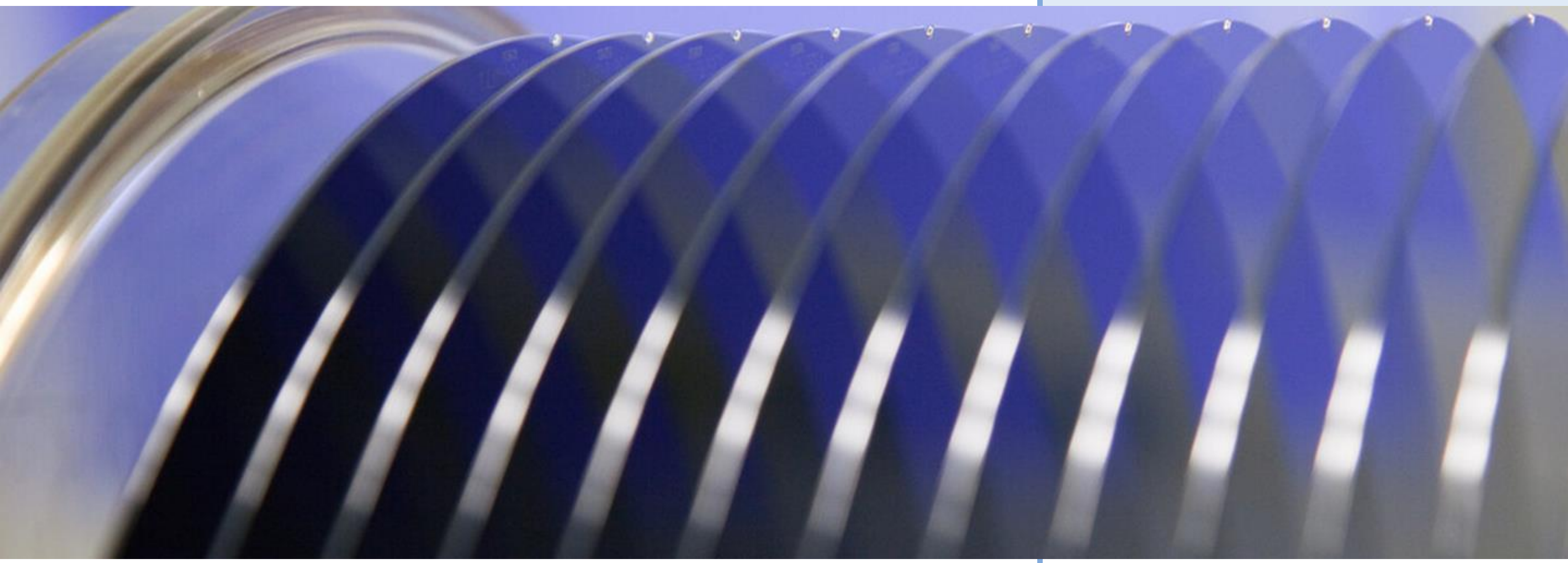
Siltronic AG

Germany | Technology | MCap EUR 2,268m

23 May 2024

INITIATION



Riding the Wave of Megatrends; BUY.

BUY (NA)

Target price	**EUR 94.00** (NA)
Current price	EUR 75.60
Up/downside	24.3%

ResearchHub

SCAN ME

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What's it all about?

We initiate coverage of Siltronic AG with a BUY recommendation and a PT of 94.00 offering an upside potential of 24%. Siltronic, a pioneering Western-based supplier of hyperpure silicon wafers, holds a global market presence with over 50 years of industry expertise and a 14% share in a highly consolidated market. Its unique value proposition lies in its advanced technology and innovative capabilities. The company excels particularly in the leading-edge 300mm wafers and 200mm wafers tailored for the power segment. With the electronics industry gaining momentum and the semiconductor industry projected to double by 2030, driven by AI, autonomous vehicles, and electromobility, Siltronic is strategically positioned to leverage these megatrends, enhancing growth through initiatives such as FabNext and the site expansion in Freiberg. According to our DCF model, Siltronic is trading below its fair value with a 24% upside potential, presenting a compelling investment opportunity, especially if megatrend trajectories materialize as anticipated.

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Riding the Wave of Megatrends; BUY.

Unique Value Proposition. Siltronic is the sole leading Western-based supplier of hyperpure silicon wafers with a global presence and over 50 years of experience in silicon technology and innovation. The company holds a robust market position with a 14% share in a highly consolidated market dominated by five key players controlling up to 90% of the demand. Siltronic is particularly renowned for its leading-edge 300mm wafers and 200mm Float-Zone activities for the power segment.

Growth. Recently, the electronics industry has been regaining momentum after experiencing weak demand due to rising inflation and interest rates over the past two years. Consequently, the semiconductor industry is expected to almost double by the end of 2030, driven by megatrends such as artificial intelligence, autonomous driving, and electromobility. This substantial growth in semiconductor demand will directly fuel the need for silicon wafers, essential components in semiconductor manufacturing. As a result, the silicon wafer industry is projected to achieve around a 5.6% CAGR in the upcoming years.

Siltronic is strategically positioned to capitalize on these trends with its new second 300mm wafer production facility in Singapore (FabNext) and the expansion of its site in Freiberg to increase pulling and epitaxy and thus improve the product mix. Siltronic is guiding for around EUR 1.5bn in sales in 2024, similar to the figures of the previous year. Looking ahead, the company anticipates sales of EUR 2.2bn and EBITDA margins in the high thirties by the end of 2028. This projection is supported by the increasing demand for 300mm and leading-edge wafers, cost optimization and falling inflation, and discontinuation of the non-strategic small diameters wafers.

Attractive Valuation. Based on our DCF model, Siltronic is trading slightly below its fair value and offers a 24% upside potential, despite our slightly more conservative estimates compared to the company's guidance. If the trajectory regarding the megatrends of AI, Autonomous vehicles, and electromobility materializes in the short to mid-term, Siltronic may offer significantly higher returns, presenting a very compelling investment opportunity driven by its strategic positioning to capitalize on these trends.

Siltronic AG	2021	2022	2023	2024E	2025E	2026E
Sales	1,405	1,805	1,514	1,376	1,637	1,871
Growth yoy	16.4%	28.5%	-16.1%	-9.1%	19.0%	14.3%
EBITDA	466	672	434	311	476	629
EBIT	315	494	230	34	71	155
Net profit	251	389	183	5	32	94
Net debt (net cash)	-450	-271	441	889	841	614
Net debt/EBITDA	-1.0x	-0.4x	1.0x	2.9x	1.8x	1.0x
EPS reported	8.38	12.96	6.10	0.18	1.07	3.12
DPS	3.00	3.00	1.20	0.04	0.32	1.09
Dividend yield	4.0%	4.0%	1.6%	0.0%	0.4%	1.4%
Gross profit margin	31.4%	34.1%	24.6%	12.0%	13.0%	17.0%
EBITDA margin	33.2%	37.2%	28.7%	22.6%	29.1%	33.6%
EBIT margin	22.4%	27.3%	15.2%	2.5%	4.3%	8.3%
ROCE	16.6%	16.3%	6.9%	1.0%	2.0%	4.3%
EV/EBITDA	4.8x	3.2x	6.6x	10.6x	6.9x	4.9x
EV/EBIT	7.1x	4.3x	12.5x	97.5x	46.6x	19.9x
PER	9.0x	5.8x	12.4x	426.3x	70.7x	24.3x
FCF yield	20.8%	33.1%	20.2%	-7.2%	5.9%	14.8%

Source: Company data, mwb research

Source: Company data, mwb research

High/low 52 weeks	94.00 / 66.65
Price/Book Ratio	1.2x

Ticker / Symbols

ISIN	DE000WAF3001
WKN	WAF300
Bloomberg	WAF:GR

Changes in estimates

		Sales	EBIT	EPS
2024E	old	1,376	34	0.18
	Δ	0.0%	0.0%	0.0%
2025E	old	1,637	71	1.07
	Δ	0.0%	0.0%	0.0%
2026E	old	1,871	155	3.12
	Δ	0.0%	0.0%	0.0%

Key share data

Number of shares: (in m pcs)	30.00
Book value per share: (in EUR)	63.48
Ø trading vol.: (12 months)	53,710

Major shareholders

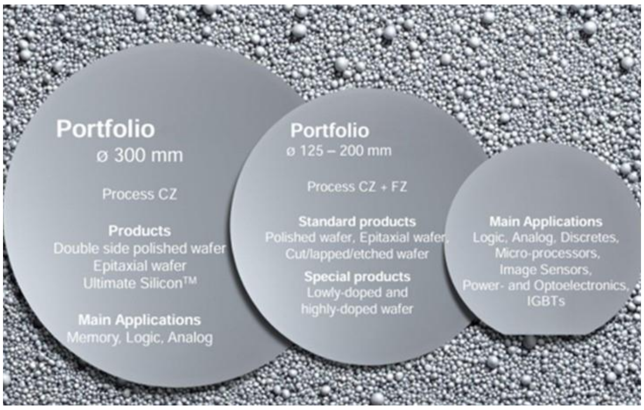
Wacker Chemie AG	30.8%
Sino-American Silicon Products	13.7%
Free Float	55.5%

Company description

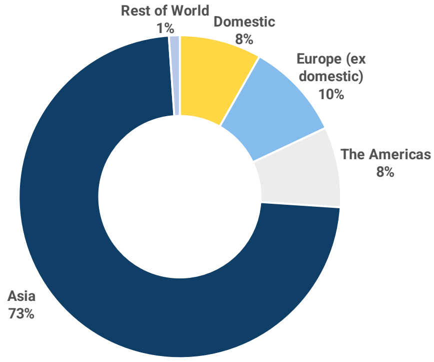
Siltronic AG is the only Western-based wafer manufacturer with a global precense, supplying hypersilicon wafers with diammeters up to 300mm to leading customers in the Semiconductor industry. Siltronic is customer-oriented with a focus on quality, precision, growth and innovation.

Investment case in six charts

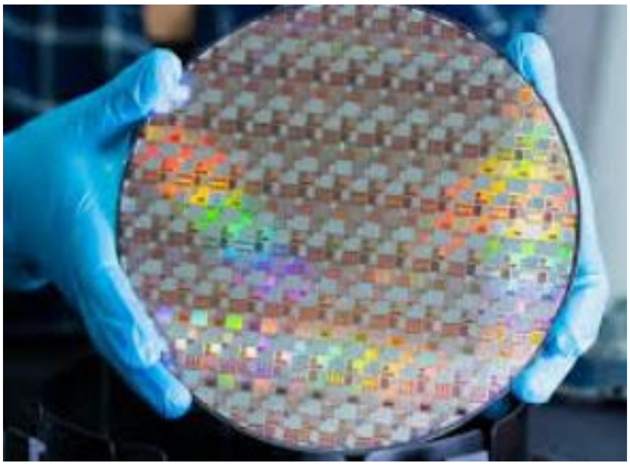
Products & Services



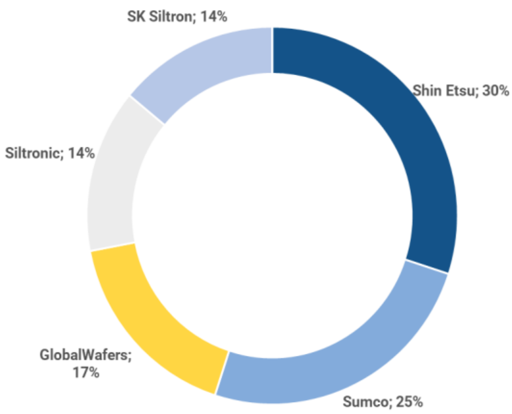
Regional sales split in %



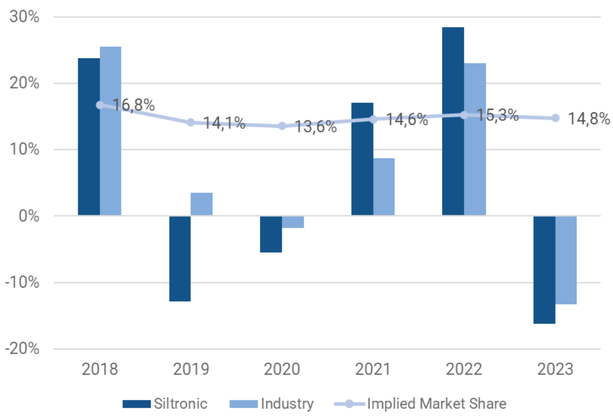
Silicon Wafer



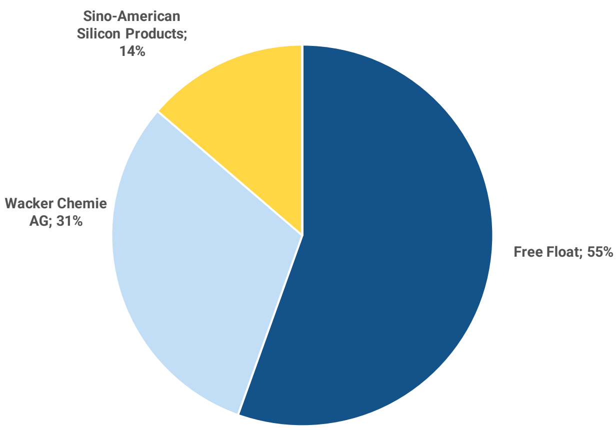
Market Share of Top 5 Wafer Producers



Silicon Wafer Growth (€)



Shareholder Structure



Source: Company data, mwb research

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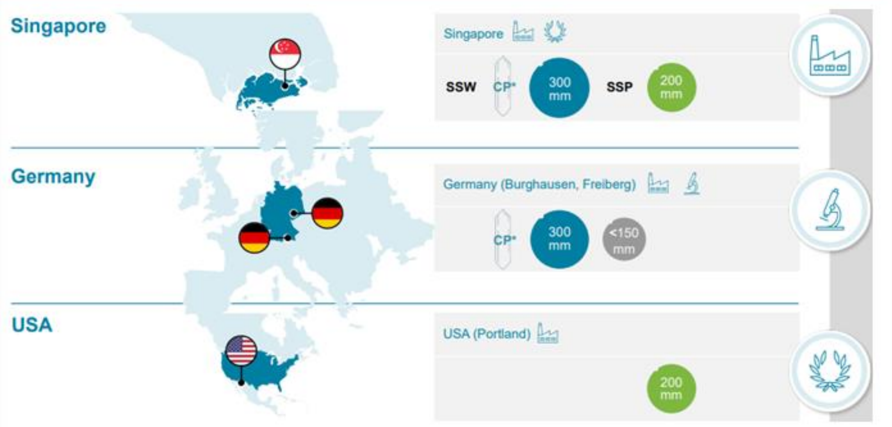
Company background

Siltronic AG is one of the leading manufacturers and suppliers of **hyperpure silicon wafers**. It offers high-quality customized silicon wafer solutions with diameters reaching **up to 300mm**. Customization includes specific requirements such as diameters, material properties, and surface quality. Silicon wafers are a slice of silicon typically around 1 millimeter thick that has extremely flat surface. They serve as the foundational elements for semiconductor chips and integrated circuits. These components are crucial for various electronic applications such as computers, smartphones, industrial equipment, and vehicles. The MDAX-listed company has a rich history of expertise in silicon technology, spanning over 50 years. Currently, it employs around 4,500 employees worldwide. Siltronic is the only **Western-based** wafer manufacturer with a global presence. It operates four production facilities in Singapore, Germany, and the United States.

Production Facilities



Source: Company data; mwb research

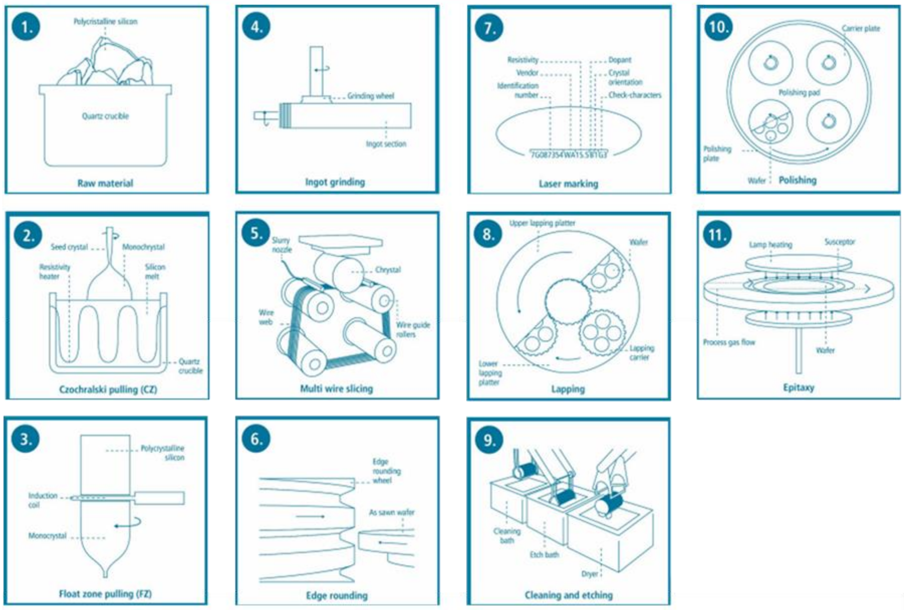
Wafer Production

The production of wafers begins with the creation of monocrystalline silicon ingots. Siltronic grows silicon ingots through two different processes: the Czochralski process (**CZ**) or the float zone method (**FZ**). The selection of the process is based on specific properties and intended applications. The FZ method is particularly well-suited in the power segment. It is more complex and expensive. On the other hand, the CZ method is the preferred choice for applications in the memory segment and it is the more common in the industry thanks to its scalability and efficiency.

In the **CZ process**, polycrystalline silicon is melted into a liquid state. A thin seed crystal is then carefully dipped into the molten silicon and slowly drawn upwards while rotating, resulting in the formation of a large, dense block known as a monocrystal. The quality of the ingot depends on the cooling profile of the molten silicon, as well as the rotation and the pulling speed of the crystal. In the **FZ method**, a round block of polycrystalline silicon is placed above a coil that produces a special electromagnetic field. This field melts the silicon at the bottom of the block, allowing it to flow through a small hole in the coil onto the single crystal below.

Based on customer requirements, the **electrical properties** of the monocrystal can be fine-tuned by introducing high-purity **dopants** (B, P, As, Sb) into the molten silicon. Monocrystalline silicon ingots are then **ground** to the required diameter, and orientation markings are applied. Subsequently, they are **sliced** using thin metal wires into wafers with uniform thickness and parallel faces. Next, the silicon wafer edges are **rounded** carefully. They are then **marked** with a laser for traceability and undergo **lapping** to improve surface parallelism and remove slicing damage. Subsequently, they are **cleaned** and **etched** to remove any remaining mechanical damage. In the final steps, the wafers are **polished** to achieve a smooth, flat surface using specific pressure and polishing agents. For a superior surface quality, a thin, defect-free crystal layer is deposited onto the wafer surface through **epitaxy**. The end-product can then be evaluated based on surface cleanliness, flatness, edge flatness, uniformity, shape, and notch position.

Wafer Manufacturing



Source: Company data; mwb research

Products & services

Silicon forms the foundation for approximately **99%** of the semiconductor value chain, while Silicon Carbide (SiC), Gallium Nitride (GaN), and other materials account for only 1%. Leveraging this key role, Siltronic focuses solely on the development, manufacturing, and marketing of silicon wafers up to 300mm in diameters, covering all of the semiconductor segments. 300mm wafers, primarily grown using the CZ method, account for over two-thirds of Siltronic's product portfolio by wafer area. On the other hand, the remaining ≤200mm wafers can be grown using either the CZ or FZ method. The company's product mix is well-diversified and roughly in line with market demand allocation, distributed almost equally among the three primary device segments: **Memory**, **Logic**, and **Power**.

In each segment the market demand for wafers is distributed as follow:

- Memory - 100% polished 300mm
- Logic - around 66% on 300mm and 34% on 200mm (EPI & polished)
- Power - around 15% on 300mm, 50% on 200mm, and 35% on ≤ 150mm

Siltronic's products can be categorized as follows:

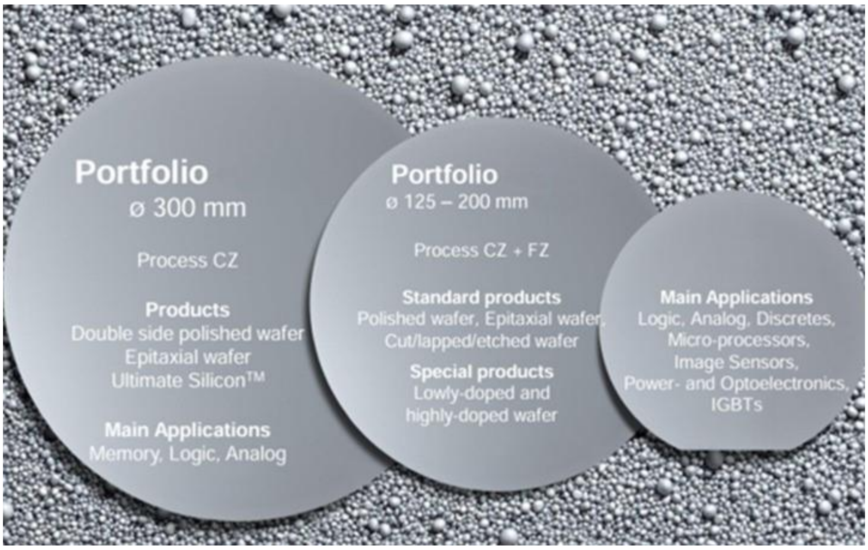
1- **Polished Wafers:** Mainly designed for memory chips but also used in all other segments. They satisfy the highest standards in terms of flatness and surface quality, making them the norm in the semiconductor industry. Wafers with ≤200mm diameters are usually polished on one side, whereas 300mm wafers are polished on both sides.

2- **Epitaxial Wafers:** designed mainly for logic or highly integrated microprocessors, image sensors, and specific power semiconductors. They are manufactured by depositing an additional monocrystalline silicon layer on the polished crystal surface of a silicon wafer. The silicon epitaxial process enables modification of characteristics in both the substrate and the epitaxial layer. The 300 mm EPI wafers are primarily employed in highly integrated semiconductor elements (ICs), while smaller diameters are used for power applications.

3- **Special low-resistance Wafers:** Engineered for power applications, along with various other wafer types suitable for automotive electronics, telecommunications, high-voltage applications, or network technology.

In March 2024, Siltronic announced its decision to gradually halt the manufacturing of polished and epitaxial small diameter wafers (≤150mm) excluding unpolished wafers at its Burghausen site. This discontinuation process is scheduled to continue until 2025. According to SEMI, small diameter wafers comprise less than 5% of the silicon wafer market. They only account for a single-digit percentage of Siltronic's revenue. This is primarily due to the declining relevance of small diameter wafers in the semiconductor industry as demand shifts towards 300mm wafers, driven by structural changes and innovation. Additionally, China has been disrupting the market in small diameter wafers and gaining market share. Overall, this has recently resulted in a negative impact on Siltronic's earnings.

Products & Services



	Logic devices	Memory devices	Power devices
CRYSTAL	Leading Edge Trailing Edge	Leading Edge	Ω Low resistivity O_2 Low oxygen
POLISHED WAFER	Leading Edge Trailing Edge	Leading Edge	Trailing Edge
EPI LAYER	Leading Edge Trailing Edge		Trailing Edge

Source: company data; mwb research

Management

Dr. Michael Heckmeier, appointed CEO of Siltronic in May 2023 with a term until May 2026, brings over two decades of experience from Merck KGaA, where he held key roles including Executive Vice President and Global Head of Business Unit Display Solutions.

Claudia Schmitt serves as the Chief Financial Officer of Siltronic, appointed in July 2023 with a term until June 30, 2026. She brings extensive experience in finance and controlling, previously holding positions such as Head of Controlling & Finance and Head of Controlling at Siltronic. Prior to joining Siltronic, she held roles in corporate controlling at Wacker Chemie AG, where she started her career in 1998.

Klaus Buchwald will join the Executive Board of Siltronic starting from June 2024 as the Chief Operating Officer. Mr. Buchwald holds a degree in mechanical and industrial engineering and brings over 21 years of experience from Infineon. He held various senior positions in operations and supply chain management.

		
Dr. Michael Heckmeier CEO since 2023 Formerly Merck KGaA	**Claudia Schmitt** CFO since 2023 Formerly Wacker Chemie AG	**Klaus Buchwald** COO starting 2024 Formerly Infineon Technologies

Source: Company data; mwb research

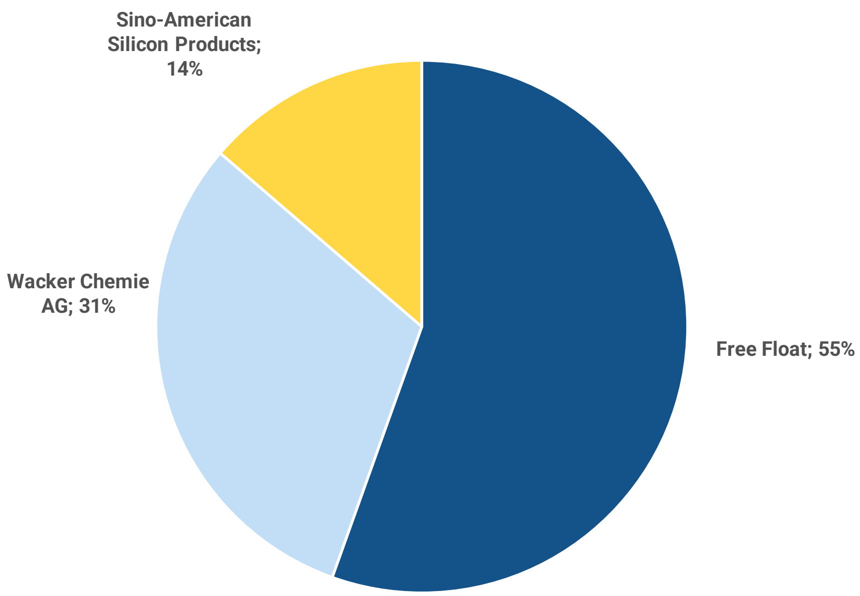
Shareholders

As of April, 2024, **Wacker Chemie AG** was the largest shareholder of Siltronic with around 31% of the voting rights. The parent company of GlobalWafers, Sino-American Silicon Products possess around 13,7%. 55,5% is held in free float.

By the end of 2023, the **Management** held less than 1% of shares. Among the top holding companies within the free float, are DWS Investment with around 5% of voting rights, The Goldman Sachs Group with 4.7%, and BlackRock with 3.9%. Recently in 2024, HAL Investments B.V. purchased a 5,3% steak in Siltronic.

Shareholder by **geography**: 58% of shares were owned by investors in Germany, 18% were held by investor in the USA and 10% in continental Europe and Asia each, UK and Ireland accounted for 5%.

Shareholder Structure



Source: Company data; mwb research

Quality

Customers

Siltronic is the only major Western-based wafer manufacturer with a worldwide presence, enabling the company to maintain close and long-term business relationships with customers in all regions and respond quickly to their requests. Its customer base is highly concentrated, where the **top 10 customers account for two-thirds of sales**. Siltronic is a partner for #1 Logic, Memory, and Power customers in the semiconductor industry, such as Infineon Technologies, Samsung Electronics, and Taiwan Semiconductor Manufacturing Company (TSMC).

Siltronic's customers exhibit a low level of **price sensitivity**, as evidenced by the company's ability to maintain stable average prices throughout 2023, even amidst weakened demand. This resilience is attributed to customers prioritizing the assured high quality and delivery reliability of Siltronic's products over cost considerations. The market's highly consolidated nature, with 90% of demand being met by the top five players in the semiconductor industry, further diminishes competitive pricing pressures, leaving little room for alternatives.

Switching wafer manufacturers presents several challenges for customers. Semiconductor companies typically work with a minimum of two and normally three wafer suppliers to ensure a stable supply chain. A significant portion of Siltronics' sales (66%) are recurring revenue which is generated by long-term agreements (LTA) and continuous demand for high quality silicon wafers. The predominance of LTA effectively locks customers into extended agreements (1>years). Moreover, the high costs associated with establishing new relationships, coupled with the need for thorough testing and qualification of new suppliers' products, act as significant deterrents to switching.

For most semiconductor companies, the idea of vertically integrating to **manufacture and supply their own silicon wafers** is impractical. The process demands specific expertise, strict quality control, and substantial capital investment, making reliance on established suppliers like Siltronic the industry norm.

While the **bargaining power** of Siltronic's largest customers could be substantial, allowing them to negotiate more favorable terms, this is balanced by the limited number of suppliers capable of delivering high-end wafers and the constraints imposed by LTA. These factors, alongside the high standards of quality that Siltronic upholds, effectively moderate the customers' bargaining power.

Regional sales split (EURm)	2021	2022	2023	2024E	2025E	2026E
Domestic	104	132	125	113	135	154
Europe (ex domestic)	146	197	148	134	160	183
The Americas	137	185	122	111	132	151
Asia	1,008	1,272	1,103	1,002	1,192	1,363
Rest of World	10	19	17	15	18	20
Sales	**1,405**	**1,805**	**1,514**	**1,376**	**1,637**	**1,871**

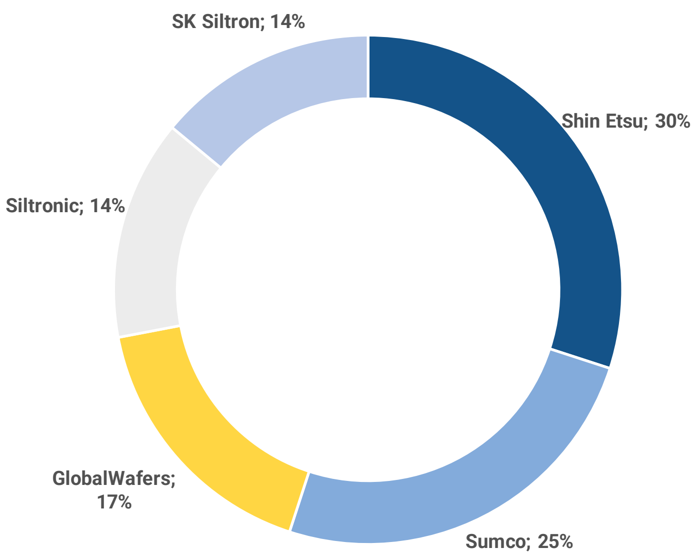
Source: Company data; mwb research

Competition

In the silicon wafer market, where five major players control up to 90% of the global demand, Siltronic's direct competitors are:

- **Shin-Etsu** (Japan)
- **SUMCO Coporation** (Japan)
- **GlobalWafers** (Taiwan)
- **SK Siltron** (South Korea)

Market Share of Top 5 Wafer Producers



Source: company data; mwb research

Entering this competitive arena poses significant challenges for newcomers. **Barriers to entry** include high capital investments in equipment, cleanrooms, R&D, and infrastructure, as well as the need for deep technological expertise, economies of scale, intellectual property protection (patents), and longstanding relationships with key industry players.

Despite intense competitive pressure, Siltronic holds a unique position in the market as the sole Western-based wafer manufacturer with a global presence. This allows reliable supply and a quick access to customers. Leveraging over 50 years of expertise and know-how in silicon technologies, Siltronic is a pioneer in advanced crystal growth technology and precision wafer manufacturing processes, particularly excelling in the power segment. Moreover, Siltronic is one of the leader in 200mm float zone activities, 300mm wafers, and leading-edge technology. It has a robust portfolio of around 1900 patents and proven innovation record. Despite the weak demand in 2023, Siltronic has maintained a market share of 14% thanks to its high-quality products, cost efficiency and optimization, and LTAs.

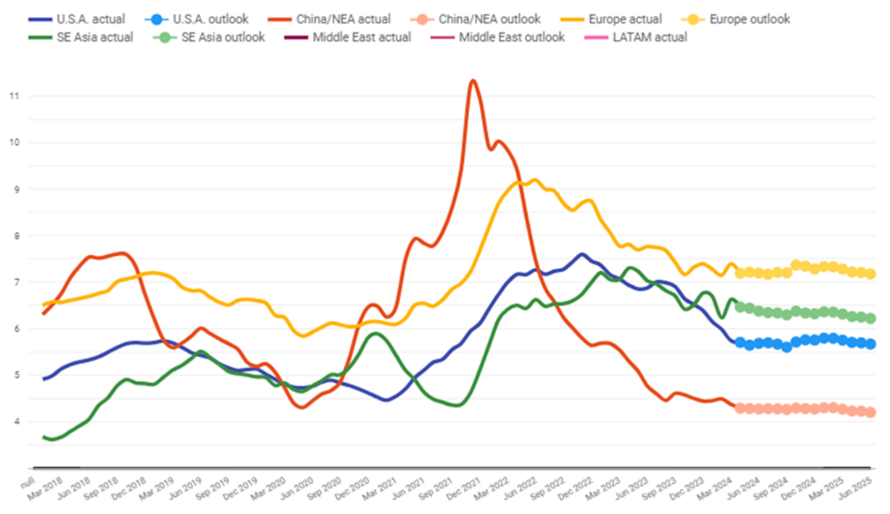
Suppliers

The most crucial procurement areas for Siltronic include capital goods, raw materials like polysilicon, auxiliary materials (chemicals, gases, and polishing agents), energy, information technology, and logistics services. In 2023, Siltronic procured goods worth EUR 1.8bn, compared to EUR 1.6bn the previous year. Approximately half of this volume was bought from Asia, with the remaining half divided between Europe and North America. Despite having around 4,000 suppliers worldwide, the company relies heavily on 6% of suppliers or 240 suppliers to purchase 90% of the purchasing volume. Nevertheless, this indicates a relatively well-diversified supplier base, mitigating serious threats in the event of disruptions in the supply chain.

Polysilicon serves as the main raw material in the supply-chain for Siltronic. The price of polysilicon depends on the development in the semiconductor and solar industries. Recent years have seen significant volatility in polysilicon prices, with prices surging by 3-4 times in 2020 and 2021 due to supply chain disruptions from the COVID-19 pandemic and the surge in demand from the semiconductor and solar sectors. However, polysilicon prices have been declining since the fourth quarter of 2022. This decline can be attributed to increased production and weakened demand within the semiconductor industry.

Siltronic secures most of its polysilicon through Wacker Chemie AG, which is also a major shareholder of Siltronic (31%). It hedges itself against short-term price fluctuations through long-term contracts. According to Businessanalytiq, polysilicon prices are forecasted to slightly decline in the following years. Note that the graph represents prices of polysilicon for both the solar and semiconductor industries, with a larger focus on the solar industry. Despite the emphasis on solar, we assume there is a correlation between polysilicon prices in both industries, which could offer valuable insights into overall trend directions. If the trajectory of polysilicon prices continues to trend downward, Siltronic may benefit from more stable raw material costs and potentially higher profitability.

Polysilicon Price Developement $/KG



Source: Businessanalytiq; mwb research

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Growth

Historical Performance: The Semiconductor Industry

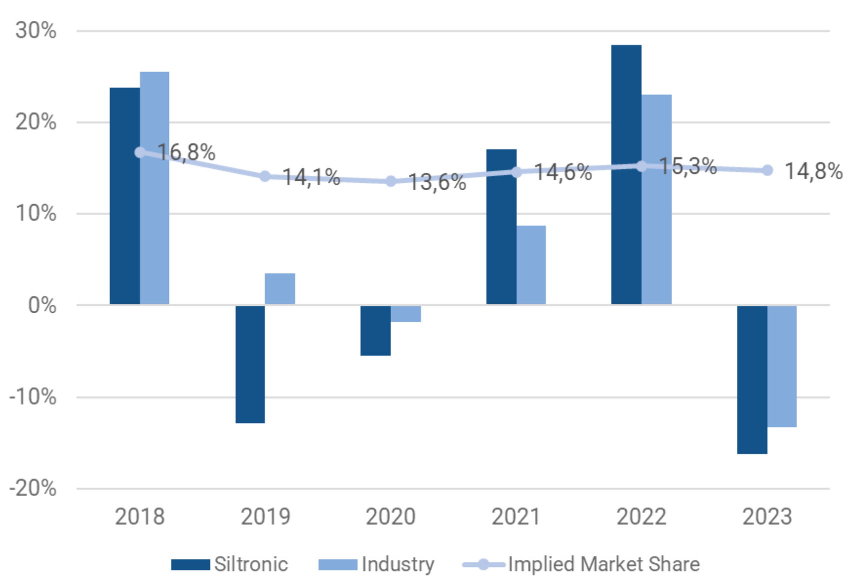
The silicon wafer industry is cyclical in nature as it mainly serves the semiconductor industry, which is driven by the electronic industry, such as computers, smartphones, industrial equipment, and cars. It takes approximately more than six months from a silicon ingot to a mobile phone. Consequently, the wafer industry may exhibit a delay of around 6 months in responding to changes in the end market demand.

In 2023, the semiconductor market size was estimated to be around USD 527bn, an 8.2% decline following the peak in sales of USD 574bn in 2022 (Source; Semiconductor Industry Association). This decline in semiconductor sales can be attributed to weakened demand in consumer electronics, which stems from rising interest rates following the peak global inflation of 8.8% in 2022 and 6.8% in 2023. The economic slowdown, coupled with elevated chip inventories following the surge in demand during COVID, particularly in the memory segment, forced chip manufacturers to reduce their prices, leading to a decrease in overall sales.

Historical Performance: The Wafer Industry vs. Siltronic

In 2023, the silicon wafer industry generated EUR 10.3 bn in sales, reflecting a decline of approximately 13% compared to the previous year. Similarly, Siltronic generated around EUR 1,5bn in sales, down 16% from its peak sales in 2022. This downturn was driven by elevated chip inventories and the postponement of wafer orders by customers. Our analysis suggests that Siltronic has achieved a CAGR of 5.8% over the past six years, slightly below the industry average of 7,6%. This growth trajectory is primarily organic and can be attributed to various factors, including the company's leading-edge 300mm epi and polished wafers, LTAs, and global presence. Throughout the analysis period, Siltronic has consistently maintained a stable market share of around 14,8% on average. The former underscore Siltronic's unique position in the wafer market.

Silicon Wafer Growth (€)



Source: Statista, semi, mwb research

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Looking Ahead

In terms of future growth, the electronics market is expected to recover with a CAGR of approximately 8.7% from 2024 to 2029 (Source; Statista). As a result, the prospects for the semiconductor industry in the coming years are promising. By the end of 2030, McKinsey & Company projects the industry to flourish, reaching the trillion-dollar mark. The current implied growth rate behind this projection is approximately **9.5%** CAGR (base year; 2023). Some of the key drivers of this growth include:

1. Trends in the automotive industry, such as electric vehicles, autonomous driving, and advanced driver-assistance systems.
2. Emerging technologies such as Artificial Intelligence (AI), cloud computing, wireless technologies, the expansion of 5G technology, machine learning, IoT, virtual reality, and augmented reality.
3. Slight increase in demand for and adoption of electronic devices, especially smartphones, laptops, and TVs.

Since silicon wafers are integral to the semiconductor chips and integrated circuits, the growth in the semiconductor industry directly affects the demand for 300mm wafers. As a result, the primary growth drivers in the silicon wafer industry coincide with those of the semiconductor industry. For example, the adoption of AI servers requires up to eight times more wafer area than conventional servers. Similarly, electric vehicles need 60% to 100% more wafers than comparable combustion engine vehicles. Consequently, the rise of AI and electromobility is expected to substantially increase the demand for wafers, particularly for leading-edge 300mm EPI and polished wafers for logic and high-end memory, as well as 200mm FZ wafers for power applications. The projected median CAGR for the silicon wafer industry in the upcoming years is **5.6%**, which is significantly lower than the 9.5% CAGR of the semiconductor industry. This difference may be attributed to increased efficiency in wafer area utilization.

Growth Outlook for the Wafers Market (CAGR)

	2029	2030	2031	2032
Allied Market Research				5,4%
Intel Market Research	5,8%			
SKYQUEST			5,4%	
PRECEDENCE RESEARCH				5,7%
Median				**5,6%**

Source: Allied Market Research, Intel Market Research, Skyquest, Rrecedence research

Short-Term Guidance - 2024

Sales for 2024 are projected to reach approximately EUR 1.36bn, about 10% decline relative to the previous year. EBITDA margin is expected to be between 21% and 25%.

We are in line with the short-term guidance on sales and EBITDA margin for the following reasons:

- Weak demand and chip Inventories are still relatively elevated in H1 2024
- 66% of the sales are recurring revenue and no major LTA is due at least in the upcoming year
- Inflation is stabilising, energy prices are falling, and silicon prices are expected to slightly decline in 2024
- EBITDA margin declines due to ramp-up costs associated with FabNext in Q4 and due to higher depreciation

Mid- to Long-Term Guidance - until 2028

Looking ahead, the expected growth driver is the leading-edge wafers, which is projected to grow by approximately 15%. Moreover, the 300mm wafers are expected to grow on average by 6%. Meanwhile, the 200mm wafers are expected to experience a slight increase of 1%, while a decline of 2% is anticipated in the smaller wafers (≤150mm). Overall, this results in a CAGR of around 4-5%. Assuming stable average selling prices and an exchange rate of EUR/USD 1.10, Siltronic targets EUR 2.2bn in sales by 2028, marking a substantial 30% increase or an implied 4-5% CAGR from the 2022 reported figures. EBITDA margins are expected to reach high thirties by the end of 2028.

In the mid to long term, we are very close but slightly more conservative regarding the sales and EBITDA margin guidance for the following reasons:

- Siltronic expects to grow at a rate similar to that of the wafer industry, which seems feasible given its historical performance
- Expansion of pulling and epitaxy in Freiberg is expected to improve product mix
- Additional sales volume and over 50% expected EBITDA margins from FabNext through automation, new equipment, and declining inflation.
- The discontinuation process of small diameter wafers is projected to improve the EBITDA margins by around 1-2pp
- Megatrends like AI, Autonomous vehicles, and electromobility are projected to fuel wafer demand especially for the 300mm wafers. However, there's uncertainty regarding the timing of the rebound in demand

Growth table (EURm)	2021	2022	2023	2024E	2025E	2026E
Sales	1,405	1,805	1,514	1,376	1,637	1,871
Sales growth	16.4%	28.5%	-16.1%	-9.1%	19.0%	14.3%
EBITDA	466	672	434	311	476	629
EBITDA margin	33.2%	37.2%	28.7%	22.6%	29.1%	33.6%
EBIT	315	494	230	34	71	155
EBIT margin	22.4%	27.3%	15.2%	2.5%	4.3%	8.3%
Net profit	251	389	183	5	32	94

Source: Company data; mwb research

The following table displays the quarterly performance of **Siltronic AG.**

P&L data	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024
Sales	442.2	474.0	472.1	404.4	403.7	349.1	356.6	343.5
yoy growth in %	29.6%	27.6%	25.4%	-3.0%	-8.7%	-26.4%	-24.5%	-15.1%
Gross profit	145.1	164.2	170.5	116.2	101.1	75.7	79.2	70.1
Gross margin in %	32.8%	34.6%	36.1%	28.7%	25.0%	21.7%	22.2%	20.4%
EBITDA	147.0	170.5	168.1	125.2	118.6	99.0	91.0	90.8
EBITDA margin in %	33.2%	36.0%	35.6%	31.0%	29.4%	28.4%	25.5%	26.4%
EBIT	102.8	124.3	124.8	77.8	70.3	46.4	36.8	36.0
EBIT margin in %	23.2%	26.2%	26.4%	19.2%	17.4%	13.3%	10.3%	10.5%
EBT	99.7	124.5	123.6	81.9	69.6	44.7	34.6	32.9
taxes paid	8.6	14.6	5.0	9.4	8.2	9.6	2.3	5.2
tax rate in %	8.6%	11.7%	4.0%	11.5%	11.8%	21.5%	6.6%	15.8%
net profit	79.9	99.7	106.8	66.1	54.9	33.1	30.3	25.7
yoy growth in %	45.5%	54.6%	27.4%	-36.6%	-31.3%	-66.8%	-71.6%	-61.1%
EPS	**2.66**	**3.32**	**3.56**	**2.20**	**1.83**	**1.10**	**1.01**	**0.86**

Source: Company data; mwb research

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SWOT analysis

Strengths

- Know-how with over 50 years of experience in silicon technologies and innovations
- The only Western-based wafer supplier with a global presence, enabling reliable and fast supply
- One of the top players in the leading-edge 300mm wafers and 200 Float Zone based activities tailored for the power segment
- Well-diversified and robust product mix in the memory, logic, and especially in the power segment
- Transparent and predictable market due to highly consolidated industry

Weaknesses

- High dependency on the semiconductor industry and it's cyclical nature
- Heavy reliance on key customers for a significant portion of revenue (66% of revenue is attributed to 10 top customers)
- High fixed cost

Opportunities

- Leveraging growth potential from the Megatrends such as AI, digitalization, and electromobility
- Target growth opportunities in Asian and emerging markets
- Improving profitability through cost and production optimization

Threats

- Failing to adapt with the rapid technological changes
- Geopolitical tension and upcoming competition from China may impact demand

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Valuation

DCF Model

The DCF model results in a **fair value of EUR 93.94 per share**:

Top-line growth: We expect Siltronic AG to grow revenues at a CAGR of 7.2% between 2024E and 2031E. The long-term growth rate is set at 2.0%.

ROCE. Returns on capital are developing from 1.0% in 2024E to 7.6% in 2031E.

WACC. Starting point is a historical equity beta of 1.19. Unlevering and correcting for mean reversion yields an asset beta of 0.88. Combined with a risk-free rate of 2.0% and an equity risk premium of 6.0% this yields cost of equity of 8.1%. With pre-tax cost of borrowing at 5.0%, a tax rate of 20% and target debt/equity of 0.2 this results in a long-term WACC of 7.4%.

DCF (EURm) (except per share data and beta)	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	Terminal value
NOPAT	27	53	114	145	191	226	230	235	
Depreciation & amortization	277	405	473	531	522	503	501	502	
Change in working capital	-158	-92	-20	-76	-66	-60	4	4	
Chg. in long-term provisions	-14	60	54	26	27	10	10	10	
Capex	-523	-360	-374	-357	-399	-493	-503	-513	
Cash flow	-391	66	247	269	275	186	242	237	4,442
Present value	-374	59	204	206	196	123	149	136	2,571
WACC	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.4%

DCF per share derived from	
Total present value	3,271
Mid-year adj. total present value	3,393
Net debt / cash at start of year	441.2
Financial assets	38.0
Provisions and off b/s debt	171.5
Equity value	2,818
No. of shares outstanding	30.0
Discounted cash flow / share	**93.94**
upside/(downside)	**24.3%**
Share price	**75.60**

DCF avg. growth and earnings assumptions	
Planning horizon avg. revenue growth (2024E-2031E)	7.2%
Terminal value growth (2031E - infinity)	2.0%
Terminal year ROCE	7.6%
Terminal year WACC	7.4%

Terminal WACC derived from	
Cost of borrowing (before taxes)	5.0%
Long-term tax rate	20%
Equity beta	1.19
Unlevered beta (industry or company)	0.88
Target debt / equity	0.2
Relevered beta	1.02
Risk-free rate	2.0%
Equity risk premium	6.0%
Cost of equity	8.1%

Sensitivity analysis DCF

Change in WACC (%-points)	Long term growth 1.0%	1.5%	2.0%	2.5%	3.0%
2.0%	52.1	55.5	59.4	63.8	68.9
1.0%	63.9	68.6	74.0	80.3	87.7
0.0%	79.4	86.0	93.9	103.4	115.0
-1.0%	100.6	110.6	122.9	138.2	158.1
-2.0%	131.3	147.5	168.6	196.7	236.3

Share of present value	
2024E-2027E	2.9%
2028E-2031E	18.5%
terminal value	78.6%

Source: mwb research

FCF Yield Model

Due to the fact that companies rarely bear sufficient resemblance to peers in terms of geographical exposure, size or competitive strength and in order to adjust for the pitfalls of weak long-term visibility, an Adjusted Free Cash Flow analysis (Adjusted FCF) has been conducted.

The adjusted Free Cash Flow Yield results in a fair value between EUR -16.16 per share based on 2024E and EUR 203.39 per share on 2028E estimates.

The main driver of this model is the level of return available to a controlling investor, influenced by the cost of that investors' capital (opportunity costs) and the purchase price – in this case the enterprise value of the company. Here, the adjusted FCF yield is used as a proxy for the required return and is defined as EBITDA less minority interest, taxes and investments required to maintain existing assets (maintenance capex).

FCF yield in EURm	2024E	2025E	2026E	2027E	2028E
EBITDA	**311**	**476**	**629**	**730**	**785**
- Maintenance capex	275	275	275	275	275
- Minorities	1	4	10	14	19
- tax expenses	1	9	26	35	48
= Adjusted FCF	**34**	**188**	**317**	**406**	**443**
Actual Market Cap	**2,268**	**2,268**	**2,268**	**2,268**	**2,268**
+ Net debt (cash)	889	841	614	383	158
+ Pension provisions	151	180	206	218	231
+ Off b/s financing	0.0	0.0	0.0	0.0	0.0
- Financial assets	38.0	38.0	38.0	38.0	38.0
- Acc. dividend payments	36.0	37	47	79	129
EV Reconciliations	966	946	735	484	221
= Actual EV'	**3,234**	**3,214**	**3,003**	**2,752**	**2,489**
Adjusted FCF yield	**1.0%**	**5.9%**	**10.6%**	**14.7%**	**17.8%**
base hurdle rate	7.0%	7.0%	7.0%	7.0%	7.0%
ESG adjustment	0.0%	0.0%	0.0%	0.0%	0.0%
adjusted hurdle rate	7.0%	7.0%	7.0%	7.0%	7.0%
Fair EV	**481**	**2,690**	**4,531**	**5,797**	**6,323**
- EV Reconciliations	966	946	735	484	221
Fair Market Cap	**-485**	**1,745**	**3,796**	**5,313**	**6,102**
No. of shares (million)	30.0	30.0	30.0	30.0	30.0
Fair value per share in EUR	**-16.16**	**58.15**	**126.53**	**177.10**	**203.39**
Premium (-) / discount (+)	**-121.4%**	**-23.1%**	**67.4%**	**134.3%**	**169.0%**

Sensitivity analysis fair value						
Adjusted hurdle rate	5.0%	-10	94	187	254	288
	6.0%	-13	73	152	209	239
	7.0%	**-16**	**58**	**127**	**177**	**203**
	8.0%	-18	47	108	153	177
	9.0%	-20	38	93	134	157

Source: Company data; mwb research

Simply put, the model assumes that investors require companies to generate a minimum return on the investor's purchase price. The required after-tax return equals the model's hurdle rate of 7.0%. Anything less suggests the stock is expensive; anything more suggests the stock is cheap. **ESG adjustments might be applicable. A high score indicates high awareness for environmental, social or governance issues and thus might lower the overall risk an investment in the company might carry. A low score on the contrary might increase the risk of an investment and might therefore trigger a higher required hurdle rate.**

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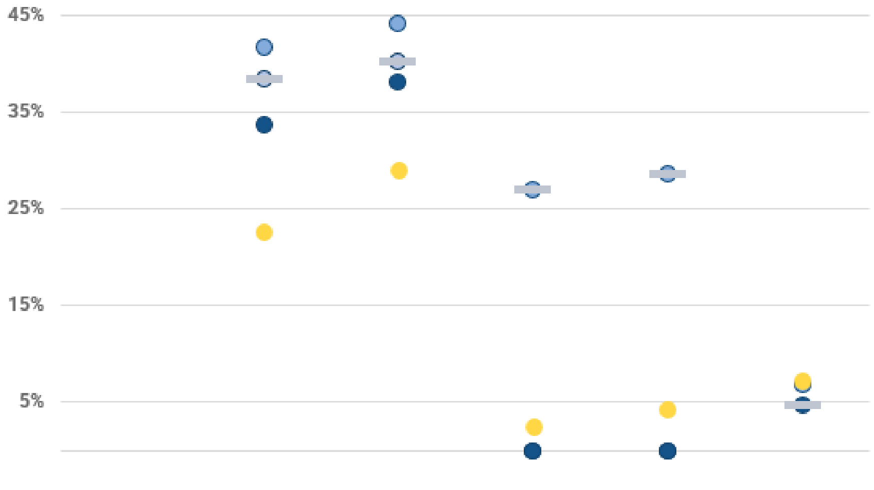
Peer group analysis

A peer group or comparable company ("comps") analysis is a methodology that calculates a company's relative value — how much it should be worth based on how it compares to other similar companies. Given that **Siltronic AG** differs quite significantly in terms of size, focus, financial health and growth trajectory, we regard our peer group analysis merely as a support for other valuation methods. The peer group of Siltronic AG consists of the stocks displayed n the below. As of 23 May 2024 the median market cap of the peer group was EUR 7,099m, compared to EUR 2,268m for Siltronic AG. In the period under review, the peer group was more profitable than Siltronic AG. The expectations for sales growth are lower for the peer group than for Siltronic AG.

Peer Group – Key data

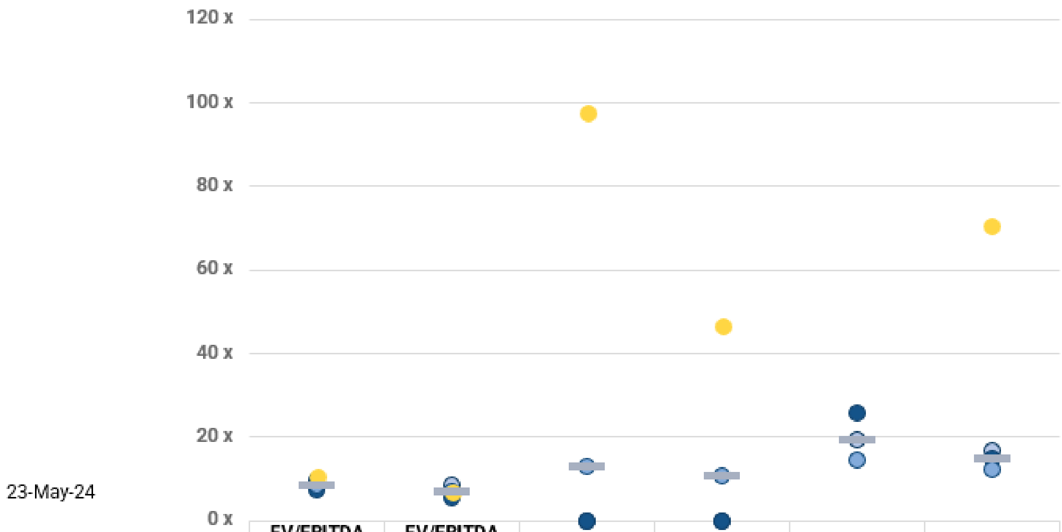


23-May-24	Market Cap (EURm)	EBITDA margin 2024	EBITDA margin 2025	EBIT margin 2024	EBIT margin 2025	Sales CAGR 2023-2026
Shin-Etsu Chemical Co Ltd	68.684	38,5%	40,3%	0,0%	0,0%	-5,6%
Sumco Corp	4.949	33,8%	38,2%	0,0%	0,0%	4,7%
GlobalWafers Co Ltd	7.099	41,7%	44,2%	27,1%	28,6%	6,8%
Siltronic AG	2.268	22,6%	29,1%	2,5%	4,3%	7,3%
Peer Group Median	7.099	38,5%	40,3%	27,1%	28,6%	4,7%

Source: AlphaSense, mwb research

Comparable company analysis operates under the assumption that similar companies will have similar valuation multiples. We use the following multiples: EV/EBITDA 2024, EV/EBITDA 2025, EV/EBIT 2024, EV/EBIT 2025, P/E 2024 and P/E 2025. Applying these to Siltronic AG results in a range of fair values from EUR na to EUR 74.24.

Peer Group – Multiples and valuation



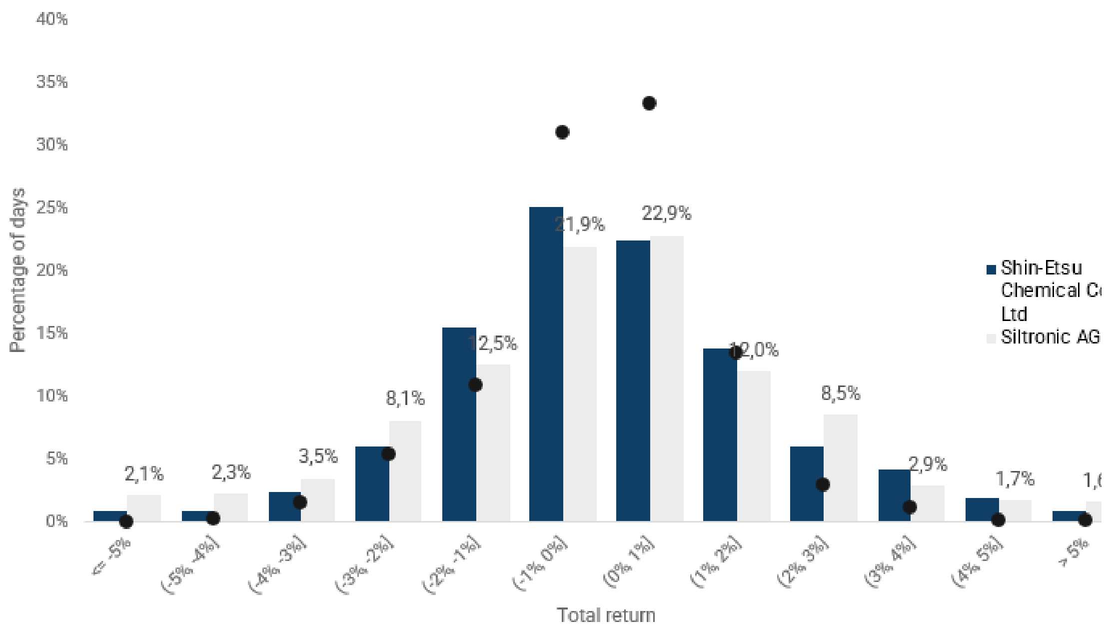
	EV/EBITDA 2024	EV/EBITDA 2025	EV/EBIT 2024	EV/EBIT 2025	P/E 2024	P/E 2025
Shin-Etsu Chemical Co Ltd	9,6x	8,5x	0,0x	0,0x	19,5x	16,9x
Sumco Corp	7,2x	5,4x	0,0x	0,0x	25,6x	14,9x
GlobalWafers Co Ltd	8,5x	6,9x	13,1x	10,6x	14,4x	12,3x
Siltronic AG	10,6x	6,9x	97,5x	46,6x	426,3x	70,7x
Peer Group Median	8,5x	6,9x	13,1x	10,6x	19,5x	14,9x
Fair Value (EUR)	53,53	74,24	-19,84	-9,72	3,46	15,93

Source: AlphaSense, mwb research

Risk

The chart displays the distribution of daily returns of Siltronic AG over the last 3 years, compared to the same distribution for Shin-Etsu Chemical Co Ltd. We have also included the distribution for the index MDAX. The distribution gives a better understanding of risk than measures like volatility, which assume that log returns are normally distributed. In reality, they are skewed (down moves are larger) and have fat tails (large moves occur more often than predicted). Also, volatility treats up and down moves the same, while investors are more worried about down moves. For Siltronic AG, the worst day during the past 3 years was 17/01/2022 with a share price decline of -9.0%. The best day was 09/03/2022 when the share price increased by 12.4%.

Risk – Daily Returns Distribution (trailing 3 years)



Source: AlphaSense, mwb research

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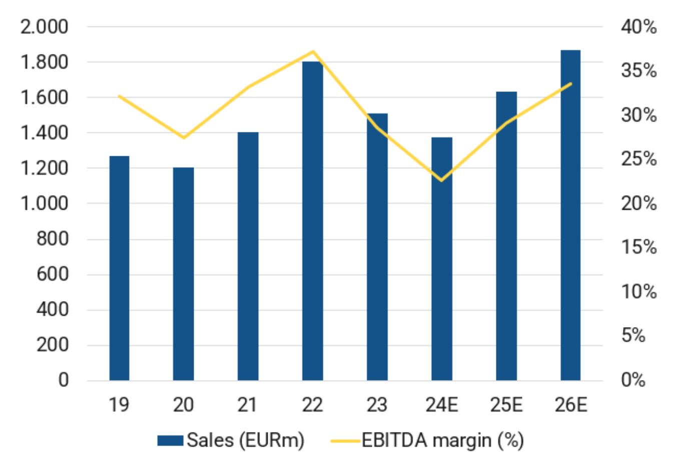
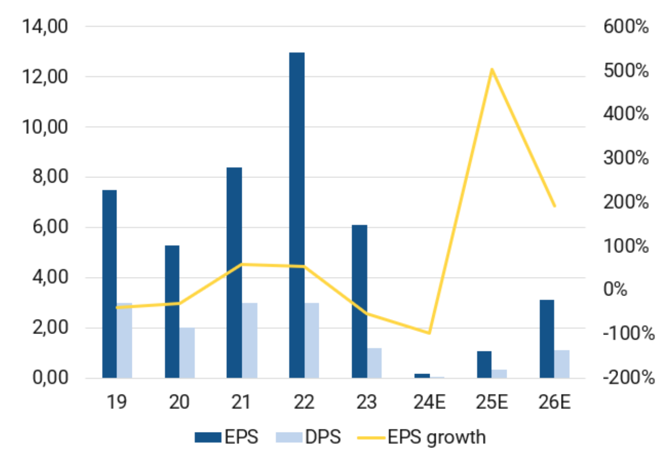
Financials in six charts

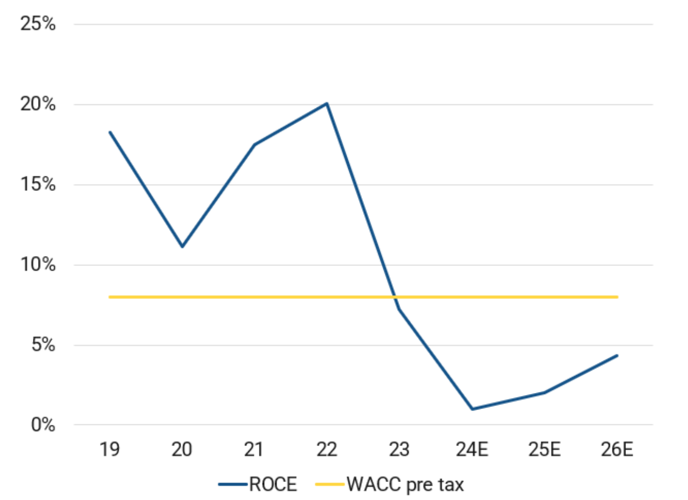
Sales vs. EBITDA margin development



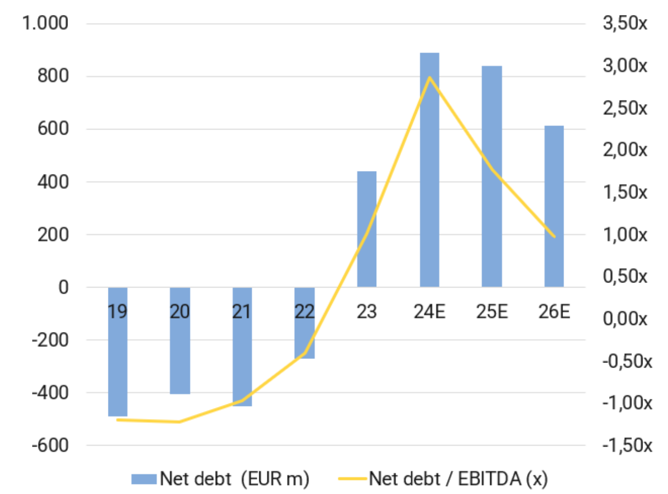
EPS, DPS in EUR & yoy EPS growth



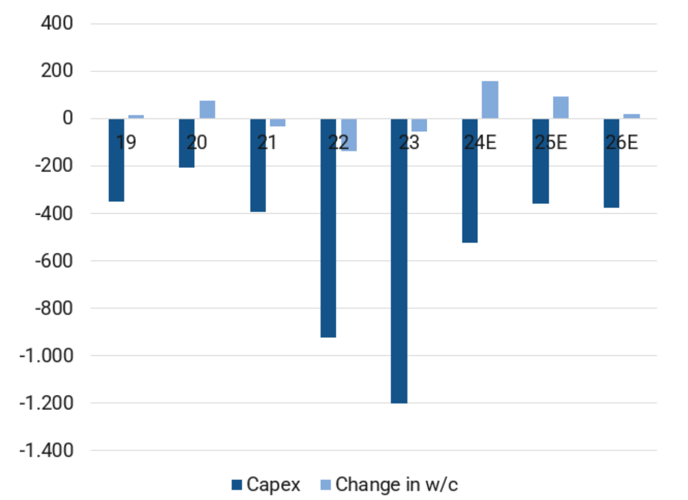
ROCE vs. WACC (pre tax)



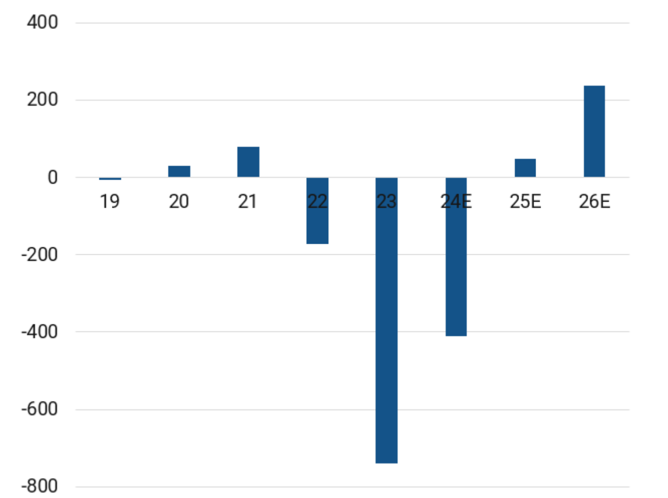
Net debt and net debt/EBITDA



Capex & chgn in w/c requirements in EURm



Free Cash Flow in EURm



Source: Company data; mwb research

Financials

Profit and loss (EURm)	2021	2022	2023	2024E	2025E	2026E
Sales	**1,405**	**1,805**	**1,514**	**1,376**	**1,637**	**1,871**
Sales growth	16.4%	28.5%	-16.1%	-9.1%	19.0%	14.3%
Cost of sales	964	1,190	1,142	1,210	1,424	1,553
Gross profit	**441**	**615**	**372**	**165**	**213**	**318**
SG&A expenses	67	68	71	62	65	75
Research and development	80	90	88	69	82	94
Other operating expenses (income)	-23	-38	-17	-1	-5	-6
EBITDA	**466**	**672**	**434**	**311**	**476**	**629**
Depreciation	150	176	203	275	406	473
EBITA	317	496	231	36	70	155
Amortisation of goodwill and intangible assets	2	2	1	2	-0	0
EBIT	**315**	**494**	**230**	**34**	**71**	**155**
Financial result	1	-9	-1	-27	-26	-25
Recurring pretax income from continuing operations	316	485	230	7	45	130
Extraordinary income/loss	0	0	0	0.0	0.0	0.0
Earnings before taxes	316	485	230	7	45	130
Taxes	29	53	30	1	9	26
Net income from continuing operations	288	433	200	6	36	104
Result from discontinued operations (net of tax)	0	0	0	0.0	0.0	0.0
Net income	**288**	**433**	**200**	**6**	**36**	**104**
Minority interest	-36	-44	-17	-1	-4	-10
Net profit (reported)	251	389	183	5	32	94
Average number of shares	30.00	30.00	30.00	30.00	30.00	30.00
EPS reported	**8.38**	**12.96**	**6.10**	**0.18**	**1.07**	**3.12**

Profit and loss (common size)	2021	2022	2023	2024E	2025E	2026E
Sales	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Cost of sales	69%	66%	75%	88%	87%	83%
Gross profit	**31%**	**34%**	**25%**	**12%**	**13%**	**17%**
SG&A expenses	5%	4%	5%	5%	4%	4%
Research and development	6%	5%	6%	5%	5%	5%
Other operating expenses (income)	-2%	-2%	-1%	-0%	-0%	-0%
EBITDA	**33%**	**37%**	**29%**	**23%**	**29%**	**34%**
Depreciation	11%	10%	13%	20%	25%	25%
EBITA	23%	27%	15%	3%	4%	8%
Amortisation of goodwill and intangible assets	0%	0%	0%	0%	-0%	0%
EBIT	**22%**	**27%**	**15%**	**2%**	**4%**	**8%**
Financial result	0%	-0%	-0%	-2%	-2%	-1%
Recurring pretax income from continuing operations	23%	27%	15%	1%	3%	7%
Extraordinary income/loss	0%	0%	0%	0%	0%	0%
Earnings before taxes	23%	27%	15%	1%	3%	7%
Taxes	2%	3%	2%	0%	1%	1%
Net income from continuing operations	20%	24%	13%	0%	2%	6%
Result from discontinued operations (net of tax)	0%	0%	0%	0%	0%	0%
Net income	**20%**	**24%**	**13%**	**0%**	**2%**	**6%**
Minority interest	-3%	-2%	-1%	-0%	-0%	-1%
Net profit (reported)	**18%**	**22%**	**12%**	**0%**	**2%**	**5%**

Source: Company data; mwb research

Balance sheet (EURm)	2021	2022	2023	2024E	2025E	2026E
Intangible assets (exl. Goodwill)	**3**	**1**	**2**	**-0**	**0**	**-0**
Goodwill	21	21	21	20.5	20.5	20.5
Property, plant and equipment	1,379	2,343	3,439	3,687	3,641	3,542
Financial assets	59	54	38	38	38	38
FIXED ASSETS	**1,461**	**2,418**	**3,499**	**3,745**	**3,700**	**3,600**
Inventories	212	278	301	272	281	306
Accounts receivable	183	237	175	170	202	231
Other current assets	32	33	34	34	34	34
Liquid assets	555	1,041	463	221	219	396
Deferred taxes	0	0	0	0.0	0.0	0.0
Deferred charges and prepaid expenses	13	44	32	28	33	37
CURRENT ASSETS	**995**	**1,633**	**1,006**	**725**	**769**	**1,005**
TOTAL ASSETS	**2,455**	**4,051**	**4,505**	**4,470**	**4,469**	**4,606**
SHAREHOLDERS EQUITY	**1,190**	**1,885**	**1,904**	**1,874**	**1,909**	**2,003**
MINORITY INTEREST	129	182	195	195	195	195
Long-term debt	100	761	895	1,100	1,050	1,000
Provisions for pensions and similar obligations	434	143	172	151	180	206
Other provisions	42	50	159	165	196	224
Non-current liabilities	**575**	**954**	**1,225**	**1,416**	**1,426**	**1,430**
short-term liabilities to banks	6	10	10	10	10	10
Accounts payable	164	336	453	332	312	319
Advance payments received on orders	287	562	589	536	491	505
Other liabilities (incl. from lease and rental contracts)	48	54	79	55	65	75
Deferred taxes	2	3	3	2.5	3	2.5
Deferred income	54	64	48	48	57	65
Current liabilities	**562**	**1,030**	**1,180**	**984**	**938**	**977**
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	**2,455**	**4,051**	**4,505**	**4,470**	**4,469**	**4,606**

Balance sheet (common size)	2021	2022	2023	2024E	2025E	2026E
Intangible assets (excl. Goodwill)	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Goodwill	1%	1%	0%	0%	0%	0%
Property, plant and equipment	56%	58%	76%	82%	81%	77%
Financial assets	2%	1%	1%	1%	1%	1%
FIXED ASSETS	**59%**	**60%**	**78%**	**84%**	**83%**	**78%**
Inventories	9%	7%	7%	6%	6%	7%
Accounts receivable	7%	6%	4%	4%	5%	5%
Other current assets	1%	1%	1%	1%	1%	1%
Liquid assets	23%	26%	10%	5%	5%	9%
Deferred taxes	0%	0%	0%	0%	0%	0%
Deferred charges and prepaid expenses	1%	1%	1%	1%	1%	1%
CURRENT ASSETS	**41%**	**40%**	**22%**	**16%**	**17%**	**22%**
TOTAL ASSETS	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
SHAREHOLDERS EQUITY	**48%**	**47%**	**42%**	**42%**	**43%**	**43%**
MINORITY INTEREST	5%	4%	4%	4%	4%	4%
Long-term debt	4%	19%	20%	25%	23%	22%
Provisions for pensions and similar obligations	18%	4%	4%	3%	4%	4%
Other provisions	2%	1%	4%	4%	4%	5%
Non-current liabilities	**23%**	**24%**	**27%**	**32%**	**32%**	**31%**
short-term liabilities to banks	0%	0%	0%	0%	0%	0%
Accounts payable	7%	8%	10%	7%	7%	7%
Advance payments received on orders	12%	14%	13%	12%	11%	11%
Other liabilities (incl. from lease and rental contracts)	2%	1%	2%	1%	1%	2%
Deferred taxes	0%	0%	0%	0%	0%	0%
Deferred income	2%	2%	1%	1%	1%	1%
Current liabilities	**23%**	**25%**	**26%**	**22%**	**21%**	**21%**
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Company data; mwb research

Cash flow statement (EURm)	2021	2022	2023	2024E	2025E	2026E
Net profit/loss	290	434	201	6	36	104
Depreciation of fixed assets (incl. leases)	150	176	203	275	406	473
Amortisation of goodwill	0	0	0	0.0	0.0	0.0
Amortisation of intangible assets	0	0	0	2	-0	0.0
Others	3	6	-2	-14	60	54
Cash flow from operations before changes in w/c	442	616	402	269	501	631
Increase/decrease in inventory	-42	-58	-28	29	-9	-25
Increase/decrease in accounts receivable	-21	-43	54	5	-32	-29
Increase/decrease in accounts payable	-6	11	10	-121	-20	7
Increase/decrease in other w/c positions	99	225	20	-71	-31	27
Increase/decrease in working capital	31	136	56	-158	-92	-20
Cash flow from operating activities	**472**	**752**	**458**	**111**	**409**	**611**
CAPEX	-393	-923	-1,199	-523	-360	-374
Payments for acquisitions	0	0	0	0.0	0.0	0.0
Financial investments	70	-412	567	0	0	0
Income from asset disposals	0	0	3	0.0	0	0.0
Cash flow from investing activities	**-322**	**-1,334**	**-629**	**-523**	**-360**	**-374**
Cash flow before financing	150	-583	-171	-412	49	237
Increase/decrease in debt position	-5	667	133	205	-50	-50
Purchase of own shares	0	0	0	0.0	0.0	0.0
Capital measures	0	0	0	0.0	0.0	0.0
Dividends paid	-60	-90	-90	-36	-1	-10
Others	0	0	0	0.0	0.0	0.0
Effects of exchange rate changes on cash	15	17	-4	0	0	0
Cash flow from financing activities	**-49**	**594**	**39**	**169**	**-51**	**-60**
Increase/decrease in liquid assets	101	12	-132	-242	-2	177
Liquid assets at end of period	**424**	**489**	**386**	**144**	**142**	**319**

Source: Company data; mwb research

Regional sales split (EURm)	2021	2022	2023	2024E	2025E	2026E
Domestic	104	132	125	113	135	154
EURope (ex domestic)	146	197	148	134	160	183
The Americas	137	185	122	111	132	151
Asia	1,008	1,272	1,103	1,002	1,192	1,363
Rest of World	10	19	17	15	18	20
Total sales	**1,405**	**1,805**	**1,514**	**1,376**	**1,637**	**1,871**

Regional sales split (common size)	2021	2022	2023	2024E	2025E	2026E
Domestic	7.4%	7.3%	8.2%	8.2%	8.2%	8.2%
EURope (ex domestic)	10.4%	10.9%	9.8%	9.8%	9.8%	9.8%
The Americas	9.8%	10.3%	8.1%	8.1%	8.1%	8.1%
Asia	71.7%	70.4%	72.9%	72.9%	72.9%	72.9%
Rest of World	0.7%	1.1%	1.1%	1.1%	1.1%	1.1%
Total sales	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Company data; mwb research

Ratios	2021	2022	2023	2024E	2025E	2026E
Per share data						
Earnings per share reported	8.38	12.96	6.10	0.18	1.07	3.12
Cash flow per share	15.75	25.06	15.28	-5.47	4.47	11.19
Book value per share	39.66	62.83	63.48	62.48	63.63	66.77
Dividend per share	3.00	3.00	1.20	0.04	0.32	1.09
Valuation						
P/E	9.0x	5.8x	12.4x	426.3x	70.7x	24.3x
P/CF	4.8x	3.0x	4.9x	-13.8x	16.9x	6.8x
P/BV	1.9x	1.2x	1.2x	1.2x	1.2x	1.1x
Dividend yield (%)	4.0%	4.0%	1.6%	0.0%	0.4%	1.4%
FCF yield (%)	20.8%	33.1%	20.2%	-7.2%	5.9%	14.8%
EV/Sales	1.6x	1.2x	1.9x	2.4x	2.0x	1.7x
EV/EBITDA	4.8x	3.2x	6.6x	10.6x	6.9x	4.9x
EV/EBIT	7.1x	4.3x	12.5x	97.5x	46.6x	19.9x
Income statement (EURm)						
Sales	1,405	1,805	1,514	1,376	1,637	1,871
yoy chg in %	16.4%	28.5%	-16.1%	-9.1%	19.0%	14.3%
Gross profit	441	615	372	165	213	318
Gross margin in %	31.4%	34.1%	24.6%	12.0%	13.0%	17.0%
EBITDA	466	672	434	311	476	629
EBITDA margin in %	33.2%	37.2%	28.7%	22.6%	29.1%	33.6%
EBIT	315	494	230	34	71	155
EBIT margin in %	22.4%	27.3%	15.2%	2.5%	4.3%	8.3%
Net profit	251	389	183	5	32	94
Cash flow statement (EURm)						
CF from operations	472	752	458	111	409	611
Capex	-393	-923	-1,199	-523	-360	-374
Maintenance Capex	0	0	0	275	275	275
Free cash flow	80	-171	-740	-412	49	237
Balance sheet (EURm)						
Intangible assets	23	22	22	20	21	20
Tangible assets	1,379	2,343	3,439	3,687	3,641	3,542
Shareholders' equity	1,190	1,885	1,904	1,874	1,909	2,003
Pension provisions	434	143	172	151	180	206
Liabilities and provisions	581	964	1,235	1,426	1,436	1,440
Net financial debt	-450	-271	441	889	841	614
w/c requirements	-57	-384	-566	-427	-320	-287
Ratios						
ROE	24.2%	22.9%	10.5%	0.3%	1.9%	5.2%
ROCE	16.6%	16.3%	6.9%	1.0%	2.0%	4.3%
Net gearing	-37.8%	-14.4%	23.2%	47.4%	44.0%	30.6%
Net debt / EBITDA	-1.0x	-0.4x	1.0x	2.9x	1.8x	1.0x

Source: Company data; mwb research

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