

# OUR PATH TO GROWTH AND VALUE CREATION

**Investor Presentation July 2024** 

### SILTRONIC AT A GLANCE

4,500

employees worldwide

4

world-class production sites

1.5

billion EUR sales in 2023

50+

years of history in silicon technologies

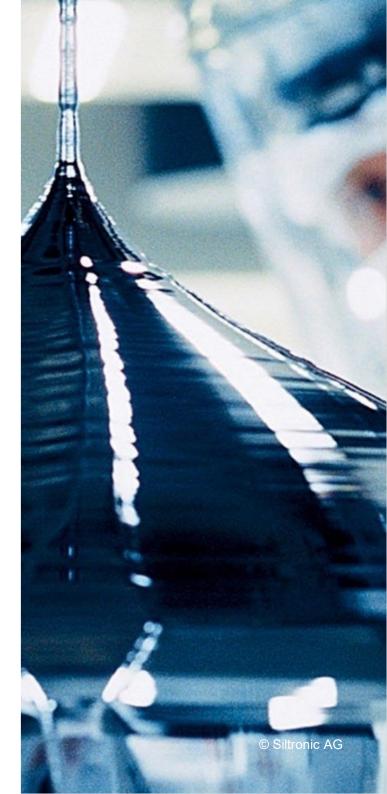
# Supplier

to top

semiconductor producers

29

percent EBITDA-Margin



### 50+ YEARS OF HISTORY – A STORY OF SUCCESS AND INNOVATION

1968
Foundation of
WackerChemitronic

**GmbH** 

1984
First 200 mm
wafers at
WackerChemitronic

1995
Acquisition of
Freiberg fab

1999
Start of 200 mm
production at
Siltronic fab
Singapore Pte Ltd.

2006
Foundation of 50:50
JV with Samsung
("SSW") and
construction start of
a 300 mm fab

2015 Siltronic executes successful IPO 2019
Inauguration of the new crystal pulling hall in Singapore

2023
Inauguration of crystal pulling hall extension in Freiberg





















1978
Foundation of
Wacker Siltronic
Corporation
Portland (US)

1990
First research and development projects for 300 mm wafers

1997
Foundation of
Wacker Siltronic
Singapore Pte. Ltd
("SSP")

2004
Siltronic opens new
300 mm plant in
Freiberg

2014
Increase
stake in SSW
to 78 percent

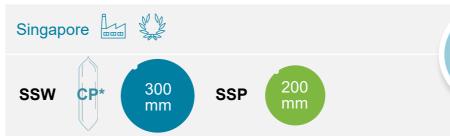
2016
Inauguration of new crystal pulling hall in Freiberg

2021
Groundbreaking
of FabNext in
Singapore & expansion
of crystal pulling
hall in Freiberg

2024
Inauguration of the new Fab in Singapore

# INTERNATIONAL PRODUCTION NETWORK SERVES CUSTOMERS AROUND THE GLOBE

# Singapore





300 mm volume production in Germany & Singapore

### **Germany**







R&D hub in Burghausen

#### **USA**







**Leading Edge**production

R&D = Research and Development CP = Crystal Pulling

# EXPANSION OF ELECTRONICS VALUE CHAIN WILL DRIVE SEMICONDUCTOR AND WAFER GROWTH

### Electronics value chain (figures for 2023)<sup>(1)</sup>



CPU

Electronics USD 1,875 bn



Semiconductor silicon wafers
USD 12.3 bn

Silicon for electronic applications
USD 1.3 bn



99%

of the semiconductor value chain is based on silicon



USD 1 tn

semi sales at the end of this decade<sup>(2)</sup>

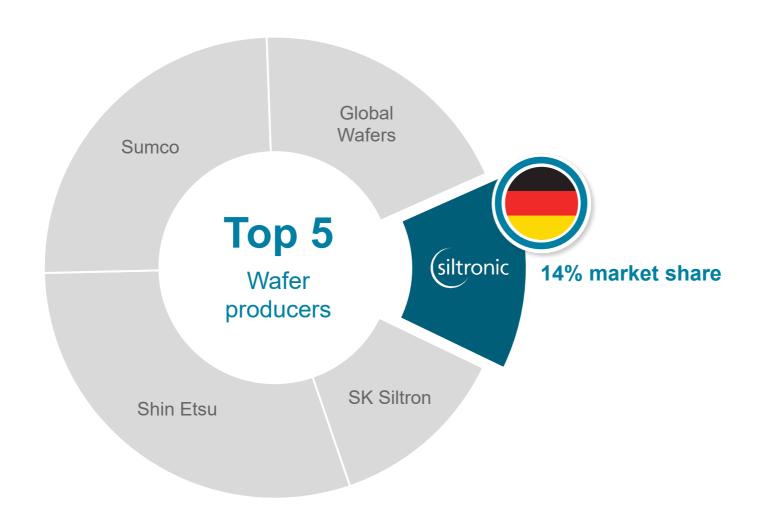


**Crucial** 

for the whole value chain

Source: 1 TechInsights, WSTS (Silicon based), SEMI SMG, Siltronic Marketing I 2 McKinsey

### WELL POSITIONED IN A CONSOLIDATED MARKET AS THE ONLY WESTERN-BASED MANUFACTURER





**Up to 90%** 

are served by the top 5 wafer manufacturers



**Only western** 

based wafer manufacturer



**Consolidated** 

market leads to high transparency and predictability

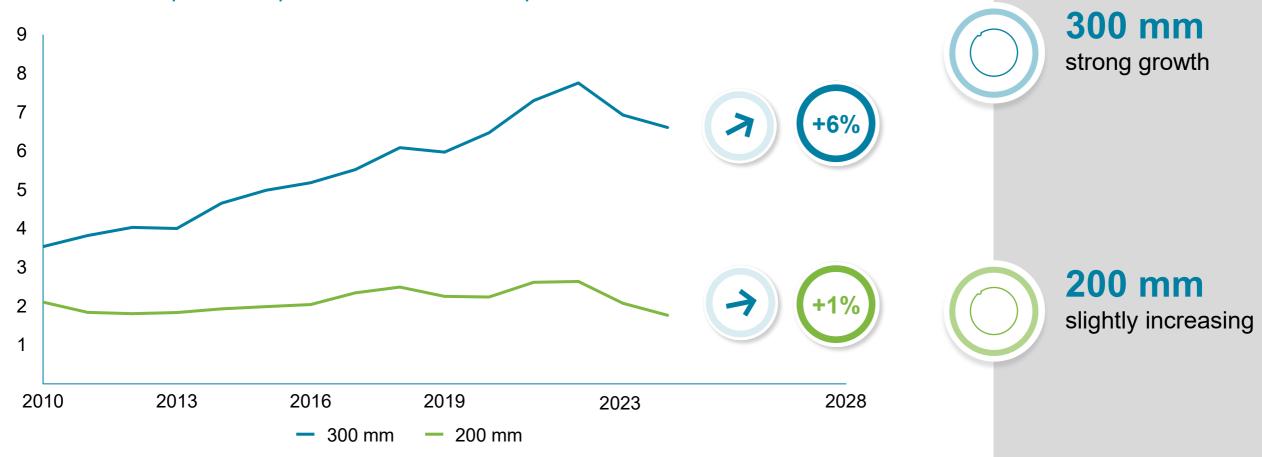
Source: Siltronic estimate 2023, Quarterly reports of SEMI companies

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# OVERALL CAGR OF 4-5% EXPECTED HIGHEST GROWTH IN 300 mm

### Development of total wafer demand per diameter

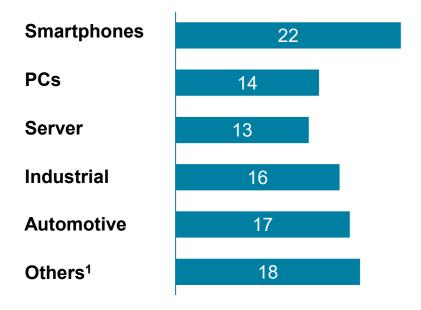
in mn 300 mm equivalents per month<sup>1</sup> and CAGR per diameter in %<sup>2</sup>

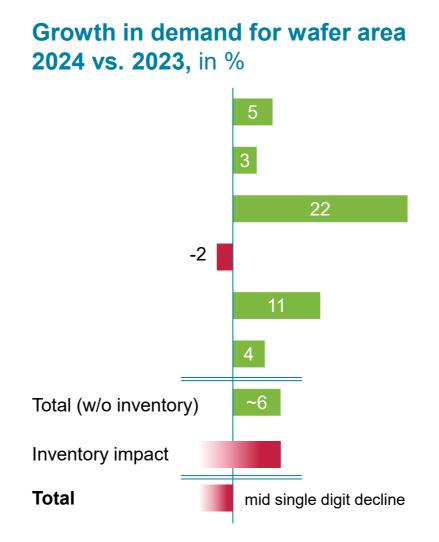


<sup>&</sup>lt;sup>1</sup> Source: SEMI up to May 2024; <sup>2</sup> Siltronic CAGR expectation until 2028 (base year 2022) - the actual CAGR may deviate from expectations

# END MARKET GROWTH STILL NEGATIVELY OVERCOMPENSATED BY EXCESS INVENTORY

### Consumption of wafers by end use 2023, in %







### Server

Strong growth with Al pushing net content



**Smartphones** 

Modest recovery

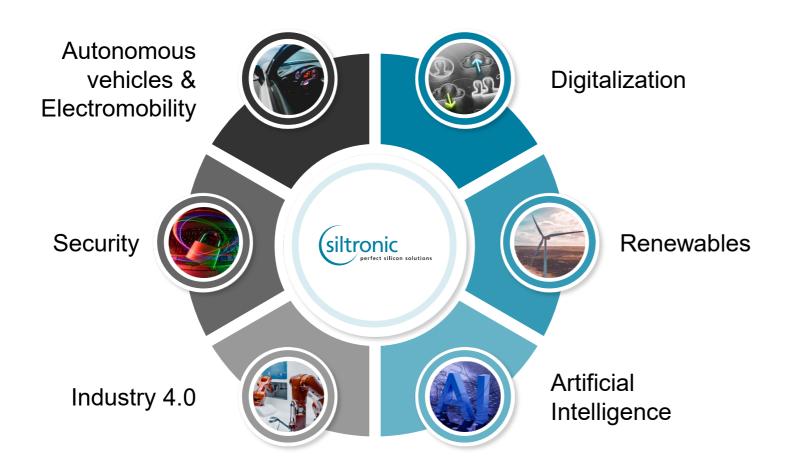


Industrial & Automotive

Mixed newsflow

Source: Siltronic estimates, <sup>1</sup> Infrastructure Telecommunications, game consoles, consumer electronics such as televisions, white goods such as refrigerators. Chart not to scale.

### MEGATRENDS WILL DRIVE WAFER DEMAND





### **Siltronic**

well positioned to support each megatrend



### **All segments**

will participate and Power with over proportional growth



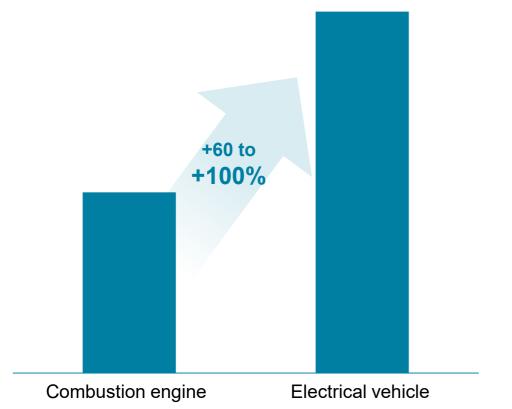
### **Key benefits**

from strategic focus on Leading Edge and Power market

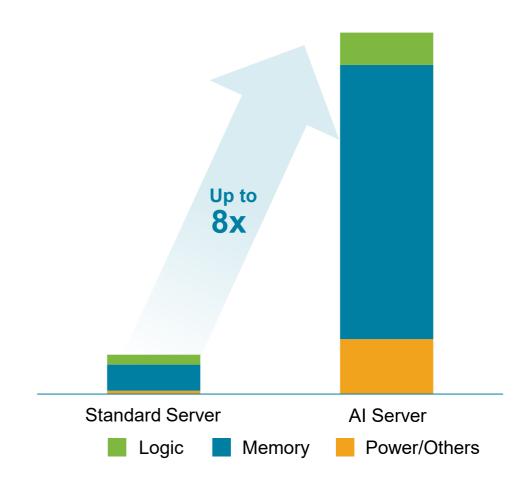
# FOR EXAMPLE: ELECTROMOBILITY AND AI ARE PUSHING WAFER DEMAND

Silicon content between combustion engine and electrical vehicle

in cm<sup>2</sup> per car



Silicon content between standard server vs. Al server in cm² per server



Source: BS Sept. 2023 Global I/O Semiconductors; UBS May 2023; Omdia Q4 2022; Siltronic Marketing estimates

### **OUR NEW FAB IN SINGAPORE**

### **Project Status**



Inauguration took place in June



Focus on qualifying customers



Depreciation starting in Q4 2024

#### **Commercial Facts**



Advantages:

High automation, high epi share, economies of scale, state of the art



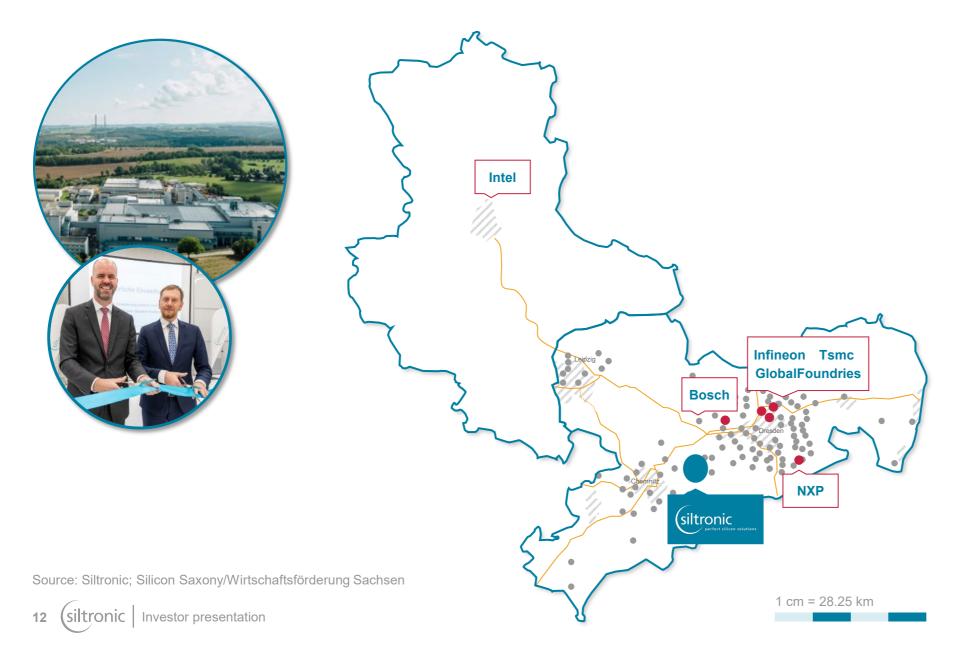
High LTA share



EBITDA-margin above 50% mid-term



# FURTHER IMPROVED PRODUCT MIX FUELED BY INVESTMENTS (E.G. FREIBERG)





# Every 3rd to 2nd semiconductor in the

EU is from this region

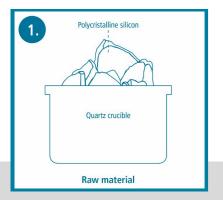


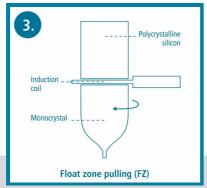
# **Investments** of more than EUR 1 bn since 1995 by Siltronic

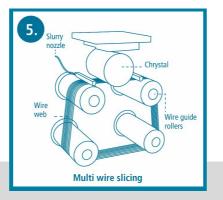


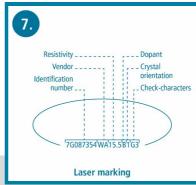
# First-class geographical position in light of EU ambitions

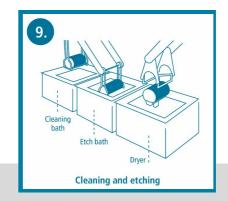
### **WAFER PRODUCTION PROCESS**

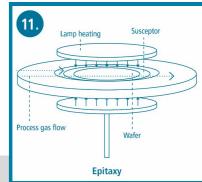


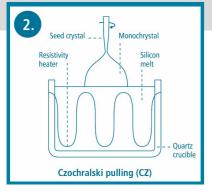


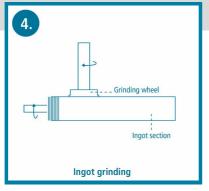


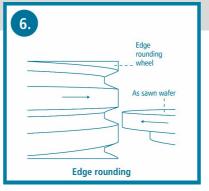


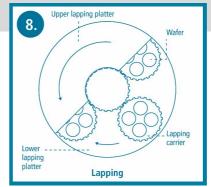


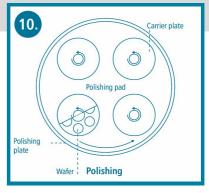












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### **OUR UNIQUE R&D AND INNOVATION FOCUS IS** ANOTHER IMPORTANT GROWTH DRIVER

R&D hub in Germany



Partnering with leading innovation platforms and joint development







Stay one generation ahead as a technology leader

**R&D Innovation Strategy** 

450 R&D employees

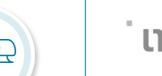






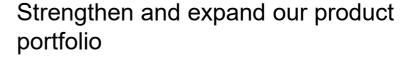
Focus on Leading Edge and Power

1,900 patents



















Further improve our technology and processes





Find new business opportunities

projects with customers

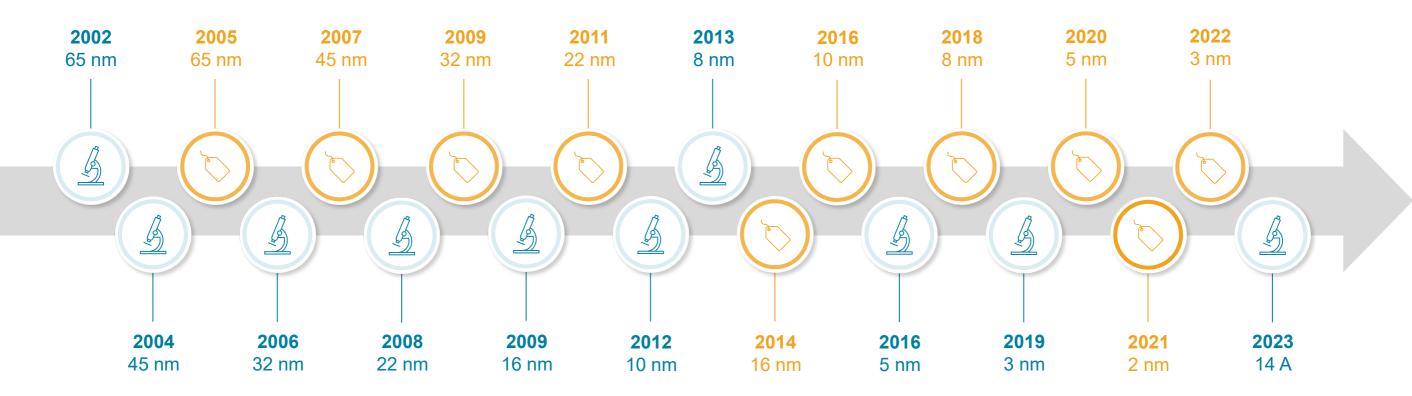








### SILTRONIC HAS A PROVEN TRACK RECORD

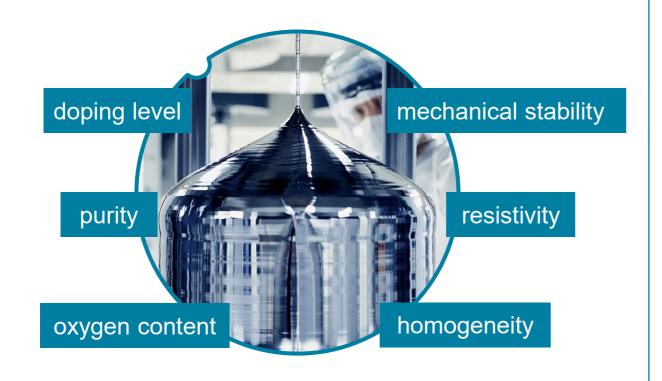


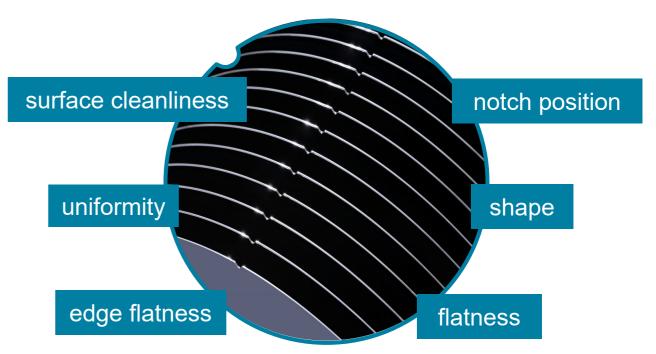




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### A NUMBER OF KEY INGOT & WAFER PROPERTIES DEFINE THE WAFER SPECIFICATION AND ITS FURTHER USE BY THE CUSTOMER





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# PURITY AND FLATNESS REQUIREMENTS FOR WAFERS ARE EXTREME, AS SCALING THEM INTO THE MACRO WORLD SHOWS

#### **Particles**

Particle size specified in the nm range. Requirements are equivalent to a maximum of 10 grains of sand distributed over the city of Munich - and no pebble or rock.



#### **Flatness**

20 nm on a wafer are equivalent to the height of a leaf on the surface of Lake Chiemsee – or a single bacteria on a tennis court.



#### **Impurity**

"parts pert trillion" (ppt) is equivalent to a sugar cube diluted in a small lake – or a single grain of salt in a tank truck.



# COST-COMPETITIVENESS A PREREQUISITE IN THE WAFER INDUSTRY

#### Major cost items 2023



Labor



Depreciation



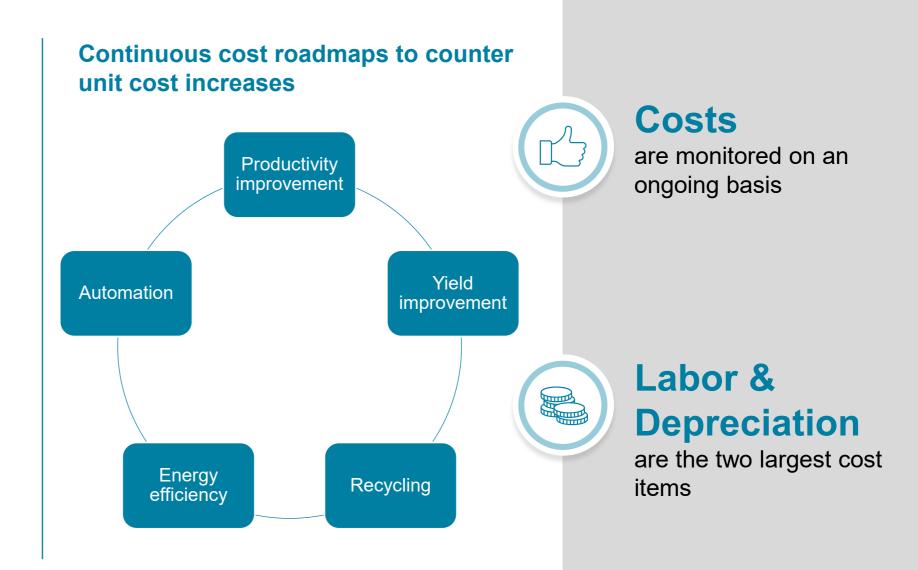
Supplies



Energy



Polysilicon



## **OUTLOOK AND** FINANCIAL STRENGTH

**Our ambitions until 2028** 



### 2024 GUIDANCE SLIGHTLY UPGRADED

### Sales

High single digit percent below prior year

### Capex

Between EUR 500 and 530 mn

### **Depreciation**

Below EUR 300 mn

### **EBITDA Margin**

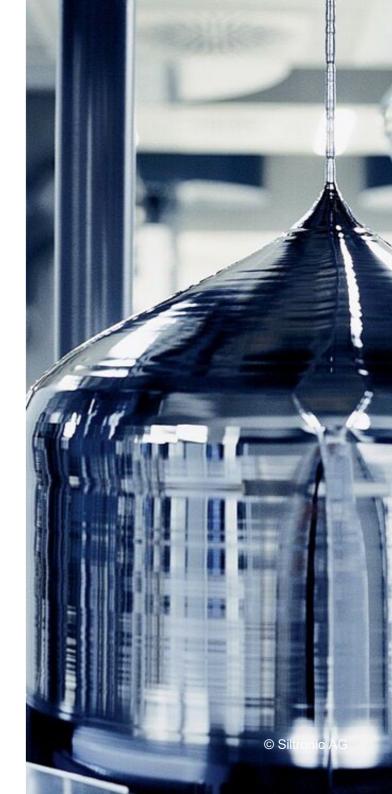
Between 23% and 25%

### **EBIT**

Significant decline

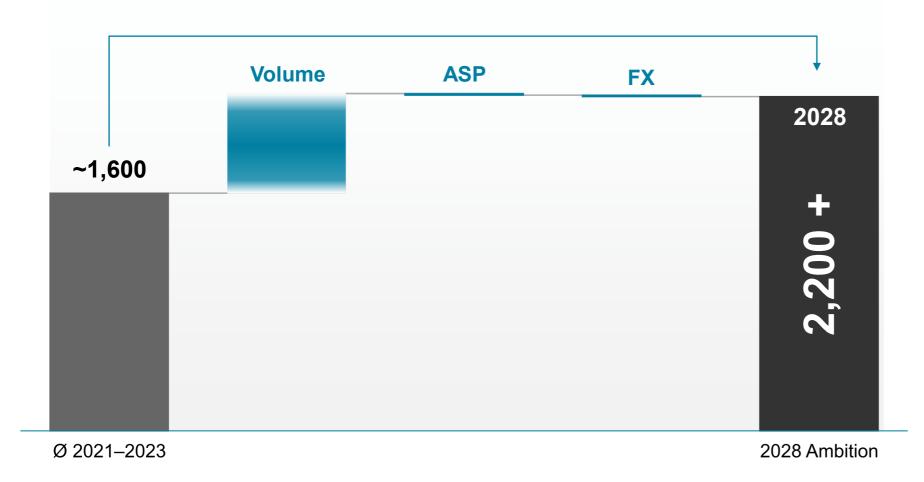
### **Net cash flow**

Improved compared to previous year, but remains significantly negative



# BY 2028 OUR SALES AMBITION IS >EUR 2.2 BN DRIVEN BY VOLUME AND CAPACITY EXPANSION

#### Sales in EUR mn





### **Volume effect**

Assumed volume growth 2028 vs. 2022

- Total CAGR 4–5%
- 300 mm CAGR 6%

Capacity expansion FabNext along with market growth



### **ASP** effect

Overall stable



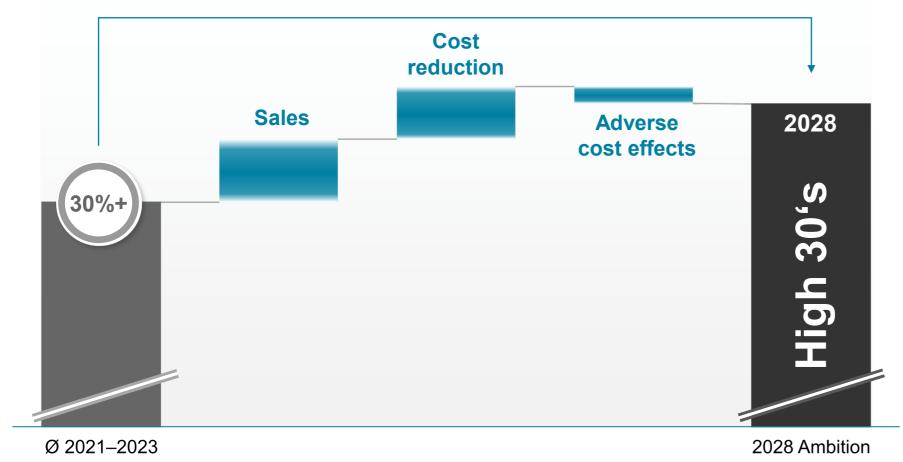
### **FX** effect

stable, EUR/USD 1.10

Charts not to scale

# PROFITABLE GROWTH UNTIL 2028 IS SUPPORTED BY VOLUME GROWTH AND COST ADVANTAGES

### **EBITDA-Margin** in %





### **Sales**

ASP/FX flat Additional volume mainly from FabNext (with fix cost build-up)



# **Cost** reduction

Cost reduction programs Invest in new equipment and automation Shift towards Singapore with cost advantage

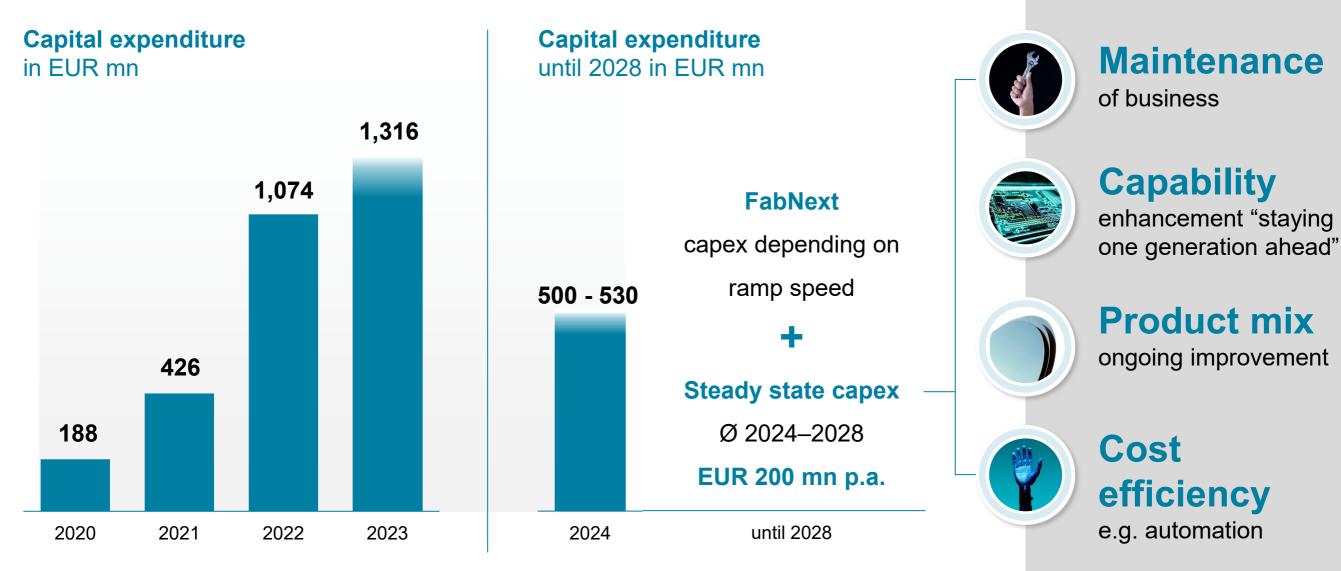


# Adverse cost effects

Inflation

Charts not to scale

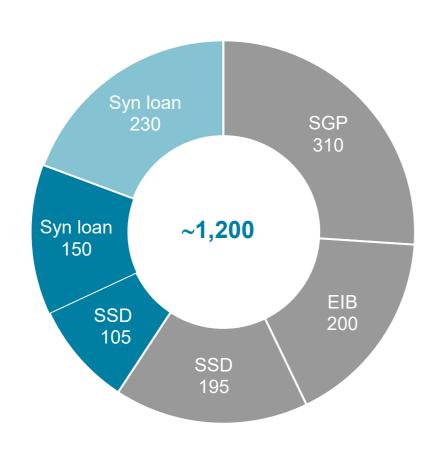
### TOP PRIORITY: INVESTMENTS IN ORGANIC GROWTH



Charts not to scale

### **REFINANCING IN 2024 UNDER PREPARATION**

### **Debt financing instruments,** in EUR million



- Fixed loans, drawn
- Variable loans, drawn
- Syn loan, not drawn yet



### Syn Ioan

Second part drawn in Q2 (EUR 100 mn), Q1 (EUR 50 mn)



### **CORPORATE TAX RATE WILL INCREASE**

### **Singapore**



~15–17% effective tax rate

#### **Germany**



~30% effective tax rate

#### **USA**



~25% effective tax rate





### **Pioneer** status until March 2024 in

Singapore for SSW

### **Minimum**

effective tax rate in Singapore from 2025 acc. to OECD Pillar 2

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# ESG @ SILTRONIC

Clear commitment to an emission-free future



### **AMBITIOUS TARGETS KEEP US GOING**



Climate – Scope 1+2

CO<sub>2</sub> emissions

**2030**: -42%<sup>1</sup>

**2045**: Net zero<sup>2</sup>

**Status 2023: -22%** 



**Energy – renewable** 

2030: 60% share

**2045**: 100% share

**Status 2023:** 5%<sup>3</sup>



**Energy intensity** 

**2030:** -20%<sup>4</sup>

**Status 2023: +7%** 



Water usage intensity

**2030:** -20%<sup>4</sup>

**Status 2023: +1%** 



Circular economy -Waste recycling ratio

**2030**: 25%<sup>5</sup>

**Status 2023: +12%** 



**Occupational safety -**LTIF<sup>6</sup>

**2023**: below 2.0

**Status 2023: 2.4** 

<sup>(3)</sup> based on RE100 criteria, (4) Intensity per production output, base year 2015; (5) base year 2015, (6) LTIF= Loss time injury frequency rate; work-related injuries with lost time per 1 mn working hours



<sup>(1)</sup> absolute reduction, base year 2021, (2) Net zero: GHG emissions released into the atmosphere equal the amount removed

# SILTRONIC IS ENABLING TECHNOLOGIES FOR A SUSTAINABLE FUTURE

#### **Power focus**

Power chips are crucial for decarbonization and enable renewable energies and EV's





Focus on **Power** wafers

+ ) focus in **speci** 

R&D focus in special products and new materials

### Leading edge focus

New chip generations increase energy efficiency and need less power





**Leading Edge** wafers

R&D focus on new design rules





### **Strategy**

on leading edge and power wafers support sustainability strategy



### **Investments**

needed to keep our equipment state of the art for leading edge wafers



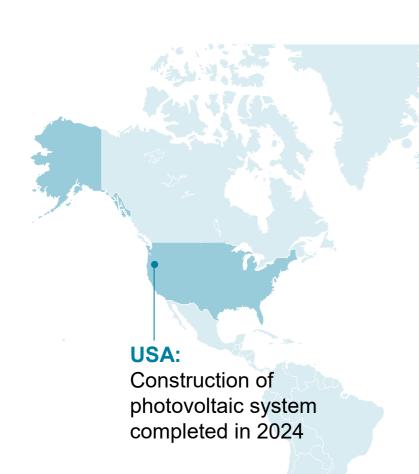
### **R&D** focus

is crucial for sustainability strategy

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### **SUSTAINABILITY HIGHLIGHTS**





RBA Platinum Award for results of sustainability audit in Freiberg in 2023



3 awards for community engagement received in 2023



**-22%** 

absolute CO<sub>2</sub> emissions scope 1+2 in 2023 compared to 2021



63,000 h

training for 4,500 Siltronic employees in 2023



300 mn EUR

Siltronic AG issued its first ESG-linked promissory note loan in 2022

### THE NEW SILTRONIC EXECUTIVE BOARD



Dr. Michael Heckmeier CEO

- CEO since May 2023
- 25 years at Merck
- Studied physics and mathematics, PHD in physics
- MBA, general management



Claudia Schmitt
CFO

- o CFO since July 2023
- 15 years at Siltronic
- 11 years at Wacker Chemie AG
- Studied business administration



Klaus Buchwald

- COO since June 2024
- 21 years at Infineon
- 4 years at Rohde & Schwarz
- Studied mechanical and industrial engineering



## **EXECUTIVE SUMMARY**

### SILTRONIC IS...



...a global and on the same time the only western based player in a market crucial for future economic growth.



...a technological leader with the proven track record to stay ahead of the curve.



...excellently prepared to leverage the great potential from the numerous megatrends thanks to our expansion of global capacities.



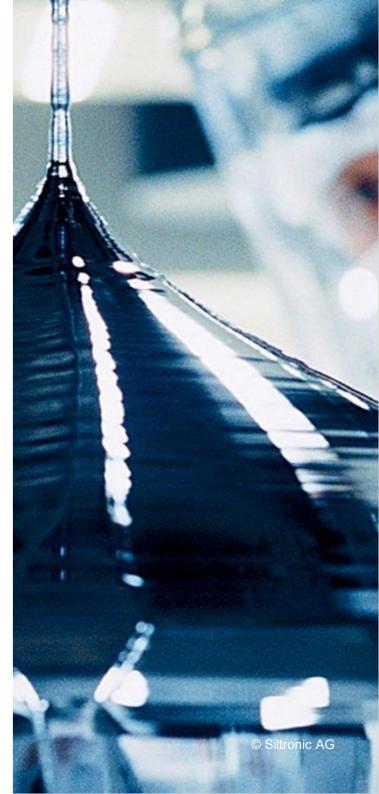
...well positioned in activities which promise the greatest growth potential: Power, Leading Edge and 300 mm.



...strong financials and has a good balance sheet quality.



- (siltronic ...growing profitably until 2028:
  - Sales > 2.2 bn
  - EBITDA ratio in the high 30s



### **Financial Calendar and Events**

Sep 3, 2024

ODDO Conference

Frankfurt

Sep 4, 2024

DB TMT Conference

London

Sep 23, 2024

Berenberg and GS

German Corporate

Conference, Munich

Sep 25, 2024 **Baader Investment Conference, Munich** 

October 24, 2024 **Q3 2024 results** 

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