

# OUR PATH TO GROWTH AND VALUE CREATION

Investor Presentation
December 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

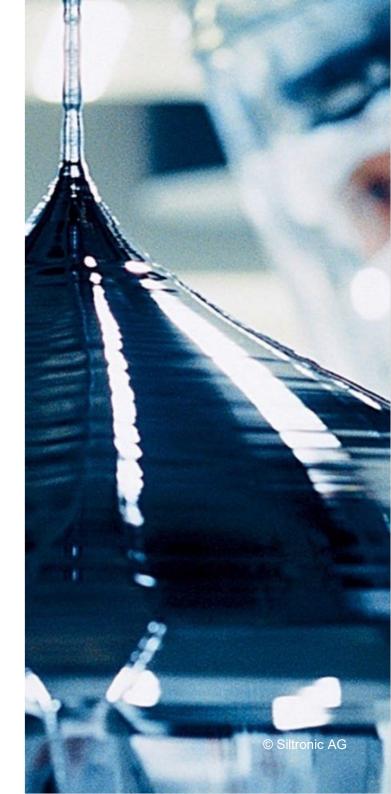
# Supplier

to top

semiconductor producers

29

percent EBITDA margin in 2023



### 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 fab 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

# OUR INTERNATIONAL PRODUCTION NETWORK SERVES CUSTOMERS AROUND THE GLOBE

#### **Singapore**







volume production in Germany & Singapore

#### **Germany**





**R&D** hub in Burghausen

#### **USA**







**Leading Edge**production

JV = Joint Venture
CP = Crystal Pulling
R&D = Research and Development

### THE WAFER SUPPLIERS ARE FUELING THE WHOLE ELECTRONICS **VALUE CHAIN**

Silicon for electronic applications USD 1.3 bn

Semiconductor silicon wafers **USD 12.3 bn** 

Semiconductors device maker USD 516 bn

**End markets** USD >5,000 bn

**Electronics** value chain (figures for 2023)









and roughly 50 larger chip designers



**Smartphones** Apple, Samsung...



Servers Dell. Lenovo...



**PCs** Lenovo, HP, Dell...



**Automotive** Toyota, VW, BMW, Tesla...



**Industrials** Siemens. GE...



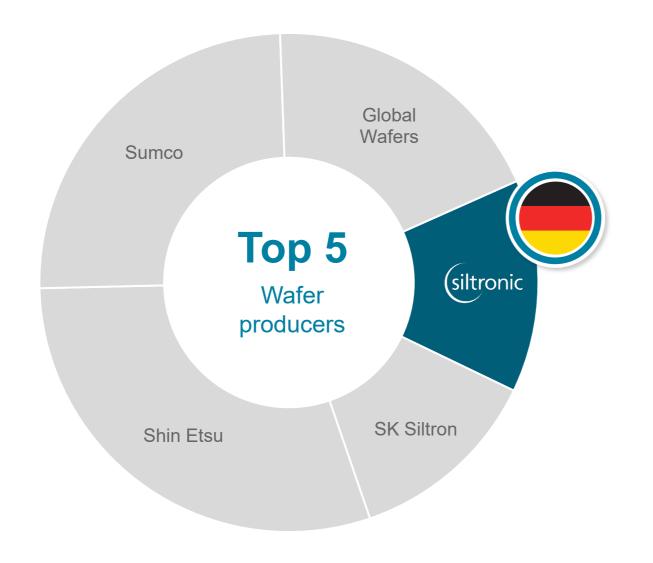
Others e.g. Whitegoods, Gaming, Infrastructure

>10,000 companies

Source: TechInsights, WSTS (Silicon based), SEMI SMG, Siltronic Marketing

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### SILTRONIC IS WELL POSITIONED AS THE ONLY WESTERN-BASED WAFER MANUFACTURER







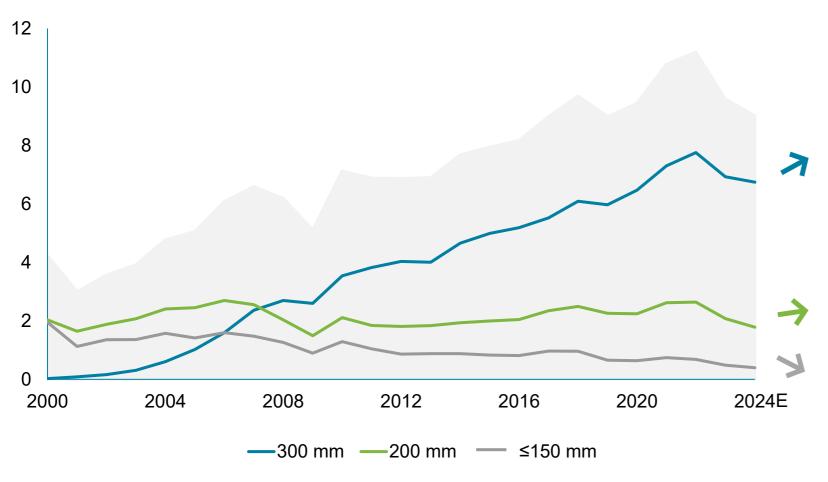
Source: Siltronic estimate 2023, Quarterly reports of SEMI companies

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# WAFER DEMAND GROWTH EXPECTED TO CONTINUE (CAGR 4-5%), DRIVER 300 mm WAFER

#### **Wafer Demand per Diameter**

in mn 300 mm equivalents





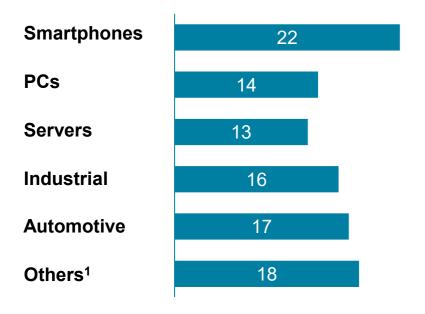




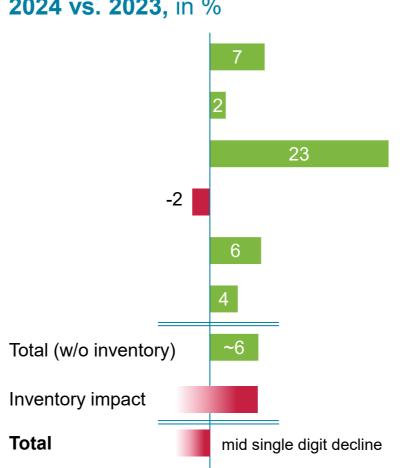
Source: Siltronic estimates

## 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

Automotive forecast lowered based on weaker outlook

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



# TOTAL INVENTORIES FOR MEMORY AND LOGIC PEAKED IN 2023, POWER STILL INCREASING

Semiconductor inventories per sector<sup>1</sup>

### **Memory**



Inventory levels decreasing slowly; High End DRAM improved due to HBM, other DRAM and NAND still elevated (customer dependent)

### Logic



Different inventory levels of customers, overall decreasing slowly

### **Customers**

Vary significantly – most positive results value and not volume driven



### **Siltronic**

Impact depends on customer exposure

### **Power/Others**

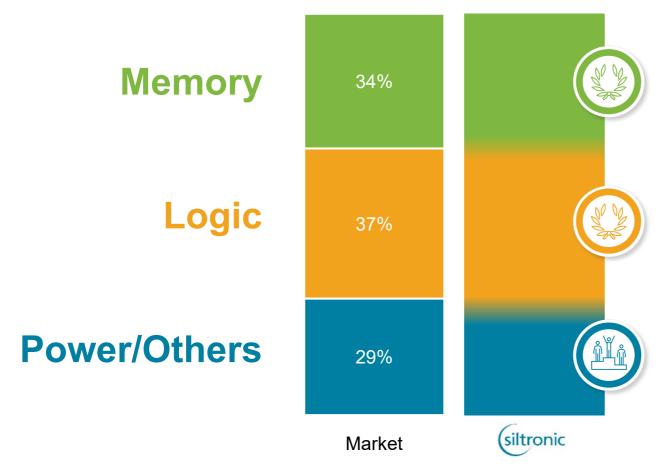


Power inventories based on newest data points further increased

<sup>1</sup> Source: Siltronic estimates and respective company data up to Q2 2024 including finished goods, work in progress and raw materials

### SILTRONIC HAS A WELL-DIVERSIFIED AND RESILIENT PRODUCT MIX IN ALL THREE SEMI-SEGMENTS

**Demand by segments** in % of total demand in 2023





### Roughly 1/3

as a rule of thumb is the split between the three segments



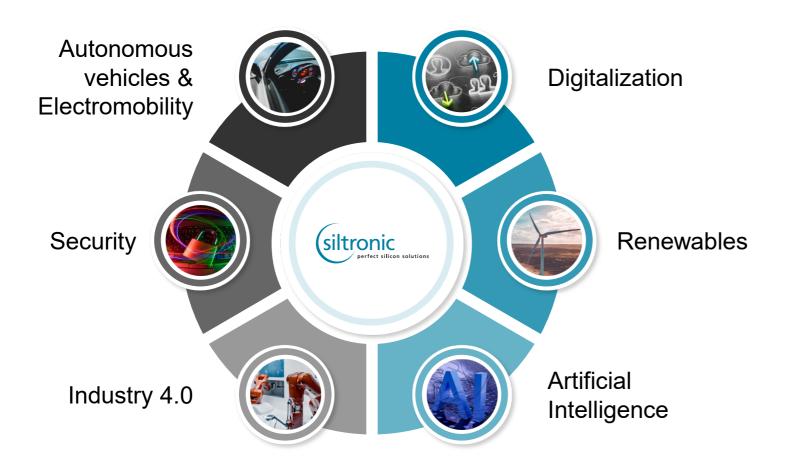




Power leading position

Source: Siltronic Marketing

### MEGATRENDS WILL DRIVE WAFER DEMAND





### **Siltronic**

well positioned to support each megatrend



### **All segments**

will participate and Power with over proportional growth



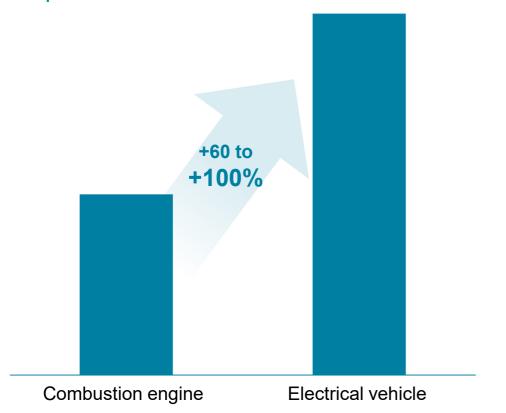
### **Key benefits**

from strategic focus on Leading Edge and Power market

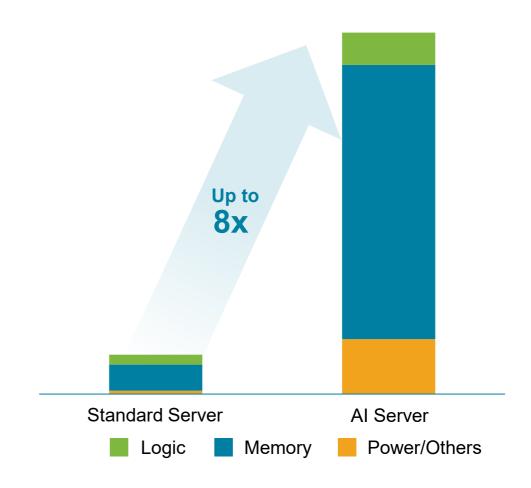
### FOR EXAMPLE: ELECTROMOBILITY AND AI ARE PUSHING WAFER **DEMAND**

Silicon content between combustion engine and electrical vehicle

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



Silicon content between standard server vs. Al server in cm<sup>2</sup> per server



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

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### FLAGSHIP PROJECT: INAUGURATION OF OUR NEW 300 mm FAB IN SINGAPORE TOOK PLACE IN JUNE

#### **Facts**



EUR 2 billion capex until 2024



2024 focus on customers qualifications



Group EBITDA margin above 50%+ mid-term



First time 300 mm epi in Singapore



Up to 80% LTA share with high prepayments



Ramp over several years – 100k+ wafers per months at the end of 2024



Highly automated and high economies of scale





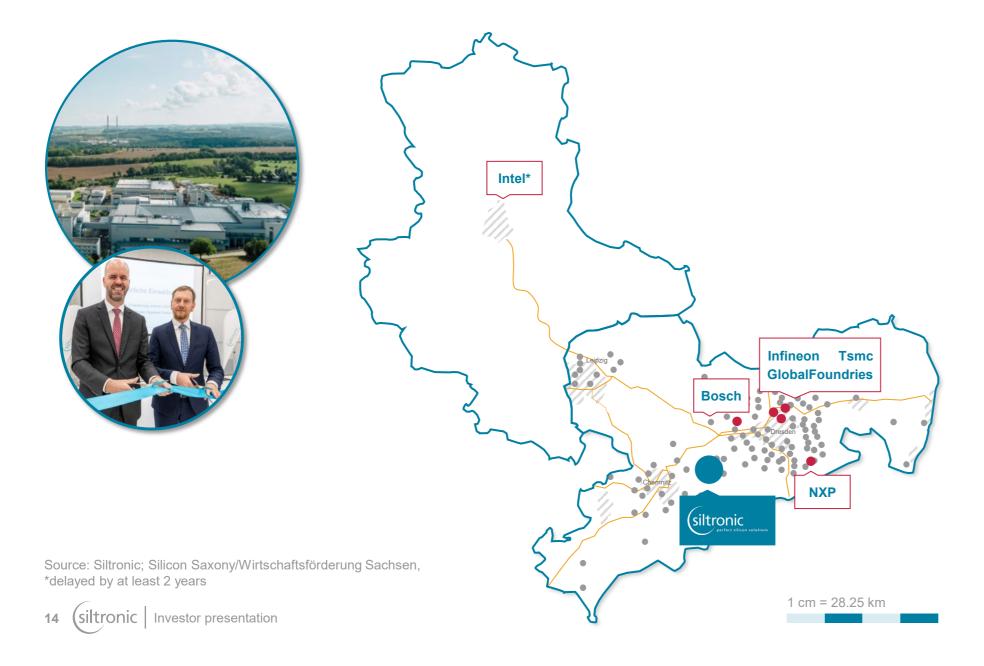




LTA = Long Term Agreement; epi = epitaxial wafers (mostly used for the logic industry)

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# IN FREIBERG WE FURTHER IMPROVED PRODUCT MIX FUELED BY INVESTMENTS





# Every 3rd to 2nd semiconductor in the EU is from this region

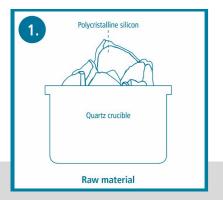


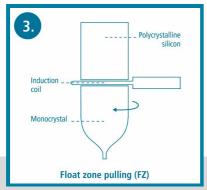
# Investments of more than EUR 1 bn since 1995 by Siltronic

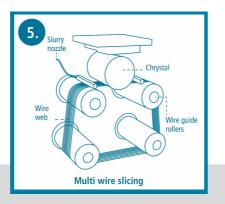


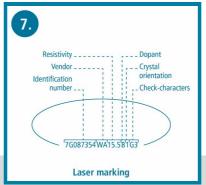
# First-class geographical position in light of EU ambitions

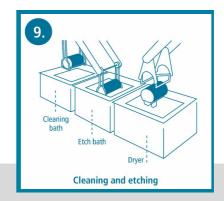
### **WAFER PRODUCTION PROCESS**

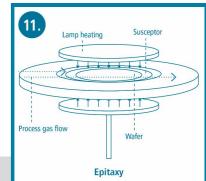


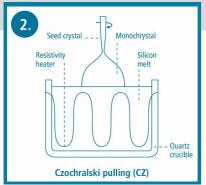


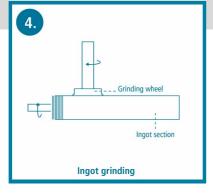


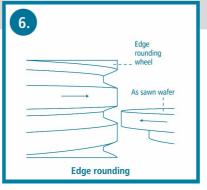


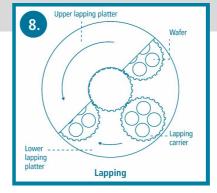


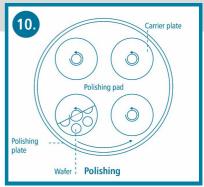












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### STRONG FOCUS ON GROWTH DRIVERS R&D AND **INNOVATION**

R&D

hub in Burghausen



Partnering with leading innovation platforms













R&D employees





















#### **R&D Innovation Strategy**

 Stay one generation ahead as a Technology Leader

Focus on Leading Edge and Power

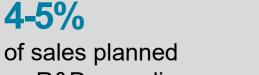
Find new business opportunities and



1,900 patents

4-5%

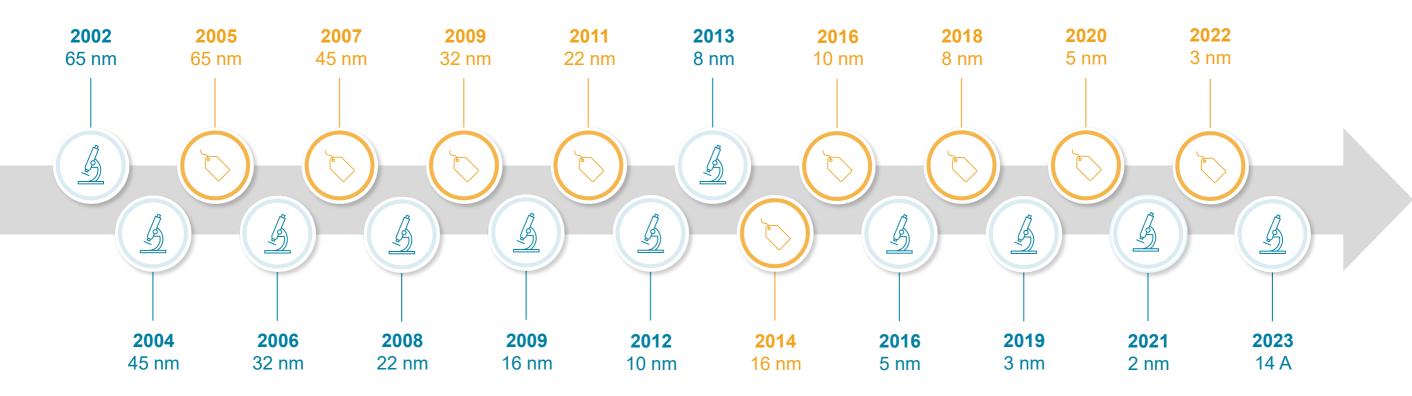
as R&D spendings





expand our product portfolio

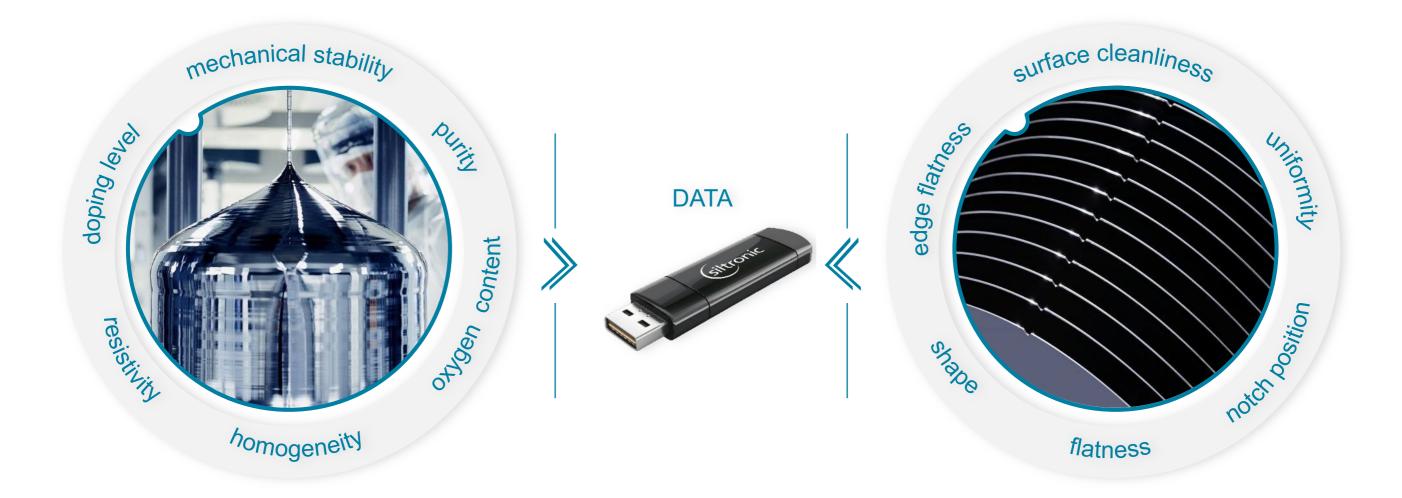
# SILTRONIC HAS A PROVEN TRACK RECORD AS A TECHNOLOGY LEADER







### A NUMBER OF KEY INGOT AND 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.



#### **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.



nm = nanometer

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# OUTLOOK AND FINANCIAL STRENGTH

**Our ambitions until 2028** 



### 2024 GUIDANCE SLIGTHLY ADJUSTED

### Sales

High single digit percent below prior year

### **EBITDA Margin**

Between 24% and 26%

### **Depreciation**

Between EUR 230 and 250 mn

### **EBIT**

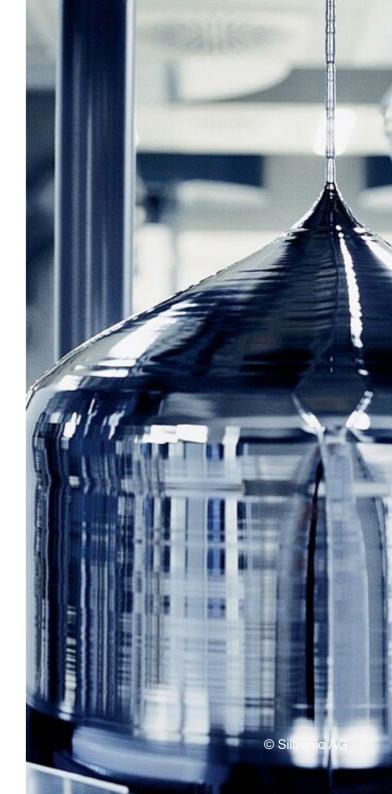
Significant decline

### Capex

Between EUR 500 and 530 mn

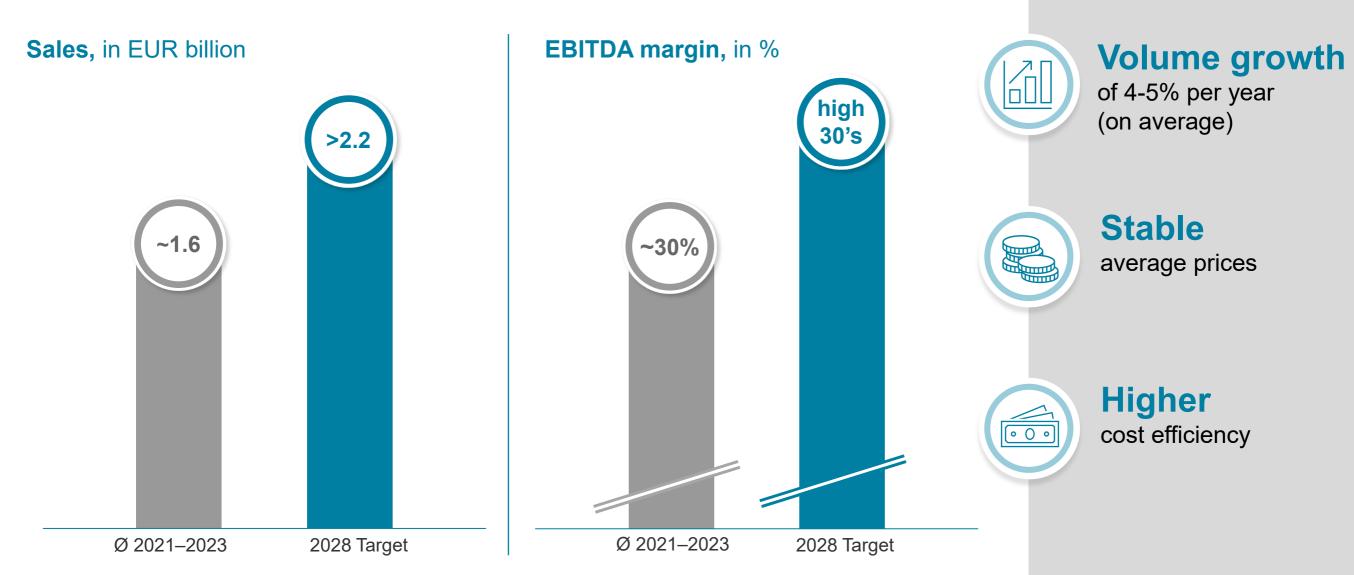
### **Net cash flow**

Improved compared to previous year, but remains significantly negative



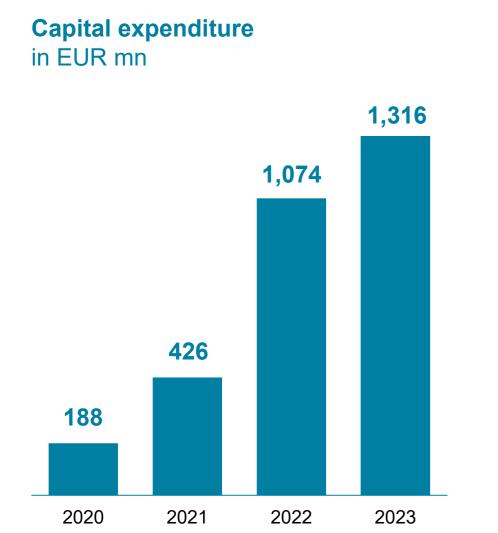
Assumption for Q4: FX rate EUR/USD 1,10

### **PROFITABLE GROWTH AMBITION FOR 2028**

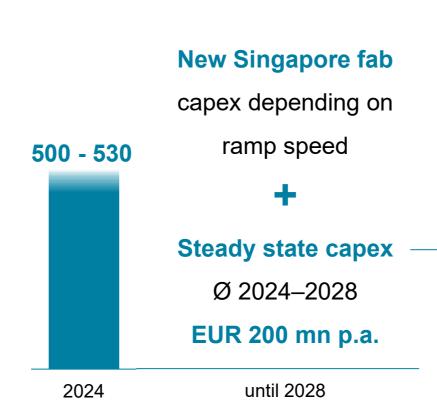


Status: Capital Markets Day November 2023; Charts not to scale

### TOP PRIORITY: INVESTMENTS IN ORGANIC GROWTH



Capital expenditure until 2028 in EUR mn





Maintenance of business



Capability
enhancement "staying
one generation ahead"



Product mix ongoing improvement

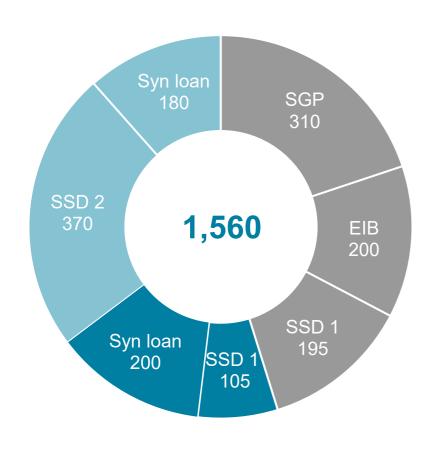


Cost efficiency e.g. automation

Charts not to scale

# SUCCESSFUL PLACEMENT OF PROMISSORY NOTE LOAN IN SEPTEMBER

#### **Debt financing instruments**<sup>1</sup>, in EUR million



- Fixed loans, drawn
- Variable loans, drawn
- Syn Ioan / SSD 2, not drawn yet



# **Promissory** note loan 2

Placed in September, payout in October

Maturities:

3.5, 5 and 7 years



Syn Ioan

EUR 200 mn drawn in Q1-Q3 2024

Figures rounded

SSD=Schuldscheindarlehen (Promissory Note Loan), <sup>1</sup> as of October 2024

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### CONTINUOUSLY INCREASING THE COST EFFICIENCY -AND A SPECIAL FOCUS IN THE CURRENT DEMAND WEAKNESS

#### Major cost items 2024



#### Cash and Cost reduction measures



#### **Production**

focus on productivity and efficiency



#### Capex

restrictive approval of investments



#### Labor

adjusted to reduced output + qualified hiring freeze in overhead areas



#### Dividend

reduced to EUR 1.20 per share for 2023



#### **Working Capital**

effective management with regard to capital commitment



#### **Other Costs**

even more intensified emphasis

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### **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

# ESG @ SILTRONIC

Clear commitment to an emission-free future



#### AMBITIOUS TARGETS AND GLOBAL COMMITMENTS 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% share<sup>3</sup>











Siltronic supports the 10 principles of the UN Global Compact.

We contribute to the sustainable development goals of the UN.

As a supplier to the electronics industry, Siltronic is a "Regular" member of the Responsible Business Alliance (RBA).

Siltronic participates in CDP Climate change and Water security evaluations.

With our membership at RE100, we are dedicated to make our contribution to global decarbonization.

(1) absolute reduction, base year 2021, (2) Net zero: GHG emissions released into the atmosphere equal the amount removed (3) based on RE100 criteria

### **SUSTAINABILITY HIGHLIGHTS**



completed in 2024

#### **GERMANY**:

Power Purchase Agreement starting from 2024, with annual volume of 60 GWh

#### SINGAPORE:

RBA Platinum Award for results of sustainability audit in 2024



# 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
+
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 supports 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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### THE 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**

# KEY TAKEAWAYS – CLEAR COMMITMENT TO PROFITABLE GROWTH AS A TECHNOLOGY LEADER



#### **Financial Calendar and Events**

Dec 2, 2024

Berenberg Pennyhill

Conference, London

Dec 5, 2024 **Bofa virtual Tech Fieldtrip** 

Jan 9, 2025 ODDO BHF, Lyon Jan 14, 2025 **Bofa virtual SMID Conference** 

Jan 21, 2025

Kepler German

Corporate Conference,

Frankfurt

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