



Company Presentation Eigenkapitalforum 2024

SINGULUS 

Thin-Film Coating and Surface Treatment

State-of-the-Art Technology Provider Equipment Supplier for Thin-Film Coating and Surface Treatment



Photovoltaics



Semiconductor



Life Science

- Established: 1995 (Buyout at Merger Balzers/Leybold)
- IPO: 1997
- Employees: 320

- Research & Development
- Consulting
- Engineering & Design
- Project Management
- Production
- Installation
- Commissioning
- Service & Maintenance
- Hotline 24/7
- Training

Innovative Application for efficient and resource-saving Production Processes



 PVD



 PECVD



 EVA/RTP/CSS



 WET

Vacuum & Wet Applications for dedicated markets



Photovoltaics



Medical Technology



Glass/Automotive



Semiconductor

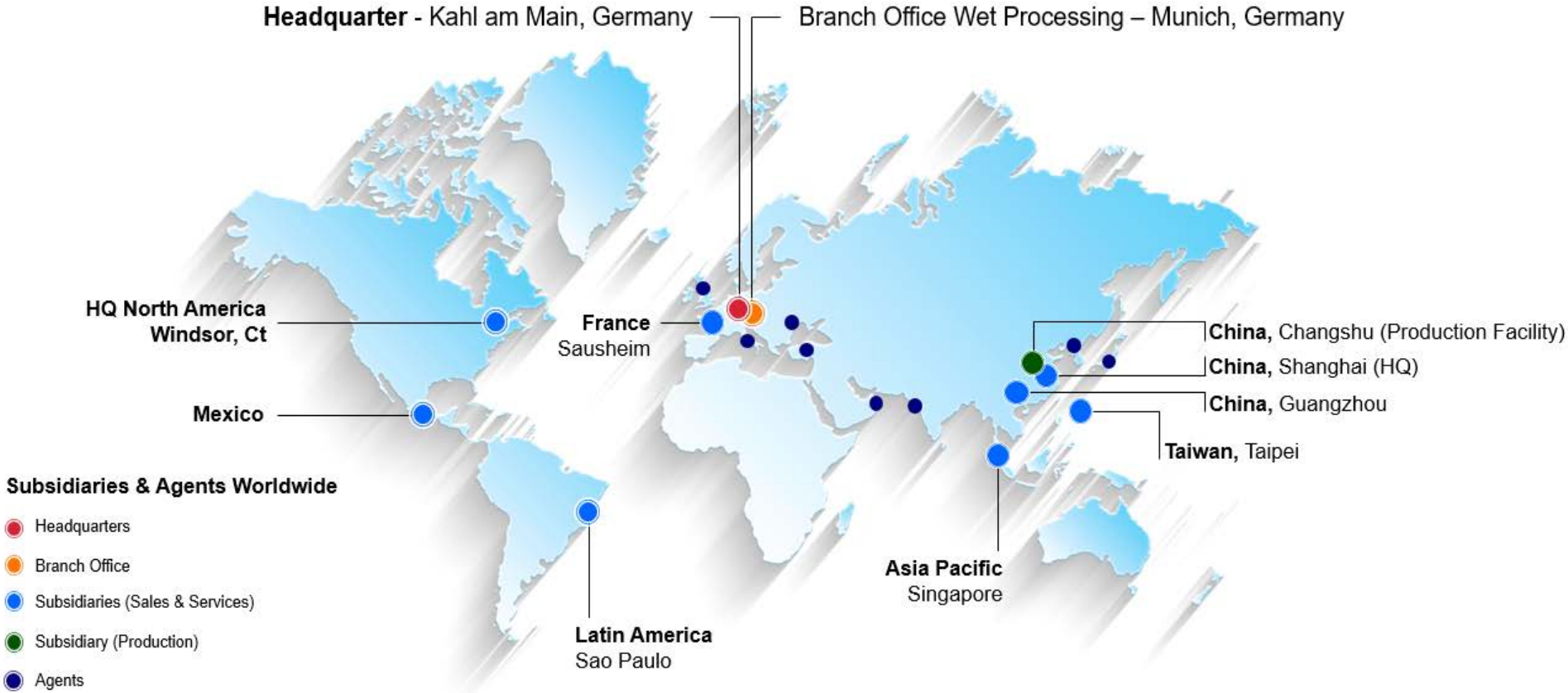


Battery/Hydrogen



Packaging Industry

SINGULUS TECHNOLOGIES serves the Customers Worldwide



SINGULUS TECHNOLOGIES Three Business Segments

Leverage Technological Advantages and Innovation Across all Segments



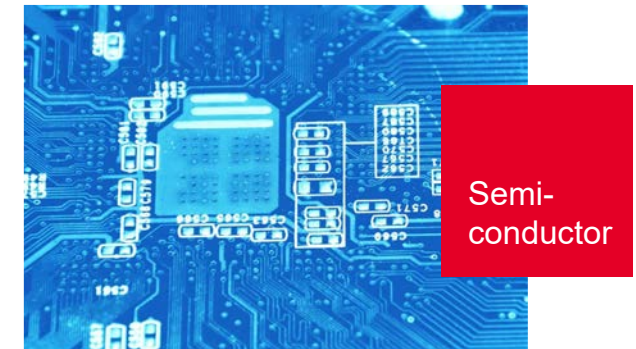
SOLAR

- Crystalline Solar
- Thin Film Solar



LIFE SCIENCE

- Medical Technology
- 3D Coating
- 3D Production Line
- Lacquering System
- Data Storage

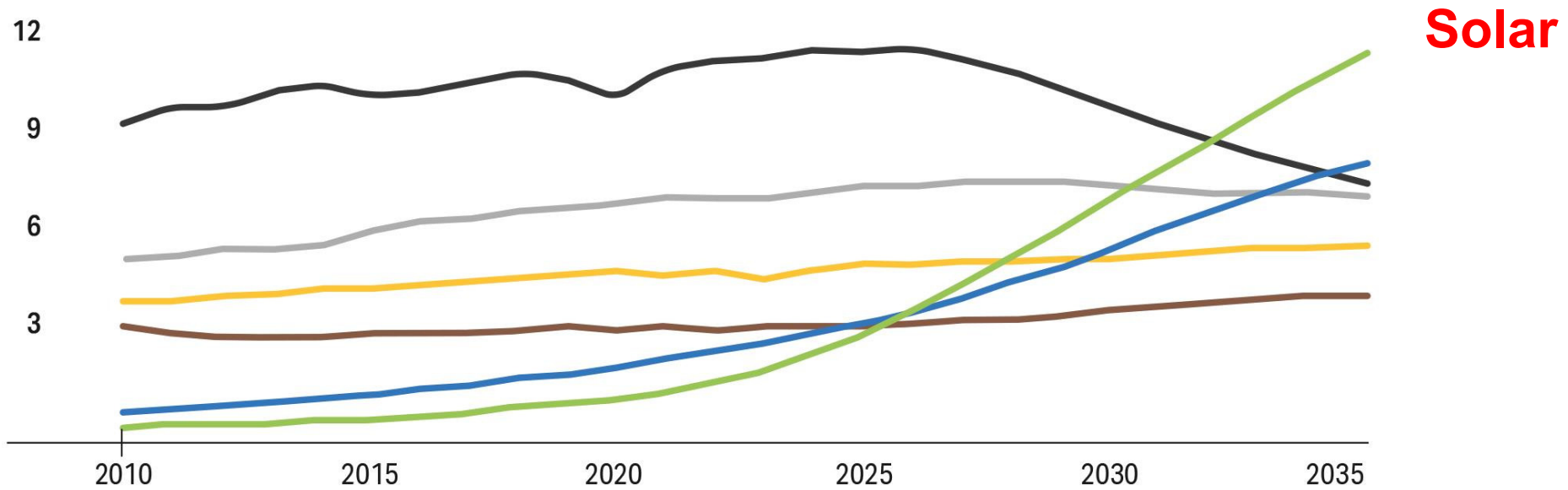


SEMICONDUCTOR

- Vacuum Deposition Cluster Tool

Photovoltaics to surpass Wind and Nuclear Power by 2026

(in thousand TWh)



Source: IEA



Equipment and Turn Key Solutions for Crystalline Photovoltaic

Vacuum Deposition and Wet Processing for Crystalline Solar Cell Technologies



GENERIS PVD

Inline Sputtering System
HJT Cells



GENERIS PECVD

Inline PECVD System
HJT- and TOPCon Cells



SILEX III

Wet Chemical Treatment
HJT- and TOPCon Cells

Vacuum & Wet Applications, the Key for successful Solar Cell Processing



PVD



PECVD



WET

Turn Key Solution for HJT Solar Cell Production Lines

Schematic Layout of a HJT Cell Production Line



3 GW HJT Line Data (Example)

Throughput 3 GW
Wafer Size G12 HC (210x105mm)
Cell Line Area ~ 210x110 m (~ 23.100 m²)
Fab Automation Hybrid (AGV & Conveyor System)

Available HJT Standard Configurations

Throughput 1GW / 2GW / 3GW / 500MW Pilot Line
Wafer Size M10 - G12 | Full or Half Cell Processing

1 GW **2 GW** **3 GW**

- 1** Wafer Inspection System
- 2** Texturing & Cleaning
- 3** i/n - i/p Deposition
- 4** ITO Deposition
- 5** Metallization

Industrialized Perovskite Solutions

TCO 1
TCO 2
ETL
Perovskite Absorber
HTL
TCO / Poly-Si
Bottom Cell TOPCon - HJT



Next Generation Production Equipment for CIGS & CdTe Thin-Film Solar

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New RTP & CSS Equipment offers a Greater Output and Lower Production Cost per Watt



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MEDLINE Wet Chemical System for Eye Glass Lenses

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DECOLINE II Inline Production System for Sustainable Coating and Lacquering of 3D Parts

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With Cleaning, Lacquering & Sputtering SINGULUS TECHNOLOGIES offers an all-in Solution for Mass Production



SINGULUS 

TIMARIS

Cluster Tool Family for Semiconductor & Magnetic Industry

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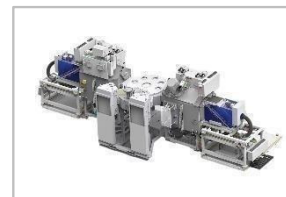
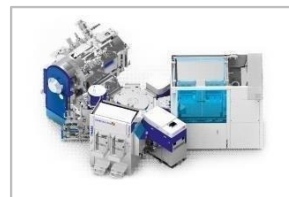
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SINGULUS TECHNOLOGIES

is a renowned Manufacturer of Advanced Thin-film Deposition Equipment for Magnetic Sensors (TMR, GMR, AMR), Integrated Inductors, MRAM, μ LED, Advanced Packaging (RDL/UBM), Interconnects, and other Semiconductor Applications.



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TIMARIS

Cluster Tool for Semiconductor & Magnetic Industry

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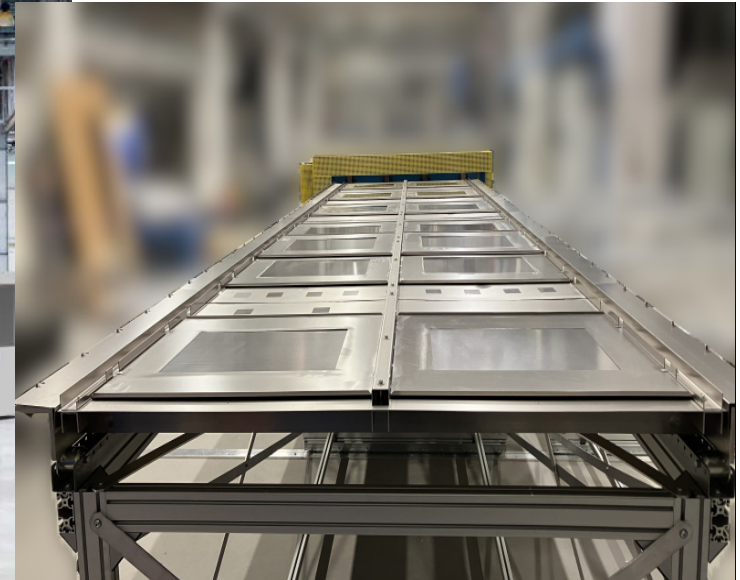
High Volume System for successful Production of Bipolar Plates for Fuel Cells and Electrolyzers

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High Volume System for advanced PVD Processing and Chemical Batch Treatment for successful Production of Bipolar Plates for Fuel Cells and Electrolyzers



MATERIA

Process Platform for Silicon Raw Material Preparation

Production Platform for Application in Growing Solar and Semiconductor Market

Key Success Factors Silicon Cleaning

- Etching, cleaning, and drying of mono & multi silicon chunks and ingot off cuts
- Proven production platform
- Low total cost of ownership



MATERIA

Process platform for silicon

New Process and Production Solutions for the Manufacturing of Solid-State Batteries

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Production System with innovative Process Technology and significant Contribution to the Manufacturing of new Solid-State Batteries

Key Success Factors Solid-State Batteries

- New era of energy storage
- Innovative materials and process technologies
- 30 % higher energy density, longer service life and faster charging times
- Expertise in surface technology to overcome these challenges



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Thin-Film Coating and Surface Treatment

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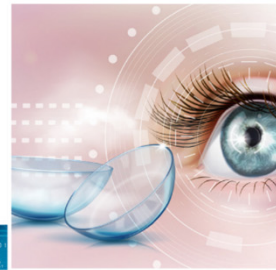
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SINGULUS TECHNOLOGIES – Innovations for New Technologies

Markets



Photovoltaics



Medical
Technology



Glass/
Automotive



Semiconductor



Packaging
Industry



Battery/
Hydrogen

Financial Key Figures

<i>in million €</i>	9M 2023	9M 2024
Revenues	55.8	61.0
Order Intake	32.3	70.8
Order Backlog (30.09.)	61.3	68.7
EBIT	-5.6	1.9
EBITDA	-3.5	3.8
Result before Tax	-7.4	0.1
Result for the Period	-7.2	0.2
Shareholders' Equity	-38.1	-44.8
Total Assets	78.1	75.4
Headcount 30.09.	296	294

Profit & Loss Statement

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<i>in million €</i>	9M 2023	9M 2024
Gross Revenues	55.8	61.0
Net Revenue	55.1	60.9
Gross Profit (in % of Net Revenues)	13.4 (24.3 %)	19.7 (32.3 %)
R & D	-4.9	-3.6
Sales & Customer Service	-7.6	-8.5
GM & A	-6.4	-6.1
Other Income/Expenses	0.1	0.3
OPEX	-19.0	-17.9
EBIT (in % of Net Revenues)	-5.6 (-10.2 %)	1.9 (3.1 %)
Net Result	-7.2	-0.2
EPS (basic in €)	-0.81	-0.02

Balance Sheet

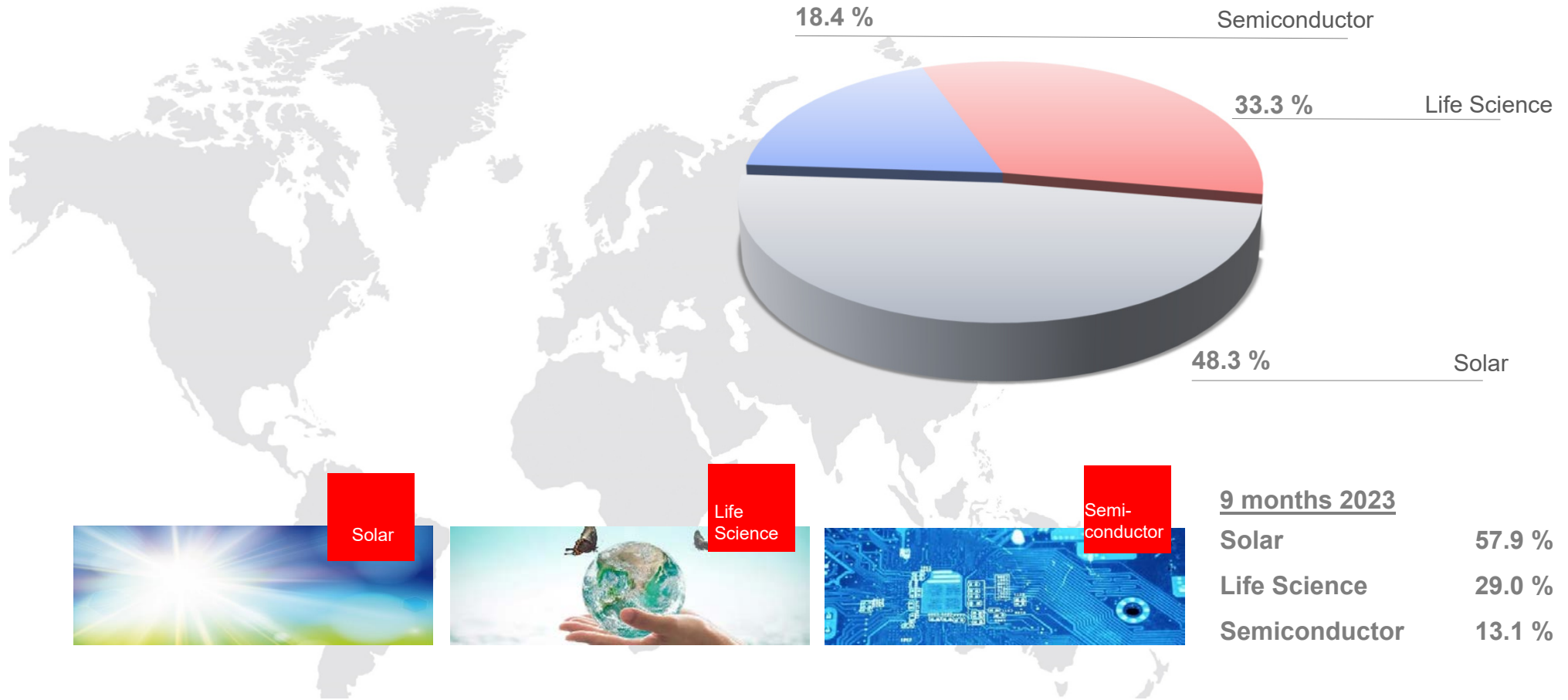
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<i>in million €</i>	31.12.2023	30.09.2024
Available Cash	11.5	7.0
Restricted Cash	3.2	1.8
Total Current Receivables and Other Assets	25.3	38.9
Total Inventories	12.7	9.0
Non-Current Assets	19.1	18.7
Total Assets	71.8	75.4
Total Current Liabilities	87.3	93.2
Total Non-Current Liabilities	29.1	27.0
Total Equity	-44.6	-44.8
Equity and Liabilities	71.8	75.4

Sales Split by Segments 9 Months 2024



9 months 2023

Solar 57.9 %

Life Science 29.0 %

Semiconductor 13.1 %

Key Success Factors

- **Year 2024** : Positive EBIT for 2024 expected
- **Semiconductor**: Strong order intake - follow up orders expected in the coming weeks
- **Solar**: Negotiations and sales activities for large projects with customers worldwide
- **Life Science**: Double-digit sales contribution through innovative product portfolio
- **New Applications**: First order in the field of solid-state batteries, new products e.g. for silicon purification, hydrogen applications, further orders expected



FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements based on current expectations, assumptions and forecasts of the executive board and on currently available information. Various known and unknown risks, unpredictable developments, changes in the economic and political environment and other presently not yet identifiable effects could result in the fact that the actual future results, financial situation or the outlook for the company differ from the estimates given here. SINGULUS TECHNOLOGIES is not obligated to update the forward-looking statements made in this presentation unless there is a legal obligation.

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