



AIXTRON

Equity Story - seat11a

Christian Ludwig, VP IR & CC

January 2025

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Due to rounding, numbers presented throughout this report may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason.

Our registered trademarks: AIXACT[®], AIXTRON[®], Close Coupled Showerhead[®], EXP[®], EPISON[®], Gas Foil Rotation[®], Optacap[™], OVPD[®], Planetary Reactor[®], PVPD[®], STExS[®], TriJet[®]

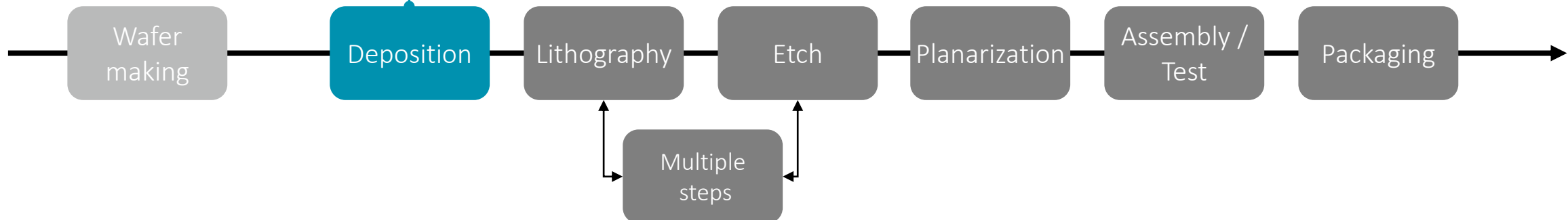


- Headquarters based near Aachen, Germany
- Worldwide presence in 9 countries with > 1,100 employees (H1/2024)
- R&D and production facilities in Germany, Italy and UK
- Company founded in 1983, 40 years of experience
- Technology leader in deposition systems
- Over 3,500 deposition systems sold worldwide



Focused Business Model

- AIXTRON is the leading supplier of deposition equipment to the compound semiconductor industry
- (MO)CVD: The tools run a (Metal-Organic) Chemical Vapor Deposition process for deposition of compound semiconductors
- Competitive strength comes from strong focus and clear technology / market leadership in fast growing segments of the market



We address a comprehensive set of growth applications with our G10 family of products



Power Electronics



1

SiC Power

- EV main inverters and EV OBCs
- EV charging infrastructure
- Data centers: AC/DC
- Wind & PV
- Traction & large drives

2

GaN Power & RF

- Fast charging / mobile devices
- Data centers: AC/DC & DC/DC
- Motor drives, e.g., white goods
- AI power delivery
- EV OBCs
- Base stations



Optoelectronics / LEDs



4

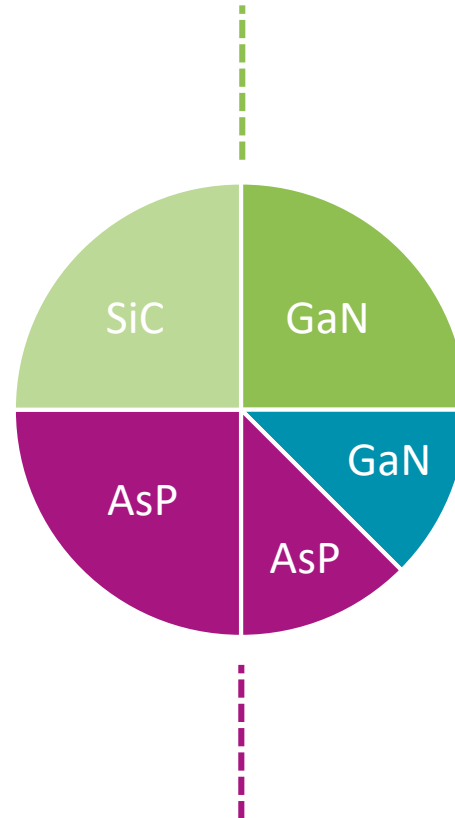
Lasers

- Optical data communication
- 3D sensing
- LiDAR
- Industrial power lasers

3

Micro LEDs / Specialty LEDs

- Industrial displays (in/outdoor)
- TVs
- Smart watches / AR glasses
- Automotive
- Horticulture

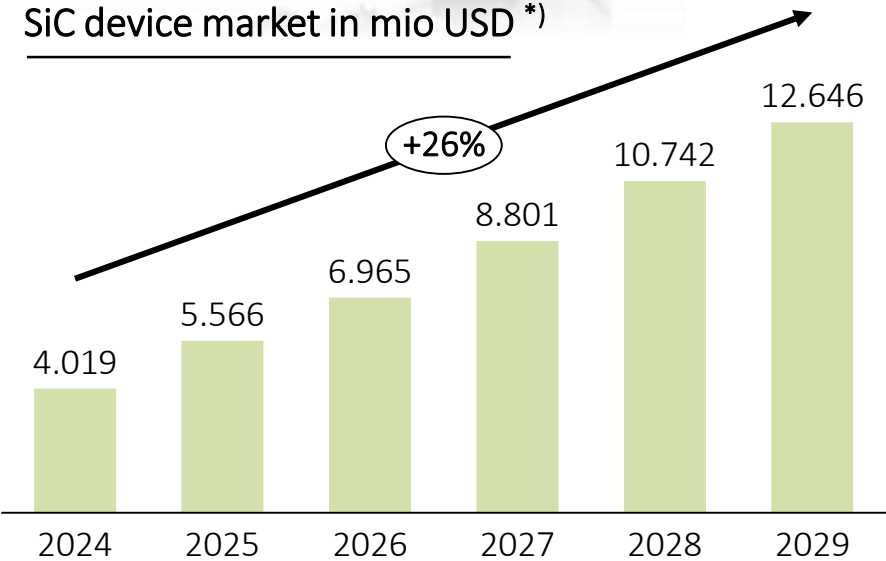


SiC power – growth faster than market due to market share gains



G10-SiC tool

SiC device market in mio USD *)



Market update

- Short-term (2025/2026): “down market” due to capacity overbuild in 2022-2024 and reduced EV adoption
- Mid-term (2026-2029): ~doubling of annual tool demand by 2029 expected due to
 - Continued EV ramps
 - Market share gains of SiC vs. silicon due to rapidly declining prices of SiC wafers

AIXTRON update

- Short-term (2025/2026): “flat” due to
 - Market share gains (additional customers)
 - Some AIXTRON customers grow despite overall market slowdown – esp. by serving the China EV market
- Mid-term (2026-2029):
 - Growth in line with or faster than the market

*) Yole Q3/2024; device market in USDm

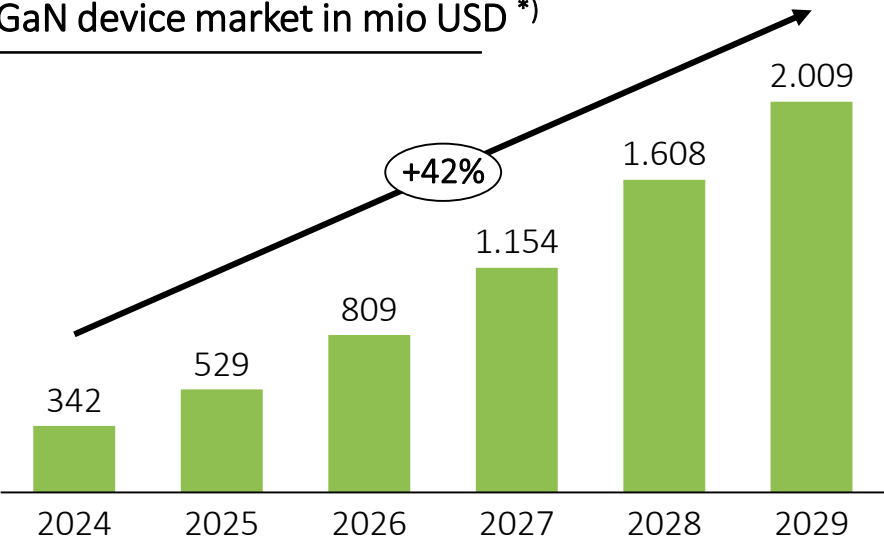
GaN power – acceleration of growth due to additional demand from AI



G10-GaN tool



GaN device market in mio USD *)



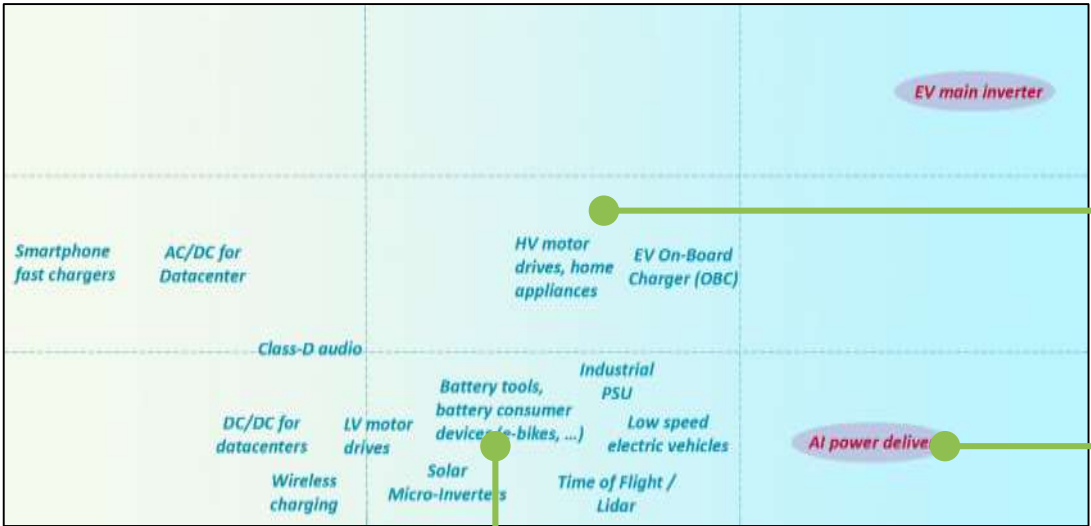
Market update

- Short-term (2025): “flat/down” due to CAPEX reduction of power electronics players
- Mid-term (2026-2029): accelerated (~3x) growth of annual tool demand due to
 - GaN penetrating more and more applications
 - GaN replacing silicon (energy efficiency)
 - AI adding ~30-60% on top of past demand forecasts


AIXTRON update

- Short-term (2025/2026):
 - “flat/down” revenue in line with market
 - Preparation for launch of 300mm technology
- Mid-term (2026-2029):
 - Accelerated growth in line with end-market demand
 - Co-existence of 200mm and 300mm wafer sizes

*) Yole Q3/2024; device market in USDm – “OnBoard” AI opportunity NOT included yet




HV motor drives, home appliances




- Up to 40% energy consumption reduction
- Ramp from 2024 onwards
- High unit volume, large dies -> high wafer consumption

Battery tools and consumer devices



- Longer battery life
- Smaller size and reduced weight b/c less cooling

AI „On Board“ power delivery



- Replacement of silicon power chips around the GPUs
- Up to 50% lower power loss in a compact form factor
- ~30-60% upside to today's GaN market models



G10-AsP



G5+



Market update

- Short-term:
 - Slowdown in EU/US after exit of Apple/Osram
 - Continued work in TW/CN/KR on LED brightness and cost per display
- Mid-term:
 - Fab construction for serving volume market targeted for 2026/2027

AIXTRON update

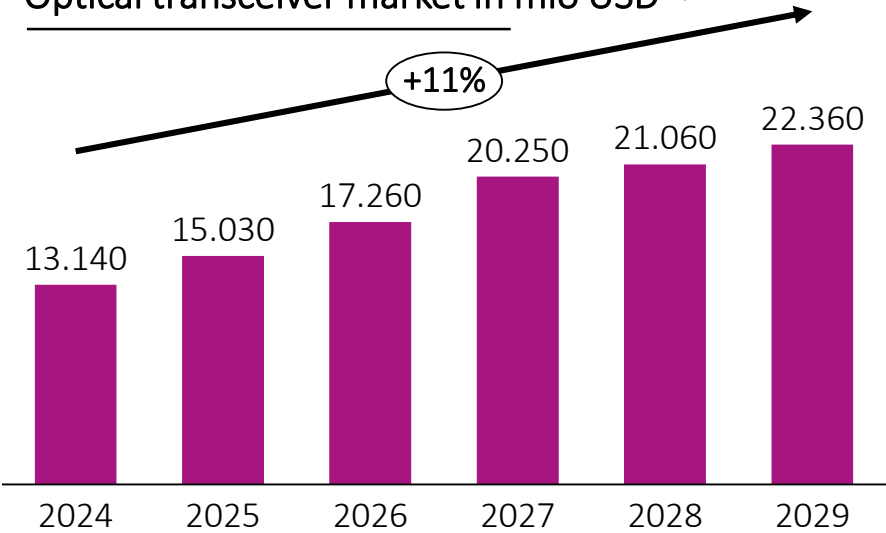
- Short-term (2025):
 - R&D work with multiple customers
- Mid-term (2026/2027):
 - Growth in line with the market

Lasers – new capacity build to kick in after digestion phase



G10-AsP tool

Optical transceiver market in mio USD *)



Market update

- Digestion of overcapacity until 2025
- New capacity installations starting in 2026 driven by
 - Increasing data traffic
 - IoT and AI as drivers for data
- Doubling of annual tool demand (2028 vs. 2024) expected

AIXTRON update

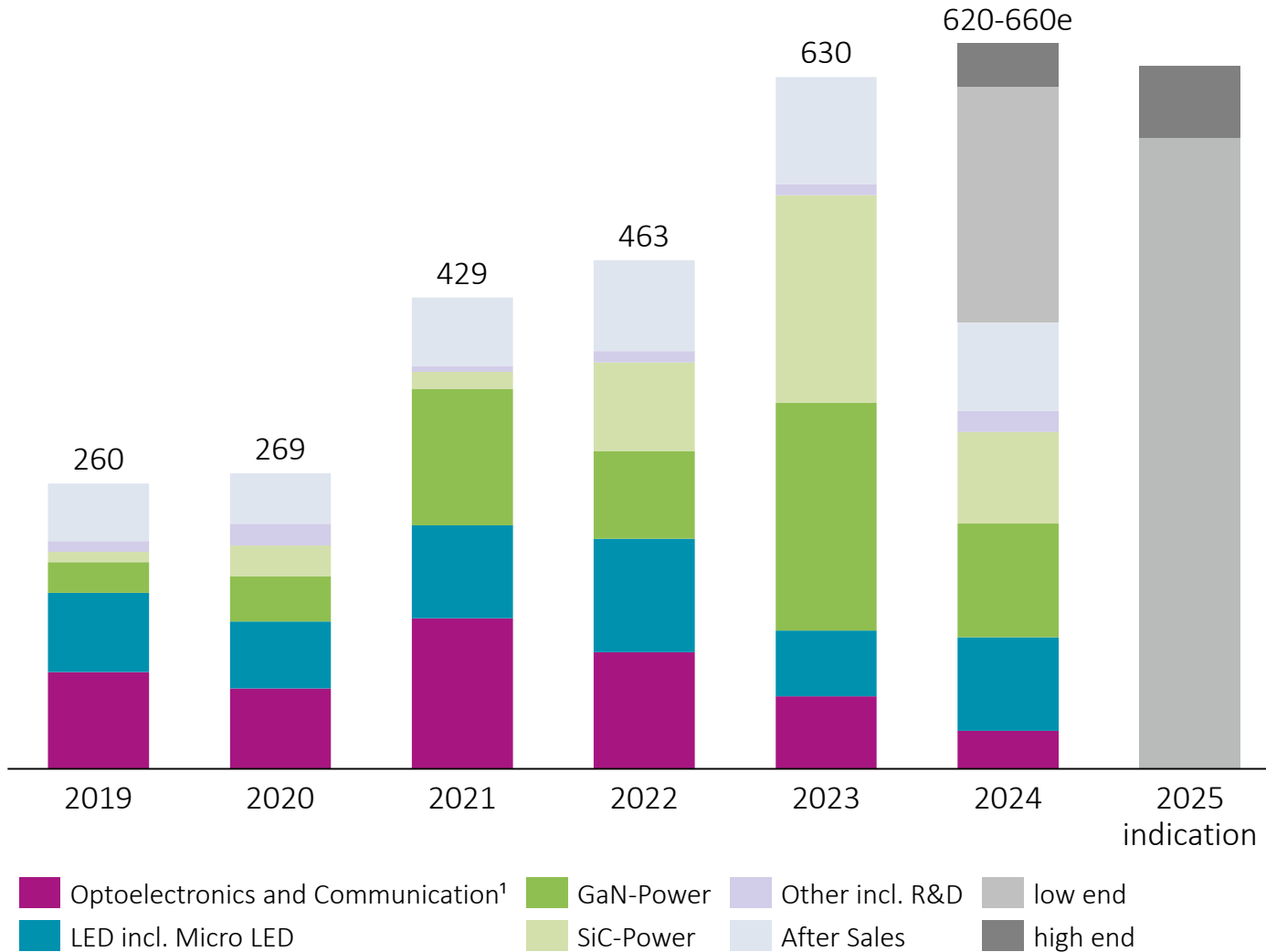
- Growth in line with market
- Maintain market share through qualification of new tool generation G10-AsP at customers

*) Yole 2024; device market in USDm

Track record proves execution capability – and gives positive perspective mid/long term



AIXTRON revenues by applications in EUR million



Past 3-5 years – key achievements

- Portfolio renewal with G10 family
- Secured high market share in existing businesses through wafer size changes ²
- Successful entry in SiC market

Proven execution capability

Next 3+ years – outlook

- 2025: “Flat/slight down” expected
- By 2028/2029 “doubling of end market demand” expected ³

Attractive mid/long-term perspective

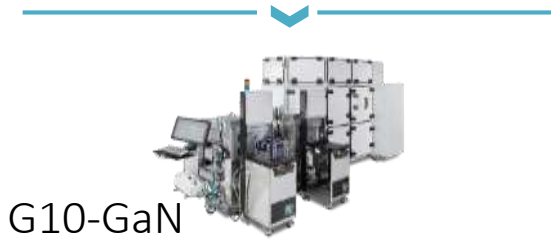
¹ Includes applications in Consumer Optoelectronics, Solar and Telecom/Datacom; ² In GaN from 150mm to 200mm and in SiC from 150 mm to 200mm ³ Assuming HVM ramp of Micro LED

Our growth is driven by megatrends that will continue through the cycle



- Electrification of everything
- Energy efficiency
- AI and data
- Digitization & communication
- IoT and intelligent devices

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Our Financial Reporting Dates:

27 Feb. 2025	FY/24 Results, Conference Call
30 Apr. 2025	Q1/25 Results, Conference Call
31 Jul. 2025	Q2/25 Results, Conference Call
30 Oct. 2025	Q3/25 Results, Conference Call

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Conferences & Roadshows:

9/10 Jan	ODDO BHF Forum 2025, Lyon
14/15 Jan	ODDO BHF GIS 2025, New York City
16 Jan	Roadshow Montreal, Canada
18/19 Jan	Kepler GCC 2025, Frankfurt
6 Feb	Montega HIT, Hamburg

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Our technology. Your future.

AIXTRON SE

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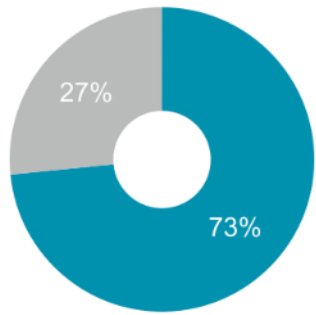
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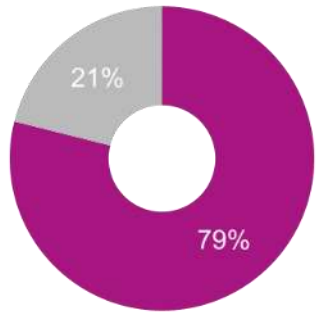
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EU Taxonomy Alignment & ESG-Ratings – well above industry standard



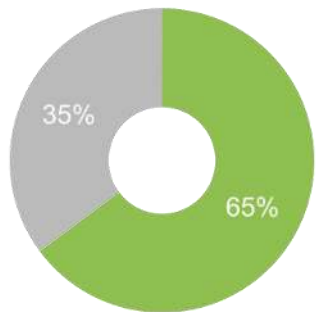
FY/2023: Revenues

- Taxonomy Aligned
- Taxonomy Non-Aligned



FY/2023: CapEx¹

- Taxonomy Aligned
- Taxonomy Non-Aligned



FY/2023: OpEx¹

- Taxonomy Aligned
- Taxonomy Non-Aligned

¹ In line with EU Taxonomy Regulation

EU Taxonomy Aligned Technologies

- Wide Band Gap (WBG) Power Semiconductors** based on:
 - Gallium Nitride (GaN) and Silicon Carbide (SiC)**Key technologies for energy-efficient Power Electronics
- Micro LEDs:** For the next generation of displays
- Laser Diodes for Data Communication:** Key technology for the digitalization of our world
- Photovoltaics based on Compound Semiconductors:** For high-tech applications (e.g., space applications)
- Quantum Technologies:** For neuromorphic computing and quantum sensing

ESG-Ratings

- CDP (Europe):**
 - 2023: D (B)
 - 2022: C (B)
- MSCI:**
 - 2023: AA
 - 2022: AA
- Sustainalytics:**
 - 2023: 19.6 - Low risk
 - 2022: 19.2 - Low risk
- ISS Oekom:**
 - 2023: C-
 - 2022: C-