# AIXTRON SE

# Analyst Earnings Conference Call

## FY and Q4/2024 Results

**February 27th, 2025**

Edited Transcript

**Executive Board**

**Dr. Felix Grawert, CEO & President**

**Dr. Christian Danninger, CFO**

The spoken word applies

## Operator & Forward-Looking Statements

**Operator**

Ladies and gentlemen, welcome to AIXTRON's fourth quarter and full year 2024 results conference call. Please note that today's call is being recorded. Let me now hand you over to Mr. Christian Ludwig, Vice President Investor Relations & Corporate Communications at AIXTRON, for opening remarks and introductions.

**Christian Ludwig,** *VP IR & CC*

Thank you. A warm welcome to AIXTRON's 2024 results call. My name is Christian Ludwig, I am the Head of IR & CC at AIXTRON.

With me in the room today are our **CEO, Dr. Felix Grawert** and our **CFO, Dr. Christian Danninger** who will guide you through today's presentation and then take your questions.

This call is being recorded by AIXTRON and is considered copyright material. As such, it cannot be recorded or re-broadcast without permission. Your participation in this call implies your consent to this recording.

All documents referred to in the call can be accessed via our website in the investor relations section. Please take note of the disclaimer that you find on slide 1 of the presentation document, as it applies throughout the conference call.

This call is not being immediately presented via webcast or any other medium. However, we intend to place a transcript on our website at some point after the call.

I would now like to hand you over to our CEO for his opening remarks. Felix, the floor is yours.

## Slide 2 – FY/2024 Highlights

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Thank you, Christian! Let me also welcome you all to our Full Year 2024 results presentation. I will start with an overview of the highlights of the year and then hand over to Christian for more details on our financial figures. Finally, I will give you an update on the development of our business and our new guidance.

Let me start by giving you an overview of the highlights and key business developments of the year on **slide 2**.

The most important messages of the day from my point of view are:

- In 2024 we have outperformed the market by achieving revenue growth of 1% to EUR 633 million. That translates into a CAGR of 24% since 2020.
- We thus delivered on our adjusted 2024 revenue guidance - meeting the lower end of our final but also our initial guidance given in February 2024.
- As indicated before, we finished the year with an outstanding Q4 2024 performance - even better than last year's extraordinary Q4. This marks a great achievement of our operations team, as it indicates the ability of AIXTRON to ship >200 Mio. of revenue in a single quarter
- Mainly due to negative product mix effects and cost under-absorption in operations our gross profit was down -6% yoy to EUR 262 million, EBIT was down slightly more with -16% at EUR 131 million as a result of this

- Overall, AIXTRON delivered a good operating performance in a weak market environment.
- Our outlook for the year 2025 is based on an expected continued weaker market environment. We expect r**evenues to** come in at a range of **EUR 530 million to EUR 600 million,** with a **gross margin between 41% - 42%** and an **EBIT margin between 18% and 22%**.

- As you know our market position in silicon carbide has been strengthened throughout the last quarters. In particular, we have made further technical progress with the G10-SiC. Early October, at the International Conference on **Silicon Carbide and Related Materials (ICSCRM)** in Raleigh, North Carolina, we presented these improvements on layer thickness and uniformity, which puts us in the leading position in the industry: not only in productivity and cost, but also in terms of uniformity and run-to-run tool stability.

- We also have made significant investments last year to prepare the company for the next growth waves in our end markets. Specifically for GaN we even see the next technology step on the horizon - the move to **300 mm wafer technology**. AI and other large volume applications are expected to drive this opportunity. And as we have anticipated this for a while already, we are well prepared:

    - We have started work on 300mm GaN early and shipped first tools to selected customers already.

- And we built a dedicated cleanroom – our Innovation Center – for the 300mm technology. This was done o**n time and in budget**!

In our new 300mm single wafer reactor we will leverage the **multi-year** experience and core elements of our 200mm technology pairing it with 25+ years of showerhead technology know-how. This will put us in a unique competitive position to keep our strong market share in the GaN market.

This concludes the short highlights section, I will now hand over to our CFO Christian Danninger. He will take you through the full year 2024 financials. Christian?

## Slides 3-5 – FY/2024 Income Statement, Balance Sheet, Cash Flow Statement

**Dr. Christian Danninger,** *AIXTRON CFO*

Thanks, Felix, and hello to everyone.

Let me start with the highlights of our **revenue development** on **slide 3**.

As Felix mentioned, **revenues** in 2024 were up 1% to EUR 633 million. Our strategy of serving various uncorrelated end markets with our equipment proved successful in 2024. We saw strong growth in the LED area, both in traditional LED technology and in equipment for Micro LED applications. This compensated for the weaker demand for equipment for silicon carbide (SiC) and gallium nitride (GaN) power electronics. A breakdown per application shows that 55% of equipment revenues come from GaN & SiC power, 28% from LED, 12% from Optoelectronics, and a 6% contribution from R&D tools. The After Sales business contributed nicely to total revenues with a growth of 13% to EUR 111 million. The After Sales share of revenues grew to 17% up from 15% a year ago.

Now let's take a closer look at the financial KPIs of the **income statement** on **slide 4.** Gross Margin decreased by 3ppts vs 2023 to 41%, which was primarily due to a less favorable product mix, which included a high share of lower-margin traditional LED systems, and some inefficiencies and cost under-absorption in operations due to the much lower output as originally expected. Accordingly **Gross profit** was down by -6% yoy to EUR 262 million.

As we had planned, our invest into R&D in the year 2024 increased to a total of EUR 91 million, driving our **OPEX** up to EUR 131 million. Combined with the lower Gross Profit, this resulted in an **EBIT of** EUR 131 million which is -16% lower yoy.

**Net profit** was down -27% year-on-year at EUR 106 million. The disproportionate drop versus EBIT is due to higher tax expenses. This increase in tax expense is mainly due to the reduction in deferred tax assets on tax loss carryforwards, as these are expected to be utilized to a lesser extent in 2025 due to the reduced earnings expectations. This results in an effective tax rate of 20% in FY/2024. This is only partly cash relevant though. Cash taxes are on a similar level as in 2023. For modeling assumptions, we recommend to apply a tax rate of 20-25% in FY/2025.

A clear positive are our **Q4/2024 revenues** at EUR 227 million, which even beat the very strong level of EUR 214 million in the same quarter of last year.

**Orders** in the quarter and the year came in slightly weaker and thus our **backlog** was down, due to the mentioned softness in demand.

Now to our balance sheet on **slide 5**

We ended the Year 2024 with a **total cash** balance including other financial assets of EUR 65 million which was well below the EUR 182 million last year. There are a number of factors driving the decrease.

**Inventory** levels at the end of 2024 came down to EUR 369 million compared to EUR 448 million mid of the year and EUR 394 million at the end of 2023. This is the result of our adjusted supply chain strategy and corresponding measures after initially front loading the supply chain in expectation of stronger revenue growth. Our strategy proved very effective in the years 2021 - 2023 and has secured us numerous orders, even in competitive situations. Last year, we had to heavily change gear mid-year and adjust our inventory levels to the lower demand situation. We target a further reduction of inventory levels throughout 2025.

We have seen an Q4 **increase in receivables** due to the disproportionately strong sales contribution in the last quarter, especially in the last month. These receivables will be collected in the first months of the fiscal year 2025.

As a result of putting on the brakes in our supply chain as stated, the **amount of payables have come down** towards year end as well.

**Advance payments received from customers** were significantly down yoy at EUR 82 million (2023: EUR 141 million) due to lower orders as well as a shift in the regional customer base but also driven by the key-date effect. Already In January we saw an increase of around EUR 20m again. The down payments represented about 30% of order backlog.

As a consequence of all these factors, **operating cash flow** improved by around EUR 70 million to EUR 26.2 million in the financial year 2024.

As mentioned already in previous calls, capex increased in 2024 due to the construction of the **innovation center** and the acquisition of our **Italian site**.

As a result of the high capex, **free cash flow** - although improved by almost EUR 40 million yoy - was still negative in 2024 at EUR -72 million compared to EUR -110 million in 2023. That said, please keep in mind that this was the key-date view at year end. We expect a strong reversal of cash flows in 2025.

Lastly, we are proposing a **dividend** of EUR 0.15 per share entitled to dividends. The proposal is lower than in the previous year because we plan to use the expected cash inflow in 2025 to rebuild a strong cash position. We have an intensive phase of growth and investment behind us, in which the innovation center alone incurred expenses of EUR 100 million and the build-up of inventories tied up a further EUR 150 million in the period from 2022 to 2024. In addition to the current inventory reduction measures, we are working on operational improvements to be best prepared to master the next growth phase with a significantly lower inventory build-up.

Our top priority for the **use of cash** will continue to be the implementation of our strategy. We will apply our core competencies and abilities to markets with high growth, differentiation and margin potential in order to sustainably increase the value of the company. With that, let me hand you back over to Felix. Felix?

**Slide 6 - 11 – Markets**

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Thank you, Christian.

I will continue by giving you a brief summary of the key market trends we saw last year before I move on to our **expectations for 2025.**

With our G10 tool family introduced to the market since September 2022 we have a state-of-the-art product offering that offers best-in-class cost of ownership. The G10 family covers all our key end markets. Overall, we are very pleased with the market traction of our **G10-series**. The G10 family made **about 50%** of our equipment revenue in the full year 2024. This is a very strong adoption roughly two years after launch, given the required qualification cycles in all applications we address. This confirms that our strong focus on technology and innovation is paying off. We aspire to continue this strategy in the years to come.

**SiC**

- Let me start with **silicon carbide**. The technical progress with our G10-SiC system in 2024 was remarkable and has been confirmed by multiple customers, as you have seen in the Press Releases we issued with Wolfspeed and with Vishay earlier last year.

- Early October, at the International Conference on **Silicon Carbide and Related Materials (ICSCRM)** in Raleigh, North Carolina, we presented major improvements on layer thickness and uniformity performance, which puts us in the leading position in the industry.
- We anticipated cost pressure and commoditization in the SiC market from the beginning, and our expectations are being confirmed. We are very happy that we decided right from the beginning for a multi-wafer batch tool, all the way back in 2018.
- Our tool, the G10-SiC has established itself as the most productive tool with the lowest cost per wafer in the market. Since 2024 now also with the best uniformity performance in the industry. We maintain a clear #1 position with a growing market share.

- Our recent technical advancements have led to numerous new customer wins in SiC, including significant volume from China. In 2024 we were able to convince several additional customers of our tool, including an additional SiC-player out of the "top-5" and several players from Japan.
- Most recently, developments in the EV market have led to a slowdown in SiC capacity expansions, however the situation varies strongly customer by customer:
  - Some of our customers have been hit hard by the slowdown in SiC and have idle production capacity at this point in time.

- Other customers are closely linked to EV car makers in China and continue to order at high pace. It is these customers that drive our SiC volume in 2025.

- Mid-term demand for our SiC deposition equipment will be driven by further growth in e-mobility and the increasing share of SiC inverters (instead of Si inverters) in both pure electric vehicles and plug-in hybrids.
- Furthermore, we hear from multiple customers, that on module-level, SiC now starts to come close to cost-parity with IGBTs. This starts to open additional opportunities for growth of SiC in the market for IGBTs well beyond the electric vehicle.

**GaN**

- GaN has expanded since its entry into power electronics from selected applications such as High Voltage devices for smartphone chargers into the broad market of efficient silicon power devices. We have seen voltage ranges expanding from the initial 650V to now 100V and 200V. These products have now become part of the portfolios of most of the big GaN players. This comprises DC/DC power stages used in datacenters but also in automotive, solar panel inverters and – most importantly – low voltage motor drives, be it in battery tools, battery driven consumer applications or in low-speed electric vehicles (LSEVs).
- In 2024, we have seen GaN enter into three market segments with tremendous growth potential:

- In June last year Texas Instruments has launched the first GaN-IC for driving 3-phase 250W power inverter. Such devices allow to massively boost the energy efficiency of home appliances – air conditioners, refrigerators, washing machines are the target market.
- Furthermore, in 2024 we have seen the first commercial EV on-board-chargers, in short: OBCs going into production. Here, GaN competes with SiC and traditional Silicon power devices, but it has benefits when it comes to bidirectional charging.
- The most exciting market segment opening up for GaN is what we call "powering AI". Everyone knows about the energy hunger of AI. GaN is now starting to be used in the power supply chips for the GPUs and HBMs. This has the potential to cut energy conversion losses for AI by up to 50%, and this segment has the potential to become the single largest application for GaN switches in the years to come.

- Our positive view on GaN was supported by news last September, when a major power electronics player has publicly announced to go towards 300mm with GaN as well. We can now state that they used our tool to achieve this.
- In our view this underlines that the market for GaN is expected to grow into a size where 300mm economically makes sense.
- We will address the 300mm market with a single wafer showerhead reactor. We build upon more than 30 years of experience in GaN with this type of equipment, and we can transfer the most recent experience from 200 mm technology to the 300 mm GaN platform.

- All this makes us confident that we can capture the growth opportunity that the GaN market provides to us.

**LED / Micro LED**

- In 2024, we saw a wave of investments into **traditional red LED capacities** ongoing. What we saw happening is that players which have been traditionally only serving the Blue LED market for Lighting or Backlighting have been investing into Red capacity to address the Display market with a full RGB offering. Our G4 is here the Tool of Record across the entire segment and the natural selection for new customers due to its track record and very low chemical costs.
- On **Micro LED**, despite the surprising news from Apple and ams OSRAM in Q1 24, the industry continues to work on Micro LED technology full steam. We reported on the Gold Supplier Award by BOE HC Semitek, the largest Chinese Display manufacturer and there are multiple such collaborations. In 2024, AIXTRON Micro-LED revenue was driven by several customers building R&D and pilot production lines to commercialize the Micro LED technology.
- As of today, timing and volume predictions for the Micro-LED volume ramp continue to be uncertain, but various customers are looking into 2027 or 2028 for their production ramp, which would correspond to AIXTRON tool shipments in 2026 or 2027.

**Opto**

- In the **Optoelectronics** area we saw stable demand in 2024 which was driven by demand for datacom and telecom lasers. Datacom lasers are critical to datacenters to meet the higher demands of AI workloads, both for intradatacenter and datacenter interconnect requirements. The transition to 800G is ongoing while AI datacenters race to 1.6T. We maintain a clear #1 position in the laser market with a strong market share and we are very well prepared with the G10-AsP to secure this position.

## Slide 12 - Innovation Center

I also wanted to give you a quick update on our Innovation Center on slide 12 of the slide deck. The reason why we decided to invest in our additional cleanroom is the upcoming 300 mm opportunity I already talked about. The innovation center has been designed and built solely with 300 mm technology in mind to provide us the space and the right environment to capture this opportunity. It will allow us a much deeper collaboration and co-development with our customers.

The construction **has progressed well and as you can see on the pictures we had an opening ceremony end of December**. The Innovation Center adds 1,000 sqm cleanroom space to our R&D operation. We have moved our first systems into the clean room already last year and expect the first wafers out any day now. First joint customer projects are already scheduled for this quarter.

## Slide 13 - Guidance 2025

Finally, let me now present our **full year guidance for 2025** to you on slide 13.

We expect **revenues to come in at a range of EUR 530 million to EUR 600 million Euros**. At the mid point, this would be a around 10% below 2024. We expect a 2025 **gross margin of 41% - 42%**, at around last year's level, and an **EBIT margin between 18% and 22%**. Included in our gross margin and EBIT-margin guidance is a **mid single digit million Euro amount for severance payments** for a voluntary leave program in the operations area, that we have initiated in January.

Let me elaborate on this a bit. As stated, our market position remains strong and the long-term growth drivers are well intact. However, as I also explained before, demand in the markets addressed by AIXTRON is currently significantly weaker than what we were originally planning for. In total, this will result in a reduction **of about 50 headcounts in the indirect operations area**. We expect **a mid-single-digit million Euro amount** for severance payments which will be recognized in Q1/25. Going forward, this measure will result in a similar mid-single-digit EURm permanent annual savings corresponding to ~1ppt Gross Margin and EBIT Margin improvement.

On **Q1/2025**: In line with the usual seasonal pattern, sales in the first quarter of the financial year will be a bit lower than the annual quarterly average. In Q1/2025 we expect **revenues between** EUR 90 million **-** EUR 110 million**.** This is slightly below the previous year's level in line with the overall reduced expectation for the full year.

For completeness, we have lowered our USD/EUR budget exchange rate, at which we record US Dollar denominated orders and backlog to 1.10 USD/EUR. This has just a minor effect on orders and backlog, as only less than one third of those are recorded in US Dollars and we have a high natural hedge.
With this outlook, I'll pass it back to Christian.

**Christian Ludwig,** *VP IR & CC*

Thank you very much, Felix and Christian, we would now be happy to take questions.

**Question-and-Answer Session**

**Operator**

The first question comes from Didier Scemama, Bank of America. Please go ahead.

**Didier Scemama,** *Bank of America*

Good afternoon. It's Didier Scemama from Bank of America. Thank you for taking my question. Gentlemen, I just wanted to ask you a couple of questions.
First on the guidance for the full year. If I do the math right, you sort of suggesting a very strong recovery probably starting in Q2, but also significantly accelerating in the second half, I think across your end markets. So my, question is that the right way to think about it? And then from an order perspective, do you have that sort of line of

sight for that inflection? And I've got a quick follow-up on the balance sheet. Thank you.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Thanks a lot for the question. I think you pointed out right. We go in the year, as you can see on the Page 14 of our presentation, with an equipment order backlog of around EUR 180 million and expectations for after sales of EUR 115 million, roughly adding up to EUR 300 million. To make up the low end of the guidance, EUR 230 million, for the high end of the guidance, EUR 300 million is still to come in terms of orders which come in the year and needs to be shipped. I think this is what you are hinting at.

What we expect in the year is we expect you're also aware of the high inventory levels that we are having on stock. The inventory, of course, is split unevenly across different product lines, but the expectation we have is that all orders coming in the first half year are shippable in this year and even orders coming in the Q3 or significant part of orders coming in the Q3 is shipping within the year. And we have looked at our order pipeline, what’s coming when, a little weaker in the first quarter, but then picking up strongly in the second and the third quarter in terms of orders. And given the expectation driven by the high level of inventory, we expect that we are confident to be able to ship these orders and to bring them out. We've analyzed that quite in detail with matching the order pipeline and our inventory levels per product line.

**Didier Scemama,** *Bank of America*

Okay. Well, I'm not sure I understand the link between inventory levels and orders. I mean, inventories I understand you have on the balance sheet. The question is whether you have the orders. I assume you do. Well, at least you've got line of sight on this.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Let me just clarify. There shouldn't be any doubts or concerns open. This relates to the question how long it takes us to bring out a piece of equipment. If most parts or significant parts of what we call the long lead items that take a long time to get are already on stock, it's for us just to assemble the equipment and to ship it out, which can go within very few months. If, on the other hand, a customer orders in a piece of equipment and we must order the parts needed for that at our suppliers, and our suppliers also take some more time than it takes longer. The high level of inventory for the number of products relates in our ability to ship, let's say, within three to four months. While the normal delivery time for equipment, when we must order at our suppliers is more like six to nine months.

**Didier Scemama,** *Bank of America*

Okay, understood. I guess the other question is over the course of the last couple of years you reported significant amounts of net income, but obviously your free cash flow is negative to the tune of EUR 182 million, I think, last couple of years. Some of that obviously comes from the investments you've made in Capex to build that capacity and that's going to come up. That's perfectly understandable. But the metrics of working capital have deteriorated, and it feels like in the quarter your receivables picked up. I just wondered whether you had to give some better payment terms to your customer to secure those revenues in the quarter. And the same question applies to payables. I know you touched on it in your introductory remark question. But I guess ultimately the question is, do you think 80% of sales in working capital is an acceptable level? Or where would you like to be reduced to improve your cash conversion?

**Dr. Christian Danninger,** *AIXTRON CFO*

Yes, thanks. There are multiple factors going in there. Let's address each one of them. On the receivables, we had a significant key date effect in the last year because the shipments were extremely late. Given the different factors like customers export licenses, the typical factors, but this time very high shipments in the last days of the year and that results just in a key date effect with very high receivables. That will come down and we will collect these in the beginning of the year.

The payables level, of course, is now a one-time effect because we have systematically reduced the sourcing level. Now payables should remain at the lower level. The inventory levels, I mean, without any discussion, they're significantly too high. And it is we stick with our ambition to get that down to like the 60% to 70% of order backlog. First, that's a function now of the shipments going out. But we are clearly on this trajectory, and we did get that down.

Your question, the working capital level is still too high. It's not the acceptable level, but we are on the trajectory to get that down into the normal levels. One effect that also goes into the working capital is of course the down payments received. That is also a function of course, of the order backlog and the order intake that we have and that goes also to your question of the payment terms.

Yes, we have seen a little bit of a regional effect here, depends always on where the customers are, what type of customer that is, but it's varying from quarter-to-quarter.

**Didier Scemama,** *Bank of America*

Okay, perfect. And just one final question maybe for Dr. Grawert. I mean, I know it's not historically a business you've been operating in, but when you look at the metallization opportunities in Leading Edge Logic and Foundry, you start to see new materials like ruthenium coming in. And I just wondered whether you think that could be something that your tools would be capable of handling or is that potentially an opportunity down the line when those new materials are being introduced or is that too far away from your core business in MOCVD?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Honestly, I don't fully get the question. Could you repeat?

**Didier Scemama,** *Bank of America*

The question is ruthenium is a new material being introduced for the metallization layers inleading edge logic and foundry processes, in fact also for DRAM and NAND in the longer term. And I just wonder whether that's something that could be of interest for AIXTRON.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Let me have a look with my technical team. It's a great suggestion.

**Didier Scemama,** *Bank of America*

Okay. Thank you.

**Operator**

And the next question comes from Martin Marandon-Carlhian, ODDO BHF. Please go ahead with your question.

**Martin Marandon-Carlhian** *ODDO BHF*

Hi. Thanks for taking my question. My first question is on gallium nitride. Maybe could you share a bit more visibility on when do you think the GaN segment will start to go back to growth trajectory? Because it seems that we are planning a transition year for GaN where some capacity continues to be added because of continued penetration in consumer and home appliance applications. But for your GaN business to grow again, it seems like it's in new markets such as data center or automotive. I guess my question could also be when do you see the other markets pick up in a significant way?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Thanks a lot. Let me address your two questions. As you have seen from our forecast, we expect in ‘25 compared to '24 the GaN shipments to be flat year-over-year. Now if you listen to the forecast and expectations and Capex of Western players, European players, North American players, you may wonder, well, where is AIXTRON shipping to? And it's very clear, we are not shipping too much stuff to European and North American players, right, in ‘25. That’s clear. For us, the demand for GaN power in '25 mostly comes from Asia, namely from China and from Korea. We have quite some customer shipments going into these two countries. Regionally, it's going into China and Korea. When new market entrants are continuing either entering the market continuing to build out capacities which they have already.

Now in terms of markets, the players I was just speaking about address the market segment which is well known. But I would like to come to your second question with respect to the additional momentum that we expect in GaN to come. As you have seen from my speech, notably, the additional momentum to come from motor drives, first one. Secondly, additional momentum from onboard chargers for EVs and lastly, additional gallium nitride momentum for powering AI.

The first of these two, three phase inverters and onboard chargers have been introduced already by our customers in the year 2024. Their customers are now in the qualification phase, and I'm personally expecting volume upticks from these segments in 2026 and 2027 continuing. The market segment for powering AI is a relatively new segment. For the AI today, the power conversion is still being as we speak, what's shipping today is still based on silicon power devices. The design in the qualification is just happening now. I'm personally expecting that the powering AI opportunity is picking up in '27 and '28, but much heavier, yes. And as we have mentioned in previous earnings call, we believe the powering AI could be the biggest single market segment for gallium nitride power simply because the market is so gigantic, so huge. And as we all know, AI has also such tremendous need for reducing the energy consumption and for saving energy. That can be a fantastic momentum '27 onwards.

Sorry, a little bit of a long answer, but I hope it addresses your question in full.

**Martin Marandon-Carlhian** *ODDO BHF*

Yes. Thank you very much. And maybe just a quick clarification. When you say AI could pick up in 2027, 2028, do you talk about your customers, or do you talk about the ramp up at your level?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

I talk about my customers. I talk about AIXTRON revenue.

**Martin Marandon-Carlhian** *ODDO BHF*

Okay. That's clear. Maybe also something on the equipment or the backlog on which you bet your guidance. I mean, it seems like it would be like 60% to 65% of what your backlog was at the end of Q4. It's lower number than in the last few years. I was wondering if that's just more cautiousness to not take the whole backlog or that's maybe because and you mentioned in the past that maybe for silicon carbine notably, they expect maybe some shipments in 2026. That's why it's a lower percentage of the backlog that should be executed in 2025.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Thank you. I think you captured it very well with your question. For everybody, I don't know whether everybody has the numbers. The backlog is at EUR 289 million, and we expect to ship EUR 180 million out of that, which leaves over EUR 100 million of backlog, which we are not shipping in 2025. But instead, as you hint with your question, which we are planning to ship in 2026. And this backlog has 2 components to it. The one component, as you have indicated in your question, is in fact number of silicon carbide customers who have already secured slots for 2026 because they really have a long-term ramp plan, and they want this equipment to be shipped in 2026. The other part of this is in fact also some gallium nitride power customers and some of those customers was push outs from the year where customers had given us a very clear indication, already towards the end of last year: "We're currently in a downturn. We don't need the equipment so soon. We need the equipment only in 2026."

Again, that's fully reflected already in our 2025 guidance. All these push outs affect moving equipment out of 2025 into 2026 are reflected in our guidance. We don't expect any additional bad surprises. And on the other hand, already to start building now a basis for 2026 in terms of backlog that we can convert in revenue in 2026.

**Martin Marandon-Carlhian** *ODDO BHF*

Okay. Thank you very much, Christian. And maybe the last question for me, if I may. A quick one on silicon carbide. You mentioned China being a driver for silicon carbide revenues this year. I was wondering about your Chinese customer and maybe your main Chinese customer. How do you compare it in terms of size to, let's say, your top five customers.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Let me take the question a little broader because I think it's very important to understand the silicon carbide and the China effect on our silicon carbide revenue in 2025. I think we are all aware that silicon carbide in the Western world is very slow right now due to the much slower than expected EV ramp. And many of our Western customers, in fact, have idle capacity, of course, have stalled their investment plans.

I think this is very well known in the market and everybody is reading the same reports and getting the same news.

We as AIXTRON are involved in the China EV through two routes. We have well more than one customer taking our AIXTRON tools, producing outside of China. This is partially in Europe, partially in the U.S., but also partially in Japan. We have customers producing outside of China but have an extremely strong China customer base for their silicon carbide devices and for their chips. This is the one route, but in the end, we know that 70%, 80% of the silicon carbide chips eventually goes into the whatever BYD, Xiaomi, whatever you have it. And we mentioned that already in the second half of 2024, we have won a significant number of Chinese customers in China themselves, and we are shipping a significant number of silicon carbide equipment to Chinese customers directly.

And year-over-year overall, our silicon carbide revenue is flat '24 to '25 due to this effect and we are quite happy that we are so strongly involved into the silicon carbide China supply chain, because I think as everybody knows, EVs in China continue to boom, while EVs in the Western world, I think the ramp is a little bit delayed.

**Martin Marandon-Carlhian** *ODDO BHF*

Okay. Thank you very much.

**Operator**

And next I hand over for the question to Gustav Froberg, Berenberg. Please go ahead with your question.

**Gustav Froberg** *Berenberg*

Hi, thank you. Gustav from Berenberg. Thank you for taking my questions as well. I just have one. You mentioned that you want to build up your balance sheet for 2025. My question is why do you need to do this? You've already been through a phase of investment. Why exactly do you need to sit on cash? Thank you.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Well, as you hear, we are extremely bullish on the potential of our technologies and our markets. And it can very well be that in the years '27 and onwards, the next demand wave is hitting us. And we then again want to be in a very strong position in order to be able to serve the market, serve the customers and repeat what we've done before, because we know the growth can come in waves. And it could very well be that the next wave is again a plus 30% or plus 50% year-over-year and we want to be ready for that.

**Gustav Froberg** *Berenberg*

Okay. Great. Just to challenge that a little bit though, doesn't that mean I mean you should be making lots of profits then if you are growing very quickly which again should be cash flow, should we then interpret that as kind of this growth requiring some cash and not being as cash generative or how should I think about that?

**Dr. Christian Danninger,** *AIXTRON CFO*

We expect to be cash generative. 2025 we expect very strong cash flow and as we mentioned, I mean, our cash basis right now from our perspective is just too low. We need to get back to the levels that we had in the past that are also usual in the industry. If you look at the semiconductor equipment industry, all of these players have strong balance sheets in place. Our customers also want us to be there. A lot of customers are fully dependent on us. They want to see us with a strong financial position, a cash position. There's a clear way forward that, we will first build up this cash position. And then, once we have that, we will see.

**Operator**

And the next question comes from Michael Kuhn, Deutsche Bank. Please go ahead with your question.

**Michael Kuhn** *Deutsche Bank*

Good afternoon. Thanks for taking my questions. Firstly, on guidance again, I think you already confirmed, GaN and SiC around flattish. On Opto again, I think there is a little unclarity. In the PowerPoint, it says expected flat, whereas in the annual reports, it says positive momentum in 2025 from optoelectronics. Could you clarify what kind of growth we should expect format this year?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Sure. I think there are different segments. Let me walk you through one by one. As we had illustrated, for the LEDs, we had a refreshment wave of customers in the year '24, this led to a quite strong LED result in '24, and it's weakening and getting less in '25. This is the one for the LEDs. And if you then take the rest, which is the other laser business, the sensing business, but also combined the datacom, the data communications business, on those ones, we see a strong uptick simply driven by the demand of new refreshment waves essentially in telecom datacom is going on, driven by the AI. Those segments are growing.

**Michael Kuhn** *Deutsche Bank*

Okay. Understood. Thank you. And then, on orders, did I understand you correctly that, let’s say, the start into the year, Q1, should be expected rather soft and then we should expect a considerable uptick in order intake from the second quarter onwards?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

I think we will start a little soft into the year for sure in the Q1, both in terms of orders and revenues. We typically historically have a relatively soft Q1. I think you've seen that already with our quarterly revenue guidance, yes. We expect orders to pick up in the middle of the year, Q2-ish, Q3-ish, in the summertime, whether it's now early summer and the orders will fall into Q2 already or some of the orders more fall into July and August, early Q3 is to be seen. But we have a clear expectation, as I mentioned before, that a big part of this order is converting into revenues in the year, which is reflected in our guidance.

**Michael Kuhn** *Deutsche Bank*

Okay. Which means that, let's say, early Q3 orders would still be shippable the same year, which would suggest lead times of less than six months?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Exactly. A big part of those, I don't see all of it. As I mentioned, it depends on the part availability. But for those parts for those product series where a good inventory is on stock, this message is intact, yes.

**Michael Kuhn** *Deutsche Bank*

Understood. Thank you. And then last but least on the severance program, could you give us an indication, let's say, in terms of savings to expect and when those savings will materialize, let’s say, on the run rate?

**Dr. Christian Danninger,** *AIXTRON CFO*

Well, the savings will be, in about the same ballpark as the severance cost. Mid-single digit million amount, plus minus 5 million. Basically, that's what we are talking about. The program has been agreed on with the Works Council and is in execution right now. We expect the savings to start kicking in with the Q2 going forward.

**Michael Kuhn** *Deutsche Bank*

Perfekt. Thank you.

**Operator**

And the next question is from Madeleine Jenkins - UBS. Please go ahead with your question.

**Madeleine Jenkins** *UBS*

Hi. Thanks for taking my question. It's just one that's a clarification. Are you baking in a recovery from the silicon carbide Western players this year in your guidance? Or is the incremental capacity totally from China in 2025? And kind of during 2024, just to have kind of some context, was China already a decent portion of your shipments in silicon carbide? Or was the majority still from the Western players? Thank you.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Let me start with the second one. We did ship already in '24 some product to silicon and silicon carbide to China, but it was a smaller part. The majority to China is going

in ‘25. We collected a bunch of orders as we had indicated in the second half of'24, but most China shipments is going in ‘25.
And now if you could repeat your first question, please.

**Madeleine Jenkins** *UBS*

Yes. It's just so for the 2025 guidance, are you baking in a recovery at all from the silicon carbide Western players or is the incremental capacity just totally from China this year? If that makes sense.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Well, I'm not baking. As I mentioned, some of the silicon carbide shipments in '25 go to China directly. Other shipments go to non-China customers, but serving the China market. Please take both segments. And for the traditional western players being in the west and shipping to western companies only. For those ones we have not been baking in recovery in ‘25 yet. We expect that recovery to come in 2026.

**Madeleine Jenkins** *UBS*

Okay. Thank you.

**Operator**

And the next question is from Ruben Devos, Kepler Cheuvreux. Please go ahead with your question.

**Ruben Devos**, *Kepler Cheuvreux*

Good afternoon. Thanks for taking my questions. Just the first one is on capacity basically. If you think about the existing cleanroom space that you added about 1,000 cubic meters and then the added production facility in Turin. What would, let's say, in an ideal scenario be your total unconstrained capacity at this point? Maybe in reference to the equipment sales of EUR 520 million which you reported last year. That's helpful.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Let me comment on separately because I think it's to be taken separate. We built a new cleanroom facility having the 300 mm program in mind, for economies of scale. We have built the complete shell of the facility and the complete building. However, of course, we only have equipped now part of the cleanroom with technical facilities as we're expecting to fill the cleanroom only step by step as we grow in terms of revenue and in terms of maybe additional market segments that we want to address or additional customer needs with equipment, right. The technical facilities are only for part of this clean room.

What we have now equipped inside of this clean room is now completely suitable to address our gallium nitride 300 mm program as we expect this to unfold over the next, let's say, 3- or 4-years, what we have ahead of us in terms of the visibility, customer demands, various types of applications, our customers are talking about in 300 mm. I think I spoke about these topics in the market sector. This is what we have addressed with our clean room. And then if our market is always driven by customers, if in 2- or 3-years new ideas come along, then we have the space to equip the additional parts with additional types of equipment, they say to address whatever comes along. We have no expansion space and for economies of scope, it only makes sense to build a complete cleanroom in full size.

Now in terms of the Turin facility, the decision to build that facility to acquire that was still having in mind that we were all expecting, I think, along also what the market was expecting, what we saw about a year ago, where we were thinking revenue would go towards the EUR 900 million to EUR 1 billion very soon. It was thought as an expansion space. Now of course, market is currently going through a correction cycle, a downturn cycle. The build out of this facility is currently a bit more on hold, waiting for the recovery of the markets. And then when the markets recover, we will come and revitalize that project in terms of modernization, setting up cleaner environment in this facility. But we have now also to say as I mentioned that at the time of acquisition, at a very good cost, we have a fantastic expansion possibility.

**Ruben Devos**, *Kepler Cheuvreux*

Okay. That's very helpful color. Thanks. Just secondly, on the micro LEDs, in your prepared comments, did I catch it right that you basically said that customers were looking for production ramp in 2027, 2028 and then therefore there might be tool shipments going out 2026, 2027? And I mean, we've been reading some on the micro LED developments and the progress being made here, but it's always helpful to hear your thoughts on the mass transfer issue, obviously, whether, yes, we're reaching sort of a breakthrough here that eventually you have more confidence that a production ramp could be happening in '27, '28?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

I think you asked the billion-dollar question. If I had the correct answer, it would be fantastic. No, saying this with a smile. I think this is the hardest to predict of all the market segments. We do see, as I mentioned, that customers in Asia, not much in the Western world, but customers in Asia continue their research programs full steam, so to say. I'm getting very positive comments from multiple customers with respect to the progress on the mass transfer. Some customers use laser-based technologies for doing this. Other customers use microfluidic technologies for that one. Everybody has gone away from what was initially the plan to use some stamps or so, that thing has diappeared.

Now in terms of the market, nobody exactly knows at which point in time this is coming. 2027,2028 is what is the most likely to us for a starting point. Now the question is, of course, is this just let me call it the smaller pilot series, whatever, a couple of 10 tools, 20 tools. Let's say, high double-digit revenue for us or is this really translating in the volume ramp that we expect, saying many, many dozens of tools adding up to hundreds or several hundreds of revenues, we don't know yet. The market is still in its infancy, I would say.

**<u>Ruben Devos</u>**<u>, *Kepler Cheuvreux*</u>

Okay. And just a final question, a quick one on what you mentioned in the presentation with regards to the MultiJect technology. I don't know if I'm phrasing that right, but it seems like you’re sort of talking about that as a disruptor in silicon carbide. Just interested to hear your thoughts on how that compares to single wafer and maybe its impact on customer yields.

**<u>Dr. Felix Grawert,</u>** <u>*AIXTRON CEO & President*</u>

In fact, I think you got it. This is what I was speaking about in my prepared notes and what we also have as a slide in the presentation. We have shown to customers and to the market at this silicon carbide conference. We have demonstrated this MultiJect technology. It's a multilevel injection technology. And in the end, it allows us with our batch reactor to achieve better than single wafer uniformity results with the productivity of the batch. It's, again, like our success factor and that we had for many years in gallium nitride, where we have essentially single level wafer control in terms of the performance and the uniformities combined with the productivity of a batch reactor. And this was the recipe for us having very high market shares in GaN. And now we've been able to demonstrate this also in silicon carbide. And we have now the best uniformity in the market.

And customers based on this, some customers achieved 99% yield based on this technology, which is, of course, a tremendous step up from what was in place before.

And you can see many customers adopt this technology and everybody wants to have it. And people who have previous version of the tool without the technology, step by step are getting upgraded to this technology because, of course, it's a big booster for the efficiency and operations.

**Ruben Devos**, *Kepler Cheuvreux*

Great. Thanks a lot.

**Operator**

And the next question is from Martin Jungfleisch, BNP Paribas. Please go ahead with your question.

**Martin Jungfleisch**, *BNP Paribas*

Hi. Thank you. Good afternoon. I have two questions, please. The first one is on the 300mm GaN tools. Could you share some customer feedback of the 300 mm tools that you have shipped and what's your expected win rate is for eventual high-volume production of customers? And do you have any visibility on when you would expect first orders for high volume to come in? Is this more 2026 or H2 2025 story? And then also in the meantime, is this holding back demand for 200 mm tools? That's the first question.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Thanks a lot. Customer feedback is very positive. Nevertheless, 300 mm is still quite in its infancy, I would say. HVM, high volume, I would expect '27 or '28, not before that. It's clearly not a '25 and not a '26 topic. And in terms of 200 mm versus 300 mm, we've given a very clear positioning in some of the earlier earnings calls in 2024 already. We see that the customer decisions are essentially almost exclusively driven by a Capex reuse of customers. I have some large customers with 200 mm fabs to say, hey, Felix, great that you have 300 mm technology, but I will not buy it for the next ten years. I'll continue to produce 200 mm. Hey, I have five old 200 mm fabs and step by step, I will convert them from silicon to gallium nitride. And then I have some other customers who say, hey, Felix, you know, we stopped and ditched 200 mm quite some while ago. The little volume that we have left on 200 mm, I'm converting that to silicon carbide. I urgently need your 300 mm tool because all my existing silicon footprint is on 300 mm, and I want to convert gradually. I mean, everybody has the consensus. Right? Gallium nitride takes over the complete silicon market. And they want them to convert the old 300 mm silicon fab into a 300 mm gallium nitride fab. That is going forward, we expect to see a coexistence at our customers of 200 mm and 300mm technologies. And for this reason, you can imagine, of course, we continue also to invest in some innovations, and we have some ideas, productivity ideas, further performance ideas also on our 200 mm products. And we make sure that our 200 mm product line stays fresh, and our customers also continue to have a performance gain on 200 mm. It will be a coexistence, long answer, coexistence of 200 mm and 300 mm and 300 mm kicking in with high volume in 2027 onwards.

**Martin Jungfleisch***, BNP Paribas*

Cool. Thank you. And the second question is more on the spares or service revenues. They were up 13% last year, but the implied growth is just 5% for this year. Just wondering whether it is something industry utilization rates should go up this year. Is there anything that we don’t, see?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

Well, we're expecting the downturn at our Western customers to continue throughout '25, as I had indicated in many cases, yes. Some of our Western customers have seven tools and one of them is running, others have 25 silicon carbide tools and three are running. We have those bad situations amongst our customers. I think many of you know that by reading their reports or writing about them, right. And for this reason, we've been a bit conservative about that.

**Martin Jungfleisch***, BNP Paribas*

Okay. Thank you.

**Operator**

The next question is from Malte Schaumann, Warburg Research. Please go ahead with your question.

**Malte Schaumann**, *Warburg Research*

Good afternoon. The first one is on the working capital again. When I look at the downpayments you received from customers, these seem to be relatively to the order backlog at the lowest level in a couple of years. The first question would be around your ability to secure customer down payments. And then more specifically, maybe you can share a number of how much in working capital reduction you strive for in 2025? And then midterm, if you could share dedicated targets where working capital should be relative to your sales?

**Dr. Christian Danninger,** *AIXTRON CFO*

It's extremely difficult to predict the timing of receivables and down payments, that is just impossible. On the inventory, we stick to the intermediate target that we formulated 60% to 70% of order backlog. That of course then depends on where the order backlog is, but that seems to be a healthy level. The down payment is also very difficult to predict because it really depends on geography, segment industry.

What is the end market? What is the individual customer? Which region? You have different in Japan, different payments terms, payment terms than in China than in the U.S. That why it's nearly impossible to formulate such an overall target. On the inventory level, that's the clearest one to formulate, the payment terms are dependent on how the end markets and the customers develop, to be honest.

**Malte Schaumann**, *Warburg Research*

Okay. Would you say that it has become more difficult to secure down payments or was it just maybe kind of a coincidence due to the customer product mix?

**Dr. Christian Danninger,** *AIXTRON CFO*

No. This isn't due to the customary payment terms of specific industry segments and regions. Different if you sell a lot of LED tools to China then selling power tools, silicon carbide tools or GaN tools to U.S. players.

**Malte Schaumann**, *Warburg Research*

Yes. Okay. Sure. Then second question is around dividend policy. I mean, you change dividend payout. I mean, you had a consistent dividend policy in the past couple of years and all that has been changed. What are your thoughts for the future? Do you want to stick with lower dividends and then maybe add share buyback to the mix? Or do you think about going back to the historic policy and more specific to share buybacks? What would be your requirements you want to see in your balance sheet maybe think about, initiating share buybacks? I mean, if anything plays out as planned then free cash flow, it should come in strongly during the course of the year, maybe not in the first half or first quarter, but definitely by the end of the year.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

First, we don't have a dividend policy. I think the other point would be that. Right? I think we like to say we take it as it comes. And as Christian mentioned, we want to build up a strong cash position, and then we'll see where it comes.

**Dr. Christian Danninger,** *AIXTRON CFO*

Not a lot to add. First, we need to build up the strong cash position again. And beyond that of course, I mean, all the time in the tailwinds, no question, but first we need to get it.

**Malte Schaumann***, Warburg Research*

Okay. Fair enough for me. Thanks.

**Operator**

And the next question comes from Michael Kuhn, Deutsche Bank. Please go ahead with your question.

**Michael Kuhn**, *Deutsche Bank*

Yes, sorry, not quick enough to withdraw. It was exactly also on share buyback because a few quarters ago, you told us you're actively looking into it at much higher share prices. Now we're like around EUR 12, but I guess there will be no comment from you on that topic today.

**Dr. Christian Danninger,** *AIXTRON CFO*

Maybe to repeat that. I mean, we always said we've investigated all these options to be prepared when it comes when the right time comes. But we are not actively pursuing this right now before we have reached our target cash levels. First, we need to get the cash in and then we need to see what we do with it.

**Operator**

Okay. Now, there are no more questions. We still have time for one last question. And the last question comes from Oliver Wojahn, MWB Research. Please go ahead with your question.

**Oliver Wojahn**, *MWB Research*

Yes. Thank you for taking my question. Looking at the progression of order backlog quarter to quarter, there's a pretty big mismatch between the calculated number and the reported numbers, so like EUR 25 million missing, maybe you could put some color on what the reason is, whether it was caution on your side or customer cancellations?

**Dr. Christian Danninger,** *AIXTRON CFO*

Well, there's an easy explanation for that. We had, as Felix also mentioned, we had, the one or the other cancellation from the from orders from the past. There was one larger order that was received in the year 2023 that was canceled, by a customer. That was canceled in Q4. That's a correction in the order book, but that was order intake recognized in prior years. That is probably what you're referring to.

**Oliver Wojahn**, *MWB Research*

Yeah, exactly. Just taking the order backlog end of Q3 and then adding the order intake and subtracting your sales typically gives a quite good indication of the order backlog of the following quarter and this time there's like EUR 25 million missing.

**Dr. Christian Danninger,** *AIXTRON CFO*

We are following exactly what we've been doing in the past. If we have an order in the same year that is canceled in the same year, we'll be corrected in the order intake of the year. If an order is canceled, where the order intake was recognized in prior years, the correction happens directly in the order book because otherwise we would distort the order intake of the year. This happens from time to time. This time was a larger effect, was one order that was pushed out into the future. In this case, it was really canceled. And that's basically it.

**Dr. Felix Grawert,** *AIXTRON CEO & President*

I think and maybe to all, I think we had questions throughout the year '24 about cancellations and pushouts. I think it's quite remarkable we have managed to have the cancellations essentially from like little stuff, single and low single digit millions left and right. We've been even though going into the downturn have only like one large cancellation, the one that you have seen here in the numbers, all others, so to say, have either shipped, many customers have been taking the tools, or as we spoke, some have been moved from 2025 into 2026. We are honestly quite happy about the result that we could manage the down cycle so well. And I think now we are probably pretty much at the bottom and now we can really rebuild and rebuild it up. I think this is what we clearly see.

**Oliver Wojahn**, *MWB Research*

And would it be fair to assume that the cancellation is from the silicon carbide segment?

**Dr. Felix Grawert,** *AIXTRON CEO & President*

No, this is wrong. It was gallium nitride segment.

**Oliver Wojahn**, *MWB Research*

Okay, great. Thanks.

**Christian Ludwig** *VP IR & CC*

Thank you very much. Thank you all for your questions. We will be back with our Q1 results April. Happy to talk to you then or we'll see you in the meantime at one of the various conference roaches will be attending. If there are any questions left open, please contact the IR department. We will be at your disposal. Thank you very much and goodbye.