AIXTRON SE

Analyst Earnings Conference Call

Q1/2025 Results

April 30th, 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 Q1 2025 results conference call. Please note that today's call is being recorded. Let me now hand you over to Mr. Christian Ludwig, VP Investor Relations & Corporate Communications at AIXTRON, for opening remarks and introductions.

Christian Ludwig, *VP IR & CC*

Thanks very much, operator. A warm welcome to AIXTRON's 2025 results conference 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 recorded by AIXTRON and is considered copyright material. As such, it cannot be recorded or re-broadcast without permission.

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Slide 2 – Q1 2025 Highlights

Dr. Felix Grawert, *AIXTRON CEO & President*

Thank You, Christian. Let me also welcome you all to our Q1 2025 results presentation. I will start with an overview of the highlights of the quarter and then hand over to our CFO, Christian, for more details on our financial figures.

Finally, I will give you an update on the development of our business and our guidance.

Let me start by giving you an update on the key business developments of the 2nd of the quarter on **slide 2**.

The important messages for Q1 are:

- We have delivered a robust Q1-25 in a weak market environment and recognized solid new **orders** of EUR 132 million which led to an increase in **equipment order backlog** to EUR 308 million.
- We concluded the quarter with revenues of EUR 113 million. With that, we have even exceeded our guided range of EUR 90 to EUR 110 million.
- The **gross margin** came out at 30%, mainly due to an EUR 5 million one-off cost item related to our announced personnel reduction.
- Adjusted for this effect, the gross margin is around **35%**, slightly below the previous year's 37%. The reasons are a slightly weaker product mix as well as selected product enhancement for previously delivered G-10 series tools.
- With these results, we confirm our full year 2025 **guidance** published in February 2025.

- And let me now also add our view on the US tariff policies. Although, as of today, our tools are exempt from any tariffs, we're aware that this may change.
- And we can manufacture both in continental Europe, namely in Germany, as well as in the UK. This gives us some options to deal with different tariff scenarios. We will closely monitor the impact of the US tariff policies on the global economy and any required measures which may become important for us.

Christian will now provide a detailed look into our financials on the following pages before I take over with an update on our markets. Christian?

Slides 3-5 – Q1/2025 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**.

We had a good quarter in the weak market environment with **revenues** at EUR 130 million, only down to 5% compared to EUR 118 million last year. We even came out slightly above the upper end of the quarterly guidance range of EUR 90 to EUR 100 million. A breakdown per application shows that 69% of equipment revenues come from GaN and SiC-power, 17% from LED, and 10% from optoelectronics, and a 4% contribution from R&D tools. The after sales business well contributed to total revenues with EUR 25 million. The share of after-sales revenues grew to 22%, up from 21% a year ago.

Now, let's take a closer look at the financial KPIs of the **income statement** on **slide 4**. I already talked about the revenue line. **Gross profit** in Q1 2025 was EUR 34 million. That means that our **gross** margin in Q1 decreased by 7% points versus Q1 2024 to 30%. But please recall that this includes the one-off expense of around EUR 5 million in connection with announced personnel reduction in the operations area. Adjusted for this effect, the gross margin is only slightly below the previous year at around 35%. The 2% points declined mainly due to a slightly weaker product mix as well as selected product enhancements to previously delivered tools.

The **personnel reduction measure** is planned to be completed in Q2 and will result in an annual improvement of around EUR 5 million. The cost reduction will be largely effective in Q2 and fully effective from Q3 2025 onwards on a pro rata basis.

Please note that we will see the effects in the headcount figures slightly later than the cost effects due to the notice period of affected employees.

OPEX in the quarter went down to EUR 31 million primarily driven by lower **R&D spending** compared to the previous year. For the full year, we expect R&D costs to be slightly lower than in 2024. Please do not take the Q1 number as a run rate for the next quarters.

EBIT for the quarter was EUR 3 million. Again, the decline in the operating result compared to the previous year was mainly due to the lower gross profit because of the one-off expenses for the personnel reduction.

Now to our key balance sheet indicators on **slide 5.**

Working capital was down by more than EUR 30 million since the end of 2024. Several balance sheet items contributed here. We continued to decrease inventories to now EUR 353 million compared to EUR 369 million at the end of 2024. And as stated before, we expect further inventory reductions to materialize throughout 2025.

Trade receivables at the end of March were at EUR 134 million compared to EUR 193 million at the end of 2024. The reduction versus the end of 2024 is mainly the result of the collection of payments related to the last shipments in the last quarter of 2024.

Advance payments received from customers at quarter end were EUR 51 million down about EUR 30 million from the end of 2024, primarily driven by some cut-off date effects and some regional shifts in the order book. Advanced payments represent about 17% of order backlog.

The fourth element of working capital, **trade payables**, has now come down to EUR 21 million from EUR 34 million at the end of 2024. This now reflects the fully adjusted supply chain situation with significantly reduced purchasing levels.

Adding it all up, our **operating cash flow** improved in Q1 to EUR 35 million, a strong improvement of more than EUR 42 million versus last year's negative EUR 7 million.

On the back of the improvement in operating cash flow, the **Free cash flow** improved even more. It came in at EUR 30 million compared to EUR -33 million last year. The improvement was even more pronounced as our Capex in Q1 at EUR 5 million was

significantly lower than last year's number of EUR 26 million. This is, of course, primarily due to the now completed investment in the innovation center.

Our **cash balance, including other current financial assets** as of the end of the quarter, increased accordingly to EUR 93 million compared to EUR 65 million at the end of December 2024.

As stated before, our top priority for the **use of cash** will continue to be the implementation of our strategy. We'll apply core competences and abilities to markets of high growth, differentiation and margin potential to sustainably increase the value of the company.

And with that, let me hand you back over to Felix.

Slide 6 to 9 – Update on the Markets

Dr. Felix Grawert, *AIXTRON CEO & President*

Thank you.

I would like to continue **slide 6** and give you an update on key trends in our different markets.

There's not much news from the SiC and GaN market since our previous call. Hence, I will keep this very short. But there are quite some interesting developments in our

Opto business, which I would like to address before moving to our **expectations for 2025.**

First, a very short update on GaN and SiC-power electronics.

- The **recent developments in the electric vehicle market** have led to **a short-term slowdown in SiC capacity expansions**. Customers in the Western world have idle capacities, and we all have heard news about customers even reducing 6-inch capacity and even scrapping tools.
- In China, our customers continue investing and we had strong shipments and strong order intake for the G10 SiC into China in Q1 and expect more in Q2.
- Midterm, we expect further growth for SiC power devices and hence for SiC-deposition equipment worldwide.
- Silicon carbide wafer prices have come down significantly, and this will result in an even higher competitiveness of silicon carbide devices when compared with silicon IGBTs.

Now let's turn to GaN.

- In the Western world, we've observed the slowdown in demand for gallium nitrite equipment as well. Again, we remain bullish as for the midterm prospects in this segment because more and more applications are addressed by gallium nitride devices as we have indicated in recent earnings calls throughout the second half of 2024.

- In China, many GaN customers nevertheless continue investing also in 2025. We expect strong orders in 2025 for gallium nitride from our China customers.
- Overall, for both GaN and SiC, our demand in 2025 is expected to be roughly flat compared to 2024. Sales is driven mainly by our Asian and by our China customer base, while European and US demand is much slower this year.

Let me now come to optoelectronics.

- In Optoelectronics, we are observing an increasing demand for MOCVD tools in data communication applications. We anticipate generating roughly 20% of our equipment revenues this year for this business segment with the majority coming from telecom and datacom sectors.
- We anticipate strong demand to continue in 2026 and to grow in even bigger volumes in the coming years, driven by three factors.
    - First, the appetite for data fueled by 5G sensing and AI is causing bandwidth requirements to double approximately every 2 years in transport networks. In hyperscaler data centers, AI demands are pushing for even higher bandwidth, leading to increased demand for 800G, 1.6 terahertz optical interconnection. This is driving new investments in optical infrastructure.
    - Second, we observe a growing preference of customers for photonic integrated circuits, called PICs, over traditional discrete lasers. PICs integrate all lasers, modulators, and detectors into a single circuit, offering higher performance, a smaller form factor, and significantly lower energy consumption compared to traditional laser circuits. The

PIC market is projected to reach EUR 41 billion by 2031, reflecting an annual growth rate of about 16%.

  - Third, the integration of more than 100 elements in some PICs is shifting manufacturing requirements. At the epitaxy level, all devices must adhere to narrow specifications throughout all Epis, both on wafer and from campaign to campaign. At the manufacturing level, this integration and increased volume necessitate more precise manufacturing, driving the adoption of 150mm indium phosphide substrate compared to the prevalent 100mm which was used in the past.

- Our AIXTRON G10-AsP tool was exactly developed with these new requirements in mind and is either already qualified or in qualification at all leading laser suppliers. The tool benefits from several major improvements compared to the previous G4 generation.
  - We are using a 4-flow injector, which delivers a 3 to 4 times better uniformity compared to the previous generation.
  - It is the first arsenide phosphide CVD reactor with in-situ cleaning, which is a game changer for our Indium phosphide data customers. It enables them to simply reset the reactor when changing process recipes, and for example, foundries which do contract runs for different customers, and they do a batch for one customer and a batch for another customer in the next one.
  - Finally, 6-inch in phosphate substrate are very brittle, and our cassette-to-cassette solution, developed and matured on our "G10 SiC" and

"G10 GaN", is now completing the G10-AsP solution. Wafers are loaded and unloaded directly into the wafer cassettes without requiring any manual operator handling. This increases manufacturing yield and enhances the customer's manufacturing line productivity.

These advantages reinforce our undisputed market leadership in the sector. Our recent success with Nokia for the G10-AsP tool highlights our strong position in the segment. Additionally, we have received first orders from a leading global supplier of AI-related applications, and we expect more to come soon. You will hear more from the press releases in the next weeks and months.

Slide 10 – Update Innovationcenter

With this, let me come to an update on our innovation center.

You recall that the 300mm opportunity is the reason why we decided to invest in our additional 300mm clean room, the innovation center displayed on page 10 of the slides. With an **investment volume of around EUR 100 million** the construction project was completed in **record time**, just 15 months from the groundbreaking ceremony to commissioning the first installed 300mm deposition system. The next milestone was reached just now in the first quarter. The **1st 300mm wafer was processed** and the innovation center was put into full operation for 300mm gallium nitride development topics. The innovation center project from our side is completed, and now we have handed this over to our development team.

Slide 11 – Guidance

With that, let me now move to our **guidance**. We confirm **our guidance for 2025** as published in February:

We expect **revenues to come in at a range of EUR 530 million to EUR 600 million**. At the mid-point, this would be around 10% below 2024. We expect a **gross margin of 41% to 42%** and so at around last year's level, and **EBIT margin between 18 and 22%.**

The guidance for the gross margin and EBIT margin includes one-of-expenses of around EUR 5 million in relation to the announced personnel reduction in the operations area. The measure will lead to annualized savings in the mid-single digit EUR range in the future, which corresponds to an improvement in the gross margin and EBIT margin of around 1pp.

For **Q2/2025**, we expect revenues in the range of around EUR **120 million to EUR 140 million**.

Again, as stated before, the implications of the US tariff policies are unclear. As of today, our tools are exempt from any tariffs, but we are well aware that this may change. We will closely monitor the impact of the US tariff policies on the global

economy. And any required measures to find the best solutions for our customers and other stakeholders.

With that, I will pass it back to Christian before we take questions.

Christian Ludwig, *VP IR & CC*

Thank you very much, Felix.

Thank you, Christian, operator we will now take the questions, please.

Question-and-Answer Session

Operator

First up is Martin Marandon from Oddo BHF. Over to you.

Martin Marandon-Carlhian - *ODDO BHF Corporate – Analyst*

Hi, thanks for taking my question. My first question about the order intake, maybe could you give us a bit more color on what exactly drove the order intake in Q1 and I know you mentioned, customers from Asia for your application in the press release and also photonic during the call, but I was wondering if it was more photonics than silicon carbide or gallium nitride maybe which was a surprise and also if it concerns a broad range of customers or a small number of customers.

Dr. Felix Grawert, *AIXTRON CEO & President*

Thank you very much. Order intake in Q1 was, in fact, heavily driven by silicon carbide, which accounted for almost 50%. This was followed by optoelectronics at around 20%. These are the two main segments, with the remaining share spread across other applications. I also mentioned that China was a major contributor in Q1 in terms of order intake. If I recall correctly, it was followed by some order intake from Japan, where we also saw strong demand for silicon carbide. The rest of the orders came from other regions around the world. That gives you a rough idea of the geographical distribution.

As for the rest of the world, it is especially relevant for laser systems. In the laser market, as we all know, the focus is not on volume or bulk orders. Power electronics typically involve large volumes, many wafers and many tools per order. In contrast, laser orders tend to consist of just one, two, or three tools per order. However, this market has a much broader and more diverse customer base.

Martin Marandon-Carlhian - *ODDO BHF Corporate – Analyst*

Okay, that's clear and maybe in the laser segment, you mentioned the transition to 800 gig, etc. But I was also wondering if co-packaged optics and so on or if more and more in the next GPUs has an effect on MOCVD demand, at the moment.

Dr. Felix Grawert, *AIXTRON CEO & President*

I didn't get the question about the core package. Sorry, I couldn't fully understand.

Martin Marandon-Carlhian - *ODDO BHF Corporate – Analyst*

I was wondering about, this new co-pack optics and we try to put the photonics, chips directly on the packaging of AI chips, if you know that was driving also more demand for AIXTRON as well, or if it was mostly what you mentioned to 800G transition etc.

Dr. Felix Grawert, *AIXTRON CEO & President*

Thank you. That's a very good question. We expect to see a very gradual transition. The first transition, which I mentioned, is the shift from 4-inch to 6-inch wafers and essentially from discrete laser devices and modulators to integrated devices. That is the first step.

At this point, we essentially have an indium phosphide-based integrated photonic chip, a photonic integrated circuit, that is being used. I think today's systems are largely still using discrete architecture. You have, for example, the photonics IC, and separately, the other ICs in your system. However, moving forward, we will see increasing levels of co-integration within the package.

For example, we may have a PIC in the package, co-packaged with a GPU, CPU, memory, and so on, all on a silicon interposer or, potentially on a glass interposer. There is ongoing work in that area, especially since glass interposers also allow for the easy formation of waveguides. I believe it's a gradual transition, but as you point out, the overall role of optics in AI and in the data center space is growing.

The same kind of development applies to power electronics. Today we still see power electronics as separate elements, but step by step, they too will become integrated. Ultimately, and this is a transition that will span several years, we are moving toward a fully integrated package on an interposer. No longer on a traditional PCB, but on advanced materials such as silicon, glass, or sapphire. In the end, optics for data exchange and power electronics for power supply will be fully integrated.

It's an exciting world.

Martin Marandon-Carlhian - *ODDO BHF Corporate – Analyst*

Okay, thank you very much. And the last one, if I may, is a quick one just on cost, I was a bit surprised by the increase of SG&A cost in Q1, just wondering if there was a specific effect that we should be aware of.

Dr. Christian Danninger, *AIXTRON CFO*

Let me try to give you a high-level summary of what happened there. In the selling expenses, we saw an increase, which is related to a little bit of sharpening our disclosure. That means, in the past, all customer-related lab services were disclosed in the R&D expenses, and now, we have disclosed them in selling costs if they are unpaid or in the cost of sales if they are paid for.

About 2/3 of the deviation versus the prior year in the selling expenses was due to this effect, and that's just a shift from the R&D cost to the selling expenses and the rest, about 1/3 is, due to some one-off severance payments in the selling area. This is independent of the announced program, the personnel reduction. But also in the selling area, we had had some severance expenses.

All fully baked into our fiscal year 2025 guidance. On the general and admin cost, a little bit similar. We also had there some one-off severance expenses and we have some external services like consulting and insurance, smaller topics all also fully baked into our 2025 guidance.

On the R&D cost. Well, I mean, maybe I anticipate the question now, because you've been asked only on the SG&A. Maybe I mentioned also the reduction in the R&D cost. Of course, there's a slight effect here from this shift from R&D to the selling expenses.

But the majority of the reduction in the R&D cost is just due to operational reduction of external services.

Martin Marandon-Carlhian - *ODDO BHF Corporate – Analyst*

Thank you, Christian.

Operator

Gustav Froberg, Berenberg.

Gustav Froberg - *Berenberg – Analyst*

Good afternoon, everyone.

Thank you for taking mine also. Just two please, staying on the Indium phosphide side, could you give us an update here on what you're seeing on the competitive side? I mean, who are you meeting in competitive discussions, when selling the G10-AsP tool?

And then on the build out, just the timing question around mass manufacturing, here, is this something that you're seeing right now and there's a build out ongoing or is this something that we should expect more for 2026, 2027.

Thank you.

Dr. Felix Grawert, *AIXTRON CEO & President*

Thanks, and thank you very much for the question.

Regarding international customers from a competitive perspective, we naturally encounter our competitor Veeco.

However, most customers have already made their decision and, as I mentioned in my speech, selected the G10-AsP.

The tool has an excellent track record, with many satisfied customers, and we receive truly outstanding feedback, which is very encouraging. In terms of the volume ramp, I referred to earlier, we believe that the current level of demand is already a clear indication of what we might expect for 2025 and 2026. From there, we anticipate further growth into 2027 and 2028. It is conceivable that by 2027 or 2028, volumes could increase by 50% compared to today. And towards the end of the decade, the volume could even double compared to the shipments we expect this year.

That should give you a rough idea of the growth trajectory that may unfold.

Gustav Froberg - *Berenberg – Analyst*

Great, and just a final follows up here. What you're talking about today, is this something that came as a surprise to you, or is this something that you've obviously been working on for quite some time and it was only a matter of time for it to pop up or is this kind of popping up a little bit out of nowhere?

Dr. Felix Grawert, *AIXTRON CEO & President*

Well, it's always very difficult for us to predict the exact timing of developments. I think, unfortunately, you've heard a similar answer from me several times already. But in fact, this is something we have been actively working on. At a strategic level, we have been preparing for it. Our first step was preparing with the G10-AsP tool, as we recognized the evolving requirements and saw the direction the market was heading. That strategic move has worked out very well, which is encouraging.

The product strategy has been developed accordingly, and we had anticipated that this market would eventually pick up. In fact, we were somewhat surprised, because we had already studied all the data and forecasts related to data demand, AI, and communications. We all have access to the same type of information.

For a while, we kept asking ourselves: when will this translate into real orders? Well, it seems that now is the time. One reason for the delay, in our view, is the very long and detailed qualification and design-in cycles that customers in this field typically go through.

Our customers — whether they are data center operators or suppliers to optical network operators — are subject to extremely high qualification requirements. Think about it: if such a device ends up at an undersea cable or in cables buried underground, failure is simply not an option. These systems are expected to function reliably for 15 to 20 years without interruption. That explains the lengthy qualification cycle. We have, quite literally, been working with many of our customers for over two years, on qualifications, demonstrations, and demo tours. Customers have been visiting our labs, going through multiple review cycles. You can imagine the intensity of that process. But now, several of our customers have completed their qualification phase, and this is finally translating, after selection and approval, into actual volume orders.

Operator

Madeleine Jenkins, UBS Investment Bank

Madeleine Jenkins - *UBS Investment Bank – Analyst*

Hi, thanks for taking my question. My first one is just more housekeeping. Within your power revenue line, what was your silicon carbide, gallium nitride split last year and kind of roughly where do you expect it to land this year?

Thank you.

Dr. Felix Grawert, *AIXTRON CEO & President*

I think it's both about fifty-fifty last year and this year and overall flat in total volume.

Madeleine Jenkins - *UBS Investment Bank – Analyst*
Okay, perfect. Thanks. And then just my second question is on your demand you're seeing for your SiC in China. I just wondered how you see that going into the rest of this year. We're hearing some news around potential consolidation of customers there, and I just wondered if you're seeing any of that and whether you expect that to impact your order book.

Thank you.

Dr. Felix Grawert, *AIXTRON CEO & President*

We have a very strong silicon carbide business in China for the first half of the year. This is clear both from the orders already placed and the projected shipments. I believe China will be notably stronger for us in the first half of 2025 compared to the second half.

However, especially in China, things can unfold in unexpected ways. It’s also possible that new opportunities will emerge in the summertime that are not yet on our radar. But as of now, the best projection I can offer is that the first half will be significantly stronger than the second half.

Madeleine Jenkins - *UBS Investment Bank – Analyst*

Very helpful, thank you.

Operator

Michael Kuhn, Deutsche Bank AG

Michael Kuhn - *Deutsche Bank AG*

Thanks for asking my questions. Essentially a follow up on the last one. So, in Q1, I guess equipment orders were in the area of EUR 105 million to EUR 110 million and you still need 140 to 210, let's say in terms of short-term orders to reach the guidance. I would say you need to keep that 105 to 110 run rate over the next 5 months or so to be able to deliver on it.

In that context, what was the start into the second quarter. You obviously mentioned silicon carbide, Chinese customers ordering strongly, but let's say what else is in the pipeline and what, let's say order appetite do you see in the market right now also given, let's say micro uncertainties.

Dr. Felix Grawert, *AIXTRON CEO & President*

A very good question. I'd like to start by saying that we are confident in our ability to meet the target of 140 to 210. It's clearly on our radar, and we've spoken with our regional and sales teams to verify this, of course, ahead of this call. We double-

checked to make sure the information is still up-to-date, and based on the pipeline we see, we can clearly confirm that we're on track. I think that's an important message.

Just to provide some context — you probably already have this on your radar, but I want to make sure everyone is on the same page — we are still at a relatively high level of inventory as we speak today, with a clear target to reduce that. Given the high inventory situation this year, we expect to be able to ship tools before December 31, which will convert into 2025 revenues, assuming we receive orders in August or September, for example. If all the parts are already in inventory, it's just a matter of assembling the tools, testing them, and shipping them out. This is a luxury situation, luxury in the sense of shipment timing, of course — not luxury in the sense of capital sitting in inventory. Ideally, I would want that capital working for me to make the company more attractive rather than being stored away. But that's a different topic. That's clear. So, regarding the cutoff for when we can collect orders and convert them to revenue, as a ballpark, you could say mid or end of Q3.

Now, to answer the second implied part of your question — where do we expect revenues to come from? Looking at the pipeline, we expect the second quarter to show strong results from power electronics, silicon carbide, and also some gallium nitride. In fact, gallium nitride orders from China are at a healthy level as well.

In the second quarter, as I mentioned in my speech, we expect some volume to come from the laser data communication area. This refers to additional customers, and we

anticipate that some of these orders have already come in, with more expected throughout the second quarter.

This trend will continue to support us strongly in the second quarter. Throughout the year, we expect our power electronics business to maintain the 2024 level—no growth, but at least stable. Toward the end of the year, we expect contributions from other regions, and in the second half of the year, we also anticipate some LED and micro-LED orders to come in.

Michael Kuhn *Deutsche Bank*

Excellent.

Thank you. Then, one, brief one on R&D, Christian you stated that, Q1 shouldn't be taken as a run rate. I think initially the statement was that R&D expenses will be down by a mid-single digit million amount, in 2025 versus 2024. That is basically the number that was delivered in Q1 already.

So, will it be a little more, or will we be kind of back to Q2 to Q4 2024 run rate for the remainder of the year just to get a little better feeling on the development of that cost item.

Dr. Christian Danninger, *AIXTRON CFO*

Michael, thanks for following up. Maybe I was not completely clear. I mentioned Q1 should not be taken as the run rate for the full year. Because there were also some few positive and negative one-off effects there, don't take that one as a run rate. For the full year, we expect a slight decrease compared to the prior year in R&D expenses.

As we have indicated in the full year, communication results. Is it clear now?

Michael Kuhn *Deutsche Bank*

Yes. Absolutely. This is how I understood it but just wanted to clarify whether there should be any other non-recurring factors to be seen there. One more on the Italian factory. Obviously, you have laid off some production stuff as of late and I think the Italian factory is not necessarily needed in the short-term. Any changes you're planning there?

Dr. Felix Grawert, *AIXTRON CEO & President*

As your question indicates, it's in sleep mode right now.

Michael Kuhn *Deutsche Bank*

Okay.

And then, last question, on the gross margin, you mentioned the G10 tool enhancements for tools that were already delivered, so you delivered let's say some upgrades to clients?

All done or anything else to follow later in the year?

Dr. Felix Grawert, *AIXTRON CEO & President*

I think 90% is done, there was a special Q1 effect, a one-time effect.

Michael Kuhn *Deutsche Bank*

Perfekt. Thank you very much.

Operator

Ruben Devos, Kepler Cheuvreux.

Ruben Devos - *Kepler Cheuvreux. – Analyst*

Yes, sir, good afternoon. Thanks for asking my questions. I just had one, briefly on the order breakdown by region. I was curious whether you were willing to share sort of the share within Power Electronics, what was sort of the share by region, let's say China versus Western demand, not specifically for Q1 orders, but let's say for the backlog I would be most interested in.

That's the first question.

Dr. Felix Grawert, *AIXTRON CEO & President*
Honestly, I don't have the breakdown at hand, I have to say. However, I can point out that we've mentioned there is strong demand from China and silicon carbide. I believe China and silicon carbide will be major contributors, but I don't have the specific data in front of me right now.

Ruben Devos - *Kepler Cheuvreux. – Analyst*
Oh, okay, fair enough, and just a logical follow up. I mean, China has certainly helped you, in the last year, with the West maybe down somewhat. I guess the amount you've been seeing from Asia and China specifically has been ongoing for quite some time.

So, the logical question would then be, how sustained do you think that could still be. I think sort of silicon carbide substrate pricing seems to have been stabilizing, 6 inch, prices have come down strongly, but now they seem to be stabilizing. I think EV penetration ratio we can discuss on that for a long time, but how do you just assess, let's say the Chinese capacity ramp at this point, how sustained do you think that is?

Dr. Felix Grawert, *AIXTRON CEO & President*

It’s a great point that you raised this topic. The significant decline in silicon carbide prices is helping a lot with the overall penetration of silicon carbide in the market. If you look at a finished silicon carbide device, the substrate cost represents a significant portion of the total cost.

Now that the substrate price is coming down, silicon carbide-powered devices are becoming much more affordable. This makes them much more competitive compared to IGBT devices, for example.

When a customer, say an automotive manufacturer or an OEM, looks at the overall system cost, they’re not just considering the chip cost. Of course, silicon carbide is still more expensive than IGBT, but they recognize that silicon carbide is becoming significantly less expensive.

With silicon carbide, I can use a smaller power module, and it’s much more efficient, which means I generate much less heat that needs to be removed. This reduces the overall system costs, including the cooling system, water cooling, metal components, and so on. All of this is becoming cheaper as well. This ultimately helps increase the penetration of silicon carbide, not only in electric drivetrains but also beyond the automotive sector.

In summary, the decline in silicon carbide prices will be a key driver for accelerating the production of silicon carbide wafers. The market share that silicon carbide will capture from the overall power electronics market is growing, and for us as an

equipment maker, this stimulates overall demand for equipment in silicon carbide. We strongly welcome the price decline in silicon carbide substrates.

Ruben Devos - *Kepler Cheuvreux. – Analyst*

All right. That's very helpful. Thanks a lot. I just had a final technological question. Do you anticipate any shift in epitaxy equipment demand tied to advanced packaging requirements? I mean, thinking about these chiplets or 3D integration, I think you also already talked about the optoelectronic side of things. But, yes, are there any shifts we should be aware of in terms of epitaxy equipment?

Dr. Felix Grawert, *AIXTRON CEO & President*

We don't see any impact on our side.

As you know, we are involved in providing equipment for the deposition of layers onto substrates. We've discussed this in the context of optoelectronics, and we've also considered potential applications in AI and gallium nitride (GaN) power electronics. However, you still need to create the chip, which will eventually be integrated into other systems.

We are not directly involved in the integration process. This typically involves companies working on wafer bonding, a crucial step, or those developing end equipment. AIXTRON is not part of this segment of the value chain, and we do not intend to enter this area.

This is our perspective, and it helps to stimulate and drive overall demand. We are connected to the applications. We've discussed GaN power for AI and Datacom for AI, which serves as a driver for demand for our equipment, but we are not directly impacted by it.

Ruben Devos, *Kepler Cheuvreux*

All right, thank you very much.

Operator

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

Malte Schaumann, *Warburg Research*

Yes, good afternoon. Just sort of on gallium nitride, do you have any visibility for kind of an uptake in demand going through the year? Is that something which remains a bit subdued now and would rather be expected than for next year, early 2026?

Dr. Felix Grawert, *AIXTRON CEO & President*

A good question. Unfortunately, visibility outside of China is very low. As I mentioned, China is performing well in 2025 and continues to build up capacities.

However, outside of China, the visibility is simply very limited. The entire world is also waiting to see what impact the tariff situation will have on the economy. I think only once that issue is clarified will we gain more clarity on the situation. Honestly, I don't have a clear perspective at this point.

Malte Schaumann, *Warburg Research*

Okay. Then, the second question on inventory levels. I mean, you already indicated that you expect to be done with your inventory correction at your site, during the year, during the first half of this year, inventories came down only quite marginally in the first, towards the end of the first quarter. What's your take, on the inventory levels going through the year, do you still expect to be done at, let's say at the latest by the end of this year?

Dr. Felix Grawert, *AIXTRON CEO & President*

Yes, and the reason why the overall number was only slightly down from 2024 until now is that there was still quite a bit of inventory, and orders that had already been placed coming in. That's the main reason. Once orders are placed, there's no real point in cancelling them and incurring a cancellation fee.

All our products are up to date, and our product portfolio is current. There are no products that are approaching obsolescence. Of course, we would prefer to take them, keep them in inventory, and ship them in later quarters if needed. That part

of the inventory, products that we don't immediately need but still receive income from, has now passed.

We are now entering a period where we expect net inventory outflows and reductions. Toward the end of the year, it will depend a little on the product mix. Whether it comes exactly as we expect or a bit differently, I would estimate that inventory levels will range between EUR 250 million and EUR 300 million.

Malte Schaumann, *Warburg Research*

Okay, makes sense, thanks.

Operator

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

Martin Jungfleisch - *BNP Paribas Exane – Analyst*

Yes. Hi, good afternoon. I also have a follow-on question on gross margins. I mean, these were quite weak. I mean, you strip out the EUR 5 million restructuring charge. You mentioned product mix and these other product effects, but when you looked at, I think the power share was higher, also FX probably a small tailwind. Could you quantify this specific G10 product spec headwind more specifically? And then, would you expect gross margin spec over 40% in the second quarter over gross margins in general will be more back-end loaded again this year? That's the first question, please.

Dr. Christian Danninger, *AIXTRON CFO*

Well, I'll take that question. Okay, we don't quantify exactly the amount on the upgrades here, but the product mix effect was primarily driven by, a large share of shipments to China, especially for old series, that came in at quite low margins. Of course that is fully baked into our full year guidance. So logically you can expect an uptick, but the gross margins throughout the year could be back-end loaded, just similar like last year.

Martin Jungfleisch - *BNP Paribas Exane – Analyst*

Okay. No, that makes sense. Thank you. And the second question is just on order backlog and just on have you seen any order cancellations during the quarter? So, when you do the delta between orders and equipment revenues, is there many FX related to the delta?

Dr. Felix Grawert, *AIXTRON CEO & President*

Not in the first quarter. We have seen some push outs that were there from earlier in the year towards the second half of the year. That what we've seen, but there were no cancellations in the first quarter. We had a little bit in the Q4 of last year, but not this one.

Martin Jungfleisch - *BNP Paribas Exane – Analyst*

Cool sounds good thank you very much.

Operator

Didier Scemama, BofA Securities.

Didier Scemama - *BofA Securities – Analyst*

Hi there, thank you for taking my question. So basically, I was just wondering, regarding guidance, given that you still expect kind of, some demand to come in the second half, just trying to understand, what are your discussions right now with customers given that all we have this uncertainty and the macro picture.

Do you have regular updates with those customers and are they kind of sustaining their view that the order should come in in the second half, or do you potentially already hear some softening in their tone?

Dr. Felix Grawert, *AIXTRON CEO & President*

No, we haven't heard that. I think the effect you're referring to, where customer interest appears to be weakening, is something we've noticed towards the end of 2024. Specifically, I believe you're alluding to the major listed Western power electronics customers.

As we all know, there have been reports about the backlogs, Capex reduction plans, and the overall situation with major power electronics players like TI, STMicro, ON Semiconductor and others. I think this is what you're referring to.

These companies, of course, are not placing orders now, which is very clear. They're showing their shareholders that they need to reduce Capex and make use of unused capacity.

On the other hand, demand is now coming from customers who genuinely need the tools. We've already discussed the laser domain, and we also expect to see some red LED and micro-LED demand throughout the year. I mentioned silicon carbide from Asia, along with gallium nitride, which is largely coming from China but not exclusively. These are the customers who are continuing their efforts and have a solid perspective on the market and on their own customers. They are entering or expanding into these business segments because they see a clear business opportunity. Let's also remember that in China, the tech industry and the EV industry are booming. There are companies that are well connected to their customer base and simply need tools for expansion. At this point, the world seems to be running at two different speeds. While the news flow around us may suggest one world is slowing down, there is another world that continues to expand and move forward.

Didier Scemama - *BofA Securities – Analyst*

Great, thank you very much for the color. Just to expand on the Chinese demand, given that you're already alluded to this, that the first half should be stronger than the second half.

Can we understand it in a way that there's potentially kind of pull-in demand given all of those uncertainties, and is there a risk that the Chinese demand will not fall off a cliff but kind of drastically reduce in the second half? Is that correct?

Dr. Felix Grawert, *AIXTRON CEO & President*

No, I don't see this as being driven by geopolitical factors. When I speak with my customers, there's clear demand, and there are markets behind it. I don't view it as politically driven ordering. If I understand your question correctly, I would say that the demand we see is primarily end-market driven.

Didier Scemama - *BofA Securities – Analyst*

Perfect thank you very much.

Operator

And the next question comes from Veysel Taze from Metzler.

Veysel Taze, *Metzler-Analyst*

Hi, thanks.

Thank you for squeezing me in. I have two questions. The first one would be around your opto business and your comments. You said that 2027 business could grow 50%, 2028 similar range and then by the end of the decade even faster. I was wondering in your opto business when you comment on that, it's not the total opto

business, right? I guess you're referring to the Datacom business. And how big is your Datacom business today?

Dr. Felix Grawert, *AIXTRON CEO & President*

That's a very good question, and you're absolutely right. I was referring to the data communications business, which is exactly the point you're highlighting.

Let me give you an indication. As I mentioned, the laser and data comm sectors together make up little less than 20% of the equipment orders we expect for the full year. You have our guidance, so you can do the math from there. In addition to that, we have the red LED and micro-LED businesses, which are driven by entirely different market dynamics. Red LED, as you recall, is mostly driven by lighting applications and mini-LED applications. Micro-LED, on the other hand, is a more sophisticated high-end application that is still in the preparatory phase, but we expect it to pick up at some point in the future. As we discussed in our previous earnings call, the exact timing for the revenue from micro-LED is uncertain.

Veysel Taze, *Metzler - Analyst*

Understood. And then the second one also related to this topic. I think you mentioned the second customer win and it is related to AI, if I understood correctly. Can you give a bit more color around what type of application or use case will be for the second customer?

Dr. Felix Grawert, *AIXTRON CEO & President*

It's also in data communications, but specifically with one of the established photonics players in the sector. We know for certain that this is tied to one of the major AI companies, working together to drive the optical data exchange between chips on the platform.

This is the application, and the customer is one of the established optoelectronics players in the photonics space. In this industry, you really need decades of experience to succeed. So, it would be very naive and unrealistic for a newcomer to enter this field.

Veysel Taze, *Metzler - Analyst*

Sorry for the confusion or my misunderstanding, but it would not be the co- package update that you integrate that on the package level. It's more for the data transfer, right, between servers or server racks. So basically, the old world of cabling where you use this technology or the customer will use this, right? It's not the co-packaged optics module.

Dr. Felix Grawert, *AIXTRON CEO & President*

I must admit that I don't have detailed knowledge of my customers' plans at this level. I'd prefer to leave it at that point, as providing more specifics might risk misleading you.

Veysel Taze, *Metzler - Analyst*

Yes, no problem. And then really a final one. Regarding your LED business, I think Q1 sales was quite good, but I was wondering if you can give a bit color around the mix in the order backlog, how much LED business is left there?

Dr. Felix Grawert, *AIXTRON CEO & President*

Honestly, I don't have the exact numbers in front of me. However, for the full year, we expect LED and micro-LED to contribute roughly 10% of total revenues. It's a decent portion for the year, although it was a larger share in previous years and will likely increase again in the years to come. Overall, it's a solid contribution.

Veysel Taze, *Metzler*

Thank you very much.

Operator

There are no further questions.

Christian Ludwig, *VP IR & CC*

Well, then, thank you very much, operator.

Thank you all for listening and thanks for your questions. The IR team is at your disposal, if any questions still pop up or are unanswered, and with that, I wish you

all a great day. We have a holiday tomorrow. For those who don't, have a good week and we'll talk to you at the latest with our Q2 results end of July.

Thank you and goodbye.