AIXTRON SE

Analyst Earnings Conference Call

Q1/2022 Results

May 5, 2022

Edited Transcript incl. Q&As

Executive Board

Dr. Felix Grawert, CEO & President

Dr. Christian Danninger, CFO

The spoken word applies

Slide 1 – Operator & Forward-Looking Statements

Operator

Ladies and gentlemen, welcome to AIXTRON's first quarter 2022 results conference call. Please note that today's call is being recorded. Let me now hand you over to Mr. Guido Pickert, VP of IR & Corporate Communications at AIXTRON, for opening remarks and introductions.

Guido Pickert

Investor Relations & Corporate Communications

Thank you, operator. Welcome to AIXTRON's presentation of our Q1 2022 results. I'd like to welcome our CEO, Dr. Felix Grawert and our CFO, Dr. Christian Danninger.

As the operator indicated, this call is being recorded by AIXTRON and is considered copyright material. As such, it cannot be recorded or rebroadcasted without permission. Your participation in this call implies your consent to this recording.

Please take note of our Safe Harbor Statement which can be found on page 2 of our results presentation slide deck, as it applies throughout the conference call.

This call is not being immediately presented via webcast or any other medium. However, we will place an audio file of the recording or a transcript on our website at some point after the call.

I would now like to hand you over to our CEO for opening remarks. Felix?

Slide 2 – Q1/2022 Highlights & Operational Performance

Dr. Felix Grawert

Executive Board

Thank you, Guido! Let me also welcome you all to our First Quarter 2022 results presentation. I will start with an overview of the highlights in the quarter 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.

Let me start by giving you an overview of the key business developments in Q1 on **slide 2**.

Demand for our equipment remains very dynamic across the board, resulting in the strong order intake of 130 million Euros for Q1. Demand for **GaN Power** is solid on high levels while **SiC Power** demand is further accelerating to become a major contributor. Additionally, demand for **Micro LED** production has started to kick-in with demand for **laser tools** remaining strong as well. Overall, the positive trend of further diversification of demand drivers across different end-markets is continuing as expected.

Operational performance in the quarter was very strong as well and fully in line with our own expectations – enabling us to recognize Revenues in the quarter of EUR 89 million Euros which is almost 80 percent higher year-on-year. EBIT also went up significantly and net profit more than tripled year-on-year.

Based on this strong start into the year in all dimensions, we confidently confirm that we are fully on track to meet our full year guidance for orders, revenues and profit margins. **Please recall that we had indicated with our guidance a moderate start into the year 2022 in terms of revenues with a much stronger second half. We are fully on track with respect to our initial plan**.

We are happy to be on such a good track. In particular, I would like to remark that the current global crisis situations that we are all facing have only a minute impact on our business. Logistics and supply chains are tense, but remain stable. Our proactive approach to pre-order critical components and to work closely with our suppliers proves to be effective. This approach allows our suppliers to adopt their own capacities to our increasing demand. And to provide us with stable supply. Most of our suppliers are situated in Western Europe, giving us a stable basis despite the strain on global supply chain.

Now, I will hand over to our CFO Christian Danninger. He will take you through the Q1 2022 financials. Christian?

Slides 3-5 – Q1 2022 P&L, Balance Sheet, Cash Flow

Dr. Christian Danninger

Executive Board

Thanks, Felix, and hello to everyone.

Before I start the review of financials, I'd like to share some ESG related feedback on our excellent EU Taxonomy aligned figures which we published with our Sustainability Report in February.

We are one of very few companies in Germany - if not in Europe - that already published EU Taxonomy **aligned** figures. And we reported more than half our revenues and three quarters of our R&D activities as officially "green" as defined by the EU. Our ESG focused investors are particularly impressed by these results and understand more and more that our technologies have a very strong positive impact on climate change mitigation.

Let me now start with our income statement on **Slide 3**.

Total revenues for the first quarter 2022 were 89 million Euros. This was close to 80% higher than in the same quarter of last year!

The gross margin at 41% went up by 6 percentage points compared to Q1/2021. This is mainly due to an improved product mix, a more favorable USD-rate and better absorption of costs due to higher revenues. This resulted in a year-on-year doubling of Q1 gross profit to 36 million Euros.

OPEX in the quarter increased to 22 million Euros from 18 million Euros, mainly due to higher R&D spending reflecting our focus on finalizing the development of our next generation MOCVD products ahead of a broader market introduction.

Our EBIT in Q1 of this year went up to 14 million Euros from negative 1 million Euros the year before. The EBIT margin was 16%.

We were again able to utilize tax loss carry forwards and capitalize some additional deferred tax assets in the amount of 1 million Euros due to expected future profits.

We can therefore report a net profit of 14 million Euros, which more than tripled compared to 4 million Euros we recorded in Q1 of 2021.

Turning to the balance sheet **on the next slide.**

Inventories have risen to 144 million Euros from 121 million Euros at the end of 2021 in preparation for the higher expected business volume in the coming quarters.

Due to the high demand supporting the growth expectations for 2022, advance payments received from customers increased to 81 million Euros from 77 million Euros at the end of 2021, which represents about 31% of order backlog.

Trade receivables went down to 50 million Euros, mainly due to the collection of payments after the very strong shipments in Q4.

Our cash balance including other financial assets increased to 375 million Euros at the end of the quarter from 353 million Euros at the end of 2021.

Moving to our cash flow statement on **slide 5**.

Free cash flow for Q1/2022 with 22 million Euros was slightly below 28 million the year before, which was mainly due to an increase in inventories in preparation for the higher expected business volume in the coming quarters.

With that, let me hand you back over to Felix. Felix?

Slide 6 –2021 Guidance

Dr. Felix Grawert

Executive Board

Thank you, Christian.

before concluding with the outlook for the remainder of the year, I would first like to give you a quick update on the key developments in our addressed markets.

In all our addressed end-markets, we continue to see strong momentum.

In the first quarter, GaN-Power was our single biggest revenue contributor. In orders, Wide-Band-Gap Power Electronics including Galliumnitride and Silicon-Carbide, accounted for more than half of our equipment orders with GaN being the single biggest driver here as well.

Energy efficient power electronics are being broadly adopted in an increasing number of applications, replacing less efficient silicon. This is clearly reflected in the continued strong demand for our systems in these areas.

In **GaN Power**, we see the momentum remaining as strong as we have seen it in the recent past. The industry now has clearly accepted GaN Power devices as the energy efficient replacement of the incumbent Silicon based power devices. Not only will GaN replace silicon in more and more existing applications, we see the market broadening at the same time: we observe new players entering the GaN market, addressing new applications, while existing players are about to implement their ambitious expansion plans for their factories.

In **Silicon Carbide Power**, we see a continuation of the industry growth driven by an increasing number of electric vehicles. Industry analysts expect that by 2025, the penetration rate of electric vehicles exceeds 30%. And all of them need wide-band-gap materials such as GaN- and SiC-based power electronics in the main inverter, on-board charger and the fast-charging infrastructure on the roadside. Our new SiC tool, which is in preparation for wafer sizes of 6 inch and 8 inch, is showing very good performance. We are in the qualification at multiple customers and already have received repeat orders with high numbers of tools ordered by some of them. Overall, we continue to win new customers in SiC power electronics while our existing customers are expanding their capacities to meet the growing market demand.

In the area of **Micro LEDs**, we see the development of next generation Micro LED displays continuing as expected. We are involved in multiple customer development activities and qualification projects. The epitaxial process step, which is performed on our tools, is showing good performance and maturity. Work on the complementary transfer process step not offered by us, is also progressing. This makes us increasingly confident that we will see further commercial products with Micro LED displays in addition to smartwatches going forward. We therefore expect first customers to start building out their production capacities in the years 2023 and 2024.

And please bear in mind that for Micro LEDs, we will be providing tools to make the **R**ed, the **G**reen **AND** the **B**lue color Micro LEDs. With this we address a much larger scope than in the traditional LED area, where we only address the red color today. The high-quality requirements of the Micro LED application allow us to cover the whole color spectrum again.

Let me finally give you an update on the development of our new tool generation. We have the next generation of products for all three material systems under development. These new tools have in common, that they offer significant benefits in terms of uniformity, in terms of particle levels and in terms of productivity. With this, they enable our customers to reduce unit cost in their production and penetrate additional, much broader applications and markets.

Here is where we currently stand with our next generation products:

Our **NextGen Laser and Micro LED product**, which is the successor product to our G4 planetary system, is under qualification at 3 major accounts.

Our **NextGen GaN Power and Micro LED product**, which is the successor of our G5 planetary system, is already qualified by a Tier one customer, who operates multiple tools and has placed multiple repeat-orders.

And our **NextGen SiC product**, which is the successor of our G5 WW planetary system, is under qualification with multiple customers and we have received orders for double digit number of units for it.

During this year, we will continue our qualification efforts and complete the preparation for launching our new tools gradually starting by the end of this year.

As you can see, we have made great progress in preparing the ground for a volume ramp of the industry translating into further growth in the coming years with our new tools being ready for that.

With that, let me now give you an update on our full year guidance for 2022 on **slide 6**. Based on the strong business development in the first quarter and our positive view on the development of demand for the remainder of the year, we confirm our growth guidance for the year 2022 originally issued in February.

Including the 130 million Euros of orders recorded in the first quarter, we continue to expect **total orders** for the year in a range **between 520 and 580 million Euros.**

With an equipment order backlog of 260 million Euros at the end of Q1, we expect **revenues** for 2022 to be in a range **between 450 and 500 million Euros**.

We expect to achieve a **gross margin around 41%** and an **EBIT margin** in a range **of 21% to 23%.**

These expectations for 2022 are subject to the provision, that the current global crisis situations around us, will not have a significant impact on the development of our business.

With that, I'll pass it back to Guido before we take questions.

Guido Pickert

Investor Relations & Corporate Communications

Thank you very much, Felix and Christian. Operator, we will now take questions, please.

Question-and-Answer Session

Stéphane Houri - Oddo BHF

Good afternoon. Actually, I've got two questions. The first one is on the linearity of the revenues for the year. I think that's like many others in the market, we understood that the year would be less back end loaded than the previous years. Which is the case, but some may have expected a little bit more in Q1. Do you confirm that you were not expecting higher revenues for the quarter? Can you tell us how you see the next quarters? And can you re-explain to us why there is such a seasonality in your business? And I've got the follow up. Thank you.

Dr. Felix Grawert, AIXTRON

Hello Stephane. When we issued our fully year guidance in February, we mentioned that we would be starting the year 2022 a little softer to go on much stronger in the second half of the year. However, we also indicated that it would not be such an extreme variation across the quarters as we had it in 2021. In 2021, revenues in the fourth quarter were more than three times larger than in the first quarter of that year, so that was a quite extreme variation. So in 2022, we will not see such an extreme variation again.

For this year, the quarterly revenues becoming stronger sequentially every quarter. So the second quarter will be stronger than the first, the third quarter will be stronger than the second, and the fourth quarter will be a little stronger than the third quarter.

Overall, we are fully on track with our initial plan, and we see no shifts. We will have a stronger second half than the first half.

Stéphane Houri - Oddo BHF

Okay. Okay. And can you maybe just explain why there is seasonality in your business because this is not so obvious for many others, I think?

Dr. Felix Grawert, AIXTRON

We do not really have seasonality in the business. This is just how the orders are coming in. We do not have a pattern comparable to the Christmas business in consumer electronics. It could also be that in two years or three years, we may have it all the other way around.

Stéphane Houri - Oddo BHF

Thank you. And my second question then is on the orders, because if you look at the orders €130 million and you multiply by four, basically, you are at the low end of your guidance for the full year for orders. So obviously, you may expect an acceleration. Is it coming already in Q2 and from which end market will the order's acceleration be coming? Thank you very much.

Dr. Felix Grawert, AIXTRON

What I just said on revenues also applies to the order to a certain degree. We do have a certain randomness as well. Therefore, I cannot really give you the exact distribution over the year as the orders come in when they come in. I can definitely say though, that we expect a clear acceleration of orders throughout the year. And we expect a stronger second quarter in terms of order intake than the first quarter. And in terms of split over the applications, we had already indicated with our guidance how the year 2022 could look like in terms of order intake. And we are fully on track with respect to our initial expectation. Gallium Nitride Power

Electronics will be clearly the number one application followed by Silicon Carbide Power and then LEDs and Micro LED applications would be the third place in terms of order intake.

Operator

And the next question comes from Olivia Honychurch. Please go ahead.

Olivia Honychurch - Jefferies

Hi, thanks for taking my question. And I've got one with a couple of follow ups after, if that's okay? So, on Silicon Carbide, we heard from Wolfspeed that they are considering opening a second Silicon Carbide facility in addition to the recently opened one in Mohawk Valley, New York. And we're also hearing elsewhere that companies like Infineon and STMicro are building out their Silicon Carbide capacity. Considering that background, do you see potential for Silicon Carbide to become a larger driver of orders and revenues for you than Gallium Nitride at some point in the future?

Dr. Felix Grawert, AIXTRON

That is a very good question, Olivia. I can clearly say that we see a strong acceleration of Silicon Carbide as we have had already indicated earlier, and we see that trend continuing. But I cannot give you a precise answer to your question whether Silicon Carbide might surpass Gallium Nitride. Silicon Carbide could definitely get close to Gallium Nitride. And maybe there might be quarters, in which Silicon Carbide might surpass Gallium Nitride because we see the strong momentum. And we see additional support by us being on a very good track with respect to winning new customers in Silicon Carbide.

Olivia Honychurch - Jefferies

Okay, that's helpful. Thank you. And just a couple more if that's okay. So firstly, on margins, are you able to give us a little bit of guidance on the shape of gross margin trends and OpEx over the next few quarters? Particularly on gross margins, I know you spoke previously about having a higher proportion of legacy LED tool shipments in the first half of this year. Has that played out already or is that yet to come? And if so, would that mean that that gross margin dipped slightly, sequentially before ticking back up again? Similarly, for OpEx, how could that trend over the next few quarters? And then my second question is on Micro LED, your tools? Can you give us some type of indication of the yield that's currently being achieved with your Micro LED equipment? Thank you.

Dr. Christian Danninger, AIXTRON

I'll take the question on the margins, then pass over to Felix for the Micro LED question. We expect gross margin to be somehow lower in Q2, where we expect larger shipments for red LED business to China. This is fully reflected in our full year guidance which means that these temporary effects will be compensated for the full year. On the OpEx side, we expect SG&A to remain fairly stable over the next quarters. While on the R&D expenses, we expect an increase in R&D spending, as we are pushing for the market introduction of our next-gen tools. So we expect the full year R&D spending to be between €60 million and €65 million. This new run-rate is a reflection of our next generation tool initiatives, driving forward our next generation tools. With that I will hand over to Felix on the Micro LED question.

Dr. Felix Grawert, AIXTRON

Olivia, let me address your question regarding the new red Micro LED tool. This tool is giving a significantly improved uniformity on the wafer in terms of thickness and doping control. And the tool also gives a much better efficiency in terms of gas consumption, therefore reducing cost. And the tool also has a number of features to optimize and to reduce the particles, which is very important. Together, the uniformity topics and the improved particle levels, are helping our customers to improve their yield. However, in semiconductors the achieved yields depend on many factors, such as the chip size, the chip design, also the subsequent processing steps. So the yield each customer is achieving really depends on the specifics of the customer. Therefore I cannot comment on that. I can only speak about input parameters and that we are making a big step forward in this respect, enabling the customers to realize a better yield.

Olivia Honychurch - Jefferies

That's really helpful color. Thank you.

David O'Connor - Exane BNP Paribas

Great. And thanks for taking my questions, maybe a couple on my side, if I may. Firstly, on the Micro LED side of things. Felix, you mentioned in your prepared remarks, the capacity built out in 2023-2024 timeframe. Just to clarify, is that just one customer there or is there other customers in the mix there? And also, can you give us any indication when you look at your Micro LED customers, how much of a delta in terms of the lead time your primary customer has versus others? And also, can you just touch on the Micro LED tool that was in revenues in Q1, is that just a ROY tool or something more than that? And last one on GaN. Can you help us understand that your GaN orders aren't just concentrated on one Taiwanese player and there's actually a broadening happening as you claimed in your orders. Maybe if you give us, how many customers in GaN are double digit type customers in 2022 versus 2021? And to kind of help us understand that broadening of adoption of GaN, that'll be helpful. Thank you.

Dr. Felix Grawert, AIXTRON

Let me answer your first and third question first. The Micro LED capacity ramp built out which I mentioned is happening in '23 and '24 and we get plans from multiple customers to build out their capacity. Some plans of individual customers, are very concrete and very definite and other customers just give us indications and ask us to take reservations. However, we can clearly see that the market is moving in this direction. And we can clearly see that towards the end of '22, beginning of '23 this will start to happen. I can also confirm that in the end, it will be multiple customers driving this. What I cannot say is which customer is executing their plans and when. But the overall direction and dimension is that the Micro LED capacity build out is happening in 2023/24 and that it's happening with not only one customer but multiple customers.

Then let me come to your third question. On Gallium Nitride, we clearly see that the market is broadening. We do not only see the orders being concentrated on a large customer or two large customers, as your question is indicating. We see customers across the board ordering. We have a couple of large customers, each of them expanding and broadening their facilities, some of them ordering, three, four tools and others ordering eight, nine, ten, tools. In addition, we see a diverse group of customers entering the market. Some startups equipped with significant funding or some companies being part of the global semiconductor value chain entering this market who have a lot of expertise, significant funding and a good network entering this market and building out factories. I think it's a very broad movement that is happening on a global scale. It's not only concentrated on one region, it's globally. And as I indicated in my introductory words, it is broadening across many applications, there are some 650V customers, there are some 100V customers - some of them addressing some consumer electronics, others going in industrial applications like data centers and communication base stations, other going into white goods and electric drives. So this is a very broad momentum that we see.

David O'Connor - Exane BNP Paribas

That’s very helpful and thanks for that additional color. Just to specify my other question and it was around kind of the lead of your primary Micro LED customer versus others. And do you think in the terms of the development stage that is one year, two years, just to give us a sense of, of the time delta between those customers in terms of Micro LED development? Thank you.

Dr. Felix Grawert, AIXTRON

We see the overall market in Micro LED starting around ’23. We see one customer with very concrete plans. I would not necessarily say that the others are behind by six months or 12 months indicating a time gap. It is more the point that we see very concrete plans on one side, and maybe not so concrete plans on the other side.

David O'Connor - Exane BNP Paribas

That's really helpful. Thanks so much.

Jürgen Wagner - Stifel Europe

Yeah, good afternoon. In your handout you mentioned some of your competitors and whom are you seeing currently as the most serious in GaN Power? And going forward, also for Micro LED? And on your strategy, at what point would you consider M&A's to be needed to broaden your portfolio? Thank you.

Dr. Felix Grawert, AIXTRON

Thank you very much. In GaN Power, our toughest competitor is Silicon. We see that the market is currently broadening across all applications. Today, Gallium Nitride has only taken c. 5% of the total market. So there is still 95% to go. And the industry is focusing on replacing Silicon in as many applications as possible. And this is creating the momentum I was describing earlier. However, Silicon is also improving which is why it remains our toughest competitor. The clear target for GaN is, to penetrate not 5% of the market but rather 50% or more, taking it away from Silicon. And to support our customers in achieving this target, we are continually improving the productivity of our tools, the performance, the uniformity, the yield, the particles. Simply everything that helps our customers to reach cost positions that allow them to not only to get a good share in some specialty applications, but to attack Silicon on a very broad scale and volume. This is our plan for Gallium Nitride power. With that, I come to the second question on M&A. We see ourselves very well equipped with our technology portfolio to realize that ambitious target I mentioned. Nevertheless, M&A also has to do with opportunities. And if something interesting came along, we are definitely open for that. But it's not that we have a portfolio or technology gap that we need to close. So we keep our eyes open for opportunities. Also, always innovation is happening and additional opportunities are thus coming along. And we are actively scanning the market and when there is an opportunity, we will make sure that we don't miss out on that.

Jürgen Wagner - Stifel Europe

Okay, thank you.

Charlotte Friedrichs

Thank you. Just one question left on my side. And could you maybe talk a little bit about your pricing expectations for this year, and also into the coming years in the context of the new tool generations coming through? And lastly, also the cost increases that you face in some areas? Thank you.

Dr. Felix Grawert, AIXTRON

Thank you, very clear. We do see some moderate cost increases if we look at our overall supply chain. Of course, it varies by individual module or component. But overall, the effect is still relatively moderate and we're able to fully pass that on to our customers, because we clearly compete on technology, on performance and not on price. Therefore, we do not expect a negative margin effect due to price inflation.

Now I come to the pricing of the new tool generation. The new tool generation is offering considerable benefits to the customers be it for some of the products in terms of the higher productivity, be it for some of the products in terms of uniformity and particles resulting in higher yields. And we are able to share some of these additional benefits with our customers by realizing moderately higher prices. So part of the benefit goes to our customer, part of the benefit goes to us, improving our margin. I would expect that over the next three years, as we are gradually rolling out the new generation of tools. The margin effect will be a slow and gradual replacement process of tools. Why do I say a gradual replacement? Once a tool is qualified in the semiconductor industry, this tool is designed in, and it stays. If you switch the tool, you need to re-qualify with all your customers which is a very good barrier to entry, also protecting our market position. Overall, this is a good thing for us. But it comes along with the fact that our new generation will be penetrating existing applications step by step. In new applications, the new tool generation can enter very rapidly, of course. Overall, we will see very different speed of adoption.

Charlotte Friedrichs

Thank you. And then as a follow up, is it possible to quantify the productivity advantages, etc., for your customers with the new tool generation?

Dr. Felix Grawert, AIXTRON

That really varies by product and by application. We discuss that in a very detailed manner with our customers, in order to show them the benefits of the tool. It would be a bit too early to quantify a margin effect based on that.

Charlotte Friedrichs

Okay, thanks.

Operator

And the next question comes from Malte Schaumann from Warburg Research. Please go ahead.

Malte Schaumann

Good afternoon. And the first question is on the service and spare part revenues, the €22 million in the quarter, I think it was about double the volume of the previous year's Q1. So what's the expectation going forward? I mean, is that level sustainable or will that come down a bit again?

Dr. Felix Grawert, AIXTRON

It will come down. We had some positive special effects this quarter. We have given an indication for the full year, and we will stay very much in line with that one.

Malte Schaumann - Warburg Research

Then on GaN Power, it wasn't that long ago that you shared your expectation that the tool demand of the markets will be at about 70 tools per annum. And as the market is pretty dynamic, do you stick to that assumption or has anything changed your mind in that respect?

Dr. Felix Grawert, AIXTRON

Very good question. That unit level is safe, there could be an upside to that. But I don't have recent data. So I would not want to quantify it for you right now.

Malte Schaumann - Warburg Research

Yeah. Okay, fair enough. Last quick one, on the R&D level, you mentioned €60 million to €65 million target for this year, as you have probably a lot of qualification expenses. Is that the volume, we should expect in future years and the years to come? Or is there a possibility that the expenses are kind of peaking at these levels?

Dr. Felix Grawert, AIXTRON

So I would expect the R&D expenses to stay on that level this year. We have the qualification and the completion efforts to finalize the new generation of tools that we were speaking about. Nevertheless, we see that our revenue basis is broadening across these multiple applications. We see all these applications going into the ramp. And typically when an application goes into the ramp, our customers are then asking for further improvements and for further productivity increases. And for us it is very clear, that we have the ambition to stay in this strong market position when the volume ramp continues. And in order to secure our leading positions, we also need to continually improve our products. And you see now, if you look back five years, our revenues were mostly derived from the fields of optoelectronics and lasers. Now we still continue with the lasers, and we have products on the areas of Silicon Carbide and Gallium Nitride power as well as Gallium Nitride RF, and we see the Micro LED opportunity coming up addressing all three colors instead of just red.

You see that we have broadened from essentially one revenue carrying product line, to now five or six, depending on how you count and how you split it. And you can imagine that maintaining five or six product lines and continuing to support customers with innovation, and to stay ahead of competition, you will continually need to invest in each of these different products.

Malte Schaumann - Warburg Research

Yep, understood. Okay, many thanks.

Dr. Felix Grawert, AIXTRON

But clearly, R&D as a percentage of revenues will not grow. It will rather shrink because we expect the revenue to be growing faster than the R&D expenses. I think that's a very important message.

Malte Schaumann - Warburg Research

Yeah, okay.

Operator

And the next question comes from Jean-Marc Müller, JMS Invest. Please go ahead.

Jean-Marc Müller - JMS Invest

Yes, thank you for taking my questions. And I have to come back to the gross margin, I think it was fairly strong in Q1. You hinted at Q2, the gross margin might be a bit lower, because of the shipments for red LED tools. So there's obviously a mix effect playing into that but the absolute sales level obviously also plays an important role. And I was wondering, was the mix effect in Q1 particularly good? Or was it kind of a standard mix of products sold? Or maybe if you can elaborate a little bit on this, because the 41% guidance for the years seem kind of low if you already have 40.6%, with just not even €90 million in sales?

Dr. Christian Danninger, AIXTRON

The major driver for the gross margin is for sure the product mix, which can deviate as we have explained. The operating leverage within the gross margin is limited with our very flexible model, not doing the manufacturing ourselves. Thus, the overall gross margin is not so much driven by the volume levels. You have some US dollar effects in there, that's another driver in addition to product mix.

Jean-Marc Müller - JMS Invest

Sure, but the mix, I would assume, should improve going into Q3 and Q4, and there we also have higher sales levels?

Dr. Christian Danninger, AIXTRON

Exactly. The overall gross margin guidance for the year is secured. For that, we expect higher gross margins again in Q3, and also in Q4.

Jean-Marc Müller - JMS Invest

I'm also asking because I mean, I look back at last year, and I mean, obviously you had several guidance increases on the top line on the EBIT margins, etc. But up to the 4th of November, you left the gross margin guidance unchanged at 40% and the actual margin was at 42.3%. So?

Dr. Christian Danninger, AIXTRON

We had a very strong positive US dollar effect that was difficult to anticipate because it was driven by the US dollar development at the end of the year. Last year, we had a special situation that we shipped more than 40% of our annual revenues in Q4. So that was a big driver. And then in this strong quarter, we had the big effect from the strengthened US dollar. That was the reason for this big upside.

Jean-Marc Müller - JMS Invest

Okay. And then just purely financial. I noticed depreciation was very low at around €2 million lower than in Q1 last year. Also, I mean, it swings about a little. I mean also last year, not every quarter was the same, but it seems fairly low also given the fact that you had a bit of, let's say increased CapEx spend in the last two years, I would have expected that number to go up. Can you tell us a little bit about what you expect there in the quarters to come or do you have an anticipation of what it will be for the full year?

Dr. Christian Danninger, AIXTRON

Not in particular. I mean, of course, our CapEx is expanding to some degree, but that is primarily driven by investments in our lab infrastructure, lab tools to expand our capacity to run customer demos, qualification, supporting R&D going forward. That's the primary driver on CapEx. CapEx is not very much driven by volume ramp, as all of the manufacturing is outsourced. So that is not a major driver for CapEx and subsequently for depreciation.

Jean-Marc Müller - JMS Invest

Yeah, but the €2 million seem low, right?

Dr. Christian Danninger, AIXTRON

Yes. Our depreciation will, to some degree go up with the slightly increased CapEx going forward.

Jean-Marc Müller - JMS Invest

Okay. Thank you very much.

Operator

And the next question comes from Johannes Ries from Apus Capital. Please go ahead.

Johannes Ries - Apus Capital

Yes, good afternoon. Still some questions left. First, can you maybe elaborate again on US dollar impact on your figures, because especially in April, we have seen real strength of the US dollar against the Euro and it seems that we're seeing a continuation of that given the interest rate increase in the US, the difference was maybe even widening, so maybe a good chance since US dollar gets even stronger.

Dr. Christian Danninger, AIXTRON

Yes, of course. As you know, we base our guidance on the rate of 1.2 USD/EUR for the full year. We've see seen a positive effect in Q1 that is between two to three percentage points in our gross margin versus the budget rate. Overall, we expect around 30% to 40% of our annual sales in US dollars. So you can run your simulation, then what that could mean on gross margin and also EBIT margin, depending on the anticipated US dollar development.

Johannes Ries - Apus Capital

Very clear, thanks. Maybe another question on your lead time, what is the average lead time or maybe what is the latest time you can get orders that would translate into revenues this year?

Dr. Felix Grawert, AIXTRON

What is important to note is, that we are fully on track with respect to our revenue guidance. These days this is a very important message, that we are fully on track. Typically, the lead times we are experiencing in these days are between 9 months to 12 months. It depends a bit on the product and the application. So this is up from the past but that is also reflecting that we have a very strong pipeline.

Johannes Ries - Apus Capital

And maybe on the orders for Micro LED, if this one concrete customer project is now ramping, will the bulk of the orders be placed this year or next year?

Dr. Felix Grawert, AIXTRON

It would be split over time. And the ramp will start, as mentioned towards the end of this year or early next year. So for sure, we will see orders for that one in this year. And then, larger capacity build outs are happening over several quarters step by step. So I think part of the orders we will also see in the next year.

Johannes Ries - Apus Capital

Okay. Maybe on a little bit longer term view maybe not only watches might be using Micro LEDs. There might be a more broader usage, maybe up to smartphones, so then is there a good chance that Micro LED will be the largest market, larger than the GaN market?

Dr. Felix Grawert, AIXTRON

This is a very difficult question, because it relates to many factors. First of all, the timing, but then also the pixel size which determines how many smartphones or how many smartwatches or televisions can you make out of one wafer? But for sure, we expect that the Micro LED market will be one of our very big markets and will significantly contribute to our revenues. And overall, we are seeing the whole industry, meaning the display makers, the large consumer electronics players as well as semiconductor players investing in research and development in many projects around the globe that we are aware of, and that we are part of.

Johannes Ries - Apus Capital

Great. Maybe a more general question was power Semis, given the situation coming from this big disaster of Ukraine war and therefore the pressure may be to improve on the energy efficiency. So that's one of the three ways maybe we can solve this problem. Do you see a perfect acceleration of the use of compound semiconductors like GaN or SiC?

Dr. Felix Grawert, AIXTRON

Yes, we are seeing an acceleration of the shift towards electrification and new energies across Europe. And as part of this overall shift, we will also see a much accelerated electrification of transportation. And I would not be surprised if also at some point there would be regulations coming, pushing for further policy making to drive energy efficiency. I think that's part of this overall trend that we are in. But at the moment, we have not seen any concrete orders linked to this specific situation now.

Johannes Ries - Apus Capital

It's too early, maybe, but maybe in the next quarters, or maybe in a year, so it could be the case.

Dr. Felix Grawert, AIXTRON

True. This could lead to an acceleration of the mega trends that we are already seeing and that we are part of.

Johannes Ries - Apus Capital

Maybe final question on the leverage, you said you have not a big gross margin leverage. But how is the mix effect as GaN is growing fast, SiC is growing fast, even Micro LEDs are starting to kick in. If I understand you right, you said that you see a positive mix effect on the gross margin going forward. How strong is the OpEx leverage going forward? Maybe if you're further growing, you said already R&D will be growing less than the top line with SG&A remaining fairly stable. So how strong good could be this leverage in the model going forward?

Dr. Christian Danninger, AIXTRON

Our operating leverage is actually very strong. The gross margin is primarily driven by product mix. With the new generation products gradually coming to the market over the next years, as Felix explained, they will in tendency drive gross margin up. As explained, we share that additional value with our customers, but you can expect an increasing gross margin going forward based on the commercial availability of the new generation tools. Then, of course, the absolute gross margin is driven by the overall volume that is being shipped. And it is important to note that all of our variable costs are included in the gross margin. On the OpEx side, as we also explained, we expect SG&A to remain fairly flat. We expect the R&D expenses to increase over the next quarters but then to remain on about that level. So the majority of that additional gross profit hits the EBIT margin, leading to a very strong operational leverage effect on the EBIT margin.

Johannes Ries - Apus Capital

Great. Sounds very promising for the future. Thanks a lot.

Dr. Christian Danninger, AIXTRON

Okay, thank you.

Guido Pickert, AIXTRON

Thank you very much to everyone listening and asking questions. With this, I'd like to conclude today's call. Please all stay safe, hopefully see some of you in person again soon. Bye-bye.

Thank you.