

**AIXTRON SE**  
**Analyst Earnings Conference Call**

**Q4/2021 & Full Year 2021 Results**

**February 24, 2022**

Edited Transcript including 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 fourth quarter and full year 2021 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*

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Thank you, operator. Welcome to AIXTRON's presentation of our Q4 and FY 2021 results. I'd like to welcome our CEO, Dr. Felix Grawert and our CFO, Dr. Christian Danninger.

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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 Felix Grawert for opening remarks.  
Felix?

## Slide 2 – Q4/2021 and FY/2021 Highlights & Operational Performance

Dr. Felix Grawert

*Executive Board*

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Thank you, Guido! Let me also welcome you all to our Full Year 2021 results presentation. I will start with an overview of the highlights in the year and then hand over to Christian for more details on our financial figures and our ESG related Initiatives. Finally, I will give you an update on the development of our business and I will present our new 2022 fully year guidance to you.

Let me start by giving you an overview of the key developments in Q4 and the year on **slide 2**.

Let me start with the very good news about our business development in 2021:

This was a very exciting and successful year for us! We were able to increase our orders by 65% and our Revenues by 59%. Our operating income and net profit almost tripled!

We have achieved our guidance in all metrics with total Orders of close to 500 million Euros, Revenues of 429 million Euros, a gross margin of 42% and an EBIT margin of 23%. Given the constrained global supply chains and logistics, our team did a fantastic job in achieving such an output and result.

But behind all this is the strong demand growth from our customers, particularly driven by the volume ramp of GaN-based Power Electronics.

The demand growth is fueled by a broad base of application segments coming from the global megatrends of sustainability, electrification, and digitalization.

We observe that in some areas such as Power Electronics, compound semiconductors are moving from their role from “specialty” and “niche” materials to become the workhorse in the semiconductor volume market. Compound semiconductors are a key technology for numerous areas of technology, as they are

superior to the incumbent silicon-based semiconductors in many aspects - this will drive our growth on a sustainable basis! For 2022, we see a continuation of the strong order momentum throughout all our key markets. The demand remains balanced across the different applications. Overall, we expect a double-digit growth year again.

Let me have a quick look at our Q4-performance starting with our order intake. As in previous quarters, GaN Power was again the strongest contributor to our orders. Wireless & optical data communications, LEDs and lasers also had sizeable contributions. In total, Q4-orders came in at 120 million Euros.

Revenues in Q4 were at 181m which is the highest level of the last 10 years, and we were able to meet customer demand. It is important to note that this shows that our manufacturing and supply chain are well equipped for further growth in the years to come.

Gross margin in Q4 was 44% and EBIT margin 32% - both being an expression of our profitable business model.

So overall, we saw strong, profitable growth in 2021 and we will continue to grow also during 2022 and beyond! I will explain the details of our new 2022 guidance to you at a later point of this call.

Before I hand over to Christian, I am happy to announce that we will propose to our shareholders to pay out a dividend of 30 Euro Cents per share, following this successful year. This proposal is subject to shareholder approval on our virtual Annual General Meeting on May 25, 2022. This would represent a pay-out-ratio of 35 percent of our group net result.

Now, I will be handing over to our CFO Christian Danninger. He will take you through the Q4 and full year 2021 financials.

Christian?

## Slides 3-5 – Q4 and FY/2021 P&L, Balance Sheet, Cash Flow

Dr. Christian Danninger

*Executive Board*

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Thanks, Felix, and hello to everyone.

Before I start the review of financials, I'd like to take the opportunity to give you an update on our ESG performance and related activities.

We regularly receive ESG ratings from rating agencies like ISS, MSCI, CDP or Sustainalytics. While all of our ratings are quite positive already, CDP has further raised our rating significantly by 4 levels from D to B and MSCI went up from BBB to A in 2021. You are also aware that we are a **climate neutral company already since 2019**.

To further push and accelerate our ESG agenda, we have recently upgraded our organizational setup in this area. We have established the new position of “ESG & Sustainability Management”, reporting directly to me.

To document that we are committed to play a leading role in the field of ESG , we have today already reported EU Taxonomy **aligned** figures on a voluntary basis for 2021, which goes beyond the legal requirement to report EU Taxonomy **eligible** figures only for 2021.

After a detailed analysis and assessment process, we assessed **57% of our revenues, 39% of CapEx and 76% of OpEx** to be **EU Taxonomy aligned** and thus considered environmentally sustainable in the sense of the EU Taxonomy Regulation.

At AIXTRON, OpEx as defined in the EU Taxonomy Regulation correspond to the company's R&D expenses. Therefore, we are particularly proud on the high results for the two key figures OpEx and CapEx, which impressively document the sustainability of AIXTRON's investment strategy, especially in research and development. Consequently, a further increase in environmentally sustainable revenues in the next years is likely when the newly developed technologies move into broad adoption.

These taxonomy-aligned technologies are wide-band-gap (WBG) power semiconductors based on gallium nitride (GaN) and silicon carbide (SiC) as the key to energy-efficient power electronics, Micro LEDs for the next generation of displays, lasers for data communication as a key technology for the digitalization of our world and more.

All these technologies have one thing in common: they are much more energy efficient compared to the current technologies available on the market and thus contribute significantly to the reduction of greenhouse gas emissions. Among many other benefits of these technologies, they significantly support the global efforts to mitigate climate change.

For further details I refer to slide 9 of our investor presentation and to our sustainability report 2021.

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

As Felix mentioned, total revenue for the year was 429 million Euros compared with 269 million Euros in 2020. This reflects almost 60% growth over the previous year! Revenues in Q4/2021 even grew by 67% year-on-year.

The 2021 gross margin of 42% was 2 percentage points higher compared to the same period last year. In Q4/2021, gross margin was 44% compared to 42% a year ago. The difference is mainly due to a higher share of products shipped with better margins in Q4/2021 versus Q4 of 2020.

Operating Expenses for the year increased from 73 million Euros in 2020 to 83 million in 2021.

The increase in annual operating expenses was mainly due to the following factors:

Firstly, we incurred higher variable compensation components and we incurred one-time expenses for the restructuring and the wind down of APEVA totaling to approx. 3,9 million Euros.

Secondly, in the prior year we had a positive one-time effect in other operating income of 3 million Euros.

In Q4/2021, Operating Expenses increased slightly to 22 million Euros compared to 21 million Euros in Q4/2020.

S, G & A expenses of 35 million Euros in 2021 were 7 million Euros higher year-on-year, mainly due to the factors I just mentioned.

R&D expenses in 2021 remained roughly stable at 57 million versus 58 million Euros in the same period last year. This reflects lower running costs for APEVA during the year, largely offset by increased expenses for the development and completion of our next-generation MOCVD equipment.

In 2021, we recorded net other operating income of 10 million Euros which was below the 13 million recorded a year before. This difference was mainly due to the other operating income of almost 3 million Euros in 2020 as mentioned before.

Our 2021 EBIT was 99 million Euros at a margin of 23% versus an EBIT of 35 million Euros at a 13% margin in 2020. This was mainly due to the year-on-year increase in revenues and with that, the corresponding increase in gross profit.

The 184% higher EBIT at 59% higher revenues in 2021, proves the strong operating leverage effect we have on higher revenues translating over-proportionally into bottom line earnings.

In Q4/2021, we realized an EBIT of 58 million Euros at an EBIT margin of 32% for the quarter compared to 25 million Euros and 23% in Q4/2020, demonstrating the same effect.

For the full year, we incurred total tax expenses of 4 million Euros at a tax rate of 4% compared to 1 million Euros tax expenses at a tax rate of 2% in 2020. In both years, we were able to utilize historical tax loss carry forwards and capitalize some additional deferred tax assets based on expected future profits.

We generated a net profit of 95 million Euros in 2021, compared to 35 million Euros in the same period of 2020, primarily due to the discussed volume and margin effects. Per Share this means 85 Euro Cents in 2021 versus 31 Euro Cents in 2020.

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

Inventories have risen to 121 million Euros from 79 million Euros at the end of 2020 in preparation for the further increasing business volume in 2022.

Advance payments received from customers increased to 77 million Euros from 51 million Euros at the end of 2020, which represents about 35% of order backlog.

Trade receivables increased to 81 million Euros, mainly due to the very recent strong deliveries made in Q4 for which we expect to collect payment primarily in Q1 of this year.

Our cash balance including other financial assets and post our 12 million Euros dividend payment in May, increased to 352 million Euros at the end of the year from 310 million at the end of 2020.

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

Mainly due to the increase in net income for the year and higher trade receivables at the balance sheet date, free cash flow for 2021 was 49 million Euros. In Q4/21 it was 21 million Euros.

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

## Slide 6 –2021 Guidance

**Dr. Felix Grawert**

*Executive Board*

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Thank you, Christian.

before concluding with the outlook for the rest of the year, I would now 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 2021, our revenues in Power Electronics which includes the material systems GaN and SiC doubled year-on-year. Also revenues in Optoelectronics which included wireless and optical datacom, 3D sensing, and compound solar almost doubled year-on-year. Our LED related revenues went up by 39% compared to 2020. We see further growth potential in 2022 and beyond as the demand for our technologies is fueled by sustainability, electrification, and digitalization - all of which are global megatrends.

In **GaN power**, we are at the beginning of a multiyear growth cycle. GaN based power switches are being increasingly adopted for a widespread number of applications in the areas of IT infrastructure, renewable energies, data centers or white goods just to name some examples. Please remember that some time ago, we were only talking about fast chargers!

Some customers are even telling us, that their roadmaps have been pulled in by 2-3 years due to the acceleration of adoption. So overall, this market is developing very dynamically, and we are supporting large fab expansions of our existing customers while also supporting new entrants to this industry.

In **SiC power**, we are very pleased about the development of orders having accelerated in the course of 2021 to representing 15% of equipment orders in Q4/2021. And based on our current order pipeline, we expect this positive momentum to continue in 2022.

Our new tool which is suitable for 6" and 8" wafers is getting great customer feedback and even though it is still in development, we are already receiving sizeable orders for it!

This makes us confident, that SiC based orders and revenues will already make a significant contribution to our business in 2022 – especially in the second half of the year – as we continue to be in contact with all industry players.

For **LED applications**, momentum also remains strong driven by the demand for red-orange-yellow LEDs which are used in fine pitch displays but also in horticulture applications, such as indoor farming.

In **Micro LED**, we are part of major development projects of large consumer electronics players and LED specialists, such as HC SemiTek with whom we announced a collaboration yesterday. We get clear signals from customers that innovative displays of the next generation will be based on Micro LEDs, rather than OLED displays. This is very good news for us, as our MOCVD epi tools are very well positioned here and the same properties become relevant that make us so successful in GaN power and in lasers/VSCSELs. Hence we have decided to close down our OLED subsidiary APEVA – but this is good news, as the alternative also brings us into the display market, but with a much stronger position right from the beginning! We expect a growing contribution of Micro LEDs to our orders already during 2022 with shipments taking place late this year or 2023.

You can see that we enjoy a very positive demand momentum from our addressed markets!

However, we continue to watch the development of the global supply situation very carefully and we remain to be ready to take measures if necessary.

With that, let me now present our 2022 guidance to you on **slide 6**.

First of all, it is important to note that our guidance is based on our 2022 budget exchange rate of 1.20 US-dollars to the Euro. In the quarters to come, revenues and profit margins will be reported based on actual exchange rates which may differ from our budget rate.

So for 2022, **total orders** received are expected to rise further year-on-year to a range **between 520 and 580 million Euros** from the 497 million Euros worth of orders recorded during 2021.

With an opening backlog of 217 million Euros for 2022, we expect **revenues** in the year in a range **between 450 and 500 million Euros**, growing further from the 429 million Euros we have achieved in 2021.

We expect our **gross margin** to be **around 41%** and an **EBIT margin** in a range **between 21% and 23%**.

This guidance includes our R&D spending for the completion of the development of our next generation products as well as or activities to strengthen our organization in anticipation of further growth ahead.

We have made our guidance based on the assumption that our business will not be impacted by any global crisis or pandemic. In summary – we are looking forward to see another growth year in 2022, as the strong momentum driven by multiple end markets continues with the underlying trends being fully intact.

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.

**Stephane Hour, ODDO BHF**

Yes. Good afternoon, everyone. My first question would be about the guidance for the orders for 2022, which is strong. Could you share with us what will be the proportion of each of your key markets in your guidance if silicon carbide will take a bigger share or if it will be still GaN related or even if Micro LED will start to take a share? And the second question is about the market share gains in silicon carbide. Just to know if you feel confident in gaining new significant customers already in 2022. Thank you very much.

**Felix Grawert**

Thank you for your questions. Let me come to the first part. The rough order intake split for 2022. We believe that in '22, half of the order intake will be from power electronics. About two-thirds of that Gallium nitride, one-third silicon carbide. The other half of the order intake is expected from optoelectronics. Within that, we expect a smaller portion to from lasers and VCSELs, another smaller portion from Telecom/Datacom. The remaining portion, we expect from the LED world. And here we expect a 50/50 split between Fine Pitch/Mini LED and 50% Micro LED. So far to the first part of your question.

Now to the second part of your question, which was on the silicon carbide market share gain. We can say that we are working very closely together with two of the very large players in this market. And from these very large players, we have received very sizable orders and we expect to receive additional very sizable orders throughout 2022.

At the same time, we have been qualified or are in the process of getting qualified from roughly 10 other customers in silicon carbide, who are not yet in today's group of the top five. Of course, all of them having the aspiration to rise to the top group. Overall, this is a pretty good pipeline of the overall market, given that we have been a new entrant and that we are gradually gaining market share. I see us on a good way forward.

**Stephane Hour, ODDO BHF**

Just to confirm what you've just said. You have said that among the two key players in the markets, you have been qualified by two and you have received order from one, is that correct?

**Felix Grawert**

We are working closely together with two of the very large players, have received volume orders from both and expect to receive additional large volume orders in '22.

**Stephane Hourri, ODDO BHF**

Okay. That's clear. Thank you very much.

**Olivia Honychurch, Jefferies**

Hi there, thank you for taking my question. I've actually got a couple. One is on Micro LED and the other is on your margin guidance.

So on the Micro LED side, it's very exciting that the market seems to be adopting that technology quicker than you previously expected. And you've announced the contract with HC SemiTek yesterday. You've also just said on the call, that you expect shipments to start for Micro LED systems at the end of this year. My question really is, when exactly do you expect to receive commercial volume shipments for Micro LED? Is that something that we can think about happening as early as the end of this year, or will that commercial level be more of a 2023 story? And then, I'll just quickly go ahead on the margin guidance. 41% gross margin, this seems conservative given that you achieved 42% last year. What's stopping your margin from growing this year? Because given the fact that your product mix is becoming more favorable, and obviously, you're doing a lot of work on higher productivity systems. So I'm just trying to get my head around what exactly is stopping your margins from going up this year? Thank you.

**Felix Grawert**

Thank you very much, Olivia, for the questions. I'll take the first one and Christian will take the second one. For Micro LEDs, we expect the volume ramp to be starting towards the end of 2022, sometime in the fourth quarter, and then to go on for the whole year of 2023 and to continue in '24. Christian, you take the margin topic?

**Christian Danninger**

Yes, the margin topic has two aspects. The gross margin will stay quite consistent. There are always product mix as well as currency effects affecting gross margin, that are not easy to predict precisely.

On an EBIT margin perspective, we are very committed to keep our R&D spend on a high level. And that impacts the translation of higher revenues into higher EBIT margin a bit, but this is quite consistent with last years. And we believe the investment into R&D is the best investment to make! That's why we continue keeping it at a high rate.

### **Felix Grawert**

Let me build on what Christian said with respect to the gross margin. Olivia, you also asked about our product mix? For sure, our new products come with much higher productivity, which is also reflected in the margin. But we continue to ship our current generation of tools, as well. Within the first half of the year, there will be one quarter where the product mix will still be largely comprised of older generation products with a lower gross margin. So in the course of the year, there will be quite some fluctuation in product mix and therefore also in gross margin which we have also seen in the past. But the overall trend, that our new products deliver significantly higher gross margins remains intact.

### **Olivia Honychurch, Jefferies**

Perfect. Thank you so much.

### **Uwe Schupp, Deutsche Bank**

Good afternoon gentlemen. Two for me as well. Firstly, a follow-up on the Micro LED topic. What products based on Micro LEDs should consumers and should we expect to see in shelves first, in terms of commercial products? In the past, you indicated that on the smaller display sizes, it would be smartwatches and on the larger side, it would be high-end televisions. Is that still the case, or do you see a change here in the potential applications? And secondly, Christian, can you update us on your foreign exchange exposure? I'm just trying to read that guidance and that margin guidance in particular, with the budget rate of the 120 that you have been alluding to. Thank you.

### **Felix Grawert**

Good question. The guidance we had given about the initial product for Micro LED is still fully intact. We expect that the first products will be smartwatches, then later high-end televisions, and then at the later stage, smartphones, AR/VR glasses,

laptop displays and the maybe medium or large size, cheaper televisions. It will be a multiyear roadmap of different types of displays.

**Uwe Schupp, Deutsche Bank**

And just the evergreen question that we have to ask on every conference call. Of the large Micro LED projects that you are seeing across the globe, do you believe that you are part of them, in 80%, 90% higher?

**Felix Grawert**

An exact quantified forecast might turn out wrong at some later time. I am saying this with a smile because I think many of the big consumer electronics players will try to run the projects in a stealth mode and we might not be aware of all of them. But I would clearly expect that we are part of many of these projects, given that we work with a sizeable number of consumer electronics players in large collaboration projects.

**Uwe Schupp, Deutsche Bank**

Thank you.

**Christian Danninger**

I'm happy to give you some insights on our U.S. dollar exposure. In the recent past, we run at a U.S. dollar revenue share of between 30% to 40%. That is always fluctuating little bit. It has been decreasing, but that is about the range. Consequently, as the U.S. dollar became stronger, we changed our budget rate to 1.20 USD/EUR for 2022. Recently, the actual rate is much more favorable. With that, I think you can run your numbers and quantify what a potential upside will be.

**Uwe Schupp, Deutsche Bank**

That's very helpful. And basically your cost exposure is still virtually 100% in Europe. Is that correct?

**Christian Danninger**

Maybe not 100% - but the USD exposure in our cost is minor.

**Uwe Schupp, Deutsche Bank**

That's very clear. Thank you.

**Charlotte Friedrichs, Berenberg**

Hello. Thank you for taking my questions. The first one would be around the quarterly phasing, both for the order intake and also for the shipments. Are you already seeing an uptick here in order intake in the first couple of months of the year now? And on the shipment side, should we expect again a year where shipments are largely geared towards the fourth quarter or is it going to be a little bit more even this time around? And then the second question would be on the cost development and procurement. Are you seeing any significant pressure here from input cost inflation or difficulties to procure certain components? Thank you.

**Felix Grawert**

Thank you. Order intake is always a bit difficult to forecast as to when exactly the customer will be placing an order. We know that the base line of an exact quarter is a bit arbitrary. Let's get started with an assumption of an even order intake and be ready to expect some fluctuation around that. At this early stage in the year, I would not want to get more concrete. On the revenue side, we are not expecting to see such an extreme and pronounced peak towards the fourth quarter as we have seen it in the last year. However, we expect the revenues split to be a bit softer in the first half of the year and then a bit stronger towards the second half. So taking the midpoint of our guidance, you could take a couple of millions down for the first two quarters, and a couple of millions up on the second two quarters. We do not expect a repetition of the pattern we have seen in 2020. I hope that answers your question.

**Charlotte Friedrichs, Berenberg**

Yes.

**Felix Grawert**

Now to the second part of your question - cost of procurement and limitations of supply. Our supply chain is very well suitable of keeping up with the growth and with the demand. We work very closely with our suppliers, and we prepare them for the order volumes and support them when needed and very actively make sure that the supply capacities are provided for. We do not see bottlenecks or risks that would block us from achieving the guidance that we have given. In terms of cost, we are indeed expecting the cost of some of our procured items to go up. However, as our business is a very long-term forward-looking business, the purchase contracts for the material that we need for the 2022 revenue, have already been closed or have been quoted. Therefore, we do not see significant cost increases the year 2022. This means that our financial guidance and all its elements are based on the 2021 cost level. Looking further ahead into 2023, we do

see a certain amount of cost increases, but we also expect us to be able to pass on large parts of such cost increases to our customer.

**Charlotte Friedrichs, Berenberg**

Understood. And then a follow-up if I may. If I heard correctly, you said in the beginning that in your order intake in the fourth quarter about 15% was from silicon carbide. Did I hear that correctly? And can you give us the contribution of the other end markets?

**Felix Grawert**

Yes, in the fourth quarter of '21, we had a sizable amount of Silicon Carbide orders, about a quarter of orders was from GaN power.

In addition, we also had quite sizable Micro LED orders, quite sizable fine pitch LED orders and orders from the telecom/datacom area. Maybe, let's put them all on an equal level.

**Jürgen Wagner, Stifel**

Good afternoon. Thank you for letting me on. What is the split of your equipment on the backlog? I mean amongst the products you've just mentioned and to follow-up on your Micro LED comments earlier, how much Micro-LED orders are included in your order guidance for '22? Thank you.

**Felix Grawert**

For the backlog, I don't have the information at hand.

I think for the current year 2022, about half of our order intake we're expecting to be from optoelectronics side. And out of this, Micro LED could be around 1/3.

**Jürgen Wagner, Stifel**

Okay. Good. Thank you.

**Janardan Menon, Jefferies**

Hi. I just wanted to follow up actually on the Micro LED Topic. Is the momentum you described for 2022 from one customer who is going to start commercializing by the end of this year, or is the commercialization quite broad and you're seeing quite a few customers reaching the commercialization stage and starting commercializing from the end of this year?

**Felix Grawert**

That's a very good question. As mentioned before are we working together with multiple customers and the orders we have received in '21 and before, were also coming from multiple customers. We're aware of one customer who is starting with a very concrete plan. I think other customers are still in the preparation phase, and I would expect them to kick in throughout 2023. But my comment on the Micro LED customer, referred to a single customer that starts ramping.

**Janardan Menon, Jefferies**

And then just going back to your silicon carbide answer. Just to clarify, so are you saying that you are working closely with two large customers, who will place or are placing volume orders this year? But you've already got orders from two large customers so it's two plus two is four totally of the large incumbent players? Is that the correct way to understand this? And the two that you've already got orders, does that include your traditional big customer in North America?

**Felix Grawert**

I mentioned that we have received volume orders from two of the very big SiC device makers. And we expect further orders to be placed in line with the execution of their volume ramp plans. At the same time, we are closely working and have received orders and also expect to receive further orders with roughly 10 other customers. So we are getting into a broad adoption of our tool into the market. And it is continuing during 2022 and will be gaining further momentum in 2023. Overall it's a very good moment for us to gain market share.

**Janardan Menon, Jefferies**

OK, so of the two large customers, you already had one already. So you've added one more into a firm order category. Is that the correct way to think about it?

**Felix Grawert**

Absolutely.

**Janardan Menon, Jefferies**

Understood. Thank you

**Guido Pickert**

*Investor Relations & Corporate Communications*

Thank you very much. With this, I would like to conclude today's call. Thanks to all of you for attending.

Please note that our next earnings call for our first quarter 2022 results will be on May 5, 2022. Thank you. And bye-bye.