

AIXTRON SE

Analyst Earnings Conference Call

Q3 2018 Results
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Edited Transcript

Executive Board

Dr. Bernd Schulte, President

Dr. Felix Grawert, President

Finance & Administration

Charles Russell



Slide 1, 2 – Operator & Forward-Looking Statements

Operator

Good morning, ladies and gentlemen, and welcome to AIXTRON's Q3/2018 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. Let me start by welcoming you all to AIXTRON's Q3/2018 results conference call.

I'd like to welcome our Executive Board represented by Dr. Felix Grawert and Dr. Bernd Schulte, as well as our VP of Finance and Administration Charles Russell.

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

As with previous results conference calls, I trust that all participants have our results presentation slides, page 2 of which contains the usual SafeHarbor statement. I will therefore not read it out loud, but would like to point out that it applies throughout this conference call.

You may also wish to have a look at our latest IR presentation, which includes additional information on AIXTRON's markets and its technologies, and is available on our website.

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 Dr. Bernd Schulte for opening remarks.



Slides 3-4 - Q3 2018 Highlights, Market Update

Dr. Bernd Schulte

Executive Board

Many thanks Guido, and a warm welcome from my side as well.

As usual, I will start giving you some insights into our core markets as well as an overview of the key developments in Q3 before handing over to Charles Russell who will go through the financials. This will then be followed by Felix Grawert who will give you more insight about our Joint Venture with Iruja and updates to the Power Market. I will then come back to you to wrap up.

We had a solid third quarter with continued strong order intake and as a result we can again upgrade our 2018 full year guidance. Last quarter, we increased our original order guidance range from between 230 and 260 million Euros to between 260 and 290 million Euros; we now see orders to be at the upper end of that guidance at around 290 million Euros. The revenue guidance remains unchanged at around 260 million Euros.

Last call we gave you a guidance for EBIT margin of around 10% of revenues, which compares to approximately 26 million Euros. We also expected to achieve a positive *operating* cash flow.

This call we see EBIT higher in a range of 35 to 40 million Euros and consequently now with a positive *total* cash flow.

With the signing of the Joint Venture Agreement between IRUJA and AIXTRON, which Felix will explain in more detail, we have now completed the adaptation of our Group structure, which we had initiated in 2017. We have focused our core business into attractive and future oriented growth markets and with that reduced our R&D spending. Now we have shown that we were able to return to sustainable profitability.

Before I make more specific comments on our Q3 financials, let me first talk about what is going on in our core Optoelectronics markets, while Felix will later comment on Power Electronics.

Our strongest market this year is for our optoelectronics solutions business and in particular for production equipment for the manufacture of so called Surface emitting or Edge emitting lasers. These are key components of 3D sensor systems or datacom and



telecom. We see this as a multiyear growth trend with multiple fast-growing end markets from smart phones to robotics or to automobiles. However, 3D sensors are in early stages of commercialization and it is not clear which sensing concept will win out or not. That said – in the majority of the currently discussed technical concepts, the key components need to be manufactured with deposition equipment and we are very well positioned with our best in class solutions.

Our next biggest market this year is LEDs and in particular specialty LEDs such redorange-yellow or ROY LEDs for use in displays. We have seen strong interest from our customers for these solutions, but orders are rather lumpy with the Chinese LED manufactures tending to order in larger quantities at once.

Let's now return to Q3. The good news is that we are seeing strong interest for our full range of products and in particular solutions for the production of ROY-LEDs, power electronics and lasers. This is reflected in a solid order intake in Q3 at 76 million Euros, which leaves us with an order backlog of 152 million Euros, which is 53% higher than the same period last year and gives us good visibility going forward.

Q3 revenues were also solid at 63 million Euros, up 2% on the same quarter last year and 15% percent up on the previous quarter. We also had a very strong quarter in terms of profitability driven by a high gross margin of 44% and good control of operating expenses, which resulted in an EBIT of 9 million Euros and net income of 12 million Euros.

This is a good point to hand now you over to Charles for a more detailed overview of the Q3/2018 numbers.



Slides 5-8 – Key Financials Q3/2018, P&L, Cash Flow, Balance Sheet

Charles Russell

Finance and Administration

Thanks, Bernd, and hello to everyone.

Starting on Slide 5, we had a good third quarter with an order intake of 76 million Euros, which was similar to the previous quarter and 10% ahead of the 69 million Euros we had in the same quarter last year. On a 9-month basis, order intake was 230 million Euros, which was 16% ahead of the same period last year.

We ended the third quarter 2018 with an equipment backlog of 152 million Euros, 10% ahead of Q2, and the highest backlog in 7 years. This gives us a good visibility for the remainder of the year and into 2019.

On a like for like basis excluding the sold activities, revenues in the first nine months of the year were 30% ahead of the same period in 2017. The improved product and regional mix produced a gross margin of 43%, which was well ahead of last year's 30%.

EBIT was 21 million Euros and net income 28 million Euros for the first nine months. Net income was higher than EBIT because of deferred tax assets we have recognized in 2018.

Moving onto the next slide. Let me go into more depth on the income statement.

Total revenues recorded during the first nine months of 2018 were 181 million Euros, up from 176 million Euros in the previous year. On a quarterly basis, Q3 revenues were 63 million Euros compared with 62 million Euros in Q3 last year and 55 million Euros in Q2.

Gross margin was 44% in the quarter, 43% in the 9 month period. A favorable product and regional mix together with a strengthening dollar helped sustain this high level of profitability. Gross margins in the same period last year, when inventories were being cleared and the product mix was not so good, were 30%.

Operating expenses of 58 million Euros for the first nine months of 2018 were 21% lower than the same period last year. A comparison with last year's OPEX is not on a like for like basis as 2017 includes write-downs and the expenses of the activities we sold last November.



In a quarterly comparison, operating costs were stable at 19 million Euros compared with 20 million Euros in Q2 and 19 million Euros in Q1.

Selling expenses of 2 million Euros and G&A expenses of 5 million Euros in Q3 were in line with the previous two quarters.

R&D costs in Q3 of 13 million Euros was similar to the previous two quarters.

Overall, EBIT for the first nine months was 21 million Euros and net income 28 million Euros, both substantial improvements over the same period in 2017. Net income in Q3 was 12 million Euros after recognizing a further 4 million Euros of deferred tax assets.

Moving to Slide 7, which shows our cash flow statement. Operating cash flow was 5 million Euros for the first nine months and 14 million Euros in Q3.

The operating cash inflow in the quarter by and large reflected the profitability. Net changes in working capital were largely funded by increased customer deposits. Cash at the end of September was 245 million Euros, compared 246 million Euros at the end of 2017.

Turning to the balance sheet on the next slide, the main changes are an increase in inventories and the associated customer deposits, reflecting the strong order backlog for delivery over the next months, and a reduction in receivables to 45 DSO.

With that let me hand you over to Felix.



Slides 9-11 – Update Power Electronics and OLED JV

Dr. Felix Grawert,

Executive Board

Thank you Charles.

Let me briefly discuss the current prospects in the market for Power Electronics and give you some more flavor on the OLED Joint Venture announced last week.

We are currently seeing growing interest for our MOCVD equipment for Power Electronics and this quarter we received a noticeable amount of orders for this application. For the first time, we have more orders on production capacity expansion rather than just for development and for product qualifications. In particular, for Radio Frequency (RF) data transmission we see the market in a phase of production expansion with more room for growth driven by the bandwidth needs of next generation mobile networks (4.5G and 5G) which is addressed by GaN-on-SiC and GaN-on-Si solutions. Also, in the market for GaN-on-Si Power Switches we see several customers moving from qualification to production phase. In both these markets, our equipment serves the customer need for high productivity in combination with high uniformity.

In the market for SiC epi wafer production we have observed major capacity expansions in 2018 and orders reaching into 2019, the majority of which currently still being placed at our competitor. Our project for a fully automated Planetary Reactor for SiC is moving ahead on schedule and as planned, and we receive very positive customer feedback on the target specification. This gives us good confidence that we will be able to gain market share as soon as this tool is qualified at customers.

Last week we announced the Joint Venture Agreement with the South Korean OLED display supplier IRUJA Co. Ltd. Under the agreement, IRUJA will contribute Automation & Handling technology as well as some cash to our OLED business APEVA, with the goal of obtaining up to 20% of that business over the next few years. A large part of the Automation & Handling team of IRUJA as well as their current CTO is transitioning to APEVA Korea. Along, they bring IRUJA's well proven Automation & Handling technology in form of software, CAD designs and — most valuable — experience. Handling of glass substrates with highest reliability, minimum downtime and minimum glass breakage is a critical task in the display industry: imagine that in a Gen8 system a sheet of glass is more



than 5 square meters in size, but less than 1 mm thick and it is moving through the OLED production line of hundreds of meters in length. Our partner IRUJA is a market leader in sputtering technology for OLED and well known for its highest reliability solutions, having proven the capability to handle such requirements.

By closing the JV, APEVA will become a complete deposition system provider for the organic material layers within the OLED stack. Its product offering will span the complete set of key modules from innovative organic evaporation sources, deposition process technology as well as substrate handling systems and the required vacuum technology. With part of the IRUJA Automation & Handling team moving to APEVA, we start building our Korean organization which is essential for localizing production and sourcing in Korea and also for getting an in-depth understanding of customer requirements going forward.

Furthermore, IRUJA will be the manufacturing partner for a significant portion of APEVA's OLED deposition system. We are very glad to have found a real partner for manufacturing, who will be much more eager to meet deadlines and quality targets that just a local *contract* manufacturer that we would have had to work with otherwise.

Our partner IRUJA is well connected in the Korean display value chain. We see the signing of the JV also as a proof of trust by IRUJA that they also see the high potential of APEVAs OLED technology. Overall, we are very excited about this JV as we believe it will make APEVA a complete deposition solution provider for the organic material layers.

Currently we are installing our Gen2 OLED production solution for testing at a major Asian display manufacturer. We are very hopeful to sign a production an order next year for a prototype system scaled up to full production size, as a next step in our journey toward mass production.

Let me hand back to Bernd for a summary and closing remarks.



Slide 12 - Summary

Dr. Bernd Schulte

Executive Board

Thank you, Felix.

Let me summarize the major points discussed today before we move to your questions.

Firstly, we are seeing strong interest in our diversified range of products from a growing set of customers which gives us confidence in the quarters and years ahead.

Secondly, we are firmly focused on best-in-market solutions to produce compound semiconductors for which we see a multi-year growth trend.

Thirdly, we are in a strong financial position with our strongest order backlog since 2011 with healthy margins being generated. We see orders at around 290 million Euros and revenues at around 260 million Euros which both are at the upper end of the guided ranges. We also expect gross margins to be around 40%, with EBIT between 35 and 40 million Euros. Furthermore, we now expect to generate a positive *total* cash flow. With that I'll pass you back to Guido before we take some questions.

Guido Pickert

Investor Relations & Corporate Communications

Thank you, Bernd, Felix and Charles.

Operator, we'll now take the questions.



<u>Uwe Schupp – Deutsche Bank</u>

Two questions, please. First, Felix, on OLED and just a few more maybe clarification details, rather. First of all, can you give us an indication about the absolute amount of the cash contribution? Secondly, how do you account for the cash at APEVA or AIXTRON? So is this dedicated in the APEVA subsidiary or where will you show it?

And then, how confident are you to receive the first production system -- or preproduction system order next year? And then maybe lastly on OLED, do you expect the pull more from the smartphone side or from the TV side? Because, historically, my understanding is the Asian display customer has been shifting a bit back and forth between the two applications.

Then secondly, Bernd, at the Q2 call, you highlighted that we should be prepared for weaker gross margins in the second half. You said product mix back then. Given higher LED share, I guess that's probably what you meant. Today, you reported obviously very strong gross margin after 9 months. I think you had 43%. So I guess the simple question would be, if we should model a substantially weaker Q4 gross margin based on product mix? Or are you simply very cautious here again?

A - Felix Grawert

Let me take your questions on the OLED first. We have decided not to reveal the exact amount invested. However, the investment is expected to cover the cash need of APEVA until the breakeven point, according to the current business plan. So the amount is getting invested directly into APEVA, together with a smaller investment from the AIXTRON side.

This is another big step to make APEVA now fully independent by giving APEVA the cash injection that is needed until the business comes floating. Of course, everything is subject to orders from the customers actually coming as desired.

Getting to your third question, how confident we are that we will get an order in 2019 for the next larger scaled-up system. As we mentioned, we are executing our development program, which comes in multiple steps: Currently, we are installing our Gen2 system in the fab of our customer. The customer will then test this system, and the system has to live up to the value proposition that we are expecting. If the value proposition is verified based on the Gen2 system, we can expect to get an order. If it fails to fly, we will not get the order. That is the risk, which is still pending over our OLED activities.

To your question about the target market, smartphone or television. This depends largely on the decision of our customer. A television system would be a larger size than a smartphone system. I would not want to anticipate here the decision of the customer before it is being made, because we understand that at our customer, a number of things



really depend on the verification of the technology and on their internal roadmap discussion. We will follow our customer's wish here. And with this, I will hand over to Bernd.

A - Bernd Schulte

Certainly, you remember well that we said that the product mix in the second half, in terms of gross margin, will be less than in the first half. And now you see, it is not exactly the case. That has to do, in Q3, in particular, with the significantly stronger dollar. We're also seeing here certain benefits from cost reduction measures in terms of design-to-cost activities, which were difficult to anticipate when exactly we will get them into execution.

Regarding Q4; Q4 will be at a lower gross margin than Q3. When you look at our EBIT guidance and the range we've given, we're also anticipating a continued stronger dollar than 1.20 USD /EUR, which is our budget anticipation for the year. This range is covering the potential difference in dollars. We will see some reduction in gross margin in Q4 compared to the other quarters, but not dramatically.

<u>Uwe Schupp – Deutsche Bank</u>

I was going to say that the dollar continues to be a tailwind, presumably given the 1.20 budget rate, and we have spot rates at 1.14 and 1.15. Plus, I guess, the design to cost measures are probably to stay, right? Or is there any reason to assume why they should be evaporating, rather sooner than later?

A - Bernd Schulte

No. They will stay.

<u>Charlotte Friedrichs – Berenberg</u>

I have a few questions. First one is on the order intake, can you give us a bit of an idea of what the split was in 9 months or Q3? And looking at your guidance for the full year, that implies a slowdown in Q4. Is there a particular reason or driver for this?

Then second question would be around Opto. Have you seen any news here on your client's ramp-up plans, if there is new announcement, any postponement, et cetera?

And then finally, the third question's around the cost structure. Are you currently at what you would call a run rate? And if you can maybe give us a bit of color on your R&D spending going forward, especially also now that you have made progress with the JV?

A - Bernd Schulte

Coming to the order intake split in Q3, I think we mentioned that during our speech, we had a pretty even split between our main applications, which are systems for lasers, systems for LEDs of which the majority is for red-orange-yellow (ROY) LEDs, and power



electronics. And this is noticeable because it shows an increase in orders for the power electronics side.

For your questions regarding optoelectronics, whether we see a significant change in the markets in the sense of customers trying to postpone shipments. Just to be very clear, no, we do not see that. And about new customers, I think I mentioned already in the last call, we're seeing new entries of customers, in particular from Asia, and they are in particular, from China. And Charles, you may mention about the run rate of the expenses

A - Charles Russell

On the question about the run rate of the expenses, we are at a more or less stable level for a run rate. Although I would expect that the R&D spend in Q4 would be slightly less, because some of the expenses associated with some of the lumpy projects will be less in Q4. And going forward into 2019, as Felix said, we will be building up the organization of APEVA in Korea a little bit. So if we get an order for a larger system in Korea in 2019, the overall effect on the result will be less from APEVA. I don't see a huge reduction in expenses.

<u> Janardan Menon - Liberum</u>

I was wondering about your outlook. I know you're not going to comment on 2019, but your sales are spiking quite a bit in Q4. You're going from around €65 million to about €80 million of sales from Q3 to Q4. Based on your backlog, which gives you quite a bit of visibility into the early part of next year, would you expect that run rate to sort of drop back in Q1 to the 65-ish kind of level? Or do you think it will continue at a slightly higher level, closer to Q4 level, based on your current visibility? And I have a couple of followups.

A - Bernd Schulte

You're quite right. The sales will increase in Q4. And in terms of run rate going forward, we gave you a guidance for the full year order intake, which gives you suggestions from around €230 million to around €290 million. Honestly, for the run rate, Q1 is a little bit early in terms of order intake to speak. And so please bear with us a bit until we can speak about it.

Janardan Menon - Liberum

And on the silicon carbide (SiC), the new higher productive platform, I presume your current order intake does not include any order for that system yet, since it is still in qualification. I was just wondering, once that system gets qualified and given the kind of demand profile that silicon carbide (SiC) has in the market for the next many years, what kind of order levels do you think are reasonable? What about €10 million a quarter on



that range being reasonable, and which would come on top of your underlying orders of your existing businesses? Or would that be too optimistic?

A - Felix Grawert

Well, the potential revenue really depends on the market share, jumping to your second question right away. It depends on what we will achieve with the system. So you're right, there is no order from the system yet. It needs to be qualified first.

As for the sales volume potential, I think it can outgrow the €10 million you mentioned very much over time, if we can realize a large market share. However, that still needs to be proven as we are in an attacker position. As we mentioned, the majority of the market today is with a competitor. Of course, we are very ambitious here. But how much share we will actually get needs to be seen. Be assured, we are aggressive.

<u> Janardan Menon - Liberum</u>

My last question is on the LED side of your business, where the revenue run rate seems to have fallen quite a bit in 2018 compared to 2017, where you were sort of averaging €15 million to €20 million a quarter across the 4 quarters. I was just wondering, and I understand that it is lumpy, and that some of it is coming from big Chinese orders, et cetera. But is there any specific reason why we will be sustainably at a lower run rate on that business? Or can we go back to the kind of run rate that we saw in 2017 on the specialty LED side?

A - Bernd Schulte

As mentioned, the LED business, the order intake and with that also the revenues have a certain cyclicality. And don't forget, in 2017, we have the sell-off of the R6 inventory, which were also reported under the LED product segment. So this year, we received more orders, which are now getting shipped from the second half. It will generate revenue in the second half of this year and even go into the first half of next year. So it is pure timing reflecting the ramp-up cycle of customers.

Andrew Gardiner – Barclays

Another one on OpEx. By the first sort of the financial guidance more broadly for the fourth quarter as implied by the 2018 profit guidance. I can see, based on what you've been describing, revenue and gross margin-wise, how you get to the lower end of that €35 million to €40 million range. But if gross margins even remains sort of flattish or only slightly down based on what you've described and you hit the revenue guidance, to get towards the higher end of that range, to the €40 million for the year, it implies a more material drop in OpEx. So I suppose, Charles, to your point, just how lumpy were things in the third quarter that could lead to a bit more the downtick in fourth quarter? Or put another way, what is it that can get you towards the high end of that €40 million range?



A - Charles Russell

The guidance is gross margin around 40%. I would think personally somewhere between 40% and where we are now. The OpEx, I think it will be down a little bit by maybe a couple of million or so. But what would get us to the higher end of that, or towards the higher end of that, is what happens to the exchange rate. Because we typically ship quite a lot in November and December, and it depends on what's happening with exchange rate, towards that time. These are things that could get us towards the higher end. But the guidance is €35 million to €40 million, not €40 million.

Andrew Gardiner - Barclays

That's understood. And then, just as I think into 2019. If I recall what you said at Q2, that P&L cost for APEVA was around €25 million this year, and you thought at the time, it would decline into 2019. I take it from, obviously the progress you've made designing in the JV, and what you described in infrastructure, that is no longer the case. And in actual fact, will, is it going to be sort of flattish at that €25 million level? Or are there more moving parts around that?

A - Felix Grawert

No. It is clearly planned that OpEx for APEVA will decline, as previously discussed. What exactly that number will be, will also depend largely on the size and the timing of the potential customer order. So no details on that yet, but I would stay with the message that it will be reduced.

<u>Juergen Wagner – Main First</u>

You mentioned the new silicon carbide (SiC) platform. When will you see qualification next year?

And second question, you mentioned new customers for VCSEL or edge-emitting lasers, so laser equipment for China, how do you expect the installed base for your equipment to develop going forward, especially into 2019?

A - Felix Grawert

Let me take your question on silicon carbide (SiC) first. The qualification is beginning very soon. The first tool is being installed at a customer within weeks from now. And the qualification will run and expand throughout the first half of 2019. We will then see how fast it is finished. Be it late spring or late summer, we will see: for sure, the qualification is planned to be concluded and finished at the customer premise during 2019.

<u>Juergen Wagner – Main First</u>

And maybe follow-up to this. So that will be early enough to generate some revenues next year for your new platform?



A - Felix Grawert

Yes.

A - Bernd Schulte

To your question about the development of the Laser markets, in general, we have seen, over the last 18 months, the market has developed in three phases.

First phase, were the tier-1 players, which are dominantly supplying the current end customer for smartphones. These customers have ramped their capacity about 12 to 18 months ago, given the orders they had. They all have invested in significant increases of factories, which are now getting into the phase of being finished. It is to be seen when they continue their investments into the next level.

Second phase has been fast followers from Asia, mainly Taiwan.

And what we have seen recently, the third phase, these are new entrants from China. Those companies, we haven't known much before, want to develop a certain entry in this market, in particular, to get a certain share in the local Chinese markets for 3D sensing application.

When we look in the future, I see the question is when are tier-1 players, who have started to invest 18 months ago, when are they going into the next phase of their production ramp? And that is depending on many factors. When will which end products get equipped with 3D sensing solutions? For that, we also don't know more than you, in terms of what smartphone makers will launch which product. In principle, I think, it is just a matter of timing. It is not a matter of general discussions. Because all the customers, that I mentioned, they have made significant investments in new factories.

<u>Malte Schaumann – Warburg Research</u>

A question on the silicon carbide (SiC) business. How many customers are you in talks regarding the potential qualification tool? And then secondly, is the timing, the availability from your tool sufficient to meet the customers' demand to ramp capacity in power electronics?

A - Felix Grawert

We are currently talking to most of the market participants relating the specifications of the tool. And we get very positive feedback, as mentioned, very broad across the market, across all continents. We have multiple, customers with qualification tools. And to your question whether we would able to meet a sudden demand spike, if the customer interest really comes? Today we have no indication why we could not serve such a demand.



Malte Schaumann - Warburg Research

Let me add something related to last question. And do you see, from a time perspective, from the market demand, customers can wait for your tool, and are not forced to make investments that might come too early for you?

A - Felix Grawert

We are seeing the market being in a continuing and growing investment cycle. That is ongoing. Some large investments have been made in 2018, even larger investments will be made in 2019. And we see continuous investments even further growing in 2020. So we do not see this as a one-time wave for us being too late to catch. Instead, it is a very broad market, with market participants from Europe, from North America, entering now from China, but also, as you all know from Japan, with the big automotive industry there. This broad market is experiencing a continuous, gradually growing expansion.

Veysel Taze - ODDO BHF

The first one would be on the VCSEL business. You mentioned the different technologies in the market, and it is not clear which technology will become the mainstream technology. Does it matter for you if it is time-of-flight (TOF) or structured-light or other solutions from an equipment supplier perspective?

A - Bernd Schulte

I want to make a point here. It does not matter too much for us, because you need a laser device as a light source for most solutions. And with that, you would need MOCVD tools for the deposition of these laser devices.

Veysel Taze – ODDO BHF

But the quality requirement between the different technologies what we have is the one which is favoring rather you versus your competitors, or doesn't really matter that much?

A - Bernd Schulte

I don't think that's a big difference. You need, in all cases, very high performance in terms of yields and light output power. So we think, in general, the specifications are quite similar.

<u>Veysel Taze – ODDO BHF</u>

And on the power business, I mean, you commented a lot about silicon carbide (SiC). But looking at the gallium nitride (GaN) part of the business, it looks like you are surprised by the strong order entry in Q3 or you were not maybe anticipating that. Do you think this is a bit older application, picking up in the area of communication, data and telco network equipment? Do you think this recovery or this strong momentum in Q3 will accelerate or continue in 2019, particularly in first half?



A - Felix Grawert

What we believe and what we see in discussions with our customers, the market for gallium nitride (GaN) being at a tipping point. We do see that the market for GaN radio frequency (GaN RF) for data transmission is in a continuous expansion phase. That expanding phase, continues, similar to what we mentioned on silicon carbide (SiC), while it is at a slightly smaller base.

And what is new, what I mentioned in my speech, we do see now that the market also for gallium nitride (GaN) power supply is developing positively. Our customers have been buying systems for R&D, for qualification: a system here, a system there. But essentially the users were from the R&D team at our customers. And now, we see, step-by-step, orders coming from the production teams. We know that on our tools, volume production is now running and we expect this to grow from a small base with real production volume. We interpret the current order momentum as a change of where the market stands.

<u>Veysel Taze – ODDO BHF</u>

And then final one, on your cash position. I mean, if I strip out what you need for your operating business, the spare cash is something around €180 million. Any plans with the cash position? I mean, smaller acquisition maybe, where you think you have in your technology some black dots which you need to fill? Or giving some cash back to the investors, as you are now turning the business around with decent profitability and free cash flow visibility?

A - Bernd Schulte

Please keep in mind, as I mentioned in the speech, we are now at the point where we have completed the adoption of the new group structure. We are coming out of a phase where we lost significant money and we again turned this into a profitable business by focusing on the different products which are our key technologies.

With completing this, we now have to think about how we move forward. This is a process we are now beginning. And so far, we cannot give comments on details what we are going to do with our cash. But also keep in mind, we are in the business as an equipment manufacturer, we always have significant cash demand. And our business model is always in a complexity that you do not want to go back to your local bank to borrow money. So this is very important for us to have a solid and strong cash position.

<u>Uwe Schupp – Deutsche Bank</u>

Just a follow-up on the 5G question from Veysel, just a minute ago. Have you ever tried to size the market for 5G? As of now, will it be a VCSEL size of a market? Or will it be, for whatever reason, much smaller or much bigger? And then, you probably can't mention



customer names. But I mean, who would be the IQE comparable of that particular market. Maybe regionally, you can nail it down somewhat. That would be very helpful.

A - Felix Grawert

On the 5G market, we do have an opinion on the sizing of the market. The market falls essentially into two sub-markets. The one being in the baseband equipment, such as what being installed on the telecom tower. The other market would go into the higher frequencies of the 5G band, 20 gigahertz to 60 gigahertz, which is in the cell phone and that would double the market size.

The future will show, driven by the decisions of the telecom operators and of the mobile phone makers, when, which part of the market will be coming and to what degree. So I would not want to give you a sizing of the market, but we clearly see that many discussions around Internet of Things, autonomous driving and so on are intensifying. Nevertheless, those parts are not a topic for 2019, but further down the road. If these things materialize, the higher frequency band will be used. If this frequency band is used, that market will need the gallium nitride (GaN) power amplifier in the phone. We see this as a long-term trend.

<u>Uwe Schupp – Deutsche Bank</u>

Could you indicate a few customer names, or maybe you can nail it on regionally, where we are seeing that demand coming from right now?

A - Felix Grawert

As you know we have a very high market share in the gallium nitride (GaN) power. So I think you know who the players in the market are – many of these are our customers.

Guido Pickert

So thank you all. This concludes today's Q3 results conference call. Our next results will be announced on February, 26, 2019, for the full year 2018 results. In the meantime, I hope to see some of you on either the upcoming investment conferences or meetings in Europe or the U.S. Until then, see you later. Have a good day. Thank you.