AIXTRON SE

Analyst Earnings Conference Call

Full Year 2017 Results
February 2018

Prepared Remarks including Q&As

Executive Board

Dr. Felix Grawert, President

Dr. Bernd Schulte, President

Finance & Administration

Charles Russell

The spoken word applies

Slide 1, 2 – Operator & Forward-Looking Statements

Operator

Good morning, ladies and gentlemen, and welcome to AIXTRON's Full Year 2017 and Q4/2017 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 Q4/2017 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.

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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 Master 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.

Slide 3 – 2017 Important Events

Dr. Bernd Schulte

Executive Board

Thanks Guido, and let me welcome you all to the presentation of AIXTRON's Q4 and Full Year 2017 results.

I will start with an overview of the major developments in 2017 before handing over to Charles Russell, our VP Finance and Administration, who will guide you through the financials. This will be followed by Felix Grawert who will talk about the current market environment. Finally, I will close our presentation with our views on our business prospects in 2018. After that we are happy to get your questions.

2017 has been an important year of change for AIXTRON. We did manage to refocus the business on long term profitable opportunities for growth and we could also manage to bring AIXTRON back to profitability. This was on one hand due to the positive effects from the sale of our memory business late last year. On the other hand it results from the solid work the AIXTRON team has done to return our operative business to sustainable profitability.

Let me quickly summarize the measures we have taken to achieve a more focused technology and product portfolio:

- We have sold our ALD/CVD product line for memory applications to Eugene Technology. There we competed with much larger manufacturers from the silicon industry with increasingly limited opportunities to grow our market share. Hence, the chance for us to bring this product line to sustainable profitability has been increasingly limited, too.
- We have frozen our development activities in the area of MOCVD for compound semiconductors in logic processors on 300mm wafers. After discussions with our key customer the originally expected market opportunities for this innovative technology were not predictable in the near to medium term. Therefore, no further development efforts are being invested in this field for the time being.
- In the area of OLED, we have discontinued our development activities for thin-film encapsulation of OLED devices. The OLED activities are now focused on the OVPD technology for depositing different layers of the OLED stack which have been transferred to the AIXTRON subsidiary APEVA.

After these steps we are focusing on our core technology MOCVD for opto- and power electronics applications, Plasma Enhanced CVD for Nanostructures and Organic Vapor Phase Deposition for OLEDs. Felix will give you details on the current market opportunities for our MOCVD business.

In addition to our MOCVD product line, we are currently developing a second product line for thin-film deposition of organic materials, primarily for **OLED displays**. Our OLED activities have been transferred to our daughter company APEVA and the discussions with a potential Joint Venture Partner are ongoing. A Gen1 OVPD-system is in operation at an Asian display manufacturer's R&D line. A Gen2 system will soon be installed at the customer's facility in order to qualify the technology for mass production. If successful in qualification and adopted by our customers, the OVPD technology offers a very high revenue and profit potential in the years to come. However, if the qualification is not successful, then this potential might not materialize at all and we would need to adjust our R&D spending accordingly.

As a result and based on our strong position in these markets as well as more efficient production processes, we managed to improve our gross margins last year. This was particularly the case in the second half of year when gross margins reached 39-40% which also reflects the increasing sale of better margin products based on the growing value of high performance solutions to our customers.

Finally, with total revenues of 230 million Euros in 2017, we reached the upper range of our target for the year while order intake also developed better than originally expected at 263 million Euros. We are also better than break even with an EBIT reaching 5 million Euros and a net income of EUR 6.5 million Euros.

At this point; let me now hand you over to Charles for a more detailed overview of the Q4 and the full year 2017 numbers.

Slide 4, 5, 6, 7– Key Financials Q4/2017, P&L, Cash Flow, Balance Sheet

Charles Russell

Finance and Administration

Thanks Bernd and hello to everyone.

Turning to slide 4.

2017 was a good year for AIXTRON with revenues and orders at the best level since 2011. Orders received were 263 million Euros and revenues 230 million Euros - each a 17% increase on 2016.

The strong orders reflect improved conditions particularly in our two core markets - MOCVD for LED and for opto-electronics. In addition, order intake in Q4 of 66 million Euros means that we begin the year with a backlog, based on a budget rate of 1.20 US Dollars, of 102 million Euros which gives us a good start for 2018.

Gross margin was much improved in 2017 at 32%, compared with 29% in 2016. This was mainly due to a better product mix, particularly in the second half. The first half suffered from low margin sales of R6 tools and was also affected by the write downs from freezing the three-five on silicon and TFE activities.

Overall, as expected, both EBIT and Net Profit were positive – a black zero - as a consequence of the sale of ALD/CVD product line and the other structural actions which we took during the year.

We haven't separated out the one-off effects in the slides, but you can find them in Notes 5 and 15 to the Financial Statements.

Total Cash flow in 2017 was 86 million Euros mainly as a result of the sale of ALD/CVD product line and collections from the high level of receivables at the end of 2016.

Moving to the next slide, let me go into more depth on the Income Statement.

As a general picture, the activities which we sold or froze during 2017 had revenues of 39 million Euros and, even taking into account the profit on disposal of ALD/CVD, still made a small EBIT loss. The remaining activities made a small EBIT profit in spite of the low margin R6 sales in the first half.

Gross margin in Q4 was 39%. This is free of effects of the lower margin sales from the old or sold product lines and is therefore indicative of what we should expect in the coming periods. For the year, the gross margin improved to 32%, as previously mentioned.

Selling expenses for 2017 were 10 million Euros compared with 14 million Euros in the previous year. 2016 costs included the closure of a demonstration facility in China.

G & A expenses were 17 million Euros, the same as 2016. The quarterly expense is unusually low because, on completion of the ALD/CVD transaction in Q4, transaction expenses have to be re-assigned and included within Net Other Operating Income.

R & D costs increased by 28% year-on-year from 54 million Euros in 2016 to 69 million Euros in 2017. This includes the write downs in TFOS and TFE which took place in the first half, and also increased spending on R&D, particularly in the OLED area. Our OLED Gen2 development expense should be relatively high over the coming months, during the period of evaluation.

Other operating income includes the 24 million Euros profit on the sale of the ALD/CVD product line, EBIT for 2017 was 5 million Euros compared with minus 21 million Euros in 2016.

We recorded a tax credit in 2017 from deferred tax in the US. We still have a substantial amount of unrecognized tax losses both in the US and Germany and, if things go to plan, we anticipate further recognition of these assets in 2018. The net result for 2017 was 6 million Euros.

Moving to slide 6, which shows our cash flow.

Our cash improved from 160 million Euros last year to 246 million Euros at the end of 2017. The most significant factors in this are 61 million Euros we received from the sale of ALD/CVD and 39 million Euros from collections from receivables. 12 million Euros of the cash we received as a result of the sale of ALD/CVD we have to pay out to third parties in 2018, and that will reduce this year's cash flow.

CAPEX for 2017 totaled 10 million EUR compared with 5 million Euros in 2016.

Turning to the next slide – our Balance Sheet

AIXTRON's balance sheet is in good shape at the end of 2017 with improvements in metrics for cash, receivables, inventories and customer advance payments.

The ALD/CVD liabilities are included in Others. The equity ratio was 81% at the end of 2017.

With that let me hand you over to Felix.

Slide 8 – Technologies

Dr. Felix Grawert,

Executive Board

Hello to everyone. Let me take you through recent developments in the markets we address, turning to slide 8.

First to the laser based 3D sensor market. Lasers are increasingly used for 3D sensor applications in consumer electronics, industry and the automotive sector. We have seen the introduction of 3D sensing features in a high end smartphone and now demand expected from the Android camp as well. We serve customers from Europe, the U.S. and Asia and it is expected that the strong market conditions in this segment will last beyond 2018, as 3D sensing is proliferating across the portfolios of smartphone vendors requiring an ever growing number of laser units per year.

AIXTRON is well positioned in the segment of MOCVD tools for lasers because the application requires a high uniformity and precision in the deposited layers. The strength of our tools matches well with the customer requirements in this segment. In order to keep our strong market position, we make dedicated investments in further improving the capabilities of our tool and we expect a strong return on this invest.

For lasers, we currently experience strong and growing demand from customers that serve applications in telecommunications. Global data traffic is exponentially growing, driven by the increasing use of internet services, especially video-on-demand, cloud services and by the Internet of Things. This translates into demand for lasers as optical signal transmitters, photodiodes as receivers as well as optical amplifiers and switches. They are used on the one hand within data centers enabling fast interconnects between servers and on the other hand in the field across the optical datacom networks. The strengths of our technology mentioned before also applies to this segment.

Another market with strong orders in 2018 is the area of specialty LEDs. AIXTRON has a strong position in the area of red / orange / yellow LEDS, the area we call ROY LEDs, that are used for large area displays such as in airports or shopping malls, and gradually also in automotive backlighting.

This brings me to the display segment on slide 9. For displays of small to medium size, the AIXTRON group has two fundamentally different next generation technologies in

preparation: on the one hand our subsidiary company APEVA is working on OLED technology, on the other hand, customers use our tools to develop micro-LED technology.

The market for OLED displays has been mostly driven by the use in mobile phones in recent years. For the coming years, a further increase in the use of OLED displays in mobile, and increasingly by use in TV sets is expected. An additional driver could be the emergence of foldable displays. Market Researchers expect the OLED industry's revenue to more than triple in the timeframe from 2016 to 2021 to approximately 50 billion US Dollars.

As mentioned by Bernd earlier in this call, a Gen2 OLED system of APEVA will soon be installed at the customer's facility in order to qualify the technology for mass production.

In parallel, we see several customers use our AIXTRON MOCVD tools for the development of micro-LED technology. Some makers of TV sets have made announcements of first products at CES. For micro-LED, it is expected that a very high uniformity across the wafer and precise layer control is needed, again a feature offered in the required precision by AIXTRON MOCVD tools.

While OLED technology is mature and in volume production already today, the micro-LED market is still in an early phase. We get different feedback from customers on the timing of volume ramp – some claim start of mass production as early as 2-3 years out, others expect up to 10 years until true volume.

I will only very briefly touch the area of power semiconductors as we discussed this in quite some detail in the last earnings call. We see gradual pickup in the demand for tools in the areas of GaN based power semiconductors, as first customers ramp production after a successful R&D and qualification phase at their customers.

The market for SiC based power semiconductors is moving towards volume ramp-up with SiC MOSFETs being used in a number of first high volume applications, such as EV charging stations and first EV models. AIXTRON comes from a rather low market share as mentioned in the last call, but we get positive customer feedback on the new SiC tool we are currently developing.

In addition to the MOCVD and OVPD product lines, we are developing technologies for the production of graphene, carbon nanotubes and carbon nanowires as part of innovation projects. These materials promise interesting future potential in a variety of applications, be it in battery or in display applications.

In summary, we see multiple and tangible growth opportunities in the markets we are addressing. Reason for that is that our equipment enables the development and

manufacture of key components for optical data communication for cloud computing or the internet of things, next generation fast mobile networks such as 5G data communication, next generation OLED or microLED displays, highly efficient energy conversion and electro-mobility, as well as for 3D-sensing in smartphones, cars and other areas.

Due to our proven ability to develop and market innovative enabling deposition equipment, we continue to believe in the positive outlook for AIXTRON and its targeted markets.

With that, let me hand you back to Bernd for our guidance and a wrap-up.

Slide 10 – 2018 Guidance and wrap-up

Dr. Bernd Schulte

Executive Board

Thank you Felix.

Before we open the Q&A session, let me give you an overview on what we expect for 2018 on slide 10.

Based on our current corporate structure, an estimate of the order situation and our budget rate of USD/EUR 1.20, we expect to achieve both, revenues and total orders in a range between 230 million and EUR 260 million Euros in 2018.

Please note that this represents a growth between 20% and 35% based on the 191.6 million Euros revenues of the continued business in 2017, excluding the revenues of the ALD/CVD product line which was sold.

On the profitability side and mainly due to the larger share of higher margin products as mentioned before, we expect to achieve a gross margin of between 35% and 40% and an EBIT of 5% to 10% of revenues in 2018.

Furthermore, we expect to achieve a positive operational cash flow in 2018. However, we expect the cash flow to be lower compared to 2017 due to the positive effects from the sale of the ALD/CVD product line in the amount of 51 million Euros which were included in the cash flow of the previous year.

In addition to that, cash flow in 2018 will be affected by liabilities towards third parties of the ALD/CVD business in the amount of EUR 12 million Euros which we received in 2017 and which will be paid out in full during 2018.

These expectations for 2018 are based on full consolidation of the results of the AIXTRON subsidiary APEVA with all necessary investments to further develop the OLED activities.

This 2018 growth will be fueled by the capacity requirements of our customers to satisfy demand from 3D sensing for mobile and increasingly automotive applications as well as for optical data communication.

Beyond 2018, we are looking at the growing usage of the wide-band gap materials SiC and GaN in power components particularly in electric vehicles as a major growth driver. These opportunities require investments in product developments now.

Finally, let me thank let me thank you the shareholders for your continuing support as well as the AIXTRON employees and supervisory board for their hard work over the last 12 months. Ladies and gentlemen, this concludes our 2017 annual results presentation and thank you for your attention.

We are now available to answer your questions.

Guido?

Thank you, Bernd, Felix and Charles.

Operator, we'll now take the questions.

Q- Lee Simpson - Stifel
Maybe just a couple of clarification questions for me. Just looking at that silicon carbide (SiC) development that you're doing, is there anything that you can give us as far as timeline and design advantages that AIXTRON would have into that space? And whether or not you can say that this is definitively for automotive end markets sort of it's got a wider appeal?

A- Felix Grawert
Yes, thank you for the question. So we expect the first R&D tool by the end of 2018. First volume shipment early or middle 2019. This tool will target the broad silicon carbide (SiC) market, both for industrial application and also for automotive application.

Q- Lee Simpson - Stifel
Okay, so you are straddling both autos and industrial.

A- Felix Grawert
Yes.

Q- Lee Simpson - Stifel
Maybe if I step back a little bit and look at the general landscape for III-V compounds. If you look across the semiconductor space, there is a crowding R&D starting to happen. We note Cree is doubling investments; ST are pushing into use of GaN in automotive; even MACOM look at power amplifiers for GaN on silicon. And I wondered, from your perspective, maybe 2 questions I've got here. What is it that keeps you ahead of others as we move into III-V compounds on silicon? And whether you think there is a process -- maybe a silver bullet process in the market that will be a sort of the winner takes it all. Who do you think or where do you think that sort of layering on silicon could actually be advantage to your customers?

A- Felix Grawert
Yes, 2 questions. What keeps us ahead and what is the silver bullet? Let me go to the first question of what keeps us ahead. Essentially, the compound power semiconductor market, for both gallium nitride (GaN) and silicon carbide (SiC) materials, has to be looked upon by sub segments. We cannot just look at the overall, as for example, gallium nitride (GaN) falls into 3, 4 different market segments.

We believe that we already today have very good tools in some of these markets. And for those markets where we are not ahead, we have an according development pipeline. So we look at summary, segment by segment and make sure we have a winning value proposition for each sub segment.

To your second question, whether there is the one silver bullet. I would say, no, there isn't. Because this market falls into so many sub segments that have to be addressed individually, and that have to be understood in that specific requirement. And this is our approach.

Q- Lee Simpson - Stifel
Great. So it's different bullet for different sub segments, basically?

A- Felix Grawert
Correct.

Q- Uwe Schupp - Deutsche Bank
Two questions please. First of all, a quite a few of your customers have announced, overall 3 to 6 months, quite substantial plans to expand capex. Particularly, for the 3D sensing topic for potentially both of the major consumer electronics companies, ultimately. Just wondering, how far this is reflected in your Q4 orders already? And how are you looking at the first half? I guess, the precise question would be, are you –to some extent building a grey order book? Is there potential to kind of delay orders as much as you can in order to stretch out the lead times somewhat?

And the second question would be just on guidance. If I take your guidance slide out of your results presentation, you showed us the overall backlog is already above EUR 100 million as per the beginning of this year. You have spares and service revenues of up to EUR 45 million for the year. In other words you could back out this safe revenue of EUR 150 million for the year, it implies that, assuming you get orders of – for the first 8 months that you can still invoice this year, which implies about EUR 50 million or so of order intake per quarter (inaudible)

A- Bernd Schulte

Mr. Schupp, I think we lost you, are you hearing us? I think we lost the signal. Let me answer the questions as long as I have understood them. I think one question was about the capex ramp in the 3D sensing space, and what is the pattern between Q4 and years to come. We see both. We have part of the orders in Q4 that's being for 3D sensing applications. But we also expect a certain capacity ramps to come in the first half of 2018. So it's in both.

And regarding our guidance, first of all, I think Mr. Schupp mentioned that we may be able to invoice orders we received in first eight months. We have to anticipate that order cycle times are increasing because of the heated semiconductor market demand in the supply chain. So in our guidance, we basically assumed that the orders we take in the first half, will be recognized as revenue in the full year. When you look at the guidance, we are assume a continued business size compared to what we experienced in the second half of year 2017.

Q- Guenther Hollfelder - Baader-Helvea

You mentioned R&D in the coming months or so. Can you provide a R&D budget, a rough guidance for 2018?

A- Charles Russell

It's Charles here. I think we've guided for the EBIT and we've guided for the gross margin. And so the OpEx logically is around 30% in between that, which is around EUR 75 million. We don't expect much change in the level of SG&A. Therefore, the difference from the similar level of SG&A last year to this year is the R&D spending. The reason of increase is that we've got a machine, which will be evaluated over a period of time, and we have to expense it over that period.

A- Bernd Schulte

And as I mentioned, we assumed for the entire year, the full cost of the OLEDs development from our daughter company, APEVA, to be fully consolidated in our number.

Q- Guenther Hollfelder - Baader-Helvea

In terms of the time horizon, for the OLED qualification, for mass production, when do you expect to have a decision?

A- Felix Grawert

We currently have a Gen2 OLED deposition system, which has been built up at a site in Asia. The system is up and running. We are currently doing some technical fine tuning and close collaboration with our customer. If that is successful, then the tool will be moved

into our customers' R&D fab for qualification. And this moving into the fab, we expect in Q2.

Q- Guenther Hollfelder - Baader-Helvea
And one question on silicon carbide (SiC). You mentioned the new tool. Can you talk about what will differentiate the tool? Is it a throughput issue that you want to differentiate by throughput and at the end of the day by cost? What is your strategy here?

A- Felix Grawert
Our tools today are already very strong in terms of uniformity, the layer, the thickness and precision. So those requirements of our customers, we already fulfil today. And what we are missing is the throughput topic. With the new development, this gap is being addressed. We expect that the new tool, in terms of throughput, moves us up in the leadership position in the competitive environment.

Q- Guenther Hollfelder - Baader-Helvea
And for sales, you expect during 2019 related to the new tool, or?

A- Felix Grawert
Correct.

Q- Guenther Hollfelder - Baader-Helvea
And last question on your optoelectronics business. You announced during the past two years, very nice orders related to 3D sensing VCSEL suppliers. On the other hand, your sales have been relatively stable, for example 2017 compared to 2015. Was some of 3D sensing related VCSEL business offset by the weakness we've seen over the past, 12 months in the Datacom/telecom area. And now you have pretty much a perfect scenario where datacom/telecom is coming back in at the same time you're also seeing 3D sensing?

A- Bernd Schulte
I wouldn't explain it like that. I think that 3D sensing is showing some significant volume; we only experienced since 2017. And while the Datacom/telecom business is relatively stable business we had over the years. You can say that on this stable demand, we had for the last 1 or 2 years in telecom, the 3D sensing comes on top.

Q- Veysel Taze- ODDO BHF
The first one will be around the EBIT guidance. You've already touched the topic, nevertheless, if I look at your gross margin guidance, it's really very strong. But then the EBIT margin implies at the midpoint roughly EUR 70 million OpEx -- EUR 73 million OpEx. That looks quite high if I look back at your previous communication where we were talking

about EUR 40 million to EUR 50 million. So I was wondering if there are new elements in the OpEx?

A- Charles Russell

In the R&D spending, in 2018, we will, as I said before, have to expense the Gen2 demonstrator, which we are in the process of getting qualified in the OLED area. That's what we will expense in full during 2018. That's the major change in the R&D compared to 2017's continuing R&D. There's also the additional spending on power electronics development.

A- Bernd Schulte

In addition, Mr. Taze, the numbers you mentioned are excluding the cost for the OLEDs R&D. As we mentioned, we are in continuous discussion with joint venture partners for our APEVA daughter company. As we do not know exactly how the result is going to be, we decided to guide with the full cost for the OLED product line. This was the cleanest way we thought to present.

Q- Veysel Taze- ODDO BHF

Well understood, I did not expense the Gen2 tool. So that's okay. On the OLED part, I mean there were recently a lot of rumors from Samsung; what is going to happen today at their OLED business. There are some push outs in their capex plan, I think particularly for Fab 5, which is what they have on the roadmap in their OLED space. How do you read this topic? What's your take on that?

A- Felix Grawert

Of course, we cannot comment on the decisions by any player in the industry. You just mentioned a big player here. But we overall see that there continues to be a very high demand and that's the signals we get, regardless of any short-term movement.

Q- Veysel Taze- ODDO BHF

Then on the VCSEL part of the business. From your previous call, what I understood is your market share is close to 100% or something. So your competitor Veeco -- I think introduced a new tool generation for the VCSEL market. How do you see their tool versus yours? Is it their part rather for datacom, et cetera; and you're stronger into the 3D sensing?

A- Bernd Schulte

Certainly, we believe that our tool today is the leading tool. And I'm not going to comment on the market share. We can say that we have the leading tool in both, in 3D sensing and telecom/datacom. And there's always competition, we always welcome competition and

always take it very serious. But today, all we can say is that we believe we have the tool of record in these markets.

Q- Veysel Taze- ODDO BHF
And the final one, I don't know if you're willing to share that one. But in your total tool shipments in 2017, how many tools were related to silicon carbide (SiC)?

A- Felix Grawert
A small number, 2, 3, 4 something in that magnitude. Don't have the exact numbers here. But we've mentioned before that in silicon carbide (SiC) we come from a low market share and we want to grow based on the new developments, which we discussed earlier.

Q- Jeff Bernstein - Cowen
I have two. One is just on the datacom market and the ramp over the next couple of years. I guess in prior years, the metro and long haul markets have taken on the order of 300,000 lasers or so, and now that we're talking about replacing essentially ethernet, NIC (network interface card) cards with fiber optics. We're talking about millions. Is that your understanding? And are we expecting a ramp in VCSEL production to meet that?

A- Bernd Schulte
Well, I must admit that I'm not the expert in the end devices. What we seen is that the mid-haul and short-haul networks are now increasingly using laser devices, particularly in these big cloud computing data centers. This is the driver of our customers to order more tools.

Q- Jeff Bernstein - Cowen
Could you just talk about large customers, top 10 customers, et cetera? Any new ones in 2017? How do you expect things to maybe change in 2018? What percentage was from the top 10 customers for the year?

A- Bernd Schulte
I believe the top 10 customers have not been changed over the recent years. And I do not expect them to change in 2018 and forward. In particular, the optoelectronic area, I think the battlefield is quite clear, and it's all the known suspects you can think of.

Q- Jeff Bernstein - Cowen
And how big as a percent were your top 10 customers in 2017?

A- Bernd Schulte
I would say, top 10, it's typically in the 60% to 70% range.

Q- Malte Schaumann - Warburg Research

First question is on OLEDs. More than one company is putting millions of dollars into inkjet printing and betting on that technology. So maybe you can elaborate on -- how you see inkjet in comparison to your OVPD technology? For both applications smartphones and large area TV displays?

A- Felix Grawert

We believe that the OLED market will also fall into different sub segments. The inkjet printing has a benefit when it's not about fine pixels but very, very large screens where high resolution is not needed; or layers to where no pixelation at all is needed. So there is likely to be a coexistence of different technologies in the marketplace. How exactly that game will play out, the future will show.

Q- Malte Schaumann - Warburg Research

So high-resolution smartphones would probably rather rely on vacuum deposition.

A- Felix Grawert

Exactly. For the high resolution-- the inkjet printing, we would not expect to achieve the required resolution in terms of pixel density. For very large TV screens, that can be a different topic.

Q- Malte Schaumann - Warburg Research

And then secondly, maybe you can comment on your working capital. How that might develop going forward? You came from pretty high working capital level, both in inventories and receivables at the end of 2016, both reduced substantially to a pretty low level in 2017 from a working capital to sales ratio of below 10%. So maybe you can give us some guidance, what should we expect, and then model in 2018, 2019?

A- Charles Russell

I think the falling receivables in particular between 2016 and 2017 was because a lot of the sales in Q4/2016 were bunched in December. Around one-third of the year's sales were made in one month of December. So that was unusual. And don't forget, during the year, we've sold the ALD/CVD activity, which is another reason why inventories and receivables and working capital requirements are falling during the year. So the levels we've got at the moment where the inventory turns is something just under four, the receivables are quite low in terms of days of sales outstanding of thirty or something. For me, it's fairly normal level for the MOCVD business because that business has advanced payments. So don't expect any substantial change there, apart from the volume effects of having a bigger business. For the OLED activity, in the future if that gets production orders then that's a different question, and we'll have to see that when we get those orders.

Guido Pickert

With this, we conclude our results conference call for today. You know where to find us, if you have any questions left. And we would welcome you again to our next conference call for Q1 at the end of April. Thank you very much, and have a good day.