Video interview with ASML CFO Roger Dassen
Q4 and Full Year 2023 results

Mr. Dassen, can you give us a summary of the fourth quarter 2023?
Revenue for the quarter came in at €7.2 billion, which was higher than guided. Primarily driven by the fact that the Installed Base business at €1.6 billion was higher than we expected. And that was both as a result of higher service revenue and higher revenue from upgrades. That fact, so the higher Installed Base business, also drove up the gross margin.

So gross margin came in at 51.4%. Also higher than guided as a result of, as I mentioned, the higher Installed Base business.

Net income for the quarter came in at €2 billion. After a few soft quarters, the order intake for the quarter was very, very strong. Actually a record order intake at €9.2 billion. If you look at the composition of that, it was about 50/50 for Memory versus Logic. Around €5.6 billion out of the €9.2 was related to EUV, both Low NA and High NA.

And what about ASML's results for the full year 2023?
So for the full year, revenue came in at €27.6 billion with a gross margin of 51.3%. We ended the year with a total net income of €7.8 billion and also a total order book of €39 billion.

Can you give us an update on the impact of fast shipments on 2023 and 2024?
My favorite topic. So, you know, when it comes to fast shipments in the course of 2023, we changed the testing protocol for immersion tools on fast shipment and we agreed those with customers. And as a result of that we could recognize revenue again upon shipment. So that's for immersion.

When it comes to EUV, earlier on we said that we expected around €2.3 billion of value of fast shipments at the end of this year for EUV shipped but not yet recognized in revenue. That turned out to be quite a bit lower, €700 million. And there's a few reasons for that.
First off, we had a couple of tools that were originally scheduled for shipment in, let's say, the last couple of weeks of 2023, actually slipped into the first couple of weeks of 2024.
And then secondly, we had some shifts in demand from customers that also led to a few tools slipping into 2024. So as a result of that, the value came in at €700 million rather than at €2.3 billion. That said, for 2024 we expect at the end of 2024 that we will not do fast shipments for EUV. Main reason being
that we assume we'll not be capacity constrained for EUV in 2024 because of the addition of capacity that we've been talking about. And that means that in our guidance, when we talk about our expectation, 2024 revenue being similar to 2023 revenue, the revenue from these fast shipments, so the €700 million, but also these tools that slipped from 2023 into 2024, that's included in that expectation.

**Full Year 2024 and Q1 2024 outlook**

**Further to 2024, can you provide an initial outlook for the full year?**

As we said last quarter clearly there is still uncertainty. There are uncertainties at the macro front and also I think it's clear to see that our customers are navigating through the downside of the cycle. So they're really making that move right now. And as a result of that I think the question really remains, as we expressed it last quarter as well, what's the shape of the recovery? Yes, recovery is there, but what's the shape of the recovery and how fast is that recovery going to be? And I think that's still unclear.

That said, I do believe there are a few positive signs and I think it is important to recognize those as well. So one positive sign is that we clearly see that the inventory levels in the end markets are improving and are definitely at a better level than they were a couple of quarters ago. So there is clear improvement on the inventory situation in the end market. So that's one positive development.

Secondly, if we look at the utilization of our tools, we clearly see that they are improving. They're not yet at what I would call normal levels, but they're clearly improving. And all the indications that we're getting is that we believe that that improvement will continue to occur in the course of this year. So good development there.

And thirdly, clearly the €9.2 billion order intake that we talked about earlier on, I think is also a clear positive indication.

So a few good data points, a few positive data points, but still we believe it's too early to revise our guidance. So we would keep our guidance as we articulated it last quarter, which is that we believe that 2024 will be similar in revenue as 2023.

That said, we also said 2024 is very much a transition year and a year in which we're really building up capacity. We're making good investments into our capacity because we believe 2025 is going to be a year of strong growth and that's what we're preparing for in this year as well. If we look at different elements in the composition of our revenue. I would say if we look at the end markets, I would say that we believe on the Memory side, we believe that Memory will be bigger than 2023 in 2024. And that's primarily because we see node transitions there and these node transitions primarily support the
increased demand for advanced DRAM and then you should think about DDR5, you should think about High Bandwidth Memory (HBM).

On the Logic side, I would argue that we're looking at a small decline in comparison to 2023. Primarily because of all the capacity additions that we've seen in 2023, I think it's fair to assume our customers will digest those capacity additions. So as a result of that, we believe that the growth will be a little bit smaller.

If we then look at the different technologies. On EUV, we believe that we're looking at an increase. From a revenue unit number perspective, we believe we'll have approximately the same number of units of EUV in revenue. And that includes the things that we talked about earlier on, the fast shipment units etcetera are included in that estimate. But we will benefit in EUV from higher ASP because we'll have a bunch of NXE:3800E in our revenue with a higher ASP. And also we'll benefit from one or two EXE, so High NA tools, that we'll have in revenue. So I think for EUV we expect an increase.

As it comes to non-EUV system sales, as a result of the flat guidance, we believe that we'll see a small decrease there and that will be primarily related to immersion. So we expect to have less immersion sales in 2024 in comparison to 2023. And as it comes to Installed Base business, on the Installed Base we believe that will be flat in comparison to last year. And then finally in terms of the composition over the quarters. We believe that the momentum will build during the year 2024 and as a result of that we expect that the sales level, the revenue level in the second half will be higher than in the first half of 2024.

**What are your expectations for gross margin this year?**

So in 2023 we ended at 51.3% gross margin. We expect that for this year will be slightly below that number. A number of puts and takes there again. If you look at EUV, we talked about the introduction of the NXE:3800. So that would have a positive impact on the gross margin. Also we expect that the service gross margin for EUV will improve. So that's positive. But then as I also mentioned, we'll have less immersion and that will have a negative impact on the gross margin. And also as we also mentioned in previous quarters, this really is an investment year as well. We're investing for the capacity expansion that we'll take benefits from in 2025. So significant investments there and also we're very much investing in our capability both in the factory and in the field as it relates to High NA. So those are drags if you like on the gross margin. And if you add it all up, we think that the gross margin for 2024 will be slightly below the gross margin for 2023.
And what about your gross margin for 2025?
As you know for 2025 we gave an expectation at the Capital Markets Day of a gross margin range between 54% and 56%. And we still believe that that is the right window to look at. I recognize that's a jump from the gross margin expectation that I just gave for 2024. There are good reasons for that. First off, of course in 2025 if you look at the EUV mix, there will be substantially more high ASP tools in there than lower ASP tools in there. So I think that's an important element in there. Secondly, we'll have many more High NA tools in revenue in 2025 than in 2024. And they will be able to absorb the costs better, absorb the total costs that we have for High NA. Even more importantly, as I mentioned, we are building capacity for 2025. And of course that should lead to, as we expect, higher sales levels for 2025. So many more outputs for EUV and DUV. And that means that we should in 2025 really get the benefit of the investments that we make in 2024. If we combine all of those dynamics, then indeed we believe that a 54% to 56% window for gross margin in 2025 is the right number to look at.

We just started the year. What's your guidance for the first quarter of 2024?
So for Q1 we expect €5.0 to €5.5 billion of sales in that quarter. With a gross margin expected to be somewhere between 48% and 49%. We expect Installed Base revenue of approximately €1.3 billion. That's a bit of a soft start for the year. But that I think is very much in sync with what I told you earlier on. That we really believe that the momentum is building up throughout this year. And we expect that the second half of the year will be better than the first half.

China and export controls
Sales to China were very strong in 2023. How do you see this developing in 2024. And can you give us an update on the most recent export control regulations and how it's impacting your business moving forward?
So you're fully right. The business in 2023 with China was very, very strong. I should remind everyone that that was also driven by the fact that we already had many orders for systems into China. And the majority of the sales that we had with China was actually executing on orders that were already there by the end of 2022. I think we explained it last time. The order fill rate typically for China was fairly low. In the past couple of years it actually was below 50%. So with the shifts in demand that we had with other customers, that meant that we were able to execute on the demand that was clearly there in China. That's why the China sales went up so significantly in this year.

I should also say that those sales are really for mid-critical and mature manufacturing. I mean that's where the systems are going to and that demand remains very, very solid. It was solid last year. We
expect it to be solid this year and also on a go forward basis because of all the dynamics that are going on in China. We believe that that will remain solid.

In terms of export controls, you're right. I mean last year we had Dutch rules kicking in and we had additional US rules kicking in. We actually sought clarification with the authorities on the interpretation of those rules. That really confirmed the expectation and the interpretation that we gave in our update on Q3. In essence, what it means is that we should now expect that for 2024 we will not get export licenses for shipment into China for, let's say, advanced immersion, so NXT:2000i and up tools. And we should also expect for a handful of fabs not to get export licenses for China for NXT:1970i and NXT:1980i immersion tools. So that is the interpretation that we had in Q3, and we had that confirmed in follow-up conversations with the authorities.

In terms of what that does, as you recall, we said in Q3 that we believe that between 10% to 15% of the China sales in 2023 would be affected by this rule. So if you look at the impact that these export regulations that were articulated in 2023, the impact that that will have on the 2024 sales, we confirmed that we believe that will be somewhere between 10% to 15% of the China system sales in 2023.

**Dividend and share buyback**

**Can you update us on your capital allocation plans?**

So we had a few soft quarters, but this was a strong quarter in terms of cash generation. So I think that was clear and that to a large extent that was also related to the fact that we had significant order intake and as a result that we had an uptick in down payments. The capital allocation strategy and policy in and by itself hasn't changed. So whatever cash we need in order to make the investments into the business, you know, for capacity, for technology etcetera. That's the first deployment of the cash. Secondly, we have a policy of growing dividends. Growing dividends which are paid out on a quarterly basis. And as it comes to this year we will pay an interim dividend in Q1 of €1.45 per share and we will recommend to the AGM to declare a final dividend of €1.75 per share. That would bring the total dividend for 2023 up to a level of €6.10 per share. Which would be a 5.2% increase over last year's dividend. And then whatever is left will be paid back to shareholders by way of share buybacks.

**Longer term outlook**

**Regarding your longer term outlook, what are your expectations on demand and your business beyond 2024?**

So essentially unchanged I would say in comparison to what we said last quarter. So if we start looking at 2025. As I mentioned before, we are looking at a year of significant growth and that is for a couple of
reasons. First off, we think the secular trends in our industry are still very much intact. If you look at the developments around AI, if you look at the developments around electrification, around energy transition etcetera, they will need many, many semiconductors. So we believe the secular trends in the industry are still very, very strong.

Secondly I think clearly by 2025 we should see our customers go through the up cycle. I mean the upward trend in the cycle. So that should be a positive.

Thirdly, as we also mentioned last time it's clear that many fab openings are scheduled that will require the intake of quite some tools in the 2025 time frame.

So we look at 2025 as a strong year of growth and we are making the investments as I also mentioned before in 2024 in order to be able to create the capacity that will be needed in 2025. But also will be needed to cater to the demand that we talked about in the Capital Markets Day earlier on in 2030. So we see strong growth and we believe we need to prepare for that growth.

And talking about capital markets, you can put it into your calendar. We expect our next Capital Markets Day to be on November 14 of this year. We really look forward to seeing you there and discussing with you the good growth opportunities that ASML has for the foreseeable future.