

## Transcript

### Video Interview with ASML CFO Roger Dassen

#### Q1 2020 results

April 15, 2020

#### *COVID-19 update*

#### **Mr. Dassen, before we talk about the quarter, because it's on everyone's mind, how is ASML dealing with the COVID-19 pandemic?**

These are unprecedented times for sure, and in unprecedented times you need to make your choices and need to set your priorities. The priorities for ASML are pretty clear.

First priority obviously is to keep our people and their families safe. That is absolutely the overriding principle. Second, we want to make sure that we continue to serve our customers and be able to continue to deliver on our roadmap. Those are the key priorities that we have set. Obviously, we take a number of measures to make sure that we can make up to those promises and to those commitments.

Safety measures, for instance – as it relates to our factory, to the cleanrooms, we make sure that they are completely isolated from the rest of the campus. Also, within the cleanrooms we have very stringent safety measures applied such that our people are very well protected.

We also make sure that in between shifts isolation takes place. So we have a bunch of measures around the factories.

People outside of the factories in essence work from home. The vast majority of people outside of operations work from home. Of course we have very stringent travel restrictions. Of course there are the formal travel restrictions, but we also have our own travel restrictions in addition to that.

And we leverage many best practices with our peers, with customers, with suppliers, just to make sure that whatever best practices are out there to keep our people safe and nonetheless be able to deliver on the commitments that we have towards our customers – that we leverage those best practices and that we continue to be best-in-class in that regard.

#### **What impact does COVID-19 have on your manufacturing capability and on the supply chain?**

On the manufacturing capability I would say the impact so far is limited, because we have been able in all our manufacturing locations to continue to be fully operational. So that's good news. Of course there are inefficiencies, as a result of, for instance, the quarantine measures that have to be taken. That's for sure. If you just think about installations that you have to do at customer

sites – so installations, field upgrades, et cetera. Obviously all the travel restrictions and all the quarantine rules that are out there, of course they do create significant hurdles there. But so far we have been able to serve our customers, thanks to – first off – the commitment of our engineers. They go above and beyond what can be expected from them in these circumstances. You have to recognize that, for instance, an engineer traveling to a certain location, upon arrival has to go into quarantine for a certain period of time. And sometimes upon coming back has to go into quarantine as well. So there's a 'double whammy' in terms of quarantine there. In spite of that, people are just completely dedicated to go.

We also use new technology in order to allow remote access to what's happening in factories. So we use virtual, augmented-reality-type technologies to support the teams that are out there locally in the field with the knowledge that we have more centrally.

So those are the measures that we take on the operational front. So inconveniences, inefficiencies, but at the end of the day we are still able to keep our operational capability fully intact.

On the supply side, we did have a few suppliers that have been confronted with temporary closures. We have been working around those and I think we can say that at this stage, all those instances where that has happened, we have been able to find a solution. The solution could obviously be that the closure has been lifted, but the solution can also be that we have been looking at workarounds. And the workaround could be, for instance, to find an alternative supplier. A workaround could be to find new solutions for ourselves, through hard work and a lot of creativity from our engineers to find a solution to circumvent that issue. So at this stage, I think we can say that the issues that did pop up around the closure have been resolved. But we need to continue to monitor this, and we do monitor this very closely. As soon as we get any indication that there might be an issue we immediately start looking into different solutions, which could also include looking at safety stock and making sure that for certain parts where there might be a heightened risk, that we build safety stock as much as we can.

### **Have you seen an impact on customer demand?**

At this stage the demand actually looks really good. If you look at our order intake for the quarter, it has been really good, €3.1 billion including 11 EUV POs (purchase orders). From that angle, order intake has been very strong and we have had no push-outs or cancellations in the year. From that vantage point of view, if you just look factually at what is going on, demand is still very, very strong. And there's a reason for that, obviously. A lot of the investments that our customers are making through buying our equipment are of course strategic in nature. These are strategic investments that they really also need for capacity building on a go-forward basis. Customers also realize that the lead time for our systems is longer than anything else that they have in the fabs. So from that vantage point, it is smart that the last thing they would ever cancel is our equipment. So that's pretty straightforward. Depending on how customers look at how

they come out of the current situation and depending on what their perspective is on the recovery beyond this point, they might also look at a recovery that could be such that all of a sudden, there is a significant pent-up demand that they need to cater to. And for that, they need the latest and greatest technology from our side. So, those are fundamental reasons why customers might think twice before they really push out or cancel our equipment.

I think the longer term perspective – that obviously is a big issue. There I think there is a number of different driving forces that we need to look into. On the one hand, you could say if the world ends up in a recession somehow, then it's fair to say that some of the end markets that of course we have to look into as well – think of smart phones, think of automotive, et cetera. Of course some of those end markets are correlated to GDP. To the extent that GDP would take a hit, it is fair to assume that also some of those end markets might take a hit. On the other hand, it's also clear that you might be looking at a number of applications that in today's environment are in higher demand than ever. Anything that is related to working at home obviously is in high demand. So, anything related to notebooks, advanced communication systems, but also data warehouses – those products are in very, very high demand. I think we will have to see (and so do our customers, with whom we are in very close contact at this stage). They tell us that at this stage they are still looking at fab operations that they say are pretty normal. But of course, they are looking as well at what's happening and how ultimately this balance between the different factors that I just mentioned; how will that pan out. I think that will ultimately drive the medium-term demand for the end markets and the medium-term demand for our products.

### **What measures are you taking to manage cost and to preserve your cash?**

Well, of course, critical for the CFO, right? I guess for good reasons. Given the uncertainty we just talked about, uncertainty in short term and medium term, it is prudent to look at cash preservation. Our starting point is very healthy. If you look at the quality of our balance sheet, if you look at the cash that we have at hand, if you look at the flexibility within our business model, the flexibility of our cost structure, our starting point is really good. The way we look at cash preservation is not just for ourselves. We also look at cash preservation in order to make sure that our entire ecosystem – including our supply base – that we can support them in the current environment. So that's why cash preservation is very important to us. So in that regard, we took a number of measures recently. In the press release that we issued a couple of weeks ago, we indicated that we pause the share buyback in Q1 after having done €507 million of share buyback in Q1, and we also said that we wouldn't execute on share buybacks in the second quarter. So that's a first significant measure in terms of cash preservation.

Secondly, we are looking at head count. We will still grow in head count, also for the remainder of this year, but we will only grow in head count where it is related to what we call 'business critical'. So only to the extent that it's really business critical. So related to our capability, related to the R&D that we think is essential – only then will we grow in head count.

Thirdly, we are looking at OPEX and CAPEX and also there we apply a pretty high hurdle in terms of business criticality. Only to the extent that we think it's business critical, then we will continue with certain OPEX and CAPEX projects.

Again, there, I think it's key for us that we continue the development around future technology roadmaps. So, anything related to that, including the High-NA program, the accelerator is pushed down and we will continue to be pushed down because we think it is critical that also coming out of the current situation, that we are able to provide our customers with the greatest technology and the latest and greatest tools that they will need in order to then cater to the demand that in that recovery situation will come up.

### *Q1 results*

**Let's have a look at the results then. Can you give us a summary of the first-quarter results?**

Sure, so revenue came in at €2.44 billion. You should compare that to the €3.1–€3.3 billion that we originally guided. Two main deltas there in that regard. The first delta, so the first gap to the original €3.1–€3.3 billion guidance that we gave is related to installed base revenue. Installed base revenue came in at €857 million, which is about a €100 million shy of what we guided. The main reason for that is that we didn't get the machine time of customers that we needed to complete some field upgrades. Also, it took a little bit longer for some customers to have the final acceptance of some field upgrades done. So as a result of that, we have a little bit of revenue around this €100 million that will shift into the next quarter. So it's not gone for the year, but it's just shifted away from Q1 into the next quarters.

The second delta is related to systems sales. There we have about a €700 million delta. About €200 million in DUV, €500 million in EUV. And again, this is not revenue that is lost for the year. We think this is revenue that will shift into Q2 and Q3 in particular. So let's look at those components. On DUV, the €200 million is primarily related to shipments that we had planned to Wuhan and also some other places where as a result of very stringent COVID-19 restrictions, we're looking at significant restrictions in getting equipment shipped and / or installed. So that's the main reason about €200 million of DUV revenue that we missed as a result of that in Q1. We're working very hard with those customers to get that into the next quarter. So again, this is a mere delay from one quarter into the others.

The €500 million on EUV can be decomposed into two categories. One category is that we had less shipments in this quarter than we originally envisaged. That's the result of two events. One, as I mentioned, we had a few issues where we had temporary supplier closures. That led to some supply chain issues around EUV. We also had some longer-than-planned cycle time on EUV, on the completion of EUV systems. I will address those a bit later. But that combination led to this quarter only four systems being shipped, which was lower than we originally anticipated. So that's one angle. Again, we're on track to still get to the 35 EUV systems that we planned for the year.

So we will make up for that in the remainder of the year, but for the quarter obviously that means that we only had four systems shipped. In addition to that, of those four systems, we could only recognize revenue for two. The reason for that is that we had customers that in light of the situation and in light of the travel restrictions and the transportation restrictions and logistics restrictions that they looked at, they said, "Give us the tool as soon as you can." That meant in that instance that two customers said, "Give us those tools before they are really tested within your own factory. So just ship them to us even though the complete testing program has not yet been executed." The result of that is that we can only recognize revenue on those two tools at the point in time where those are installed at the customer and then the acceptance of the customer happens at the time that the system is fully installed at the customer's fab.

So four systems shipped, but only on two of those revenue could be recognized. For the other two, this shifts to the second or the third quarter, at the point in time where the final acceptance at the customer's site happens. That's it on the revenue side.

On the gross margin side, we had a gross margin of 45.1%. Lower than what we guided, driven by two events that I already mentioned. First off, the lower DUV sales that I mentioned before, which typically is high-margin business, and also lower field upgrades that I mentioned. That combination led to a deterioration of the gross margin percentage.

Net income for the quarter: €391 million. As I already mentioned, the order intake for the quarter: €3.1 billion, including 11 EUV systems.

## *EUV*

### **You just touched on EUV. Can you give us an update on where you are with EUV?**

If you look at the way EUV is developing, also at the technological front, it's interesting to look at the February SPIE Conference that was out there. I recommend that to all analysts to look at that. There is a good website with a lot of good material on there. I think what that echoes is the confidence of the entire ecosystem in EUV. It's very clear that not just ASML but the entire ecosystem is completely ready and very active in the continued development of EUV. So really good progress on that front within the entire ecosystem.

I mentioned the longer-than-planned cycle time. That is related to the modular vessel and we talked about the modular vessel and in-line refill in the past. Those are essential elements in increasing the serviceability and also the availability of the EUV tool. That was introduced on the NXE:3400C. As we said, the NXE:3400C that is shipped this year, all those NXE:3400Cs are in full configuration including the modular vessel and the in-line refill.

The increased cycle times that we had – the longer-than-planned cycle times – were on that front. So it was in particular related to the in-line refill as part of the modular vessel. That is now being

addressed, and we actually see that week by week, we get to improvements in the cycle time as far as that is concerned. We are on track to actually get to the target that we set for ourselves by the end of the year. As we also said last quarter, it is important for us to reduce that cycle time because that is necessary to get our total capability, our total capacity, for EUV production by 2021 to the desired level, and that's a level between 45 and 50. That is the capability and the capacity that we are driving towards to get there. The improvement of cycle time is a critical element to get there. So nicely on track to get there. Week by week you see an improvement on that front.

As I mentioned, for the year, with all the caveats and the current uncertainties associated with that, we're still looking at 35 EUV shipments for this year. Even though the quarter started mild with only four shipments, we're still on track to get there, even with all the caveats that I just mentioned.

On the gross margin front, we're making good progress and we believe that the at-least 40% gross margin target that we set for EUV systems, that we're able to get there this year. Also as we've indicated, we want to be break-even on EUV service gross margin in the course of this year.

And finally, High-NA. As I mentioned, we keep the accelerator pushed down on High-NA; making progress there. Also with our partners, in order for us to be able to get the first R&D tools for High-NA shipped to customers by the 2021–2022 time frame.

### **How are the EUV tools doing at your customers?**

Customers are really taking EUV into high-volume manufacturing and are really stepping up significantly there. There was an interesting message recently from one of our Memory customers who indicated they had a shipment of one million 10 nm class DRAM modules made on EUV. That was pretty good and interesting news. They also indicated that on a go-forward basis starting next year, what they call the fourth generation of 10 nm class, EUV would be fully deployed for that generation, and then obviously also for generations to come.

### *Outlook*

#### **For so far that there's visibility, what's your outlook for the second quarter?**

As I mentioned, at this stage, revenue looks good. As I mentioned, we had a solid order intake. We had no push-outs, no cancelations. So from that vantage point it is looking good. If you look at the shipment plans that we have for the quarter, based on the orders that we have and based on the request that we have from customers at this stage, Q2 can be a really good quarter. We should be looking at a 50% improvement of revenue over Q1. So 50% higher than Q1.

Also at the gross margin level, we should be looking at a significant improvement of gross margin over the gross margin that we recognized in Q1.

So you have to look at that in the context of everything that's going on. We cannot escape from the uncertainty that has been introduced as a result of the COVID-19 situation that we currently face. We have said that in spite of the fact that we're looking at a good set of facts, we cannot ignore that environment and that uncertainty. And as a result of that, we believe it is prudent to not give formal guidance for the second quarter. So that's why we have said we're not giving guidance for Q2.

The same applies for the full year. So again, for the full year, if we look at the current demand and if we look at the current shipment plans that we have, that should really enable us to achieve the numbers that we've talked about before, and also the numbers and the goals that we've talked about in the previous quarter. But again, in light of all the uncertainties related to COVID-19, we believe that giving any guidance also on the full year is not appropriate.

**So all in all, a very dynamic environment for ASML.**

This not a boring time for sure. We're really focused on doing the right things: Doing the right things from a safety perspective, taking the right risk mitigation efforts. But keeping the accelerator down in terms of the continued development of our technology roadmap. So we will be frugal, absolutely. We will be financially very conservative, but we do keep the accelerator down in terms of the development of our longer-term roadmap. We think that is critical, because as soon as things start to normalize, you will definitely see that customers want to have the latest and greatest. They want to have the greatest technology and tools. Because they will then look at a new and high increased demand for highly advanced nodes and we need to cater to that demand. So that's why keep on pushing down the accelerator including High-NA, because from that vantage point, the longer term looks very, very bright. There is no doubt in anyone's mind that semiconductor-based applications will continue to significantly grow in the next couple of years and we have to provide solutions to our customers in order to do that. So from a longer-term perspective we definitely still like what we're doing – we definitely still like the long-term prospects.

And let me just say on behalf of the leadership of ASML, how proud we are of our company and of the people that we have. The creativity, the resilience and the unbelievable commitment that our engineers out there in the field, and everyone in the company, is really displaying in this moment in time is deeply impressive. As far as that's concerned, I'm very, very proud to be with ASML.