Q1 2021 Earnings Call

Company Participants

- Peter Wennink, President and Chief Executive Officer
- Roger Dassen, Executive Vice President and Chief Financial Officer
- Skip Miller, Vice President of Investor Relations

Other Participants

- Adithya Metuku, Analyst
- Aleksander Peterc, Analyst
- Alex Duval, Analyst
- Amit Harchandani, Analyst
- Andrew Gardiner, Analyst
- CJ Muse, Analyst
- David Mulholland, Analyst
- Joe Quatrochi, Analyst
- Krish Sankar, Analyst
- Mehdi Hosseini, Analyst
- Pierre Ferragu, Analyst

Presentation

Operator

Thank you for standing by. Welcome to the ASML 2021 First Quarter Financial Results Conference Call on April 21st, 2021. Throughout today's introduction, all participants will be in listen-only mode and after ASML's introduction, there will be an opportunity to ask questions. (Operator Instructions)

I would now like to turn the conference call over to Mr. Skip Miller. Please go ahead, sir.

Skip Miller {BIO 20244900 <GO>}

Thank you, operator. Welcome, everyone. This is Skip Miller, Vice President of Investor Relations at ASML. Joining me today on the call is ASML's CEO, Peter Wennink and our CFO, Roger Dassen. The subject of today's call is ASML's 2021 first quarter results. The length of this call will be 60 minutes and questions will be taken in the order that they are received. This call is also being broadcast live over the Internet at asml.com. A transcript of management's opening remarks and a replay of the call will be available on our website shortly following the conclusion of this call.

Before we begin, I'd like to caution listeners that comments made by management during this conference call will include forward-looking statements within the meaning of the federal securities laws. These forward-looking statements involve material risks and uncertainties. For a discussion of risk factors, I encourage you to review the safe harbor statement contained in today's press release and presentation found on our website at asml.com and in ASML's Annual Report on Form 20-F and other documents as filed with the Securities and Exchange Commission.

With that, I'd like to turn the call over to Peter Wennink for a brief introduction.

Peter Wennink {BIO 1852674 <GO>}

Thank you, Skip. Welcome, everyone. Thank you for joining us for our Q1 2021 results conference call and I hope all of you and your families are healthy and safe. Before we begin the question-and-answer session Roger and I would like to provide an overview and some commentary on the first quarter, as well as provide our view of the coming quarters. Roger will start with a review of our Q1 2021 financial performance, with added comments on our short-term outlook and I will complete the introduction with some additional comments on the current business environment and our future business outlook.

Roger?

Roger Dassen {BIO 15064806 <GO>}

Thank you, Peter. Welcome, everyone. I will first review the first quarter financial accomplishments and then provide guidance on the second quarter of 2021. Net sales came in above guidance at EUR4.4 billion, primarily due to higher installed base the business from upgrades. We shipped nine EUV systems and recognized EUR1.1 billion revenue from seven systems this quarter. Due to the delay in one of our customers' roadmaps, we jointly decided to buyback two of their new systems and ship these to another customer this year. This was accounted for as a revenue reversal in Q1 of 2021.

For the systems shipped in Q4 2020 with a new configuration, we were able to complete site acceptance and recognized revenue this quarter. We also shipped one system this quarter without factory acceptance testing, so revenue will be recognized in the subsequent quarter after our customer site acceptance, again, the net result of seven EUV revenue systems in Q1.

Net system sales of EUR3.1 billion was again more weighted towards Logic at 78% with the remaining 22% from Memory. The strength in Logic drives both deep UV and EUV revenue, the Memory business is mainly driven by DRAM. Installed Base Management sales for the quarter came in at EUR1.2 billion above guidance due to increased upgrade business as customers pull forward software upgrades that can quickly increase productivity of systems in this high semiconductor demand environment.

Gross margin for the quarter was 53.9% and was above guidance due primarily to the additional software upgrade business. On operating expenses, R&D expenses came in at EUR623 million and SG&A expenses at EUR168 million, which was slightly above our guidance. Net income in Q1 was EUR1.3 billion, representing 30.5% of net sales and resulting in an EPS of EUR3.21.

Turning to the balance sheet, we ended first quarter with cash, cash equivalents and short-term investments at a level of EUR4.7 billion. Moving to the order book, Q1 net system bookings came in at EUR4.7 billion, including EUR2.3 billion for EUV systems and another strong quarter of deep UV demand. Order intake was largely driven by Logic with 76% of bookings, primarily due to EUV order intake with Memory accounting for the remaining 24%.

With that, I would like to turn to our expectations for the second quarter of 2021. We expect Q2 total net sales to be between EUR4 billion and EUR4.1 billion, the directionally lower guidance is primarily due to shipments in the quarter both EUV and deep UV that will not receive factory acceptance testing due to customers' desire to bring systems to production as quickly as possible.

Therefore, we will recognize revenue in subsequent quarters after completion of acceptance testing at customer site. In addition, the installed base business is expected to be lower in Q2 versus Q1, as customers pulled forward installation of productivity software upgrades to quickly increase wafer capacity. We expect our Q2 Installed Base Management sales to be around EUR900 million.

Gross margin for Q2 is expected to be around 49%. The lower gross margin quarter-on-quarter is mainly due to delayed revenue from immersion systems that we plan to ship without factory acceptance testing, as well as lower installed base management for Q1. Expected R&D expenses for Q2 are EUR650 million and SG&A is expected to come in at EUR175 million, reflecting a continued investment in the future growth of the company.

In support of our aggressive product roadmaps and opportunity to pull in some of our high-value product developments, we plan to increase our R&D investments primarily EUV by a increased development capacity. Furthermore, this increase will allow us to compensate for remote work impact. We don't expect this increase to scale at the same level as our revised revenue increase with R&D expenses for 2021 around 14% to 15% of sales. We expect SG&A to remain around 4% of sales for 2021.

Our estimated 2021 annualized effective tax rate is expected to be between 14% and 15%. As mentioned last quarter, ASML intends to declare a total dividend with respect to 2020 of EUR2.75 per ordinary share versus a 15% increase compared to the 2019 dividend, recognizing the interim dividend of EUR1.20 per ordinary share paid in November 2020, this leads to a final dividend proposal to the General Meeting of EUR1.55 per ordinary share.

The 2021 Annual General Meeting of shareholders will take place on April 29, 2021, in Veldhoven. In Q1 2021, ASML purchased 3.5 million shares under the 2020 through 2022

program for a total amount over EUR1.6 billion. Our expected free cash flow generation enables the opportunity for continuation of significant share buybacks in the coming quarters and we expect to complete the execution of our current share buyback program early.

With that, I would like to turn the call back over to Peter.

Peter Wennink {BIO 1852674 <GO>}

Thank you, Roger. As Roger highlighted, we had a very strong quarter in both sales and profitability driven by continued strength in both Logic and Memory, as well as significant demand for upgrades, as customers look to bring additional capacity online as quickly as possible. The additional upgrades consisted primarily of software based productivity packages. We are seeing significant increase in demand from our customers across all market segments on all nodes, mature and advanced compared to three months ago and we expect another very strong year with demand across our entire product portfolio.

The steeper than expected recovery in demand for semiconductors amplified by the COVID induced lower investments of the industry in 2020, thus created a significant upside to demand over the past quarter. This more cyclical demand sits on top of a secular growth from the accelerated build up of the worldwide digital infrastructure and is fueling demand not only for advanced and mature logic nodes, but also for Memory.

In Logic, customers continue to see strong demand across a broad application space for both advanced node as well as mature nodes. And last quarter, we expected revenue from Logic in 2021 to be up 10% year-on-year. However, we now expect Logic to be at around 30% this year. In Memory, the applications that are driving the strong Logic demand are also fueling demand for Memory. As we mentioned in earlier calls, the Memory recovery started last year and continues to strengthen its customer plans to increase capacity is driving significant demand for our systems in the second half of the year.

Compared to last quarter where we expected revenue from Memory in 2021 to be up 20% year-on-year, we now expect Memory revenue to be up around 50% this year. On our Installed Base business, service revenue will continue to scale with the growing installed base and with increasing contribution from EUV services as these systems run more and more wafers in volume production. We are also supporting our customers with upgrades to maximize performance software installed base. In order to meet the high demand in the current tight chip supply environment, customers are prioritizing software upgrades to quickly increase capacity as reflected by our higher upgrade number in Q1 and some hardware upgrades require extended machine time to be installed and in the current high demand environment customers will be less willing to take systems down, which has a dampening impact on the 2021 growth profile of hardware upgrades.

We therefore still expect growth in our installed base business of around 10% this year as mentioned last quarter. On EUV, we continue to see increasing customer confidence in this technology, which is translating to expanding layer counts in Logic and increasing

deployment of EUV in Memory at multiple customers evidenced by a number of customer announcements around increases in the CapEx plans, which will include spending on the EUV for advanced nodes.

To support a strong EUV demand, we are working to increase our output capability. At the same time we are driving our product roadmap to produce higher productivity machines, which will increase the effective EUV capacity per system and the wafer output capacity of our customers. We plan to transition to the NXE:3600D system in the second half of the year, which will provide customers with a 15% to 20% higher productivity compared to the NXE:3400 C systems shipping in the first half of the year.

Limited by the available modules and parts this year, we're still planning for growth of around 30% in EUV revenue this year. With the expanding adoption of EUV at our customers, we see increased demand building in 2022 and beyond. We are improving our manufacturing cycle time and are planning our supply chain for a capacity of around 55 systems next year and as a reminder, all of our planned shipments in 2022 will be NXE:3600 D systems with the increased productivity capability.

Our strengthened outlook on the year relative to last quarter is primarily driven by the demand for deep UV systems. With increased demand on leading edge nodes, as well as mature nodes running longer and ramping stronger, demand for our immersion and dry systems is stronger than ever. We have put in place plans to increase our deep UV capacity to help meet our customers' increased demands.

In our Application business as demand for scanners continues to increase, we expect a step-up in demand for our YieldStar metrology systems, particularly in Logic. The newly released YieldStar 385 is beginning to ramp across our customer base as well and with the recovery in memory specifically at 3D NAND, we expect a substantial increase in e-beam inspection revenue this year.

For the industry at a high level, we see three trends driving considerable growth this year and in the years to come. The first trend, in the shorter-term there is a more cyclical or you could say a catch-up driven demand from decisions made in 2022 due to the global pandemic. These shortages were initially evident in the automotive market but more recently there are also indications of supply tightness impacting other market segments. We expect this to drive considerable demand for lithography systems this year and into next year.

The second is a secular growth trend, driven by the digital transformation taking place as we become a more connected world across both people and machines and this transformation was further accelerated over the past year with the increased remote activity and reliance on technology to stay connected. The secular trends are driven by expanding end market applications such as 5G, AI and high-performance computing. These and other mobile distributed applications drive demand for both advanced logic, as well as more mature technology required for the service and application that drive the growth of the digital infrastructure. And along with increased Logic demand comes

increased Memory demand. This in turn drives demand across our entire product portfolio.

And the third trend, which we're starting to see now which we will likely continue to see longer term is the desire for more technology sovereignty which includes semiconductor and silicon-based technology, leading to a geographical decoupling as different governments put initiatives in place to localize supply chains and become more self-sufficient. This inevitably will create some level of inefficiency in the semiconductor supply chain and creates additional equipment demand as more fabs are strategically built across the globe.

If you summarize the growth of the different segments and the trends just discussed, we now expect sales growth toward 30% this year. To achieve this growth, we are ramping up our capacity to support customer demand resulting in stronger second half. With the higher revenue and increased mix of deep UV and upgrades, we now expect gross margins to be between 51% and 52% this year. Putting this is as whole, the long-term demand drivers only increase our confidence in our future growth outlook towards 2025 and we plan to provide an update on our 2025 scenarios at our Investor Day in September.

And with that, we'd be happy to take your questions.

Skip Miller {BIO 20244900 <GO>}

All right, thank you, Peter and Roger. The operator will instruct you momentarily on the protocol for the Q&A session. Before hand, I would like to ask that you kindly limit yourself to one question with one short follow-up if necessary. This will allow us to get to as many callers as possible.

Now, operator, could we have your final instructions and then the first question please.

Questions And Answers

Operator

Thank you. (Operator Instructions) And our first question comes from the line of Mehdi Hosseini of SIG. Please go ahead, your line is open.

Q - Mehdi Hosseini {BIO 4362002 <GO>}

Yes, thanks for taking my question. I want to follow up on the EUV revenue target for this year. I understand that you have -- you're keeping it unchanged at 30%. But in case you're able to improve the supply chain and availability of sub-component, could there be upside to the shipment even though you may not be able to recognize the revenue and I have a follow-up.

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, Mehdi, you just used two very important words in case, which is the problem because we said last quarter, these are very long lead-time items, I mean lens has a manufacturing cycle time I was telling over 12 months, so we have a audit, but that is not going to be there. So I think when we look at capacity and because you really need to look at next year, I think it's virtually impossible to get more out of 2021 as we have planned today.

So really it's going to be -- that's why we also mentioned that working with our supply chain and looking at demand next year, we are now planning and we haven't received full confirmation yet of the supply chain on it, but our focus is on the 55 systems next year, bearing in mind also that I think we said it before, customers are buying systems effectively they're buying wafer capacity.

And with next year only if there is going to D's, which already provides you with a 15% [ph] to 20% productivity increase, well, if you then multiply let's take the average of 15% to 20% 17.5 or let's say 18% extra productivity increase per system and 55 systems actually trends then into 65 systems with 3400 C productivity. So -- it's -- this is the way that you need to look at it.

Q - Mehdi Hosseini {BIO 4362002 <GO>}

Great, thanks for the detail. And a quick follow-up, as I think about beyond 2021 and your operating margin, could there be a scenario where your key customers would share some of the development costs associated with High-NA similar to what happened to EUV almost a decade ago, so that that could also help drive overall operating margin to above 33%. Thank you.

A - Peter Wennink {BIO 1852674 <GO>}

Well, I think -- I don't think it's likely because it's not necessary. I mean, when we go back almost a decade ago, our R&D expense at that time was 600 million per year. And then when you look at the size of the EUV program at that time and still you need to consider that the entire low-NA EUV program will of course more if we all ended than the High-NA program. So if you now look at it then the relative effort to bring EUV to life was so large that it would have put a significant financial strain on the P&L of ASML, which of course we could not afford which is not the case today.

And I think if you think about operating margins, it is more a matter of maturity of EUV, which will of course lead to better performing tools with higher productivity with higher value, EUV service revenue that will grow going forward. And I think those are the most important drivers for operating margin. Roger?

A - Roger Dassen {BIO 15064806 <GO>}

Yeah, I agree, I mean the gross margin components, I think Peter you just referenced them, it's the EUV ASP and as a result of that the EUV systems gross margin and the EUV service gross margin, those are the major drivers on the gross margin side. And I think also in the introduction we've been pretty clear on what the ambition is for OpEx, all right, so 14% to 15% for R&D and 4% for SG&A and our longer-term ambition at least on the

R&D side is to try and model that back to around 30% over time, I think that's what we stated --

A - Peter Wennink {BIO 1852674 <GO>}

In R&D, yeah.

A - Roger Dassen {BIO 15064806 <GO>}

In R&D and those are the major drivers I would say to get the operating margin further up.

A - Peter Wennink {BIO 1852674 <GO>}

Yeah.

Q - Mehdi Hosseini {BIO 4362002 <GO>}

Thanks so much.

Operator

Thank you. Our next question comes from the line of Pierre Ferragu of New Street Research. Please go ahead, your line is open.

Q - Pierre Ferragu {BIO 15753665 <GO>}

Hey, thank you. Can you hear me well?

A - Peter Wennink {BIO 1852674 <GO>}

Very well. Good afternoon, Pierre.

Q - Pierre Ferragu {BIO 15753665 <GO>}

Great. Good afternoon, Peter. So thanks for the color on how you increase capacity for this year and next year, that's very clear. My question would be more of two, three years, if I recall correctly like about my visit in Veldhoven, you guys are set up to be able to do 60 EUV tools per year than 20 High-NA EV tools. And when I took a shot looking at how much would be needed over the next three, four years, I felt like this was actually a bit limited and that you might actually need more capacity. And so I would love to hear your take on that in the longer-term, do you think it would make sense to think about increasing your overall capacity and is that's the case, what kind of list lines are we talking about for that kind of endeavor. And I have follow-up.

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, it's a very good question, Pierre. And I think it's a long-term strategic question. Let me try to answer it this way. When I talked about the three trends that the company will have to face in terms of demand cycles, there is of course shorter-term which you could say it's a catch-up the lower level of investments we saw last year because of the pandemic, which is -- which we're catching up this year and I think throughout next year

or and if any case as a part of next year, then as the secular growth trend which we have underestimated.

I think you can go back to the Capital Markets Day 2016 and 2018, I don't think we at that point in time anticipated the strength of the deep UV market that we see today and that's the third trend which is basically the drive from technological sovereignty by different countries and different governments. Those are all -- at this moment in time those will be the drivers, but it's also difficult to really get a very clear view on. So your question is taking that into consideration should you guys be looking at increasing your capacity beyond the 60 the magical 60 that we've always mentioned. Good question. And I think this is actually the work that we're doing today, yeah. We're looking at this, what we need to do this.

So now the lead time, now, if you have to build a complete new factory, let's take you need to build a new Optics factory then the lead time is two to three years, yeah, because you need to build a factory, you need to procure the machines and then by the way when it comes to optics manufacturing, you have to build those machines yourself because they are not available, so that will be longer. But other ways to increase capacity and that's through cycle time reduction, that's through process optimization. And so it's this complexity of measures that we can take to see how we can drive the total capacity up, which by the way all have lead times that are beyond the 55 units that we're planning for next year, which doesn't mean that it couldn't be higher in '23 and '24, but that's the work that we need to do today, which by the way we are doing, yeah.

Q - Pierre Ferragu {BIO 15753665 <GO>}

That makes sense. And a quick follow-up very much related to that, you mentioned like the geopolitical situation, when I look at the overall value chain and how much depends on what's happening in Veldhoven on the single side where you have somebody accrued it's almost scary, it's a weak point for the global value chain and probably a place where your clients and governments are getting maybe a bit nervous about that. So do you have conversations with people around you about diversifying your size and creating supply that not only be like that would be less dependent on the Netherlands?

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, I think the situation of today is not very different than the situation five years ago, you can only argue that the realization of people is now different, yeah, that has never changed is where it is. But the same can be said for our customers that are basically concentrated in one particular area or some of our peers that with some of their production facilities only make a couple of hundred tools per year in one or two single sites.

It is the concentration of the semiconductor industry in different geographical areas that actually now starts to make governments think, yeah, has never been an issue, yeah, it's only becoming an issue when this as an almost seamless ecosystem that has been built across many, many borders are now being -- that ecosystem is now being threatened I would say almost by blockages of that seamlessness, yeah and then you get an issue.

So I think it's nothing different, it's always been this way and especially over the last five years I would say, there is high concentration of leading-edge technology across the value chain, but given the geopolitical situation people are more aware of it and they started now thinking of levels of self-sufficiency that a couple of years ago nobody thought off.

Q - Pierre Ferragu {BIO 15753665 <GO>}

Thanks, Peter.

Operator

Thank you. And our next question comes from the line of Joe Quatrochi of Wells Fargo. Please go ahead, your line is open.

Q - Joe Quatrochi {BIO 18961101 <GO>}

Yeah, thanks for taking the question. I was wondering if you could help us on the updated 2021 guidance, I think last quarter you had talked about there being potential upside from domestic China, we haven't seen any change in the geopolitical situation or export controls. So just curious, can you help us understand is that now included that upside included and if so how much is that?

A - Roger Dassen {BIO 15064806 <GO>}

Yeah, I think it's fair to say that that upside is now included in the numbers that we've given. So it's clear on Peter went through that also in the presentation at the beginning of this call that we've revised upwards if you like the outlook for the full year and further down into the year we've now said this is how we look at the full year. Of course, still expecting that the regulatory situation remains a little bit the way it is today and therefore what previously was upside and the way we talked about upside has now really been included in that number.

Remember, last time, the expectation that we gave was that could be about 600 million upside coming from China and that number is now included in the, let's say, close to 18 billion that we've now talked about.

A - Peter Wennink {BIO 1852674 <GO>}

And if you then really want to think about risk profile, you can say, well, when the regulatory situation changes and you could not ship to China, when you look at the market situation today then which is quite different than three months ago, then we would ship those systems somewhere else.

Q - Joe Quatrochi {BIO 18961101 <GO>}

Great. And then just as a follow-up. I just want to make sure I understand the two systems that you repurchased from a customer those are on the EUV side and then you plan to ship those this year and I guess if that's correct, is that embedded in the 30% EUV revenue growth?

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, it is. Yeah, it is, yeah. You have a reversal in this quarter and you will see it come back in the subsequent quarters. For the full year it's neutral, right, it was minus 2 and plus 2.

Q - Joe Quatrochi {BIO 18961101 <GO>}

Perfect, thank you.

A - Roger Dassen {BIO 15064806 <GO>}

You're welcome.

Operator

Thank you. Our next question comes from the line of Aleksander Peterc of Societe Generale. Please go ahead, your line is open.

Q - Aleksander Peterc

Yes, hi, good afternoon and thanks for taking my question. So you gave us a pretty clear outlook on EUV for '22. I just wondered about the longevity of this stronger cycle that you see in immersion and dry because that's where all of the upgrade today is coming through for '21. So I'm just wondering, is all of that then carrying into '22 as well. And then just very quickly, if you could also provide a quick comment on ASPs, they were again very strong this quarter specifically the puts and takes there. Thanks a lot.

A - Peter Wennink {BIO 1852674 <GO>}

I will do the ASP -- Roger will do the ASPs and your question on the sustainability, yeah on and especially deep UV and apps, I think I said it on as an answer on the earlier question, when we look at how we see the deep UV market that you have market today as compared to three years ago 2018, I think we have a different view and that's driven by the fact that across our entire deep UV portfolio which is immersion and dry, we have -- we cannot fulfill the demand of our customers all time and has to do with the fact that our analysis shows that with the combination of, let's say, advanced sensing technology, 5G, the ability to process all that data through high performance compute and that in a distributed fashion basically leading edge compute also goes to the edge, I call that distributed systems and a distributed system is for instance a car, but it's also one of our machines in the field, yeah.

And that increasingly requires collection of data, transport of data, processing of data not only through the most advanced high-performance compute, but as part of a distributed system. And that system inevitably includes mature technology, which could be image sensors, power ICs, MEMS, analogs solutions, it's the whole thing. And that means if we would have an eye line system available today, it would be sold yesterday. So it's everywhere and that has to do with the proliferation of chip technology and a distributed computing in a distributed systems that we are seeing, that is something that will not go away in our minds.

This is why I said it also in my prepared remarks that we are also planning and looking into what is the level of our deep UV capacity increase that we need both in mature and in immersion is going to be double-digit increase as from where we are today. Now how much can we stretch that or how it is needed, that's exactly what we're doing with EUV, we need to plan up with the supply chain, we need to go deeper into what it takes in terms of capacity lead time, do they need to build square meters, do they need to hire people, is it going to be possible through cycle time reduction through process optimization, this is the work that we're doing today because remember five months ago we were looking at a completely different world. So this is a ramp up, but we do believe that this has as a long runway.

A - Roger Dassen {BIO 15064806 <GO>}

Yeah, on the ASP for EUV, it's well noted, you're absolutely right. So this quarter in Q1 we're looking at an ASP for EUV of about 160. Part of that is configuration, we've talked about that in the past. If you look at the last three quarters, we've consistently been looking at an ASP of around 1.45 and this time it's a little bit up for another reason I'll come to in a moment.

So in fact what you see is that, in fact in the last year, we've been positive, really surprised by the options on the tool, the options that were ordered on the tool and as a result of that the configuration was that was richer than anticipated and as a result of that fairly consistently see now that the ASP range is above the 1.30 that we talked about in the past and fairly consistently we've seen 1.45 or up.

The reason that it's extra of this year, there is a few accounting things, we talked about accounting for VPAs in the past. So there is a few accounting reasons why it's higher, so why it's 160 rather than 145, but we out of the, just looking at the configuration that we've seen on the tools in the past couple of quarters the 145 anchor point for the ASP for EUV is probably the right way to go and I say that recognizing that is about the last quarter that we're really looking at the large number of fees in the revenue.

Q - Aleksander Peterc

Thank you.

Operator

Thank you. And our next question comes from the line of David Mulholland of UBS. Please go ahead, your line is open.

Q - David Mulholland {BIO 16819172 <GO>}

Hi. Thanks for taking the question. Just coming back on the EUV capacity increase and shifting to 55 tool capacity for next year. Obviously, there were some changes made last year ended up limiting what potentially should have been higher shipments this year and some of that probably kicks in next year, but in your discussions with customers, Peter, just obviously there is a very, very strong cyclical tailwind to the industry today that's driving appetite for capacity increase, but EUV is on a very, very long time horizon for customers,

18 months rather than six months planning. How do you feel like their assumptions have changed that's driving that upside is it primarily because of their confidence and penetration of EUV and higher layers or is there an element of actually just building bigger nodes now that's driving the need for more capacity at this point?

A - Peter Wennink {BIO 1852674 <GO>}

I think, David, it's both. I think we are seeing -- I only what I refer to as a comment that was made by the CEO of one of our large customers that actually meant we're going to double the number of EUV layers on our next node. I think that's a trend that we are seeing simply because the advantages of EUV are not only you could say the pure economic cost per layer because you can eliminate multiple patterning, but it's also the electrical characteristics and the simplicity of the process, lower WIP is one of them. So there is many other side effects that actually lead people to go for EUV. So, yes, it's higher layer counts that's what we're seeing, which is true for Memory and for Logic, but also when we talk to customers, they all talk about bigger nodes, it has to do with the secular trend, trend number two that I talked about and trend number three, the technological sovereignty will just be a layer on top, which will not go away, which will take time, it takes two to three years to build a semiconductor factory and they put it into action.

So -- but I think this is, so it is bigger nodes, it is strategic investments, it's higher layer count and this is what I answered to a previous question, we all need to take this into consideration, some of it we already saw coming, but what does it mean for our capacity needs beyond 2022, yeah, which by the way some of that capacity if that would be needed, yeah, would be the result of like I said process optimization, cycle time improvement, different work schedules and potentially square meters that could be. So, but it's all of the above.

Q - David Mulholland {BIO 16819172 <GO>}

And just one quick follow-up, obviously from a financial perspective at some point in the near future you need to start building those tools through the supply chain given the lead times. Are you requiring customers to place deposits and make the financial commitments that you've been starting to make before any of those tools get built or is there an element still this year where you're going ahead and starting production before you've had from deposit associated orders from the customer?

A - Roger Dassen {BIO 15064806 <GO>}

Yeah, David, the policy hasn't changed there. So that means that when a customer has put in a PO a down payment is required and I think we mentioned in the past that the amount of the PO is a little bit dependent on the moment where the order is being placed. So the order is being placed nicely in line with the lead time than the down payment is lower then when it's placed a little bit later than that. But you also know that in the PO by itself is a bit of a non-event for us because we work so closely with the customer that we sort of understand what they're doing, what they want and when they need it. So the PO is a bit of a non-event for us. But the short answer is, absolutely there will be down payments in place at the moment of the deal.

Q - David Mulholland {BIO 16819172 <GO>}

Sure. Thanks.

Operator

Thank you. Our next question comes from the line of CJ Muse at Evercore ISI. Please go ahead, your line is open.

Q - CJ Muse

Yeah, good afternoon. Good morning. Thank you for taking the question. I guess first question, Peter, can you speak to the sustainability of memory, I think the headline above 50% might be a bit concerning however if I think about EUV in there as well as a strong pickup in e-beam voltage and contrast imaging. It certainly looks like Memory ex those two things this is tracking more like up 20%, 25%. So would love to hear your thoughts on the moving parts there and how to think about sustainability into '22?

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, I think for this year it's not a surprise, I mean, you just need to go back to our conference call the last two quarters, where we actually saw a recovery of especially DRAM starting. And I think I gave some color three months ago and I basically said, we had a decent shipping -- shipment in Q4 of last year, which basically goes into production in Q1. But if you look at a bit growth of 20% this year, then our calculation show that we are very quickly at the max output capacity of our DRAM customers in this year, where we would reach that pretty quick.

So we would need more capacity addition that's exactly what we have seen. So I think it's just the beginning all these things. So, yeah, I think, yes, it will move into next year. Now you've been around also long so that in the Memory business, yes, there is more tenancy to have from time to time some overcapacity and some other capacity. How long that will last, I don't know, but still there is somethings about telling me hey, the secular trend when such a high demand in Logic, all this stuff doesn't only work with only Logic also in these Memory, yeah.

So it's going to be quite interesting to see how quickly the Memory capacity will be added throughout this year, early next year and what the underlying bit growth percentages will be. Now I think having said that there is also Memory is more cyclical than Logic, but nothing that indicated to me at this moment in time that we are looking at building an overcapacity, there is nothing I can see at this moment in time, we're just starting.

Q - CJ Muse

Very helpful. And then just a follow-up question on the D UV side of things, I think, I think you guys have talked about growing your non-EUV tool business by about 40%. So that's roughly $7.7 billion this year. Is there a way to frame how much capacity you're planning to add on the non-EUV side relative to that $7.7 billion for us to kind of gauge what you're capable above into '22 and beyond?

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, as I think -- if you wish would calculate the way that we would calculate about 45 [ph] we would just be over 8, about 8.2 and that's really stretching it in terms of our production capacity this year, it would have more capacity, we could probably do more, we're very likely we would be able to do more.

So your question really is answered in a sense that I already said in my prepared remark, we're looking at increasing our deep UV capacity both dry mature and immersion and that's not going to be 5%, I mean, it is going to be double-digit. But that will take some further analysis of what needs to be done, is it through optimization, yeah, through things like process optimization and added workforce or lack of time or has it to do with Square meter capacity like factories, that is something that which is under consideration today, we're looking into that and get with our supply chain, so not so much for us and is really in the supply chain, yeah.

So the reason why I say this is because we believe that we need extra capacity and has to do with the underlying trends, the trends that I talked about earlier. So yeah, the 40% brings us just a rate, yeah, you have 7.7 [ph], so you are a bit more conservative, but this is directionally, it is correct, but, yeah, this is the answer.

Q - CJ Muse

Great, thanks so much.

Operator

Thank you. Our next question comes from the line of Andrew Gardiner at Barclays. Please go ahead, your line is open.

Q - Andrew Gardiner {BIO 7137663 <GO>}

Good afternoon. Thanks for taking the question. Another one, Peter, on the sort of capacity planning issues that you guys have just been talking about. I'm wondering, given the changes that we've seen from a number of your lead customers or at least the public announcements from your lead customers over the last three or four months and the fact that you are now having to rethink the need for additional capacity expansion whether your site or within the supply chain, are they now giving and I presume they're wanting it sooner rather than later is always seems to be the way and yet you've got fairly extensive lead times particularly so for EUV perhaps slightly less so for D UV in terms of building out this capacity. Are you getting better visibility today in terms of what those customers are going to need looking out over the next three, four, five years in order to give you that confidence in making such a decision?

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, it's a good question, I mean and also you've been around those, I mean all these people have been around long-term. So you know that, yeah, when we under investors also going to be a knee-jerk reaction like it always happens. So this is more the shorter

term correction of a miss-planning, yeah, that's happening today that's what I call is the trend number one, yeah.

But clearly customers understanding that our capacity lead times and our manufacturing lead times are long. So they do share with us a longer-term vision, now not five years out, this is a bit too much to ask, but certainly two, three years out. So I mean I would say for 2022, 2023, we definitely have deep discussions about what they need in terms of expansion plans, in terms of what they see when we talk about Logic, the anticipated capacity ramp in terms of the tape-outs that they have on the shelf that they see coming on N5 and N3.

So it is not just some buying the sky thinking, is real underlying discussions that they have with their customers and the design requirements that they get from increasing customer base, which has to do with high-power compute, with AI with all the applications that we talked about because of the whole digital transition.

So, yes, there is more visibility to the point that the planning visibility is I would say deeper. And this is also where we base our request through the supply chain on, yeah, it's of that discussion which is going to be as a costly discussion because that capacity for nothing. So, this is and is also true for our customers. It's going to be costly, but they've been very explicit to the outside world and to the media about what their plans are.

And that's well thought through based on what they see so their customers and the customers of their customers tell them. So this is why I talk about these three trends. And this basically is the base for the visibility and but how much it in the end will be or we will need, there's always a risk of under estimation, but also risk of over estimation and that's what we need to take into consideration when we say what wise, yeah. And like I said, this is just something over the last three, four months where it starts to accelerate, it gives away the time and our supplies particularly to figure out what is wisdom.

Q - Andrew Gardiner {BIO 7137663 <GO>}

Thank you, Peter for that insight, even if I think you did call me old at the outset there, I still appreciate the color.

A - Peter Wennink {BIO 1852674 <GO>}

It's all relative from my perspective you are very young.

Q - Andrew Gardiner {BIO 7137663 <GO>}

Thank you.

Operator

Thank you. Our next question comes from the line of Krish Sankar of Cowen and Co. Please go ahead, your line is open.

Q - Krish Sankar {BIO 16151788 <GO>}

Yeah, hi, thanks for taking my question, Peter and I also been around quite a bit. So let me ask you two quick questions. Clearly a nice jump in EUV bookings in the March quarter. Can you give some color on how the EUV bookings are trending for the current quarter and what is your EUV backlog in terms of units and then I had a follow-up.

A - Peter Wennink {BIO 1852674 <GO>}

Roger, you want to --

A - Roger Dassen {BIO 15064806 <GO>}

Happy to take it. So in terms of -- in terms of order book that the current backlog is $7.4 billion for EUV. So that's pretty strong and obviously also driven by significant intake in the last quarter. I'm not going to comment specifically on this quarter, but in general just listening to the commentary that we made on our expectations for next year, it's pretty clear that for the next quarters we do expect a healthy order intake for EUV, right, because at this stage $7.4 billion. And if you do the math, what you think system business is going to be next year if you translate that at 55 capacity that we've been talking about, it's pretty clear that we're still looking at significant order intake expect this for the next -- for this quarter and for next quarter.

Q - Krish Sankar {BIO 16151788 <GO>}

Got it. Very helpful, Roger. And then just as a follow-up, Peter, I know you gave some color on like the Memory outlook for this year. Can you just give a little more insight in terms of how it is between DRAM and NAND in the context of your Memory growth of 50% for this year?

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, I think the -- I think we also -- it's an extension of what we said the previous two quarters, it is primarily driven by DRAM, but we also see that 3D NAND will follow, I mean, what we see is basically following the utilization of our tools in the field that will follow, but it is primarily driven this quarter next quarter and I think the majority of this year by DRAM.

Q - Krish Sankar {BIO 16151788 <GO>}

Thanks, Peter.

Operator

Thank you. Our next question comes from the line of Alex Duval at Goldman Sachs. Please go ahead, your line is open.

Q - Alex Duval {BIO 16682293 <GO>}

Yes, hi there, congratulations on the results. Just had a quick question on EUV gross margin, so maybe expected trajectory that gross margins sort of in this year to be improved gross margins levels. I wanted if you could just talk through the drives and

improvement (inaudible) the year, I mean you referenced related to this that you will see higher ASP related to how people are on the C model, just wondering the extent that we see better-than-expected ASPs of the D model could that also be gross margin for EUV? Thanks.

A - Roger Dassen {BIO 15064806 <GO>}

Yeah, Alex at the beginning, you were a little bit hard to understand, but I think your question really was, how do you expect the gross margin to further develop on EUV? And as we mentioned before, we do expect in the second half with the introduction of the D model. We expect EUV system gross margin to be at the level of the corporate gross margin. So and I can confirm that that's exactly what's going on. You are right that we did see a little bit of a reset on the ASP for the C model right, so we've been talking about 130, but as I mentioned the configuration quarter -- the quarter turned out to be richer than we previously anticipated.

And I think it's fair to say that the 10% to 15% uptick that we've been talking about on the -- for the D model in comparison to the C model still hopes, right? So if you take the 145-ish basis for the C model, then I think a low 10 low 10 increase over that in terms of ASP I think is probably what you should be looking at for the ASP calculation. And of course to the extent that is better, that of course is also helpful a little bit on the gross margin side as well.

A - Peter Wennink {BIO 1852674 <GO>}

Although the D has also somewhat higher cost, 100% to the bottom line, we have some higher cost on the optics and also some other parts, but it will help.

Q - Alex Duval {BIO 16682293 <GO>}

Great, thanks.

Operator

Thank you. Our next question comes from the line of Amit Harchandani of Citi. Please go ahead, your line is open.

Q - Amit Harchandani {BIO 16134002 <GO>}

Thank you. Hello, everyone. Amit Harchandani from Citi. My first question is on the topic of deep UV, if I try to collect all the data points you've shared with us, is it fair for me to say you would expect deep UV sales to be up year-on-year in 2022, given that you are just getting started in Memory and cyclicalities trend could persist into 2022? And as a follow-up to that if I may, you have talked about building capacity for deep UV, your stretch that 8 billion and you talked about double-digit I think earlier in the call, is it fair to say that you would expect this 8 billion to be exceeded or basically even a higher contribution from deep UV, if not in 2022, then certainly beyond 2022? Thank you.

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, listen carefully, Amit and that is true. Everything you just said, do we expect deep UV sales to be up year-on-year? I don't know about the year that you are matching, but the fact that we are looking into increasing our deep UV capacity means that we believe deep UV sales will be up and in what year and -- but year-on-year, but I think medium to long-term, we have indeed reassessed the need for deep UV capacity going forward. I mean you're talking about capacity increase, you don't do this for one year, you do this because you feel medium to long-term that is needed. So yes and it also means that if we do that then and we say will be as around $8 billion this year on deep UV, yes that we would expect that would increase because otherwise you don't need to build capacity because we could do with what we have today.

Q - Amit Harchandani {BIO 16134002 <GO>}

Okay, thank you. I just wanted to clarify that. And secondly, if I may very quickly on geopolitics, we have heard a lot of noise based on what you've said today, it seems like you expect the whole geopolitical dynamic to be a net positive with maybe some downside risk to China, potentially being offset by potential upside in Europe and the US, is that a fair assessment or more broadly what are the latest -- what is the latest in your view versus what you shared with us end of January? Thank you.

A - Peter Wennink {BIO 1852674 <GO>}

Yeah, I think Roger said it, he said, I think we are now where we are because we are through Q1, we're in Q2 now. We have included that 600 million upside into the number that we gave you. However, we don't control the geopolitical situation and the law making, but given the market situation where we are today if some of that 600 million would not be there because of geopolitical roadblock, then the message that we will ship those systems somewhere else. And if you then look at how that affects shipments to China versus the longer-term geopolitical impact it's just a matter of timing, yeah, the other words, I think the first one could be short-term this year, the other side definitely long-term, yeah, because when you they all -- this is all about where do we build a new fab, well, it takes two to three years. So you really look at adding capacity the timeframe '24, '25 is where that capacity starts coming through the market. So it's all matter of different timing, different time perspective.

Q - Amit Harchandani {BIO 16134002 <GO>}

Thank you, Peter.

A - Skip Miller {BIO 20244900 <GO>}

All right. We have time for one last quick question. So if you are unable to get through on this call and still have questions, please feel free to contact ASML Investor Relations Department with your question. Operator, may we have the last caller, please.

Operator

Thank you. That is the line of Adithya Metuku of Bank of America. Please go ahead, your line is open.

Q - Adithya Metuku {BIO 17642884 <GO>}

Thank you. Thanks for squeezing me in and good afternoon, gentlemen. I think the most important question was just asked and answered, so thank you. I wanted to ask you a question about Installed Base Management for EUV, Peter. If you would like to maybe share with us what you think the sort of revenues could be for EUV installed base this year and how you're thinking about the slope of growth over the coming five years, the sort of things that we have a feel for the change in the mix towards sort of more recurring revenues installed base that would be great. Thank you.

A - Roger Dassen {BIO 15064806 <GO>}

Yeah, so on the more recurring side, I think what we've said in the past is that the way to model that for EUV is to take the ASP of a tool and take about 6% for that and that's when the tool is up and running at its envisage capacity, then you would have 6% of that ASP as the recurring revenue for service and maintenance for that tool. So, that excludes upgrades, but just for the regular service and maintenance 6% of the ASP is what you would see there.

So, again the assumption tool needs to be up and running at the envisage capacity and it should be out of warranty as long as the tool is in warranty, the number is a bit lower. So that's really the way to model it as it comes to upgrade, that's a little bit more difficult to do right because upgrades is lumpy, upgrades is dependent on what the customer wants in terms of productivity gains, what they want to make available to us in terms of the machine time, so that's a little bit harder to predict. But at least on the regular service and maintenance side, this is the way to model it, 6% of the ASP once do is up and running and out of warranty.

Q - Adithya Metuku {BIO 17642884 <GO>}

Right. Thank you.

A - Skip Miller {BIO 20244900 <GO>}

All right, thank you. Before we sign-off, I'd like to remind you that our Investor Day will be September 29, 2021. The event is currently planned to be held in London, we moved the date from June and hope we can have a face to face meeting at the time, but of course this will depend on the progress against the virus. More details will follow in due time. And we do hope you'll be able to join us. Now on behalf of ASML, I'd like to thank you all for joining us today. Operator, if you could formally conclude the call, I'd appreciate it. Thank you.

Operator

Thank you. This concludes the ASML 2021 First Quarter Financial Results Conference Call. Thank you for participating. You may now disconnect.