

Mobileye Global Inc.

Fourth Quarter and Full Year 2023 Earnings Conference Call

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C O R P O R A T E P A R T I C I P A N T S

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Emmanuel Rosner, *Deutsche Bank*

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Joe Spak, *UBS*

Vijay Rakesh, *Mizuho Securities*

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P R E S E N T A T I O N

Operator

Greetings, and welcome to the Mobileye Q4 '23 Earnings Call.

At this time, all participants are in a listen-only mode. A brief question-and-answer session will follow the formal presentation.

(Operator instructions)

As a reminder, this conference is being recorded.

It is now my pleasure to introduce your host, Dan Galves. Thank you, Mr. Galves. You may begin.

Dan Galves

Thanks, Kat. Hello, everyone, and welcome to Mobileye's Fourth Quarter 2023 Earnings Conference Call for the period ending December 30, 2023.

Please note that today's discussion contains forward-looking statements based on the business environment as we currently see it. Such statements involve risks and uncertainties. Please refer to the accompanying press release which includes additional information on the specific factors that could cause actual results to differ materially.

Additionally, on this call, we will refer to both GAAP and non-GAAP figures. A reconciliation of GAAP to non-GAAP financial measures is provided in our posted earnings release.

Joining us on the call today are Prof. Amnon Shashua, Mobileye's CEO and President, and Moran Shemesh, Mobileye's CFO. Also joining today for the Q&A session is Nimrod Nehushtan, Mobileye's Executive Vice President of Strategy and Business Development.

Thanks, and now I'll turn the call over to Amnon.

Prof. Amnon Shashua

Thanks, Dan. Hello, everyone, and thanks for joining our earnings call.

Starting with our results in Q4, they were in line with the press release we provided on January 4 and with the prior guide, so no surprises here. At the high level, Q4 was a strong quarter in terms of revenue growth of 13% and adjusted operating income growth of 14%. We are pleased with the sequential growth in SuperVision volumes and we expect to see continued excellent growth in that produce in 2024.

I will also call attention to our operating expenses, which were significantly lower than what we expected in 2023, much of which relates to transitory issues, but also some of which captures efficiencies that should benefit our cost structure over the long term.

Looking ahead, the guidance we provided today is unchanged from the outlook we provided in early January. The inventory correction that is impacting the first half of the year has been well publicized. While we did not learn of this buildup until late in the year, we believe we have our arms around this issue and the clear-out plan. We have implemented additional processes to more closely monitor shipments versus demand, and we believe we have good visibility into how to put this behind us and get back to normalized revenue in the back half of 2024. Moran will provide some additional color.

Switching gears, as we close out 2023, and come out of CES, it's a good time to remind you of our high level strategy and assess the progress made. Our strategy is very simple. Our products were in about 40% of auto production in 2023, and a higher percentage of vehicles with ADAS. We can continue to grow that in the coming years as a bigger and bigger percentage of cars are equipped with some level of driver-assist technology. But, the more important growth driver is average revenue per vehicle, driven by our advanced portfolio products. SuperVision, Chauffeur and Drive will generate much higher average system prices than our core ADAS products. Events and progress in 2023 gave us more confidence than ever that a very large market for these advanced products is developing and that our technology and business model makes us best positioned to enable and win in that market.

On the industry segment itself, we see three clear distinct value propositions that we expect will drive consumer demand and turn into a new, very large automotive TAM.

- Number one is a meaningful improvement in safety related to the surround cameras that are a must on the next generation of eyes-on/hands-free Level 2+ systems, like our SuperVision platform. It is underappreciated that, in addition to the convenience of hands-free driving, the 360-degree perception can support a step change in safety. Current single-camera systems don't support the many evasive maneuvers that can limit accidents, like merging into an open lane to avoid a rearend collision or avoid vehicles running red lights.
- Number two is the higher productivity for the car owner. Eyes-off systems, like Chauffeur, can offer valuable time back to the car owner. If the operational design domain is only 80% to 90% of the time, this is seen as very high value by operators.
- Number three is turning vehicles into highly utilized resources. This corresponds to our fully autonomous Drive product. We'll be able to offer self-driving systems for lower than the annual cost of a driver. This unlocks an ability for our customers to generate revenue at a much lower operating cost per mile and with no need to pay or find drivers.

We believe these value propositions align perfectly with our advanced product portfolio, and there was much evidence in 2023 to support our view that those products are the highest performing, most capable and lowest cost available options in the market.

At the high level, all the industry trends were in our direction. The pace of innovation really picked up in China and the pressure on OEM capital efficiency rose. These both are pushing global OEMs to focus more on pragmatic issues, like time to market, cost and performance, exactly where Mobileye has advantages. At the same time, we launched the ZEEKR SuperVision software to high praise, which was a significant proof point. Finally, we recently brought to our customers a collaboration framework called DXP that enables the automakers to control the driving experience of a SuperVision- or Chauffeur-based system. Finding sweet spots that enable the OEMs to control the look and feel of the system that rely on our core technologies for all the objective and safety-critical aspects is already paying dividends with customers.

On a more specific basis, we announced the value of our 2023 design wins at CES two weeks ago. Future projected revenue was \$7 billion for the second year in a row. This compares to our 2023 revenue of \$2 billion. Implied ASP of these agreements was \$122 in 2023, \$105 in 2022. This compares to ASP for 2021 design wins of \$65 and ASP of our actual revenue in 2023 of \$53. The volume associated with the design wins the last two years is \$60 million plus, compared to mid \$30 million today.

Beyond the design wins, 2023 was an important year for execution, customer acquisition and expansion of OEMs and the opportunity set. Our SuperVision system is now on more than 190,000 vehicles. We delivered the full highway software in August and it's proving to be a highly capable system, as we've expanded the design domain to 22 cities from only two back in September. We believe that proving ourselves in what is the most challenging environment for Mobileye, given data restrictions, proves our global scale, and that's a unique selling point that is underappreciated. We were awarded SuperVision design wins with Porsche, FAW, Mahindra, and a major western OEM over the course of 2023. The number of models included in all our design wins are now projected at 30 models, as compared to nine models at the beginning of 2023. Our portfolio strategy, where SuperVision serves as a bridge to Chauffeur, is being proven out, as Polestar, FAW and a multi-brand major western OEM all awarded production programs on the Chauffeur platform during 2023.

We diversified the business significantly during 2023, from mostly Chinese OEMs and mostly electric vehicles for a diverse set of OEMs' price points and powertrain types. The most important catalyst was a landmark design win to bring our entire product set to a major western OEM. It's the first global OEM to align behind our complete portfolio, especially mirroring their future intelligent driving product

development plan to our portfolio. It more than doubles the number of vehicle models in the pipeline and spans across all markets and powertrain types. The endorsement of this automaker will be high value in terms of closing additional deals.

We were successful in moving many OEMs into our business development funnel, as the high level trends I described earlier increased the sense of urgency in the marketplace and the confidence in our solutions. We now have design wins or are in advanced discussions with 11 OEMs representing 37% of industry production, as compared to three OEMs representing 9% of industry production as of the start of 2023.

In summary, we know of no other competitor in the ADAS AV space with a similar breadth of design wins that has actual navigate-on-pilot systems in production and has production programs for eyes-off systems with multiple automakers.

Overall, as we have shared previously, we do not expect 2024 financial results to be where we want them to be given the inventory correction, but we expect to leverage all the groundwork laid in 2022 and 2023 to take a leap forward in terms of visibility towards the next leg of our growth phase story.

I'll now turn the call over to Moran.

Moran Shemesh

Thank you, Amnon, and thanks for joining the call, everyone.

Before I begin, please be aware that all my comments on profitability will refer to non-GAAP measurements. The primary exclusion in Mobileye's non-GAAP numbers is amortization of intangible assets, which is mainly related to Intel's acquisition of Mobileye in 2017. We also exclude stock-based compensation.

Starting with Q4 results, we had another very good quarter, with revenue up 13% year-over-year, adjusted operating income up 14% and adjusted operating margin at 39%.

SuperVision volumes were 38,000 units in Q4, up from 29,000 in Q3. The 67,000 units we did in the second half was significantly higher than 35,000 in the first half.

Operating expenses were again meaningfully below expectations, about \$30 million this quarter. There were two main areas, each about the same magnitude. Payroll expenses were lower due to favorable Fx and due to some reimbursement for employees on military reserve duty. The other factor was higher than expected engineering reimbursement for pre-design win activities with certain OEMs. Over the course of 2023, our operating margin rose from 27% to 39% on sequentially higher revenue and consistent operating expenses. Obviously, this is backward-looking, but it should give investors some sense of the operating leverage possible once more meaningful SuperVision and Chauffeur volumes start to drive revenue significantly higher.

On a cash flow basis, we generated almost \$400 million of operating cash flow in fiscal year 2023, and it's important to note that we invested around \$200 million in rebuilding the safety buffer of EyeQ chips on our own balance sheet. We expect to maintain a consistent level of balance sheet inventory in 2024.

Capital expenditures were just below \$100 million for the year, in line with our prior comments.

Looking ahead, you're all aware that as part of the process of setting order schedules for Q1 and the remainder of 2024, we learned that there is 6 million to 7 million units of excess inventory of EyeQ chips

at our customers. We understand that much of this excess inventory reflects the decision by Teir 1 customers to build inventory in the basic ADAS category due to supply chain constraints and a desire to avoid part shortages in 2021 and 2022, as well as lower than expected production in certain OEMs during 2023. The inventory situation is related to the base ADAS business only and SuperVision inventory is at normal level.

As we noted in our January 4 press release and 8-K, we expect Q1 revenue to be down approximately 50% to around \$230 million. We expect EyeQ volumes to be around 3.4 million units in Q1. We expect SuperVision in the low 30,000 unit range, reflecting normal seasonality in China. Given the unusually low EyeQ volume, SuperVision will be a larger portion of revenues in Q1, which will result in gross margin in the mid-60 range, affecting our operating expenses, which will likely be a bit higher than the recent \$200 million run rate.

The outlook for Q1 adjusted operating income is for a loss of \$65 million to \$80 million, but we see revenue and volume snapping back fairly quickly, and believe we have very good visibility on this. Due to the nature of our business, all of this inventory is for specific OEMs and production of specific vehicle platforms. The process to clear the inventory is simply to stop shipping chips for specific vehicles and have our customers use their existing inventory to satisfy demand. There is no uncertainty regarding who the customers are, there is no alternative product that can be used, and there is no discounting or other economic action needed to clear the inventory. As we compare our prospective shipments with vehicle production schedules, we believe approximately 5 million units can clear in Q1, and the vast majority of the remainder in Q2.

In terms of our full year guidance, it is unchanged from the preliminary outlook we provided on January 4, and our visibility has improved over the last several weeks.

From a volume perspective, we are assuming 31 million to 32 million EyeQ shipments and 175,000 to 195,000 SuperVision shipments in 2024. We expect the cadence of EyeQ, assuming the midpoint of the guidance, to be around 3.4 million in Q1, an increase of at least 100% in Q2 versus Q1, and then the balance of unit shipments in the second half of the year. We believe that this cadence, based on our analysis and discussions with customers, should result in the vast majority of excess inventory to be cleared by the middle of 2024.

We expect average system price to increase in 2024, as compared to 2023, due to an increase of SuperVision as a percentage of total revenue.

In terms of gross margin, we look at it on a product-by-product basis. On the ADAS side, we expect a slight downtick in gross margin this year for two reasons. One, as you know, the cost of EyeQ chips from our supplier went up at the beginning of 2023. We passed that along to our customers. However, there were a decent number of units in 2023 where we generated revenue at 2023 prices, but used chips projecting 2022 costs. That's a minor headwind this year. We're also assuming some continued normalization of production mix after a very rich mix during the supply chain crisis. We expect these two headwinds to be partially offset by higher cloud-enhanced ADAS volumes and REM recurring revenue.

Regarding SuperVision, the optimized domain controller is now in production. This comes at a meaningfully lower cost and we are sharing a portion of that with our customers. ASP will be down a bit compared to last year, but we expect gross margin to be up meaningfully to low 40% as of Q2 2024, as compared to low to mid 30% in 2023. In addition, we would expect some level of software licensing revenue to begin making an impact in Q4 of this year, once the ZEEKR free trials are over. Any consumer that chooses to pay for the SuperVision-based feature after their free trial will drive incremental revenue and profit for Mobileye.

With respect to operating expenses, we are assuming a 20% increase over the final 2023 number on an adjusted basis, excluding amortization of intangible assets and stock-based compensation. The OpEx bears a bit more discussion. Our focus for 2024 is unchanged from what we projected several months ago and is not too far above our original forecast for 2023. Much of the lower costs in 2023 related to more transitory things, like foreign exchange and delay moving to our new campus, good news on some engineering reimbursement and reimbursement of certain payroll costs for employees on military reserve, but some of it is structural. Certain adjustments to the way we collaborate with OEMs, including DXP, means that SuperVision and Chauffeur programs can scale more efficiently than we originally envisioned. The refinement of our mobility-as-a-service strategy to focus on supplying the self-driving system leads to structurally lower costs, but we don't believe a reduction in the opportunity. The bottom line is that we do believe our operating expenses in the near and long term should be structurally lower than we expected as of a year ago. We continue to believe that OpEx percentage growth in 2025 and beyond should be significantly lower than in 2024.

Lastly, in terms of tax rate, we are assuming a non-GAAP effective tax rate of between 15% and 17% for 2024, in comparison to 11% in 2023.

Thank you, and we will now take your questions.

Dan Galves

Thank you, Moran. Kat, if you could compile the Q&A queue. Please, analysts, if you could limit your questions to one main question and one follow-up. Thank you.

Operator

Thank you. We will now be conducting a question-and-answer session. (Operator instructions) One moment, please, while we poll for questions.

Our first question comes from Mark Delaney from Goldman Sachs. Please proceed.

Mark Delaney

Good morning, and thanks very much for taking the question. I was hoping to start with an update on the engagements with the OEMs with some of your more advanced solutions, like SuperVision and Chauffeur. I think, as of the 3Q call, you said you were either booked or in advanced discussions with 10 OEMs. I think, Amnon, you said today that's now at 11, and then I believe there's another four OEMs where there was more preliminary discussions underway. Can you give any more color on how those discussions are going, your general sense of progress, and were any OEMs maybe deciding to go in another direction or do you still feel like you're well positioned with that set of customers?

Prof. Amnon Shashua

SV and Chauffeur are complex systems, so early adopters, they need a lengthy due diligence process. For example, before winning SuperVision at Porsche, we underwent thousands of miles of public roadways in Europe and in the U.S. with a due diligence that took almost a year, but now we are facing the effects of—I would call this the law of innovation of diffusion, which means that more OEMS buy into SuperVision and Chauffeur, the shorter their due diligence phase. After winning the big western OEM, I believe that the due diligence phase is getting much shorter and we foresee a number of design wins, both in western and in China, during 2024, and I believe the announcements of those design wins will be in the second half of the year.

Mark Delaney

That's helpful. One of the things I was hoping for an update on was the DXP platform. It was a big part of your speech and presentation at CES this year. I imagine you met with a number of current and potential customers at CES. Maybe you can share more around how impactful DXP is and the receptivity of auto OEMs to DXP, and maybe touch a little bit on how DXP is different from EyeQ Kit. Thank you.

Prof. Amnon Shashua

I think that the DXP really solves the problem of how the OEM can own the driving experience in a very efficient manner. Previously, before DXP, OEMs would come to us and say, "Look, we want to take your two EyeQ 6 chips, add another microprocessor, a strong microprocessor, that would cost hundreds of dollars, and we'll write our driving policy code on that microprocessor," or they would come and say, "Writing our code on your EyeQ 6 chip would create all sorts of clashes, because our code and your code, you know, fighting on resources, so we prefer to put it on a separate chip." Now, this means that the cost of the system is higher and the economical scalability is very, very important. With DXP, they don't need to add any additional microprocessor, they do not need to write code on our EyeQ 6 chip. They write code on the MCU, and they write high level code, and they use our infrastructure for writing their driving policy. So, it reduces—it does two things—it reduces the bill of materials of the system, because you don't need to add another chip, and it allows Mobileye to scale much faster, because all the code written on the EyeQ 6 chip, it's more or less the same for all the platforms. All the differences are in the MCU.

Maybe Nimrod wants to add something.

Nimrod Nehushtan

Yes, if I may add, we had the opportunity during CES to present this concept to multiple OEMs in dozens of meetings and the reception was very compelling, in the sense that although OEMs now have more focus on pragmatic considerations, like cost, performance and time to market, this does not come at the expense of owning the user experience and being able to influence and craft their own kind of owner experience for their customer base. What's really missing in the industry is to find the sweet spot in between the best performance, cost and time to market solution, and full flexibility in crafting the unique user experience, and this is where DXP comes in. It is really perceived as a driving operating system by OEMs, which is kind of simplifying the task for OEMs who are now interested in offering new driving experiences in this new generation of driver-assist and autonomous driving products.

Dan Galves

Thank you. Next question, please.

Operator

Our next question comes from Emmanuel Rosner from Deutsche Bank. Please proceed.

Emmanuel Rosner

Thank you very much. My first question is around the chip destocking situation that you flagged a few weeks or so ago. Can you maybe just go back over how you became aware of it, how do you get confidence around the magnitude of the issue and the timing of it being resolved in the line with what you reiterated today, please?

Prof. Amnon Shashua

Moran?

Moran Shemesh

Yes. So, as I mentioned in my script, the inventory buildup issue started actually three years ago in the mid-COVID period, when global production went down dramatically and the industry was all about the desire to secure production and to go after every chip. That was also the atmosphere for us with the suppliers and also from the sense of urgency that we got from our customers. That, of course, we believe led to some stock-building activity. In addition, as it relates to your question, in 2022 and 2023, actually, the ordering process changed, we needed to make a full-year commitment to our chief supplier, so we asked our customers to do the same and make a full-year commitment for a year, both in 2022 and 2023, which led to less ability from their side to adjust purchases to demand, as they did in the pre-COVID period. So, adjusting again the quantities was impossible, actually, in 2023. In 2023, we know the supply chain crisis largely was over, but it was still unclear when will global production get back to normal, to pre-COVID levels, which might be the reason that the Tier 1s kept holding this inventory through the year. They were also again obligated with commitments, but they held it through the year, and we weren't informed, of course, of such quantities. Over the course of 2023, we believe that our core customers underperformed in terms of production. Our top customers, which make the majority of our ADAS customers, they grew 4% versus the overall market growing 9%. Then, towards the end of the year, when the commitments were ending, and now in 2024, we've gone back to normal in terms of orders, we have quarterly orders and our customers can adjust it quarterly. We think that's the reason it came up towards the end of 2023 and not at the beginning of the year or some other during this period.

Emmanuel Rosner

Understood, that is helpful, and then just a quick one on SuperVision. I guess as part of this update a few weeks or so ago, you also sort of tweaked down expectations for SuperVision units in 2024. I think part of it was maybe an exercise in de-risking your own timing launches. Could you provide us sort of a similar type of de-risking around what the trajectory looks like beyond 2024? Obviously, launches have generally sort of happened a little bit later than expected, you know, at CES about a year or so ago, so just want to make sure that investor expectations are properly calibrated for what's beyond 2024 in the ramp-up initially when you only have sort of a few initial customers.

Prof. Amnon Shashua

Yes, at the beginning of 2023, we had a small number of car models and it's difficult to make accurate forecasts. Today, we have 30 car models and we can improve our forecasts. For 2023, in production, we had two car models in China to base our forecast and all that we had to rely on was OEM numbers, which turned out to be optimistic. Now we know that most of the production of SuperVision is coming out in 2026. By 2025, we'll have between nine to 11 models of SuperVision, the five models from the Geely Group, two from ZEEKR, one from Smart, one from Polestar, one from Volvo, and then between four to six car models from a FAW. So, that's the production in 2024 and 2025. Then, in 2026, we have Porsche and we have the big western OEM with 17 car models and we have Mahindra.

Dan Galves

Just one follow-up from me. This is Dan. In terms of calibration, for the leading edge analysts that have calibrated their models and estimates to the tracking document that we provided at CES, as well as their own updated analysis, these estimates look reasonable and achievable to us.

Thank you. Next question.

Operator

Our next question comes from Dan Levy from Barclays. Please proceed.

Dan Levy

Hi, good afternoon to you, and thank you for taking questions. I wanted to start with just tying to your comments about the engagements with 11 OEMs. I think, broadly, there is this narrative out there that, like you said, automakers do want to own the technology, but the challenge is it's been very difficult to scale. There's a notable example of a North American automaker that is pulling back on some of their more advanced ADAS plans, given some struggles there. So, to what extent are you seeing more engagement with automakers that, despite the desire to own the technology, really are coming to the realization that they have no choice but to come to you because you are the easiest and fastest way to scale? To what extent are you seeing automakers come around to you?

Nimrod Nehushtan

Yes, I'll take it. I think what we are seeing is this domino effect, that, in one sense, it is becoming a realization in the industry that the next few years are going to be very heavily influenced by OEMs' ability offer these products that offer hands-free driving, eyes-off driving, and it is going to become a growingly more important feature for consumers. This is what gives rise to the sense of urgency amongst OEMs to create the shortest path they can for a high-quality product. Maybe a few years ago, OEMs had the perception that they have some time to invest and they can take the longer path to get there while still owning the technology stack. Now, the clock is ticking for them and they are looking for kind of the best performance and the shortest time to market, so that they can compete. We already see this dynamic happening in China, and it's growing outside of China already today. So, we do see more and more traction from OEMs who were maybe in the past more bullish on owning the technology stack who have come to a realization that they need to at least find a parallel path inside their company to de-risk the activity towards the next generation of ADAS products. So, a certain portion of our engagements are with OEMs who have invested significantly in the past in in-house activities, I can say that.

Prof. Amnon Shashua

I can say a lot of it, it's really a flywheel effect. A few years ago, the only reference to such a system was the Tesla Autopilot and FSD. Now you have Chinese automakers with systems of a similar setup, and those Chinese automakers are also—some of the models are being exported to the West, and those are Mobileye systems. Now they know that Porsche and the big western OEM are also going to introduce these systems. So, it creates a flywheel effect. As an OEM, you need to cater to the rising competition in terms of intelligent driving. This creates more and more incentive to start working with Mobileye on these advanced products, whether instead of their in-house development or in parallel with their in-house development.

Dan Levy

Great, thank you. As a follow-up, somewhat related, maybe you could just provide us with an update on the competitive landscape in China. I appreciate that some of the earlier engagements you've had with SuperVision are based on China, but we also know that China is a market where there's right now the most rapid development cycle. There are also data barriers within China. To what extent are you—maybe you could talk about share trends or win rates in China, and to what extent are you as competitive in China as you are in the West?

Prof. Amnon Shashua

Okay. So, actually, it's going to be a lengthy answer, so bear with me, because it's really a complicated landscape.

I'll start with the West. With the western OEMs, we have about 90% share in eight out of the 10 biggest OEMs. This is true not only today, but given all the design wins to date, this is true for the foreseeable future. Actually, given all the current design wins, our market share is growing.

Now, in China, there are a number of OEMs where we have above 90% market share, including some local OEMs, like Chery. There are also some local OEMs where we have around 30%, and some where we do not have a relationship yet. For example, at BYD, we have 30% market share, and with Changan, we have zero. So, Chinese OEMs' growth is faster than our market share growth. BYD and Changan are growing very fast.

Now, in terms of competition, there's the low end and high end.

At the low-end ADAS, we have some suppliers competing at the very low-end solutions, very low-cost, very low-end solutions, and at the high end, we have the in-house development of OEMs. At the low end, competing systems suffer from a large performance gap on the very basic features, like autonomous emergency braking, for example. The performance will never pass any Western regulator. For them to catch up, they'll need to have more an expensive system, which will reduce their competitive offering. Moreover, we are adding REM to the low-end ADAS to provide a cloud-enhanced system, and Chery just announced that in two months car models with Mobileye cloud-enhanced solutions will be launched. This will add more pressure on our competitors by creating a moving target for single-camera ADAS.

For the high-end systems, those are developed in-house by some OEMs. There are still significant proof points to pass, I'll say, along three axis. There's geographic scalability, performance scalability and economic scalability. Geographic-wise, there is this move from highway to urban. This is a big challenge, because high-definition maps provided by mapmakers are done manually, they're not scaled to urban. Mobileye has REM. This is a big advantage. Also, geographic-wise, OEMs want to export systems outside of China and meet regulation. Mobileye has an advantage there. Performance-wise, the goal is to move from eyes-on to eyes-off. This is a significant step-up in performance and focus on safety. Mobileye has an advantage there. Economical-wise, in-house systems are more expensive and require more sensors to reach a reasonable performance level. Mobileye has an advantage there.

So, Chinese, I think the Chinese market is the most interesting and dynamic market to date, and I think we're doing well there. Our market share will grow, but the growth of the market is faster than our growth of the market share, and I hope we'll catch up soon.

Dan Levy

Thank you.

Dan Galves

Thank you, Dan. Next question, please.

Operator

Our next question comes from Itay Michaeli from Citi. Please proceed.

Itay Michaeli

Great. Thanks, everybody. Good afternoon. Just two quick questions for me on the pipeline. First, hoping you could kind of mention what portion of the pipeline is both looking at SuperVision and Chauffeur combined, just given the momentum you've seen with Chauffeur recently; and second question, since the big announcement at CES, have you seen an increase in activity and conversations, including maybe with the second wave OEMs you described in the last earnings call?

Prof. Amnon Shashua

Yes, Nimrod will take it.

Nimrod Nehushtan

Regarding the first question, it depends. In some of the engagements we have, we have parallel engagements for both SuperVision and Chauffeur with the same OEM. This is in the case where the OEMs are interested in a few car models with which maybe they want to have different offerings for different segments in the market, different price levels of cars. On the other hand, there are some OEMs who might be more interested in a specific product offering and maybe to start from Chauffeur or to focus on hands-off for their cars because of whatever considerations they have. So, we can say we have a mixed bag of engagements. In general, we see a good mixture of both Chauffeur and SuperVision in our pipeline engagement.

I think regarding—what was your second question, please, if you can repeat?

Itay Michaeli

Just since CES, any increase in activity and engagement with the second wave.

Nimrod Nehushtan

I think one of the interesting outcomes of CES is that we have had—just over a couple of weeks after CES, we already have, I think, three engagements within our pipeline that specifically want to focus on evaluating DXP hands-on, to actually start working technically on DXP, to start experimenting with it, to start, you know, feeling the tools, seeing how they can influence the driving experience, and this is just after a couple of weeks since we've announced it for the first time, so it is a very promising start to this promotion process that we are executing.

Itay Michaeli

Perfect, that's very helpful. Thank you.

Dan Galves

Thanks, Itay. Next question, please.

Operator

Our next question comes from Joe Spak from UBS. Please proceed.

Joe Spak

Thanks. Amnon, you talked a lot about the progress on the SuperVision program wins. I was wondering if you could shed a little bit of light on how—when you have those conversations with customers, how they think about implementation on those programs or take rates? Like, are they convinced they can charge for these features, or, you know, Amnon, you mentioned that as you sort of get to more higher end features, like Chauffeur, where you get time back, maybe, do we need features like that to really see significantly higher levels of adoption and willingness to pay?

Prof. Amnon Shashua

In the West, we have a reference and that's the cost of Tesla FSD. This is why it's so important to have a very economical, very low-cost system, to allow the carmaker flexibility in pricing. Now, a Mobileye system with the sensors is less than \$2,000. This gives the OEM lots of flexibility in pricing, considering that the Tesla FSD is \$12,000 to the end customers. Most of our engagements, the system is a standard fit, so it's not with a take rate calculation, but it comes on every car. This is the situation right now.

Joe Spak

Thank you, and then just the second one. Just with respect to the inventory build that occurred, you mentioned that you're implementing some procedures to put in place to make sure you keep better track of sell-through. Can you talk a little bit more about what you're doing there, or is this really just—you mentioned also that over the past couple of years you went to full-year commitments, so have you sort of pulled back on full-year commitments, is that part of that procedure?

Moran Shemesh

Yes, I'll take it. First of all, of course, I must say that we never experienced the situation before, as our customers have done all through the 10-plus-years' period a very good job in ordering the demand. Given the recent history and inventory issue, of course, we are taking action in several fronts to add capabilities to monitoring of shipment versus demand. The first thing that you mentioned, yes, the order process is now back to normal, so commitment for 12 months is no longer relevant. The commitment is only a quarter ahead. We do get a forecast, a 12-month forecast, but that's just a forecast, it's not a commitment. The same thing with our suppliers. Again, the industry, it's what we've been saying, that the 12-month commitment is no longer relevant in 2024, and we don't expect it to be relevant, also, in the future, as it was specific to COVID.

We will also try to receive some input from our customers on inventory level, but it's not something that we have visibility, it's important to mention. In terms of actions we are taking internally, we have established a regular process to match shipments to detailed vehicle production, both looking backwards and forward. We are putting more focus on market-based forecasts that incorporate ADAS adoption rate and OEM share trends. We always have used them and updated the forecast and compared to the market, but we will now put more weight on this as another input of the customer-provided forecast. We will also consider working with external vendors to build some statistical model forecasts to incorporate macro-level data and additional headcount to support that. That's the steps that we are taking.

Joe Spak

Okay, thank you very much.

Moran Shemesh

Another clarification, that Dan mentioned, it wasn't clear in my script. The full guidance for 2024 hasn't changed from January 4. For EyeQ, we are anticipating 31 million to 33 million units of EyeQ shipments. It's a clarification since the line was down a bit. Thanks.

Dan Galves

Thank you, Moran. Next question, please.

Operator

Our next question comes from Vijay Rakesh from Mizuho Securities. Please proceed.

Vijay Rakesh

Just a quick question on the competitive landscape again. Obviously, Mobileye is doing very well in the western hemisphere, I think, especially with CARIAD gone and GM Cruise having some problems, as well, but in China, are you seeing—there's been some concerns, potentially, in NVIDIA gaining share. Any thoughts around that? What's driving that? Is that any price, performance or just OEMs trying to diversify? Can you talk to what you're seeing there?

Prof. Amnon Shashua

I think in China, they—I mentioned the in-house development in China. Those systems, they have significant proof points to still undergo, as I said, about geographic scalability, economic scalability, performance scalability.

On the economical side, these systems are way more expensive than our system. For example, on NIO, they have four Orin chips. Orin is NVIDIA-owned and it is a very expensive chip, and they have four of them, and they have ladders for reaching—the performance level is not even reaching the performance level of SuperVision. This is on the economical side.

On the geographical side, the big game now is going from highway to urban. HD maps are not scaling to urban. It's not economical scalable. None of those in-house developments claim that they'll be using high-definition maps in urban. Some of them are claiming they'll go mapless. Good luck for them. Some of them say they'll only provide the commute feature, where you record your normal commute and you'll get performance only on that route. Mobileye has REM. Also, they want to export outside of China. There's all sorts of regulations, that Mobileye is very good at, so that's also an advantage.

So, geographic performance, you want to go to eyes-off. The Holy Grail of all of this is an eyes-off system. Their safety is paramount. You cannot just provide a system that you feel comfortable, but you can have all sorts of safety issues there because the driver is responsible. In an eyes-off system, there are no discounts, right, you have to be perfect. This also has an advantage to Mobileye.

I think China is very dynamic, which I think is a very good thing, competitive-wise, and moving forward very fast with the technology, we like that very much, and I think that the OEMs that are doing in-house development are now keeping all their options open. For example, ZEEKR, they have an in-house development and they're working also with Mobileye. We have long visibility to the continuation of work with ZEEKR.

Vijay Rakesh

Got it, and just another question on SuperVision. Obviously, there is good ramp there, but as you look out through '25, '26, can you talk to what kind of conservatism you're embedding either on the OEM unit side or on the number of OEMs, I guess, as you build that outlook on the SuperVision side?

Prof. Amnon Shashua

Yes, I mentioned that previously. In 2024, there are going to be five car models all from the Geely Group, two of ZEEKR, Smart, Volvo and Polestar, Polestar four, and then starting the end of 2024, beginning of 2025, four to six FAW car models would be added. Then, the big jump is in 2026, where we have Porsche, we have the 17 car models of the big western OEM, and we have Mahindra in China, and in all cases ...

Nimrod Nehushtan

India.

Prof. Amnon Shashua

Mahindra in India. In all cases, we're talking about the standard fit.

Vijay Rakesh

Got it, great. Thank you so much.

Dan Galves

Just to follow-up, Vijay, yes, we want to be more conservative, right, and this is why we provided more of a tracking document with the number of models, the OEMs, the launch dates for analysts to make their own estimates for these years. Like we said before, kind of the analysts that have calibrated to this and adjusted their forecasts, we see those as reasonable and achieve. So, thank you.

Vijay Rakesh

Great, thanks.

Dan Galves

Next question, please. Kat, are there additional questions?

Operator

Our next question comes from Luke Junk from Baird. Please proceed.

Luke Junk

Good afternoon. Thanks for taking my question. First question. You stated in the prepared remarks that EyeQ visibility has improved in the recent weeks. Just hoping you can expand on what is better understood sitting here in late January.

Prof. Amnon Shashua

I think the visibility is better understood.

Moran Shemesh

Yes. So, first of all, I mean, based on the shipment schedule for 2024, and the information that we have on specific inventory levels from our own research and based also on customers' input. We, of course, reviewed the detailed production forecast. As we mentioned, we expect the majority of the excess inventory should be cleared by the end of Q1, with most of the rest clearing in Q2. Of course, actual production levels of OEM customers will play a role, but based on our projections, again, we believe the excess inventory will be fully cleared by year end.

At the end of the day, we did a very true analysis of ADAS shipment rates and lower production per OEM to understand that in order to meet the production of this year, that's what we need to provide, of course taking into account the inventory issue. So, we have better visibility. We also, of course—we've mentioned Q1—we have, also, some visibility to Q2, that we said we'll be at least 100% higher than Q1. For the rest of the year, again, in line with production expectation and the analysis and what we got from our customers, that's where we think we're going to land.

Dan Galves

Thanks, Moran. I'll just follow up with a couple of things, because we've been, obviously, looking very closely.

So, the visibility since January 4 has improved. Because we have commitments for Q1, we know, generally, what the volume is going to be in Q1. We have more visibility in terms of Q2 starting to adjust into commitments, so that's why we have the confidence to say that Q2 will be at least 100% higher than Q1. Then, in terms of the back half, we have the indications from the Tier 1s, and these kind of match up with kind of the market-based forecasts that we're looking at, as well. So, overall, we feel good about kind of the visibility towards the 31 million to 33 million units of EyeQ volume in 2024, and that that level of production will—or that level of shipments will result in the elimination of the excess inventory almost completely by the middle of the year, and then, potentially, with a little bit left in the back half.

Luke Junk

Understood, thanks for that, Dan, and then my follow-up question, hoping you could comment on some of the key facets of the anticipated expense growth in 2024. In particular, there's been certainly an increasing focus on the AI-related facets of driving policy development. I think it would just be clarifying to understand how Mobileye is investing incrementally in generative AI tools this year. Thank you.

Prof. Amnon Shashua

Our OpEx growth is mostly devoted on our desire to execute all these programs in SuperVision. The Porsche, the western OEM, all of those are converging to 2026, to continue supporting ZEEKR, of course, with many OTAs that are going forward. Our move from a Tier 2 to a Tier 1 with Porsche and the western OEM, we're acting as a Tier 1 supplier. In some other cases, we're acting as a Tier 1.5. But, all of this requires more resources to support this in a very good way. As of using AI, this does not need growth, this is our normal activity with the existing manpower that we have. It is more moving from a Tier 2 to Tier 1 and supporting so many car models that are coming out in production in the next few years that requires some growth.

Moran Shemesh

Yes. Of course, I mean, the headcount cost increases. Again, a few tens of millions relates to the higher number of employees and maybe more enhanced salary raises, and also the savings that we had in 2023. We need to recall in Q4, we had some reimbursements for military service. These are not things that necessarily will happen in 2024. Also, the ILS effect, the Israeli shekel effect in 2023. Besides that, we have also significant facility's growth of a few tens of millions, we're moving to the new campus. The depreciation there is approximately \$20 million. So, also, in terms of facilities. Besides that, also, our EyeQ platform, EyeQ 6 and EyeQ 7, our radar product as we approach 2025. Also, in the Lidar domain, we have some growth in 2024.

Luke Junk

Thank you.

Dan Galves

Thanks, Luke. Next question, please.

Operator

Our next question comes from Chris McNally from Evercore. Please proceed.

Chris McNally

Thanks so much, Amnon, and thanks team. Maybe just some quick math and a cleanup here on the ADAS TAM. I think previously Mobileye has discussed 50% '21 penetration for the industry and moving to about 75% in '25, '26. This seems slightly pushed out now, looking at '25 or '26, something in the low or mid 60% penetration. So, first, can we talk about industry adoption on base ADAS, and then, second, around global market share? You've discussed a lower share on maybe some of the domestics, a China share, maybe 50% or below. Is it fair to say that your 65% to 70% historical share may be moved to this kind of, I don't know, 64%, 65% on that mix effect over the next couple of years? So, any new high level math that you could provide us on industry chips sort of later in the decade would be really helpful.

Prof. Amnon Shashua

I think on the western OEMs, our market share is continuing to grow. Just based on all the design wins that we had in 2023 and 2022, we are growing our market share. As I said before, eight of the 10 biggest OEMs, we have more than 90% market share. With China, the growth of the Chinese OEMs is faster than the growth of our market share, so our market share there is reducing naturally. As I mentioned before, China is growing very, very fast and we have zero—we have no relationship with Changan. BYD is growing very fast, we have only 30% market share with BYD. But, we are continuing to win, to get design wins in both the low-end ADAS and the high-end ADAS, like SuperVision. We will see how the market share in China will play out the next few years, but now it's really an unstable position because the market is growing very, very fast.

Nimrod Nehushtan

If I may add. I think that if you refer to a correction to the market share calculation based on the inventory levels, we really think that the inventory levels that we have disclosed were accumulated over a period of time that is longer than a year, likely closer to three years. So, if you kind of try to compound what will be the effect for the annual volumes that we have disclosed, it's more about a \$2 million reduction per year, on average, which accounts for maybe 1%, 2% of the market share calculation that we've had in the past.

So, we don't think that this indicates for a significant change in our market share forecast on a global level.

Chris McNally

All makes sense on the explanation on market share. Maybe if we can go back to that industry adoption, sort of the when will we hit on a global basis 75% penetration. Obviously, some of those western players, Amnon, have been pretty slow to make standard fit, obviously, outside of Toyota, but any view on what is sort of a ballpark year we can think about industry ADAS penetration being around 75%?

Prof. Amnon Shashua

From external sources, this is the number that is being projected till the end of the decade, 75% market share of ADAS. We have no reason to believe this is going to change.

Dan Galves

Even possibly higher, and I think that India is an area where we see a lot of growth. The western markets are fairly well penetrated, probably above 70%, but there's still some growth there, but I think a market like India, which is maybe single-digit ADAS penetration, but the systems that have been on the road, in production the last couple of years have been extremely successful, so now everybody's trying to kind of catch up, and we have a very good position there, so I think that's going to be a good market for ADAS adoption, as well as our share, over the next couple of years.

Nimrod Nehushtan

If I may add, we do see also—in the last year, we did start to see a growing pull from regulatory bodies in emerging markets in order to kind of start promoting the adoption of ADAS systems in new markets, like South America, India, as Dan mentioned. In addition, in Europe and the United States, there is a move towards mandating safety systems for vehicle production, and this started just recently in Europe with GSR, which is not just kind of a bonus feature, it's a mandate in order to sell cars. These two driving forces are what we think will push the industry towards higher adoption rates within the next few years.

Chris McNally

Thank you.

Dan Galves

Thanks, Chris.

Operator

This concludes our question-and-answer session. I would like to turn the floor back over to Dan Galves for closing comments.

Dan Galves

Thank you, Kat, for managing the call, thanks to the Management Team of Mobileye, and thanks to everyone for joining. We'll talk to you next quarter. Thank you.