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Joshua Buchalter, *TD Cowen*

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

Dan Galves – Mobileye, Chief Communications Officer

Hello, everyone, and welcome to Mobileye's third quarter 2023 earnings conference call for the period ending September 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 Professor Amnon Shashua, Mobileye's CEO and President, and Moran Shemesh, Mobileye's CFO.

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

Amnon Shashua – Mobileye, Chief Executive Officer and President

Thanks, Dan. Hello, everyone, and thanks for joining our earnings call. Before going to our business commentary, I'll make a few comments about the situation in Israel.

Israel is now at war. The current effects on Mobileye are twofold: first, roughly 9% of our employees are currently serving in the IDF Reserves, with their teammates gladly working longer hours to compensate. Second, we are allowing more flexibility to work from home. I see no material impact on our operations. Mobileye does not have any production facilities in Israel nor customers in Israel. Furthermore, there has been no material effect on our operations and ability to develop, test, perform business activities, or meet our objectives as a result of the war.

Okay, turning to our results in Q3, Maron will provide more details, but at a high level, Q3 was another excellent quarter. On a year-over-year basis, we grew the top line 18%, adjusted operating income grew 27%, and adjusted net income grew 59%. Operating cash flow on a year-to-date basis has been impacted by investments to rebuild our strategic inventory of EyeQ chips, which we had used to maintain steady supply during the chip crisis. If you adjust for that investment in inventory, which is now largely complete, operating cash flow has also grown very strongly so far in 2023.

Another third quarter financial highlight is the 34% adjusted operating margin. The beat versus consensus here was driven primarily by cost, some of which was related to macro factors like currency and some related to planned cost efficiency initiatives.

Turning to our product portfolio, our bookings so far in 2023 put us on track to outperform the \$6.7 billion of future revenue from design wins we generated in 2022, which was by far a record year. We'll have more details on that at CS in January. We are having a tremendous amount of success with our EyeQ6-based product portfolio. The diverse platform supports everything from basic ADAS to SuperVision to Chauffeur to Mobileye Drive, and we are excited to launch the first EyeQ6-based ADAS program in early 2024, consistent with the timeline we laid out several years ago.

While SuperVision continues to be a major focus, I would note that we continue to add a very high number of basic and cloud-enhanced ADAS programs. On the cloud-enhanced side, these deals are at significantly higher prices than current ADAS and typically include REM-data sharing agreements. This would result in a very meaningful expansion of the OEMs that contribute REM mapping data in the coming years, improving map refresh times and diversifying the data sources.

In addition, we added our first SuperVision Lite customer this week, a system based on a single EyeQ6 high chip with a reduced configuration of cameras that supports hands-free limited to highways. The design win is from a large global OEM with plans to equip the systems on high volume vehicles.

We also had some important SuperVision and Chauffeur design wins in Q3. We added FAW as a customer with what is a relatively near term start of production date of late 2024 for the first of many SuperVision vehicles, and a year later with the first Chauffeur vehicles. More on that in a minute. We also added a Chauffeur program with Polestar for SOP in late 2025.

On the Mobileye Drive mobility-as-a-service side, the various key components towards scale are progressing on schedule, including our software stack, the EyeQ6 high based computer engine, and the imaging radar. Our vehicle platform partners are also making progress. Recently, our strategic partner, Volkswagen Commercial Vehicles as well as HOLON, demonstrated our technology in their vehicles in Hamburg for the German Minister of Transport. The event indicated strong support to deploy this technology to improve transportation efficiency with a goal to put up to 10,000 autonomous vehicles on the roads of Hamburg by 2030.

What I believe was the most important development in Q3 was the delivery of highway SuperVision software through an over-the-air update to more than 100,000 ZEEKR vehicles owners in late August with navigate on auto pilot feature providing hands-off navigation from Point A to Point B. This was an extremely critical proof point in front of our OEM customers.

It's one thing to demonstrate technology on a fleet of test vehicles; it is a completely different level of product validation to deliver an eyes-on, hands-free system to 100,000 consumers. Feedback has been outstanding with media in China consistently noting that the ZEEKR system outperforms strong competition, despite significantly lower sensor content and a fraction of the compute power. Out of the more than 1,000 beta users who used the system a couple of months before the broad roll-out, 95% of them said they planned to buy the system after the 12-month trial period that ZEEKR is offering.

I can't emphasize enough that this over-the-air update amplified a flywheel dynamic that's been developing for the last year or so. The industry has noticed a higher pace of innovation and a significant growth in demand in China for systems to take over more and more of the driving. This creates higher pressure among all OEMs to develop competitive hands-free systems, to generate value from software but also not to fall behind. This pressure forces more emphasis on pragmatic factors like time to market, cost and performance, as opposed to the desire to in-source. This creates higher demand among OEMs for the Mobileye products which offer clear advantages in time to market, cost and performance. Deploying the software in more than 100,000 consumer vehicles and receiving many accolades in the world's most competitive market clarified our ability to deliver and serves as the final component in the flywheel.

We felt the impact of this proof point immediately. The successful roll-out led directly to the FAW design win and an acceleration of progress towards potential design wins with other key prospects. What I mean by acceleration is that there is an increased urgency to converge towards production programs. This is reflected as more clarity from customers on next steps, for example, clear deliverables, timelines, and approval processes. While the design win process rarely moves as fast as we want, we expect that we'll have more news on SuperVision and Chauffeur over the next five months.

I'll put some numbers against it. Last quarter, we disclosed that we either have already booked design wins or were in advanced stages for SuperVision and/or Chauffeur design wins with nine OEMs, representing 30% global automotive production. That number is now 10 OEMs, representing 34% of auto production. If we go back to the beginning of 2023, that number would have been three OEMs representing 9% of the industry. This group does not include any low volume brands or early stage start-ups, and it's broad geographically: it's one U.S. OEM, two European OEMs, four Chinese OEMs, and three Asian OEMs.

We are also very encouraged that we have received meaningful interest from the next wave of OEMs that represent an incremental 15% of global auto production. While not at the point that we would call these advanced stages, the initial work looks very promising.

Before turning it over to Moran, I will close with a few words about China and FAW. I traveled to China with our executive team in September to meet with several key customers. It's not an exaggeration to say that this market is moving at light speed towards putting eyes-on, hands-free systems on the road. Premium ADAS is a huge selling point in marketing materials. The media is extremely knowledgeable about the technology, and consumers demand it. There is so much traffic congestion in China and consumers are tired of battling it on their own. They want cars to battle the traffic for them.

I can see the potential for 15, 20, 25% of cars sold in this market to have SuperVision Lite capability a few years from now, so it's very important for us to win there, and we are winning. Of the group of 10 OEMs I mentioned before, four are China-based: Geely Group, FAW, and two other significant automakers. We also have opportunities to expand with existing customers. The ZEEKR-Mobileye collaboration has been

very successful and is leading to opportunities for additional ZEEKR vehicles, as well as from other brands in the Geely group. This could add significant volume in the near future.

The FAW relationship is key for us. A government-owned automaker choosing a non-China partner in this highly strategic technology area is a next-level validation in front of other China OEMs. It's also a very broad program, FAW is going all-in on SuperVision. They're standalone car brands have a very robust product cadence starting in late 2024, and every vehicle model launched from that time on will include SuperVision. There is also ambition to sell the resulting platform into their JV brands as well, which would increase the volume opportunity by a factor of five.

Thank you for your time and interest in Mobileye. I will turn the call over to Moran.

Moran Shemesh – Mobileye, Chief Financial Officer

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 of 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 Q3 results, we had an excellent quarter with revenue up 18% and adjusted operating income up 27% year-over-year. Overall EyeQ and SuperVision volume increased about 16%, with the remainder of the growth related to higher EyeQ ASPs and some initial small mobility-as-a-service revenue that was related to self-driving systems shipped to customers for installation on test vehicles. SuperVision shipments were 29,000 units in the quarter, which was in line with expectations. These units were primarily for ZEEKR 001 and to a lesser extent ZEEKR 009, although in Q3 we also had some initial deliveries for the Smart 1 and Polestar 4.

SuperVision gross margin improved somewhat as compared to Q2 due to lower overhead per unit on higher volume. Looking ahead, we expect two catalysts to drive further improvements in SuperVision gross margin over the course of 2024. Number one, in collaboration with our supply chain, we are introducing the second generation of the SuperVision domain controller, which we expect will result in meaningful cost savings. We plan to begin the transition to this new controller in late Q4 and into early Q1. We will share the savings with our customer by modestly lowering average selling prices, but the net result is expected to be an improvement to gross margin beginning in Q2 and more meaningfully in Q2 of 2024.

Number two, as Amnon mentioned, the rollout of navigate-on-pilot software to ZEEKR vehicles in August went very well. Any existing ZEEKR owner or a new buyer through December 31 this year will get a 12-month free trial of this software. After this period, the consumer will need to choose whether to pay an incremental cost to continue to utilize the SuperVision features. We will receive meaningful software revenue for any consumer that chooses to keep the software. This should lead to an incremental boost of SuperVision gross margin in the back half of 2024.

Turning to operating expenses, they were again lower than expected in Q3, which combined with the strong revenue growth led to a robust adjusted operating margin of 34%, up about three points versus Q3 2022. Approximately half of the lower than expected costs were again related to lower than expected payroll costs driven by depreciation of the shekel. This is a meaningful driver of costs for us due to payroll and related expenses being the majority of our operating expenses and the significant majority of our employees being in Israel. Payroll expenses were actually slightly lower in Q3 as compared to Q2 despite higher headcount. The remainder of the lower than expected costs primarily related to timing of certain expenditures or in general efficiencies we achieved.

In terms of cash flow, we had a strong quarter compared to Q2, but continued to invest a significant amount in rebuilding our strategic inventory of EyeQ chips, which was largely consumed in 2021 and

2022 during the supply chain crisis. As of the end of Q3, we have almost reached our target of approximately six months of strategic inventory, so cash used for re-stocking should be significantly lower in the next few quarters. When adjusting for cash consumed by inventory year-to-date in 2023, our operating cash flow conversion as a percentage of adjusted net income remains very high. Capital expenditures in the quarter were consistent with our unchanged view that CapEx for the 2023 calendar year should be roughly similar to 2022.

Turning to the guidance, as we look ahead to Q4, EyeQ volumes are tracking in line with our prior guidance. At the midpoint of our guidance, EyeQ volumes are expected to be a bit more than 20% above Q3 levels with ASPs down a bit sequentially due to mix. I would just note that this implies a record level of quarterly EyeQ volume and importantly should not be used as a starting point for estimated 2024 volumes. We'd encourage you to look at the full year 2023 and apply a growth rate to that when thinking about 2024, and consider that the high volume in Q4 could lead to some hangover effect in Q1, similar to the dynamic in the first quarter of 2023.

Turning to SuperVision, implied Q4 volumes based on the midpoint of the guide for 2023 is approximately 37,000 units. This should bring us to around 102,000 units for the full year of 2023, which is towards the low end of the 100,000 to 115,000 we incorporated in our guidance at the time of our April earnings. This fine-tuning of the shipment forecast is what led us to modestly adjust our 2023 revenue guidance.

The consumer demand for ZEEKR 001 and 009 was well aligned with our shipment levels in Q3. Continuation of this, plus incremental volume for new products like Smart 1, Polestar 4, and ZEEKR 001 shipments to Europe, supports the growth in volume from Q3 to Q4. As these new products ramp up and we add a fifth vehicle in Q1, the Volvo EM90, we are set up well for continued sequential growth in 2024.

Based on our assumption for mix and volume, we expect Q4 gross margin to be consistent with Q3. We expect operating expenses for full year 2023 to be about 13% on a year-over-year basis. In 2024, we'd expect operating expenses to grow at a higher rate, assuming some normalization in the relative value of the Israeli currency as well as the ramp-up of project spending related to expected new SuperVision and Chauffeur programs.

Lastly in terms of tax rate, we continue to expect an effective tax rate in the 12% range for the year.

Thank you, and we will now take your questions.

Operator

Thank you. We will now be conducting a question-and-answer session.

(Operator instructions)

Our first question comes from Joshua Buchalter with TD Cowen. Please go ahead.

Joshua Buchalter – TD Cowen

Hey guys, thanks for taking my question, and most importantly, I hope everyone is doing safe and your families are okay in Israel.

To start, you mentioned the tenth OEM, and I believe it's the first time you explicitly have called out a U.S. OEM for SuperVision. Can you confirm whether or not those are the same thing and also provide any details on the scope or timing of how that would ramp into the model? Thank you.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, as I mentioned in the script, I believe in the next five months, things will play out. I would say that the percentages of turning those remaining OEMs until design wins range from 99% confidence to 50% confidence, depending on which OEM we are talking about, and in the next five months, we'll have much more clarity. As I mentioned, it's a global spread from the U.S., Asia, China. It's really global, starting from just the Geely Group a year ago to now really a global span.

Dan Galves – Mobileye, Chief Communications Officer

Josh, this is Dan. Just to clarify, the incremental OEM was not the U.S. OEM. The U.S. OEM was in this group as of last quarter as well, and we continue to progress and feel good about that customer.

Joshua Buchalter – TD Cowen

Got it, thank you. Then in the guidance for the full year, you called out SuperVision as driving that very modest tick-down at the midpoint for revenue. Has anything changed with how you're thinking about 2024, and can you walk us through what are the drivers of that? Is it a new vehicle model, or was it volumes at the 001 that's changing things? Thank you.

Amnon Shashua

The new vehicle volumes for 2024 is expansion of the ZEEKR 001, expansion of 009 of ZEEKR. We have Polestar 4 coming out, we have Smart #1 coming out, we have the Volvo EM90 coming out toward the end of 2024. We have the FAW brand coming out, and there is a certain, I think, high probability that we'll have another OEM in China that will also launch end of 2024.

Joshua Buchalter – TD Cowen

Got it, thank you.

Operator

Our next question comes from Itay Michaeli with Citi. Please go ahead.

Itay Michaeli – Citi

Great, thanks. Hi everybody, good afternoon. Just two questions for me.

First, on the new wave of automakers expressing interest, can you maybe just share, one, how many automakers are in that second wave; and two, to what extent these automakers have existing in-house operations for advanced level two plus? A second question just on the SuperVision Lite award, hoping you could share just the ASPs and expected start of production for that program. Thank you.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Okay, so I'll start with the second question, the SuperVision Lite. When we are a Tier 1, it's about 60% of the revenue compared to SuperVision. When we are a Tier 2, it's a few hundred of dollars revenue. In this particular program that we won, we are a Tier 2, so we supply only the EyeQ6 chip, just like in any Tier 2 relationship.

It's a really high-volume global grant, and I think it offers a new level of intermediate premium in which the SuperVision capabilities would be limited only to highways, but still will be very, very high hands-off capabilities. The SuperVision allows you to expand way beyond the highway - arterial roads, urban roads,

and also be the basis for Chauffeur at a later stage, so this allows us to have an entry point to medium and low segment car brands, car models, and this is a very important win.

As for your first question, the next wave, this 15% of the global auto production that I mentioned, it's about four OEMs and they don't have anything comparable to SuperVision. They are starting to notice that the SuperVision Lite system is really the next premium in the coming years. I believe that eventually every carmaker would offer a SuperVision Lite product in the coming two or three years.

Itay Michaeli – Citi

That's all very helpful. Thank you.

Operator

Our next question comes from Joseph Spak with UBS. Please go ahead.

Joseph Spak - UBS

Thank you everyone.

The first question is, I know your solution is technically powertrain-agnostic, but as we're hearing about some program delays on next generation EVs, not in China where I know a lot of your wins are to date, but if there is a push out, does that at all change your trajectory on SuperVision or do you think there's an opportunity to maybe add more features, whether it's cloud-enabled ADAS or whatnot, to existing programs?

Amnon Shashua – Mobileye, Chief Executive Officer and President

The cloud-enhanced ADAS is progressing on a separate track. We have two already that we mentioned last quarter which are responsible for \$1 billion revenue until the end of the decade, and we have four more in the pipeline ready to be signed in the next few months, so that's a separate track.

SuperVision start of production, if there are delays, it's weeks or a few months. It doesn't change materially our forecast in terms of revenue per year, and as we get more design wins, our weakness toward one particular program that's delayed or not becomes much, much—we don't rely—we're not susceptible to such delays. Obviously, when we have only one car OEM with the program, then we are really dependent on delays, but when we have 10 or more, then a delay here or there should not change the revenue guidance.

Joseph Spak – UBS

Okay, perfect, and then just maybe a clarification on the OEM commentary around SuperVision. First of all, the nine to 10, does that include the SuperVision Lite customer, and then also, I know you provided some comparisons versus what you said earlier in the quarter, or even last year. I think at CES you mentioned six brands, so how does the 10 OEMs compare to that brand comment earlier this year?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Okay, so the 10 OEMs does not include SuperVision Lite - SuperVision Lite is a separate track. We have one design win for that and we are working towards getting more business for that track. SuperVision is a separate track, so those 10 OEMs are for SuperVision.

In terms of brands, it's really 10 OEMs. Last time when we talked about brands, we really meant the ZEEKR 001 and 009 as two brands of the same OEM. All others are separate OEMs, right, so the ones

that we announced was Polestar, Smart, now we are revealing it's Volvo in China, Porsche, and all the rest are separate — FAW, and all the rest are separate OEMs, not brands within that group of OEMs that I just mentioned.

Joseph Spak – UBS

Thank you very much.

Dan Galves – Mobileye, Chief Communications Officer

Yes, so just to clarify, Joe, on that, just to be super clear. Within the ten OEMs, we're considering Geely Group as one OEM, right, so we have four brands, five models, but within this metric, we're considering that one OEM. We plan to continue to update this metric on a regular basis along the same methodology as we move into the future, and we'll try to be very consistent with what we're considering an OEM.

Joseph Spak – UBS

OEM is the parent level, effectively?

Dan Galves – Mobileye, Chief Communications Officer

The parent level, effectively. There could be some, because some parent levels have two different product developments, but we're trying to be consistent at the parent level within this metric.

Joseph Spak – UBS

Okay, thank you very much.

Operator

Our next question comes from Chris McNally with Evercore. Please go ahead.

Chris McNally – Evercore ISI

Thanks so much, and also just wanted to echo the best for the Mobileye family.

Amnon, one of the high-level questions I have about the push into SuperVision Lite is I think you have something like \$3.5 million-plus of enhanced, just our estimate, for this year. What would be the reason an OEM would continue with enhanced rather than SuperVision Lite, other than the time to change over? It seems like that entire base of units should quickly change over to SuperVision Lite. Just would love to hear about the pro-con, just to get all the increased features at really no additional cost at the program level.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, no, there's a significant cost to the OEM between a front-facing camera, with or without cloud-enhanced, and the SuperVision Lite. The SuperVision Lite has between six to seven cameras feeding onto a domain controller powered by an EyeQ6 chip. On the other hand, a front-facing camera is just a front-facing camera, right - there's no domain controller. Cloud-enhanced is our ability to add value to a front-facing camera, so you have a front-facing camera which is very low cost to the OEM, and just by adding software capabilities, we can considerably enhance the feature set, the value proposition of a front-facing camera, for example allow it to do lane keeping when we don't see any visible lanes or providing traffic light information and providing alerts against running on a red light or braking against running on a red light, and so forth and so forth.

The price difference is significant between a front-facing camera with or without cloud-enhanced, SuperVision Lite, SuperVision, Chauffeur, and then Drive. These are big steps in terms of cost.

Chris McNally – Evercore ISI

Maybe I'm wrong - I thought on a lot of these gen-1 programs, there was also—on the enhanced that you're on, there was also a significant amount of radar, for example, so if you have multiple radar, you could be adding \$500 or \$600 to the total cost of the system to the OEM, which you may be able to remove with SuperVision Lite.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Many of the front-facing cameras do not have the radar. It's not that every ADAS program has a front-facing radar. A lot of our front-facing camera penetration is vision only, there's no radar. With the SuperVision Lite, it's seven cameras, including four of them are parking cameras, of course. Sometimes they come with the radars and sometimes they do not. In this particular program that we won, there is a front-facing radar.

Chris McNally – Evercore ISI

Okay, makes sense, and that's why you'd have the limited operational design domain of when the gen-1 programs only had the camera.

The second question, for getting OEMs on the low end to sign up for SuperVision Lite, could you talk a little bit about how the system would scale, meaning do they get to see how REM and RSS works, and then it leads for them to potentially use higher levels of SuperVision for more premium vehicles, and just the ability for them to upgrade on those existing platforms over time to higher forms of SuperVision. If you could just go through that escalation, that up-sell that you could have with the vehicles.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, if an OEM buys into SuperVision Lite, they cannot upscale because SuperVision has more sensors, has more cameras, has 11 cameras. Normally, it goes the other way around. We have an OEM that is signed into SuperVision in some of its models and now has a low-end model and wants to upgrade the low-end model from a front-facing camera to a SuperVision Lite.

Chris McNally – Evercore ISI

Oh, and just if I could follow, and that logic, the SuperVision Lite win, that was a new OEM, right, so you didn't down-sell this specific OEM. The SuperVision Lite is the first SuperVision they're taking?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, the SuperVision Lite win is with a new OEM. The design win is with a new OEM. It's not part of the OEMs that we mentioned before.

Chris McNally – Evercore ISI

Perfect, appreciate the detail. I'll follow up after.

Operator

Our next question comes from Adam Jonas with Morgan Stanley. Please go ahead.

Adam Jonas – Morgan Stanley

Amnon, again my thoughts and prayers are with you and your loved ones in the Mobileye community following the atrocities in Israel.

My first question is on the legacy OEMs. Many of them are dialing back their investment plans. We expect that will continue. If it does, does slower EV adoption categorically have any impact on SuperVision adoption over the next few years, in your mind?

Amnon Shashua – Mobileye, Chief Executive Officer and President

I think the opposite is happening. When they are dialing back investments, they're basically dialing back in-source. Those are very big investments and pushing them towards a better time-to-market performance and ODD scaling that Mobileye can provide. Our engagements with OEMs on SuperVision is really all over.

Dan Galves – Mobileye, Chief Communications Officer

Yes, just to be specific, SuperVision is not an EV-targeted system. It's agnostic to powertrain, so we don't see any impact from relative.

Adam Jonas – Morgan Stanley

Okay, that brings up my second question then, Dan. Of the ten identified, how many of those are EV, and do any of those include architectures for ICE or hybrid?

Dan Galves – Mobileye, Chief Communications Officer

None of these 10 OEMs are EV-only companies. I think that we're involved with design wins, discussion and negotiations. I think what I would say is that we have announced design wins with Geely, with Porsche, with FAW. The other seven are in negotiation around a variety of models within each group.

Anything to add to that, Amnon?

Amnon Shashua – Mobileye, Chief Executive Officer and President

No, it's really agnostic to the powertrain.

Adam Jonas – Morgan Stanley

Yes, but I was thinking the operating system though, I'm sorry, I'm almost done here. Powertrain, I can see agnosticism, but my understanding was that starting clean sheet with an operating system and electrical architecture did have some advantages for integrating a very invasive and important new system like the technologies you offer, relative to, say, retrofitting an existing or fading out or run-off of an architecture, but I don't know if that logic is correct.

Amnon Shashua – Mobileye, Chief Executive Officer and President

I think that the SuperVision system is really a closed system, whereas the new wins, there is cooperation with the OEM on tuning the driving policy. As I mentioned in the last quarter, we have a new language, we call it tuning language or behavioral shaping language, which allows the OEMs to really take control of all the driving policy decisions on top of our operating system of driving policy, but it's all within our

system, so whether you have an EV or a new architecture or not a new architecture, there is no difference. It's really agnostic.

Adam Jonas – Morgan Stanley

Thanks, Amnon.

Operator

Our next question comes from Shreyas Patil with Wolfe Research. Please go ahead.

Shreyas Patil – Wolfe Research

Hey, thanks so much for taking my question. As we look out over the next few years, you've talked about SuperVision ramping up to maybe the low 200,000-unit range for next year. I think you're still targeting 1.2 million by 2026, so that would imply a pretty big ramp in 2025 and '26, so maybe can you talk a little bit about the visibility, how much visibility you feel like you have there in supporting that kind of ramp?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, our visibility is getting better and better as time goes by, naturally. The more design wins or closer design wins gives us a much better visibility. I would say that among all the opportunities that we have, 50% of them are going to launch in 2025, or 2025 and earlier, and 50% in 2026. We are talking about an inflection point in revenue because SuperVision revenue per car is an order of magnitude higher than our ASP of EyeQ. Now, pinpointing exactly the date of that inflection point is difficult, but a 2025, 2026 timeframe, we are confident with the numbers that we gave.

Shreyas Patil – Wolfe Research

Okay, great.

Then just to maybe clarify, so you mentioned on SuperVision Lite in this award that you secured, you're playing a Tier 2 role versus a Tier 1, so can you maybe talk a little bit about what a Tier 2 role entails for you? Is it more just software versus providing the domain controller as well? Is that how to think about it?

Amnon Shashua – Mobileye, Chief Executive Officer and President

The Tier 2 role means, this is our classic role in almost all other non-SuperVision programs, where we provide the chip, in this case it's the EyeQ6 High, and all the software around it that powers the EyeQ6 in terms of the driving functions, and our revenue is for the chip and the software, and it's a few hundreds of dollars.

Shreyas Patil – Wolfe Research

Okay, maybe just the last quick one for me, just shifting to profitability. It looks like Q4 is tracking towards 36% for operating income at the midpoint, which is quite strong. I think you previously talked about 20% Opex growth for next year, but it sounds like this year is maybe coming in a little bit lower, so should we still be assuming that kind of growth or should we assume something higher?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, there was some things that were not in our control, like the depreciation of the Israeli shekel, which is responsible for most of our operating expenses. We were still late in moving onto our new campuses,

so there's also saves on operating expenses; but our plans of investments, we're not changing them. We have big investments to make going forward, and those have not changed.

Moran Shemesh – Mobileye, Chief Financial Officer

I would just add to that, on 2023 there's also an issue worth mentioning of the nonrecurring engineering reimbursements that reduced R&D. For more advanced development programs like SuperVision or Chauffeur, the NRE reimbursements are much more significant than what we used to see in ADAS, of course to tie with the Mobileye investments, and therefore more challenging to predict. These reimbursements for 2023 are expected to be higher than our conservative assumption at the beginning of the year. That's also part of our savings for 2023.

As for 2024, based on our current forecast for 2023, we would expect to see 20% or 25% growth in 2024. An important factor is, of course, the design wins, what we are winning in SuperVision and Chauffeur, but assuming we win everything, we expect it to be even closer to 25% in 2024.

Amnon Shashua – Mobileye, Chief Executive Officer and President

There was a point that I forgot to mention with the SuperVision Lite, our revenue includes also a REM, so it's the chip, the software and REM as well.

Shreyas Patil – Wolfe Research

Okay, understood. Thank you so much.

Operator

Our next question comes from Mark Delaney with Goldman Sachs. Please go ahead.

Mark Delaney – Goldman Sachs

Yes, good afternoon, and let me add my support and sympathies for everything that the Mobileye family is dealing with.

A question on the tech roadmap for you, Amnon. Do you think the latest GPUs and AI training technology will help Mobileye to accelerate its product development timelines? On the topic of the tech roadmap, I'm curious what feedback you've had on your paper about how end-to-end neural nets may not be the best approach for autonomy.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Well, our view about end-to-end, we put it in that paper. I don't think this is the forum to repeat what I wrote. It's out there in the blog and we spent some thought on writing it, so I'll not add more to that.

In terms of our compute infrastructure, our compute infrastructure is not GPUs, it is the EyeQ. It provides us much more flexibility than a GPU. It's much more cost efficient, it's much more power efficient, and this is what is driving the big value proposition to our customers, that we can be very efficient in cost performance and ODD scaling because we have a tailored system on chip to our needs.

Mark Delaney – Goldman Sachs

Got it, thanks.

In terms of the potential for SuperVision gross margins to expand, you spoke about a new domain controller and that being a meaningful driver over the course of 2024. Any more details you can share about how impactful that may be to gross margins? Thanks.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Our asymptote of gross margin for SuperVision is aiming at 50%. We're not there yet, but this is where we are going.

Moran Shemesh – Mobileye, Chief Financial Officer

Yes, and for SuperVision, as we mentioned, the gross margin, since the two figures that I mentioned, one is the cost reduction for the ECU, the next generation of the ECU that's supposed to have a significant impact in the beginning of 2024, end of Q2, and also again, the software bundle, that will have a more effect in the back half of 2024, but we will have a meaningful growth in gross margin for SuperVision in 2024 versus 2023.

Mark Delaney – Goldman Sachs

Thank you.

Operator

Our next questions come from Aaron Rakers with Wells Fargo. Please go ahead.

Aaron Rakers – Wells Fargo

Yes, thanks for taking a question, and my thoughts to the Mobileye family as well, given your current situation.

I guess I wanted to ask about the longer term, how we should think about just the model attributes of monetizing cloud-enhanced ADAS, obviously with the ZEEKR NZP functionality across the 100,000-plus vehicles. Maybe walk me through how we think about that monetization, which sounds to be kicking in, in the latter part of 2024? Any metrics you can help share on how we should think about that?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Dan, do you want to say a few words and then I'll add?

Dan Galves – Mobileye, Chief Communications Officer

Sorry, Aaron, could you repeat the question?

Aaron Rakers – Wells Fargo

Yes, Dan, I appreciate that. I'm asking about the monetization, the effect of the ZEEKR vehicles, for example, taking the full license of the REM functionality, the cloud-enhanced ADAS, just how we think about that flowing into the model as we look through '24.

Dan Galves – Mobileye, Chief Communications Officer

Yes, I think maybe I'll start and then maybe Moran can talk a little bit more.

Cloud-enhanced ADAS has the potential to generate recurring annual revenue from the maintenance of the map. Those volumes are still relatively small because it was really just a couple of platforms from Volkswagen Group, Ford will be adding RAM to their BlueCruise, so the volume should start to ramp pretty significantly next year. But the function of annual recurring revenue is you want to see repeated years building up a cumulative number of cars and that's when it starts to make a big difference, so we'll see some effect next year of the recurring revenue, but it could get much more meaningful in the future years.

I think that on software bundle revenue, we're really encouraged by the feedback that we're getting from consumers in China. At the end of the day, to take these, the SuperVision functionality and pay an incremental cost from the consumer perspective, obviously that's going to come from whether they value the system or not. That's why we think that the pre-trial was a really good idea because there is a lot of value in the system, and it's better for people to experience that rather than make them make the decision before they've ever experienced it.

Just one thing to reiterate is of the beta users of that system, 95% said that they would pay for the system. We don't think that the penetration rate is going to end up that high, but it's a really encouraging sign. I don't know if Moran has anything else to add, and that should start to happen in the second half of next year. Moran?

Moran Shemesh – Mobileye, Chief Financial Officer

Yes, so neither the volumes or recurring revenues made a material impact this year in 2023, but we see the growth trajectory on ASP, the cloud-enhanced ADAS and REM revenue will start to provide some modest tailwind to ASP in 2024. As Dan mentioned for SuperVision, it's only in maybe the back half of 2024 after the trial has ended.

Amnon Shashua – Mobileye, Chief Executive Officer and President

Yes, but to be more concrete about SuperVision with ZEEKR, every customer that is converted to paying for NZP is a few hundred of dollars to Mobileye. That's the range.

Aaron Rakers – Wells Fargo

Yes, very helpful. I think there was a comment in the prepared remarks that in the context of ZEEKR and other brands within the Geely Group that you said could add significant volume in the near future. Can you help us appreciate that a little bit more? What are you referring to there, it sounds like within Geely?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Yes, within Geely, it's more design wins. We are working on more platforms beyond the 2025 time frame.

Aaron Rakers – Wells Fargo

Okay, okay. Thank you very much.

Operator

Our next question comes from Emmanuel Rosner with Deutsche Bank. Please go ahead.

Emmanuel Rosner – Deutsche Bank

Thank you very much. First of all, I would also like to express my thoughts, prayers, and support to the Mobileye family in the current horrible circumstances.

I wanted to ask you first on your FAW win, obviously extremely encouraging in the new customer, and then start pretty soon in late 2024. Can you just frame for us again the scope of what the current win is in terms of the brand and perhaps vehicle models or timeline, and then what would be the timeline around potential expansion of it and in which direction would that relationship expand?

Amnon Shashua – Mobileye, Chief Executive Officer and President

The relationship is on design wins of SuperVision starting from end of 2024, so it's the same domain controller that is running on the ZEEKR vehicles, it's not the EyeQ6, it's the EyeQ5, and it's a rollout for all brands of FAW starting from end of 2024. I think more than six brands. Then a year later, based on EyeQ6, is the Chauffeur, so they're going to be one of the first customers. Polestar 4 is also a customer, but also FAW. On the Chauffeur, eyes-off highway, eyes-off with a Chauffeur system of three EyeQ6, will include also one of our imaging radars. It's not just the domain controller but also, we start providing also sensors. That's the scope of the relationship.

Emmanuel Rosner – Deutsche Bank

Then in your prepared remarks, you also alluded to potential expansion to some of the joint venture brands. How would that play out? Who needs to take these sorts of decisions, and what is the timeline for that?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Yes, I don't know, it's speculation. It's difficult to put a probability on it, but I believe that a successful rollout of SuperVision on FAW's own brands would be a good catalyst to start moving to the joint venture brands as well, but at the moment there's nothing concrete there.

Emmanuel Rosner – Deutsche Bank

Understood.

I guess just following up quickly then, since this is launching already in late 2024, obviously helping with some of your SuperVision volumes next year. I understand your point on higher confidence in 2025, 2026, since this is the bulk of the launches, but still curious about your latest mark-to-market on what 2024 volumes could look like for SuperVision. Is a little bit more than doubling this year still on track, especially with the addition of FAW?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Yes, I think this is a good estimate, about doubling what we have in 2023, but this is a good estimate.

Dan Galves – Mobileye, Chief Communications Officer

Yes, we feel the same as we did last quarter when we made the comment.

Emmanuel Rosner – Deutsche Bank

Great to hear, thank you.

Operator

Our next question comes from Pierre Ferragu with New Street Research. Please go ahead.

Pierre Ferragu – New Street Research

Hey guys, thanks for taking the question. I think you made interesting comments about China in your prepared remarks. It must be a very interesting market at the moment with you guys ramping up SuperVision, and at the same time, you have a handful of competitors who have started to pull on the market, like in the hands of drivers, of consumers, self-driving features that provide, I would say, a similar service but with more compute and more sensors, more than just a camera.

I'd love to hear how much you've been able to assess the difference in user experience between SuperVision and these alternative features and how you feel about it. At the end of the day, are all these systems competing within that very similar ground, are they offering very similar experience, or do you see significant differences emerging between SuperVision and what the rest of the market has been able to put on the road so far?

Amnon Shashua – Mobileye, Chief Executive Officer and President

There have been detailed benchmarks, by third parties, comparing ZEEKR 001 with NZP, comparing to XPeng, to NIO, to Li Auto. The difference is striking in terms of measuring the mean time to interventions, how much time it takes to go to point A to point B. The ZEEKR 001 was by tens of percent faster, much less intervention rate, by order of magnitude less intervention rate. No, the difference is really striking.

Some of those systems, I think all of them are relying on a high-definition map, the conventional high-definition map, which they already have mentioned that they cannot scale it, it's too expensive to scale, where Mobileye doesn't use the conventional high-definition map, and those systems are much more expensive. As you mentioned, the compute, sometimes it's about 10 times more compute than what we have, many more sensors, more radars, front-facing LiDARs, and some of them, they have two front-facing LiDARs, so I think we're very confident we have a good value proposition in terms of performance, in terms of cost, in terms of ODD scalability.

Our REM capabilities allow scalability, geographic scalability that a conventional high-definition mapmaker would find it very difficult to compete. The kinds of benchmarks that have been conducted is how the vehicles behave when you approach a construction zone, when there is a blocked lane, so it was a very detailed benchmark, it's not just intervention rate, and really the difference is striking.

Pierre Ferragu – New Street Research

Thanks, great.

Just a quick follow-up, and I'm sorry to come back to that but I just want to make sure I get the whole thing completely. You have your 10 OEMs, of which three you've announced. They represent 34% of the market, and what you say, that of the seven that are not confirmed yet, your confidence ratio, I would say, in terms of converting them, sits between 50% and 99% depending on which one we're talking about, and then you had an additional 15% of the market on which confidence is below 50%, I assume. Is that the right way to wrap all that into just one sentence?

Amnon Shashua – Mobileye, Chief Executive Officer and President

Yes, I'll say it's a range within 50% to 99%, but the 50% is only one of them. The rest is higher than 80%, and one of them is 99%.

Pierre Ferragu – New Street Research

Excellent. Thank you for the final clarification on that.

Dan Galves – Mobileye, Chief Communications Officer

Thank you, Pierre.

Operator

This concludes today's teleconference. You may disconnect your lines at this time. Thank you for your participation and have a great day.