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Q1 2022 Himax Technologies Inc Earnings Call

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## CONFERENCE CALL PARTICIPANTS

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**Mark Schwalenberg** *MZ Group S.A. - Director*

## PRESENTATION

### Operator

Hello, ladies and gentlemen. Welcome to the Himax Technologies, Inc. First Quarter 2022 Earnings Conference Call (Operator Instructions)

I would now like to turn the conference over to your host, Mr. Mark Schwalenberg from MZ Group.

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### Mark Schwalenberg *MZ Group S.A. - Director*

Thank you, operator. Welcome everyone to Himax's first quarter 2022 earnings call. Joining us from the company are Mr. Jordan Wu, President and Chief Executive Officer Ms. Jessica Pan, Chief Financial Officer and Mr. Eric Li, Chief IR/PR Officer. After the company's prepared comments, we have allocated time for questions in a Q&A session. If you've not yet received a copy of today's results release, please e-mail [himax@mzgroup.us](mailto:himax@mzgroup.us), access the press release on financial portals or download a copy from Himax's website at [www.himax.com.tw](http://www.himax.com.tw).

Unless otherwise specified, we will discuss our financials based on non-IFRS measures. You can find the related reconciliation to IFRS on our website. Before we begin the formal remarks, I'd like to remind everyone that some of the statements in this conference call, including statements regarding expected future financial results and industry growth, are forward-looking statements that involve a number of risks and uncertainties that could cause actual events or results to differ materially from those described in this conference call.

A list of risk factors can be found in the Company's SEC filings, Form 20-F for the year ended December 31, 2021, in the section entitled Risk Factors as may be amended. Except for the Company's full year of 2021 financials, which were provided in the Company's 20-F and filed with the SEC on March 23, 2022, the financial information included in this conference call is unaudited and consolidated and prepared in accordance with IFRS accounting. Such financial information is generated internally and has not been subjected to the same review and scrutiny, including internal auditing procedures and external audits by an independent auditor to which we subject our annual consolidated financial statements and may vary materially from the audited consolidated financial information for the same period. The Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

I would now like to turn the call over to Mr. Eric Li. Eric, the floor is yours.

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### Eric Li *Himax Technologies, Inc. - Chief of IR/PR Officer & Spokesperson*

Thank you, Mark, and thank you, everyone for joining us. My name is Eric Li, Chief IR/IP Officer at Himax. On today's call, I will first review Himax's consolidated financial performance for the first quarter of 2022, followed by our second quarter 2022 outlook. Jordan will then give an update on the status of our business, after which we will take questions.

Historically, our [first] (added by company after the call) quarter sales are seasonally the low point of year due to the Lunar New Year holidays. This year, starting from [the end of] (added by company after the call) February, additional factors also weighed in, mainly new lockdowns in China to contain the spread of Omicron variant and the geographical conflict erupting in Ukraine, both causing major disruption to our supply chain.

Despite these additional challenges, our first quarter revenues, gross margin and EPS were all in line with the guidance range issued on February 17, 2022. First quarter net revenues of \$412.8 million decreased 8.6% sequentially, within our guidance of down 5% to 9%. Yet Q1 sales were up 33.6% on a year-over-year basis. Our gross margin came in at 47.0%, a decrease from the record high of 51.8% in the fourth quarter last year, but within our guidance of around 46% to 48%. Non-IFRS profit per diluted ADS was 69.7 cents at mid-range of the guidance of 67.0 cents to 73.0 cents but significantly up 81.5% from the same period last year. IFRS profit per diluted ADS was 66.3 cents, at mid-point of the guidance of 63.5 cents to 69.5 cents, but significantly up 73.1% year-over-year.

Revenue from large display drivers was \$110.6 million in Q1, a decrease of 11.5% sequentially but an increase of approximately 60% year-over-year. TV revenue was flat sequentially, anchored by high-end and large-sized TV [IC] (added by company after the call) shipments to key accounts, despite the first quarter being a seasonally slow period and the continued soft TV demand. After consecutive quarters of strong growth, both monitor and notebook IC sales decreased sequentially as we guided, on the backdrop of slowing end market sell-through. However, both grew nicely on a year-over-year basis, a reflection of our leading position across high-end display and the premium model. Large panel driver ICs accounted for 26.8% of total revenues for this quarter compared to 27.7% in the fourth quarter of 2021 and 22.6% a year ago.

Moving on to our small and medium-sized display driver segment, revenue was \$258.5 million, a decline of mid-single digits sequentially but an increase of more than 25% year-over-year. The robust sales growth in our automotive segment for the past several quarters continued during Q1. Automotive IC sales increased more than 30% sequentially and more than 170% year-over-year. Our e-paper sales increased more than 15% sequentially in Q1 despite a shipment halt at the end of the quarter caused by city lockdowns in China.

Small and medium-sized driver IC segment accounted for 62.6% of total sales for the quarter compared to 61.2% in the previous quarter and 66.1% a year ago. In Q1, the automotive driver segment became our single largest revenue contributor, representing over 25% of total sales. We expect this upward trend in automotive contribution to continue throughout 2022.

The revenue growth in automotive driver IC was backed by comprehensive design-win coverage across panel houses, Tier-1s and the car makers alongside increased capacity for both discrete DDIC and TDDI.

Automotive DDIC sales, which is still the predominant portion of our automotive IC revenue enjoyed decent first quarter growth, up more than 20% sequentially with demand continuing to outpace supply. On TDDI for automotive, we reached an impressive [new] (added by company after the call) milestone with over 3 million units shipped during the first quarter as we previously guided. Given our leadership position in automotive driver IC, comprehensive product offering, and the growing vehicle display market, we expect sustainable robust growth in our automotive business with further market share gains on top of fast expanding market.

After many quarters of consecutive growth, our Q1 tablet revenue slightly declined off a high base by mid-single digit. However, tablet revenue was up low-teens on a year-over-year basis, due to strength in our TDDI sales which grew low single digit from the proactive adoption by all leading non-iOS tablet names. We maintained our leading market share position in the non-iOS tablet market with accelerated TDDI penetration among leading brand names.

In line with our guidance, first quarter smartphone revenue declined double digit sequentially. The smartphone market continued to be challenged by sluggish demand, unexpected lockdowns in China and geopolitical tensions, resulting in significantly reduced demand visibility at panel houses, and OEMs which have started to reduce their IC inventory. As we mentioned on last quarter's call, we expected a portion of the first quarter decline due to our strategically initiated product transition for key customers' new designs, which led to less production output during Q1.

First quarter non-driver revenues came in better than expected at \$43.7 million, a sequential decrease of low-teens but up around 25% year-over-year. The better-than-expected result was driven by higher shipment of our ultralow power AI image sensing total solution to the notebook market. Our Tcon business was slightly down mid-single digit sequentially but increased more than 50% year-over-year, a reflection of better mix towards higher-end product areas such as the 4K/8K TV, gaming monitor, low-power notebook and automotive Tcon.

Non-driver products in Q1 accounted for 10.6% of total revenue as compared to 11.1% in the fourth quarter of 2021 and 11.3% a year ago.

Non-IFRS gross margin for the first quarter was 47.0%, a decrease from 51.8% of last quarter but much higher than 40.2% of the same period last year. As we previously discussed, there were two primary factors that adversely impacted our margin profile. First, our cost of goods sold for Q1 reflected the higher foundry prices from the previous quarter. Second, expedited customer orders for which we enjoyed premium prices decreased in Q1 due to market softness. IFRS gross margin was also 47.0% for the quarter. Our non-IFRS operating expenses for the first quarter was \$44.0 million, down 9.3% from the previous quarter but up 12.3% from a year ago.

As a reminder, the sequential operating expense decrease was caused by a one-time cash bonus at the end of December last year to further reward employees for our last year's remarkable financial results. The year-over-year increase was caused mainly by increased salary and R&D expenses. IFRS operating expenses were \$51.5 million for the first quarter, down 8.0% from the preceding quarter, but up 30.5% from a year ago. The higher IFRS figures were mainly due to the tranche of annual bonus compensation which we award employees at the end of September each year. The 2021 annual bonus compensation including RSUs and cash awards totaled \$74.7 million, out of which \$24.8 million was immediately vested and recognized in the third quarter of 2021. The remainder will be equally vested in 3 tranches at the first, second and third anniversaries of the grant date.

The remaining compensation expenses will be recognized on a straight-line basis over the vesting period of each tranche.

The first quarter non-IFRS operating income was \$149.9 million or 36.3% of sales versus 41.1% of sales in the last quarter and 27.5% of sales from a year ago. Non-IFRS after-tax profit was \$121.9 million or 69.7 cents per diluted ADS, decreased from \$148.4 million or 84.9 cents per diluted ADSs last quarter, but significantly higher than \$67.1 million or 38.4 cents for the same period last year.

Turning to the balance sheet, we had \$447.1 million of cash, cash equivalents and other financial assets as of March 31, 2022, compared to \$245.8 million at the same time last year and \$364.4 million a quarter ago. The higher cash balance was mainly from \$72.0 million of operating cash inflow during the quarter and payments received from the customers for the purpose of securing their long-term chip supply. We had \$51.0 million of long-term unsecured loans as of the end of Q1, of which \$6 million was current portion.

Our quarter end inventories as of March 31, 2022 were \$253.1 million, up from \$198.6 million last quarter and up from \$114.9 million a year ago. Accounts receivables at the end of March 2022 was \$442.2 million, up from \$410.2 million last quarter and up from \$289.1 million a year ago. DSO was 96 days at the quarter end, as compared to 84 days a year ago and 97 days from last quarter. First quarter capital expenditures were \$3.6 million versus \$2 million for both last quarter and a year ago. The first quarter CapEx was mainly for R&D related equipment and in-house tester for our IC design business.

Just prior to today's call, we announced an annual cash dividend of \$1.25 per ADS, totaling approximately \$217.9 million and payable on July 12, 2022. The payout ratio is 50% of net profit of last year, which is lower than our average payout ratio historically. The relatively low payout ratio reflects our decision to reserve sufficient working capital in the light of macroeconomic uncertainty and to facilitate our anticipated growth for the next few years. We are grateful for the continued support of our shareholders as we continue to execute our business objectives and strive to deliver sustainable long-term growth.

As of March 31, 2022, Himax had 174.3 million ADS outstanding, unchanged from last quarter. On a fully diluted basis, total number of ADS outstanding for the first quarter was \$174.8 million.

Now turning to our second quarter 2022 guidance. We expect second quarter revenue to decline 16% to 20% sequentially. Non-IFRS gross margin is expected to be around 43% to 45%, depending on the final product mix. Non-IFRS profit attributable to shareholders is expected to be in the range of 45 cents to 50 cents per fully diluted ADS. IFRS profit attributable to shareholders is estimated to be in the range of 41.5 cents to 46.5 cents per fully diluted ADS.

I would now like to turn the call to Jordan. Jordan, the floor is yours.

**Jordan Wu Himax Technologies, Inc. - Founder, CEO, President & Director**

Thank you, Eric. Looking ahead to the second quarter, a host of geopolitical macroeconomic and pandemic-related factors are creating challenges and impairing our near-term outlook.

The war in Ukraine, rising inflation and rolling lockdowns throughout China have significantly impacted the supply chain and consumer electronics demand, leading to a particularly abnormal business environment. Murky order visibility is leading to smaller and shorter demand forecasts by leading global brands. In response, starting at the end of Q1, panel makers began taking aggressive measures in an attempt to quickly reduce their IC inventories.

Against the backdrop of challenging market conditions and short-term uncertainty, for the second quarter, we expect a sequential decline in gross margin, mainly because our cost of goods sold this quarter represents pricing from previous quarters when foundries were still raising their prices.

We also have some mild price adjustment in support of our non-automotive customers amidst soft demand worldwide. However, with both foundry and back-end pricing already stabilizing, our cost of goods sold moving into the second half will unlikely continue its upward trend over the first half of the year.

As COVID-induced lockdowns begin to fade and supply chain disruptions are alleviated, visibility will improve and ultimately lead to a rebound in market demand. We anticipate Q2 sales to be the low point of this year. For full year, despite the murky short-term market condition, we remain upbeat about our top line for 2022, supported by the automotive business and two new revenue streams, which all enjoy solid business visibility.

We now expect our 2022 full year sales to stay at approximately the same high level of 2021. For the automotive business, regardless of the macroeconomic concerns, we are targeting sales to double from last year, which already more than doubled from the year before. Meanwhile, backed by strong order pipelines, our ultralow power AI image sensing and OLED business, two new sales streams are poised to deliver an impactful contribution. The increased contribution of these key sectors comes with the added benefit of improving our long-term product mix in terms of both profit margin and business visibility.

With that, I will begin with an update on the large panel driver IC business. For the second quarter, large display driver IC revenue is projected to be down double digit sequentially due to production disruptions in the midst of China's lockdowns, coupled with weakness in consumer demand. The outlook for large sized driver IC business remains murky with moderating TV sell-through and muted Chromebook sales. TV and notebook IC sales are expected to decline double digit sequentially in the second quarter due to customer's inventory control in response to sluggish global demand and reduced business visibility. We expect monitor IC sales to also decline sequentially, reflecting the overall market softness in the second quarter. Yet on a year-over-year basis, monitor IC sales are expected to increase by more than 60%. This demonstrates our leading position across major customers for their higher end displays and premium monitor models, as well as our ability to offer total solutions covering display driver ICs and advanced Tcons.

Turning to the small and medium-sized display driver IC business. In the second quarter, revenue is expected to decline mid-teens sequentially. Sales for automotive are foreseen to be flat sequentially and up more than 110% year-over-year. Smartphone sales are set to decline single digits sequentially while sales for tablet are expected to decline by double digit, both due to our customers' efforts to reduce their near-term inventory, a result of the sudden deterioration of forecast visibility from their customers on the backdrop of China's ongoing city lockdowns, weaker macroeconomic environment and slowing end market demands.

Now for a quick update on each of the major sectors in our small and medium-sized display driver IC business. First, on the automotive segment. As Eric mentioned earlier, automotive overtook other sectors to become our largest revenue contributor during Q1, representing over 25% of our total sales. To elaborate on our success in this core segment, Himax is the market leader in automotive display driver technology with a 40% global market share.

We boast a comprehensive product portfolio with market leadership ranging from traditional DDIC to new technologies such as TDDI,

local dimming Tcon, LTDI and OLED. Despite strong consumer demand, the global car market continues to suffer from ongoing key component shortages and port congestion, which are hurting automotive sales worldwide. However, the increase in the number, size and sophistication of displays inside vehicles is evolving at a rapid rate, all indicating much more driver IC content per vehicle. We are uniquely suited to continue to expand our footprint in this lucrative market, backed by secured multi-year foundry capacity and customer purchase agreements, as well as strong design-in coverage from all major panel houses, Tier- 1s and automotive OEMs. Additionally, we are the pioneer of mass production for TDDI, a technology that is essential for large-sized interactive, stylish and curved automotive displays.

While TDDI is still in early stage of mass deployment for automotive market, we already achieved a milestone of over 3 million units shipped in Q1 alone while continuing to see rapid increases in TDDI design-win coverage [around] (corrected by company after the call) a broad range of automotive customers across the world for their upcoming vehicle models. In addition, our cutting-edge LTDI, which caters to larger than 30-inch displays and incorporates sophisticated touch feature with multi-chip design architecture, is yet another promising product in which we expect to see tremendous long-term results starting from 2023. We expect to double our automotive sales again in 2022 on top of the already strong 2021 sales growth of 111%.

For the second quarter, we expect the automotive DDIC sales, which are still much larger than those of TDDI and AMOLED, to be flat to slightly up sequentially, but up more than 90% year-over-year. Our total IC output was adversely impacted by fab maintenance at one of our major foundry suppliers at the end of the first quarter. The maintenance was long overdue because of the heavy backlog of unmet demand. While we expect our automotive DDIC output to increase quarter-over-quarter for the rest of the year, the severe foundry capacity shortage continues to be a constraint for our automotive DDIC business. Q2 sales for automotive TDDI are expected to decline single digit sequentially as a side effect from the Russian-Ukraine War and Chinese city lockdowns which have led to postponement of certain new projects, mass production timetable.

Nevertheless, we still see extraordinary business momentum into the second half of 2022 for our automotive TDDI. We are well prepared in terms of secured long-term foundry capacity for automotive TDDI which is on track for exponential growth throughout 2022 and the foreseeable future.

Next, regarding smartphone and tablet businesses. The smartphone market continues to be depressed by excess inventory for panel makers, ODMs and brands. Pandemic-induced logistic and supply chain disruptions are also weakening market sentiment, while rising inflation adversely affects household disposable income leading to a prolonged replacement cycle at the consumer end. Against this backdrop, we expect Q2 smartphone IC business to be down single digits sequentially. For tablet, we expect sales to fall double digits sequentially from the high base in the first quarter, driven by the slow-down in orders as our customers digest their inventory. In addition, the mass production timetables for some of the new larger-sized tablets were postponed due to China lockdowns. With that said, we believe the pandemic has fueled a secular shift towards remote work and e-learning that consequently will keep tablet demand above pre-pandemic levels.

TDDI penetration continues to rise for tablets, which are moving towards large-sized displays, higher frame rate and particularly active stylus features where we are seeing expanding adoption. Himax still has the leading position in non-iOS tablet market with decent market share. As soon as brands regain confidence in their outlook, we expect our sales momentum to rebound from panel makers replenishing inventory and preparing to launch new models. We therefore remain positive in our Q3 business outlook with a high likelihood of sequential rebound from the trough of Q2.

Turning to the e-paper driver business, another product in our small and medium-sized driver lineup. Our e-paper business is set to grow more than 120% sequentially, representing around 2% of total sales in Q2. The phenomenal sequential growth stems from increasing demands to a leading customer as well as catch-up shipments that were delayed last quarter due to logistics disruption from lockdown in China. On a year-over-year basis, e-paper business is expected to increase significantly by around 300% due to a growing number of awarded projects with leading customers for their ASIC product shipment. We continue to collaborate with world-class e-paper customers for certain ASIC projects with increased R&D efforts spent on their next-generation products towards larger size, higher resolution and colored e-paper displays. Backed by long-term supply agreements and lasting partnerships with industry-leading customers, we expect to capture significant market share in the ever- expanding e-reading and e-signage markets throughout 2022.

Next for an update on AMOLED. In partnerships with major Korean and Chinese panel makers in various applications, we continue to gear up for AMOLED driver IC development. Our AMOLED solution for tablet has commenced mass production starting this quarter where we provide both AMOLED driver and Tcon total solution and are the sole source supplier for a global leading tablet customer. We are working to secure additional capacity to meet the customers' product launch schedule and desired volume. In addition, our flexible AMOLED driver and Tcon for automotive display successfully ramped up for customers' flagship EV model in Q1. Concurrently, the number of awarded projects with worldwide conventional car makers and EV vendors is increasing.

As for smartphone, we continue to commit R&D resources to AMOLED driver ICs through arrangements with top-tier customers. In the light of serious constraints on AMOLED display driver capacity in the next few years, we have secured meaningful capacity in this area with our secured capacity fully booked up by leading panel makers. Finally, for AMOLED TV and notebook sectors, we are encouraged by our progress in the last few quarters with designs made for leading customers and panel houses' next-generation products. In the second quarter, our AMOLED business, including Tcon driver, is expected to account for around 4% of total sales and is slated for strong growth in the next few years.

Now let me share some of the progress we made on the non-driver IC businesses. Starting with an update on timing controller. We anticipate Q2 Tcon sales to grow low single digit sequentially, a result of higher shipment of Tcon for monitor, OLED tablet and automotive sectors. The consumer market continues to expand its appetite towards advanced displays for visual enjoyment and diverse video entertainment. After years of commitment and R&D effort, we have successfully positioned ourselves towards high-end areas, including 4K/8K TV, high-frame rate gaming monitor, low-power notebook, local dimming Tcon for automotive as well as OLED for tablet and automotive. These high-end areas not only warrant much higher content value on a per panel basis, but also represent a higher barrier to entry for late comers.

As OLED displays gain traction in the market due to technological advantages, we have been collaborating closely with major panel houses to joint-develop an industry-leading AMOLED tablet display solution. We provide both AMOLED Tcon and drivers, with both commencing mass production in Q2.

Additionally, we extended our Tcon product reach from higher-end tablets into notebook sector where currently we are initiating projects jointly with panel makers for next generation premium OLED notebook. We are optimistic about the long-term potential of our Tcon business and continue to look to secure more capacity from our foundry partners in pursuit of sustaining the growth.

Switching gears to the ultralow power AI image sensing total solution, which incorporates Himax ultralow power CMOS image sensor, our proprietary AI processor and CNN-based AI algorithm. On April 14, our wholly owned subsidiary, Emza, announced that its revolutionary and innovative AI-based visual sensing technology was adopted in a range of Dell's new notebook models.

The WiseEye AI image sensing solution, which runs Emza's algorithm on Himax's proprietary ultralow power AI processor and AoS image sensor, features always-on ultralow power contextual-aware vision AI. The solution can detect user engagement levels based on presence, movements and facial direction. This contributes to better laptop power management, maximizing battery life and ultimately enhancing the laptop's user experience. We are thrilled by this deployment and anticipate continuous market proliferation as we engage in ongoing discussions with worldwide notebook brands and platform partners where the number of design-in projects are increasing as we speak.

Another area we are gaining momentum with our AI total solution is the automatic meter reading, AMR, application, where we have seen surging adoption across the continents over the past few quarters. With greater focus on sustainability and environmental consciousness, more countries are devoting resources to water preservation and are eager to implement intelligent water conservation technology. AMR embedded with Himax ultralow power AI image sensing technology is an ideal fit for this market. Our power-efficient AI solution, installed over the existing traditional water meters, can automatically collect water consumption data with AI operating locally on the AMR device itself, providing in-time detection of abnormal leakage.

So far, we have received most of the inquiries from China where our AI total solution has been widely adopted by numerous customers

covering a wide geographical area. Some of these projects were slated for mass production starting Q1 but subsequently delayed due to the pandemic resurgence. In addition to China, we are also seeing a growing number of inquiries from other countries in Asia and Europe as well as India, an indication that our solution is effective, easy to use and affordable for this application. The AMR application is expected to start generating sales in the near future.

The rapid advancement of AI over the past few years has expanded both the function and popularity of AI applications that are now finding their way into nearly every business sector. For our ultralow power AI image sensing solution, we are seeing a wide variety of successful use cases and adoption in areas such as panoramic video conferencing, smart parking, fitness equipment, smart agriculture and medical inspection among others.

As an illustration, in the areas of smart agriculture and environmental protection, our solution was adopted by Sseed Studio, an IoT platform enabler into their 'IoT into the Wild' product launch. We expect to see many more of these types of engagements with mass production in some of these exciting new channels.

Lastly, I would like to give an update on our optical related product lines covering WLO, LCoS and 3D sensing. On our last earnings call, I provided a brief overview of our optical technology road map and applications in the metaverse market. In short, Himax is at the forefront of this exciting and yet early-stage industry, having meticulously developed technologies for many years in collaboration with leading companies in the space. We believe our optical technologies, individually or combined, will play a key role in enabling metaverse AR/VR devices.

Now to provide an update on our progress this quarter.

First, on our LCoS microdisplay. I'm pleased to report a new LCoS design-win for a projector product from a leading global player. For AR glasses, currently we have several joint development projects underway with leading tech names, some of which are using our cutting-edge Front-lit LCoS Microdisplays for their next-generation products. Our Front-lit LCoS Microdisplay features lightweight, small form factor, high illumination and full RGB color displaying characteristics, making it ideal for future AR glasses.

Next on human interface sensing for 3D gesture control. We have several AR/VR projects underway with industry leaders, aiming to achieve immersive and precise controller-free gesture recognition. Moving on to 3D eye-tracking. We have been engaged by some of the leading display companies for the adoption of our 3D eye-tracking technology which enables immersive 3D naked eye displays free of motion sickness for monitor, notebook, and medical applications. Last on 3D scanning and reconstruction. Creating virtual worlds involves huge datasets of 3D images, including avatars, objects and other environment surroundings and 3D scanning device is required for the purpose of generating these 3D images.

Currently, we have a few projects underway with leading virtual object companies whose 3D scanning devices adopt Himax proprietary dual 3D sensing architecture to reconstruct 3D virtual objects on a real-time basis.

As I mentioned last quarter, metaverse development is still in an early stage. Yet Himax is well positioned with years of research and development, a strong product portfolio, production history and key partnerships to capitalize on its growth in the years to come.

For non-driver IC business, we expect revenue to be up low single digits sequentially in the second quarter.

That concludes my report for this quarter. Thank you for your interest in Himax. We appreciate your joining today's call, and we are now ready to take questions.

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## QUESTIONS AND ANSWERS

### Operator

(Operator Instructions) Your first question comes from the line of Donnie Teng from Nomura.

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**Donnie Teng *Nomura Securities Co. Ltd., Research Division - VP & Analyst of Greater China Semiconductor and Technology Research***

My first question is regarding to your comment on the sales pattern into the second half. So I'm just curious, I know second quarter looks like to be a dip. But for the recovery of third quarter and fourth quarter, you are seeing more like a shipment driven or more like ASP recovery? That's my first question.

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**Jordan Wu *Himax Technologies, Inc. - Founder, CEO, President & Director***

I think it's primarily shipment driven. Donnie, I think we actually mentioned that we feel confident that we should be able to achieve at least a flat 2022 total revenue versus the high level of last year. Now how do we arrive at that number and how do we get our confidence? I guess this is another way of addressing your question. Actually, we can conceptually divide our products into 2 groups. The first group being the one with high visibility. They are automotive, obviously, timing controller, which has very strong visibility. And also, there are the second group. Sorry, that's the first group, right? The first group includes these 2 existing product lines with very strong visibility. And also, we have 2 major new revenue stream, kind of product lines, right, being AMOLED drivers or related products and also ultralow power AI sensing. These are new revenues, which didn't exist the year before.

So that is the first group, right? They enjoy good visibility because of the nature of our product in the industry or because of the fact that they are actually new revenue streams in which we are always the sole source provider where the customer is launching new products. So the visibility for their business plan is actually quite good. Now there are also the second group of products, which are primarily all the consumer electronics, the TVs, computers, cell phones and the like. Honestly, the visibility currently is lower than usual, right? But if I take my existing projection for my customer for the first group, and I put in a number into my whole year's projection. And if I assume my whole year revenue to be flat compared to last year, then that implies the second group, i.e., the low visibility group, the revenue is actually representing a pretty material decline from year-over-year basis.

The number I mean, obviously, low visibility, being low visibility, that means we don't have a great deal of confidence one way or the other. However, the good news is that we actually recently analyzed customers' inventory level, rather thoroughly and particularly inventory level towards the end of the second quarter across this second group of products. And we come to an easy conclusion that the panel customers' inventory towards the second quarter will be unusually low, right? So while I don't have a crystal ball to predict when and how -- whether China will lift its locked down or whatever. But given the fact that our panel customers shipment during Q2, the low season, are actually slightly down, but they are making regular shipments without major disruption. While their inventory control has resulted in a very, very unusually low inventory level towards the end of the quarter.

That gives us the good confidence that there's a good likelihood we may see a good rebound from Q3 or at least for the second half. So actually what I'm trying to say is if we predict the whole year revenue to be flat, it actually implies the second group, the low visibility consumer electronics group to suffer from a pretty severe decline year-over-year, while we're actually seeing very promising signs that it may actually do better than that. So we are actually targeting or let me say, we actually believe the flat revenue this year versus last year will be a low target for us for this year. And that is basically our analysis. And I'm pretty sure within a month or 2, the visibility for the second group will be much enhanced.

And there are a lot of discussions going on with the customers in that regard at the moment. And lastly, let me just add the first group, we now only have good visibility from customers, all the visibility. We either have a very strong position on our sole source provider for those products, and we are very much backed by our foundry capacity support. And last but not least, all these products coincidentally are still suffering from capacity shortage. That means our supply will still be lower than the demand for the second half, and that is another reason why we feel very confident about the visibility of the first group.

So it's the shipment driven, not the ASP driven primarily based on our assumption.

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**Donnie Teng *Nomura Securities Co. Ltd., Research Division - VP & Analyst of Greater China Semiconductor and Technology Research***

And the follow-up should be on the gross margin side because it seems like you are like positive from a volume recovery and potentially, as you mentioned, like the first group product like long visibility as well. But for the ASP side or for foundry cost perspective, are we able

to like pass the cost to customers or to negotiate the new price with foundries or what kind of normalized gross margin you're expecting for the second half?

**Jordan Wu Himax Technologies, Inc. - Founder, CEO, President & Director**

Well, thank you, Donnie. Again, to follow my previous analysis of the second group versus the first group as in second group, the high visibility and low visibility. On the high visibility area, we are certainly not lowering our price in any meaningful way because of the simple fact that we have a very, very strong position and as I said earlier, the demand still outpaces supply. So there's no reason for us to lower our price, right? The second group, low visibility, is harder to say, to be honest. Now if I look at the supply side, we have been through at least half year, two full quarters of rising cost of goods sold that leads directly to our gross margin erosion. So if you look at our second quarter guidance, I can tell you, our guided gross margin decline is pretty much the same as our expected cost of goods sold increase percentage-wise, right? Now, how is the cost of goods sold going to be like in the second half? I think we are seeing very much foundry prices have stabilized. And the fact that is that our Q1 and Q2, those are prices fixed much earlier. But because of the production lead time, we are making shipments of those products where the prices were actually fix much earlier when the foundry prices was on its way up constantly.

But I mean, foundry people also realize the fact that the market is soft right now, the demand is weak. So through our discussions with foundries, we are not seeing, we are not expecting any meaningful foundry price increase. The same for back-end. And if anything, I think we and our peers will try to get a better price for the second half. I mean, certainly, a lot of negotiation going on. I cannot make any promises, but I think that is the trend. So that is on the cost side. On our pricing side, I talked about the high visibility group already. We are not going to lower our price. And selectively, in some selective areas, we may be able to raise our price a bit, I think. On the second group, it's harder to tell, the low visibility group. Right now, even during Q2, the very, very bottom season, here and there, small amount of selectively small amount of price down have been offered to us, but they are in a very limited scope.

What happens is that I think everybody, our customers included, recognize the fact that if you look ahead into next year or the year after, for mature processes, the foundry capacity is still likely to be tight. And I mentioned earlier, right, towards the middle of the year, our customers' inventory level looks to be much lower than normal. So these factors combined, I think I don't expect any major price fluctuation for the second group even during the second half. And you asked me whether we'll be able to pass through the additional costs. I think there will be no such issue as pass through additional cost because I said earlier in the second half, the cost is unlikely to continue to rise. So I guess our gross margin for the second [half of the] (added by company after the call) year will depend largely on our final product mix, which obviously is harder to predict, especially given the fact that, as I mentioned in the second group, the visibility is low. Meaning the revenue, the actual revenue, the actual outcome can come higher or lower than our numbers right now. But I think as a conclusion, we don't expect gross margin to deteriorate in any material way from the level of Q2 or Q1, I think.

**Donnie Teng Nomura Securities Co. Ltd., Research Division - VP & Analyst of Greater China Semiconductor and Technology Research**

May I ask one last follow-up is that, what's the sales breakdown you are expecting for the group 1 and group 2 this year?

**Jordan Wu Himax Technologies, Inc. - Founder, CEO, President & Director**

Okay, about 40% to 60%. Group 1 being 40%, and group 2 being 60%. Let me have a small correction. 40% to 60% being in the first half, that's the actual number. And in the second half, the first group will outgrow the second group based on our current projection pipeline. So the first group will rise to somewhere around 45%. So it's going to be 45 against 55. So the whole year will be 40-plus something against 50-plus something.

**Operator**

(Operator Instructions) Your next question comes from the line of Jerry Su from Credit Suisse.

**Jerry Su Crédit Suisse AG, Research Division - Director**

I think my first question is regarding your -- I think, Jordan you had mentioned quite a few times about the inventory level as your customers has been -- could be -- go to a pretty low level by the end of this quarter. But when we look at your inventory level in Q1, I think inventory has increased another 25% from 4Q and then more than double from a year ago. So how should we think about your inventory

exceeding the second quarter? Are you taking any further steps to control your inventory or you are comfortable with your current inventory level?

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**Jordan Wu Himax Technologies, Inc. - Founder, CEO, President & Director**

Thank you, Jerry. Let me just say it's not a good idea to compare the inventory level with those of last year because last year was unhealthy in the sense that we had literally no finished goods inventory, and our customers are chasing us for shortage like on a daily basis, right, from everywhere. So last year's inventory was unusually low and actually unhealthily low. If you look at our history, let's say, we look at the past 5 -- excluding last year, right, our last 5 to 10 years, our inventory days, meaning inventory compared to cost of goods sold, the range is in between 90 to about 110 days. And if you look at our end of Q1, it's 104 days, slightly on the upside, but still within the range, right? So we are not worried about our Q1 inventory because particularly given the fact that we still feeling the capacity, foundries capacity will remain short at least in the next year or 2. Now with the expected dip of Q2 revenue, our end of Q2 inventory will still be higher than those of the end of the first quarter. But I said earlier, on the other hand, our customers' inventory level, IC inventory level will be lower than usual.

So I think we are hoping in Q3 or Q4, our inventory level with the 2 factors combined, will get back to a more normal status. So for now, we are watching our inventory level, like we are monitoring our -- I mean, I myself am monitoring our inventory level at least weekly basis. So I'm not saying I'm not worried. We are watching it very closely, but there's nothing to indicate that we are reaching an unhealthy level, so to speak. And in fact, we think it's probably still appropriate that we take a slightly more aggressive inventory preparation approach compared to normal, given our view that the foundry capacity in any foreseeable future will still remain tight.

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**Jerry Su Crédit Suisse AG, Research Division - Director**

And then just to follow-up on your comments on the foundries. If the foundry supply is going to remain tight for the next few years, why the foundry pricing will not further increase in the second half? Especially I think in the past few days, we have saw the news about one of the largest foundry in the world has been raising the price in 2023. So what is your view on the foundry pricing maybe into the second half of next year? Do you expect even if it's going to be flattish later in the year, it could further increase in the longer term?

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**Jordan Wu Himax Technologies, Inc. - Founder, CEO, President & Director**

I know you're talking about TSMC price. Let's just say TSMC announced publicly and we got a notice as well. Currently, they sent notice at the same time to every customer that's starting the beginning of next year, they're going to raise their price by 6%. Actually, for mature node, that is the node we are in. Ironically, it is actually very good news for Himax because TSMC in mature node, they are actually just playing catch up for pricing. Right now, I mean, it is common market knowledge that TSMC is less expensive. They price their mature node wafers less than literally all their peers. So I'm not going to comment on advanced nodes where TSMC is clearly the leader. But on the mature nodes, TSMC's position is not as dominant as their position in advanced nodes. They are actually playing catch-up.

And our exposure to TSMC compared to our peers, we are the lowest, meaning we are using other foundries more heavily compared to our peers. That actually implies that historically compared to our competitors, our cost burden is actually higher, right? Now the reason why I say it's good news for us is not really about comparing with our competitors. It's mainly because we are hoping through TSMC raising their price, they will be able to squeeze out those weaker demands. And I just mentioned the first group against second group, right? A good portion of the first group, especially the OLED products, the ultralow power AI sensing products, we are using TSMC heavily. And we are suffering still pretty big time from shortage. And we are hoping through TSMC's raising their price, they get to squeeze out some of the weaker demand that we can enjoy better supply where we actually welcome such price increase. And whether we will decide to pass it on to our customers is our call. But I think at the moment, to get more supply from TSMC is far more important than price.

Now get back to your question. So TSMC's being able to raise their price, does that mean the whole industry will follow suit? Again, they are playing catch-up. And I think everybody knows that. So I'm certainly hoping and I don't believe other foundries for their mature nodes will follow TSMC's price hike, further price hike because they've already had their price hike much earlier on. And I mean, again, everybody recognize the market demand is soft. And foundries' customers, guys like us are having a harder time passing on the cost to our customers because there's only so much the customer can take. So I think for the industry to remain healthy in the long-term, through my various discussions with different foundries, I think the consensus is pretty clear so far to me that people are just going to

stay put on pricing for the remainder of the year.

I mean, unless there's a major market rebound, right? That is then maybe another story because again, the foundry in the foreseeable future, I think, at least 1 to 2 years for mature nodes is going to still be tight.

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**Jerry Su *Crédit Suisse AG, Research Division - Director***

Then maybe just one other question, if I may. Regarding the current competition landscape, what are you seeing for the competition coming from the Chinese fabless? I think, especially during the foundry supply constraint on this kind of environment, do you think Chinese fabless, they can come in and then create more inflexibility or take share from the existing display driver IC players?

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**Jordan Wu *Himax Technologies, Inc. - Founder, CEO, President & Director***

I think there is no straight answer, simple answer to cover all sectors it varies depending on the sector. For example, automotive, where we enjoy the best position, there's very, very little, if any, Chinese presence. It's a much harder -- much higher entry barrier and it takes much longer to see even any revenue contribution, right? So I think for various reasons, that is not their priority. So we feel little stress from there. For consumer electronics, I think their presence is much less in the areas of notebook and monitor and more in the area of smartphone and TV. For the simple reason that with smartphone and TV, there is a very strong Chinese end brand name presence in the marketplace compared to those in notebook and monitor, right? So I think they came in easier through TV and smartphone because they probably get better support from the end customer. So I think those 2 areas, honestly, especially on the low-end market, there will be more competition, yes. But I think our presence, certainly, we enjoy the best presence and highest presence in automotive. And we also enjoy a very good presence in monitor, probably to a slightly lesser extent in notebook, but our shares in notebook are still increasing. Our presence relatively speaking, is lowest in smartphone. This actually being one of the reasons. And certainly, we mentioned repeatedly in the previous earnings calls, our presence is lower in smartphone than before right now because we are limited by capacity. So with the limited capacity, we are allocating more capacity to support tablet compared to smartphone.

With tablet again, less Chinese presence compared to smartphone end brand names, right. I think we are going to regain our smartphone presence once we start the AMOLED driver IC production, which we feel pretty good about. It will still take a little bit of time, but I think that is our strategy. We only come back hopefully with more presence once we start AMOLED. But with traditional TDDI, it's pretty bloody competition right now, yes.

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**Operator**

There are no further questions at this time. You may continue.

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**Jordan Wu *Himax Technologies, Inc. - Founder, CEO, President & Director***

Thank you, operator. So as a final note, Eric Li, our Chief IR/PR Officer, will maintain investor marketing activities and continue to attend investor conferences. We'll announce the details as they come about. Thank you, and have a nice day.

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**Operator**

This concludes today's conference call. Thank you for participating. You may now disconnect.

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