



Comments from CEO Pat Gelsinger and CFO Dave Zinsner

Intel's chief executive officer and chief financial officer offer comments after the company released its fourth-quarter and full-year 2023 earnings.

The following are the prepared remarks provided on Intel's fourth-quarter and full-year 2023 earnings conference call held at 2 p.m. PST on Jan. 25, 2024. These remarks include forward-looking statements that are based on the environment as seen by the company as of the time of the call and, as such, are subject to various risks and uncertainties. They also contain references to non-GAAP financial measures that the company believes provide useful information to investors. Refer to the company's earnings release for the fourth-quarter and full-year 2023, most recent annual report on Form 10-K and other filings with the SEC for more information on the risk factors that could cause actual results to differ materially from the company's expectations and additional information on non-GAAP financial measures, including reconciliations where appropriate to the corresponding GAAP financial measures.

Jan. 25, 2024 – Pat Gelsinger, Intel chief executive officer ([bio](#)):

Q4 was the culmination of a year of tremendous progress towards our IDM 2.0 transformation. We consistently executed on our plan to re-establish process leadership, further built out our capacity and foundry plans, greatly improved product execution and began to execute on our mission to bring "AI everywhere" across our product segments.

We delivered solid Q4 results, exceeding expectations for the fourth quarter in a row. Revenue was at the higher end of our guidance, and we had strong earnings per share (EPS) upside as a result of our ongoing relentless focus on driving operating leverage and expense management, including comfortably meeting our \$3 billion cost savings commitment for fiscal year 2023. 2023 was definitely a year when we did what we said we would do and more. We intend to make 2024 another such year. And when we look out over the next 12 months, we are confident that we can continue to drive considerable progress on our IDM 2.0 journey.

As we look into Q1, our core business including client, server and edge products continues to perform well and is tracking to the lower end of seasonal. However, discreet headwinds including Mobileye (MBLY), PSG (Programmable Solutions Group) and business exits, among others, are impacting overall revenue, leading to a lower Q1 guide. Importantly, we see this as temporary, and we expect sequential and year-on-year (YoY) growth in both revenue and EPS for each quarter of fiscal year (FY) 2024. Momentum and excitement around new products and businesses remains strong as we head into the year and will grow stronger as the year progresses.

We could not be prouder of the execution across our process technology roadmap in 2023. We became the world's first high-volume manufacturer of logic devices using EUV (extreme ultraviolet technology) in both the U.S. and Europe as we aggressively ramp Core® Ultra™ on Intel 4 in both Oregon and Ireland. Intel 3 achieved manufacturing readiness in Q4, as committed, with solid performance and yield progression. Our two lead vehicles on Intel 3 are on-track and we look forward to launching Sierra Forest in the first half of 2024, followed shortly thereafter by Granite Rapids. Sierra Forest has final samples at customers and the production stepping of Granite Rapids is running ahead of schedule, well into power-on validation and very healthy.

We are even more excited about breaking into the Angstrom era with Intel 20A and Intel 18A. We are first-in-industry to have incorporated both gate-all-around and back-side power delivery in a single process node, the latter, an expected two years ahead of our competition. Arrow Lake, our



lead Intel 20A vehicle, will launch this year. Intel 18A is expected to achieve manufacturing readiness in the second half of 2024, completing our five-nodes-in-four-years journey and bringing us back to process leadership. I am pleased to say that Clearwater Forest, our first Intel 18A part for servers, has already gone into fab and Panther Lake for clients will be heading into fab shortly.

As we complete our goal of five nodes in four years, we are not satisfied nor are we finished. We have begun installation of the industry's first High-NA EUV tool in our most advanced technology development site in Oregon, aimed at addressing challenges beyond 18A. We remain focused on being good stewards of Moore's Law and ensuring a continuous node migration path over the next decade and beyond.

Third-party engagements with IFS (Intel Foundry Services) continue to validate our progress on process technology. We launched IFS with a long-term view of delivering the world's first system foundry that brings together a secure and sustainable supply chain with the best of Intel and our ecosystem. While our ambitions will not materialize overnight, we made tremendous progress in both Q4 and fiscal year '23 towards our goal of becoming the second-largest external foundry by 2030. The rapid adoption of AI by all industries is proving to be a significant tailwind for IFS as high-performance compute, an area where we have considerable wafer and packaging know-how and IP (intellectual property), is now one of the largest and fastest growing segments of the semiconductor market.

We made major strides in building our foundry ecosystem in 2023, with now over 40 strategic agreements across EDA (electronic design automation), design services, IP, cloud, and U.S. military aerospace and government. Critical agreements with Arm and Synopsys continue to gain momentum. We delivered the Intel 18A 0.9 PDK (platform development kit) and broadened its availability in Q4. We expanded the RAMP-C program significantly and just this quarter signed a major foundry contract with the U.S. government and Department of Defense.

We are also very pleased to have completed a major agreement with United Micro Electronics, or UMC, to develop a 12-nanometer process platform targeting high-growth markets including mobile, communication infrastructure and networking. This expands both Intel's and UMC's foundry process portfolios and customer access to a broader and more resilient supply leveraging our Arizona site. This agreement builds upon and furthers our long and deep relationships with the vibrant Taiwan ecosystem. This also meaningfully extends the production life of our installed capacity and improves our returns on investments, similar to the announcement last quarter of our Tower Semiconductor partnership at the 65 nm node with our New Mexico site.

Our success with IFS will be measured by customer commitments and revenue. We have taped out more than 75 ecosystem and customer test chips. IFS already has more than 50 test chips in the pipeline across 2024 and 2025, 75% of which are on Intel 18A. During CES we welcomed Valens Semiconductor to the growing list of foundry customers as they announced they would use IFS to fabricate their MIPI A-PHY chipsets using our advanced technology. In addition to the three Intel 18A customers we disclosed in Q3, we won a key design win with a significant high-performance computing customer. This customer was particularly motivated by our unique leading-edge manufacturing capabilities and U.S. capacity. We came into 2023 committing to one 18A foundry customer, we executed on four, inclusive of a meaningful prepay – and our momentum continues to grow.

Our advanced packaging business is proving to be yet another important advantage for IFS; a faster on-ramp to broader foundry relationships. During the quarter, we captured three additional advanced packaging design wins, bringing the total to five in 2023, with the majority of revenue



starting in 2025. To support our growing demand, just yesterday we opened Fab 9 in New Mexico, marking a milestone for high-volume 3D advanced packaging manufacturing. The momentum in advanced packaging is very strong and is another facet of our foundry strategy, which is clearly benefitting from the surge of interest in AI (artificial intelligence). With leadership technology and available capacity, our opportunity set continues to grow.

In total, across wafer and advanced packaging, our lifetime-deal value for IFS is now over \$10 billion, a more than doubling from the \$4 billion we provided in our last update.

Supporting our growing momentum in IFS is our global manufacturing footprint. We are the only semiconductor company with at-scale and sustainable manufacturing in every major region of the world, providing ourselves and our foundry customers resilient access to the right capacity in the right regions at the right time. All of our expansion projects in the U.S., EU and Asia are progressing on schedule and our CHIPS applications in the U.S. and EU are progressing well.


Finally, we are thrilled to be hosting our first foundry day, IFS Direct Connect, on February 21st in San Jose, where we will have the opportunity to showcase the breadth of our ecosystem as well as begin to talk about our process roadmap beyond Intel 18A, next generation packaging and our full foundry vision. We hope to see many of you there.

Intel continues its mission to bring AI everywhere. We see the AI workload as a key driver of the \$1 trillion semiconductor TAM (total addressable market) by 2030. And given our foundry and product offerings, we are the only company able to participate in 100% of the TAM for AI silicon logic. We have already discussed how our 50-year heritage in HPC (high performance computing) transistors and our advanced packaging positions IFS to benefit from the accelerating move to AI. Within our product portfolio, we are the only company with the products, IP and ecosystem reach to empower customers to seamlessly integrate and effectively run AI in all their applications from the cloud, through the network, into the enterprise, client and edge.

For the developer working with multitrillion-parameter frontier models in the cloud, Gaudi[®] and our suite of AI accelerators provides a powerful combination of performance, competitive MLPerf benchmarks and leadership TCO (total cost of ownership). As AI proliferates and the world moves towards more AI-integrated applications, there's a marked shift towards local inferencing and smaller, more nimble models. It's a nod to both the necessity of data privacy and an answer to cloud-based inferencing costs and round-trip latency. With AI accelerated Xeon[®] for enterprise, Core Ultra ushering in the AI PC era and OpenVINO[™] enabling developers seamless and versatile support for a range of client and edge silicon, we are bringing AI to where the data is being generated and used, rather than requiring it in the cloud. Our expansive footprint spanning cloud and enterprise servers to volume clients and ubiquitous edge devices positions us well to enable the AI continuum across all our market segments.

In Q4, our server business experienced solid sequential growth, consistent with market share, which we believe was flat with Q3 levels. Since launching 4th Gen Xeon[®] in early 2023, we have shipped more than 2.5 million units with approximately one-third of all 4th Gen demand driven by AI. With our 5th Gen Xeon[®] launch, we enable up to 42% higher AI inference performance compared to the industry leading 4th Gen Xeon. 5th Gen Xeon has reached general availability at Alibaba, is entering public and private preview with several CSPs, and is on track to ship with OEMs (original equipment manufacturers) next month.

More importantly, our improved execution is strengthening our product portfolio with Gen 4 and Gen 5 Xeon ramping well; Sierra Forest and Granite Rapids coming soon; and Clearwater Forest



already going into the fab. Momentum is building and positioning us well to win back share in the data center.

Our Gaudi®2 AI accelerators continue to demonstrate price-performance leadership compared to the most popular GPUs. In a recent blog published by Databricks, Gaudi2 was shown to clearly deliver the best training and inference performance-per-dollar based on public cloud pricing. We're building on this momentum with Gaudi®3, which is on track to launch this year and is expected to deliver performance leadership with 4x the processing power and double the networking bandwidth for greater scale-out performance. Gaudi3 is now in the lab, powered-on and showing great health and performance, and Falcon Shores is also well underway. Our accelerator pipeline for 2024 grew double digits sequentially in Q4 and is now well above \$2 billion and growing. We recently increased our supply for both Gaudi2 and Gaudi3 to support the growing customer demand and we expect meaningful revenue acceleration throughout the year.

As we announced last quarter, we are now operating PSG as a standalone business beginning on January 1st. Our intent is to bring in private capital this year to create an eventual path to an IPO over the coming years. As we outlined on our Q3 call, PSG is in the midst of an industrywide cyclical correction for FPGAs, which we expect to last thru the first half of 2024. Despite the financial correction, operational momentum is strong, and PSG executed its most ambitious FPGA roadmap, delivering 21 new product releases in 2023 and executing supply assurance agreements valued by our customers.

Finally, even as we congratulate Sandra Rivera, the new CEO of PSG, I am extremely pleased to welcome Justin Hotard as executive vice president and general manager of DCAI (Data Center and AI Group). Justin joined us from Hewlett Packard Enterprise, where he was executive vice president and general manager of High-Performance Computing, AI and Labs. He will play a key role in helping customers accelerate their businesses with our Xeon processor family, delivering on our commitments to customers and partners by increasing our GPU and accelerator footprint, and supporting our mission to bring AI everywhere.

Moving to client: CCG (Client Computing Group) performed very well in Q4, posting the third consecutive quarter of double-digit sequential growth. Demand reflected a normalized inventory environment with sustained strength in gaming and commercial, with our highest-end SKUs exceeding Q3 records by 20%. The 2023 consumption TAM was roughly 270 mm (million) units, consistent with our view entering the year, and we expect the PC TAM up low single digits YoY in 2024, in-line with third-party estimates. Our share position is strong, and our product portfolio for 2024 and beyond and ecosystem work will continue to drive industry leading performance and experiences.

In Q4, we ushered in the age of the AI PC with the launch of Intel Core Ultra. Representing our largest architectural shift in decades, the Core Ultra is the most AI-capable and power-efficient client processor with dedicated acceleration capabilities across the CPU, GPU and neural processing unit, or NPU. Ultra is the centerpiece of the AI PC, systems that are capable of natively running popular 10 billion parameter models and drive superior performance on key AI-enhanced applications like Zoom, Adobe and Microsoft. We expect to ship approximately 40 million AI PCs in 2024 alone, with more than 230 designs – from ultra-thin PCs to handheld gaming devices – to be delivered this year from OEM partners Acer, ASUS, Dell, HP, Lenovo, LG, MSI, Samsung Electronics and others. The Core Ultra platform delivers leadership AI performance today with our next-generation platforms launching later this year – Lunar Lake and Arrow Lake – tripling our AI performance. In 2025 with Panther Lake, we will grow AI performance up to an additional 2x.



NEX (Network and Edge Group) is well-positioned to benefit from the proliferation of AI workloads on the edge, where our market-leading hardware and software assets provide improved latency, reliability and costs. OpenVINO adoption grew by 60% sequentially in Q4 and today is a core software layer for AI inference on the edge, on the PC and in the data center. NEX is also driving the shift of AI networking in the cloud from proprietary technologies to open, Ethernet-based approaches in partnership with the broader industry ecosystem. NEX Q4 results beat our internal forecasts, and the division is poised for solid growth in 2024 across edge, network and FNIC (fiber channel network interface controller) products more skewed towards the second half of the year.

Yet another growing market opportunity for us is automotive. While MBLY is experiencing a sharp inventory correction in Q1, we are encouraged by their improving forecast throughout 2024 and more importantly their recent announcement at CES that they were awarded a series of production design wins by a major western automaker across the company's three key platforms: SuperVision, Chauffeur and Drive.

In addition to MBLY's strength in AV, at CES, we announced the launch of AI-enhanced software-defined vehicles SoCs, with Geely's Zeekr brand as our first OEM partner, and our agreement to acquire Silicon Mobility, a fabless silicon and software company specializing in power management SoCs focused on EVs (electric vehicles). These announcements build on shared IP across client and data center and our existing Intel SoC footprint of more than 50 million vehicles worldwide. Our strategy will continue to broaden our exposure to the growing auto market on both the product and the foundry sides of our business.

Finally, underpinning our across-the-board progress in 2023 is our operational and financial discipline. As our new internal foundry model, which is designed to drive greater transparency, accountability and focus on costs, begins to take root, we expect to unlock further cost savings and efficiencies in 2024 and beyond. We have officially transitioned to this new operating model on January 1st and will report the new segmentation format as part of our Q1 earnings. We see incremental efficiencies as we drive to our long-term model of 60% gross and 40% operating margins.

As I reflect on our progress in 2023, I am incredibly proud of our employees, whose commitment and perseverance were instrumental to the execution of our ambitious strategy. Together, we exited the year accomplishing exactly what we set out to do. We improved our execution engine, consistently being on track or ahead on our process and product roadmap. And as I said at the beginning of my remarks, we are confident in our performance and financial trajectory for the year ahead. We know we have much work in front of us as we work to regain and build on our leadership position in every category in which we participate. We will maintain our relentless focus on our mission and commitment to driving long-term value for our shareholders.

Dave Zinsner, Intel chief financial officer ([bio](#)):

We delivered strong financial results in the quarter on top of continued execution of our products and process roadmap commitments. We again beat our guidance across revenue, gross margin and EPS.

We have taken proactive steps to prioritize our investments, aggressively managed near-term expenses and made meaningful progress on reducing our structural cost gaps. We exit 2023 a healthier and leaner company, but there is much more work to do in 2024 and beyond to deliver on our long-term financial objectives and the potential of IDM 2.0.



Fourth-quarter revenue was \$15.4 billion, up 9% sequentially, 10% year-over-year and \$300 million above the midpoint of our guidance, with solid execution across reported segments. Gross margin was 48.8%, 230 basis points better than our guidance driven by favorable product mix and ASPs (average selling prices), improved unit costs and higher revenue.

EPS for the quarter was 54 cents, beating guidance by 10 cents, on improved gross margins, stronger revenue and disciplined OpEx (operating expenses) management.

Q4 operating cash flow was \$4.6 billion. Net inventory was down more than \$300 million and nine days in the quarter, and DSO (days sales outstanding) remains under 20. Net CapEx (capital expenditures) was \$5.9 billion, resulting in an adjusted free cash flow of negative \$1.3 billion, and we paid dividends of a half-billion dollars in the quarter.

Moving to fourth quarter business unit results: CCG delivered revenue of \$8.8 billion, up 12% sequentially, 33% year-over-year and ahead of internal expectations for the fourth consecutive quarter. We saw sustained strength in gaming and commercial segments, along with record “performance-notebook” shipments in the quarter. Customer inventory levels have normalized, and 2023 PC consumption was in line with our 270 million unit forecast. Operating profit was \$2.9 billion, up more than \$800 million sequentially and nearly \$2.4 billion year-over-year on improved TAM and market share and sell-through of reserved inventory.

DCAI revenue was \$4 billion, up 4% sequentially. The server business delivered double-digit growth sequentially, partially offset by the FPGA inventory correction. Revenue was driven by improved unit TAM, stable share and rising average core density contributing to record Xeon ASPs. Operating profit was \$78 million, roughly flat sequentially, as advanced node development costs continue to weigh on profitability.

NEX revenue was \$1.5 billion, up 1% sequentially and ahead of internal expectations on strength from network and Ethernet segments. The business saw an operating loss of \$12 million, down modestly quarter-over-quarter.

Intel Foundry Services contributed revenue of \$291 million, down modestly on a sequential basis and up 63% year-over-year on increased traditional packaging revenue. IFS operating loss was \$113 million, driven by continued investment to develop and grow a world-class system foundry.

Mobileye delivered record revenue of \$637 million, up 20% sequentially and 13% year-over-year, along with record operating profit of \$242 million, up 42% sequentially and 15% year-over-year. Recently disclosed design wins are expected to contribute more than \$7 billion of future revenue, or more than 3.5 times Mobileye’s record FY23 revenue.

As Pat summarized, the company made significant progress toward our IDM2.0 strategy, including strong execution against our 2023 financial commitments, despite macro headwinds throughout the year. As committed at our first-quarter 2023 earnings call, we delivered revenue, gross margin, operating margin and EPS growth each quarter. Despite significant investments in future growth and continued progression through 5N4Y (five nodes in four years), we achieved our 2023 commitment of \$3 billion of spending reductions. Through a strong focus on cash and cost controls, we achieved excellent DSO and DPO (days payable outstanding) in second-half 2023 and delivered net inventory reductions of nearly \$2 billion and 35 days from our peak in first-quarter 2023. Working capital initiatives yielded roughly \$2 billion of cash in 2023, helping us to meet our commitment for roughly break-even adjusted free cash flow in the second half of the year. We remain committed to our Smart Capital framework, with growing contributions from our SCIP agreement with Brookfield and progress toward government incentives in the U.S., Europe



and Israel. In Q4, we also recognized \$845 million of Advanced Manufacturing Investment Credits, or AMIC, as defined in the CHIPS Act. While our continued IDM 2.0 capital investments will result in increased gross capex in '24 as compared to '23, we are on track to our aggregate 2023 through 2024 guidance of net CapEx spending in the mid-30s as a percent of revenue, with offsets toward the high end of the 20 to 30% range.

Now turning to Q1 guidance: We expect Q1 revenue of \$12.2 billion to \$13.2 billion. At the Q1 revenue midpoint of \$12.7 billion, we expect gross margin of approximately 44.5%, with a tax rate of 13% and EPS of 13 cents.

While we expect a slightly sub-seasonal first quarter from our core product businesses, we see material inventory corrections in Mobileye and PSG. Additionally, we expect a significant drop in IFS revenue after seeing accelerated purchasing in our traditional packaging business and cyclical weakness in wafer equipment buying in the first half of the year, impacting the IMS business. When combined with businesses we exited in 2023, we expect a roughly \$1 billion sequential revenue impact from businesses outside of our core products.

With market signals remaining positive for PC demand and usage rates, we expect TAM to grow in the low single digits in 2024, consistent with third-party views. Our recent results show the PC remains essential, and we remain confident in our longer-term TAM forecast as the age of the AI PC further enhances the value of device refresh.

We expect Q1 data center revenue to decline double-digit percent sequentially before improving through the year. While the data center has seen some wallet-share shift between CPU and accelerators over the last several quarters, we expect growth in CPU compute cores to return to more normal historical rates and our discrete accelerator portfolio, with well over \$2 billion in pipeline, to gain traction as we move through 2024. Within NEX, telco markets are likely to remain weak through the year, though we expect solid growth from our network, FNIC and edge products. These signals give us confidence that consolidated revenue will grow beyond typical seasonality after a soft Q1 and that we can deliver sequential and year-over-year growth in both revenue and EPS each quarter of 2024.

We are confident we can grow earnings faster than revenue this year and maintain roughly break-even adjusted free cash flow, though I will remind you that the rapid pace of delivering five nodes in four years and capacity expansion in support of external foundry commitments remain headwinds on the pace of our margin expansion. We expect depreciation to grow by approximately \$2 billion in 2024, in addition to a significant increase in variable factory startup costs. 60% gross margin flow-through as a percent of revenue growth remains a rule of thumb in aggregate in the intermediate term, though we may see volatility in our quarterly gross margin results.

We are excited to mark the first month fully operating under our new internal foundry reporting structure, with improved accountability, transparency around cost and value drivers, and increased focus on driving higher rates of return for our owners' capital. We intend to provide you with recast historical financials this quarter in the form of an 8-K. We will unpack the details at that time, but you will see not only the first view of our manufacturing P&L (profit and loss), but a view of our product groups more in line with external peers. While it will come as no surprise our manufacturing P&L is under significant pressure as we get back to process leadership and build the infrastructure to meet both internal and external demand – we see abundant opportunity to drive improvement. Finally, standing up a separate legal entity for manufacturing, technology development and IFS is important to our foundry customers. We expect to have that structure in place in the second half of 2024.



As we look back at 2023, we have a lot to be proud of. We entered the year with a challenging macro backdrop. I'm pleased with our team's efforts controlling spending, ramping new products, managing share, executing product and process roadmaps and delivering for our customers. We continued to focus our portfolio by exiting five businesses in 2023 – for a total of 10 since Pat's return – while also identifying profitable adjacent markets we can serve with our existing IP, as we have done with Intel Auto. We executed within our Smart Capital framework and are beginning to see meaningful capital offsets. We unlocked value for our shareholders through MBLY and IMS and announced our intention to pursue external investment in PSG.

I'd like to thank the entire Intel team for the hard work and execution which drove our improved 2023 results. While we aren't yet where we want to be from a financial perspective, we are participating in a large and growing semiconductor TAM, our foundry and AI assets are showing great momentum in the market, and with the strong foundation of financial discipline we set in 2023, we are confident and committed to our long-term financial objectives.

Closing – Pat Gelsinger, Intel chief executive officer:

Let me say thank you for joining us on the call. We appreciate the opportunity to update you on our strong Q4 results and to recap our incredible progress made in 2023. We are excited by the momentum we are seeing in the business, in our execution, in the progress of our manufacturing technology and foundry design wins and in our mission to bring AI everywhere. We will be hosting our first Intel Foundry Direct Connect in San Jose on February 21 and hope to see many of you there in person.

About Intel

Intel (Nasdaq: INTC) is an industry leader, creating world-changing technology that enables global progress and enriches lives. Inspired by Moore's Law, we continuously work to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. By embedding intelligence in the cloud, network, edge and every kind of computing device, we unleash the potential of data to transform business and society for the better. To learn more about Intel's innovations, go to newsroom.intel.com and intel.com.

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