



Farhan Ahmad, Vice President, Investor Relations

Thank you, and welcome to Micron Technology's 3D XPoint™ investor update Call. Today's call will be approximately 25 minutes in length and include a brief Q&A session. We ask that you please limit your questions to the topics discussed in the prepared remarks of the call today.

On the call with me today are Micron's President and CEO Sanjay Mehrotra, and EVP and Chief Business Officer Sumit Sadana. Our Chief Financial Officer Dave Zinsner will also join the Q&A portion of the call. This call, including the audio is also being webcast from our Investor Relations website at investors.micron.com. In addition, our website contains a related press release, and our prepared remarks. A webcast replay will be available on our website later today. As a reminder, the matters we will be discussing today include forward-looking statements. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from statements made today. We refer you to the documents we file with the SEC, specifically our most recent Form 10-K and 10-Q, for a discussion of risks that may affect our future results.

I'll now turn the call over to Sanjay.

Micron's President and Chief Executive Officer Sanjay Mehrotra

Good afternoon and thank you for joining us today.

Micron is built on a culture of innovation. Our innovation mandate is not limited only to our core businesses but extends to include the exploration of new technologies and solutions that have the potential to bring significant value to our customers. Our customers, partners, and investors can count on us to push the boundaries of what is possible to bring the promise of the future to the present.

But when requirements shift and technology and customer needs evolve, you can also expect us to be decisive in refocusing our efforts and to promptly communicate our decisions to our stakeholders.

Today we are announcing such a change in Micron's portfolio strategy. After deep discussions with customers and partners, we have decided to reprioritize our R&D investments toward new memory solutions that use the recently introduced high-performance CPU-memory industry standard interface called Compute Express Link™ (CXL™), while immediately ceasing the development of 3D XPoint. We believe this shift will better address our customers' needs and, importantly, improve returns for our shareholders. Our decision was driven by our assessment of the 3D XPoint market opportunity in light of the expected impact of CXL and our new emerging memory products, on the future data center. Sumit will provide more details on this decision later in the call.



We are also in discussions with several potential buyers of our dedicated 3D XPoint fab in Lehi, Utah. Our goal is to finalize the sale within calendar 2021. We expect that the overwhelming majority of our team members in Lehi will find strong career opportunities with the buyer of the fab.

The actions we are announcing today may affect our GAAP financials and are expected to be accretive to our near-term and long-term non-GAAP financial performance. The underutilization charges at the Lehi fab have been impacting our non-GAAP operating profits at an annual run rate of over \$400 million. Dave will outline more details in our fiscal second quarter earnings conference call on March 31. We will not be providing any further financial details related to this announcement today.

I want to thank all of our Micron team members across the world who have worked tirelessly over many years on 3D XPoint development and manufacturing. Our technology and engineering teams have driven many industry firsts, from materials-based innovations to dramatic new product capabilities. I also want to call out the tremendous contributions that the Lehi team has made to Micron. This team led Micron's entry into the NAND industry 15 years ago and then, over the last several years, brought the novel 3D XPoint technology into mass production. Our Micron team members' contributions are deeply valued, and the knowledge, experience and intellectual property gained in this effort will give us a head start on several important products that we will introduce in the coming years. While we are ceasing product development of 3D XPoint, we will continue our technology pathfinding efforts across memory and storage, including our work toward future breakthroughs in storage-class memory.

We are extremely excited about our market opportunities and business momentum. I want to express my pride in our entire team for successfully driving our transformation to a new Micron — a Micron that is focused on technology and product leadership to benefit all our stakeholders, including customers and shareholders. I will now turn it over to Sumit to provide more detail.

Micron's EVP and Chief Business Officer, Sumit Sadana

Thank you, Sanjay.

The value proposition of 3D XPoint was to operate as persistent memory at a lower cost to DRAM or as storage that is significantly faster than NAND.

In the years since 3D XPoint was first announced, data center workloads and customer requirements have continued to evolve. As data-intensive workloads proliferate and AI ramps in data-centric applications, the CPU-DRAM bandwidth has become an increasingly limiting factor of overall system performance. In



addition, as CPU architectures evolve to dramatically increase CPU core count, more DRAM is needed to ensure adequate memory bandwidth per CPU core. This trend has driven ever-increasing server DRAM content.

The industry now stands on the threshold of a significant change in data center architecture — driven by the adoption of a new, high-performance interface called Compute Express Link or CXL — that will connect compute, memory and storage subsystems in the years ahead. This upcoming change creates a significant opportunity for Micron to take advantage of industry-leading innovation in technology and products to benefit our customers. We expect these new memory solutions to utilize the industry-standard CXL interface and enable our customers to achieve new levels of performance and improved total cost of ownership, or TCO, for data-hungry workloads.

On the storage front, the significantly lower cost of NAND will remain a barrier for wide adoption of 3D XPoint. Therefore, 3D XPoint-based SSD products are not expected to be anything more than a niche market over time. Memory was always the strategic long term market opportunity for 3D XPoint.

One important challenge that 3D XPoint memory products face in the market is that the latency of access requires significant changes to data center applications to leverage the full benefits of 3D XPoint. These changes are complex and extremely time-consuming, requiring years of sustained industrywide effort to drive broad adoption. In addition, there are important cost-performance trade-offs that need to be characterized and optimized for each workload.

As we develop new products using CXL, our focus is on addressing data-intensive workload requirements while reducing barriers to adoption, such as software infrastructure changes. Importantly, our development model for these newer products will be significantly more cost-effective, and we expect a higher ROI for our investments in these new technologies going forward.

These new memory solutions could ultimately delay the adoption of 3D XPoint even more and reduce the overall addressable market for that technology. This further affects the anticipated ROI of 3D XPoint and ultimately led us to our decision to terminate this initiative.

For competitive reasons, we are not going to provide additional details of our new engineering endeavors at this time. However, it is important to note that our current and future plans for investment in resources, technology and engineering in emerging products remain unchanged. We will continue to relentlessly drive the cutting edge of memory and storage technology for the benefit of our customers. We strongly believe that our emerging technology capability across the memory-storage hierarchy remains industry-leading, and we expect to deliver differentiated solutions to our customers in the years ahead.



As Sanjay mentioned, we will end 3D XPoint development immediately and cease manufacturing 3D XPoint products upon completing our industry commitments over the next several quarters.

We are currently engaged in industry discussions for sale of our Lehi, Utah, fab with a goal to finalize a potential sale within calendar 2021. This advanced fab provides an excellent location for advanced semiconductor manufacturing, and we are evaluating initial offers from prospective buyers.

In closing, the secular growth in the data economy continues to create significant opportunities for Micron. We have never been in a stronger position with our technology roadmap, and our industry-leading 1-alpha DRAM and 176-layer NAND technology nodes are both in volume production. We are now reprioritizing our emerging technology investment to best meet customer needs, with higher ROI expectations that are aligned to our goal of driving long-term shareholder value.

We will now open for questions.