Aurora

Fourth Quarter 2024 Shareholder Letter

February 12, 2025

A letter to shareholders

Reflecting on 2024 and the start to 2025, it has been a monumental time at Aurora as we near the culmination of years of innovation and preparation for our Commercial Launch, planned for April. Our focused strategy — grounded in safety, positioned for scale, and enabled by financial discipline — continues to differentiate Aurora as the leader in autonomous trucking.

We have made tremendous technological progress. We are approaching closure of the Safety Case for the Dallas to Houston launch lane, with the Autonomy Readiness Measure (ARM) reaching 99%. And we have also been approaching our targeted 100% Autonomy Performance Indicator (API) loads Commercial Launch estimate of 90%, on average, since mid-October.

On the financial front, we have consistently managed our cash use under budget, demonstrating strong fiscal discipline. We also further strengthened our liquidity position with a successful capital raise last summer, ensuring we have the resources necessary to fund the initial phase of our scaling strategy. And at the start of the year, we announced a three-way partnership between Aurora, NVIDIA, and Continental, solidifying another key enabler to successfully deploy at scale.

With nearly all the pieces in place, Aurora is poised for an extraordinary year ahead.

On track for April Commercial Launch

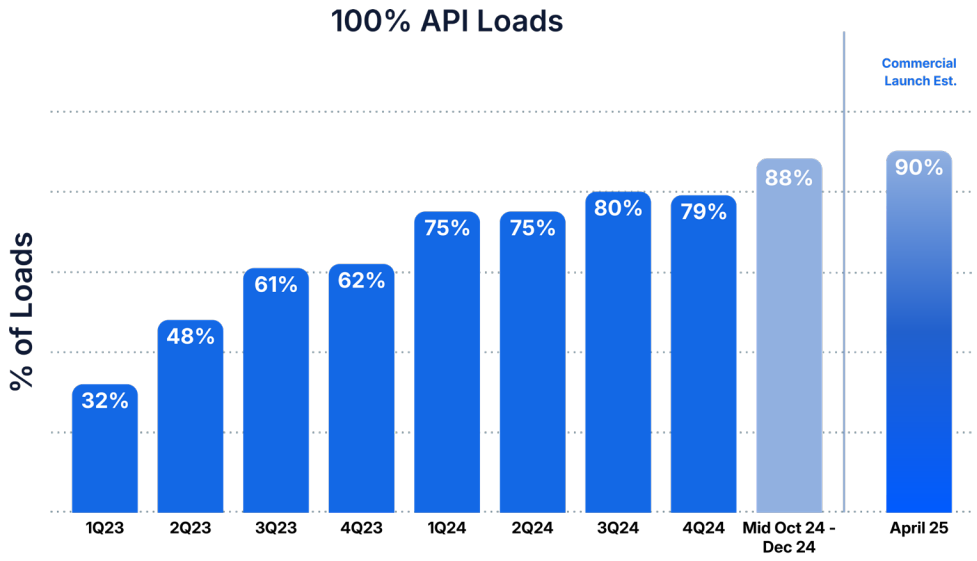
Our Analyst & Investor Day in March 2024 marked a defining moment for the investors who have supported our development journey. We gave them a chance to experience driverless truck rides and a first-look at how our driverless trucks navigate advanced road scenarios at our test track. I'll never forget walking up to the track with our investors and analysts, seeing the trucks speed by, entirely driverless. At that moment, Aurora's vision became clear for everyone.

As we approach the final steps of development, we are just months away from starting our commercial journey, and making our vision a reality. We plan to launch our first driverless trucks hauling customer loads between Dallas and Houston in April.

In order to commence driverless operations, we must close the Safety Case for the Dallas to Houston launch lane. Our Safety Case Framework is a comprehensive, evidence-based approach to confirming that our self-driving vehicles are acceptably safe to operate on public roads. We quantify our progress toward closing our Dallas to Houston launch lane Safety Case through the ARM, a weighted measure of completeness across all claims of the Safety Case for our launch lane. We remain the only company in the industry that has provided this level of transparency. As of the end of January, ARM was 99%, up from 97% at the end of October, driven by the closure of a number of software claims.

Another key metric we use to assess the Aurora Driver's performance and commercial readiness is the API[1]. The indicator penalizes the use of on-site support, which will be the most expensive support provided to enable the Aurora Driver. As a reminder, with the achievement of an aggregate API of 99% at the end of 2023, we are now focused on driving up the percentage of commercial loads that did not require any form of on-site support (100% API). We do not anticipate that aggregate API will ever reach 100%, even at launch, because certain situations (e.g., flat tires) will always require on-site support; however, we believe the percentage of 100% API loads is a strong indicator of our progress and expect this metric to reach approximately 90% by Commercial Launch.

We have been approaching 90%, on average, since mid-October. Specific to the fourth quarter, a software issue in the first two weeks dragged the full quarter's 100% API average down to 79%, but we quickly identified that issue and landed a fix, driving an immediate rebound in performance. Excluding the first two weeks, 88% of fourth quarter loads had a 100% API, with many weeks exceeding our commercial launch estimate of 90%.



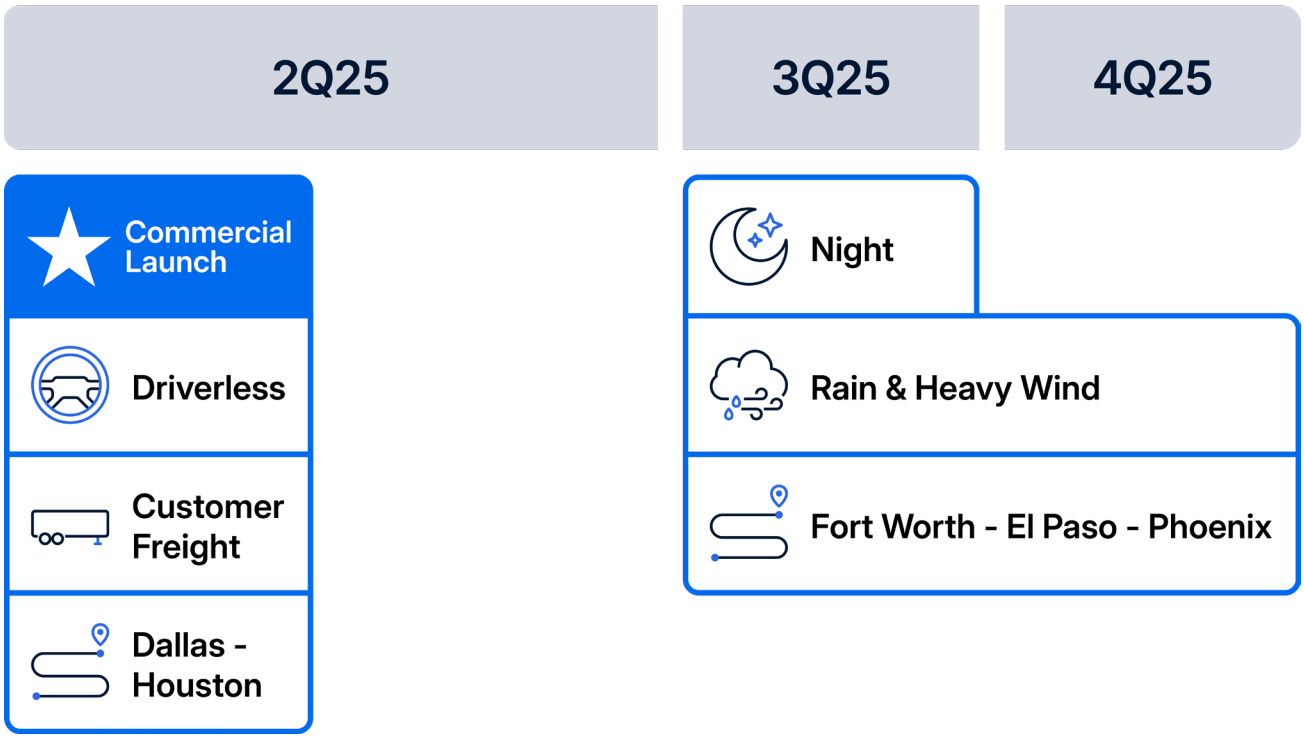
[1] Formally, API is the percentage of total commercially-representative miles driven on our launch lane over the quarter, that include:

- Miles driven during the quarter that did not require support, with support meaning assistance via a local vehicle operator or other on-site support
- Miles driven in autonomy with remote input from the Aurora Services Platform
- Miles where the vehicle received support but where it's determined, through internal analysis including simulation, that the support received was not required by the Aurora Driver

During launch, we expect to deploy up to 10 driverless trucks in commercial operations, starting with one driverless truck and then transitioning the balance to driverless operation. We are deliberately starting with this crawl, walk, run approach, as our early efforts will be focused on exercising the full product suite to ensure a seamless product launch while demonstrating the value proposition for our customers and continuing to build trust with all of our stakeholders. In the second half of 2025, we will focus on:

- Expanding our product capabilities to include validated night driving and rainy conditions,
- Beginning our lane expansion strategy with driverless operations on the Fort Worth to El Paso lane, with further extension to Phoenix, and
- Increasing capacity to tens of trucks by the end of the year.

2025 Product Roadmap

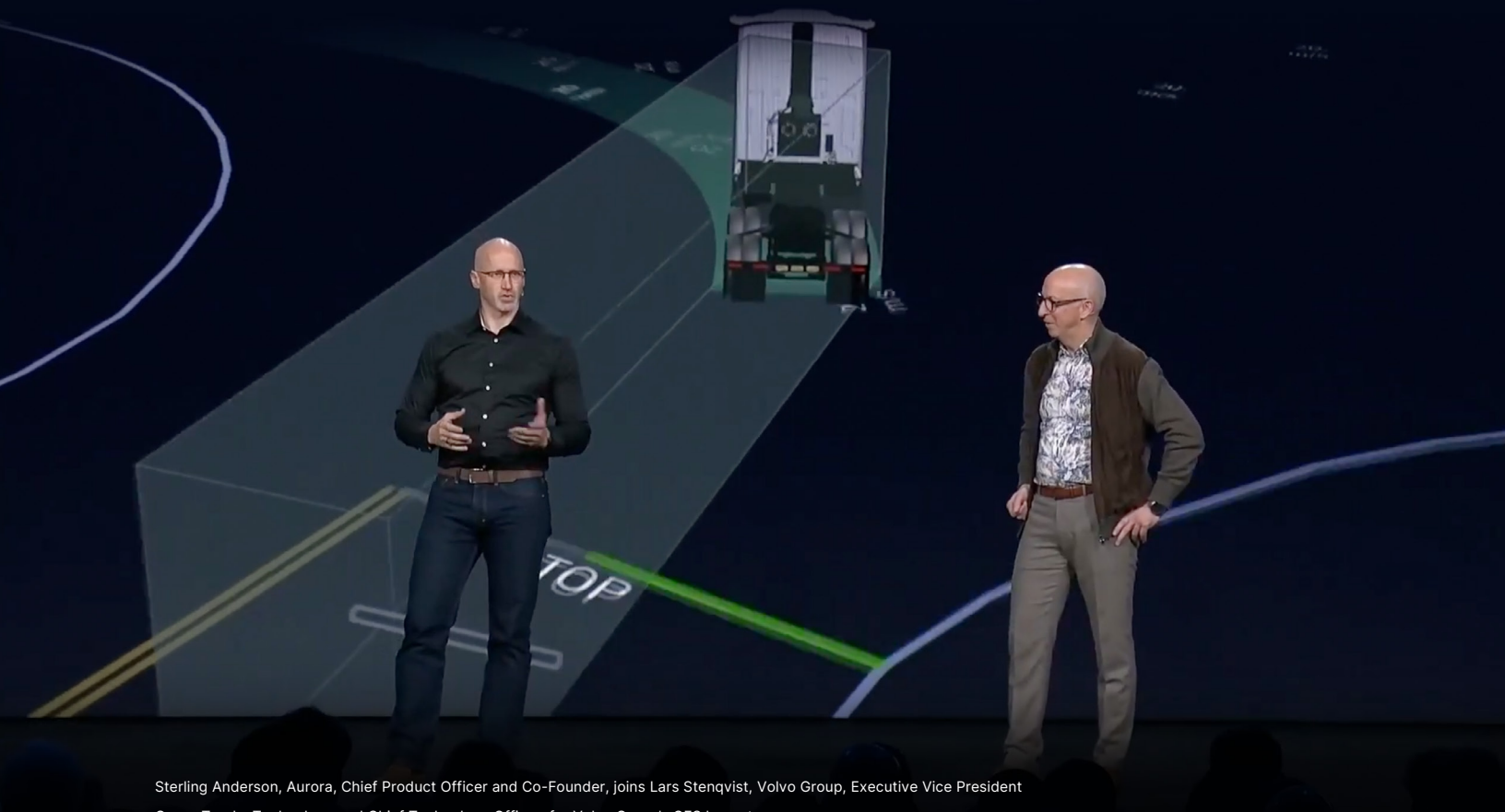


Addressing industry pain points

Growing demand for autonomous trucking underscores the critical role the Aurora Driver will play in addressing industry challenges. As freight volumes continue to increase and shipping distances extend, the Aurora Driver is uniquely positioned to help solve staffing shortages and enable more productive and efficient transport.

"Freight volumes are projected to grow five fold between 2010-2050 making autonomous transport not just an innovation, but a necessity … this transformation is no small task and requires significant collaboration, which is why we have partnered with Aurora Innovation, whose Aurora Driver is seamlessly integrated into the Volvo VNL Autonomous."

-Lars Stenqvist, Executive Vice President Group Trucks Technology and Volvo Group Chief Technology Officer



Sterling Anderson, Aurora, Chief Product Officer and Co-Founder, joins Lars Stenqvist, Volvo Group, Executive Vice President Group Trucks Technology and Chief Technology Officer, for Volvo Group's CES keynote

Aurora Driver-powered trucks operating at high levels of autonomy are already achieving best-in-class fuel efficiency — 15% above the industry average. This isn't just a marginal improvement; it's a clear example of how autonomy can deliver tangible value in fuel savings and sustainability. As we work with customers and more deeply integrate the Aurora Driver with their operations, we see the potential to reduce fuel use and emissions by up to 32% as we discussed in our sustainability white paper published last year. This will help the industry reduce emissions and bring down operating costs. This is just one example of how the Aurora Driver is meeting today's challenges an shaping the future of freight transport.

With a mutual focus on sustainable operations guided by safety, Aurora and Volvo Autonomous Solutions (VAS) continue to make significant progress in our partnership. During the fourth quarter, VAS launched pilot operations with DHL Supply Chain (DHL) with the purpose-built Volvo VNL Autonomous powered by the Aurora Driver. We are initially hauling DHL freight on two lanes, Dallas to Houston and Fort Worth to El Paso.

"Together with Aurora, we deliver safe and reliable autonomous freight transport, as demonstrated by the start of our commercial operations with DHL, one of the world's leading parcel companies. This milestone marks the beginning of scaled autonomous transport, supported by the robust ecosystem we've built to drive the future of the industry."

-Nils Jaeger, Volvo Autonomous Solutions, President

Preparing customers for driverless operations

We also continue to autonomously haul freight for our other pilot customers, including FedEx, Werner, Schneider, Hirschbach, Uber Freight, and others. Cumulative to-date 9/23/21 through 2/2/25, we have autonomously delivered:

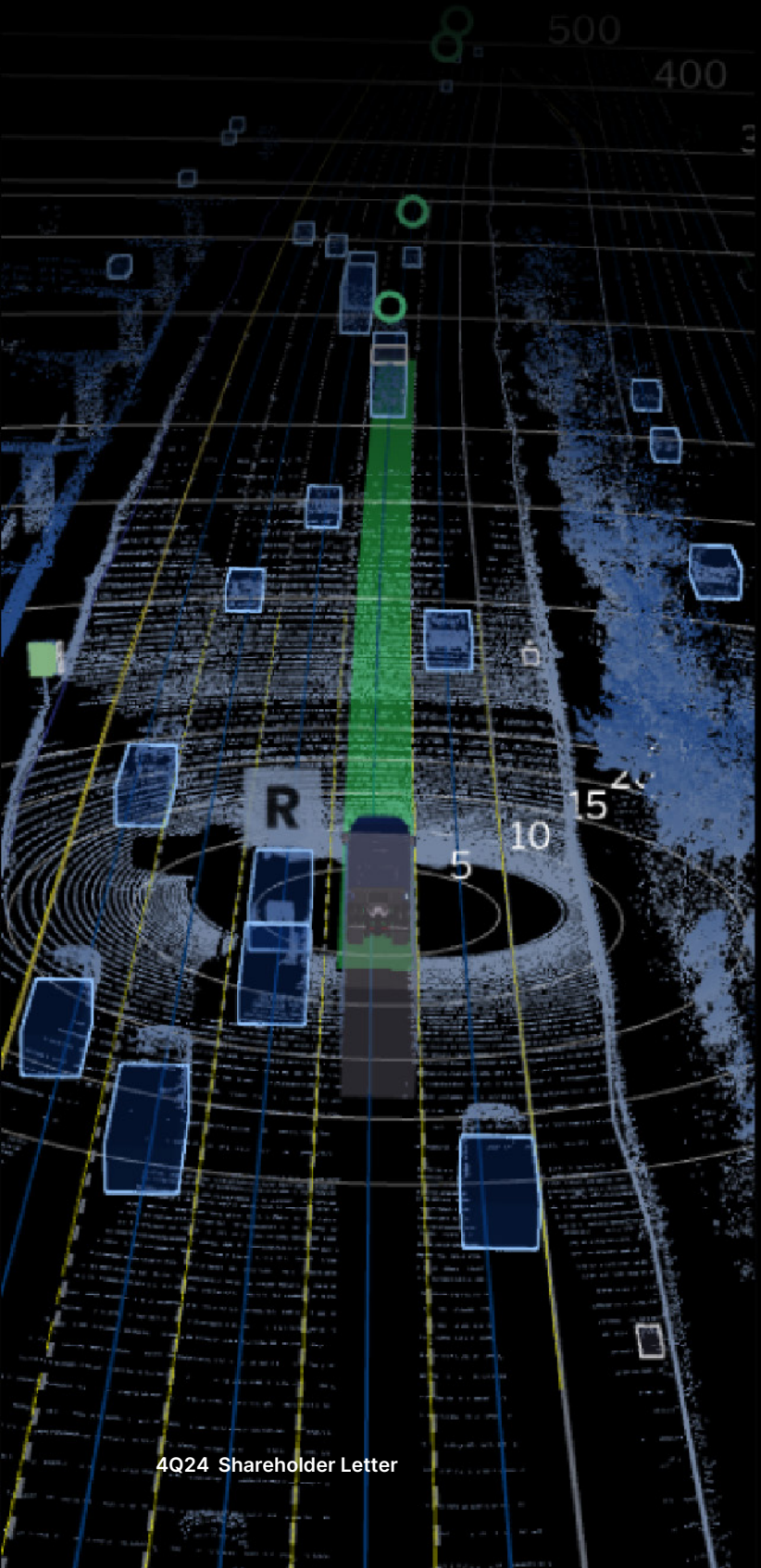
(under the supervision of vehicle operators)

9,500+ commercial loads

across **2.6M+** miles

nearly **100%** on-time (Aurora controlled rate)

As we prepare for Commercial Launch, we continue to execute our Partner Success Program, in which customers have the opportunity to more deeply evaluate and assess the Aurora Driver's performance as a final step to move forward with driverless operations. Hirschbach recently evaluated our system, leveraging the expertise of some of their most seasoned professional drivers, who collectively represent over 75 years of on-road experience. They were blown away by the Aurora Driver's performance and in turn, are ready to go driverless when we are ready.



What did you observe?

"Seeing what the truck is seeing is just insane. Humans can't see this far. We can't see this many angles all at once. Its turns were so on point ... I was looking in the driver-side mirror—perfect turns. It used up the entire lane, kept it as wide as you possibly could. I was impressed by that because not a lot of drivers can do that."

-C.L., Hirschbach Driver Ambassador

"We are talking cutting edge. I mean the very edge of the cutting edge here. I think this is going to be huge and, safety-wise, a lot better."

-T.Z., Hirschbach Driver Ambassador

"It did everything—stop signs,turn signals, the whole nine yards. I was like, I wish they would teach other drivers to do that."

-C.G., Hirschbach Driver Ambassador

Shaping a safer future through regulatory engagement

Today, driverless deployment in the U.S. is already allowed by the federal government. And at the state level, under existing laws and regulations, autonomous trucks can be deployed in the vast majority of U.S. states, including our Texas launch market. In other words, when we are ready to launch, Texas is ready. We are also optimistic that the new Presidential administration's enthusiasm for innovation, safety, and a nationwide framework for self-driving vehicles could further support this favorable regulatory environment for driverless deployment in the U.S.

At the operational level, the Federal Motor Carrier Safety Administration (FMCSA) currently requires human operators whose trucks become disabled in lane or on the shoulder of a highway to place warning devices — reflective triangles, fusees, or liquid-burning flares — behind the vehicle within 10 minutes of stopping to provide awareness to other road users. Two years ago, Aurora submitted a data-supported exemption application that would allow AV companies to pilot an alternate warning system for autonomous trucks — a set of high-visibility cab-mounted warning beacons that use flashing lights to signal caution to other road users — in order to safely comply with the awareness requirement. Notably, emergency and construction vehicles, as well as tow-trucks, already use high-visibility flashing lights to alert other drivers when stopped on the roadside.

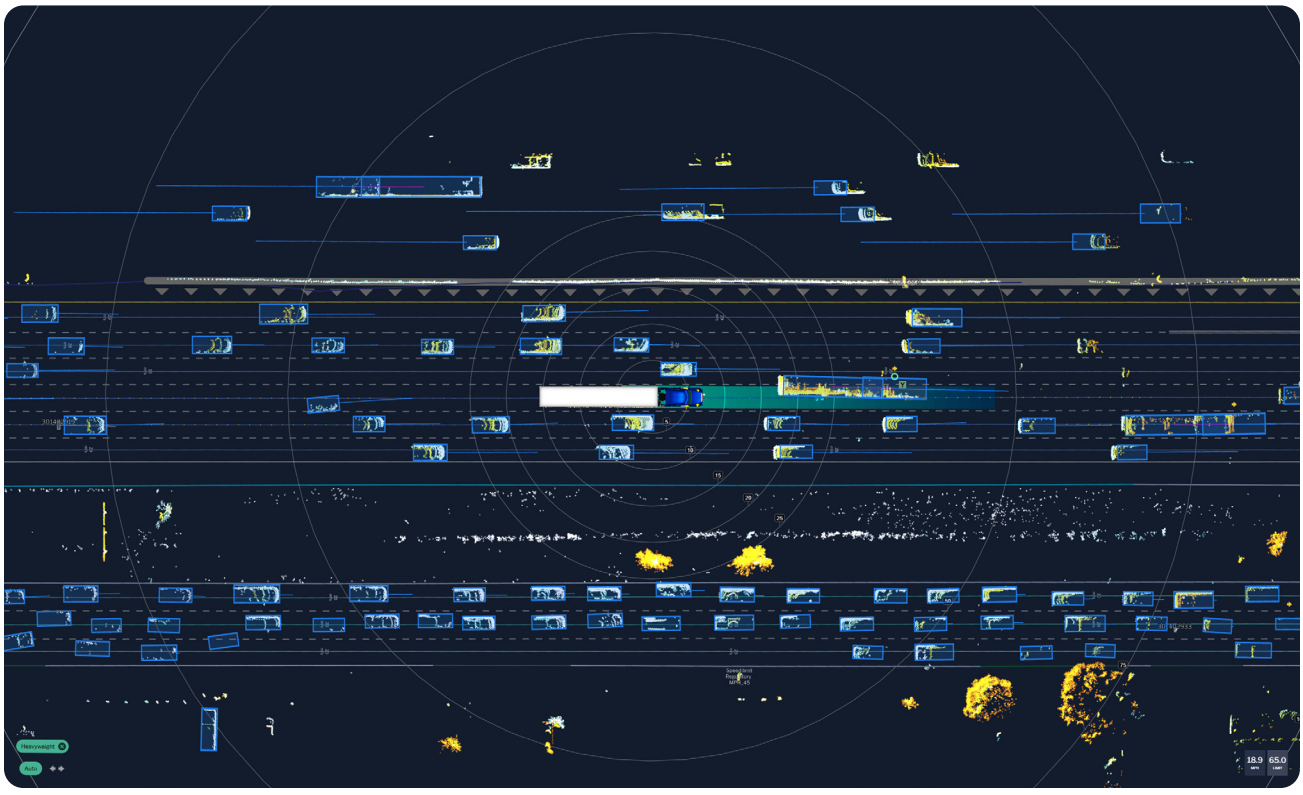
The roadside is one of the most dangerous places for a person to be. Yet, current rules for commercial trucks require drivers to exit their vehicles and hand-place small warning devices around the vehicle, putting drivers in direct danger of being hit by passing vehicles. This system was put in place over 50 years ago with minimal updates in the intervening years, and was not backed by data or research showing that it improves safety. Additionally, FMCSA acknowledges that the Agency never conducted experimental research on the safety impact of using such devices.

In December, after two years of silent review, the FMCSA denied our application to pilot a modernized flashing light roadside warning system for autonomous trucks. Importantly, this will not impact our driverless truck launch planned for April as we are developing alternative technology solutions and have operational controls that will allow us to comply with the law given our relatively high freight density on this lane; but their denial does a disservice to the broader industry that our warning system stands to benefit.

We have deep and enduring respect for our partners in government, and we recognize the difficulty of modernizing a long-established system. So now, Aurora is petitioning the federal courts to require FMCSA to revisit the unreasonable denial to use this innovative flashing light warning system. We're hopeful that this action can open a pathway to a fair evaluation of an innovative, and safe, solution. As the U.S. transitions presidential administrations, Aurora and our safety advocates are optimistic about working with passionate transportation leaders who are committed to supporting innovation and saving lives. Together, we aim to modernize the outdated systems in use today and advance a safer future for trucking.

"This is not just a wonderful technology that has a potential of making our roads safer, but this is a national security issue. We can't fall behind China or other countries as it comes to AV technology. Right now, we have a patchwork of laws from state to state. I believe there has to be a federal law by which all of these innovators abide by. I will always make sure safety is key, but after safety we want to give a wide runway for these companies."

-Sean Duffy, U.S. Secretary of Transportation



The Aurora Driver simultaneously tracking the position and velocity of vehicles and objects in heavy traffic, creating a superhuman 360° view of its surroundings

Positioning for scale

Since our founding, our objective has been to deploy self-driving technology at scale. Our OEM and Tier 1 partnerships with Volvo Trucks, PACCAR, and Continental are unmatched in the industry and we believe position Aurora as the only company capable of deploying autonomous trucking at scale. In January, we further enhanced this ecosystem with a three-way partnership between Aurora, NVIDIA, and Continental, solidifying another key enabler to successfully deploy at scale.

NVIDIA's DRIVE Thor system-on-a-chip and DriveOS will be integrated into the Aurora Driver hardware kit that Continental plans to mass-manufacture starting in 2027. Production samples of DRIVE Thor are coming in the first half of 2025 to start testing. DRIVE Thor will be the core of the primary computer for the Aurora Driver which Continental is developing and will manufacture.

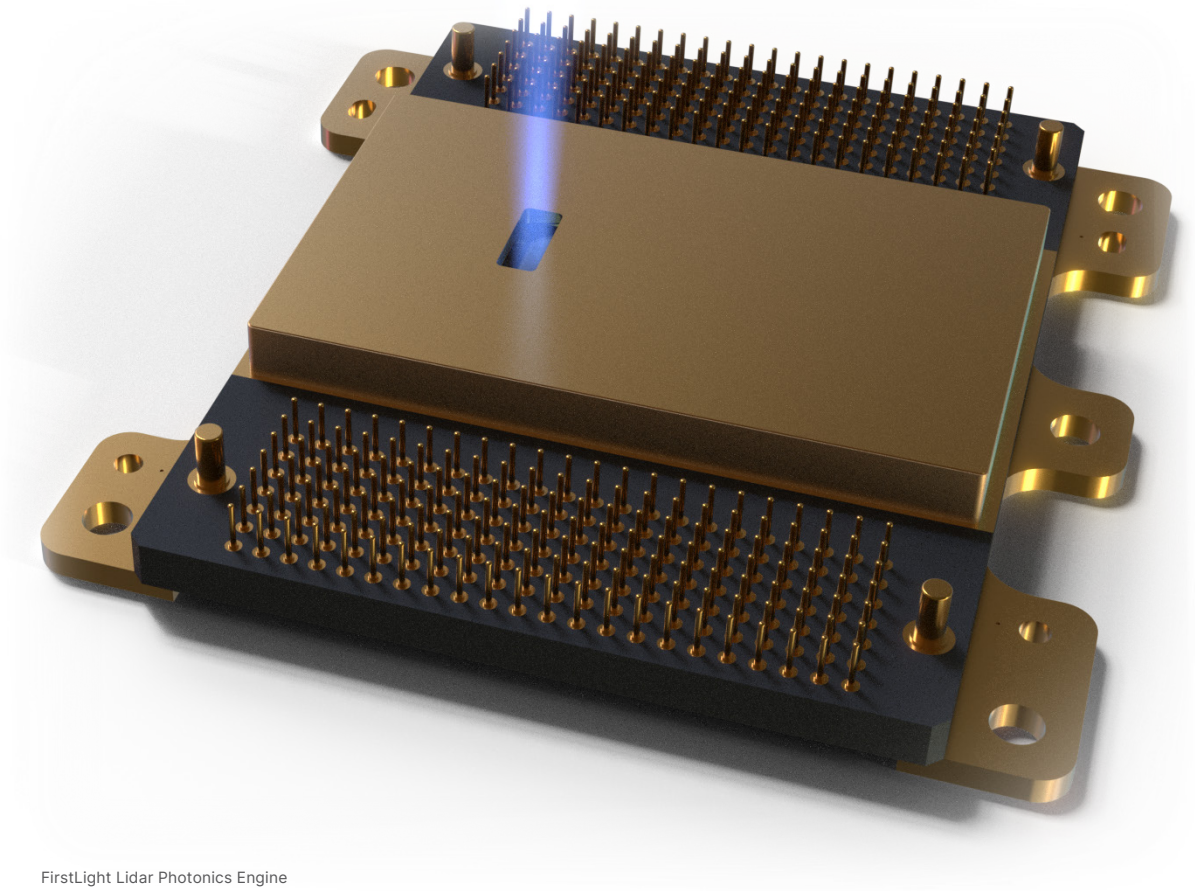
"The autonomous vehicle revolution has arrived … I predict that this will likely be the first multi-trillion dollar robotics industry."

-Jensen Huang, NVIDIA, Founder, President and CEO

Aurora | NVIDIA | Continental

We also continue to make meaningful progress on other aspects of this hardware kit. During the fourth quarter, we completed the integration of our FirstLight Lidar-on-a-chip into a single photonics engine and the prototype's performance is meeting our requirements for our next generation lidar. And in January, Continental and Aurora achieved another partnership milestone and are now beginning A-sample builds and firmware development, underscoring the significant progress we're making toward this generation of hardware that will unlock true scale on the order of tens of thousands of trucks.

While we work toward Continental's start of production in 2027 of our third generation commercial kit, we also continue to advance our second generation commercial hardware kit, which we plan to introduce later this year to support our initial ambitions to scale to hundreds of millions of miles traveled autonomously. This generation brings exciting performance gains and importantly, we expect it to drive a step-function reduction in our hardware costs, which is a critical element on our path to self-funding. During the fourth quarter, we received A-samples from our contract manufacturer, Fabrinet, and have integrated this prototype kit into its first vehicle for testing.



FirstLight Lidar Photonics Engine

Delivering on our mission

Aurora has always been a mission-driven company with an immensely capable team bold enough to dream big and skilled enough to make those dreams a reality. And earlier this month, Shelley Webb joined Aurora as Chief Legal Officer, rounding out our strong leadership bench. We're on the cusp of our planned Commercial Launch, a pivotal step toward realizing our mission, and our team is more focused and energized than ever. With a team like ours, the impossible becomes achievable.

Our extraordinary progress would not be possible without the unwavering commitment from our team, partners, and investors — thank you for your trust. We believe 2025 will be a defining year for Aurora as we begin to reshape the future of the freight industry.

Chris Urmson
CEO & Co-founder

From the desk of our CFO

During the fourth quarter of 2024, we continued to demonstrate strong fiscal discipline. Fourth quarter 2024 operating expenses, including stock-based compensation (SBC), totaled $199 million. Excluding SBC of $35 million, operating expenses totaled $164 million, reflecting $142 million in R&D, primarily comprised of personnel costs as we continue to invest in our industry-leading autonomy technology, and $22 million in SG&A.

We used approximately $142 million and $611 million, respectively, in operating cash during the fourth quarter and fiscal 2024. Capital expenditures totaled $8 million and $34 million, respectively, during the fourth quarter and fiscal 2024. This cash spend was below our externally-communicated target for both the quarter and year, reflecting our continued commitment to fiscal prudence.

In turn, we ended the year with a very strong balance sheet, including over $1.2 billion in cash and short-term investments. Given efficiencies we have found in the business and cash preservation decisions we have made, we now expect this liquidity to support our planned Commercial Launch and fund our operations into the second half of 2026.

In 2025, we expect quarterly cash use of $175 - $185 million, on average. This reflects an increase in capital expenditures and continued development of our new hardware programs as we prepare to scale our business.

At Commercial Launch, we will begin recognizing revenue. This will include driverless revenue, as well as continued pilot revenue, which up to this point has been recorded as contra R&D expense. With our deliberate approach to launch, we expect our 2025 revenue to be modest, in the mid single digit millions range. Revenue recognition associated with our driverless launch will be a meaningful milestone for Aurora but will have a negligible impact on our overall financials during our launch year. Our focus in 2025 will be on expanding our driverless operations to prove the promise of the Aurora Driver technology. In addition, our team will be focused on key cost reduction levers, including the introduction of our next generation hardware kit, to support achieving our initial scaling cost reduction initiatives.

David Maday
CFO

Cautionary statement regarding forward-looking statements

This investor letter contains certain forward-looking statements within the meaning of the federal securities laws. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," "could," "would," "project," "plan," "potential," "indicative," and similar expressions and variations thereof are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. All statements contained in this investor letter that do not relate to matters of historical fact should be considered forward-looking statements, including but not limited to, those statements around our future financial and operating performance and our financial outlook and guidance, including expected revenue for the 2025 fiscal year, our ability to reduce costs and general expectations beyond that year, the safety benefits of our technology and product, our ability to achieve certain milestones (including, but not limited to, API milestones) around, and realize the potential benefits of, the development, manufacturing, scaling (including, but not limited to, the lane expansion strategy and our product's capabilities), and commercialization of the Aurora Driver and related services, including relationships and anticipated benefits with partners and customers, and on the timeframe we expect or at all, the market opportunity, our product's ability to reduce fuel use and emissions, the expected future market size (including, but not limited to, estimations made by third parties) and our product's compatibility therewith, our expected market share, the efficiency and effectiveness of our validation process, and profitability of our products and services, the regulatory tailwinds and framework in which we operate, our ability to comply with the current and future regulatory framework, and our expected cash use and cash runway. These statements are based on management's current assumptions and are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Our projected quarterly cash use is based upon assumptions, including research and development and general and administrative activities, as well as capital expenses and working capital. For factors that could cause actual results to differ materially from the forward-looking statements in this investor letter, please see the risks and uncertainties identified under the heading "Risk Factors" section of Aurora Innovation, Inc.'s ("Aurora") Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 15, 2024, as amended by the Form 10-K/A filed with the SEC on May 24, 2024, and other documents filed by Aurora from time to time with the SEC, which are accessible on the SEC website at www.sec.gov. Additional information will also be set forth in our Annual Report on Form 10-K for the year ended December 31, 2024. All forward-looking statements reflect our beliefs and assumptions only as of the date of this investor letter. Aurora undertakes no obligation to update forward-looking statements to reflect future events or circumstances.

Aurora Innovation, Inc.
Consolidated Balance Sheets
(in millions)

	December 31, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	$ 211	$ 501
Short-term investments	1,012	699
Other current assets	31	17
Total current assets	1,254	1,217
Property and equipment, net	104	94
Operating lease right-of-use assets	120	122
Acquisition related intangible assets	617	617
Long-term investments	—	148
Other assets	43	37
Total assets	$ 2,138	$ 2,235
Liabilities and Stockholders' Equity		
Current liabilities:		
Operating lease liabilities, current	$ 16	$ 15
Other current liabilities	89	96
Total current liabilities	105	111
Operating lease liabilities, long-term	105	107
Derivative liabilities	48	24
Other liabilities	5	8
Total liabilities	263	250
Stockholders' equity:		
Common stock - $0.00001 par value, 51,000 shares authorized, 1,733 and 1,529 shares issued and outstanding, respectively	—	—
Additional paid-in capital	6,232	5,594
Accumulated other comprehensive income	1	1
Accumulated deficit	(4,358)	(3,610)
Total stockholders' equity	1,875	1,985
Total liabilities and stockholders' equity	$ 2,138	$ 2,235

Aurora Innovation, Inc.
Consolidated Statements of Operations
(in millions, except per share data)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2024	2023	2024	2023
Operating expenses:				
Research and development	$ 171	$ 170	$ 676	$ 716
Selling, general and administrative	28	28	110	119
Total operating expenses	199	198	786	835
Loss from operations	(199)	(198)	(786)	(835)
Other income (expense):				
Change in fair value of derivative liabilities	(9)	(13)	(24)	(20)
Other income, net	15	19	62	59
Loss before income taxes	(193)	(192)	(748)	(796)
Income tax expense	—	—	—	—
Net loss	$ (193)	$ (192)	$ (748)	$ (796)
Basic and diluted net loss per share	$ (0.11)	$ (0.13)	$ (0.46)	$ (0.60)
Basic and diluted weighted-average shares outstanding	1,722	1,521	1,618	1,327

Aurora Innovation, Inc.
Consolidated Statements of Cash Flows
(in millions)

	Twelve Months Ended December 31,	
	2024	2023
Cash flows from operating activities		
Net loss	$ (748)	$ (796)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	21	21
Reduction in the carrying amount of right-of-use assets	28	27
Stock-based compensation	144	160
Change in fair value of derivative liabilities	24	20
Accretion of discount on investments	(28)	(28)
Other operating activities	(1)	—
Changes in operating assets and liabilities:		
Other current and non-current assets	(22)	1
Operating lease liabilities	(26)	(25)
Other current and non-current liabilities	(3)	22
Net cash used in operating activities	(611)	(598)
Cash flows from investing activities		
Purchases of property and equipment	(34)	(15)
Purchases of investments	(1,030)	(1,297)
Maturities of investments	892	1,320
Net cash (used in) provided by investing activities	(172)	8
Cash flows from financing activities		
Proceeds from issuance of common stock	497	840
Other financing activities	(5)	(9)
Net cash provided by financing activities	492	831
Net (decrease) increase in cash, cash equivalents, and restricted cash	(291)	241
Cash, cash equivalents, and restricted cash at beginning of the period	518	277
Cash, cash equivalents, and restricted cash at end of the period	$ 227	$ 518

Aurora Innovation, Inc.
Non-GAAP Financial Information (unaudited)
(in millions)

The following table reconciles our as reported U.S. GAAP net loss to Non-GAAP adjusted EBITDA.

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2024	2023	2024	2023
Net loss	$ (193)	$ (192)	$ (748)	$ (796)
Depreciation and amortization	6	6	21	21
Stock-based compensation	35	37	144	160
Change in fair value of derivative liabilities	9	13	24	20
Other income, net	(15)	(19)	(62)	(59)
Adjusted EBITDA	$ (158)	$ (155)	$ (621)	$ (654)

Use of Non-GAAP Financial Information

Our Non-GAAP Adjusted EBITDA excludes certain items we believe are not representative of continuing operations due to their non-recurring or non-cash nature. We believe Non-GAAP Adjusted EBITDA provides greater transparency to key metrics used by management in its evaluation of ongoing operations which allows investors to better evaluate our operating results.

We define Adjusted EBITDA as net loss, the most directly comparable financial measure calculated in accordance with U.S. GAAP, adjusted to exclude the impacts of (i) income taxes, (ii) depreciation and amortization, (iii) stock-based compensation, (iv) changes in fair value of derivative liabilities, (v) goodwill impairment and (vi) other non-operating income and expenses.

We believe that Adjusted EBITDA provides useful information to investors and others in understanding and evaluating our operating results in the same manner as management. However, Adjusted EBITDA is not a financial measure calculated in accordance with U.S. GAAP and should not be considered as a substitute for or superior to net loss, operating loss, or any other operating performance measure, which are calculated in accordance with U.S. GAAP. Using any such financial measure to analyze Aurora's business would have material limitations because the calculations are based on the subjective determination of management regarding the nature and classification of events and circumstances that investors may find significant because they exclude significant expenses that are required by U.S. GAAP to be recorded in Aurora's financial measures. In addition, although other companies in our industry may report measures titled Adjusted EBITDA, such financial measures may be calculated differently from how we calculate such financial measures, which reduces their overall usefulness as comparative measures.