Ainos, Inc.

AIMD: AI Nose Gears Up for Large-Scale Commercialization in 2026

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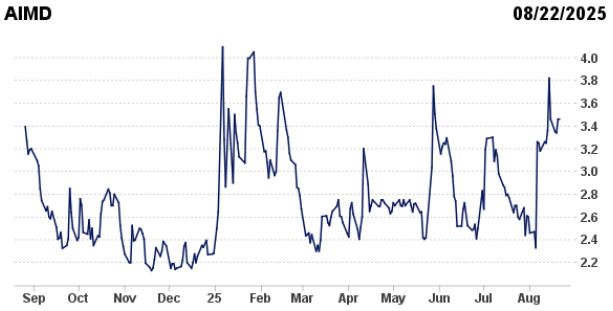
KEY POINTS

- **On August 20, 2025, WTR held a fireside chat with Jack Lu, Director of Corporate Development.** Our discussion covered Ainos' strategic pivot from biotech to AI-driven SmellTech, the technology behind and capabilities of Ainos' AI Nose SmellTech platform, and what makes it a foundational AI technology product for multi-sector deployment. Lu also discussed AI Nose deployment and commercialization plans going into 2026 and Ainos' pathway to cash profitability. This report contains a transcript of the conversation, which can be accessed on demand.
- **The pivot from biotech to AI technology company.** While still committed to advancing its VELDONA drug platform to commercialization, Ainos' growth strategy is now primarily being driven by its AI Nose SmellTech platform. The pivot began in 2021 when Ainos acquired this AI Nose technology for initial deployment in healthcare settings. However, with other significant opportunities beckoning, it has since been positioned as a platform technology with a substantial runway beyond healthcare. Booming demand for AI-driven automation has been the major catalyst for the pivot.
- **First mover advantage.** AI Nose was first born in healthcare where sensitivity and accuracy are absolutely critical criteria, giving it a springboard for expansion into industrial settings where it enables customers to detect problems early before they escalate, which is essential for preventive maintenance in semiconductor or smart manufacturing settings. Add to that, AI Nose's data moat long built up in a variety of settings is second to none. From a product standpoint, AI Nose devices are about the size of a smartphone, making them very easy to deploy at scale, whereas many e-nose machines for R&D are large (bigger than a printer) and expensive. AI Nose has now entered the commercialization stage for the technology, allowing it to build a very strong first mover advantage.
- **Gearing up for large-scale commercialization begins in 2026.** AI Nose has already begun to deliver revenue, which is expected to ramp up in 2H25 on the execution of industrial pilot programs arising from strategic partnerships established this year. The goal is that deployments will flourish into tens of thousands of AI Nose units in 2026 delivering to Ainos a significant ramp-up in recurring software and data subscription revenue.

KEY STATISTICS

Ticker:Exchange	AIMD:NASDAQ
Current Price	$3.56
52-Week Range	$2.00-$5.00
Average Volume (30-Day)	4,812,718
Shares Outstanding (MM)	4.7
Enterprise Value ($MM)	$26.4
Market Cap ($MM)	$16.6
Fiscal Year-End	December

PRICE PERFORMANCE



ABOUT THE EXECUTIVE

Jack Lu
Director of Corporate Development

Jack Lu joined Ainos as the Director of Corporate Development in 2021. He is responsible for the company's corporate development, capital market and investor relations. Prior to joining the corporate world, Jack was a senior research analyst covering Asian technology companies and institutional equity sales in European and Asian financial institutions.

EXECUTIVE DISCUSSION

Robert Sassoon: I'm Robert Sassoon, Senior Analyst at Water Tower Research. I have the pleasure of hosting Ainos' Director of Corporate Development Jack Lu for this fireside chat.

Ainos is an AI-driven company considered to be a pioneer in scent digitization through the development and commercialization of its proprietary AI Nose platform. Ainos' AI Nose platform was initially developed for healthcare applications as a natural extension to the company's biotech roots, but 2025 has seen a significant strategic pivot toward expanding Ainos as a critical SmellTech provider to other verticals, transitioning Ainos into a foundational AI technology company.

Ainos is a Texas incorporated company that trades on the NASDAQ under the ticker, AIMD. You can find the company's disclosures regarding forward-looking statements in the latest corporate presentation on its website at www.ainos.com, where it will be under Events and Presentations in the Investor Relations section.

Without further ado, welcome, Jack, and thank you for your participation in this fireside chat.

Jack Lu: Good morning, Robert. Great to be back.

Robert Sassoon: For some context, let me start by asking you about when Ainos decided to redirect itself from being a biotech company, and why the pivot to SmellTech in particular?

Jack Lu: Sure. Our firm began as a biotech company focused on the drug platform, VELDONA. Then in 2021, we kicked off our journey of becoming the company that can give AI the ability to smell when we acquired this AI Nose technology. It's a super sensitive, trainable, AI-powered electronic nose platform originally designed for healthcare applications. It was first developed to detect pneumonia in ICU patients, and then we expanded into women's health and more recently into senior care. That ICU application meant that AI Nose had to deliver excellent accuracy, speed, and reliability in one of the most demanding environments imaginable. We always positioned AI Nose as a platform technology with a substantial runway beyond healthcare. We are also aware that industrial applications accounted for roughly half of the e-nose market and our platform's ability to digitize smell will open massive opportunities for us.

We also believe that scent is emerging as AI's next token, just like words power the large language models or LLMs and images fuel the vision AI. Many companies we have approached have told us that they actually have been searching for this smell sensing solution for some time. We know we're on the right track. In 2024, this booming demand for AI-driven automation was really a major catalyst. That's the reason we decided to pursue the industrial market in 2024. Then in 2025, so far, this is our first year executing this pivot.

Today, we are targeting semiconductors, robotics, smart manufacturing, public infrastructure, and even hospital operations. Industries that demand faster, earlier detections, higher automation, and more reliable safety monitoring. So far in 2025, we've got four new industrial partners in robotics, semiconductors, and automations. Then we will pursue more partnerships going forward. Asia is a great launch pad for our industrial growth programs because 70% of global chip capacity and roughly 45% of the EMS capacity are in Asia. Our current partnerships are primarily Asia-focused, but we are also exploring other international opportunities.

Net-net, we're still advancing our VELDONA biotech pipeline, but AI Nose has become our new growth engine with scalability to have an impact on multiple industries.

Robert Sassoon: Thanks for those introductory comments. Can you explain now the technology behind the AI Nose platform? What gives the ability to differentiate smells in a different and complex environment, and the level of accuracy it generates?

Jack Lu: Sure. AI Nose is a full-stack electronic nose. We call it e-nose for short, with three integrated layers. There's a precision hardware layer, there's an advanced AI layer, and then there's a data layer harnessing about 13 years of proprietary scent data. They all work together to detect, classify, and interpret sense.

On the hardware side, we configure multiple MEMS gas sensors into an array to analyze scent data in multiple dimensions. It's similar to visual technologies, right? The more cameras you have, the more data you can feed to the AI because you're capturing more data. MEMS sensors are great for our purpose. They're tiny, fast, low-power, and cost-effective because they are made with semiconductor processes. We buy sensors from the leading international companies, turning them into our ecosystem partners. Our hardware is just more than just sensors. We also need to consider humidity, air flow, and temperature factors in our devices. We have accumulated a lot of know-how to tackle these factors from the hardware point of view.

On the AI side, our smell language model, or SLM for short, interprets scent patterns in context and calibrates the sensors for best performance. Our MedTech route really pushed us further. Our SLMs are optimized to calibrate and account for humidity, airflow, and temperatures inside the sensing chamber, so that all readings are stable and repeatable. As this deployment scales, our SLMs will become more like a large language model for scent, or you can just think about it as ChatGPT for scent.

Above all that sits our data layer, the Smell ID. Think of this as a every scent unique digital footprint, whether it is for a gas anomaly, a hygiene signal, or for an everyday scent. You can really think of this as a face ID, but for scent. When you put everything together, AI Nose is

trainable. Every new deployment makes it smarter. So far in senior care, our accuracy has improved to about 85% recently from about 80% just a few months ago. In the semiconductor environment, we're at about 80% accuracy. More deployments create more data and the more data drives higher accuracy.

We're also doing something in the general consumer scents. For general consumer scents, like fruits, drinks, and foods, we're now at over 85% accurate. I'll encourage everyone to visit our YouTube channel, where we show how AI Nose is trained to recognize everyday scents, again, like fruit and meat.

Robert Sassoon: That seems pretty impressive. There seem to be a lot of e-nose companies with different technologies out there. Are there any unique features that you think make AI Nose standout and give it a competitive edge?

Jack Lu: That's a great question. Let's start distinguishing a gas sensor from e-nose. A gas sensor detects specific gases. For example, it might say this is ammonia. An e-nose like our AI Nose goes further. It uses multiple sensors in AI to understand the meaning of the scent. For example, you can say this smells like orange juice or a machine overheating. AI Nose was first born in healthcare where sensitivity and accuracy are absolutely critical. From day one, we've analyzed scents at parts per billion levels, often from complex samples like human breath or other body parts. In industrial settings, that means that our customers can detect problems earlier before they escalate, which is essential for preventive maintenance in semiconductor or smart manufacturing settings.

From the product standpoint, many e-nose machines for R&D are large and expensive. They're often bigger than a printer, but our AI Nose devices are about the size of a smartphone, making them very easy to deploy at scale. You can look at our product here (see Figure 1). This is the product that we just announced. As you can see, it's handheld. I can hold it in my hand, making them easy to deploy at scale. On the AI and data side, our SLM models interpret scents and Smell ID and give each order a unique fingerprint. To recap, it's a trainable AI-powered cloud connected and built for scale. Every deployment makes it smarter and that's our big differentiating factor.

With all that, we believe we're building a very strong first mover advantage in an emerging AI sensing market. Internally, we kind of sum it up this way. AI cannot smell until Ainos. Our corporate name Ainos really says it all. It combines AI and Nose.

Robert Sassoon: Thank you for that. Now Ainos has established, as you mentioned, several strategic partnerships this year and it's really entered the commercial execution phase with respect to AI Nose. Can you provide more details on AI Nose deployment plans related to these partnerships in the second half of this year going into 2026?

Jack Lu: Sure. Our goal has always been building a capital-efficient business model through strategic partnerships to scale without big capex. In the first half of this year, we established a strong industrial partner network with four very robust partners. In the second half of this year, our focus will be on execution, embedding our AI Nose into our partners' platforms and preparing for large-scale commercialization in 2026.

Let's quickly go over the four major programs. Number one, we have a program with ASE. This is the world's largest semiconductor packaging and testing company. We're working on over 30 use cases with a phase rollout plant starting with 1,400 units on the pilot, going to 5,000 units in Phase 1, and then up to about 15,000 units in Phase 2. We received a $2.1 million order for the first 1,400 units on a three-year subscription. Our goal for the second half is to complete that deployment and then begin the 5,000-unit phase. As you can see, if we go into Phase 2, the scale is actually 10 times bigger than the pilot stage. 30-plus use cases now and growing, including emerging applications. We hadn't really anticipated it, but we could really come up with a lot of innovative use cases as we continue to discuss with the ASE teams.

The second program is ugo. This is our first robotic customer and it's Japan's service robot leader. ugo robots are already operating in offices, data centers, and public facilities. We will soon pilot at seven sites in Japan, including pharma manufacturing, facility management, energy operations, power substations, and water treatment plants. The ugo Southeast Asia expansion could also create additional opportunities for us.

Then there are two companies in automation, Kenmec and Solomon. They are both Nvidia's ecosystem partners and leaders in smart factory automations. They expand our reach into the industrial, robotic, semiconductor, and healthcare sectors. Kenmec will also manufacture our AI Nose module. So far, we have identified multiple new potential customers with these two companies. We'll share more updates as they progress.

Robert Sassoon: Thank you for that. Now, AI Nose is planning large-scale commercialization in 2026. What does that actually mean in terms of anticipated deployments?

Jack Lu: Right. It means moving from thousands of deployed units to really tens of thousands of units, with the goal that each can generate recurring software and data subscription revenue for us. Our first [ASE] $2.1 million order is our first industrial win in smart factory and robotic solutions. The SmellTech flywheel accelerates. More deployment will bring more data, and more data improves accuracy, and higher accuracy will create more adoptions. That's basically how we think about this business.

Robert Sassoon: Thanks. Let's move on to your subscription fee model. Can you elaborate for us what the subscription covers? How is pricing structured? Does that vary by application or user case? Is the first ASE order a guide for typical contract length?

Jack Lu: Absolutely. Our subscription rate service is called SmellTech-as-a-Service. This model includes number one, initial hardware installations and continuous replacement hardware support, support on the SLM AI software, and then providing data analytics and reporting services to our customers. Pricing is right now application specific. Industrial customers are priced differently than healthcare customers, but our common goal is to create recurring multi-year subscriptions.

The ASE order is representative. It's hardware plus ongoing AI and analytics subscriptions for multiple years. Right now, it's on a three-year program.

Robert Sassoon: Great. The AI Nose platform has actually started generating revenue this year, and more is expected to come in the second half of 2025 as it proceeds to execute, as you described, more deployments and is expected to ramp up in 2026 as, again, you just described. Can you indicate what level of revenue you need to generate from AI Nose's subscriptions to become profitable at the cash and operating level?

Jack Lu: Right. We're still early in our programs, as you can see from my highlight of the previous four industrial partnerships. Right now, while we don't give specific targets, I think once we reach the low tens of thousands of units, with high margin subscriptions, we should see a path to cash flow break-even given that our current operations in Asia actually carry a low burn rate. You can see the program with our first semiconductor customers, $2.1 million for 1,400 units, but there is a pathway to scaling eventually into 15,000 units. We're very excited about the potential there.

Industrial and robotics markets should move faster than the regulated hardware. That's why we do this pivot, so that we can reach our cash flow break-even point sooner, while continuing to grow our MedTech footprint in parallel.

Robert Sassoon: Final question. What are the funding requirements over the next year and your financing strategy?

Jack Lu: Right. We're really taking the disciplined approach to fund our growth. Our goal is to expand AI Nose deployments, while doing our best to manage dilutions and balance market conditions and timings. We'll continue to explore strategy partners, as I said. We'll also seek non-dilutive funding sources. In the capital market, we'll be using ATM programs when market conditions are favorable. I think for us every dollar we raise should go into scaling the AI Nose deployment, strengthening our SLM software to drive that flywheel effect and really just try to build a long-term stable recurring revenue stream for the company and create long-term value for the shareholders.

Robert Sassoon: Thank you for all of that. Let's wrap it up there. Busy and exciting times ahead for Ainos and its SmellTech platform, and we're definitely looking forward to watching your progress there.

Thanks to everybody for joining this chat. If you have any additional questions for Jack, please send them to me and I'll be sure to pass them on. For analysis of Ainos, please refer to our open access website at www.watertowerresearch.com. This fireside chat will also be accessible on demand on our website.

Figure 1: AI Nose Device

Source: Ainos

ABOUT THE ANALYST

Robert Sassoon
Senior Research Analyst

Robert Sassoon has been an equity analyst for more than three decades, focusing primarily on global special situations. During his career, Robert has worked for several sell-side institutions in London, Hong Kong, and New York, including Credit Suisse, NatWest Capital Markets, and Societe Generale. In 2017, Robert founded AlphaSituations, an independent idea-generating event driven/special situations investment research service, which produced comprehensive research on early stage/emerging publicly traded and privately owned companies with the goal of telling an underappreciated or unknown story to relevant investors.

Robert has developed a uniquely broad and deep knowledge base in multiple industries from a global perspective and has achieved top five rankings in various analyst surveys, including the Extel and Greenwich surveys. Robert holds an MSc in Economics from the London School of Economics and Political Science, and has held FINRA licenses Series 7, 63, 86, 87, and 24.

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