VASRO

Initial Study | Technology

Ainos, Inc.

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Two engines, two timelines: AI Nose execution and VELDONA® clinical gates.

We initiate non-rated equity coverage on Ainos, Inc., a small-cap company with a dual-platform approach: one focused on nearer-term sales growth through AI-powered smell detection technology platform, AI Nose, and the other on longer-term clinical potential from low-dose oral interferon treatments, with increased focus on AI Nose.

AI Nose to scale in 2026. The AI Nose platform, known as SmellTech, was developed in healthcare settings and entered an execution phase in 2025 following a strategic pivot to industrial deployment. Evidence includes the August 2025 $2.1 million three-year subscription order with semiconductor company ASE Technology, several Asia-based partnerships formed in 2025 (such as broadened distribution, industrial edge AI integration, and pilots with robot partner), reported field accuracy between 79% and 94% in tested industrial and healthcare applications. Recent steps, forming the wholly owned subsidiary ScentAI Inc. in December 2025 to advance the smell language model and planning a U.S. headquarters move to Houston, Texas in early 2026, support the drive toward a scalable, recurring service model in industrial and diagnostic markets.

VELDONA® a biotech optionality, with Taiwan clinical studies underway/advancing in primary Sjögren's syndrome and HIV-related oral warts (the latter supported by U.S. Food and Drug Administration Orphan Drug Designation). The company is pursuing an Asia-first bridging path toward broader regulatory discussions, while maintaining modest veterinary/pet supplement activity. Based on company statements, key clinical milestones are expected to concentrate across 2H 2026 (HIV oral warts) and 1H 2027 (primary Sjögren's syndrome), which would inform next-step regulatory and partnering decisions.

Considerations:

(a) reliance on partners for broader adoption in a still-fragmented digital olfaction market,

(b) the possibility of clinical or regulatory challenges for VELDONA, and

(c) reported cash position suggest additional funding might be necessary to support operations and strategic initiatives.

At the same time, the company could benefit from:

(a) scaling current AI Nose deployments into steady recurring revenue,

(b) strengthening the data advantage in AI Nose to capture growing demand in industrial automation and healthcare fields, and

(c) positive VELDONA trial outcomes that open orphan-protected or partnering paths,

FY End: 31.12.; in USD m	2020	2021	2022	2023	2024	9M2025
Sales	0.020	0.590	3.520	0.122	0.0207	0.1131
EBIT	(1.44)	(3.87)	(13.98)	(13.20)	(13.84)	(9.78)
Net Result	(1.45)	(3.89)	(14.01)	(14.05)	(14.86)	(10.30)
EPS (basic, USD)	(13.36)	(12.87)	(25.68)	(17.13)	(7.82)	-
Cash (period-end)	0.02	1.75	1.86	1.60	3.61	0.85
Total assets (period-end)	0.26	40.82	37.12	31.56	28.53	22.40
Total liabilities (period-end)	1.10	30.63	2.48	7.39	13.30	12.63

Source: Ainos Inc., VASRO

Stock price* USD 1.93

*last NASDAQ closing price

Source: NASDAQ

Stock Basic Data

USD m

Initial	FY2023	FY2024	9M2025A
Sales	0.122	0.0207	0.113
EBIT	(13.20)	(13.84)	(9.77)
Cash	1.60	3.61	0.85

Stock Basic Data

Number of Shares (in million)	6.983
Free Float (in %)	36.90%
Market Cap (in million USD)	12.98
Trading Volume (Ø)	6.95
High (USD, 52 weeks)	5
Low (USD, 52 weeks)	1.78

Shareholder Structure

TCNT	53.55%
Individual Insiders	9.55%
Institutional Holders	1.89%
Free float and other shareholders	35.01%

Corporate Calendar

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Executive Summary

Company Overview: Ainos, Inc. (micro-cap) operates two platforms, with the near-term business priority on AI Nose: an AI-powered digital olfaction system designed to digitize smell as an emerging data language for artificial intelligence (AI), with industrial deployments as the core commercial focus. VELDONA® is the second platform, a low-dose oral interferon-alpha pipeline targeting underserved indications, led by primary Sjögren's syndrome, HIV-related oral warts and feline chronic gingivostomatitis. *This non-rated analysis provides no investment recommendation or price target; any valuation work is illustrative and assumption-led.*

Ainos comprises two platforms with different timelines and risk profiles: AI Nose industrial scale-up and repeatable site deployments are the near-term driver expected to scale in 2026, while VELDONA represents longer-dated optionality tied to discrete clinical and regulatory gates. Recent activities suggest AI Nose is positioned as the core value driver.

Table 1: Two-Engine Snapshot

Engine	Description	Current External Proof Points	Monetization Logic	Key Near-Term Gating Item
AI Nose (industrial priority)	Scent digitization into "Smell ID"	Industrial scale-up roadmap with ASE (multi-phase); $2.1m three-year subscription order (Aug 2025) for 1,400 units deployment	Primarily hardware + software subscription model ("SmellTech-as-a-Service")	Phase expansion decisions + execution at customer sites + new customer wins
VELDONA (clinical gates)	Low-dose oral interferon-alpha programs	Taiwan trial approvals/clearances; active Phase 2; HIV-related oral warts with U.S. FDA Orphan Drug Designation	Clinical progress → partnering / pathway strategy	Study enrollment pace, endpoint readouts

Source: Ainos Inc.; compiled by VASRO

Industrial progress: disclosed progress is anchored by the ASE multi-phase semiconductor rollout and the $2.1m three-year subscription order (Aug 2025) tied to a 1,400-unit initial deployment; near-term execution is defined by phase expansion decisions, repeatable site rollout, potential new order wins, performance under the subscription model.

Recent Progress (2024–2025) & Strategic Positioning: The period reflected a transition from R&D to execution, led by AI Nose's industrial commercialization. AI Nose secured initial commercial deployments and first revenues in 2025, anchored by the $2.1m semiconductor order, supported by partnerships and pilots in semiconductors, robotics, automation and eldercare. VELDONA advanced through Taiwan regulatory steps, including Taiwan Food and Drug Administration (TFDA) approval to initiate an open-label extension study in primary Sjögren's syndrome, alongside continued progress in HIV-related oral warts (U.S. Food and Drug Administration Orphan Drug Designation).

Financial Position and Liquidity: At its early stage of commercialization, Ainos reported Q3 2025 net loss US$2.93m and cash balance of ~US$1.13m at Q3 2025. Funding has depended on at-the-market equity offerings, partner capital (including revenues from deployments), and a US$9m convertible note. A 1-for-5 reverse stock split in mid-2025 addressed listing compliance issues, while Q3 2025 SG&A expenses declined 22% YoY.

Key Pillars & Near-Term Catalysts: Strategy success depends on three elements: (1) AI Nose industrial commercialization through repeatable paid deployments, subscription renewals, and pilot conversions to scaled programs; (2) financing that preserves strategic flexibility without excessive dilution; (3) VELDONA clinical progression via clean trial execution, robust endpoints, and defensible regulatory path.

Over the next 6–18 months, monitoring priorities include (1) pilot conversions into contracted rollouts and renewals/expansions across industrial deployments (broadening beyond the initial anchor customer); (2) steady progress in Taiwan VELDONA clinical programs for primary Sjögren's syndrome (TFDA-approved open-label extension pathway) and HIV-related oral warts, tracked via enrollment pace and data updates; (3) financing that preserves strategic flexibility without excessive dilution.
Commercial execution and financing will be decisive; both platforms carry binary risk. This non-rated analysis separates facts from assumptions and anchors a monitoring framework.

Business Model and Strategic Overview (Dual-Platform Structure)

Dual-Platform Structure (tech-first): Ainos is increasingly a technology-platform story, with the near-term thesis centered on AI Nose (SmellTech-as-a-Service) scaling from 2025's industrial pivot into broader 2026 commercialization; VELDONA® remains the second engine as longer-dated biotech optionality tied to clinical gates.

AI Engine (tech pivot): AI Nose digitizes scent by converting volatile organic compound signatures into a machine-readable "Smell ID," combining sourced MEMS sensor arrays with an internal AI stack "smell language model" and a long-running dataset into portable, cloud-connected hardware solution. Originally developed for healthcare-grade sensitivity, AI Nose platform's commercial emphasis shifted in 2025 toward industrial deployments, positioning AI Nose as a foundational AI platform for multi-vertical use cases (starting with semiconductors, robotics, and smart manufacturing) and setting up a scale-up phase into 2026. This transition is consistent with the company's broader "tech stock" positioning, including its 2025 GICS reclassification into a technology category.

Figure 1: Smell ID, AI Nose Platform Overview

Commercialization is designed as SmellTech-as-a-Service: deployments create an installed base that feeds the data flywheel, while recurring subscriptions monetize software/model upgrades, analytics, and alerts as usage scales. The go-to-market is explicitly partner-led (integration and distribution) to support capital-efficient rollout across industrial settings first, with healthcare programs continuing as a secondary lane that also contributes real-world data. Management's stated objective is to convert 2025 pilots and early commercial deployments into a broader, repeatable rollout cadence in 2026.

POCT pipeline leverages shared sensor/AI stack for modularity and telehealth compatibility, targeting senior care hygiene monitoring and women's health (vaginal/STI screening, at-home oriented). Deployments aim to compound data for ongoing model improvement, shifting from one-off sales to platform recurrence.

The visual below provides a simplified overview of the AI Nose stack, showing how raw scent inputs are converted into deployment-ready intelligence.

Visual Summary: AI Nose Workflow (From Sensing to Intelligence)

Source: *Ainos Inc.*

The visual summary above shows how AI Nose converts real-world scent signals into structured, machine-readable patterns that can be classified and translated into deployment-ready outputs.

Figure 2: Ainos' AI Nose module for industrial markets

Source: Ainos

Biotech engine (VELDONA): VELDONA is a low-dose oral interferon-alpha for oromucosal delivery, modulating immune response while avoiding high-dose injectable tolerability issues. Leads target primary Sjögren's syndrome and HIV-related oral warts (U.S. FDA Orphan Drug Designation for latter, aligning with orphan strategy). Additional path includes veterinary applications (feline chronic gingivostomatitis; VELDONA Pet supplement marketed in Taiwan).

Figure 3: VELDONA®, Clinical Program Snapshot

Strategic Rationale and Execution: AI Nose for healthcare addresses preventive/diagnostic needs, reducing company's prior biotech dependency post-COVID test-kit pivot. Execution, designed for capital efficiency, ties to partnerships: AI side minimizes direct sales via ecosystem alliances; biotech side uses third-party infrastructure (e.g., Taiwan Tanabe Seiyaku for Sjögren's manufacturing/Taiwan promotion).

Table 2.1: Commercial model mechanics

Layer	What the customer buys	What Ainos delivers	Renewal / expansion lever	Why it matters to investors
Device layer	AI Nose device deployment	Sensor capture + connectivity	More nodes per site	Installed base is the distribution channel
AI layer	Ongoing subscription ("as-a-Service")	Model upgrades + analytics	Seat/site expansion	Recurring revenue profile
Data layer	Accumulated "Smell ID" library	Improved models over time	Better accuracy + new use-cases	Data moat narrative (if execution holds)

Source: Ainos investor presentations and press releases

Management & Board Oversight

Ainos is led by a lean executive team. Chun-Hsien Tsai has served as Chairman, President, and Chief Executive Officer since April 2021. His leadership background is closely tied to the company's operating footprint, including roles at affiliated companies such as Taiwan Carbon Nano Technology Corporation (TCNT).

Financial leadership was reinforced with Hsin-Liang ("Christopher") Lee, who has served as Chief Financial Officer since March 2024. The company highlights 25+ years in accounting and finance, including U.S. Generally Accepted Accounting Principles (US GAAP), Public Company Accounting Oversight Board (PCAOB) standards, and U.S. Securities and Exchange Commission (SEC) reporting, plus U.S. Certified Public Accountant credentials.

Governance is provided by a seven-member Board of Directors; three directors are independent under SEC and Nasdaq standards: Wen-Han Chang, Yao-Chung Chiang, and Pao-Sheng Wei. Wei and Chiang have served leadership and board roles in Asian public companies. Chang has served leadership roles in a Taiwan-based medical-center grade hospital:

- **Audit Committee:** Chang / Chiang / Wei (all independent); Wei chairs;
- **Compensation Committee:** Chang (chair) / Wei (both independent; both non-employee directors under Exchange Act Rule 16b-3).
- The proxy also describes non-employee director compensation as cash retainers plus equity awards (RSUs).

VASRO: Governance diligence focus: (1) **role concentration**, since the Chairman and Chief Executive Officer roles are combined; and (2) **related-party and governance controls**, where the proxy assigns the Audit Committee responsibility for reviewing and approving related-party transactions under SEC rules. The proxy also discloses family relationships among certain directors, including that the Chief Executive Officer is married to one director and is the brother of two other directors.

Pillar 1: AI Nose Platform (SmellTech)

Platform Overview: AI Nose is Ainos' proprietary electronic-nose platform that combines MEMS sensor arrays with cloud AI to translate scent or volatile organic compounds in air into a digital "Smell ID." The company positions the system as a trainable stack powered by its Smell Language Model and a long-running scent dataset, positioned to deliver continuous monitoring, predictive analytics, and real-time alerts at parts-per-billion sensitivity across industrial and healthcare settings.

Technical Stack: (1) Sensing hardware: a multi-sensor array in a portable, cloud-connected module that generates a unique "scent print" called "Smell ID", per sample; (2) Edge plus cloud artificial intelligence: the device supports initial processing at the edge, with cloud refinement and bid-data learning via the Smell Language Model; management expects accuracy to improve as real-world samples expand the training set. (3) Output and integration: outputs are delivered as Smell ID profiles and alerts, designed to feed factory dashboards, robot control systems, or healthcare workflows depending on the use case.

Validation Metrics (field performance)

Use-case	Reported result	Dataset / scale detail	Date disclosed	Investor takeaway
Industrial - Semiconductor factories	79% identification accuracy (Japan validation)	761 samples across 22 VOCs	Aug-2024	Credible industrial proof point (early)
Healthcare - hygiene monitoring (long-term care)	85% detection accuracy	254 participant instances; 2,119 entries	May 2025	Demonstrates iterative improvement + data accumulation

Source: Company announcements

ASE Semiconductor Rollout Roadmap

Phase	Disclosed scale	What it represents	Status signal to watch
Phase 0 (secured)	~1,400 units	Initial site evaluation footprint	Completion + uptime/utility metrics
Phase 1 (target)	~5,000 units	First scale decision	Formal expansion decision + site replication
Phase 2 (target)	up to 15,000 units	Broad case across global ops	Multi-site adoption + budgeted rollouts

Source: Company disclosures; compiled by VASRO

Partner Ecosystem

Partner	Partner role	Publicly stated scope	Why it matters
ASE Technology Holding	Industrial scale customer (semiconductors)	Multi-phase roadmap; 10x scale potential	First case for tier-one semiconductor rollout
Topco Scientific	Industrial customer access (semiconductors/electronics)	Product Distribution	Topco's 30+ year supply chain relationship; Broadens customer access
Trusval Technology	Industrial customer access (semiconductors/electronics)	Product Distribution	Trusval's 30+ year supply chain relationship; Broadens customer access Initial purchase commitment (600 sets)

Nexcom	Industrial scale customer (industrial EDGE AI)	AI Nose integration into Nexcom's products	Expands industrial integration
ugo (robotics)	Industrial scale customer (robotics)	AI Nose integration into ugo robots Pilots across 7 Japan sites	Turns AI Nose into "mobile sensing node" route
Solomon Technology	Industrial integration / automation	Collaboration disclosed	Adds execution capacity in smart factory settings
Kenmec Mechanical Engineering	Industrial rollout support	Collaboration disclosed	Rollout partner for automation

Source: Ainos Inc. press releases (2025-2026)

Commercial Progress and Execution Levers

While the platform remains novel, partnership-driven traction provides initial validation. Key benchmarks include field accuracy metrics, the staged ASE rollout (the first industrial anchor), and a growing ecosystem of integration/distribution partners. Multiple pipeline in progress, watch for resource prioritization as company's near-term focus seems increasingly skewed to AI Nose's industrial projects, prioritizing semiconductor and robotics. These environments require high-precision, reliable, and continuous sensing, making them a compelling entry point for rapid data accumulation and AI model training, and providing a strong foundation for the AI Nose platform to scale beyond initial applications as industrial deployments expand.

With AI Nose already gaining exposure in semiconductor back-end environments, successful partner-led expansion into front-end manufacturing would materially broaden the addressable footprint, raising both the strategic importance of the platform and the depth and quality of data feeding its long-term AI value proposition.

Figure 3-1: Ainos Inc. Pipeline & Evidence Dashboard (as of Dec 2025)

NON-RATED EQUITY RESEARCH

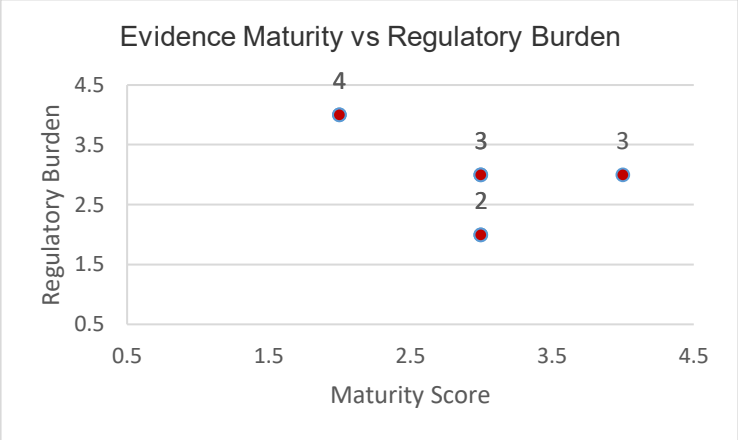
A) Ainos Pipeline Roadmap – Progress as of Dec 2025

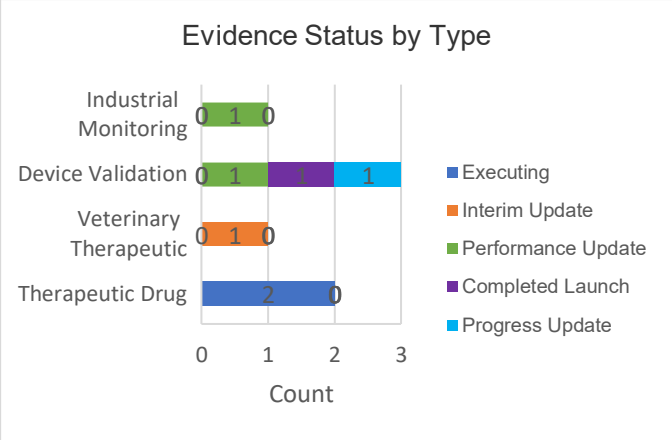
Program / Indication	2024	2025 H1	2025 H2	2026	2027
VELDONA (Primary Sjögren's)	IRB* ✓		TFDA ✓ | Enroll ✓		Target 1H
VELDONA (HIV Oral Warts)		TFDA ✓ | Start ✓		Target 2H	
VELDONA (FCGS Veterinary)		Interim ✓			
AI Nose (Industrial)		Perf ✓	Launch ✓ | Partner expansion ✓	Scale-up (semiconductors)	
Ai Nose (Healthcare)	Valid ✓	Acc ✓		Pilot (hospital monitoring)	

*✓= Achieved \| Timeline windows anchored at start for visualization; labels show exact disclosed timing; *institutional review board (IRB)*

B) Evidence Status by Type

Evidence Type	Executing	Interim Update	Performance Update	Completed Launch	Progress Update
Therapeutic Drug	2	0	0	0	0
Veterinary Therapeutic	0	1	0	0	0
Device Validation	0	0	1	1	1
Industrial Monitoring	0	0	1	0	0





C) Evidence Maturity vs Regulatory Burden

Evidence Item	Maturity	Reg Burden	Sample Size	Risk Color
VELDONA pSS	2	4	8	Red
VELDONA HIV	2	4	40	Red
VELDONA FCGS	3	2	30	Red
AI Nose Eldercare	3	3	100	Red
Ainos Flora	3	3	75	Red
AI Nose Industrial	3	2	8	Red
AI Nose Launch	4	3	8	Red

D) Score Legend

MATURITY SCORE:
1=Planned → 2=Executing → 3=Interim/Update → 4=Completed/Launched

REGULATORY BURDEN:
1=Non-regulated → 2=Veterinary/Industrial → 3=Regulated Device → 4=Human Drug

BUBBLE SIZE:
Larger bubble = Larger disclosed sample size (small fixed size if undisclosed)

BUBBLE COLOR:
Red = Single-source evidence (higher risk) | Green = Multi-source (lower risk)

Source: Ainos Inc. filings and press releases; compiled by VASRO (as of Dec 2025)

Panels: (A) roadmap through Dec 2025 (✓ achieved; target windows are visualization anchors; 'Topco' = Topco partner milestone). (B) evidence roll-up by disclosure type. (C) maturity vs regulatory burden: maturity 1–4 = planned, executing, interim/update, completed/launched; regulatory burden 1–4 = non-regulated, veterinary/industrial, regulated device, human drug; bubble size = disclosed sample size (0 = not disclosed); red = single-source disclosure.

Note: AI Nose Launch has the highest maturity score; VELDONA programs carry higher regulatory burden; Flora reports 94% accuracy. See (D–E) for highlights and scoring.

AI Nose commercial traction is partnership-driven (ASE $2.1m multi-year subscription order for the initial ~1,400 units, with a disclosed roadmap that could scale up to 15,000 units, NEXCOM edge integration, Topco/Trusval semiconductor distribution across Asia and US). First industrial AI Nose order emerged in 3Q 2025, validating the recurring SmellTech-as-a-Service model.

Pillar 2: VELDONA® Low-Dose Oral Interferon Programs

Therapeutic Platform Overview

VELDONA® is Ainos' ultra-low-dose, oromucosal interferon-alpha platform, positioned to preserve immune-modulating activity with improved tolerability versus historical high-dose injectable interferon used in viral diseases and oncology. Delivery via oral mucosa (e.g., lozenge or spray) targets immune-active tissues in the oral cavity and gut-associated lymphoid tissue, with potentially limited systemic exposure. Ainos positions VELDONA as an immune modulator for chronic conditions, emphasizing inflammatory balance and suitability for patients intolerant of aggressive therapies.

Lead Indications

- Primary Sjögren's Syndrome (pSS): A chronic autoimmune disease with no FDA-approved disease-modifying therapies and predominantly symptomatic management. Prior U.S. studies of oral interferon demonstrated statistically significant improvements in oral dryness with favorable tolerability. Ainos views VELDONA as a tolerability-focused oral option, potentially competing in milder/earlier disease and symptom control amid rising competitive standards.
- HIV-Associated Oral Warts: Recurrent, painful HPV-driven lesions in immunocompromised patients, with limited durable treatments (often procedural, with high recurrence and tolerability issues for systemic agents). VELDONA holds FDA Orphan Drug Designation, providing potential seven-year exclusivity upon approval plus related incentives. Near-term value hinges on placebo-controlled efficacy and clean tolerability in ongoing trials.

Secondary and Exploratory Applications

- **Feline Chronic Gingivostomatitis (FCGS) and VELDONA Pet**: Ongoing Taiwan veterinary study reported promising interim signals. VELDONA Pet immune supplements generated modest revenue (~$20k in 2024) post-COVID test-kit wind-down and represent the primary revenue line in 2023–2024.
- **Broader Viral/Autoimmune Potential**: Influenza and COVID-19 have been referenced as prior studies based on mucosal interferon biology, with focus shifted to rarer indications. Longer-term expansion into other autoimmune diseases (e.g., lupus, multiple sclerosis) or HPV lesions is conceivable if mechanism validated, but speculative without funded plans.

Regulatory and Development Strategy: Ainos describes an "Asia-first, then bridge" approach: advancing Taiwan clinical and regulatory steps under TFDA/IRB processes, alongside stated bridging consultations where feasible, with the intent to reduce redundant development across geographies. For HIV-related oral warts, the program carries U.S. Food and Drug Administration Orphan Drug Designation and a TFDA-cleared Taiwan clinical trial pathway, supporting the company's bridging strategy as further data emerge.

Manufacturing and Scalability: Manufacturing and commercialization are enabled via Taiwan-based partners, including Swiss Pharmaceutical Co., Ltd. (Taiwan) and MOU with Taiwan Tanabe Seiyaku. Interferon-alpha production is established at low doses, but key challenges include regulator-grade consistency, potency, and stability in oral format, plus validated scale-up and tech transfer. Updates on validation batches, stability data, or supply-chain qualification would materially de-risk the platform.

Fact vs. Assumption: VELDONA offers potential tolerability and convenience advantages over injectable biologics, supported by legacy data in Sjögren's symptom relief. Success depends on reproducing efficacy signals in ongoing Taiwan trials (placebo-separated outcomes in oral warts; dryness improvement in pSS) and securing U.S. bridging alignment. Positive 2026–2027 readouts would validate the mechanism and de-risk broader autoimmune applications.

Optionality Assessment: Beyond core lead indications, VELDONA maintains secondary value drivers with limited near-term impact in 2026 horizon, including modest pet supplement revenue/operational learning in Taiwan and promising veterinary FCGS interim signals.

Monitoring Priorities: VELDONA represents a differentiated low-dose oral interferon approach with orphan-protected leads and modest pet optionality. Platform progress centers on Taiwan trial execution (efficacy/tolerability readouts), regulatory bridging alignment, and manufacturing de-risking, with 2026–2027 data as pivotal validation milestones amid balanced clinical, regulatory, and execution risks. The ongoing veterinary FCGS study shows promising interim signals but remains non-core (status in Figure 3-1).

Market Context & Competition

Ainos is a dual-platform company, but the current external positioning and growth strategy are tech-led, centered on scaling the AI Nose (SmellTech) platform into industrial deployments and recurring platform economics; VELDONA remains the second engine as longer-dated therapeutic optionality across rare, autoimmune, and infectious indications. Accordingly, the section below leads with digital olfaction and then summarizes the therapeutic competitive landscape for VELDONA.

Digital Olfaction (AI Nose) Market: Digital olfaction remains an emerging category because "smell" is still one of the last major sensory modalities not systematically digitized for AI, and scaling requires consistent real-world data generation rather than scraped datasets. In January 2026, Ainos positioned AI Nose as a layered SmellTech platform designed to convert scent signals into a structured, machine-readable "Smell ID," with a dual-engine architecture: Ainos operates the sensing hardware + deployment + data generation layer, while its ScentAI layer develops the intelligence layer (including the Smell Language Model) intended to abstract and monetize the data through enterprise delivery (for example, API/SaaS/licensing). For 2026, Ainos' stated execution priority is scaled deployment starting in advanced semiconductor manufacturing and robotics environments, where sensing precision and continuous data generation can accelerate the platform's data flywheel and broaden industrial adoption beyond any single customer.

Overall, this approach positions digital olfaction as a missing perception layer in today's AI stack, addressing an underdeveloped sensory input that could become increasingly valuable as AI expands beyond vision, sound and language.

Competitive Landscape

- **Direct Peers**: Alpha MOS serves as the closest public pure-play (food/beverage quality control and environmental sensing), with 2023 revenue around $4.9 million and market capitalization ~$13-14 million in late 2024, highlighting historical monetization challenges absent recurring economics. Private Aryballe leads in automotive/consumer appliances, with ~$19–21 million in cumulative funding and strategic interest (e.g., Samsung), validating category relevance despite partial overlap with Ainos' semiconductor/healthcare focus.

- **Adjacent Threats**: Stratuscent advances AI-enabled platforms with NASA roots and corporate investment (e.g., LG); in healthcare VOC analytics, Owlstone Medical and Breathomix maintain deeper clinical positioning. Large-scale AI efforts (e.g., Google's 2019 molecule-to-odor modeling) and established sensor manufacturers (e.g., Figaro Engineering, Sensirion) could expand into analytics/cloud services if economics support.

Ainos Differentiation Ainos targets industrial safety/quality control and healthcare diagnostics convergence, sensor acquisition strategy (integrate vs. make), emphasizing IP breadth (123 patents across jurisdictions and techs, likely growing), data advantages (13-year experience plus Smell Language Model), and partner-embedded distribution (ASE/Topco/Trusval in semiconductors; NEXCOM in edge/industrial). First-to-deployment milestones (e.g., company-described first AI Nose-enabled service robot) underscore real-world validation.

Operational Risks

- Adoption cycles in mission-critical applications favor incumbents; partner reliance is structural.
- Performance metrics (accuracy, detection limits, false alarms, stability) drive outcomes, with company-reported 80–90% reliability in deployments requiring consistent gains.
- Cost/scalability favors total ownership advantages, potentially benefiting simpler approaches from scaled entrants. In diagnostics (e.g., Ainos Flora for women's health), competition shifts to regulated standards (PCR, immunoassays, lab cultures, point-of-care platforms), demanding validated efficacy and regulatory paths beyond convenience.

Market Synthesis Digital olfaction is fragmented and early in commercialization, creating a **medium-term execution window** before consolidation. Growth narratives elevate fast-follower or acquirer risks post-product-market fit.

VELDONA Therapeutics Market Primary Sjögren's Syndrome (pSS): Vast, underserved market with no approved disease-modifying therapies; management focuses on symptomatic relief (secretagogues like cevimeline) and off-label immunosuppressants (hydroxychloroquine, rituximab for severe cases). Projections indicate multi-billion potential post-approvals from unlocked demand.

Competition intensifies:

- Novartis' ianalumab (BAFF-R mAb) delivered strong Phase 3 results in 2025 (NEPTUNUS trials met ESSDAI primary endpoints with significant disease activity reduction); poised for ~2026–2027 approval as first-in-class biologic, could become a leading option in moderate-to-severe systemic disease; pricing is typically biologic-like.
- J&J's nipocalimab (FcRn inhibitor) holds Breakthrough/Fast Track designations; Phase 3 (DAFFODIL) ongoing after positive Phase 2, targeting broad IgG reduction with potential entry ~2027–2028.
- Others: Early programs (e.g., RemeGen's telitacicept Phase 3 success) trail leaders.

VELDONA pSS Positioning: Low-dose oral interferon targets milder/earlier intervention, symptom-focused dryness relief, add-on utility, enhanced convenience (no infusions), and tolerability/safety. Unique mechanism lacks direct interferon competitors. Asia-first approach (e.g., Taiwan launch) offers head-start; lower pricing improves accessibility in underserved segments. Potential complementary role with biologics for glandular support.

HIV-Associated Oral Warts: Niche orphan market with no approved therapies; standard-of-care involves painful procedural removal (laser/surgery) with high recurrence and unreliable off-label topicals/systemics. Some third-party framing suggests a modest orphan-sized opportunity (~$500–700 million) supports premium pricing. VELDONA positioned as potential first pharmacologic option to reduce lesions/pain; no direct trial competitors; status quo inadequate. Long-term HPV vaccination/prevention indirectly lowers incidence but spares existing immunocompromised adults.

Other Indications (FCGS in Cats): Veterinary niche with unsatisfactory treatments (corticosteroids, antibiotics, extraction). Competitor Virbagen Omega (feline IFN-ω) is expensive/limited. VELDONA Pet (human IFN-α oral) could capture share if efficacy holds; interim signals are described as encouraging.

Regulatory and Market Dynamics Both lead indications lack approved drugs, enabling new category creation. Orphan Designation for oral warts confers 7-year U.S. exclusivity plus incentives, shielding copies. Challenges include clinician education on oral interferon; KOL partnerships essential. No pSS orphan status requires merit-based differentiation.

VELDONA Competitive Positioning

- **Strengths**: Oral convenience, excellent tolerability, potential glandular restoration beyond symptoms; broad immune modulation contrasts targeted mAbs as less aggressive/holistic; cost-effective production enables affordable pricing vs. biologics; IP/data head-start on low-dose oral IFN.
- **Risks**: Efficacy proof critical; modest effects may limit to mild cases/contraindications; biologics' potency could own severe segments; indirect threats from new secretagogues, substitutes, or procedures.
- **Upside**: Validation could attract partnerships/acquisitions over direct rivalry.

VASRO: Ainos' platforms navigate divergent contexts; digital olfaction's early fragmentation offers execution-led opportunity amid scalability risks, while VELDONA's niche positioning in underserved immunological markets balances differentiation against intensifying Big Pharma competition in pSS by 2027 and orphan-protected upside in oral warts.

Catalysts and Monitoring Ledger (AI Nose industrial scale-up; 2025 pivot → 2026 rollout)

The points below summarize the key execution signals to monitor as AI Nose scales industrial adoption from the 2025 pivot into broader 2026 commercialization.

- **Industrial scale-up conversion:** pilots and early deployments converting into repeatable multi-site rollouts.
- **Broadened customer base:** adoption expanding across multiple industrial customers and environments (not a single-name story).
- **Scaling the first industrial subscription template:** the initial semiconductor subscription becoming a replicable rollout pattern (expanded scope, additional sites, follow-on deployments).
- **Partner-led distribution → deployments:** integration and distribution partners translating into measurable in-field usage and rollout velocity.

- **SmellTech-as-a-Service monetization:** recurring subscription/analytics behavior strengthening as deployments expand (device + software intelligence layer).
- **Data flywheel / model progression:** installed-base growth increasing data diversity and improving model utility across industrial conditions.

These signals map directly to Figure 3-1 and are designed to track whether the 2025 industrial pivot is translating into a repeatable rollout cadence as the company gears up for broader commercialization in 2026.

Financial Overview and Liquidity Position

Ainos remains in an early-stage phase, with limited revenue and operating losses that are typical of companies investing in research, development, and platform build-out. FY2024 revenue was $20.7K (down from $122.1K in 2023, reflecting exit from pandemic-led COVID kit sales). Through the nine months ended September 30, 2025 (9M 2025), revenue increased to $113K, primarily from pilot activity and co-development partnerships.

Gross margin turned positive in 2025 on limited volumes, an encouraging early data point that is not yet reflective of steady-state unit economics. Q3 2025 showed gross profit of $1.7K on $2.2K revenue, an early signal of potential scalability as deployments grow.

Net losses persist: $14.9M in FY2024 and $10.3M in 9M 2025. Cost discipline is evident (Q3 SG&A down year-on-year, total op ex -8%), but cost reductions do not close the funding gap; R&D (> $8M in 2024) remains the core driver. A key focus is maintaining execution discipline while transitioning pilot programs (including the ASE subscription) into recurring revenue streams.

Balance sheet highlights liquidity constraint: cash declined to $1.1M at Q3 2025 (from $3.9M end-2024). Intangibles dominate ($20.4M, largely patents). Debt maturities are back-end loaded (no maturities until 2027; ASE convertible note with equity-like features in success case).

Like many early-stage growth companies, Ainos has funded operations primarily through equity-linked capital markets tools (including at-the-market issuance when conditions allow) while also exploring strategic and other potentially non-dilutive sources to support execution.

Key Financial Metrics (FY2024 and 9M 2025)

Metric	Period	Value	Units
Revenue	FY2024	20,729	USD
Revenue	9M 2025	113,000	USD
Net loss	FY2024	-14.86	USD m
Net loss	9M 2025	-10.3	USD m
Cash on hand	Sep 30, 2025	1.13	USD m
Operating expenses	FY2024	13.81	USD m
R&D expense	FY2024	8.41	USD m
ATM proceeds (cumulative)	By Q3 2025	1.84	USD m

Source: Company disclosures; compiled by VASRO

Monitoring Priorities
Ainos is still in an early-stage scale-up phase, so investors typically focus on capital discipline alongside execution progress. Key monitoring variables are (i) the pace and repeatability of commercial traction (particularly AI Nose industrial deployments), (ii) operating cost control, and (iii) financing flexibility and structure quality as the company funds the next stage of growth.

Funding Requirements and Dilution Scenarios

Like many early-stage growth companies, Ainos may continue to use equity-linked financing tools as needed while also pursuing strategic and other potentially non-dilutive sources. Rather than projecting funding amounts or timelines, we frame financing as a structure-and-timing question that can materially influence per-share outcomes.

Scenario 1. Raise on strength (constructive window): execution progress supports cleaner capital (simpler structures, reduced reliance on incentives, and better alignment between financing and operational milestones).

Scenario 2. Raise under duress (stress window): weaker markets or delays can force urgent capital under investor-favorable terms, typically increasing dilution and reducing flexibility through structure complexity.

Scenario 3. Non-dilutive offset (strategic funding mix): strategic collaborations, licensing, or other non-dilutive sources reduce reliance on equity issuance and improve the quality of the funding mix.

Monitoring focus (what matters most):
• timing discipline (raising in constructive windows vs. reactive financing),
• structure quality (simplicity and flexibility over headline proceeds),
• runway management relative to execution cadence,
• evidence that capital supports AI Nose industrial scale-up and repeatable deployments,
• progress on strategic / non-dilutive options that reduce equity dependence.

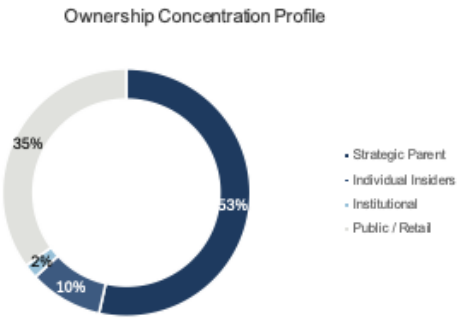
Considerations
Financing outcomes are primarily driven by timing and structure quality; we monitor whether raises are executed in constructive windows and whether terms preserve flexibility as the company scales execution.

Ownership profile of Ainos
Ownership structure is a practical liquidity variable, not a footnote: it determines the effective tradable float and can amplify price moves around news flow. The dashboard below summarizes the concentration split across key holder groups and highlights the institutional-grade liquid float versus illiquid holdings. This context frames the stock's trading reality ahead of the valuation discussion. Source of liquidity include release by insiders and new issuances.

Ownership Concentration Profile

TOTAL SHARES OUTSTANDING	INSTITUTIONAL-GRADE LIQUID FLOAT	STRATEGIC INSIDER/PARENT CONCENTRATION
6,982,675	132,071	63.10%
common shares outstanding	~1.9% of total	Strategic/insider/parent (incl. ScentAI)

LIQUID HOLDINGS	ILLIQUID HOLDINGS
2,576,607	4,406,068
36.90%	63.10%



Source: Company filings and disclosed ownership records compiled by VASRO (as of Dec 2025). Note: Total shares include ScentAI-held non-voting shares (per company/SEC disclosures); institutional holdings figure is aligned to Nasdaq (snapshot).

Illustrative Value-Driver Framework

This section does not estimate intrinsic value. It translates the company's stated platform strategy, digitizing smell as a native AI data language, into the execution gates that determine whether progress becomes durable outcomes.

AI Nose platform execution (near-term engine): repeatable paid deployments and rollouts across industrial environments, scaling beyond the initial anchor while maintaining sensing reliability, calibration discipline, and multi-site support readiness.

Dual-engine architecture (platform durability): Ainos operates the edge layer (hardware, deployment, data generation) while ScentAI advances the intelligence layer (Smell Language Model), enabling structured "Smell ID" and scalable intelligence delivery over time.

2026 execution focus (where scale should show first): scaled deployment in advanced semiconductor manufacturing and robotic applications, settings that demand high precision and continuous data generation and can accelerate the data flywheel.

Data flywheel signal (scalability): broader deployments increase data volume and diversity, improving model utility and reinforcing recurring, intelligence-driven monetization pathways (enterprise APIs, software-as-a-service, and model licensing).

VELDONA® optionality (longer-dated engine): clean, likely low-cost Taiwan program execution and clarity of next-step regulatory/partner decisions as data updates emerge, without letting clinical timing claims dominate the thesis.

Cross-cutting variable: financing timing and structure quality, preserving flexibility while funding execution.

Key Risk Assessment

Ainos runs two parallel execution paths, AI Nose (industrial sensing platform scale-up) and VELDONA® (clinical development), so outcomes can vary independently from (i) clinical/regulatory outcomes, (ii)

platform performance and deployment scalability, and (iii) capital access and structure quality. This register outlines key risks, typical manifestations, and early-warning signals for the Monitoring Dashboard.

Clinical & Regulatory (VELDONA®)

Risk 1: Clinical efficacy uncertainty
Description: Taiwan clinical studies in primary Sjögren's syndrome and HIV-related oral warts may not show clinically meaningful benefit on defined endpoints.
How it can manifest: Inconclusive outcomes can reduce optionality and delay next-step regulatory/partner decisions.
Early-warning signals: enrollment pace updates, protocol changes, endpoint framing in company communications, and data-update cadence (when disclosed).

Risk 2: Safety/tolerability and program feasibility
Description: Even with low-dose oral interferon positioning, tolerability or operational issues (site execution, discontinuations) can constrain program viability.
How it can manifest: protocol amendments or regulatory queries or elevated discontinuations can limit visibility on scalability and partnering.
Early-warning signals: adverse event language, discontinuation commentary, CRO/site changes (if disclosed), manufacturing/quality updates.

Risk 3: Regulatory strategy and bridging execution
Description: TFDA progress does not automatically translate to broader approvals; additional studies, endpoint alignment, and Chemistry, Manufacturing, and Controls readiness can extend timelines and funding needs.
How it can manifest: incremental requirements increase capital intensity and push out decision points.
Early-warning signals: regulator-interaction disclosures, trial-design updates, manufacturing/quality readiness statements, partnering signals (where disclosed).

Technical & Execution (AI Nose / SmellTech platform)

Risk 4: Real-world performance at scale
Description: Sensor drift, calibration burden, and operating stability in production environments can limit repeatability across deployments.
How it can manifest: deployments may remain limited to pilots or expand more slowly across sites and verticals.
Early-warning signals: performance/precision language in updates, multi-site expansion signals, deployment cadence and repeatability indicators.

Risk 5: Deployment scalability and operating capacity
Description: Scaling requires consistent data generation and reliable deployment operations (manufacturing, quality assurance (QA), certification, support) as the footprint expands.
How it can manifest: execution bottlenecks slow expansion and can limit the pace of the platform data flywheel.
Early-warning signals: manufacturing/QA scaling commentary, partner rollout signals, support capacity indicators, and vertical expansion pace.

Risk 6: Platform defensibility and competition

Description: Digital olfaction is an emerging category; competitive entry, freedom-to-operate challenges, or insufficient differentiation could reduce adoption even if the category grows.
How it can manifest: slower adoption or pricing power limits; constrained rollout in priority verticals.
Early-warning signals: competitor milestones, IP/legal updates (if disclosed), and changes in positioning around “Smell ID / Smell Language Model” strategy.

Financial & Corporate
Risk 7: Ongoing losses and capital requirement risk
Description: Company disclosures highlight forward-looking risk of continued net losses and the need to raise additional capital; funding terms and structure quality can materially shape outcomes.
How it can manifest: constrained financing windows lead to less flexible structures and reduced flexibility to execute both engines.
Early-warning signals: financing frequency and structure, changes in capital tools, cash runway language, and any any going concern language in filings.

Risk 8: Management bandwidth and execution focus
Description: Two complex engines increase operational load; prioritization and resourcing choices can create slippage risk.
How it can manifest: missed timelines, diluted focus, or partner/CRO dependency friction.
Early-warning signals: reprioritization language, leadership changes, and repeated schedule resets (where disclosed).

External & Macro

Risk 9: Macro/geopolitical and supply-chain exposure
Description: Risk-off markets can tighten financing conditions, and Taiwan operational dependencies can introduce execution volatility.
How it can manifest: delayed deployments, slowed trials, and constrained capital access.
Early-warning signals: financing-window commentary, supplier/manufacturing updates, and operational continuity disclosures.

Core Observation
Near-term progress is most sensitive to (i) AI Nose deployment scalability consistent with the SmellTech platform strategy, and (ii) disciplined clinical execution and regulatory path clarity for VELDONA®, while (iii) capital structure quality remains a gating variable across both paths.

KPI Monitoring Framework

Key leading indicators for AI Nose platform scale-up (SmellTech), VELDONA program progress, and financing flexibility. The dashboard below is a monitoring tool (not company guidance) based on Q3 2025 public disclosures and subsequent company updates.

Ainos KPI Summary and Status Tracker (as of Q3 2025)

#	KPI	Current Value (User Input)	Target	Status Flag
1	AI Nose Units Deployed (ASE rollout status)	ASE P0: 1,400	ASE P1: 5,000	Pending
2	AI Nose Detection Accuracy	Pilot accuracy	Improve accuracy	Pending
3	New Partnerships Signed	Current ecosystem active	New partners	Pending
4	Recurring Revenue (ARR)	Early ARR	ARR ramp	Pending
5	Oral warts exec	Enrolling	Update cadence	Pending
6	Oral warts data	Awaiting data	Data signal	Pending
7	pSS Taiwan prog	Enrolling	Program updates	Pending
8	Secondary Programs (Vet)	Ongoing	Update cadence	Pending
9	**Cash Balance & Runway**	**Runway tight**	**Runway extend**	**RED**
10	Financing quality	ATM active	Cleaner terms	Pending
11	Regulatory Progress	Orphan status	TFDA/IRB steps	Pending

FOCUS REVIEW FLAGS

If ANY of the following conditions are met, initiate a focused deep dive:

- Runway tightens
- Rollouts slow
- Reliability issues
- Enrollment slows
- Data signal weak
- Terms worsen
- Going concern
- Two-period stall

STATUS FLAG LEGEND:

- 'Upgrade trigger met or on track
- 'Monitor closely, approaching threshold
- 'Downgrade trigger - warrants re-examination
- 'Awaiting data / not yet assessed

Source: VASRO analysis based on Ainos Q3 2025 filings and press releases

Key observations

- Most KPIs remain in early or pilot stage, so several items are still marked “Pending.”
- Runway and financing flexibility remain the key gating variables in the dashboard.
- KPI status logic is defined in the legend, with “Focus review flags” used as the deep-dive triggers.

Appendix

This appendix reproduces Ainos, Inc.'s reported financial statements in a consistent format aligned with the main report, covering fiscal years ended December 31, 2020–2024 and interim 2025 quarterly periods shown in the tables (three months ended March 31, June 30, and September 30, 2025). Figures are presented as reported (no adjustments) and are included to support monitoring of operating cost discipline, cash consumption, funding mechanics, and runway in an early-stage company.

All amounts are shown in USD millions, except per-share data and share counts.

P&L

(Amounts in USD millions, except per-share data)

Period Ending	2020 31/12	2021 31/12	2022 31/12	2023 31/12	2024 31/12	2025 Q1 31/03	2025 Q2 30/06	2025 Q3 30/09
Revenue	0.02	0.59	3.52	0.12	0.0200	0.1062	0.0047	0.0022
Cost of sales	0.01	0.18	2.11	0.38	0.0500	0.0182	0.0009	0.0005
Gross profit	**0.01**	**0.41**	**1.41**	**-0.25**	**-0.0300**	**0.0880**	**0.0037**	**0.0017**
Operating expenses:								
Research and development	0.00	1.92	6.85	7.31	8.41	1.72	1.91	1.99
Selling, general and administrative	1.45	2.36	8.54	5.64	5.40	1.53	1.84	0.80
Total operating expenses	**1.45**	**4.28**	**15.38**	**12.95**	**13.81**	**3.25**	**3.75**	**2.79**
Operating profit (loss)	**-1.44**	**-3.87**	**-13.98**	**-13.20**	**-13.84**	**-3.16**	**-3.75**	**-2.78**
Finance costs:								
Interest expense	-0.01	-0.02	-0.05	-0.67	-0.92	-0.18	-0.18	-0.18
Interest and investment income	0.00	—	—	—	—			
Other non-operating expenses	0.00	0.00	0.02	0.01	0.18	0.06	-0.16	0.03
Net finance costs	**-0.01**	**-0.02**	**-0.03**	**-0.66**	**-0.74**	**-0.12**	**-0.34**	**-0.15**
Profit (loss) before unusual items	-1.45	-3.89	-14.01	-13.86	-14.59	-3.29	-4.08	-2.93
Other unusual items	—	—	—	-0.19	-0.28			
Profit (loss) before tax	**-1.45**	**-3.89**	**-14.01**	**-14.05**	**-14.86**	**-3.29**	**-4.08**	**-2.93**
Income tax expense	—	—	—	0.00	0.00	0.00	0.00	0.00
Profit (loss) for the period	**-1.45**	**-3.89**	**-14.01**	**-14.05**	**-14.86**	**-3.29**	**-4.08**	**-2.93**
Attributable to:								
Equity holders of the parent	-1.45	-3.89	-14.01	-14.05	-14.86	-3.29	-4.08	-2.93
Non-controlling interests	—	—	—	—	—			
Per-share & share data								
Basic EPS - Continuing operations	-13.36	-12.87	-25.68	-17.13	-7.82	-1.05	-0.99	-0.64
Diluted EPS - Continuing operations	-13.36	-12.87	-25.68	-17.13	-7.82	-1.05	-0.99	-0.64
Dividend per share	—	—	—	—	—			
Basic weighted average shares outstanding	0.11	0.30	0.55	0.82	1.90	3.17	4.12	4.55
Diluted weighted average shares outstanding	0.11	0.30	0.55	0.82	1.90	3.17	4.12	4.55
Supplementary operating metrics								
EBITDA	-1.43	-1.82	-9.14	-8.33	-9.04	-1.93	-2.71	-1.55
EBIT	-1.44	-3.87	-13.98	-13.20	-13.84	-3.11	-3.91	-2.76

Note: Certain detail lines are not separately disclosed in the 2025 quarterly statement; figures shown are as reported (no adjustments).

Source: Ainos, VASRO

Balance sheet

(Amounts in USD millions)

Period Ending	2020 31/12	2021 31/12	2022 31/12	2023 31/12	2024 31/12	2025 31/03	2025 30/06	2025 30/09
ASSETS								
Current assets								
Cash and cash equivalents	0.02	1.75	1.86	1.60	3.61	2.35	0.94	0.85
Accounts receivable	—	—	0.20	0.00	0.00	0.00	0.00	0.00
Inventory	—	—	0.60	0.17	0.14	0.14	0.16	0.17
Other current assets	0.05	0.47	0.20	0.42	0.30	0.28	0.35	0.43
Total current assets	**0.08**	**2.22**	**2.86**	**2.19**	**4.05**	**2.77**	**1.45**	**1.44**
Non-current assets								
Property, plant and equipment	0.00	1.19	1.38	0.88	0.56	0.49	0.50	0.41
Intangible assets	0.18	37.33	32.81	28.28	23.75	22.63	21.51	20.37
Other non-current assets	—	0.09	0.08	0.21	0.17	0.17	0.19	0.18
Total non-current assets	**0.18**	**38.60**	**34.26**	**29.37**	**24.48**	**23.30**	**22.19**	**20.96**
TOTAL ASSETS	**0.26**	**40.82**	**37.12**	**31.56**	**28.53**	**26.07**	**23.64**	**22.40**
EQUITY AND LIABILITIES								
Current liabilities								
Short-term borrowings	0.95	3.59	1.26	—	—			
Current portion of long-term debt	—	—	—	0.04	3.00	1.00		
Accrued expenses	0.15	1.00	1.21	1.18	0.85	0.52	0.60	0.58
Contract liabilities	—	—	—	0.11	0.11	0.00	0.00	0.00
Other current liabilities	—	26.00	—	—	—			
Total current liabilities	**1.10**	**30.59**	**2.47**	**1.34**	**3.95**	**1.52**	**0.60**	**0.58**
Non-current liabilities								
Long-term debt	—	—	—	5.92	9.00	11.00	11.00	11.00
Long-term leases	—	0.03	—	—	—			
Other non-current liabilities	—	—	0.01	0.14	0.35	0.71	0.88	1.05
Total non-current liabilities	**0.00**	**0.04**	**0.01**	**6.05**	**9.35**	**11.71**	**11.88**	**12.05**
TOTAL LIABILITIES	**1.10**	**30.63**	**2.48**	**7.39**	**13.30**	**13.23**	**12.48**	**12.63**
Equity								
Common stock	0.42	0.10	0.04	0.05	0.15	0.17	0.04	0.05
Additional paid-in capital	4.96	20.20	58.91	62.56	68.52	69.44	71.67	73.26
Retained earnings (accumulated deficit)	(6.22)	(10.11)	(24.12)	(38.17)	(52.75)	-56.31	-60.40	-63.33
Accumulated other comprehensive income (loss)	—	0.01	(0.20)	(0.27)	(0.41)	(0.45)	(0.15)	(0.21)
Total equity	**(0.84)**	**10.20**	**34.63**	**24.17**	**15.52**	**12.84**	**11.16**	**9.77**
TOTAL EQUITY AND LIABILITIES	**0.26**	**40.82**	**37.12**	**31.56**	**28.53**	**26.07**	**23.64**	**22.40**

Source: Ainos, VASRO

Cash flow statement

(Amounts in USD millions)

Period Ending	2020 31/12	2021 31/12	2022 31/12	2023 31/12	2024 31/12	2025 Q1 31/03	2025 Q2 30/06	2025 Q3 30/09
Cash flows from operating activities								
Net Income	(1.45)	(3.89)	(14.01)	(14.05)	(14.86)	(3.2860)	(4.0850)	(2.9317)
Depreciation & Amortization, Total	0.01	2.04	4.83	4.87	4.80	1.1773	1.1942	1.2066
Amortization of Deferred Charges, Total	—	—	—	0.53	0.31			
Other Non-Cash Items, Total	0.52	0.15	6.42	3.49	3.91	0.9174	1.3995	0.4234
Change in Net Operating Assets	0.41	0.44	(0.27)	0.19	0.04	(0.0332)	0.1409	0.1170
Net cash from operating activities	**(0.50)**	**(1.25)**	**(3.03)**	**(4.97)**	**(5.81)**	**(1.2246)**	**(1.3504)**	**(1.1847)**
Cash flows from investing activities								
Capital Expenditure	—	(0.14)	(0.63)	(0.09)	(0.02)	(0.0336)	0.0077	(0.0101)
Sale of Property, Plant, and Equipment	—	—	—	—	—			
Cash Acquisitions	—	—	—	—	—			
Divestitures	—	—	—	—	—			
Other Investing Activities	(0.01)	(0.04)	0.00	(0.01)	(0.10)	0.0131	(0.0052)	0.0151
Net cash from investing activities	**(0.01)**	**(0.18)**	**(0.63)**	**(0.10)**	**(0.13)**	**(0.0206)**	**0.0025**	**0.0049**
Cash flows from financing activities								
Total Debt Issued	0.12	3.11	2.20	6.00	9.88	0.0000	0.0000	0.0000
Short Term Debt Issued, Total	0.12	3.11	0.80	—	—			
Long-Term Debt Issued, Total	—	—	1.40	6.00	9.88	0.0000	0.0000	0.0000
Total Debt Repaid	—	(0.02)	(0.13)	(0.69)	(1.75)	0.0000	(1.0000)	0.0000
Short Term Debt Repaid, Total	—	0.00	(0.13)	(0.69)	(0.31)			
Long-Term Debt Repaid, Total	—	(0.01)	—	—	(1.44)	0.0000	(1.0000)	0.0000
Issuance of Common Stock	—	0.06	1.78	—	—	0.0146	0.7048	1.1335
Repurchase of Common Stock	—	—	—	—	—	0.0000	0.0000	0.0000
Other Financing Activities	—	—	—	(0.39)	(0.10)			
Net cash from financing activities	**0.12**	**3.15**	**3.85**	**4.92**	**8.03**	**0.0146**	**(0.2955)**	**1.1335**
Other adjustments								
Foreign Exchange Rate Adjustments	—	0.01	(0.08)	(0.10)	(0.08)	(0.0341)	0.2383	(0.0488)
Miscellaneous Cash Flow Adjustments	—	—	—	—	—			
Net increase/(decrease) in cash	**(0.39)**	**1.73**	**0.11**	**-0.26**	**2.01**	**(1.2646)**	**(1.4051)**	**(0.0950)**
Cash at beginning of period	0.41	0.02	1.75	1.86	1.60	3.6100	2.3454	0.9403
Cash at end of period	**0.02**	**1.75**	**1.86**	**1.60**	**3.61**	**2.3454**	**0.9403**	**0.8453**

Source: Ainos, VASRO

Declaration of liability (disclaimer) and mandatory details pursuant to Section 85 Securities Trading Act (WpHG), the EU Market Abuse Regulation (EU Regulation No. 596/2014) and the Delegated Regulation 2016/958, including details of possible conflicts of interest (disclosures)

The following details recall such legal aspects and complete them as far as they refer to equity analyses with quarterly updates.

1. Creation and distribution
a) Responsibility for creation and distribution
VASRO GmbH (hereinafter referred to as „VASRO “)
Registered Office: Frankfurt am Main; Commercial Register No. HRB136283, Frankfurt am Main district court;
Managing Director: Dr. M-Javad Vaseghi
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c) Supervisory authority: Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), Marie-Curie-Strasse 24-28, 60439 Frankfurt am Main.

2. Further mandatory details
a) First publication: DD/MM/YYYY.
b) Publisher: Dr. Vaseghi, Javad, Mr. Roghani, Emad
c) Time conditions of expected updates: quarterly
d) Previous analyses: No analysis was published in the 12 months before publication of this analysis that contains a recommendation for a specific investment decision which contradicts this analysis.
e) The analysis was, if applicable, made available to the targeted company, to the extent that is legally permissible, before publication and was not amended thereafter.
f) All prices and price developments listed in the analysis are based on closing prices insofar as no contradictory details were provided about prices and price developments.

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3.4. Disclosures of conflicts of interest

Company	Disclosure (s)
Ainos Inc.	h)

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HOLD: In our opinion, the stock will not exceed or fall below an absolute price gain or loss of 10% in a 12-month period.
SELL: In our opinion, the stock will demonstrate an absolute price loss of at least 10 % in a 12-month period.

9. Recommendation History for the Last 12 Months:

Date	Study	Stock Price at Publication (USD)	Change
1.20.2026	Initial	1.93	-

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