AEVION QVenture — Investment Memo

Generated 2026-07-10 · AEVION AI Investment Analyst · not investment advice

ColdChain IQ

B2B SaaS (horizontal) · series-a · EU · raising $11,000,000

Score 68.1/100 — WATCH (conviction: medium)

Investment memo

Recommendation: WATCH with a conditional lead, not a pass. ColdChain IQ shows genuine quality—€3.8M ARR, 118% NRR, and a 2.3-month hardware payback backed by an 88/100 execution signal—but it sits in a crowded, commoditizing field where Sensitech, ELPRO, and Berlinger can replicate the sensor-plus-dashboard stack. The single strongest reason to invest is the compounding switching-cost moat: validated GxP/GDP audit reporting, once embedded in a pharma customer's compliance workflow, is genuinely sticky and hard to rip out. The single strongest reason against is that the "predictive" differentiation is scientifically unproven (no false-positive/lead-time data), meaning the premium could collapse to a price war while 40% hardware capital intensity drags margins and multiples. Entry plan: lead $8.0M for ~12% at roughly $55M pre, but hard-cap exposure at $5.5M and stage the second tranche on two diligence gates—gross logo retention (not just NRR) and documented excursion detection accuracy. Reserve ~$12M for pro-rata. Size at ~1.7% of the portfolio.

Narrative engine: live model (anthropic)

Entry strategy

Ticket: $7,971,600 target (range $3,985,800–$5,500,000)
Target ownership: 12%
Valuation band (pre-money): $26,357,500 / $55,430,000 / $110,860,000
Return: 5.77x expected (10x base) · ~33.9% IRR over 6yr · loss prob 43%

Deployment schedule:

- 60% — Entry: On close, after commercial + legal + financial diligence.
- 40% — Pro-rata: Reserve to maintain ownership through the next round.

Portfolio: Size at ~1.7% of a diversified venture portfolio (fractional-Kelly, conviction-scaled). Reserve 11,957,400 USD for pro-rata follow-on.

Score breakdown

Market size & growth — 67/100 (weight 20%)
~$465B TAM, 13% CAGR (B2B SaaS (horizontal)).

Timing / tailwinds — 53/100 (weight 10%)
Sector growth 13% vs. 12% neutral baseline.

Moat / defensibility — 74/100 (weight 15%)
Dominant defensibility here: switching costs.

Unit economics potential — 73/100 (weight 15%)
~78% mature gross margin, capital intensity 40%.

Team / execution signal — 88/100 (weight 12%)
revenue/customers cited; unit-economics metric cited; commercial validation cited

Scientific / tech feasibility — 55/100 (weight 10%)
usage-based pricing telemetry, embedded analytics, PLG instrumentation

Regulatory / legal headroom — 81/100 (weight 9%)
Regulatory intensity 30% (higher = more legal drag).

Competitive headroom — 44/100 (weight 9%)
Competitive intensity 80%. seat-based model pressure as AI collapses headcount-linked demand.

Analyst council

Research Scientist — Cold-chain IoT monitoring with solid ARR traction, but tech is mature commodity with thin scientific moat

+ The core technology is well-established: IoT temperature/humidity sensors, LoRaWAN/cellular telemetry, and cloud time-series analytics are commodity components — no scientific breakthrough required, which cuts both ways (low tech risk, low tech moat). The 55/100 feasibility score fairly reflects execution-not-invention.

+ 'Predictive alerts before spoilage' is the only genuine R&D claim; forecasting excursions requires modeling thermal mass, ambient coupling, and sensor lag. This is tractable with standard time-series/gradient-boosting methods but real predictive lead-time (>30 min actionable warning) needs validation — vendors often overstate 'AI' where simple threshold + rate-of-change rules suffice.

+ Traction is credible and self-consistent: EUR3.8M ARR across 140 sites (~EUR27K/site), 118% NRR and 2.3-month hardware payback indicate real deployment, not a science demo. Auto-generated audit reports mapping to GDP Annex 15 / FDA 21 CFR Part 11 create genuine switching costs (74/100 moat).

+ Regulatory tailwind is the strongest structural driver: EU GDP guidelines and pharma serialization mandates force continuous, validated monitoring — this is a compliance-pull market, not a tech-push one, de-risking demand.

! Commoditization/competitive intensity (44/100): sensor+dashboard incumbents (Sensitech, ELPRO, Berlinger, plus AWS/Azure IoT reference stacks) can replicate the feature set. The 78% gross margin is at risk if hardware/telemetry becomes a race to the bottom — the defensible layer must be validated regulatory reporting, not sensors.

! Predictive claim is scientifically unproven at scale: no cited data on false-positive/false-negative rates or actual excursion lead-time. If 'predictive' collapses to reactive threshold alerts, the differentiation and pricing premium evaporate.

! 40% capital intensity from hardware creates a services/CapEx drag that pure-SaaS comps avoid, compressing scalability; margin durability depends on decoupling recurring software revenue from sensor cost.

Data Analyst — ColdChain IQ: solid €3.8M ARR with 118% NRR, but hardware capital intensity and TAM framing need scrutiny

+ Traction is credible: €3.8M ARR across 140 sites (~€27K ACV) with 118% NRR signals real expansion and product-market fit; 2.3-month hardware payback is unusually fast and de-risks the IoT capex drag flagged by 40% capital intensity

+ TAM claim of $465B is the horizontal B2B SaaS number, NOT this company's addressable market — the real SAM (pharma + food cold-chain monitoring SaaS in EU) is likely single-digit billions; SOM at Series A should be modeled bottom-up from ~500K addressable cold-chain sites × ACV, which is MISSING

+ Unit economics look attractive if SaaS-led: 78% mature gross margin is plausible but BLENDED margin today is unknown given hardware — need software-only vs. hardware GM split, plus CAC and LTV/CAC (both ABSENT; only payback on hardware, not on full CAC)

+ Moat via switching costs (audit trails, embedded workflows, regulatory lock-in under GDP/FDA) is genuine and defensible — this is a stronger moat than generic horizontal SaaS, but competitive intensity scored 80/100 suggests crowded field (Sensitech, Berlinger, Controlant, Roambee)

! Hardware-dependent model caps gross margin and adds working-capital/inventory risk; the seat-based/usage-model structural risk is less relevant here (per-site not per-seat), but hardware refresh cycles and channel logistics are the real scaling constraint

! Undefined true SAM/SOM plus missing full-loaded CAC and LTV mean the $11M raise could be underwriting an inflated market; if EU cold-chain SaaS SOM is <€500M, growth ceiling arrives fast against entrenched incumbents

! No churn/logo-retention data beyond NRR — 118% NRR can mask logo churn offset by upsell; gross retention and net-new logo velocity are needed to confirm the thesis vs. kill it

Economist — ColeChain IQ: capital-efficient cold-chain compliance SaaS with strong retention but crowded competitive field

+ Demand is inelastic and regulation-driven: EU GDP Annex 15, FDA 21 CFR Part 11, and HACCP mandates make temperature audit trails non-discretionary spend, insulating renewals from macro cyclicality vs. typical horizontal SaaS.

+ Moat is real but narrow: 118% NRR and 74/100 defensibility come from switching costs (embedded IoT hardware, calibrated sensors, historical audit data) — not network effects. 2.3-mo hardware payback removes the classic capex adoption barrier and drives fast land.

+ Unit economics are attractive: ~78% mature gross margin despite 40% capital intensity implies hardware is subsidized/pass-through and rents accrue in the software/analytics layer where marginal cost approaches zero.

+ Structural pricing advantage: usage/asset-based pricing (per monitored site/sensor) is decoupled from headcount, so the sector-wide 'AI collapses seat-based demand' risk is largely inapplicable here — value scales with physical assets, not seats.

! Competitive intensity 80/100: incumbents (Sensitech/Carrier, ELPRO, Berlinger, Testo) plus commoditizing IoT hardware compress durable rents; $3.8M ARR at 140 sites (~$27k/site) is subscale to win an enterprise standards war.

! Moat depends on data lock-in, not defensible tech (feasibility only 55/100). Analytics/predictive alerts are replicable; if a larger platform bundles cold-chain monitoring, ColdChain IQ's differentiation erodes to price.

! Capital intensity 40% plus hardware logistics/calibration means slower cash conversion and geographic expansion friction — EU multi-jurisdiction regulatory variance raises GTM cost per new market.

Corporate & Regulatory Lawyer — Pharma cold-chain SaaS: GxP/GDP compliance is the moat and the liability; strong terms needed on data + product warranty

+ Regulatory posture is dual-track: EU GDP guidelines (2013/C 343/01) plus EU Annex 11/GAMP5 computerised-system validation for pharma clients, and EU 852/853/2004 + HACCP for food. This is the defensibility (81/100 regulatory headroom) — validated audit-report generation creates real switching costs (74/100 moat), but also exposes the company to customer qualification/validation obligations and cha

+ Data/privacy exposure is moderate: cold-chain telemetry is mostly non-personal machine data, so GDPR risk is contained — but IoT edge devices, geolocation of shipments, and driver/operator identifiers can trigger GDPR (fines to EUR20M/4% turnover). Diligence must confirm data-processing role (processor vs controller), sub-processor mapping, and EU-hosting/localization commitments in enterprise MSA

+ IP posture likely thin at Series A: predictive-alert models and audit-report logic are trade-secret/software rather than patented; verify freehold ownership of firmware, ML models, and contractor-assigned IP (EU has no automatic work-for-hire — need explicit assignment). Hardware may embed third-party sensors/OSS — audit BOM and open-source license obligations.

+ Investor deal terms: pursue reps/warranties on GDP validation status, IP ownership and OSS compliance, GDPR/DPA coverage, and product-liability insurance; add a specific indemnity for spoilage/mis-alert claims, liability caps in customer contracts, and confirm no single-customer concentration in the EUR3.8M ARR.

! Product-liability tail: a false-negative alert that fails to flag a temperature excursion on a pharma/vaccine shipment could trigger multi-million-EUR spoilage or patient-safety claims; contractual liability caps may be unenforceable for gross negligence under several EU civil codes, and the EU Product Liability Directive (revised 2024, now covering software/AI) expands exposure to software defect

! Structural pricing/competitive risk (44/100 headroom, 80% intensity): if enterprise procurement shifts to usage/telemetry pricing while incumbents (Sensitech, ELPRO, Berlinger) bundle hardware, 118% NRR may compress; the 40% capital intensity from hardware also dilutes SaaS-multiple valuation.

! Regulatory drag on scale: per-customer GxP validation and country-specific food/pharma inspection regimes (fragmented across 27 member states) can lengthen sales cycles and create version-control liability whenever the platform updates — the compliance moat cuts both ways as a cost center.

Market data sources

- Grand View Research (2025) — SaaS $464.7B in 2025 !’ $1,109.2B by 2033 at 11.1% CAGR
  https://www.grandviewresearch.com/industry-analysis/saas-market-report
- Research and Markets (2025) — $281.8B (2024) !’ $774.3B by 2030 at 18.3% CAGR
  https://www.statista.com/outlook/tmo/public-cloud/software-as-a-service/worldwide/

Assumptions & limitations

- Market size / growth for B2B SaaS (horizontal) is anchored to Grand View Research (2025): SaaS $464.7B in 2025 !’ $1,109.2B by 2033 at 11.1% CAGR. Full citations are listed under "Market data sources".
- Stage norms reflect US-market series-a deals; adjust for geography "EU".
- Score is a screening signal, not a substitute for legal, financial, and technical due diligence.