Rise of Vertical LLMs: From General Models to Domain Intelligence

2026

ALLIED ADVISERS

Table of Contents

ALLIED ADVISERS

Executive Summary

Executive Summary

ALLIED ADVISERS

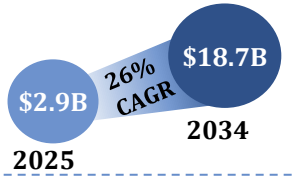
Vertical LLMs are gaining adoption across industries due to stronger domain relevance and enterprise readiness, with competitive advantage shifting toward proprietary data, domain expertise, and workflow ownership

Rise of Vertical LLMs

Enterprises are adopting vertical LLMs, smaller workflow-focused models that embed domain knowledge, governance, and precision, delivering higher accuracy where general models fall short

Market Growth Signals Rising Demand

Global vertical LLM market to grow from:



Rising Adoption: 20% of enterprise AI deployments use domain-specific models (2025)

Adoption Is Already Visible Across Sectors

Key Use Cases

- **Finance** (compliance monitoring, investment research)
- **Healthcare** (clinical support, medical documentation)
- **Legal** (case law research, contract analysis)
- **Retail** (ticket classification, policy compliance)

Vertical LLMs in Action

BloombergGPT (finance LLM) achieved ~30% accuracy on finance NLP tasks, embedded across Bloomberg Terminal with 325K+ enterprise users

Hippocratic AI's Polaris (healthcare LLM) reached 99.38% clinical accuracy with its 3.0 release in 2025

Vertical LLMs Are Reshaping the Ecosystem and the Pressure to Adapt Is Universal

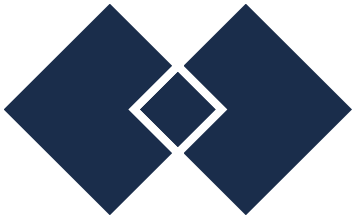
Markets: Moving from niche differentiation to a competitive baseline

Enterprise Buyers: Vendor selection now depends on outcomes: accuracy, efficiency, safeguards

Developers: Value shifting to domain expertise, premium roles, and workflow-focused design

The Next Phase

- Vertical LLM adoption will rise, with ~60% of enterprise AI deployments set to be domain-specific by 2028
- Vendors will build trusted vertical LLMs on proprietary data, governance, and clear human-AI boundaries, working alongside intelligent agents for complex workflows



Introduction to Vertical LLMs

Emergence of Vertical LLM

ALLIED ADVISERS

Vertical LLMs are emerging as purpose-built systems that embed domain knowledge, governance, and precision directly into industry workflows

Vertical LLM/ Domain-Specific LLM

A domain-specialized large language model trained and tuned on industry data to understand domain terminology, workflows, and decision logic, with governance and auditability built into the model itself

Example:
BloombergGPT
Built for finance

Gartner

40%[1] of enterprise applications will integrate task-specific AI agents (such as Vertical LLMs) by 2026, up from <5% in 2025

Why Vertical LLMs Are the Next Wave in the AI-Driven Software Market

Vertical LLMs are redefining the AI-driven software market by replacing traditional SaaS with agents that own end-to-end workflows, shifting enterprise value from broad platform access to measurable, domain-specific outcomes. **Key Shifts Enabled by Vertical LLMs:**

From Support to Execution

Shifts from assisting users to agents that run multi-step workflows with defined goals and controls

From General to Industry-Specific Expertise

Built on proprietary data and embedded processes, creating higher reliability and stronger defensibility in specific industries

From Tools to Workflow Ownership

Disrupt fragmented SaaS stacks by consolidating compliance, documentation, and reporting into AI-native enterprise workflows

> *To automate mission-critical tasks, general-purpose AI isn't enough, we need domain-specific integration, precision, and accuracy at nearly 100%.*
>
> ***- Jake Heller, CEO, CaseText***[2]

Domain knowledge is the new competitive edge—shaped by years of AI evolution as the limitations of general-purpose models pushed the industry toward domain-specific solutions

1. Gartner
2. Turing

Evolution of LLMs Toward Domain-Specific LLMs

ALLIED ADVISERS

Enterprises have evolved from broad, general-purpose models to domain-specific LLMs embedded in regulated workflows to enable auditable decision execution at scale

Rules-based Era (before 2022)	General-purpose LLM Wave (2022–2024)	Vertical/domain-specific LLM (2025 onward)
▪ Industries relied on **rules-based NLP***, **enterprise search**, and **classical ML techniques** in the 2010s for extraction and classification	▪ General LLMs (e.g. GPT-4, Claude, Gemini) brought natural-language tools for **chat, summary**, and **Q&A**, enabling broad enterprise pilot programs across industries	▪ Vertical LLMs built into regulated workflows help enterprises scale from pilots to production ▪ Deliver higher accuracy[1] **(~95%),** cut errors by **85%,** and use models up to **100x smaller** that beat ChatGPT on specialized tasks
E.g., **Thomson Reuters' (TR)** Westlaw, built on decades of rule-based search and NLP	Casetext launched **CoCounsel**, a GPT-4-powered legal AI assistant, which got acquired by Thomson Reuters in Aug'23	**Thomson Reuters** actively takes steps toward vertical LLMs: Trains legal-specific models on its own data & tests custom legal LLMs in CoCounsel
The systems were **rigid, rule-heavy,** and failed to adapt to new document types, unstructured language, and evolving workflows	General LLMs show gaps in **reliability, auditability, compliance, and hallucination risk** in regulated domains	*"The more a model knows about a domain, the more likely it will produce the results you're looking for. That's the real differentiator."* ***- Michele Rosen, Research Manager, IDC[2]***

1. Byteiota

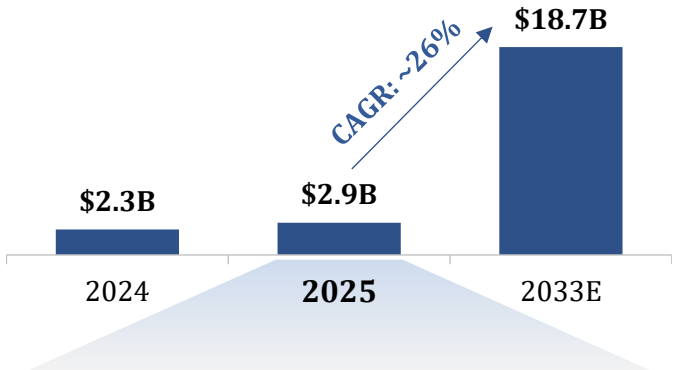
*Natural Language Processing

Vertical LLM: Market Growth and Adoption Drivers

ALLIED ADVISERS

This shift is driving steady adoption of domain-specific LLMs, expanding the market as organizations prioritize accuracy, regulatory compliance, auditability, reliability, and productivity gains in production environments

Global Vertical LLM Market[1] ($B)



41%
North America
Highest regional market share

28%
Healthcare
Largest application segment

Gartner

20%[2**] of enterprise AI deployments are already using domain-specific models

Why Enterprises Are Adopting Vertical LLMs

Higher Accuracy at Lower Cost

Enterprises seek reliable accuracy in specialized tasks without high compute costs

- **John Snow Labs** (healthcare LLM) achieves **~87%**[3] accuracy

John Snow LABS

Domain-specific Training

Vertical LLMs interpret context-dependent terminology that general models often misread

- "AML"—acute myeloid leukemia in healthcare vs. anti-money laundering in finance

Built-in Compliance and Governance

Regulated industries demand auditable AI with built-in regulatory logic# by design

- **73%**[4*] of financial institutions plan to adopt DSLMs for compliance & risk

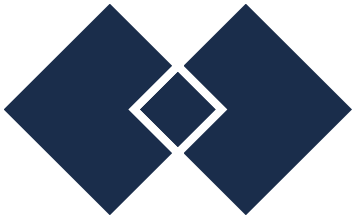
Workflow Integration & Measurable ROI

Enterprises value AI embedded into workflows for clear business impact

- Across deployments, enterprises see: ↑ **25–45%**[5] productivity gains

1. Research Intelo
2. Byteiota
3. John Snow Labs
4. Pwc
5. Techmango

**Based on Gartner's analysis (2025)
(e.g., GDPR, HIPAA, local data residency laws)
*2025 PwC survey



Vertical LLM Use Cases Across Industries

Vertical LLM Use Cases Across Industries (1/2)

ALLIED ADVISERS

This adoption is already visible in production deployments across regulated industries like finance and healthcare, where vertical LLMs are reshaping compliance, research, and clinical workflows

Use Cases

Financial Services

- **Compliance Monitoring:** Flag non-compliant language and regulatory risk across contracts, and communications in real time
- **Document Intelligence:** Summarize filings and research, enable Q&A, and extract structured insights
- **Investment Optimization:** Generate asset allocation ideas, risk reporting, and streamline investment operations

Healthcare & Life Sciences

- **Clinical Decision Support:** Support diagnostics and evidence-based medical reasoning
- **Medical Documentation:** Convert unstructured clinical notes into structured outputs for coding and research insights
- **Domain Grounding & Terminology:** Interpret context-dependent medical terms to reduce ambiguity in patient interactions

Real-World Impact

PALMYRA

Writer's Palmyra LLMs[1]: Enable **risk assessment, automated financial reporting**, and **AI-driven customer service** for top financial institutions, **like:**

accenture · ally · FRANKLIN TEMPLETON · intuit · Prudential · Vanguard

50% Medical LLMs generate structured clinical notes, **reduces clinician charting** time by **up to 50%[2]**

76% John Snow LABS achieves 76%[3] accuracy in extracting **ICD-10-CM diagnostic codes**, outperforming GPT-4 (36%) and GPT-3.5 (26%)

1. Tearsheet
2. Globenewswire
3. John Snow Labs

Vertical LLM Use Cases Across Industries (2/2)

ALLIED ADVISERS

This domain precision extends further into legal research, customer operations, and industrial workflows, where Vertical LLMs are transforming case law, customer interactions, and predictive maintenance via deep expertise

	Legal	Retail / Customer Experience	Manufacturing
Use Cases	▶ **Case Law Automation**: Automate case search, summarization and discovery ▶ **Contract Analysis:** Flag risky clauses and check compliance ▶ **Drafting & Opinion:** Generate demand letters and legal opinions	▶ **Classify Support Requests:** Classify and resolve customer queries ▶ **Product & Catalog:** Optimize product descriptions, suggestions, and demand forecasts ▶ **Quality & Compliance:** Enforce approved language, policies, and escalation rules	▶ **Supply Chain Optimization:** Improve decisions with supplier, inventory, and demand data ▶ **Predictive Maintenance:** Forecast equipment failure using sensor and historical data ▶ **Work-Order Intelligence:** Convert notes into insights for maintenance and inventory
Real-World Impact	**IBM (OLGA)[1]:** Pre-categorized legal documents, cutting the **review process by 50%** **EvenUp[2]:** Fully automates demand letter generation and reducing **time to value by ~95%** ↓	**eBay (LiLiuM)[3]: +34%** improvement in **text generation** speed vs. LlaMA-2 (+34%) **Kapture CX**: Automates **~80%[4]** of tickets; cut handling time by **~70%**	**~25%** ↓ Predictive failure detection **reduced downtime** by **~25%[5]** in smart factories

Takeaway — **Across industries, vertical LLMs are already demonstrating measurable gains in review speed, time-to-value, task automation, and downtime reduction, marking a structural shift toward workflow execution.**

1. TechTarget
2. PremjiInvest
3. ArXiv
4. Kapture
5. Towards AI

Structural Shifts in Vertical LLM: Key Trends

Where the Vertical LLM Moat Is Being Built

ALLIED ADVISERS

While vertical LLMs are proving their value in execution, maintaining that edge now depends on proprietary data and private or hybrid infrastructure that secure control, defensibility, and scale

Vendor Moat: Why Proprietary Data Wins

- From 2026–2032[1], leading LLMs are expected to consume most high-quality public text, reducing the edge of publicly available data
- This makes proprietary enterprise data the key moat, including patient records, credit histories, legal contracts, and transaction logs

~20% proprietary/enterprise data is actually used in AI training (2025)[1] , leaving significant upside for firms with exclusive access

- These datasets strengthen defensibility, support premium pricing, and create protection through IP, contracts, and regulation
- **Examples of vertical LLMs trained on proprietary data:** Bloomberg GPT, Hippocratic AI, kapture

"Investors aren't interested in products without proprietary data moats…real workflow ownership is required from day one"

- Abdul Abdirahman, Investor, F-Prime[2]

Enterprise Buyers: Favoring Private/Hybrid Deployment

Enterprise buyers are increasingly prioritizing private or hybrid deployment of domain-specific LLMs over sole reliance on public-cloud APIs.

On-premise solutions accounted for ~**52%** of the LLM market in 2025[3]

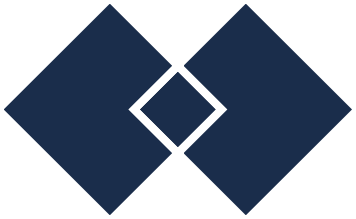
This shift gives buyers greater control, better task performance, and keeps sensitive data in-house for regulatory compliance.

30-60% ↓

Private/self-hosted LLMs can cut costs **30-60%**[4] vs API models (OpenAI/ChatGP)

As vertical LLM adoption scales, competitive advantage is shifting from who builds the best model to who owns the best data, while enterprise deployment preferences are moving toward private and hybrid models

1. LinkedIn
2. TechCrunch
3. Modor Intelligence
4. LinkedIn



Vertical LLMs in Action: Real-World Examples

Case Study: Vertical LLMs in Action (1/2)

ALLIED ADVISERS

The following case studies show this moat already in practice, where vertical LLMs trained on proprietary domain data delivered measurable outperformance that general-purpose models struggle to match

Finance: BloombergGPT

Challenge | General-purpose LLMs (like GPT-3) struggled with inconsistent accuracy on financial NLP tasks like sentiment analysis, compliance risks from public data, and privacy concerns

Bloomberg launched **BloombergGPT (2023)**, a 50.6 billion parameter^ finance-specific LLM

700B It is trained on ~700 billion tokens, combining proprietary with general data

Outcome:

325K+ Embedded across the Bloomberg's Terminal* workflow, serving 325K+[1] **enterprise subscribers**

30% Enhanced Bloomberg's AI capabilities with ~30%[2] **higher accuracy** on finance-specific NLP tasks

In 2025[3], Bloomberg expanded its Terminal AI suite, with early users reporting faster research and improved insight generation

Healthcare: Med-PaLM

Challenge | Similarly, general-purpose LLMs struggled with medical questions and image-based diagnostics, producing inaccurate clinical insights

Overview:

Med-PaLM Google introduced **Med-PaLM** (2022), a healthcare-specialized model

PaLM 2 It launched **Med-PaLM 2** (2023), built on the PaLM 2 architecture

Improved clinical decision support, reduced patient consult times, more consistent diagnoses, and outperforming human radiologists in image-based diagnostics.

Outcome:

95% 95% accuracy on **answering medical questions** and 86.5%[1] on **USMLE**-style exams**

90.6% Med-PaLM 2 achieved a 90.6%[4] **low-risk safety score#** (2025)

1. Towards AI
2. CerebrAIx
3. Team Insight
4. About Chromebooks

^It refers to trainable weights that the model learns during training to process and generate language
*Bloomberg Terminal is a professional platform used by traders, analysts, and bankers for market data, research, trading, and analytics
** United States Medical Licensing Examination
#The vast majority of its responses were considered unlikely to cause patient harm

Case Study: Vertical LLMs in Action (2/2)

ALLIED ADVISERS

Polaris takes the healthcare case further, showing that domain-specific training with purpose-built safety architecture closes the reliability gap and delivers the clinical precision enterprise healthcare demands

Healthcare: Hippocratic AI[1]

Hippocratic AI

Challenge | Single-LLM prototypes achieved only 80% accuracy in clinical, non-diagnostic conversations, insufficient for healthcare-grade reliability

Overview:

Hippocratic AI built **Polaris**, a healthcare-specific LLM, using a patented multi-model "constellation architecture*"

Polaris combines a **70B+** parameter conversational LLM with **20+** real-time checks to prevent clinical errors

Since its 2024 launch, Polaris has evolved through three versions, improving safety and performance

Results:

Version	Clinical Accuracy	Patient Satisfaction
Polaris 1.0 (2024)	96.79%	—
Polaris 2.0 (2024)	98.75%	8.72 / 10
Polaris 3.0 (2025)	99.38%	8.95 / 10

Global Expansion (2025)

BURJEEL HOLDINGS KPMG

Hippocratic AI expanded globally by partnering with **Burjeel Holdings** in the Middle East and **KPMG** globally to deploy healthcare agents built on its vertical LLM

Takeaway **The success of vertical LLMs in real-world workflows signals broader implications for key stakeholders, including markets, enterprise buyers, and developers, as they move to adopt domain-specific models.**

1. Hippocratic AI

*Multiple AI models working together with safety layers

Implications Across the Ecosystem

A New Playbook: What Vertical LLMs Mean for Stakeholders (1/2)

ALLIED ADVISERS

Vertical LLMs' proven success is driving realignment across markets, enterprises, and developers as domain specialization shifts from competitive edge to industry standard; the pressure to adapt is felt at every level

How the Ecosystem Connects

Market (creates demand) → **Vendors** (build & sell vertical LLMs) → **Enterprise Buyers** (purchase & deploy) → **Developers** (integrate & run inside enterprise)

Market

Vertical LLMs Become the New Standard

- They are shifting from competitive advantage to industry baseline, especially in regulated sectors

Domain-Specific LLMs

of the global enterprise LLM market by 2026[1]

35% CAGR (2026–2034)

Vertical LLMs Outpace Legacy SaaS

- Vertical AI, including domain-specific LLMs, is outpacing legacy SaaS, creating risk for firms relying on legacy software

10x — Vertical AI market cap to grow[2] 10x larger than legacy SaaS, exceeding **$100B** by 2032

Enterprise Buyers

Vendor Selection Becomes More Outcome-based

- As vertical LLMs become a competitive necessity, buyers are becoming more selective in Vertical LLM vendor choice
- They will prioritize measurable workflow impact, including niche-task accuracy, lower manual effort, and faster cycle times

Security Remains A Buyer Responsibility

- While vertical LLMs embed compliance and auditability, enterprise buyers still need runtime safeguards to address:
  - Prompt injection
  - External threats, and
  - Changing regulatory requirements

1. Fortune Business
2. Turing (Bessemer Venture Partners)

A New Playbook: What Vertical LLMs Mean for Stakeholders (2/2)

ALLIED ADVISERS

As this realignment deepens, foundation models become infrastructure and the opportunity lies in governing it strategically and engineering it with domain precision, not just prompting broadly

Developers

Specialization is the New Career Strategy

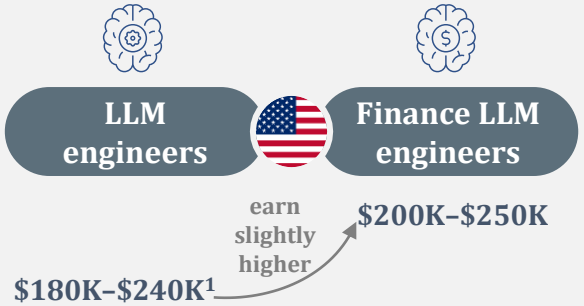
Developers must gain deep domain expertise, as vertical LLMs require:

- Industry-specific data
- Edge-case modeling
- Domain-grade pipelines

Domain Roles Command Premium Value

Deep industry knowledge in healthcare, legal, finance, or manufacturing, which leads to higher-value roles.

Engineer Average Salary in the US[1](2025)



Generic Prompts Fail in Vertical LLMs

Developers must adopt domain-specific prompting and workflow design, as vertical LLMs require shaping end-to-end tasks, not just outputs, to deliver real value.

- For e.g., vertical LLM prompts leverage domain data for precision like:

Domain	General LLM	Vertical LLM
Legal	"Summarize this case"	"Flag conflicts with precedent X* under GDPR Art. 17"

Takeaway

The rise of vertical LLMs is reshaping the AI landscape, creating opportunities and challenges across the ecosystem. Capturing value requires developers to specialize, enterprises buyers to manage compliance and security, and markets to adapt as the next phase of AI evolves.

1. LinkedIn

*X = domain-specific reference (e.g., a case, contract, or agreement)

Future Outlook

The Next Phase of Vertical LLM

ALLIED ADVISERS

As the ecosystem adapts, the next phase moves beyond proof points toward broader adoption, fiercer competition, and deeper workflow integration

"In the age of AI, the future belongs not to the biggest model, but to the most informed."

- R. Thompson (PhD), AI Researcher and Writer[1]

How the Market Will Evolve

Vertical LLM Adoption Will Accelerate

- By 2028, over **60%**[2] of enterprise AI deployments expected to be domain-specific models (Gartner)

- This adoption will scale first in regulated, workflow-heavy sectors, due to the precision and compliance demands of healthcare, financial services, manufacturing, and automotive

Key Future Trends in Vertical LLMs

Model Commoditization: As open models (e.g., Meta's Llama) become more accessible, firms will fine-tune them into domain-specific systems, lowering costs and intensifying competition

Collaboration with Agentic AI: Multiple vertical LLMs, each specialized in a domain, will collaborate with intelligent agents to solve complex, multi-domain enterprise problems

Demand for Explainability Will Rise: As vertical LLMs move into higher-stakes use cases, enterprises will demand more transparency, explainability, and defensibility

Takeaway

Winners Will Be Defined by Workflow Depth and Trusted Execution:

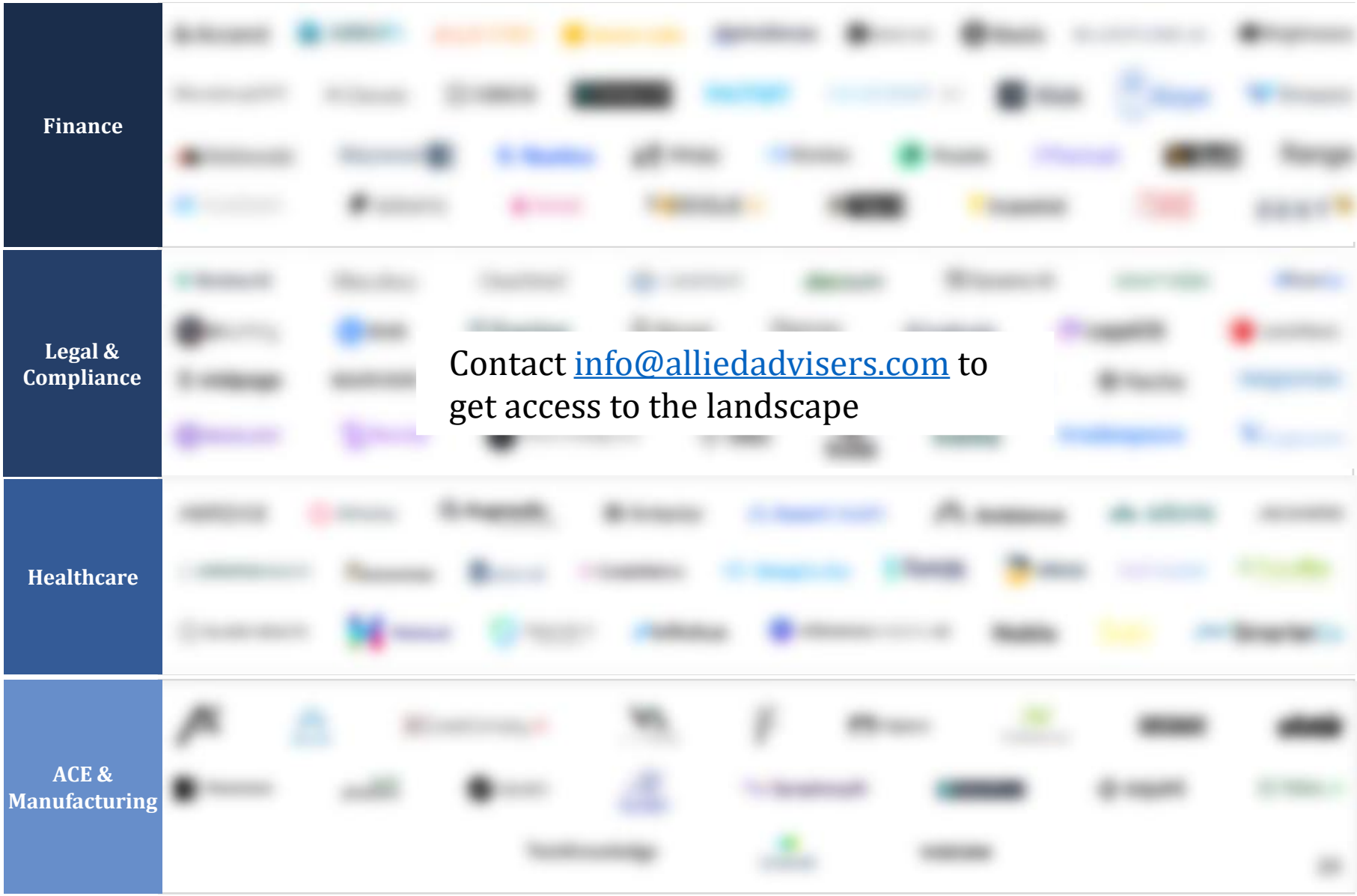
The next phase will be defined less by model access and more by who embeds trusted, domain-specific AI deepest into core enterprise workflows through governance, integration, and clear human-AI boundaries

1. Towards AI
2. Byteiota

M&A and Financing Activity

Vertical LLM Landscape

ALLIED ADVISERS



M&A and Financing Activity

Overview of M&A Activity in Vertical LLM space in the US

ALLIED ADVISERS

Overview

- Global M&A activity reached approximately $2.6 trillion in 2025, supported by strong momentum in AI-related transactions. The United States led global dealmaking, contributing over 50% of total M&A activity.
- Enterprises are increasingly acquiring companies to build complete AI ecosystems rather than relying on standalone models. The focus has shifted toward developing agentic AI platforms, embedding AI copilots into existing enterprise workflows, and expanding Vertical AI applications that support Vertical LLM use cases across different sectors.
- The shift from horizontal software to Vertical AI is a major growth driver, as Vertical LLMs combine domain expertise with automation to solve specialized workflows like clinical documentation, contract analysis, and underwriting. This enables measurable productivity gains and allows AI to perform complex professional tasks, driving adoption in industries that historically resisted software.

Deal Date	Target	Acquiror	Deal Value	Rationale
Feb 09, 2026	PrivateBlok	KPMG	--	To scale and operationalize KPMG's AI capabilities, moving from pilot projects to fully deployable, enterprise-ready solutions
Jan 07, 2026	TrampolineAI	VOICEGAIN	--	Voicegain acquired TrampolineAI to build a unified AI platform for healthcare payers, improving efficiency and member experience
Jan 05, 2026	matrisk	AKUR8	--	Acquisition is to integrate Akur8's pricing AI with Matrisk's regulatory intelligence to deliver faster, smarter, and compliant pricing decisions for insurers
Jun 17, 2025	TL AI	Consilio	--	The acquisition aims to position Consilio as the largest legal data AI provider by embedding advanced generative AI and narrative capabilities into its platform

Source – PitchBook, Crunchbase, CIO.com, Markets Group, Medium

Overview of VC activity in Vertical LLM space in the US

ALLIED ADVISERS

Overview

- U.S. VCs are increasingly backing Vertical LLM solutions (legal, healthcare, finance, accounting) rather than horizontal AI tools, as vertical use cases show clearer monetization and adoption pathways.
- AI accounted for ~37% of global VC funding in 2024, with the U.S. seeing even stronger concentration; estimates shows that ~63% of U.S. venture dollars in 2025 are directed toward AI, with growing emphasis on application-layer and Vertical LLM models.
- While funding remains strong, many U.S. VCs are selectively backing vertical LLM startups with defensible domain expertise, delaying commoditized application bets and focusing on differentiated, sector-embedded AI platforms expected to scale from 2026 onward.

Deal Date	Target	Investors	Amount raised	Rationale
Feb 03, 2026	Tellen	[array.vc], Blumberg Capital	$2.5M	The funding is being used to expand its platform, acquire Grant Thornton's qm.x platform, and develop regulatory-focused AI agents
Dec 03, 2025	Harvey	Andreessen Horowitz, EQT, Flare Capital, SignalFire	$185.1M	To scale operations and enhance its product suite for FY2026, including global expansion and international hiring, while advancing next-generation features
Oct 07, 2025	peer		$12.1M	To Scale its multi-agent AI platform for pharmaceutical regulatory workflows and expanding its commercial team, while accelerating development "zero-hallucination" models
July 22, 2025	slingshot AI	Andreessen Horowitz, Forerunner, Radical	$93.0M	To scale its AI counselor "Ash" from beta to a public iOS and Android app, enhance its proprietary models, and expand its global market and engineering teams

Source – PitchBook, Federal Reserve Bank of San Francisco, Forbes, The VC Corner

About Allied Advisers

Contact us: info@alliedadvisers.com

Allied Advisers: Investment Banking for Technology Companies and Investors

Allied Advisers is a global technology-focused boutique advisory firm focused on investment banking for entrepreneurs and investors. The Silicon Valley-based firm, with a presence in Los Angeles, Israel, and India, serves entrepreneurs and investors of technology growth companies globally on strategic advisory including M&A and capital raises. Allied Advisers bankers have completed technology transactions globally for clients with Fortune 50 buyers and top tier Private Equity firms.