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The SaaS-Pocalypse Opportunity

The taxonomy for competitive intelligence and strategic partnership in the AI ecosystem

PitchBook is a Morningstar company providing the most comprehensive, most accurate, and hard-to-find data for professionals doing business in the private markets.

Key takeaways

- **\$5.4 trillion in capital investments across 209 nodes tracked:** We introduce a 209-node taxonomy mapping the entirety of global enterprise IT and hyperscale capital expenditures driving the AI economy.
- **Three-tree architecture for market analysis:** The taxonomy utilizes a three-tree structure—investment stack, TAM, and industry sector—enabling investors and strategy officers to analyze TAM/SAM/SOM metrics, track supply chains, and build strategic partnerships.
- **Peer analysis using defined deployment sub-industries:** The deployment node acts as the most granular, mutually exclusive classification. The taxonomy explicitly provides functional descriptions and current market leaders for all 209 deployments, enabling investors to identify dominant incumbents, assess competitive concentration, and track shifting market share.
- **Physical-to-digital interdependencies mapped:** High-fidelity digital labor requires immediate scaling of lower-stack physical infrastructure. The taxonomy maps supply chain linkages, connecting foundational hardware inputs to hyperscale software workloads to identify the critical physical bottlenecks affecting deployment timelines.
- **Economic moat assessment and strategic M&A execution:** The taxonomy forces a granular segmentation of legacy software incumbents against emerging agentic-native startups. Strategy officers and portfolio managers can use this blueprint to stress-test the durability of existing economic moats, inform build-versus-buy decisions, and target accretive M&A candidates.



Executive summary

Today, we released a 209-node AI taxonomy to track the combined \$5.4 trillion in global enterprise IT and hyperscaler spending as it rapidly shifts toward digital labor delivery and accelerated human capital.

In our foundational analyst note [Mapping the AI Super-Cycle](#), we introduced a technology investment stack to describe how digital labor re-engineers companies, industries, and sectors to enable the work-as-a-service (WaaS) AI economy. In this new paradigm, work will be based on outcome guarantees rather than hours spent. Fully enabled agentic AI, through service-as-software (SaS) products, will drive this transition.

While our investment stack provides a robust organizational blueprint, investors and corporate strategy officers will also require a more granular framework to map the vast competitive and partnership ecosystem needed to build this new economy. The taxonomy below is our view on how the AI ecosystem is evolving in the intermediate term.

The AI ecosystem

As enterprises rearchitect their technology stacks to support the management of autonomous agents, a new map is needed. Categories like enterprise software, IT hardware, and networking have lost meaning and fail to capture the complex, interdependent nature of the modern AI value chain and capital requirements.

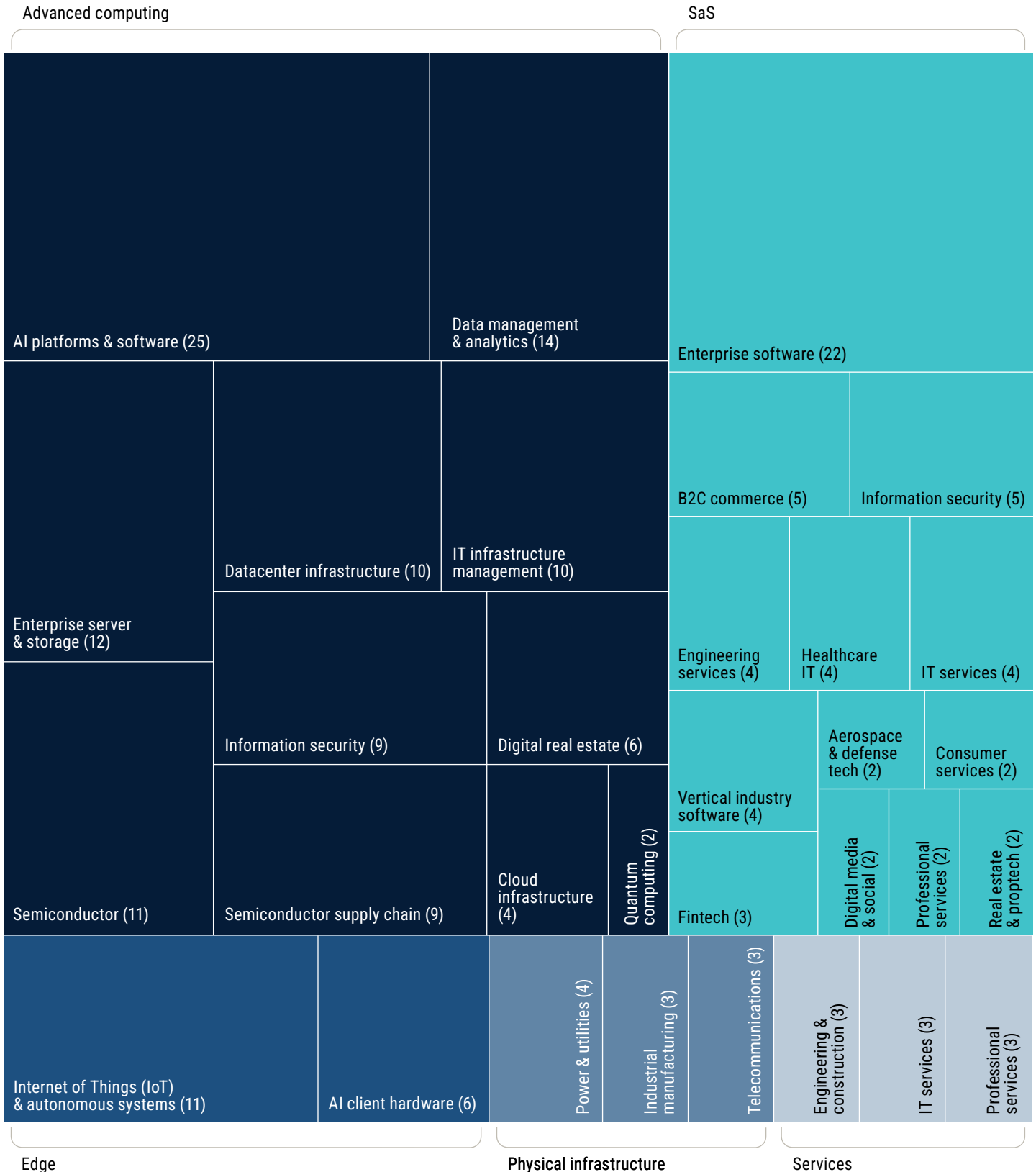
To capture this transition, we introduce a 209-node taxonomy designed to track the three primary forces driving the AI super-cycle: strategic partnerships, competitive dynamics, and investment capital. This framework allows stakeholders to identify interdependencies of physical infrastructure and digital labor that will accelerate enterprise value.

Building strategic partnerships

The AI ecosystem is defined by physical and digital interdependencies. True intelligence for machine automation and human assistance cannot be achieved until all lower levels of the physical stack can enable high-fidelity intelligent digital labor. This taxonomy allows investors to trace the partnership linkages required to scale that intelligence.



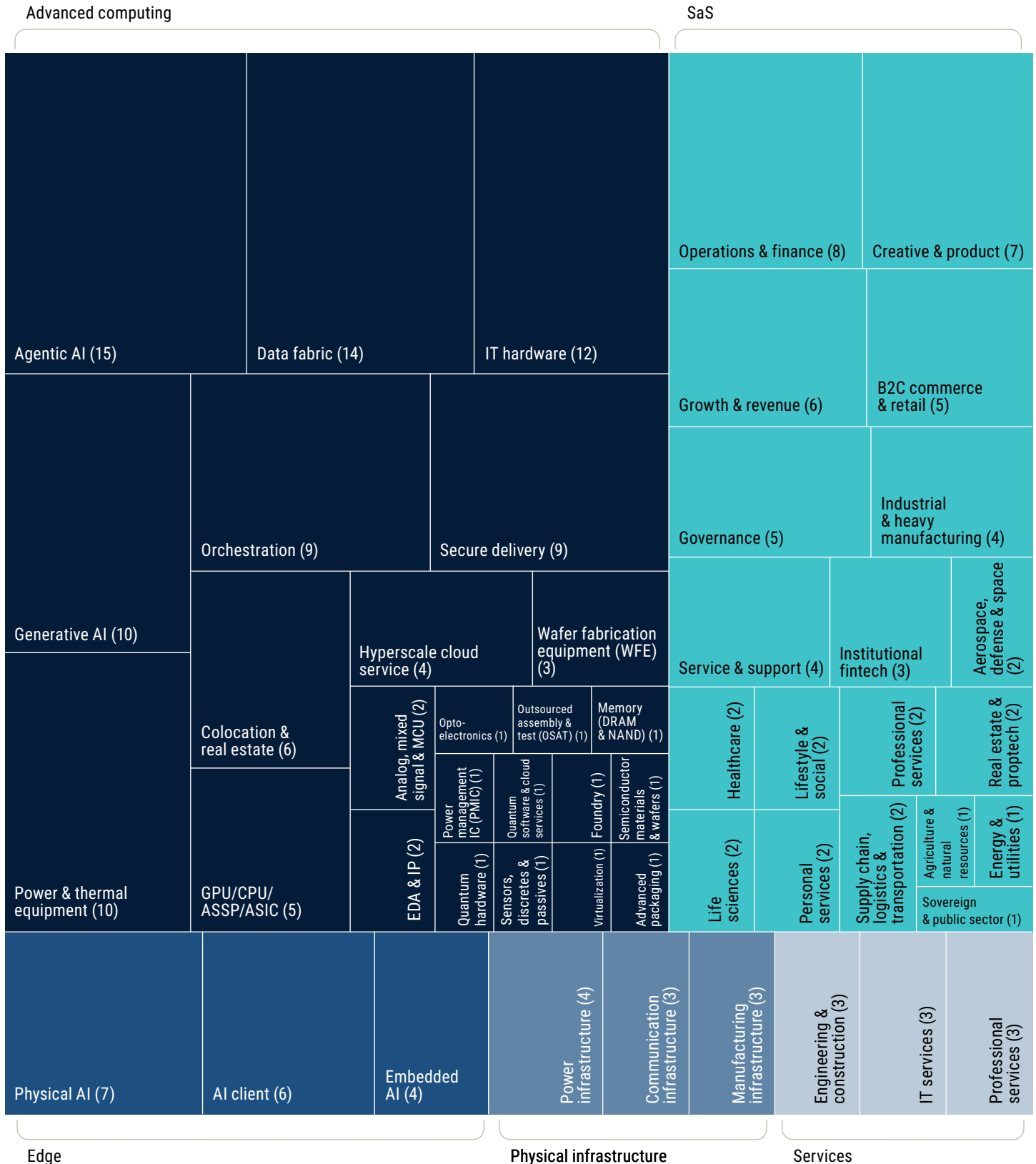
AI market map taxonomy: Total available market by deployment count



Source: PitchBook



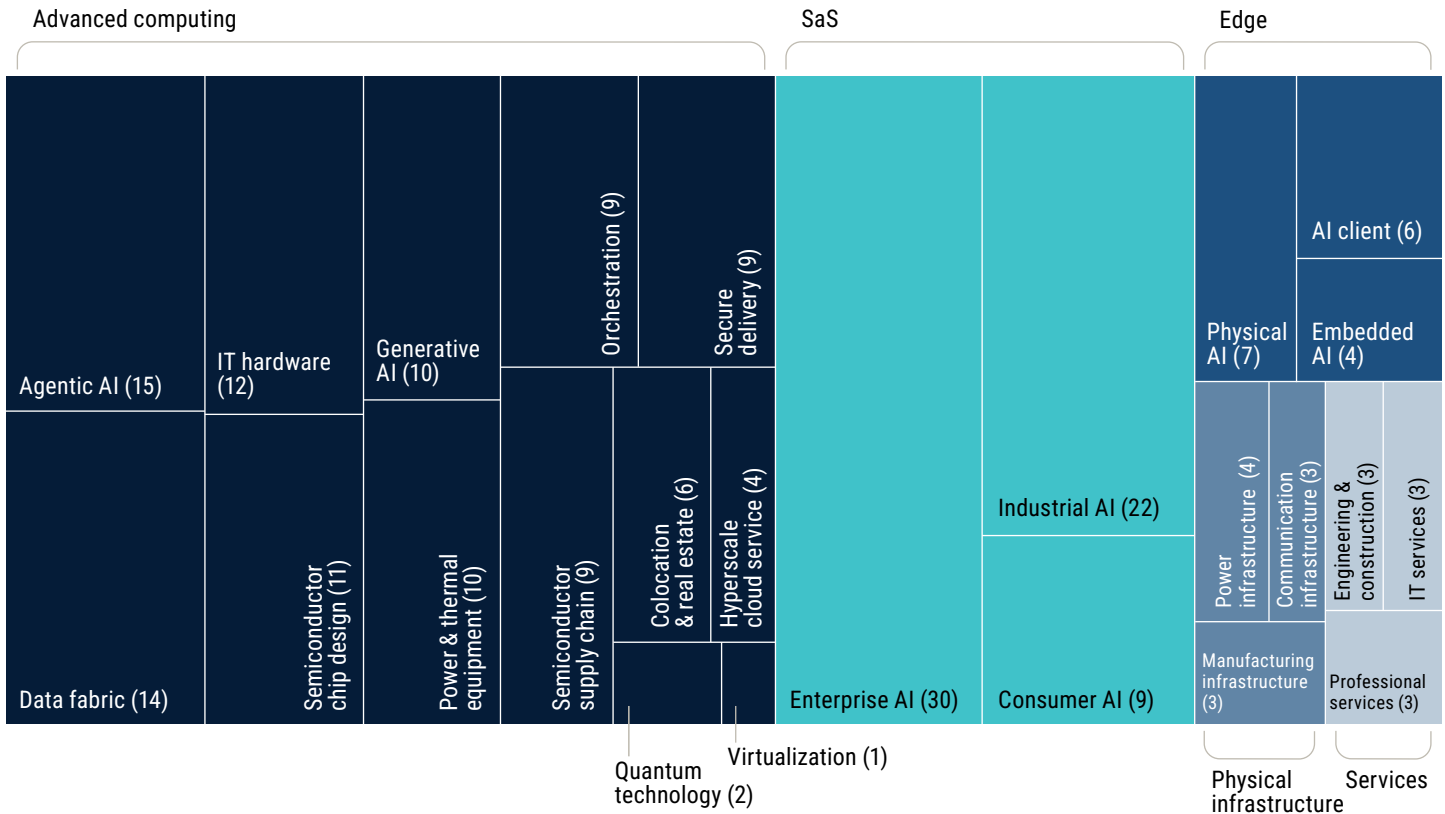
AI market map taxonomy: Sector industry by deployment count



Source: PitchBook



AI market map taxonomy: Technology investment stack by deployment count



Source: PitchBook

With this taxonomy, stakeholders can identify the critical supply chain partners. This ranges from specialized chemical firms providing semiconductor materials to heavy civil contractors pouring concrete for mission-critical datacenters. It maps how hyperscalers must simultaneously integrate advanced liquid-cooling architectures, continuous power generation, and high-performance computing hardware at a scale never before seen.

Importantly, physical layers of technology must now account for software-level application workloads. Simultaneously, every layer of the edge AI and application tiers must now integrate intelligence or face instant obsolescence. The type of computing required to support any number of generative or agentic AI calls from anywhere in the technology stack requires a vast, highly variable array of workloads to minimize cost/token. Semiconductor vendors must now offer complete computing solutions to hyperscalers and form partnerships with all market-leading software vendors to optimize computing requirements and interoperability. The result is a highly complex, interrelated ecosystem that emerges from the physical layers of the stack.

Analyzing competitive landscapes

Our taxonomy also helps identify where legacy business models are under threat. This is especially true in software. Capital markets have historically rewarded application-layer and asset-light software businesses with high valuation multiples.



The introduction of generative AI models and agentic AI applications has called into question the entire value proposition of every software ecosystem, especially within system-of-record and niche vertical markets.

As we highlighted in [Through the Looking Glass](#), agentic AI shifts the enterprise software model from seat-based licenses to outcome-based digital labor. Legacy software companies will seek acquisitions of agentic-native startups to survive or drive their transition. By segmenting all technologies into more granular levels, investors can identify which incumbents possess durable economic moats, which startups are likely to disrupt them, and which companies are better off forming partnerships.

Tracking capital expenditures

The transition to the AI economy represents the largest capital expenditure super-cycle in modern history, capturing a massive rotation of the combined \$8 trillion in global enterprise IT and hyperscaler spending. However, this capital will not deploy evenly across the technology stack.

Our taxonomy allows investors and corporate strategy officers to meticulously track and sequence this immense flow of funds. Before agentic software can scale to replace traditional headcount, the physical bottlenecks at the bottom of the stack must be addressed. Capital is actively flooding into the foundational layers, flowing directly into advanced semiconductor fabrication, gigawatt-scale power generation, and specialized datacenter construction.

By employing this framework, investors can monitor where infrastructure spending is peaking and identify rotation opportunities higher up the stack in platform layers and application software. Furthermore, the disproportionate shifts of capital within the stack can be assessed as enterprises transition their traditional human payroll budget into digital labor operating expenses.

The AI economy

The goal of this taxonomy is to provide a comprehensive framework for tracking investments enabling the WaaS AI economy. By grouping competitors and partners within the same deployment sub-industry, we can track the companies transforming the economy over the next five to 10 years. We view both the technology investment stack and the AI-centric taxonomy as essential aids for analyzing investments and partnerships as digital labor reshapes the definition of work. For further in-depth discussion on the AI economy, read our [Mapping the AI Super-Cycle](#) note.

The following four-step process outlines how digital labor will evolve toward the WaaS economy between 2026 and 2030:

1. **Traditional software as a service (SaaS):** This is the traditional delivery of software that was pioneered in 2004 and has continued through 2025. In this paradigm, human capital is valued for executing manual tasks and billing for time using



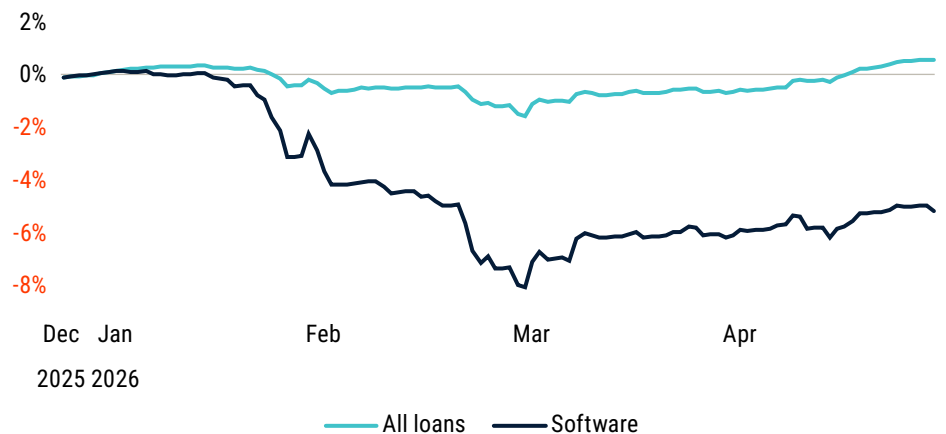
software tools like Salesforce, ServiceNow, Asana, and Workday. SaaS applications are highly productive tools purchased on a per-seat basis to accelerate human workflows.

2. **SaaS:** The introduction of agentic AI triggers the first phase shift. Many software vendors stop selling static seats and begin selling autonomous workflows. Software becomes an active digital workforce executing complex tasks at near-zero marginal cost. Human capital is valued for agent-aided revenue-generating capabilities such as customer experience, customer success, customer intelligence, and customer governance management, while autonomous agents optimize cost structures with limited human involvement.
3. **Individuals as platforms:** Human capital is freed from manual execution entirely. Professionals and employees no longer execute tasks but rather orchestrate fleets of specialized SaaS agents. Individuals become a highly scalable platform, leveraging digital labor to amplify their creativity, empathy, and strategic vision.
4. **WaaS:** The AI economy realized. The fundamental unit of economic production transitions from the linear, billable hour to an exponentially scalable, guaranteed-outcome model. Customers and enterprises no longer pay for human time but instead subscribe to human-led platforms for guaranteed service level agreements executed at machine speed.

Accelerated human capital

As of this writing, the prevailing market narrative assumes rapid adoption of digital labor and imminent structural unemployment. Both the credit and equity markets have reacted strongly to the fear that employee-based and employee-licensed software seats are in the process of mass elimination. Oracle and Block layoffs are emblematic of this. Are these the first of many strategic rightsizings driven by AI, or are they examples of rapid corrections to bloated org charts caused by past management misexecution? Our taxonomy offers a holistic view of the current AI capital expenditure super-cycle for investors and strategy officers to track these trends.

US leveraged loan returns (2026)



Sources: PitchBook | LCD, Morningstar LSTA US Leveraged Loan Index • As of April 27, 2026



While software scales infinitely, power grids and budgets do not. Deploying hundreds of millions of autonomous agents requires a massive physical build-out of hyperscale datacenters, advanced thermal management, and dedicated baseload power generation. The next five years will be defined by intense capital expenditure build-outs, not the immediate displacement of the global workforce. Incremental improvements in AI will accelerate employee workflows, creating additional time to improve business processes.

Furthermore, as these infrastructure companies drive the marginal cost of intelligence to zero, Jevons Paradox will take effect. Jevons Paradox predicts that when a resource becomes more efficient to use (AI tokens/dollar or AI compute/watt), the amount of the resource (tokens generated) grows. This effect is being seen in real time. We argue that AI will consume tasks, not jobs. The global economy will experience temporary skills dislocation, not human obsolescence, as it has in every technology platform change. The aggregate demand for human capital, specifically for those who can direct digital agents, manage physical AI integration, and build human-to-human trust, will reach an all-time high provided that enterprises and individuals themselves invest in AI training.

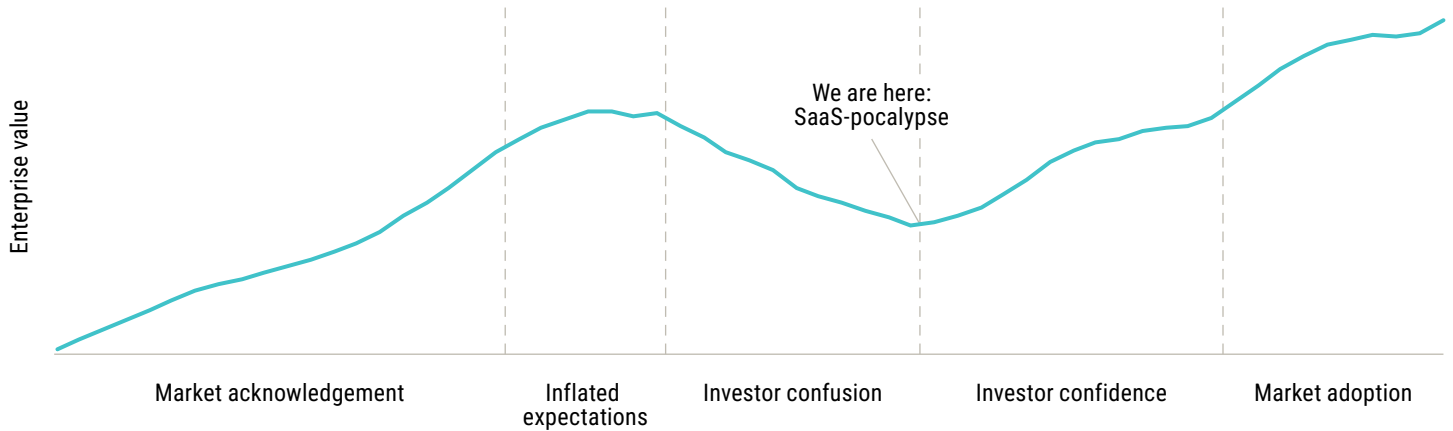
This will happen slowly—not at the speed of intelligence, but at the speed of power permitting, leading-edge manufacturing availability, and enterprise IT budget reallocations. We predict a five-year transition from the death of SaaS (2026) to WaaS (2030) for early adopters, and 10 years for most industries. Agentic AI is viable for widespread enterprise deployment by late 2027, as next-generation datacenters are built to support it. This timeline is widely reflected in announcements from AMD, NVIDIA, OpenAI, Anthropic, Broadcom, and hyperscalers throughout 2025. We anticipate current hyperscaler capital expenditure focusing on datacenter upgrades in 2026, with large-scale next-generation AI factories online in late 2027.

SaaS-pocalypse as opportunity

Investors and corporate strategy officers share the same imperative: to find and fund the next-generation platforms that enable digital labor. This taxonomy equips investors to assess the durability of new economic moats (or whether moats exist at all), track infrastructure investment flows, and identify legacy portfolio companies at risk of cannibalization. For strategy officers, it provides a blueprint for navigating critical build-versus-buy decisions, assessing supply chain vulnerabilities, and establishing high-value ecosystem partnerships. And for all stakeholders, it offers the definitive framework to assess M&A targets, track shifting market share, and anticipate the physical bottlenecks that will dictate the pace of the WaaS economy. The current market turmoil is an opportunity for investors and strategy officers to assess the entire AI ecosystem at the most granular level of our taxonomy and deploy capital into companies with the strongest product-market fit that are geared for the new human-accelerated AI economy.



AI adoption expectation curve



Source: PitchBook

AI technology investment taxonomy

In our [AI technology investment stack](#), we organized the emerging AI-centric economy by domain, vertical, stack market, stack tier, stack layer, and stack industry (target end markets). This is a high-level view of the market that provides context to the market maps we publish on the PitchBook Platform within advanced computing.

Below, we present our three-tree 209-node AI-centric taxonomy. This architecture incorporates three distinct decision trees: sector, TAM, and investment stack. Within the investment stack, we have added segment, category, and deployment. The most granular segmentation level is deployment. Deployment groups were created to aggregate similar companies into sub-industries, comprising both logical partners and likely competitors. Deployments are designed to be mutually exclusive. No one technology product can be in more than one deployment group. Companies, however, can be members of several deployments based on their diverse product portfolio.

This new taxonomy includes sector, industry, segment, category, and deployment. Additionally, we added TAM market and TAM industry to introduce a third decision tree so that investors and strategy officers can perform TAM, serviceable available market, and serviceable obtainable market analysis. We also include full descriptions and market leaders for each deployment. PitchBook clients can access the full taxonomy in the accompanying Excel data pack via the Research Center on the PitchBook Platform.



AI technology investment taxonomy

Map category	Deployment	Deployment description	Deployment market leaders
Physical AI	Robotic actuation & mechatronics	Robotic actuation & mechatronics consists of the hyper-specialized manufacturing supply chain producing harmonic drives, rotary actuators, and force-torque sensors. These deeply entrenched component manufacturers hold immense pricing power as the mandatory physical building blocks for scaling millions of humanoid and industrial robots. This deployment is the foundational hardware layer required to physically execute embodied AI.	Harmonic Drive Systems, Nabtesco, Moog, Nidec, Sensiia, Aptronik, Kollmorgen, Maxon, Yaskawa, Parker Hannifin
Physical AI	Robotic teleoperation & fleet management	Robotic teleoperation & fleet management platforms provide the centralized control towers required for human operators to remotely monitor, debug, and manually pilot swarms of physical robots. These systems generate critical operational value by bridging the autonomy gap, ensuring continuous uptime when AI models fail in unpredictable environments. This deployment acts as the mandatory human-in-the-loop (HITL) safety and orchestration layer for heavy industry and logistics.	Phantom Auto, Fernride, Guident, Formant, Foxglove, Rocos, Kognic, Blue White Robotics, Ottopia, Viam
Physical AI	Industrial & warehouse autonomy	Industrial & warehouse autonomy refers to the software orchestration systems used to coordinate autonomous mobile robots and picking systems. These platforms capture massive supply chain investment by optimizing the movement of goods and fulfillment tasks within predictable, indoor logistics environments. This deployment serves as the primary autonomous framework for managing modern logistics and distribution facilities.	Symbotic, Locus Robotics, Berkshire Grey, Mujin, Teradyne, ABB, Fanuc, Kion Group, 6 River Systems, Exotec
Physical AI	Embodied AI & advanced robotics OS	Embodied AI & advanced robotics operating systems are the foundational control systems and models used to power general-purpose humanoids and surgical manipulators. These frontier systems capture immense VC by enabling robots to learn from physical observation and perform complex tasks in unstructured environments. This deployment acts as the primary autonomous control plane for the next generation of physical robotic labor.	Figure AI, Tesla, Boston Dynamics, Intuitive Surgical, Sanctuary AI, Aptronik, Agility Robotics, Diligent Robotics, 1X
Physical AI	Heavy industry & mining autonomy	Heavy industry & mining autonomy consists of autonomous navigation and operating software deployed on massive physical assets such as mining haul trucks. These ruggedized systems generate immense return on investment (ROI) by operating in complex, off-road environments to optimize throughput and safety in round-the-clock industrial operations. This category is the primary autonomous management layer for heavy outdoor industrial assets.	Built Robotics, Caterpillar, SafeAI, Bear Flag Robotics, Komatsu, Sandvik, Epiroc, Hitachi, Volvo, Liebherr
Physical AI	AV software & simulation	Autonomous vehicle software & simulation provides the perception, planning, and control logic required for autonomous driving, including high-fidelity digital testing environments. These highly capital-intensive systems manage the complex sensor-fusion and decision-making required for autonomous vehicle navigation. This deployment is the primary intelligence layer for the development of fully autonomous transport.	Waymo, Cruise, Zoox, Applied Intuition, Aurora, Waabi, Kodiak Robotics, Gatik, Pony.ai, TuSimple
Physical AI	Spatial AI & computer vision	Spatial AI & computer vision involves edge-deployed systems that ingest live camera feeds to identify objects and monitor physical environments. These platforms generate value by providing the perception layer required for continuous security and logistical monitoring without requiring manual human oversight. This category acts as the primary perceptual interface for autonomous physical systems.	Landing AI, Verkada, AnyVision, Roboflow, Cognex, Basler, Standard AI, AiFi, Trax, Zippin

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
AI client	Brain-computer interfaces & neurotech	Brain-computer interfaces & neurotech represents the ultimate edge endpoints, utilizing invasive and non-invasive sensors for direct neural integration with digital systems. These deep-tech platforms capture massive healthcare and defense research & development (R&D) budgets by completely bypassing physical input mechanisms like keyboards and screens. This category is the definitive frontier deployment for human-machine symbiosis and advanced ambient computing.	Neuralink, Synchron, Paradromics, Precision Neuroscience, Blackrock Neurotech, Motif Neurotech, Neurable, Kernel, Science Corp, CTRL-labs
AI client	Spatial computing operating systems	Spatial computing operating systems are the foundational software environments required to render and anchor digital logic within physical 3D space. These platforms command highly lucrative app ecosystem revenues by enabling developers to build immersive applications beyond the constraints of 2D mobile operating systems. This deployment serves as the definitive software control plane for spatial and ambient hardware.	Apple, Meta, Google, Microsoft, HTC, Sony, ByteDance, Qualcomm, Unity, Epic Games
AI client	Wearables & hearables	Wearables & hearables are continuous, ambient computing endpoints such as smartwatches, audio monitors, and biometric rings. These devices generate value by establishing persistent, low-friction sensory connections to capture real-time health and environmental telemetry. This category is the primary passive interface for ambient intelligence and contextual data gathering.	Apple, Samsung, Garmin, Oura, Whoop, Bose, Sony, Google, Xiaomi, Huawei
AI client	AR/VR & spatial computing devices	Augmented reality/virtual reality & spatial computing devices are head-mounted hardware platforms that seamlessly blend digital overlays with physical reality. These highly complex endpoints capture emerging VC by shifting human-computer interaction from flat screens into immersive, 3D environments. This deployment acts as the critical hardware foundation for the spatial computing ecosystem.	Meta, Apple, HTC, Sony, Pico, ByteDance, Magic Leap, Xreal, Microsoft, Vuzix
AI client	AI smartphones & mobile compute	AI smartphones & mobile compute devices are ubiquitous pocket-sized endpoints integrating advanced edge-inference silicon. These platforms drive the largest consumer hardware volumes globally by enabling real-time, privacy-preserving AI assistance directly on the device. This category acts as the primary mobile interface bridging human intent with agentic digital labor.	Apple, Samsung, Google, Xiaomi, Oppo, Vivo, Huawei, Honor, Motorola, Sony
AI client	AI PCs & workstations	AI PCs & workstations are high-performance computing endpoints equipped with dedicated neural processing units and advanced local memory architectures. These systems capture massive hardware refresh cycles by allowing enterprise and consumer users to run complex small language models (SLMs) locally without cloud latency. This deployment represents the foundational generalized compute interface for the agentic economy.	Apple, Lenovo, Dell Technologies, HP, Asus, Microsoft, Acer, Samsung, MSI, Razer
Embedded AI	Home automation & security	Home automation & security platforms are the software ecosystems used to manage consumer IoT edge devices such as cameras and thermostats. These systems monetize via recurring cloud storage subscriptions overlaid on initial physical hardware sales. This deployment is the primary digital interface for managing and optimizing the modern consumer living environment.	Ring, Nest, Alarm.com, Ecobee, Arlo, SimpliSafe, Wyze, Vivint, Resideo, ADT

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Embedded AI	Medical device OS & firmware	Medical device operating system & firmware includes highly regulated, embedded software platforms that run diagnostics and therapeutic hardware. These systems command significant healthcare investment by managing the data ingestion and device control requirements for patient monitoring and surgical equipment. This deployment acts as the primary autonomous interface for the modern medtech sector.	Medtronic, Philips Healthcare, GE HealthCare, Stryker, Abbott, Baxter, Boston Scientific, Siemens Healthineers, Zimmer Biomet, Intuitive Surgical
Embedded AI	IIoT edge control	Industrial IoT edge control refers to the firmware and edge operating systems used to run factory floors and SCADA systems. These localized systems ensure uninterrupted production by providing real-time monitoring and local control for heavy machinery and industrial processes. This category serves as the primary autonomous interface for managing physical industrial infrastructure.	Siemens, Honeywell, Zebra, Bosch, PTC, Rockwell, Schneider Electric, ABB, Emerson, Advantech
Embedded AI	Automotive telematics & connected vehicle OS	Connected vehicle operating system consists of the embedded operating systems and localized machine learning (ML) algorithms deployed directly onto vehicles and commercial fleets. These systems capture automotive software value by providing local autonomy and data processing capabilities without the requirement for constant cloud connectivity. This deployment acts as the primary autonomous interface for the modern transportation and logistics sectors.	Tesla, Samsara, Geotab, BlackBerry, Wind River, Rivian, Waymo, Cruise, Aurora, Motional
B2C commerce & retail	Payment processing & gateway infrastructure	Payment processing infrastructure provides the financial rails and API gateways used to route and settle global digital transactions. These highly scalable systems capture a fraction of global gross merchandise value by serving as the critical interface between merchants, consumers, and the global banking network. This deployment is the mandatory transactional layer for the global digital commerce economy.	Stripe, Adyen, PayPal, Block, Fiserv, Checkout.com, Marqeta, Rapyd, Global Payments, Worldpay
B2C commerce & retail	Retail operations & POS	Retail operations & point of sale systems provide the physical point-of-sale infrastructure and inventory management for brick-and-mortar stores. These platforms monetize physical transactions while integrating in-store data with digital supply chain and customer loyalty platforms. This deployment is the primary operational framework for managing physical retail environments.	Shopify, Block, Toast, Lightspeed, NCR, Diebold Nixdorf, PAR Technology, Revel Systems, Clover, Vend
B2C commerce & retail	Digital commerce & headless	Digital commerce & headless platforms provide the API-first infrastructure used to manage digital storefronts and web checkout experiences. These systems capture significant e-commerce volume by decoupling the front-end user experience from the back-end transactional logic to allow for multichannel scaling. This category serves as the primary transactional layer for pure digital retail.	Shopify, BigCommerce, VTEX, Adobe, Salesforce, Fabric, Fast, Bloomreach, commercetools
B2C commerce & retail	Transactional marketplaces	Transactional marketplaces are asset-light digital platforms that connect consumers directly with gig-economy service providers. These systems generate highly scalable revenue by extracting a take-rate on the gross merchandise value of the facilitated transactions. This deployment is the primary transactional engine for the global on-demand and sharing economy.	Uber, Airbnb, DoorDash, Instacart, Lyft, Etsy, Mercari, Rover, Fiverr, TaskRabbit
B2C commerce & retail	Personal finance & wealth	Consumer fintech platforms provide mobile-first financial services for retail banking, consumer trading, and wealth management. These systems capture massive user bases by offering zero-fee models and superior user experiences designed to compete directly with legacy financial institutions. This category acts as the primary digital financial interface for the retail consumer economy.	Chime, Revolut, SoFi, Robinhood, Monzo, N26, Wealthfront, Betterment, NuBank, Wise

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Personal services	LMS & SIS	Learning management systems & student information systems provide the institutional infrastructure for schools to manage learning management and student information modules. These systems capture stable institutional budgets by facilitating the digital delivery of curriculum and the tracking of academic performance. This deployment serves as the primary system of record for the global educational sector.	Instructure, PowerSchool, Ellucian, Blackboard, Coursera, Udemy, Chegg, 2U, Kahoot!, GoStudent
Personal services	Consumer subscriptions (health learning & utility)	Consumer subscriptions provide direct-to-consumer mobile services spanning personal wellness, language learning, and digital utilities. These platforms capture recurring consumer revenue by utilizing habit-forming interfaces and product-led growth to drive long-term user retention. This deployment acts as the primary assistive layer for individual personal development and daily digital utility.	Duolingo, Calm, Strava, NordVPN, Headspace, MasterClass, Babbel, Noom, Peloton, Flo Health
Lifestyle & social	Social networks & community	Social media platforms provide mass-market digital environments for communication and content sharing through algorithmically curated feeds. These systems generate immense economic value by monetizing targeted advertising driven by massive, global network effects. This category serves as the primary digital framework for global consumer social interaction.	Meta, Snap, Discord, ByteDance, Pinterest, Reddit, X, LinkedIn, BeReal, Twitch
Lifestyle & social	Consumer entertainment & gaming	Consumer entertainment & gaming refers to digital platforms for interactive media, game development, and on-demand streaming libraries. These platforms capture massive consumer discretionary spend by competing on the quality of original content, algorithmic discovery, and in-app microtransactions. This deployment is the primary interface for consumer digital entertainment consumption.	Netflix, Spotify, Electronic Arts, Roblox, Unity, Sony, Microsoft, Disney+, YouTube, Epic Games
Aerospace, defense & space	Satellite & orbital data	Space & geospatial software analyzes massive telemetry and imagery datasets captured from orbital and aerial platforms. These systems monetize highly proprietary data feeds by providing the analytical tools required for climate monitoring, defense intelligence, and logistical planning. This category serves as the primary data refinement layer for global geospatial and orbital insights.	Planet Labs, Spire, Capella Space, BlackSky, Maxar, Descartes Labs, Orbital Insight, Slingshot Aerospace, Iceye, Kayrros
Aerospace, defense & space	Defensetech & aerospace autonomy	Defensetech & aerospace autonomy consists of tactical software platforms and sensor-fusion systems that coordinate autonomous battlefield networks. These systems capture massive government defense budgets by linking physical assets such as drones into a unified, intelligent operational fabric. This deployment acts as the primary autonomous control layer for modern defense & aerospace missions.	Anduril, Palantir, Shield AI, Skydio, Epirus, HawkEye 360, Rebellion Defense, Saronic, Vannevar Labs, Saildrone
Sovereign & public sector	Govtech public safety & civic tech	Govtech & public safety software provides the specialized digital infrastructure for municipal permitting, 911 dispatch, and law enforcement management. These highly secure platforms generate exceptionally stable revenue by ensuring the reliable delivery of essential public services and citizen engagement. This category serves as the primary operational system for the sovereign and public sector.	Tyler Technologies, Axon, Motorola Solutions, Granicus, Mark43, GTY, OpenGov, CentralSquare, RapidSOS, Euna
Energy & utilities	Carbon accounting & ESG	Carbon accounting & ESG platforms enable corporations to audit and report their greenhouse gas emissions against regulatory mandates. These systems capture specialized compliance budgets by providing the data infrastructure required to track sustainability goals throughout the supply chain. This deployment acts as the primary reporting layer for corporate environmental governance.	Watershed, Persefoni, Enode, Uplight, Microsoft, Salesforce, Diligent, Workiva, EcoVadis, Sweep

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Agriculture & natural resources	Agtech & precision agriculture	Agtech & precision agriculture software synthesizes data from sensors and topography to optimize crop yields and harvest forecasting. These systems drive agricultural ROI by providing farmers with the analytical tools required to manage resource consumption and improve land productivity. This category serves as the primary digital management layer for the modern agricultural industry.	Farmers Edge, Granular, Trimble, John Deere, Climate Corp, Semios, Farmers Business Network, Taranis, Indigo Ag, Bowery Farming
Supply chain, logistics & transportation	Hospitality & booking systems	Hospitality & booking systems serve as the central nervous system for reservations and property management within the travel sector. These platforms capture transaction fees and SaaS revenue by managing real-time inventory and pricing for hotels and leisure providers. This deployment is the primary transactional engine for the global hospitality and travel economy.	Amadeus, Sabre, Cloudbeds, Mindbody, Oracle, SiteMinder, Travelport, Mews, Selfbook, Hopper
Supply chain, logistics & transportation	DMS & auto repair	Dealer management systems bridge legacy showroom tools and autonomous agents to manage vehicle sales and service bay scheduling. These highly sticky systems capture extensive vertical software spend by serving as the integrated operating system for automotive dealerships. This deployment is the primary system of record for the retail automotive and repair industry.	CDK Global, Reynolds & Reynolds, Tekion, Cox Automotive, DealerSocket, Mitchell 1, Shopmonkey, RepairPal, Fullbay, Xtime
Industrial & heavy manufacturing	Enterprise digital twins	Enterprise digital twins are platforms that render real-time, physics-accurate simulations of physical assets and smart cities. These systems capture premium value by integrating live sensor data to create a synchronized digital representation of physical operations for immediate optimization. This deployment serves as the primary operational interface for managing the complexity of modern industrial ecosystems.	NVIDIA, Unity, Unreal Engine, Matterport, Dassault Systèmes, Siemens, GE, Bentley Systems, PTC, Microsoft
Industrial & heavy manufacturing	Simulation & CAE	Simulation & computer-aided engineering platforms run physics-based algorithms to test how digital designs react to stress and thermodynamics. These tools drastically reduce R&D costs by allowing engineers to validate product performance before expensive physical prototyping. This category is the primary analytical validation layer for modern industrial and automotive engineering.	Ansys, Altair, MathWorks, Siemens, Dassault Systèmes, Autodesk, Comsol, Hexagon, ESI Group, Cadence
Industrial & heavy manufacturing	Product life cycle management	Product life cycle management software serves as the master repository for a physical product's data from ideation to disposal. These deeply integrated systems capture significant value by linking CAD specifications with manufacturing and supply chain requirements to prevent downstream errors. This deployment acts as the definitive system of record for the industrial manufacturing life cycle.	PTC, Siemens, Dassault Systèmes, Oracle, SAP, Aras, Arena, Propel, Autodesk, Hexagon
Industrial & heavy manufacturing	HPC orchestration for engineering	HPC orchestration for engineering consists of specialized software used to manage complex computational physics and thermal simulations. These systems optimize expensive cloud and on-premise hardware by managing the resource allocation required for high-fidelity engineering solvers. This deployment is the primary control plane for compute-intensive industrial design tasks.	Altair, Ansys, Rescale, Siemens, Dassault Systèmes, Penguin Solutions, Atos, Microsoft, AWS, Google
Real estate & proptech	Property management	Property management platforms act as the operational system of record for commercial and residential real estate owners. These systems automate rent collection and maintenance workflows while capturing recurring software revenue through integrated tenant portals. This category is the primary digital interface for managing and optimizing physical real estate assets.	Yardi, RealPage, Entrata, MRI Software, AppFolio, Buildium, Hemlane, DoorLoop, Guesty, Cloudbeds

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Real estate & proptech	Proptech & construction management	Proptech & construction management platforms bridge physical job site activities and digital workflows to manage large-scale building projects. These systems reduce project overruns by tracking schedules, budgets, and safety compliance for the built environment. This deployment serves as the primary operational system for the global construction and engineering industry.	Procore, Autodesk, AppFolio, CoStar, PlanGrid, Oracle, Buildertrend, Fieldwire, StructionSite, OpenSpace
Life sciences	Computational chemistry & deep science	Computational chemistry & deep science platforms apply advanced ML and quantum simulations to discover new molecules, alloys, and sustainable materials. These systems disrupt traditional physical R&D by drastically accelerating the discovery phase for solid-state batteries, semiconductors, and carbon-capture technologies. This deployment is the foundational simulation layer for the next generation of industrial materials science.	Schrödinger, Orbital Materials, KoBold Metals, Materials Zone, Citrine Informatics, Entos, DeepMind, Relay Therapeutics, Exscientia, Insilico Medicine
Life sciences	Life sciences R&D & LIMS	Life sciences R&D & laboratory information management system platforms track complex biomolecule design and experimental laboratory results. These systems provide the secure digital framework required for pharmaceutical research, genomic sequencing, and regulatory submission. This category serves as the primary operational system of record for the biotechnology and pharmaceutical R&D sectors.	Benchling, Veeva, Dotmatics, Thermo Fisher, LabVantage, LabWare, Agilent, PerkinElmer, IDBS, Dassault Systèmes
Healthcare	Revenue cycle management	Revenue cycle management platforms automate the financial engine of healthcare by managing medical billing and claims submission. These systems generate massive ROI by synchronizing interactions between medical providers and insurance payers to ensure timely reimbursement and minimize denials. This deployment is the primary mechanism for managing healthcare provider revenue and liquidity.	R1 RCM, Waystar, Ensemble Health, Optum, FinThrive, Availity, Change Healthcare, Cedar, PatientPay, Flywire
Healthcare	Clinical & EHR systems	Electronic health records & clinical systems manage patient data charting and clinical trials within the healthcare sector. These highly entrenched systems ensure that medical information is managed according to strict interoperability and privacy standards. This deployment acts as the primary clinical system of record for the global healthcare delivery network.	Epic Systems, Oracle, Veeva, Medidata, Athenahealth, Allscripts, Meditech, Modernizing Medicine, Flatiron Health, Tempus
Institutional fintech	M2M & agentic financial rails	Machine-to-machine & agentic financial rails provide the infrastructure for autonomous agents to execute microtransactions. These systems monetize machine traffic by utilizing programmatic wallets to facilitate financial settlement without human intervention. This deployment is the primary financial settlement engine for the emerging agentic economy.	Skyfire, Biconomy, Coinbase, Stripe, Ripple, Stellar, Circle, MoonPay, BitPay, Wyre
Institutional fintech	Web3 & digital asset infrastructure	Web3 & digital asset infrastructure provides the specialized software tools required for enterprise interaction with blockchain networks. These systems capture institutional software spend by providing wallet-as-a-service and anti-money laundering tracking used to maintain compliance in digital asset workflows. This category acts as the primary integration layer for institutional digital asset management.	Chainalysis, Alchemy, Fireblocks, Circle, Anchorage Digital, Paxos, Fignit, TRM Labs, Elliptic, Copper

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Institutional fintech	Banking & insurance core	Banking & insurance core systems are vertical software platforms that manage highly regulated workflows such as loan origination and underwriting. These systems capture exceptionally low-churn enterprise value by serving as the operational system of record for financial institutions and carriers. This deployment is the mandatory framework for managing the life cycle of regulated financial products.	nCino, Alkami, Guidewire, Duck Creek, Temenos, Fiserv, FIS, Mambu, Q2, Insurity
Professional services	AI intellectual property & copyright clearance	AI intellectual property (IP) & copyright clearance software continuously audits generated code, text, and imagery to guarantee it does not infringe on existing protected works. These systems unlock commercial deployment by providing indemnification tracking and legal provenance for all assets created by synthetic workers. This deployment acts as the primary legal compliance gatekeeper for the generative enterprise.	Steg.AI, Loti, Digimarc, Imatag, Pex, MarqVision, Copytrack, Audible Magic, Rightsify, Zefr
Professional services	Legaltech & e-discovery	Legaltech & e-discovery platforms bridge traditional practice tools and autonomous agents to manage legal document review. These systems drastically reduce billable hours by utilizing ML to search millions of documents for litigation and contract review. This deployment serves as the primary operational and analytical system for the modern legal practice.	Relativity, Clio, Ironclad, Reveal, Harvey AI, EvenUp, Everlaw, DISCO, LinkSquares, Evisort
Governance	Financial audit & reporting	Financial audit & reporting software translates token consumption and agent output into human-parity labor metrics. These systems provide the financial reporting required for the CFO to reclassify autonomous system spend from general overhead into variable production costs. This deployment is the primary mechanism for quantifying the financial value of digital labor.	CloudZero, Apptio, Finout, Vantage, Flexera, CloudHealth, Kubecost, Zesty, Harness, Anodot
Governance	Digital labor workforce management	Digital labor workforce management consists of the operational control plane used to track the ROI of an autonomous agent fleet. These systems capture value by monitoring cost-per-task and reasoning efficiency to ensure digital workers do not hallucinate or drift over time. This category serves as the primary management layer for an organization's autonomous labor assets.	AgentOps, LangSmith, Datadog, Arize AI, Weights & Biases, Helicone, Portkey, Galileo, WhyLabs, Comet ML
Governance	Identity & access management	Identity & access management provides the security governance required to enforce single sign-on and privileged access for human employees. These platforms capture recurring per-user licensing by acting as the primary gatekeeper for an organization's digital assets and corporate network. This deployment is the mandatory layer for managing user permissions and digital security policy.	Okta, CyberArk, Ping Identity, Microsoft, SailPoint, ForgeRock, Saviynt, Auth0, One Identity, BeyondTrust
Governance	Algorithmic liability & cyber insurance	Algorithmic liability & cyber insurance platforms provide specialized underwriting and risk transfer products tailored to the autonomous actions of AI systems. These financial instruments capture essential corporate spend by indemnifying enterprises against the catastrophic errors, biases, and copyright infringements committed by digital labor. This category is the mandatory financial safety layer enabling C-suite adoption of autonomous execution.	Munich Re, Coalition, Cowbell, Corvus, At-Bay, Resilience, Swiss Re, AIG, Marsh, Chubb
Governance	AI trust, risk & security management	AI trust, risk & security management platforms provide the specialized governance framework required to monitor autonomous systems. These systems capture essential compliance budgets by executing continuous red-teaming and session logging to ensure safety and prevent algorithmic bias. This deployment acts as the primary trust layer for the enterprise deployment of ML.	AgentOps, Lakera, Robust Intelligence, LangChain, Credo AI, Fiddler AI, Arthur AI, TruEra, WhyLabs, Giskard

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Operations & finance	Financial management	Financial management software bridges legacy general ledgers used by humans and autonomous agents to manage corporate accounting. These systems act as the definitive, zero-fail source of truth for accounts payable, receivable, and financial reporting. This category is the primary system of record for maintaining an organization's financial health and regulatory transparency.	Oracle, Sage, Xero, Intuit, SAP, BlackLine, Kyriba, Anaplan, Workday, Tipalti
Operations & finance	Human capital & talent management	Human capital & talent management platforms manage the entire employee life cycle from recruitment and payroll to core benefits. These universally deployed systems capture stable per-employee revenue by serving as the primary system of record for an organization's human assets. This deployment is the mandatory framework for managing corporate personnel and workforce regulation.	Workday, SAP, Dayforce, Greenhouse, Oracle, ADP, UKG, HiBob, Rippling, Paylocity
Operations & finance	B2B digital labor marketplaces	B2B digital labor marketplaces are exchanges where enterprises can provide pre-trained autonomous agents for specific business roles. These platforms capture entirely new economic value by acting as a direct replacement for traditional staffing and business process outsourcing firms. This category represents the primary marketplace layer for the procurement of autonomous digital labor.	Salesforce, OpenAI, 11x.ai, Artisan AI, Regie.ai, Clara Labs, Lindy, You.com, Adept, Inflection AI
Operations & finance	Process intelligence & mining	Process intelligence & mining platforms ingest event logs from enterprise resource planning (ERP) and customer relationship management (CRM) systems to visually map actual business processes. These systems identify hidden operational bottlenecks and provide the empirical audit trail required before implementing automation. This deployment acts as the primary analytical layer for optimizing actual business execution performance.	Celonis, SAP, Software AG, UiPath, Microsoft, IBM, ABBYY, Kyron, Automation Anywhere, Skan
Operations & finance	Industrial ERP	Industrial ERP consists of specialized systems of record architected for the complex requirements of heavy manufacturing, aerospace, and process industries. These platforms command exceptionally high switching costs by managing intricate bills of materials and shop-floor-integrated workflows that generalist enterprise suites cannot support natively. This deployment is the definitive system of record for the global industrial manufacturing and production sectors.	Infor, Epicor, IFS, QAD, Rockwell Automation, Aptean, Deltek, Global Shop Solutions, MasterControl, Rootstock
Operations & finance	Supply chain operations	Supply chain operations software bridges legacy logistical tools and autonomous agents to manage the global movement of products. These highly complex platforms generate immense efficiency by automating demand forecasting and routing to optimize the physical supply chain. This category serves as the primary data layer for an organization's global shipping and fulfillment operations.	SAP, Blue Yonder, Kinaxis, Manhattan Associates, Oracle, Flexport, Project44, FourKites, o9 Solutions, Llamasoft
Operations & finance	Procurement & sourcing	Procurement & sourcing platforms bridge traditional request-for-proposal tools and autonomous agents to manage the acquisition of goods. These systems drive hard ROI by ensuring supplier contract compliance and generating organizational savings through automated workflows. This deployment is the primary interface for managing an organization's external supply base.	Coupa, SAP, Jaggaer, Ivalua, GEP, Zycus, Basware, Tradeshift, Corcentric, Tipalti
Operations & finance	Corporate spend & expense management	Corporate spend & expense management software bridges legacy reporting tools and autonomous agents to manage employee expenditures. These systems capture transaction fees and SaaS revenue by automating receipt matching and budget controls through integrated card issuance. This deployment acts as the primary operational system for managing corporate liquidity and localized spending.	Ramp, Brex, Navan, Expensify, SAP, Coupa, Bill.com, Airbase, Pleo, Spendesk

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Creative & product	Enterprise low-code application platforms	Enterprise low-code application platforms enable IT teams and business users to visually build custom enterprise applications without traditional code. These systems reduce software development backlogs by prioritizing speed and accessibility in the creation of internal business tools. This deployment serves as the primary development environment for rapidly extending enterprise functionality.	OutSystems, Mendix, Appian, Quickbase, Retool, Bubble, Betty Blocks, Microsoft, ServiceNow, Salesforce
Creative & product	Computer-aided design	Computer-aided design software is used to create precise digital blueprints for manufacturing and construction. These systems command premium enterprise licensing as the mandatory first step for translating physical product concepts into digital specifications. These systems are the primary systems of record for an organization's physical product designs.	Autodesk, Bentley Systems, Dassault Systèmes, PTC, Siemens, Hexagon, Nemetschek, Trimble, Aveva, IronCAD
Creative & product	Product analytics & experience	Product analytics & experience software tracks user behavior within applications to optimize UX and identify feature adoption. These platforms provide the critical telemetry required for product managers to reduce churn and improve user engagement. This category acts as the primary feedback loop for digital application performance.	Amplitude, Pendo, FullStory, Mixpanel, Heap, LogRocket, Hotjar, Contentsquare, Glassbox, WalkMe
Creative & product	UX/UI design & prototyping	UX/UI design & prototyping software consists of vector editors and whiteboards used to design software interfaces. These specialized tools capture high per-seat margins by allowing product teams to visualize and iterate user experiences prior to the engineering phase. This deployment is the primary creative framework for modern digital product development.	Figma, Miro, InVision, Adobe, Sketch, Canva, Mural, Framer, ProtoPie, Penpot
Creative & product	Team communication	Team communication tools provide synchronous real-time messaging and video conferencing for organizational coordination. These ubiquitous platforms serve as the highly sticky communication fabric required to maintain alignment within modern distributed workforces. This deployment is the mandatory layer for instant internal communication and digital meeting hosting.	Slack, Microsoft, Zoom, Google, Discord, Cisco, Loom, RingCentral, Rocket.Chat, Mattermost
Creative & product	Project work management	Project work management tools provide asynchronous collaboration frameworks for task assignment and workflow visualization. These systems generate broad enterprise adoption by allowing distributed teams to coordinate their output and track project milestones visually. This deployment serves as the primary organizational layer for cross-departmental execution.	Asana, Monday.com, Smartsheet, Atlassian, Wrike, ClickUp, Notion, Airtable, Miro, Planview
Creative & product	Content management systems & digital experience	Content management systems provide the infrastructure for creating and hosting digital web content and headless digital experiences. These platforms capture recurring hosting and licensing fees by managing the life cycle of corporate landing pages and web assets distinct from shopping carts. This deployment is the primary publishing layer for an organization's digital presence.	Automattic, Contentful, Adobe, Squarespace, Wix, Sitecore, Optimizely, Sanity, Strapi, Acquia
Service & support	IT service management	IT service management platforms provide the framework for managing internal IT delivery and incident resolution. These deeply entrenched systems ensure that hardware provisioning and system change requests adhere to internal compliance standards. This category serves as the primary operational system for an organization's internal technology support.	ServiceNow, BMC, Atlassian, Freshservice, Ivanti, Cherwell, SysAid, Topdesk, HaloITSM, Giva

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Service & support	Customer service	Customer service platforms bridge traditional ticketing tools and autonomous agents to resolve external support requests. These systems reduce headcount overhead by managing omnichannel communication and providing the knowledge base required for automated resolution. This deployment is the primary interface for managing and resolving customer-facing issues.	Zendesk, Freshworks, Salesforce, Intercom, Gladly, Front, Kustomer, ServiceNow, Gorgias, Help Scout
Service & support	Enterprise AI search & knowledge discovery	Enterprise AI search & knowledge discovery provides an intelligent interface for employees to query internal policies and documents via secure pipelines. These systems increase corporate productivity by using natural language processing to instantly extract context from disparate data silos. This deployment acts as the primary knowledge gateway for the modern enterprise.	Moveworks, Glean, Coveo, Sinequa, Lucidworks, Elastic, Algolia, Hebbia, Guru, Bloomreach
Service & support	Other datacenter software & orchestration	Other datacenter software & orchestration tools manage the automated job scheduling and configuration required for centralized operations. These mature systems provide the workflow ticketing and infrastructure management necessary to maintain site security and uptime. This deployment serves as the primary operational oversight layer for large-scale compute facilities.	ServiceNow, BMC, SolarWinds, Broadcom, Micro Focus, IBM, ManageEngine, PagerDuty, Puppet, Chef
Growth & revenue	Revenue operations & CPQ	Revenue operations & CPQ software manages the B2B revenue life cycle, including complex pricing configurations and automated subscription billing. These systems ensure that contract terms and pricing rules are applied consistently, preventing widespread revenue leakage across sales channels. This deployment acts as the primary monetization engine for an organization's product and service offerings.	Salesforce, Zuora, DealHub, Conga, Chargebee, RevOps, Paddle, Maxio, Ordway, Subskribe
Growth & revenue	Programmatic adtech & DSPs	Programmatic adtech & demand-side platforms automate the buying and targeting of digital advertising inventory. These systems capture massive percentages of media spend by utilizing real-time bidding algorithms to optimize ad placement across global media exchanges. This deployment is the primary mechanism for executing high-volume, data-driven digital advertising at scale.	The Trade Desk, Criteo, Magnite, PubMatic, AppLovin, DoubleVerify, GumGum, StackAdapt, MediaMath, Viant
Growth & revenue	Donor & membership management	Donor & membership management platforms bridge traditional fundraising tools and autonomous agents to manage non-profit constituent relationships. These specialized systems handle donor retention and gift processing tailored specifically for mission-driven groups. This category serves as the primary operational system for managing non-profit capital and advocacy workflows.	Blackbaud, Pushpay, Ministry Brands, Bloomerang, Neon One, GiveButter, Kindful, Virtuous, Classy, Keela
Growth & revenue	Sales automation	Sales automation software bridges legacy systems used by humans and emerging autonomous workers to manage the sales pipeline. These platforms serve as the highly sticky record of truth for revenue forecasting and territory management, justifying premium seat pricing. This deployment is the primary operational framework for managing an organization's sales engine.	Salesforce, HubSpot, Microsoft, Pipedrive, Outreach, Salesloft, Apollo.io, Gong, ZoomInfo, Clari
Growth & revenue	Marketing automation	Marketing automation platforms bridge traditional campaign tools and autonomous agents to deliver personalized content across digital channels. These systems drive top-line revenue generation by using behavioral triggers to execute outreach workflows and manage the lead generation life cycle. This category serves as the primary engine for coordinating multi-channel customer engagement.	Adobe, HubSpot, Klaviyo, Braze, Salesforce, Oracle, Mailchimp, Iterable, ActiveCampaign, Constant Contact

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Growth & revenue	Customer data platforms	Customer data platforms bridge legacy systems of record and emerging autonomous systems to create a unified view of the client. These platforms command high software margins by aggregating disparate signals into a persistent record to facilitate advanced segmentation and targeting. This deployment acts as the primary context engine for managing customer relationships at scale.	Segment, mParticle, Tealium, Simon Data, ActionIQ, Amperity, Lytics, Bloomreach, BlueConic, Treasure Data
Agentic AI	HITL exception routing	HITL exception routing software provides the triage interfaces required to seamlessly escalate complex autonomous failures to human managers. These systems ensure uninterrupted business operations by bridging the autonomy gap when digital agents encounter unprecedented edge cases. This deployment acts as the mandatory safety net and management interface for early-stage agentic workflows.	HumanFirst, Scale AI, TaskUs, Snorkel AI, Labelbox, Appen, Telus International, CloudFactory, Sama, SuperAnnotate
Agentic AI	Agentic evaluation & simulation	Agentic evaluation & simulation platforms provide the testing infrastructure required to audit agent performance and identify behavioral drift. These systems capture critical compliance spend by allowing organizations to simulate complex workloads and verify autonomous logic before production deployment. This deployment acts as the primary quality and safety gate for autonomous digital labor.	Weights & Biases, LangChain, Patronus AI, Giskard, Robust Intelligence, Kolena, Arize AI, DeepChecks, WhyLabs, TruEra
Agentic AI	Agentic memory & state management	Agentic memory & state management consists of specialized databases explicitly designed for agents to store and update long-term episodic memory. These systems increase the utility of digital labor by allowing autonomous workers to recall historical interactions and maintain context across infinite sessions. This deployment serves as the primary long-term context engine for an organization's autonomous agent fleet.	Zep, Mem0, Letta, LangChain, Pinecone, Weaviate, Milvus, Qdrant, MongoDB, Redis
Agentic AI	Robotic process automation & task mining	Robotic process automation & task mining uses rule-based scripts to automate manual human keystrokes and document business processes. These highly entrenched systems focus on structured, repeatable tasks within legacy software interfaces that lack modern APIs. This category represents a mature automation layer that provides the historical baseline for autonomous digital labor.	UiPath, Automation Anywhere, Blue Prism, Celonis, SAP, Microsoft, Pegasystems, Appian, Nice, WorkFusion
Agentic AI	Multi-agent orchestration & runtime workspaces	Multi-agent orchestration & runtime workspaces involves execution environments that govern the collaboration and hierarchy of specialized agent swarms. These systems are critical for complex task completion, managing conflict resolution and persistent state across multiple agents working simultaneously. This deployment acts as the primary management layer for complex, multi-step autonomous workflows.	CrewAI, Microsoft, LangGraph, Lindy, MultiOn, Agentic, SuperAGI, AutoGPT, BabyAGI, Camel-AI
Agentic AI	AI tool integration & context protocols	AI tool integration & context protocols act as universal adapters that provide standardized, secure connections for agents to access external tools. These protocols eliminate bespoke API costs by ensuring that autonomous systems can interact reliably with disparate software applications. This category serves as the primary connectivity standard for the broader agentic ecosystem.	Anthropic, Composio, Zapier, Make.com, Tray.io, Workato, Pipedream, Reshuffle, Superface, Airbyte
Agentic AI	AI agent development platforms (pro & low-code)	AI agent development platforms provide the frameworks and visual builders used to create and deploy autonomous software systems. These tools capture significant developer market share by spanning from pro-code libraries to low-code canvases used by business administrators to orchestrate workflows. This deployment is the primary development environment for building the modern digital workforce.	LangChain, LlamaIndex, Salesforce, Microsoft, OpenAI, Voiceflow, Relevance AI, CrewAI, Autogen, Flowise

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Agentic AI	Productivity co-pilots	Productivity co-pilots are HITL assistants embedded into general office suites to assist with text generation, summarization, and data editing. These ubiquitous tools provide incremental but massive aggregate time savings through real-time suggestions within documents and spreadsheets. This category is the primary assistive layer for general knowledge work and standard office administration.	Microsoft, Google, Notion, Quip, Dropbox, Zoom, Slack, Box, Smartsheet, Airtable
Agentic AI	Enterprise application co-pilots	Enterprise application co-pilots are embedded assistants within CRM and ERP systems that allow users to query enterprise databases via natural language. These systems improve software utilization rates by summarizing complex records and assisting in the navigation of large transactional platforms. This deployment serves as the primary assistive interface for core enterprise systems of record.	Salesforce, SAP, Oracle, Workday, ServiceNow, Adobe, HubSpot, Zendesk, Microsoft, Infor
Agentic AI	Analytics co-pilots	Analytics co-pilots are natural language interfaces layered over business intelligence tools that automatically generate charts and dashboards from conversational human queries. These systems democratize data access by translating human language into underlying database logic to provide immediate visual insights. This deployment acts as the primary assistive layer for broad, data-driven business analysis.	Tableau, PowerBI, ThoughtSpot, Domo, Sisense, MicroStrategy, GoodData, Sigma Computing, Veeva, AnswerRocket
Agentic AI	Domain-specific autonomous agents	Domain-specific autonomous agents are highly specialized systems designed to independently execute complex tasks within specific fields such as finance or drug discovery. These agents possess deep vertical knowledge, commanding premium pricing for their capability to formulate and test hypotheses autonomously. This category represents the application of specialized digital labor to highly regulated and technical industries.	Two Sigma, Citadel, iambic, Isomorphic Labs, Harvey AI, EvenUp, Ironclad, Benchling, Insilico Medicine, Recursion
Agentic AI	Autonomous personal assistants	Autonomous personal assistants are high-level digital proxies capable of managing complex, multi-application workflows such as travel booking and executive scheduling. These agents maintain persistent state and memory of user preferences, creating immense time savings for individual users. This category acts as the primary autonomous interface for personal and executive administrative productivity.	Adept, Inflection AI, Rabbit, MultiOn, Lindy, You.com, Rewind AI, Glean, Notion, Microsoft
Agentic AI	Autonomous marketing agents	Autonomous marketing agents independently execute multi-channel campaigns by generating assets, purchasing media, and adjusting budgets based on real-time performance. These systems lower customer acquisition costs by operating as autonomous workers that manage the entire marketing life cycle. This deployment serves as the primary automated execution engine for corporate audience engagement.	Jasper, Copy.ai, Typeface, Omneky, Mutiny, Phrasee, Pencil, Albert, Smartly.io, Sprinklr
Agentic AI	Autonomous cyber agents	Autonomous cyber agents are self-governing security systems that continuously monitor networks and autonomously patch vulnerabilities or isolate assets. These systems operate at machine speed to neutralize threats, drastically reducing response costs without requiring human approval workflows for every action. This deployment acts as the primary autonomous defense layer for enterprise digital infrastructure.	Palo Alto Networks, CrowdStrike, SentinelOne, Darktrace, Cybereason, Vectra AI, ExtraHop, Abnormal Security, Wiz, Orca Security

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Agentic AI	Autonomous code agents	Autonomous code agents are end-to-end systems that independently plan, write, debug, and deploy software without a HITL. These systems disrupt traditional engineering economics by operating as autonomous digital workers capable of delivering production-ready code for complex applications. This category represents the first true wave of autonomous digital labor within the software engineering sector.	Cognition, Poolside, Magic.dev, Factory, Anysphere, Replit, Plandex, Codeium, Tabnine, Sourcegraph
Generative AI	Serverless inference & model optimization	Serverless inference & model optimization platforms provide specialized infrastructure for hosting and serving open-source models on bare-metal hardware. These systems utilize compiler middleware to drastically lower token costs by optimizing latency and maximizing hardware utilization for inference tasks. This deployment acts as the primary execution environment for organizations deploying non-proprietary models.	Together AI, Replicate, Baseten, Groq, Modular, OctoML, Fireworks AI, CoreWeave, Lambda Labs, Modal
Generative AI	AI training data & RLHF	AI training data & reinforcement-learning-from-human-feedback platforms provide the HITL data labeling and reinforcement learning required to align foundational models. These systems monetize massive labor networks to manage the curation of high-quality datasets and synthetic data generation used to improve accuracy. This category is the primary refinement layer for the development of expert-level intelligence.	Scale AI, Snorkel AI, Labelbox, Gretel, Turing, Appen, Telus, CloudFactory, Sama, SuperAnnotate
Generative AI	Audio & video synthesis	Audio & video synthesis consists of foundational models and APIs dedicated specifically to generating hyper-realistic voices, music, and video from text. These systems command significant licensing fees by providing the core generation capability for the synthetic media and interactive entertainment sectors. This deployment acts as the primary infrastructure for the creation of high-fidelity multimodal digital assets.	ElevenLabs, HeyGen, Runway, Pika Labs, Suno, Udio, Sora, Luma AI, Synthesia, Murf AI
Generative AI	MLOps model management	ML operations model management provides the specialized development operations (DevOps) toolchain required for the registry, versioning, and continuous monitoring of ML models. These systems capture strict compliance budgets by ensuring that probabilistic models remain accurate and reproducible over time. This deployment acts as the primary quality assurance layer for the deployment of ML in production.	Weights & Biases, MLflow, DataRobot, Arize AI, Comet ML, Neptune.ai, Fiddler AI, WhyLabs, Verta, Arthur AI
Generative AI	GenAI orchestration & LLMOps	GenAI orchestration & large language model operations refers to the middleware that tracks and manages API traffic between software applications and reasoning models. These systems reduce operational overhead by handling prompt routing, token cost management, and the implementation of input/output guardrails. This category is the primary operational control plane for managing the deployment of generative models at scale.	Portkey, Helicone, PromptLayer, Galileo, Weights & Biases, Arize AI, LangChain, Vercel, LangSmith, WhyLabs
Generative AI	Custom model & SLM fine-tuning infrastructure	Custom model & SLM fine-tuning infrastructure provides the tools required to securely adapt SLMs to proprietary enterprise data. These platforms generate value by allowing organizations to maintain IP privacy while optimizing performance for specific domain tasks. This deployment acts as the primary bridge between general intelligence and localized vertical expertise.	Databricks, Anyscale, Predibase, Lamini, Together AI, Replicate, OctoML, Fireworks AI, Baseten, Modal

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Generative AI	SLMs & edge intelligence	SLMs are highly optimized sub-10-billion parameter neural networks designed to run locally on endpoint devices rather than in cloud datacenters. These models capture significant enterprise adoption by offering low-latency, privacy-preserving inference at a fraction of the compute cost of massive foundational models. This deployment serves as the primary reasoning engine for localized, on-device digital labor.	Mistral, Microsoft, Hugging Face, Meta, Google, Anthropic, Cohere, AI21 Labs, Stability AI, Deci
Generative AI	Foundational language models	Foundational language models are the core intelligence utilities trained on massive internet-scale datasets to perform a broad range of reasoning tasks. These models capture the majority of intellectual capital in the space by providing the primary reasoning capability accessed via API for downstream applications. This category represents the fundamental intelligence utility of the modern software economy.	OpenAI, Anthropic, Mistral AI, Meta, Google, Cohere, AI21 Labs, Adept, 01.AI, DeepSeek
Generative AI	Developer co-pilots	Developer co-pilots are HITL plugins that suggest code completions and refactor syntax within software development environments. These systems capture widespread enterprise adoption by significantly reducing coding time while still requiring active human oversight before production deployment. This category is the primary productivity-enhancing layer for modern software engineering teams.	GitHub, GitLab, Cursor, Tabnine, Amazon, Sourcegraph, Replit, Anysphere, Magic.dev, Poolside
Generative AI	Creative co-pilots	Creative co-pilots are algorithmic tools embedded directly into design and video workflows to accelerate visual asset creation. These systems drive productivity improvements by assisting humans in rapidly iterating concepts through natural language prompts and automated style transfers. This deployment acts as the primary assistive layer for the professional creative and media industries.	Adobe, Canva, Midjourney, Runway, ElevenLabs, Suno, Pika Labs, HeyGen, Typeface, Luma AI
Data fabric	Data clean rooms	Data clean rooms are privacy-enhancing infrastructure platforms that allow multiple organizations to join and analyze sensitive datasets collaboratively. These systems unlock new monetization avenues by ensuring that joint analyses can be performed without exposing the underlying personally identifiable information. This category acts as the primary security layer for cross-company data collaboration and insights.	LiveRamp, Snowflake, Habu, InfoSum, Decentriq, Samooha, Datavant, Karlsgate, Optable, BlueConic
Data fabric	Synthetic data generation engines	Synthetic data generation engines are software platforms that manufacture mathematically precise, privacy-compliant datasets simulating real-world scenarios. These systems unlock the training of specialized vertical models by bypassing the limitations, biases, and regulatory risks associated with human-labeled data. This category is the primary manufacturing engine for the raw intellectual capital required by modern AI architectures.	Gretel.ai, Synthesis AI, YData, MOSTLY AI, Datagen, Hazy, Syntho, Tonic.ai, DataCebo, Anyverse
Data fabric	Vector databases	Vector databases are specialized storage systems explicitly designed for high-dimensional vector embeddings to enable semantic search. These platforms command high-growth infrastructure spend by facilitating the rapid retrieval of context for modern natural language applications. This deployment is the primary infrastructural layer for enabling similarity-based search within large unstructured datasets.	Pinecone, Weaviate, Milvus, Qdrant, Chroma, Zilliz, Marqo, LanceDB, MyScale, Vespa
Data fabric	Relational & transactional databases	Relational databases are table-based systems used as the highly structured operational systems of record for business data. These mature platforms capture deeply entrenched enterprise spend by ensuring ACID compliance and absolute schema consistency for transactional workloads. This category remains the primary foundational data layer for traditional enterprise applications and financial ledgers.	Oracle, Microsoft, PostgreSQL, MySQL, IBM, SAP, MariaDB, Cockroach Labs, Yugabyte, SingleStore

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Data fabric	NoSQL databases	NoSQL databases are non-relational database systems designed to manage unstructured data and facilitate massive horizontal scaling. These platforms offer highly flexible architectures that allow for rapid iteration and the handling of diverse data types that break traditional schemas. This deployment is the primary storage layer for modern, high-traffic web and mobile applications.	MongoDB, Couchbase, Neo4j, Redis, DataStax, Amazon DynamoDB, Google Cloud Firestore, ScyllaDB, Aerospike, MarkLogic
Data fabric	Modern ETL & AI data parsing pipelines	Modern extract, transform, and load & data parsing pipelines provide the middleware required to extract and transform raw data for warehouses and vector storage. These systems capture significant volume-based revenue by offering specialized capabilities for parsing unstructured formats, such as PDFs, into readable embeddings. This deployment acts as the primary ingestion and refinement engine for an organization's data lake.	Fivetran, dbt Labs, Unstructured.io, Airbyte, Talend, Matillion, Hevo Data, Rivery, Meltano, Mozart Data
Data fabric	Master data management & quality	Master data management software unifies fractured records to create a definitive single record for entities such as customers or products. These systems generate efficiency by ensuring the absolute consistency and accuracy of core business data across an entire enterprise. This category is a mandatory foundational layer for achieving high-quality analytical and operational output.	Informatica, Reltio, Profisee, Semarchy, Syndigo, Stibo Systems, SAP, IBM, TIBCO, Ataccama
Data fabric	Data protection & disaster recovery	Data protection & disaster recovery services provides mission-critical infrastructure for enterprise backup and ransomware recovery. These platforms capture immense compliance budgets by ensuring that datacenter and cloud workloads can be restored following catastrophic failure. This deployment serves as the primary business continuity layer for an organization's digital assets.	Rubrik, Veeam, Cohesity, Commvault, Veritas, Zerto, Dell Technologies, Druva, Acronis, Barracuda Networks
Data fabric	Data pipeline orchestration & scheduling	Data pipeline orchestration platforms manage the complex execution and scheduling of automated data engineering tasks. These systems ensure reliable data availability by guaranteeing that jobs are processed in the correct sequence across an organization's digital topology. This deployment acts as the primary programmatic control plane for managing data engineering workflows.	Astronomer, Dagster, Prefect, Matillion, dbt Labs, Informatica, Talend, FiveTran, Airbyte, SnapLogic
Data fabric	Cloud data warehouses & lakehouses	Cloud data warehouses & lakehouses provide the highly scalable infrastructure required for enterprise data unification. These platforms span from traditional repositories for passive storage to modern active engines utilizing zero-copy architectures to allow external systems to query data where it originates. This category is the primary system of record for an organization's structured information assets.	Databricks, Snowflake, Teradata, Amazon Redshift, Google BigQuery, Microsoft Azure Synapse, Oracle, Cloudera, HPE, MongoDB
Data fabric	Real-time data streaming	Real-time data streaming infrastructure processes unbounded data streams in motion with millisecond-level latency. These systems generate premium value by enabling organizations to react immediately to critical events, such as fraud detection or real-time logistical updates. This deployment is the primary transport layer for high-velocity, event-driven digital operations.	Confluent, Redpanda, StreamNative, Amazon Kinesis, Google Cloud Pub/Sub, Azure Event Hubs, TIBCO, Solace, Aiven, Instaclustr
Data fabric	Data governance	Data governance platforms provide metadata catalogs and lineage tracking to define data ownership and enforce regulatory standards. These systems manage compliance risk and preserve the quality of an organization's information assets throughout their life cycle. This category serves as the primary auditing and standard-setting layer for an enterprise's entire data fabric.	Collibra, Alation, Informatica, Atlan, BigID, Privitar, OneTrust, Precisely, Monte Carlo

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Data fabric	Business intelligence & data viz	Business intelligence & data visualization platforms translate SQL and warehouse data into visual dashboards for human analysis. These systems command highly sticky enterprise contracts by serving as the primary presentation layer for corporate performance metrics. This deployment is an essential tool set for extracting actionable insights from historical and operational information.	Tableau, Looker, Qlik, Microsoft PowerBI, ThoughtSpot, Domo, Sisense, MicroStrategy, GoodData, Sigma Computing
Data fabric	AI semantic layers & ontologies	AI semantic layers & ontologies are middleware platforms that translate raw database tables into structured knowledge graphs. These systems unlock data value by imparting business rules and contextual relationships, ensuring that automated systems understand enterprise meaning. This category acts as the primary translation layer between raw data storage and high-level analytical reasoning.	RelationalAI, Kensho, Ontotext, Stardog, Franz, Neo4j, Cambridge Semantics, TopQuadrant, Data.world, Semantic Web Company
Orchestration	MCP interface gateways	Model Context Protocol (MCP) interface gateways are standardized connectivity servers implementing the MCP to manage interactions between models and structured data. These gateways eliminate high API development costs by providing a universal, secure interface that connects reasoning engines directly to data silos. This deployment acts as the primary interoperability layer for modern data processing architectures.	Anthropic, Snowflake, Databricks, Microsoft, LangChain, Vercel, Supabase, Apollo GraphQL, Kong, Postman
Orchestration	Enterprise integration & iPaaS	Integration platform as a service is API middleware that connects disparate software applications to facilitate cross-platform workflows. These tools generate massive operational efficiency by providing the programmable logic required to synchronize information across an organization's systems. This category is the primary connective layer for managing a diverse and fragmented software ecosystem.	Boomi, MuleSoft, Postman, Kong, Workato, SnapLogic, Zapier, Celigo, Informatica, Software AG
Orchestration	Communications platform as a service	Communications platform as a service provides the telecommunications API layer used to route automated SMS, voice calls, and authentication codes. These high-volume, usage-based platforms allow software applications to reliably interact with the global telecommunications network. This deployment is the primary integration point for digital messaging and identity verification protocols.	Twilio, Sinch, Bandwidth, MessageBird, Vonage, Infobip, Plivo, Route Mobile, 8x8, RingCentral
Orchestration	Application security	Application security tools scan code and open-source dependencies for vulnerabilities automatically during the development process. These systems mitigate severe systemic risk by integrating security checks directly into the developer workflow to prevent compromised code from reaching production. This category acts as the primary risk prevention layer for the enterprise software supply chain.	Snyk, Veracode, Checkmarx, Synopsys, Aqua Security, Prisma Cloud, Sonatype, Mend, Lacework, Fortify
Orchestration	DevOps & CI/CD	DevOps & CI/CD tools automate the software factory line, facilitating continuous integration and delivery of code updates. These systems reduce development overhead by allowing engineering teams to safely test, version, and deploy software changes at an industrial scale. This deployment is the primary infrastructure for accelerating the modern software development life cycle.	GitLab, Atlassian, CircleCI, Jenkins, GitHub, Harness, JFrog, Octopus Deploy, Digital.ai, Spinnaker
Orchestration	Cloud FinOps & cost management	Cloud financial operations & cost management software provides financial visibility and automated optimization for variable cloud spending. These tools drive immediate bottom-line impact by identifying architectural waste and allowing for precise, team-specific chargebacks of cloud-native resources. This category is the primary mechanism for managing the unit economics of a distributed compute environment.	Apptio, CloudZero, Finout, Vantage, Flexera, CloudHealth, Densify, Kubecost, Zesty, Harness

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Orchestration	Container orchestration platforms	Container orchestration platforms automate the deployment, scaling, and networking of containerized microservices across hybrid clusters. These systems act as the modern operating system for cloud-native applications, providing high availability and massive resource efficiency. This deployment is the primary software control plane for managing highly distributed application architectures.	Red Hat, SUSE, Mirantis, VMware, Amazon, Google, Microsoft, Canonical, Nutanix, Portworx
Orchestration	Log management & security analytics	Log management & security analytics platforms ingest and query massive volumes of unstructured machine data for troubleshooting. These systems provide the critical analytical engine required to identify security breaches and operational failures within raw server logs. This category bridges the gap between infrastructure operations and reactive cybersecurity intelligence.	Splunk, Elastic, Sumo Logic, CrowdStrike, LogRhythm, Exabeam, Rapid7, Datadog, Devo, Mezmo
Orchestration	Application & infrastructure monitoring	Application & infrastructure monitoring provides unified telemetry and performance data for an enterprise's entire digital stack. These platforms generate high ROI by allowing engineers to track system health from the user interface down to the underlying hardware components to prevent downtime. This deployment is the primary visibility layer for identifying and resolving IT bottlenecks.	Datadog, Dynatrace, New Relic, Cisco, Splunk, Elastic, Grafana, Honeycomb, ScienceLogic, SolarWinds
Virtualization	Hypervisors & virtual machine software	Virtualization software is a foundational abstraction layer that partitions physical hardware into isolated environments. This includes traditional Type-1 Hypervisors for legacy IT efficiency and modern control planes with vGPU partitioning to manage and debug complex operational states. This deployment serves as the primary software gateway for maximizing hardware utilization and workload management.	VMware, Nutanix, Microsoft, Red Hat, Citrix, Oracle, Proxmox, Scale Computing, Veritas, Sangfor Technologies
Secure delivery	Edge platforms (compute & security)	Edge platforms are integrated environments that allow developers to run application logic and security functions directly at the network boundary. This model generates efficiency by converging content delivery and serverless compute into a single, highly distributed architecture. This category is a key enabler for real-time digital interactions and low-latency data processing.	Cloudflare, Fastly, Akamai, Vercel, StackPath, Section.io, Azion, Gcore, Edgio, Lumen
Secure delivery	Content delivery networks	Content delivery networks are distributed server systems that cache digital content geographically closer to end-users to improve application performance. These networks capture highly predictable, volume-based revenue as the primary delivery vehicle for high-bandwidth traffic such as video streaming. This deployment is a mature but critical foundational layer for the global internet economy.	Akamai, Cloudflare, Fastly, Edgio, Amazon CloudFront, Google Cloud, Azure, Tata Communications, Lumen, Tencent Cloud
Secure delivery	Cybersecurity - network & CSPM	Cloud security & cloud security posture management platforms focus on securing cloud-native environments through zero-trust access and continuous posture monitoring. These tools provide critical risk reduction by offering visibility into misconfigurations and unauthorized access across multi-cloud deployments. This category is the primary security gatekeeper for organizations operating within public and private cloud infrastructure.	Zscaler, Wiz, Cloudflare, Netskope, Lacework, Palo Alto Networks, Check Point, Orca Security, Sysdig, Aqua Security
Secure delivery	Security & compliance	Security & compliance platforms are broad tool sets dedicated to network threat prevention and systemic risk auditing. These systems ensure that an enterprise's entire digital footprint adheres to internal policies and avoids massive regulatory penalties. This deployment acts as the overarching governance and risk management layer for corporate IT architectures.	Palo Alto Networks, Zscaler, Fortinet, Check Point, Wiz, Lacework, Netskope, Rapid7, Qualys, Tenable

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Secure delivery	IoT & OT security exposure management	IoT & operational technology (OT) security refers to specialized control platforms built to shield OT and unpatched industrial assets. These systems mitigate severe, industrial risk by providing visibility and threat prevention for non-traditional IT devices, such as factory robots. This category is the primary protection layer for the physical infrastructure of manufacturing and healthcare.	Armis, Claroty, Dragos, Nozomi Networks, Microsoft, Palo Alto Networks, Cisco, Tenable, Rapid7, Forescout
Secure delivery	Endpoint & XDR security	Endpoint & extended detection and response security is software deployed on individual devices to detect and block systemic threats. These platforms capture recurring licensing revenue by utilizing behavioral analysis to identify vulnerabilities and isolate compromised assets. This deployment serves as the front-line software defense for an organization's distributed hardware fleet.	CrowdStrike, SentinelOne, Trellix, Palo Alto Networks, Microsoft, Trend Micro, Broadcom, Sophos, Carbon Black, Fortinet
Secure delivery	Edge compute services	Edge compute services are distributed computing networks that process data at geographic endpoints to minimize transmission latency. This model lowers bandwidth costs by allowing application logic to be executed closer to where data is generated. This deployment is the primary mechanism for low-latency digital delivery and real-time interactions for IoT systems.	Fastly, Cloudflare, Akamai, Vercel, StackPath, Edgio, Amazon CloudFront, Google Cloud, Azure, Denodo
Secure delivery	Deepfake detection & cryptographic provenance	Deepfake detection & cryptographic provenance platforms utilize advanced cryptographic watermarking and forensic AI to verify the origin and authenticity of digital media. These systems mitigate catastrophic reputational and financial risk by ensuring that enterprises can distinguish between authorized synthetic labor and malicious deepfakes. This deployment acts as the mandatory zero-trust verification layer for the synthetic media and information economy.	Truepic, Reality Defender, Pindrop, Sensity, Deepware, Sentinel, Attestiv, Microsoft, Adobe, Clarity
Secure delivery	Machine identity & digital labor IAM	Machine identity & digital labor identity and access management refers to identity management systems designed specifically for non-human entities and autonomous software. These platforms generate security value by provisioning unique identities and managing cryptographic access permissions for systems interacting with corporate networks. This category is a critical security layer for governing the access of programmatic workers.	Aembit, Spera, Oasis Security, CyberArk, Okta, Ping Identity, Saviynt, SailPoint, BeyondTrust, HashiCorp
Hyperscale cloud service	Specialized & sovereign clouds	Specialized & sovereign clouds includes infrastructure providers focused on specific technical niches or regional data sovereignty requirements. These providers capture specialized market share by offering tailored hardware access or regulatory compliance that generalist hyperscalers cannot provide. This category serves as an alternative for organizations with highly specific performance or geographic constraints.	CoreWeave, Lambda Labs, Oracle Cloud, OVHcloud, Scaleway, T-Systems, Orange Business, Swisscom, Bitvavo, Genesis Cloud
Hyperscale cloud service	Hyperscale cloud platforms	Hyperscale cloud platforms are massive, global infrastructure providers that offer a comprehensive catalog of compute, storage, and networking services. These providers dominate the market through immense capital moats, vast service ecosystems, and global datacenter footprints. They act as the primary foundational infrastructure for the vast majority of the world's digital economy.	AWS, Microsoft Azure, Google Cloud, Alibaba Cloud, Oracle Cloud, IBM Cloud, Tencent Cloud, Huawei Cloud, OVHcloud, Baidu Cloud
Hyperscale cloud service	High-performance computing	High-performance computing refers to supercomputing clusters designed for massive, parallel computational tasks such as physics modeling. These systems command significant premiums by prioritizing raw processing power and high-speed interconnects to solve complex mathematical problems. This category provides the specialized infrastructure required for deep scientific research and engineering simulations.	Rescale, Altair, Ansys, HPE, IBM, Atos, Fujitsu, Inspur, Penguin Solutions, Lenovo

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Hyperscale cloud service	Cloud & serverless compute provisioning	Cloud & serverless compute provisioning refers to the on-demand delivery of virtualized infrastructure and dynamic functions. This utility-based model drives immense recurring revenue by allowing enterprises to scale compute resources without the capital requirement of owning physical servers. This deployment is the primary delivery vehicle for modern application development and digital service scaling.	AWS, Google Cloud, Microsoft Azure, Vercel, IBM Cloud, Oracle Cloud, Alibaba Cloud, Tencent Cloud, DigitalOcean, Cloudflare
Colocation & real estate	Other datacenter operators & service providers	Other datacenter operators & service providers includes niche infrastructure players such as bare-metal hosts and internet exchange points. These providers capture specialized revenue streams by offering connectivity or hosting models that fall outside standard hyperscale definitions. This category captures the functional diversity and long-tail of the broader digital hosting market.	Equinix Metal, DigitalOcean, Megaport, PacketFabric, Akamai, Vultr, OVHcloud, Hetzner, Scaleway, Leaseweb
Colocation & real estate	Decentralized compute networks/DePIN	Decentralized compute networks utilize cryptographic incentives to aggregate dormant, globally distributed GPUs into unified, high-performance computing clusters. These asset-light platforms disrupt traditional hyperscalers by offering highly elastic, lower-cost compute for rendering and inference tasks. This deployment serves as the primary decentralized infrastructure layer for open-source AI developers and cost-sensitive enterprises.	Akash Network, Render, io.net, Gensyn, Bittensor, Golem, iExec, Ankr, Livepeer, Flux
Colocation & real estate	HPC operators & miners	High-performance computing operators & miners includes companies that manage high-density facilities focused on specialized tasks, such as blockchain processing and intensive rendering. Their business model centers on energy arbitrage, generating high margins by colocating directly with lower-cost power assets. These operators are increasingly pivoting their specialized infrastructure to host large-scale commercial inference workloads.	CoreWeave, Applied Digital, Iris Energy, Riot Platforms, CleanSpark, Terawulf, Bitdeer, Northern Data, Hut 8, Crusoe Energy
Colocation & real estate	Construction & engineering	Construction & engineering firms specialize in the design and building of mission-critical datacenter facilities. They capture massive, project-based capital expenditures by managing the complex logistical and technical requirements of power-dense environments. This service industry is experiencing unprecedented demand as cloud platforms and enterprises rapidly expand their physical footprints.	DPR Construction, Turner Construction, Holder Construction, Jacobs, AECOM, Gilbane, Mortenson, HITT Contracting, Skanska, Balfour Beatty
Colocation & real estate	Colocation & wholesale datacenters	Colocation & wholesale datacenters are specialized real estate facilities that provide leased space, power, and cooling to external customers. These operators generate highly predictable, recurring rental revenue by leasing entire halls to hyperscalers or individual racks to enterprises. Access to these facilities is currently a major structural bottleneck constrained by regional power availability.	Equinix, Digital Realty, CyrusOne, Vantage, CoreSite, Iron Mountain, QTS Realty Trust, Stack Infrastructure, Compass Datacenters, NTT Global Data Centers
IT hardware	CXL infrastructure	Compute express link (CXL) memory expansion consists of hardware-level memory pooling systems based on the CXL protocol. These components generate efficiency savings by dynamically allocating memory resources across processors, eliminating localized bottlenecks. This technology is critical infrastructure for optimizing the performance of CPUs managing complex, data-intensive workloads.	Astera Labs, Marvell, Samsung, Micron, SK Hynix, Intel, AMD, Microchip, SMART Modular, Rambus

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
IT hardware	Other datacenter IT hardware & components	Other datacenter IT hardware includes specialized appliances such as load balancers, network taps, and hardware security modules. These niche components generate value by supporting specific network functions and security requirements beyond basic switching and routing. This category ensures the comprehensive coverage of the entire ancillary hardware stack within the facility.	F5 Networks, A10 Networks, Thales, Gigamon, Radware, Fortinet, Progress Software, Keysight, NetScout, Entrust
IT hardware	Interconnects & cabling	Interconnects & cabling consists of the physical fiber and copper wiring systems and connectors that link all IT hardware. High-quality physical layer infrastructure represents a steady, high-volume commodity market necessary to support modern signal standards. This deployment provides the physical nervous system that wires together the modern server room.	CommScope, Corning, Amphenol, Belden, Panduit, Nexans, Legrand, Prysmian, Molex, Rosenberger
IT hardware	Optical interconnects & transceivers	Optical interconnects & transceivers are modules that convert electrical signals to light for high-speed transmission over fiber optic cables. These highly technical components capture immense capital flow, as they are essential for scaling internal fabrics to advanced speeds like 800G. This market is rapidly consolidating as signal integrity becomes a primary bottleneck for overall system performance.	Coherent, Innolight, Fabrinet, Lumentum, AcceLink, Broadcom, Intel, Marvell, Cisco, Ayar Labs
IT hardware	High-performance fabrics (InfiniBand)	High-performance fabrics are specialized, low-latency networking systems optimized specifically for massive, synchronized compute clusters. These fabrics offer higher throughput and lower overhead than traditional Ethernet, commanding premium pricing for supercomputing deployments. This category is highly consolidated and tightly integrated with the underlying architectural logic ecosystem.	NVIDIA, HPE, Broadcom, Marvell, Cornelis Networks, Rockport Networks, Intel, Cisco, Microsoft, Huawei
IT hardware	Spine & leaf switches (Ethernet)	Spine & leaf switches are core networking devices that connect servers within a facility using high-speed Ethernet fabrics. This hardware forms the backbone of modern network topologies, driving significant revenue by enabling low-latency communication between nodes. Market share is defined by the intense competition between proprietary hardware stacks and open, white-box silicon solutions.	Arista Networks, Cisco, Dell Technologies, Juniper Networks, Extreme Networks, NVIDIA, HPE, Huawei, Broadcom, Celestica
IT hardware	Hard disk drives	Hard disk drives (HDDs) are mechanical storage devices that remain the most cost-effective medium for bulk data archival and high-capacity storage. While solid-state drives dominate performance workloads, HDDs maintain market dominance by holding the vast majority of the world's stored exabytes. This market is a consolidated triopoly with massive manufacturing scale and high barriers to entry.	Seagate, Western Digital, Toshiba, HGST, Showa Denko, Nidec, TDK, Marvell, Broadcom, Texas Instruments
IT hardware	Scale-out file & object storage	Scale-out file & object storage refers to software-defined architectures designed to store massive volumes of unstructured data across distributed hardware. These systems capture significant enterprise spend by providing the foundation for highly scalable, cost-effective data lakes. They are essential for storing the immense, unstructured datasets required for modern analytical training and archival.	VAST Data, Qumulo, Dell, MinIO, Cloudian, NetApp, Scality, WekaIO, IBM, Western Digital
IT hardware	All-flash arrays	All-flash arrays are high-performance storage systems that utilize exclusively solid-state drives for low-latency data access. These arrays command high margins as the standard for mission-critical databases and high-throughput analytical workloads. Value in this category is increasingly driven by proprietary storage management software and data reduction capabilities.	Pure Storage, NetApp, Dell Technologies, HPE, IBM, Hitachi Vantara, Huawei, VAST Data, Qumulo, Silk

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
IT hardware	High-density & cloud servers	High-density & cloud servers are custom-designed systems built by contract manufacturers specifically for massive hyperscale platforms. These bare-metal designs prioritize cost efficiency and power density over the feature-rich requirements of general enterprise hardware. This segment dominates the volume of global server shipments due to the immense scale of public infrastructure deployment.	Foxconn, Quanta Computer, Wiyynn, Inventec, ZT Systems, Inspur, Wistron, Pegatron, MiTAC
IT hardware	General-purpose enterprise servers	General-purpose enterprise servers are traditional rack and blade systems used for virtualization, databases, and standard business applications. This market generates highly predictable revenue following corporate hardware refresh cycles for generalized IT workloads. Growth in this category is stable and serves as the infrastructural baseline for standard enterprise operations.	Dell Technologies, HPE, Lenovo, Cisco, Inspur, Oracle, Fujitsu, IBM, NEC, Hitachi
IT hardware	AI-optimized systems	AI-optimized systems are servers specifically architected to host high-density accelerator clusters with specialized thermal and power management. These systems command significant hardware premiums and utilize high-speed interconnects to enable massive parallel processing. This category is the definitive hardware standard for the industrialization of complex training and large-scale inference workloads.	Dell Technologies, HPE, Supermicro, Lenovo, Quanta Computer, Inspur, Wiyynn, Foxconn, Giga Computing, ASRock Rack
Power & thermal equipment	Rack power distribution units	Rack power distribution units are intelligent power strips that distribute and monitor electricity delivery to individual IT equipment within a rack. These devices allow for remote power cycling and generate value by providing granular tracking of energy consumption. They are essential components for managing the high power density and operational efficiency of modern compute environments.	Vertiv, Eaton, Schneider Electric, Legrand, Panduit, Delta Electronics, CyberPower, Tripp Lite, Server Technology, Enlogic
Power & thermal equipment	Virtual power plants & grid orchestration	Virtual power plants & grid orchestration software aggregates millions of distributed energy resources, such as home batteries and EVs, into a unified, dispatchable energy network. These systems command massive recurring utility contracts by autonomously routing power back to the grid during peak load to prevent physical brownouts. This deployment is the primary software control plane for stabilizing modern, highly strained electrical grids.	Tesla, AutoGrid, Enel X, Octopus Energy, Stem, Sunrun, Swell Energy, Generac, Lunar Energy, Leap
Power & thermal equipment	Energy & utilities	Energy & utilities refer to the regulated providers and independent producers that supply the massive electrical capacity required by large-scale compute facilities. Interconnection to gigawatt-scale power generates immense, long-term contractual revenue and is now the primary constraint for site selection. This category is increasingly defined by massive power purchase agreements for nuclear and renewable energy.	Dominion Energy, Duke Energy, NextEra, Constellation, Southern Company, American Electric Power, PG&E, Exelon, National Grid, Iberdrola
Power & thermal equipment	Specialized energy & components	Specialized energy & components includes emerging on-site power technologies such as hydrogen fuel cells and small modular reactors. These solutions aim to provide carbon-free, baseload power independent of the traditional electrical grid to bypass regional utility constraints. This category represents the technological frontier for sustainable and sovereign physical growth.	Bloom Energy, Plug Power, NuScale, Oklo, Fluence, Energy Vault, FuelCell Energy, Ballard Power, Helion Energy, TerraPower

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Power & thermal equipment	Backup power generation	Backup power generation consists of industrial-scale diesel or gas engines that provide long-duration power during extended utility failures. These systems are capital-intensive investments critical for maintaining the high levels of reliability promised by facility operators. Environmental standards are driving innovation in this category toward cleaner fuels and hybrid power systems.	Caterpillar, Cummins, Generac, Kohler, Rolls-Royce MTU, Himoina, Mitsubishi Heavy Industries, Yanmar, Doosan, Aggreko
Power & thermal equipment	Datacenter heat recovery & district energy	Datacenter heat recovery & district energy infrastructure captures the massive thermal waste generated by compute clusters and routes it into municipal heating systems. This deployment unlocks net-new revenue streams and critical civic goodwill by transforming a thermodynamic liability into a monetizable public utility. This category serves as a mandatory physical integration layer bridging hyperscale datacenters with local civic infrastructure.	Danfoss, Alfa Laval, Fortum, Vattenfall, Schneider Electric, Siemens, Vertiv, Johnson Controls, E.ON, Engie
Power & thermal equipment	Liquid cooling solutions	Liquid cooling solutions encompass advanced thermal management technologies, such as direct-to-chip and immersion cooling, designed for high-density environments. Liquid is significantly more efficient at heat rejection than air, commanding premium pricing and enabling the deployment of higher-performance racks. This category is experiencing hyper-growth driven by the increasing thermal requirements of modern processing hardware.	Vertiv, nVent, CoolIT, Boyd, Submer, Schneider Electric, Asetek, Green Revolution Cooling, Chilldyne, Iceotope
Power & thermal equipment	Air-based cooling	Air-based cooling refers to traditional thermal management systems that use specialized units and chillers to maintain ambient temperature. While a mature and commoditized technology, it captures steady replacement cycles for general-purpose enterprise compute halls with moderate power densities. This deployment is a fundamental requirement for regulating the heat output of standard IT hardware.	Vertiv, Stulz, Trane, Carrier, Munters, Schneider Electric, Johnson Controls, Daikin, Lennox, Modine
Power & thermal equipment	Switchgear & distribution	Switchgear & distribution infrastructure includes the heavy electrical components used to distribute medium and low voltage power throughout a facility. These components act as the primary arteries of power delivery, managing massive electrical loads and representing a major capital expenditure. Supply chain availability in this category directly dictates the construction timeline for new capacity.	Schneider Electric, Eaton, ABB, Siemens, Legrand, Powell Industries, Hubbell, S&C Electric, G&W Electric, Mitsubishi Electric
Power & thermal equipment	Uninterruptible power supplies	Uninterruptible power supplies are battery backup systems that provide instantaneous power during grid outages to ensure continuous facility uptime. They capture significant hardware spend by acting as the critical bridge between utility failure and the activation of backup generators. Reliability is the absolute primary competitive vector for this equipment within the infrastructure stack.	Vertiv, Eaton, Schneider Electric, Mitsubishi Electric, ABB, Delta Electronics, Legrand, Toshiba, Riello UPS, Socomec
Quantum software & cloud services	Quantum software & cloud services	Quantum software & cloud services provide the software stack, algorithms, and cloud interfaces required to program quantum hardware. This layer abstracts underlying physical complexity, generating enterprise value by enabling the development of hardware-agnostic applications. The goal of this category is to build the ecosystem required for future quantum computational tasks.	Classiq, QC Ware, Zapata AI, SandboxAQ, Microsoft, Amazon, Strangeworks, Riverlane, Terra Quantum, Multiverse Computing

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Quantum hardware	Quantum hardware	Quantum hardware refers to physical quantum processing units used to perform computations based on qubits rather than classical bits. These systems require deep-tech, R&D-intensive capital investment to increase qubit count and gate fidelity. This hardware utilizes complex modalities, such as superconductors, to achieve computational advantages for future problem-solving.	IonQ, Rigetti, D-Wave, Quantinuum, PsiQuantum, IBM, Google, Xanadu, Pasqal, IQM
Analog, mixed signal & MCU	Neuromorphic & analog computing hardware	Neuromorphic & analog computing hardware consists of specialized, ultra-low-power silicon architectures designed to physically mimic the neural structures of the human brain. These components generate value by executing edge inference tasks with a fraction of the energy required by traditional digital processors. This category represents the next-generation hardware foundation for continuous, battery-constrained ambient intelligence.	BrainChip, Innatera, IBM, Intel, SynSense, Akida, GrAI Matter Labs, HALO, SpiNNaker, TrueNorth
GPU/CPU/ ASSP/ASIC	Other semiconductor chip design	Other semiconductor chip design is a catch-all segment for specialized logic that does not fit into primary compute or networking categories. It captures the long tail of the semiconductor design ecosystem, representing highly stable revenue streams from niche industrial controllers and legacy logic. This deployment ensures comprehensive coverage of the diverse and fragmented chip landscape. This includes ASICs and FPGAs.	Cirrus Logic, MaxLinear, Rambus, Nordic Semiconductor, Semtech, Silicon Labs, Lattice Semiconductor, GigaDevice, Synaptics, Power Integrations
GPU/CPU/ ASSP/ASIC	Edge AI chips	Edge AI chips are power-efficient processors designed to execute complex inference locally on endpoint devices. This enables data processing without cloud connectivity, capturing value through low-latency performance for automobiles and consumer hardware. Growth in this category tracks directly with the proliferation of autonomous hardware endpoints.	Qualcomm, Mobileye, Hailo, Ambarella, Synaptics, NXP, Renesas, STMicroelectronics, MediaTek, BrainChip
GPU/CPU/ ASSP/ASIC	AI accelerators (non-GPU)	AI accelerators are specialized logic circuits optimized purely for high-intensity inference and training tasks. This includes custom silicon designed by large platforms and startups to maximize computational efficiency and lower total cost of ownership. This category represents the industrialization of specialized processing architecture at the silicon layer.	Broadcom, Marvell, Google, AWS, Meta, Microsoft, Groq, Cerebras, SambaNova, Tenstorrent
Sensors, discretes & passives	Sensors, discretes & passives	Sensors, discretes & passives is a broad category of foundational components including transistors, capacitors, and environmental sensors. This is a high-volume, commodity-plus market dominated by massive manufacturing scale and supply chain efficiency. These are the essential building blocks required for every printed circuit board across all electronic devices.	Murata, TDK, Yageo, Vishay, Bosch, Kyocera, Samsung Electro-Mechanics, Taiyo Yuden, TE Connectivity, Amphenol
Optoelectronics	Optoelectronics	Optoelectronics includes components that convert electrical signals to optical signals, such as lasers, detectors, and modulators. This technology captures significant infrastructure spending by serving as the foundation for high-speed fiber optic interconnects. The shift toward silicon photonics is a major trend to overcome the physical bandwidth limits of traditional copper.	Coherent, Lumentum, Broadcom, Intel, Ayar Labs, Cisco, Marvell, II-VI, Hamamatsu, AMS Osram

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Power management IC	PMICs	Power management integrated circuits refers to specialized chips responsible for converting, regulating, and distributing voltage within electronic systems. Efficient power management drives critical cost savings by reducing heat and energy consumption in high-density servers and electric vehicles. Innovation in this category is focused on handling escalating power densities with maximum efficiency.	Monolithic Power Systems, Infineon, Onsemi, Renesas, Texas Instruments, Analog Devices, STMicroelectronics, Rohm, Vicor, Power Integrations
Analog, mixed signal & MCU	Analog, mixed signal & MCU	Analog, mixed signal & microcontroller units includes semiconductors that process real-world signals such as sound, temperature, and pressure. This market is highly fragmented and defined by long product life cycles, leading to highly stable and predictable gross margins. These components act as the ubiquitous interface between digital systems and the physical world.	Texas Instruments, Analog Devices, NXP, Infineon, STMicroelectronics, Renesas, Microchip, Onsemi, Skyworks, Qorvo
GPU/CPU/ ASSP/ASIC	Networking & connectivity IC	Networking and Connectivity ICs are chips that power high-speed data movement, including switch ASICs and optical digital signal processors. These components maximize system throughput by offloading intensive networking tasks from the primary CPU, commanding high margins. Growth in this category is structurally tied to the migration to higher-speed datacenter fabrics.	Broadcom, Marvell, NVIDIA, Cisco, MediaTek, Realtek, Intel, Microchip, Credo, Ayar Labs
Memory (DRAM & NAND)	Memory (DRAM & NAND)	Memory (DRAM & NAND) consists of the high-speed volatile and non-volatile storage components used to feed data to processors. These integrated device manufacturers operate in a highly cyclical, capital-intensive market driven by the capacity requirements of modern compute workloads. This category serves as a fundamental performance buffer within all computing hardware.	Samsung, SK Hynix, Micron, Kioxia, Western Digital, Solidigm, Phison, Kingston, Nanya, Winbond
GPU/CPU/ ASSP/ASIC	GPU/CPU	GPU/CPU refers to the primary logic processors responsible for parallel and serial computation within computing systems. These chips capture the majority of global semiconductor value, acting as the central processing engines for general-purpose servers and high-density compute clusters. This market drives the architectural standards and performance limits of the entire hardware stack.	NVIDIA, AMD, Intel, Arm, Apple, Qualcomm, Broadcom, Marvell, Ampere Computing, Graphcore
Wafer fabrication equipment	Other semiconductor value chain	Other semiconductor value chain is a category for specialized providers, including metrology equipment and independent testing laboratories. These niche players secure high-value contracts by ensuring quality control and process integrity at the atomic level. This deployment captures the diverse long-tail of services required to maintain a functioning semiconductor ecosystem.	FormFactor, Onto Innovation, Nova, Brooks Automation, Toppan, Photonics, Cohu, Kulicke & Soffa, Advantest, Teradyne
Advanced packaging	Advanced packaging	Advanced packaging refers to the cutting-edge interconnect technologies used to combine multiple chiplets into a single high-performance component. This technology commands premium margins as a critical structural bottleneck for the mass production of high-bandwidth memory and accelerators. It represents the transition of semiconductor scaling from raw lithography into integrated system design.	TSMC, Intel, Samsung, Amkor, ASE Technology, JCET, Sony, SK Hynix, Micron, Deca Technologies

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Outsourced assembly & test	Outsourced assembly & test	OSAT firms perform the back-end manufacturing steps of packaging, assembling, and testing finished silicon chips. This service layer captures value through extreme manufacturing scale and the ability to process high volumes of complex components. These providers are essential for transforming manufactured wafers into usable electronics for global original equipment manufacturers (OEMs).	ASE Technology, Amkor, JCET, Powertech, KYEC, TFME, Huatian Technology, King Yuan Electronics, ChipMOS, UTAC
WFE	Extreme precision optics & EUV subcomponents	Extreme precision optics & extreme ultraviolet lithography subcomponents refers to the highly specialized mirrors, lasers, and vacuum mechatronics required to build advanced lithography machines. These deeply entrenched suppliers hold immense pricing power by providing the flawless components that make semiconductor scaling physically possible. This deployment acts as the mandatory foundational supply chain layer for the world's primary WFE manufacturers.	Carl Zeiss SMT, Trumpf, Edwards Vacuum, VDL Groep, MKS Instruments, ASML, KLA, Lasertec, Ushio, Cymer
WFE	WFE	WFE consists of the sophisticated machinery used inside foundries to pattern, deposit, and etch features on silicon. These tools enable the continuation of Moore's Law and represent the primary capital expenditure within the semiconductor manufacturing process. WFE is characterized by near-monopoly dynamics for specific steps in the advanced lithography chain.	ASML, Applied Materials, Lam Research, Tokyo Electron, KLA, Screen Holdings, Advantest, Teradyne, Nikon, Canon
Semiconductor materials & wafers	Semiconductor materials & wafers	Semiconductor materials & wafers are the ultra-pure raw inputs, including silicon and specialty gases, required for chip production. The purity of these materials is paramount to ensuring high manufacturing yields, creating a highly sticky, recurring revenue stream for specialized chemical firms. This market manages the foundational physical substrate of the silicon economy.	Shin-Etsu, SUMCO, GlobalWafers, Merck KGaA, Tokyo Ohka Kogyo, Entegris, Resonac, Siltronic, JSR Corp, BASF
EDA & IP	Intellectual property	IP firms design and license pre-verified circuit blocks, such as core processors, to semiconductor designers. This business model generates high-margin, royalty-based revenue by allowing engineers to reuse proven technology to accelerate time-to-market. Semiconductor IP underpins the architectural standards and instruction sets for the broader computing ecosystem.	Arm, Synopsys, Cadence, Imagination, Alphawave Semi, Rambus, CEVA, VeriSilicon, Arteris, Faraday Technology
EDA & IP	EDA & engineering software	Electronic design automation software provides the specialized tool sets used to design, simulate, and verify complex integrated circuits. This software commands exceptional pricing power due to an oligopolistic market structure and extremely high technical switching costs. This category enables the entire chip creation workflow from initial logic design to final physical layout.	Synopsys, Cadence, Ansys, Siemens EDA, Keysight, Zuken, Altium, PDF Solutions, Silvaco, CEVA
Foundry	Foundry	Foundries are specialized factories that physically manufacture silicon wafers for fabless chip designers. These facilities represent the peak of manufacturing capital intensity and capture immense economic value through advanced process node leadership. Foundries serve as the definitive physical production choke point for the entire global semiconductor industry.	TSMC, Samsung Foundry, GlobalFoundries, Intel Foundry, SMIC, UMC, Tower Semiconductor, PSMC, VIS, Hua Hong Semiconductor
Manufacturing infrastructure	Industrial & component distribution	Industrial distribution involves the large-scale logistics and supply chain networks used to deliver electronic components and raw materials to manufacturing sites. These firms generate revenue through high-volume inventory management and the transport of complex industrial inputs. This category acts as the primary physical fulfillment layer for global OEMs and contract manufacturers.	Arrow Electronics, TD Synnex, WPG Holdings, W.W. Grainger, Fastenal, Avnet, Rexel, Wesco, Ferguson, MSC Industrial

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Manufacturing infrastructure	Factory machinery & industrial automation hardware	Factory automation hardware encompasses the industrial robotics, computer-numerical-control machines, and logic controllers used to automate physical production lines. These tools drive significant economic value by improving manufacturing precision and reducing manual labor requirements. This hardware layer is the essential equipment foundation for modern, software-driven factory environments.	Fanuc, Keyence, ABB, Yaskawa, Omron, Rockwell Automation, Siemens, Teradyne, Schneider Electric, Mitsubishi Electric
Manufacturing infrastructure	Contract manufacturing, EMS & ODMs	Contract manufacturing, electronic manufacturing services & original design manufacturers firms provide outsourced fabrication and assembly for physical tech products. They operate high-volume, low-margin factory floors to build hardware for IT, automotive, and aerospace OEMs. This service layer allows brand owners to scale production globally without the capital burden of owning dedicated manufacturing facilities.	Jabil, Flex, Sanmina, Celestica, Foxconn, Benchmark Electronics, Wistron, Pegatron, Quanta Computer, Inventec
Communication infrastructure	Telecom networking equipment	Telecom networking equipment includes the specialized hardware, such as base stations and antennas, used by network operators. These OEMs capture massive hardware upgrade cycles driven by the global transition to advanced wireless standards like 5G and 6G. This category is the primary physical equipment layer for the global telecommunications industry.	Ericsson, Nokia, Cisco, Huawei, Ciena, ZTE, Samsung, NEC, Juniper Networks, Adtran
Communication infrastructure	Fiber optic & subsea cable networks	Wireline infrastructure refers to the long-haul terrestrial fiber networks and subsea cables that form the backbone of global internet traffic. These highly capital-intensive assets generate revenue through the bulk leasing of dark fiber and high-capacity data transit. This deployment is the foundational physical layer for all terrestrial and trans-oceanic digital communication.	Zayo, Lumen, Cogent Communications, Tata Communications, Verizon, AT&T, Colt Technology, Google, Meta, Orange
Communication infrastructure	Telecom tower & wireless infrastructure	Wireless infrastructure consists of the physical cell towers and small cell sites that host wireless telecommunications equipment. These asset owners generate highly predictable, recurring revenue by leasing space and power to major mobile network operators. This category provides the essential real estate required for regional and national wireless connectivity.	American Tower, Crown Castle, SBA Communications, Cellnex, Vantage Towers, Indus Towers, GD Towers, Helios Towers, China Tower, IHS Holding
Power infrastructure	Utility-scale energy storage	Utility-scale energy storage refers to large-capacity battery systems designed to store excess electricity and stabilize the power grid during peak demand. These systems provide high-value energy arbitrage capabilities and buffer the intermittency of renewable energy sources. This category represents a critical physical balancing layer between energy generation and industrial consumption.	Fluence, Tesla, AES, NextEra, LG Energy Solution, Samsung SDI, BYD, CATL, Wärtsilä, Powin
Power infrastructure	High-voltage transmission & smart grid hardware	Smart grid hardware comprises the physical infrastructure used to transmit high-voltage power and the intelligent devices used to monitor electricity flow. These components represent a steady, high-volume hardware market necessary to modernize legacy electrical grids. This layer acts as the primary nervous system connecting energy generation sites to industrial and consumer end-users.	State Grid, Eaton, Schneider Electric, Itron, Quanta Services, Siemens, ABB, Hitachi Energy, Hubbell, Prysmian
Power infrastructure	Renewable energy developers & hardware	Renewable energy developers manage the life cycle of wind, solar, and hydro assets, as well as the manufacturing of the associated hardware. These entities capture massive capital investments aimed at driving the global transition toward carbon-neutral power generation. This deployment provides the sustainable energy capacity required to offset the increasing power demand of the modern economy.	First Solar, Vestas, Orsted, Iberdrola, Enel Green Power, Brookfield Renewable, RWE, Acciona, EDP Renovaveis, Canadian Solar

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

Map category	Deployment	Deployment description	Deployment market leaders
Power infrastructure	Baseload generation & utilities	Baseload generation & utilities includes owners and operators of large-scale power generation facilities that provide a continuous supply of electricity to the grid. These assets, characterized by extreme capital intensity and high regulatory barriers, generate stable, long-term yields. This category provides the foundational energy required for global industrial and datacenter operations.	NextEra Energy, Duke Energy, Constellation, Southern Co, EDF, Exelon, Vistra Corp, Dominion Energy, American Electric Power, Enel
IT services	Managed infrastructure services	Managed infrastructure services involve the operational oversight of an enterprise's physical IT assets, including private clouds and localized server rooms. These providers ensure high availability and regulatory compliance through dedicated human monitoring and hardware patching. This service layer bridges the gap between hardware ownership and operational uptime for mission-critical IT environments.	Rackspace, Kyndryl, DXC Technology, NTT Data, Fujitsu, Infosys, Cognizant, Wipro, T-Systems, Orange Business
IT services	Value-added resellers	Value-added resellers procure, provision, and deploy third-party IT hardware and software bundles to enterprise customers. These firms capture financial margin through logistical scale and the provision of localized deployment expertise. They function as the primary distribution channel for hardware OEMs to reach a broad base of diverse commercial end-users.	CDW, SHI International, Insight Enterprises, WWT, ePlus, Zones, PCM, Connection, SoftwareONE, Bechtle
IT services	Managed service providers & cloud integrators	Managed IT service firms provide ongoing, subscription-based management of an enterprise's IT infrastructure, including networks, security, and cloud environments. These firms capture recurring operational budgets by allowing organizations to outsource the complexity of their digital environments to specialized experts. Managed service providers act as the primary interface for hardware deployment and ongoing technical maintenance within the corporate ecosystem.	NTT Data, Kyndryl, Computacenter, Softchoice, Presidio, Insight, CDW, DXC Technology, Atos, IBM Consulting
Engineering & construction services	Industrial & EPC	Engineering, procurement & construction services involve the comprehensive delivery of complex industrial facilities, including refineries and manufacturing sites. These firms generate capital-intensive project revenue by providing end-to-end management of the industrial life cycle from blueprinting to commissioning. This deployment provides the physical production environments required for heavy industry and energy sectors.	Fluor, Jacobs, KBR, McDermott, TechnipFMC, Saipem, Petrofac, Wood Group, Worley, Samsung Engineering
Engineering & construction services	Mission-critical & datacenter construction	Mission-critical & datacenter construction specializes in the management and building of highly complex, power-dense facilities, such as hyperscale datacenters and colocation hubs. These builders capture project-based revenue by managing the intricate mechanical, electrical, and plumbing requirements necessary for high-uptime environments. This category is a specialized service layer directly supporting the physical expansion of global compute capacity.	Turner Construction, DPR Construction, Holder Construction, Mortenson, Aecom, Jacobs, HITT Contracting, Corgan, JE Dunn, Gensler
Engineering & construction services	Heavy civil & infrastructure construction	Heavy civil & infrastructure construction refers to the engineering and building of large-scale public works projects including highways, bridges, and mass transit systems. These projects represent massive capital deployments and long-term revenue backlogs funded by government and municipal infrastructure initiatives. Firms in this category act as prime contractors overseeing complex supply chains and physical logistics.	Bechtel, Kiewit, Skanska, Vinci, Bouygues, Hochtief, ACS Group, AECOM, Fluor, Strabag

Source: PitchBook • Geography: Global



AI technology investment taxonomy (continued)

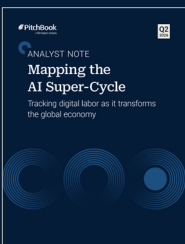
Map category	Deployment	Deployment description	Deployment market leaders
Professional advisory	Business process outsourcing	Business process outsourcing involves the contracting of specific business functions, such as customer support, HR, or finance, to third-party providers. This model allows enterprises to transition fixed overhead into variable costs by leveraging external vendors. These services are heavily integrated into non-core business units to handle high-volume, repeatable tasks.	Accenture, Teleperformance, Concentrix, Genpact, Wipro, Infosys, Cognizant, Tata Consultancy Services, HCLTech, Capgemini
Professional advisory	Audit, tax & accounting	Audit, tax & accounting services provide independent verification of financial records, tax compliance advisory, and risk management consulting. These providers capture highly recurring revenue streams by ensuring regulatory adherence and financial transparency for global corporations and public entities. This deployment serves as a mandatory compliance layer deeply integrated with enterprise financial management systems.	Deloitte, PwC, EY, KPMG, BDO, Grant Thornton, RSM, Baker Tilly, Mazars, Crowe
Professional advisory	Management & strategy consulting	Management & strategy consulting consists of professional advisory services focused on organizational design, corporate strategy, and operational transformation. These firms generate revenue by providing specialized intellectual capital to help enterprises navigate complex market shifts and optimize internal efficiencies. This deployment is the foundational human advisory layer, typically engaging at the executive level to guide high-level infrastructure and software procurement decisions.	McKinsey, BCG, Bain, Oliver Wyman, Roland Berger, Deloitte, Accenture, PwC, EY, KPMG

Source: PitchBook • Geography: Global



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