

TABLE S8-63

PitchBook venture capital industry verticals and technologies

(List of industries or technologies and definitions)

Industry or technology	Definition
3D printing	Three-dimensional (3D) printing is also known as additive manufacturing and refers to the manufacturing process and all technology related to printing a 3D object. 3D printing encompasses the actual printer as well as software, including 3D versions of computer-aided design, which utilizes multiple data points to create cross-sectional patterns of the object to be formed.
Advanced manufacturing	Advanced manufacturing refers to companies utilizing innovative and novel technologies to improve products or processes related to manufacturing. This encompasses technologies such as 3D printing, sensors and Internet of Things platforms, automation and robotics, artificial intelligence/ machine learning and big data applications, wearable devices and exoskeletons, augmented and virtual reality applications, as well as software relating to enterprise resource planning and warehouse management systems.
Advertising technology	Advertising technology consists of all technologies, software, and services used for delivering, controlling, and targeting online advertising. This includes an extensive range of products and services (e.g., ad exchanges, contextual advertising, personalized advertising, adware, and retargeting).
Agricultural technology	Agricultural technology includes companies that provide services, engage in scientific research, or develop technology with the express purpose of enhancing the sustainability of agriculture. This includes wireless sensors to monitor soil, air, and animal health; hydroponic and aquaponic systems; remote-controlled irrigation systems; aerial photo technology to analyze field conditions; biotechnology platforms for crop yields; data analysis software to augment planting, herd, poultry, and livestock management; automation software to manage farm task workflows; and accounting software to track and manage facility and task expenses.
Artificial intelligence and machine learning	Companies in artificial intelligence (AI) and machine learning develop technologies that enable computers to autonomously learn, deduce, and act through utilization of large data sets. The technology enables development of systems that collect and store massive amounts of data and analyze that content to make decisions based on probability and statistical analysis. Applications for AI and machine learning include speech recognition, computer vision, robotic control, and accelerating processes in the empirical sciences where large data sets are essential, such as gene-sequencing in life sciences.
Audio technology	Audio technology (or developers of software and hardware technology for the music industry) includes providers of on-demand music services, such as Spotify and Apple Music, that connect products from music artists with the public. This also includes developers of audio technology for the professional and consumer sound markets, including earphones, transmitters, automobile sound systems, and home and studio systems. NOTE: Audio technology does NOT include retailers of physical audio products, such as electronics stores or installers of home audio equipment.
Augmented reality	Augmented reality (AR) is a technology which overlays superimposed computer-generated images over a user's view of the real world, thus altering and/ or enhancing one's current perception of reality. Companies in this space are involved with hardware and software development, content creation, and distribution related to AR products.
Autonomous cars	Autonomous cars are street-legal vehicles that can sense their environments and navigate without human interaction. Companies in this field include related technology, which is based on radar, lidar, global positioning system (GPS), odometry, software, and computer vision.
B2B payments	Business-to-business (B2B) payment companies develop software intended to facilitate transactions between businesses. This technology is primarily intended to improve the speed, security, and affordability of existing B2B payment solutions. This includes companies involved in accounts receivable and accounts payable software, electronic invoicing, international payments networks, blockchain B2B solutions, payments analytics, virtual payment cards, and supply chain and procurement software.
Beauty	This vertical encompasses beauty companies that are incorporating digital technologies into their products or services, providing bespoke products that target a niche group of users, or are manufacturing and marketing their products as natural, clean, and organic.
Big data	Big data companies provide a product or service whose core technology handles data that are too large for traditional database systems, usually due to data volume, data velocity, or data variety.
Blockchain/ cryptocurrency	<p>Blockchain refers to a distributed public database which keeps a permanent and incorruptible record of digital transactions. Blockchains are unique in that they cannot be controlled by a single entity and have no single point of failure. Furthermore, blockchains can be programmed to store more than just financial information. This space includes companies involved in developing blockchain applications related to smart contracts, crowd funding, supply chain auditing, cryptocurrency, identity management, intellectual property, and file storage.</p> <p>Cryptocurrency refers to a virtual medium of exchange, created and stored electronically in the blockchain, distinguishable from other currencies in that it uses cryptographic technology to decentralize the creation of monetary units and securely verify transactions. This space includes companies providing services or developing technology related to the exchange of cryptocurrency, the storage of cryptocurrency, the facilitation of payments using cryptocurrency, and securing cryptocurrency ledgers via mining activities.</p>

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Cannabis	Cannabis companies are involved in the production, retail distribution, digital media, therapeutics, business solutions, or development of consumer products related to cannabis. This includes marijuana dispensaries, laboratory testing equipment and services, medical marijuana, cannabinoid-based pharmaceuticals, vaporizers and accessories, cannabis cultivation, and online content and networking related to cannabis.
Car-sharing	Car-sharing is a model of car rental whereby users rent cars for short periods of time, often by the hour. The act of renting usually takes place via a mobile application.
Clean technology	The primary purpose of clean technology companies is developing new technologies related to clean energy production, transmission, storage, or use; water treatment and management; and/ or efficiency in energy or resource management and use.
Construction technology	Construction technology companies build hardware and software solutions intended to increase the efficiency and productivity of operations related to construction, building, and infrastructure. This includes project management software, construction robots, job site survey drones, building information modeling, augmented and virtual reality applications for construction, modular and prefabrication solutions, equipment marketplaces, and risk management tools.
Cybersecurity	Cybersecurity consists of information technology companies that provide their software using client-server architectures that host the application in a centralized, off-site location.
Digital health	Digital health companies engage in building hardware and software solutions to empower individuals to more easily keep track of their health and offer health care providers better tools to communicate with and treat patients. This space includes a host of mobile applications designed to track fitness activity, sleep, nutrition, weight, and medication intake, as well as telemedicine programs to make it easier to connect with health professionals, electronic health record and clinical workflow software, digital wearable devices, remote monitoring and diagnostics software, artificial intelligence platforms, and genomics testing technology.
E-commerce	Examples of e-commerce companies include (1) a retailer who specifically sells online consumer products and services; (2) a company that provides logistics services for online retailers; or (3) a company that provides technology and web-design services for creating e-commerce websites.
Educational technology	Educational technology is software and hardware created to enhance teaching practices and improve learning outcomes. This includes online academic courses, online educational games, and audio-visual technology, such as smart boards and online grading/ administrative systems.
Ephemeral content	Ephemeral content companies provide online platforms for the sharing and temporary display of photos, videos, messages, documents, and other content. The key aspect is that the content vanishes from the Web after a certain time frame (usually minutes or hours).
eSports	Competitive gaming at a professional level, or eSports, is played in an organized format such as a tournament or league and with a specific goal such as winning a championship and/ or receiving prize money. This vertical includes eSports teams, streaming and broadcasting platforms, communication and social applications used for gaming, marketing tools, analytics and training services for eSports athletes, fantasy and virtual gambling, gaming hardware manufacturers, tournament and event hosts, and developers and publishers of eSports titles.
Female technology	Female technology refers to the development and application of technologies, products, and services intended to improve outcomes related to women's health. Companies in this space service the following use cases: period care, aging and menopause, sexual health, pregnancy and childbirth, pre- and postnatal solutions, fertility management, and pelvic health.
Financial technology	Financial technology companies use new technologies including the Internet, blockchain, software, and algorithms to offer or facilitate financial services usually provided by traditional banks including loans, payments, wealth or investment management. Financial technology companies are also software providers automating financial processes or addressing core business needs of financial firms. This includes makers of automatic teller machines (ATMs), electronic trading portals, and point-of-sale software.
Food technology	Food technology companies develop technology intended to improve consumer experiences around food selection, purchasing, and consumption. This space includes all of the Restaurant Technology vertical in addition to food ordering and delivery applications, food waste recyclers, meal kits and recipe boxes, cooking and chef communities, novel foods, and online grocery retail.
Gaming	This vertical collects all companies existing within the video game ecosystem. This includes companies developing and publishing titles, building tools and services for video game studios and players, and providing accessories and peripherals intended for gaming. Online poker and casino games are excluded from this space, while gambling related to eSports is included.
Health technology	Health technology companies provide mobile and other information technologies to improve health care delivery while decreasing costs. Health technology entails the use of technology and services – including cloud computing, Internet services, and digital records and image management – to optimize patient-centric health care.
Human resources technology	Human resources technology companies develop software designed to improve human resource management operations and hiring processes. This includes applications used for recruiting, applicant tracking, applicant screening, performance management, benefits administration, employee engagement, and employee analytics.

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Impact investing	Impact investing companies only include those that have received investment from funds and/or investors with an investment preference of "seeks impact investment." For a fund to qualify as an impact fund, it must invest for financial returns as well as to create a positive social or environmental impact and be actively measuring the impact that is created, or it must self-identify as an impact fund. The category also includes companies that have received investment from "not-for-profit venture capital" investors.
Industrials	This vertical serves as an industry aggregate intended to capture companies engaged in providing industrial and commercial supplies and services, diversified trading, distribution operations, and transportation services. Industrials comprise the infrastructure vertical combined with the following industries: Aerospace & Defense, Building Products, Construction & Engineering, Electrical Equipment, Machinery, Distributors & Wholesale, Printing Services, Environmental Services, Office Services, Security Services, Consulting Services, Human Capital Services, B2B Transportation, and B2C (business-to-consumer) Transportation.
Infrastructure	Infrastructure companies own physical assets necessary for the movement of goods, multimodal commerce, or power generation. This includes toll roads and bridges, airports, railroad networks, bus terminals, ports, and power plants.
InsurTech	InsurTech companies utilize technology to increase the speed, efficiency, accuracy, and convenience of processes across the insurance value chain. This includes quote comparison websites, insurance telematics, insurance domotics (home automation), peer-to-peer insurance, corporate platforms, online brokers, cyber insurance, underwriting software, claims software, and digital sales enabling.
Internet of Things	An Internet of Things company provides a product that is enabled with sensors and actuators embedded in physical objects, and/ or software that uses this sensor data to improve the user experience or allows for sharing this data with a network of other devices, often using the same Internet Protocol that connects the Internet. This includes Radio Frequency Identification technology, as well as codes that can be scanned with a smartphone; appliances and thermostats that can be regulated remotely by a smartphone or other monitoring device; and other remotely controlled, embedded devices.
Life sciences	Life sciences companies are involved in sciences dealing with living organisms and life processes, including biology, pharmaceuticals, biomedical technology, and nutraceuticals.
LOHAS	LOHAS (Lifestyles of Health and Sustainability) companies provide consumer products or services focused on health, the environment, green technology, social justice, personal development, and sustainable living. This includes providers of nutritional supplements, fitness products, organic foods and textiles, ecotourism, electric vehicles, socially conscious investing and financing, ecologically conscious furnishings, housewares, and cleaning supplies.
Manufacturing	Manufacturing companies produce products that require the heavy use of capital equipment and raw materials.
Marketing technology	Marketing technology is digital technology that automates and simplifies tasks for marketers, reducing the need for information technology involvement. This vertical includes search engine optimization (SEO) tools for evaluating and ranking site pages, writing SEO-friendly copy, and performing real-time keyword research; technology that supports marketing, online ads, and sponsorship; applications that aid content creation, landing page optimization, merchandising, usability, and analytics; and retention and growth tools that focus on personalization, loyalty programs, e-mail marketing, and customer relationship management.
Micromobility	Micromobility includes transportation solutions that target the "last mile" problem, whereby users have difficulty getting from their starting destination to a major transportation hub such as a bus or railway station. Distances covered by these solutions typically average less than 6 miles, with bicycles and scooters being the most prevalent form of transportation.
Mobile	Mobile companies are those whose primary revenue source comes from providing services for mobile devices or enabling mobile communications.
Mobile commerce	Mobile commerce companies build mobile applications to assist in the buying and selling of goods and services through a wireless Internet-connected device such as a phone or tablet. This includes bill payments, mobile retail, mobile baking services, peer-to-peer payment transferring applications, and mobile point-of-sale applications.
Mortgage technology	Mortgage technology companies leverage digital technologies to improve efficiency and speed in phases of the mortgage life cycle, such as mortgage origination, underwriting, servicing, and closing. This includes mortgage processing and workflow software providers, technology-based mortgage lenders, mortgage data and analytics, and digital mortgage brokers.
Nanotechnology	Nanotechnology companies engage in creating products that are dependent upon the ability to manipulate materials at an atomic level, usually due to the materials exhibiting novel properties at the subatomic level.
Oil and gas	Oil and gas companies are involved in the extraction, production, refining, transportation, and/or processing of oil and natural gas resources, as well as related products. This vertical encompasses all of the upstream (exploration, extraction, operating of wells), midstream (transportation via pipeline, oil tanker, rail, or truck of refined and unrefined goods), and downstream (refining and processing of crude oil, as well as purifying of raw natural gas) sectors of the oil and gas industry.
Oncology	Oncology companies are involved in the diagnosis or treatment of cancer without regard to whether they do so through the production of pharmaceuticals, devices, or services-based models.

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Pet technology	Pet technology companies enhance pet ownership and pet quality of life through the creation of digital devices, novel services, and pet-related applications. This includes pet health and monitoring devices, pet genetics services, social media applications designed for pets, pet care and dog walking applications, pet food delivery services, and assorted digital devices intended for pet care.B51
Real estate technology	Real estate technology companies develop and leverage technology intended to help facilitate the purchase, management, maintenance, and investment into both residential and commercial real estate. This includes subsectors such as property management software, Internet of Things home devices, property listing and rental services, mortgage and lending applications, data analysis tools, virtual reality modeling software, augmented reality design applications, marketplaces, mortgage technology, and crowdfunding websites.
Restaurant technology	Restaurant technology companies develop hardware and software intended to help restaurants increase profitability, efficiency, and customer engagement. This includes the provision of guest Wi-Fi and phone charging stations, customer acquisition and retention programs, order kiosks, point-of-sale systems, tabletop devices, restaurant management software, 3D food printing, and mobile applications related to online ordering, booking and reservations, payment, and restaurant reviews and discovery.
Ridesharing	Ridesharing is the hailing of a ride via application or platform, usually met by a private vehicle and sometimes a taxi. Though "sharing" is in the name, this definition isn't restricted to pool rides or lines where passengers from different parties ride together. The term also encompasses private rides, which consist of a driver and one-trip party only.
Robotics and drones	Robotics and drones companies provide automated or remote-controlled mechanical devices and technology. This includes machinery programmed to perform repetitive tasks such as manufacturing and loading; precision tasks such as surgery or semiconductor production; and remote-operated movement or travel, such as that provided by unmanned aerial vehicles, subsea vehicles, and land vehicles.
Software as a service	Software as a service (SaaS) refers to information technology companies that provide software that is available for login through the Internet and that sell that software to customers through an ongoing subscription. A SaaS company sells software for online use that a person or company has to purchase. Companies like Zenefits, PitchBook, Workday, and Salesforce are all SaaS companies that offer online software for which a user pays through an ongoing subscription.
Space technology	Space technology companies provide services, engage in scientific research, or develop technology related to space flight, satellites, or space exploration. This includes microsatellites, nanosatellites, ground station networks, rocket technology, payload systems, spacecraft development, satellite imagery, satellite telecommunications, space-based data, space materials, space tourism, and asteroid mining.
Technology, media, and telecommunications	Technology, media, and telecommunications (TMT) serves as an industry aggregate intended to capture companies that exist within the TMT value chain. This includes companies providing network infrastructure, companies developing technologies utilizing those networks, and companies leveraging those technologies to distribute digital content. TMT comprises all technology-related verticals combined with the following industries: Business-to-Consumer (B2C) Electronics, Healthcare Technology Systems, and the entire Information Technology sector.
Virtual reality	Virtual reality refers to technology, including hardware and software, that provides an immersive, three-dimensional user experience in a virtual world. Virtual reality environments are provided through a computer screen augmented with wearable devices, such as head-mounted stereoptical displays or sensor-embedded gloves. Virtual reality also includes remote communication environments, where users interact with each other through computer-generated avatars.
Wearables and quantified self	Wearables and quantified self refers to a consumer health care sector entailing sensor-based tracking of aspects of a user's life, including moods, nutrition, and activities. This category entails the use of wireless sensors that can be attached to a person through clothing, attached to the body, or ingested into the body. The data are used for self-tracking for better understanding of individual health and behavioral capacities. Common uses for this technology include fitness assessment, stress analysis, sleep monitoring, biofeedback applications, and monitoring of behavioral changes.

Source(s)

PitchBook, venture capital and private equity database, accessed 2 July 2019.

Science and Engineering Indicators