REFINITIV

DELTA REPORT

10-K

CYNGN INC.

10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS		1837
🟨	CHANGES	198
🟥	DELETIONS	722
🟩	ADDITIONS	917

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
(Mark One)
Washington, D.C. 20549☒
FORM 10-K
(Mark One)
☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended **December 31, 2022 2023**
or
☐
or
☐ **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from [____] to [____]
Commission file number **001-40932**
CYNGN INC.
(Exact name of registrant as specified in its charter)

Delaware	**46-2007094**
State or other jurisdiction of incorporation or organization	(I.R.S. Employer Identification No.)
1015 O'Brien Dr., Menlo Park, CA	**94025**
(Address of principal executive offices)	(Zip Code)

Registrant's Telephone number, including area code: **(650) 924-5905**
Securities registered pursuant to Section 12(b) of the Act:

Title of Class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value $0.00001	CYN	Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:

Title of Each Class	Name of Each Exchange On Which Registered
N/A	N/A

Indicate by check mark if the registered is a well-known seasonal seasoned issuer, as defined in Rule 405 the Securities Act.
Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the last 90 days.
Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-K S-T (§229.405 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by a check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the registrant's Common Stock outstanding, other than shares voting and non-voting common equity held by persons who may be deemed affiliates of the registrant, non-affiliates as of June 30, 2022 June 30, 2023 (the last business day of the registrant's most recently completed second fiscal quarter), computed by reference to the closing price for the Common Stock common stock on such date ($1.15) 1.1636), as reported on the Nasdaq Capital Market, was $11,277,345.$19,432,847.

The number of shares of Common Stock, $0.00001 par value, outstanding on March 15, 2023 February 29, 2024 was 33,719,592 82,287,127 shares.

DOCUMENTS INCORPORATED BY REFERENCE
None.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements. These statements are based on our management's beliefs and assumptions and on information currently available to our management. The forward-looking statements are contained principally under the headings "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Business." Forward-looking statements include statements concerning:

- our possible or assumed future results of operations;
- our business strategies;
- our ability to attract and retain customers;
- our ability to sell additional products and services to customers;
- our cash needs and financing plans;
- our competitive position;
- our industry environment;
- our potential growth opportunities;
- expected technological advances by us or by third parties and our ability to integrate and commercialize them;
- the effects of wars, such as the wars in Ukraine and the Middle East, natural disasters and pandemics, such as the Covid-19 pandemic;
- the effects of future regulation; and
- the effects of competition.

All statements in this Annual Report that are not historical facts are forward-looking statements. We may, in some cases, use terms such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions that convey uncertainty of future events or outcomes to identify forward-looking statements.

The outcome of the events described in these forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. These important factors include our financial performance and the other important factors we discuss in greater detail in "Risk Factors." You should read these factors and the other cautionary statements made in this Annual Report as applying to all related forward-looking statements wherever they appear in this Annual Report. Given these factors, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date on which the statements are made. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

Unless the context requires otherwise, references in this Annual Report on Form 10-K to "we," "us," "our," and Cyngn refer to CYNGN Inc. and its consolidated subsidiaries.

PART 1

PART 1

Item 1. Business

GeneralCompany Overview

We are Cyngn Inc. is an autonomous vehicle ("AV") technology company that is focused on addressing industrial uses for autonomous vehicles. We believe that technological innovation is needed to enable adoption of autonomous industrial vehicles that will address the substantial industry challenges that exist today. These challenges include labor shortages, lagging technological advancements from incumbent vehicle manufacturers, high labor costs and high upfront investment commitment.work safety.

According to the "Trends in Supporting and Scaling Modern Automation" report by Ricoh & ABI Research Report, historically, less than 1% of industrial vehicle equipment shipped by top manufacturers has been automated. Despite these low penetration rates, the benefits of industrial vehicle automation can produce operational efficiency gains of upwards of 50%, according to the "Industry 4.0: Reimagining manufacturing operations after COVID 19" article by McKinsey & Company. As automation proliferates, these industries will gradually shift to service-based models that will decrease upfront capital expenditures and create new revenue streams while unlocking new value in the supply chain. Our Autonomous Vehicle ("AV") technology is uniquely positioned to capitalize upon these changes by offering a universal autonomy solution that can deliver self-driving capabilities and data insights to nearly every industrial vehicle on the market.

We integrate our full-stack autonomous driving software, DriveMod, onto vehicles manufactured by Original Equipment Manufacturer ("OEM") either via retrofit of existing vehicles or by integration directly into vehicle assembly. We design the Enterprise Autonomy Suite ("EAS") to be compatible with sensors and components from leading hardware technology providers and integrate our proprietary AV software to produce differentiated autonomous vehicles.

Autonomous driving has common technological building blocks that remain similar across vehicles and applications. By tapping into these building blocks, DriveMod is designed to deliver autonomy to new vehicles via streamlined hardware/software integration. This vehicle-agnostic approach enables DriveMod to expand to new vehicles and novel operational design domains ("ODD"). In short, almost nearly every industrial vehicle, regardless of use case, can move autonomously using our technology.

Our approach accomplishes several primary value propositions:

1\. 1. Brings Provide autonomous capabilities to industrial vehicles built by proven established manufacturers that are already trusted by customers.

2\. 2. Generates Generate continual customer value by leveraging the synergistic relationship of autonomous vehicles and data.

3\. 3. Creates Develop consistent autonomous vehicle operation and user interfaces for diverse vehicle fleets.

4\. 4. Complements Complement the core competencies of existing industry players by introducing the leading-edge technologies like of Artificial Intelligence ("AI") & Machine Learning ("ML"), cloud/connectivity, sensor fusion, high-definition high- definition mapping, and real-time dynamic path planning & decision making.decision-making.

We believe our market positioning as a technology partner to vehicle manufacturers creates a synergy with incumbent suppliers that already have established sales, distribution, and service/maintenance channels. By focusing on industrial use cases and partnering with the incumbent OEMs in these spaces, markets, we believe we can source and execute revenue-generating opportunities more quickly.

Our long-term vision is for EAS to become a universal autonomous driving solution with minimal marginal cost for companies to adopt new vehicles and expand their autonomous fleets across new deployments. We have already deployed DriveMod software on more than ten different vehicle form factors that range from stockchasers and stand-on floor scrubbers to 14-seat shuttles and electric forklifts as part of prototypes and proof of concept projects, demonstrating the extensibility of our AV building blocks.

Our recent progress contributes to the validation of EAS with OEM partners and end customers. We also continue to build upon our ability to scale our products and generate novel technological developments. See figure below for recent highlights:

The DriveMod Stockchaser became commercially available in early 2023 starting with the deployment from our partner-customer US Continental, a California-based leading manufacturer of quality leather and fabric care products. We also launched the DriveMod Forklift and the DriveMod Tugger as we expand our vehicle-type portfolio fleet through our OEM partnership with BYD and Motrec, respectively.

We secured paid projects with leading global customers like Arauco, along with additional projects from big brands in the Global 500 and the Fortune 100. Our patent portfolio expanded with 16 new U.S. patent grants in 2023, bringing the total grants to 19.

Figure 0: Summary of recent Cyngn technical and commercial milestones

We believe that the ubiquity of our technology will combine with our deep AV experience and enable us to incrementally expand into new AV verticals. Thus, we could grow our total addressable market ("TAM") from the billions of dollars we are currently targeting in the commercial and industrial markets to the trillions of dollars that self-driving vehicles can capture across industries (Source: Ark Invest. "Mobility-As-A-Service: Why Self-Driving Cars Could Change Everything.").

Overview: Automation and Autonomy in the Industrial Equipment Market Industry 5.0

OverviewThe fifth industrial revolution is upon us with self-driving industrial vehicles operating alongside with human workers and encompasses the benefits from the fourth industrial revolution of smart factories and automated supply chain logistics, with big data connectivity. According to Research Nester, they forecast the global industry 5.0 market to experience remarkable CAGR growth from 2022 - 2030 led by industrial internet of things, artificial intelligence with the alliance of humans and collaborative robots.

As automation proliferates, these industries will gradually shift to service-based models that will decrease upfront capital expenditures and create new revenue streams while unlocking new value in the supply chain. Our AV technology is uniquely positioned to capitalize upon these changes by offering a universal autonomy solution that can deliver self-driving capabilities and data insights to nearly every industrial vehicle on the market.

Automation has long played a role in industrial sectors. More recently, theThe larger industrial automation market has grown significantly by riding the wave of new technology and innovation focused on addressing the needs of what is known as *Industry 4.0*, the outcome of the fourth industrial revolution (Source: *https://www2.deloitte.com/us/en/insights/focus/industry-4-0.html*). According to the "Industrial Automation Market by Component, Mode of Operation, and End User" report by Meticulous Market Research Pvt. Ltd., in 2020, the industrial automation industry was valued at US$164.2 billion and is expected to grow at 9.3% compound annual growth rate ("CAGR"), ultimately reaching a market value of US$306.2 billion by 2027. Autonomous vehicles represent fundamental technology that will enable the fourth industrial revolution.

Figure 1: Illustration of the progression from Industry 1.0 to experienced during Industry 4.0.

Industrial automation is broadly understood to consist This consists of a wide range of technology solutions that provide varying levels of automation for critical software control systems and industrial equipment. These components are essential to the operations and growth of global markets such as manufacturing, distribution, transportation, construction, and mining. The relatively controlled and pre-defined operational environments industrial companies operate in are what make them such a strong opportunity for companies looking to develop automation solutions, but enhanced product capabilities will be required to achieve the promise ofHowever, Industry 4.0 — capabilities that will be created by technological advancementshas its limitations in industrial autonomy. With the convergence of AI/ML, robotics, connectivity, mapping and interoperability.interoperability, autonomous vehicle technology is the next leap-frog advancement in materials handling and supply chain logistics efficiency and safety propelling manufacturing into the Industry 5.0 phase.

Figure 1: Illustration of the progression from Industry 1.0 to Industry 5.0.

Automation Solutions for Industrial Equipment

The Industrial Equipment market covers a broad range of use cases and product categories, with automation solutions targeting Material Transport Equipment (“MTE”) heavily utilized by the majority of industry market sectors. For our purposes, we can think of MTE to include all material handling equipment directly related to material transit (this includes conveying equipment, monorail, hoists, storage & retrieval, and industrial vehicles). According to a Grand View Research report, the “Global Material Handling Equipment’ report material handling equipment market was valued at $213.4 billion in 2021. They expect the CAGR from 2022 to 2030 of 5.7% to be driven by Freedonia Focus Reports, increased worker safety awareness, rising requirements for managing bulk materials and further adoption of Industry 4.0 initiatives with the MTE market is characterized by steady growth, use of IoT. Further with the rising need for reducing downtime and the increase in global e-commerce activity and industry mechanization over the past decade are projected focus on improving supply chain efficiency, self-driving industrial vehicles play an important role to grow the industry achieve these objectives as manufacturing transitions to $160 billion in 2023, representing a 3.9% 5-year CAGR. Industry 5.0. Our belief is that these strong growth indicators will drive increased need for more advanced technology that will address gaps in the current capabilities of automated MTE solutions.

Historically, MTE automation has been heavily weighted in solutions related to storage/retrieval systems and conveyors because more rigid and repetitive environments are better suited for the limited capability of existing automation solutions. By contrast, the industrial vehicles in the MTE category referred to here as *industrial vehicles,* are largely still driven manually. As A March 2023 report released by MHI and Deloitte finds that 74% of supply chain leaders are increasing their supply chain technology and innovation investments with 90% saying they are planning to spend more than $1 million, an example, automated guided vehicles (“AGVs”) 24% increase from 2022 levels. Thirty-six percent plan to spend more than $10 million, up 19% from the prior year. This investment includes solutions for improved supply chain transparency and autonomous mobile robots (“AMRs”) have illustrated the applicability of automated industrial vehicles for the manufacturing and distribution industries, yet adoption rates of these technologies are lagging Industry 4.0 growth rates by as much as 4.5%, sustainability, according to the “Global Material Handling Equipment’ report by Freedonia Focus Reports.2023 MHI Annual Industry Report, “The Responsible Supply Chain: Transparency, Sustainability, and the Case for Business.”

Analysis The World Industrial Truck Shipment statistics reported that 1.42 million industrial EV vehicles were shipped in the “Trends in Supporting and Scaling Modern Automation” report by Ricoh & ABI Research Report estimates that the top 10 manufacturers of industrial vehicles for manufacturing and distribution shipped approximately 883,000 units in 2019. 2022 worldwide. However, fewer than 1% of material handling vehicles shipped every year are automated, presenting a significant opportunity to automate industrial vehicles. The cost to operate a non-autonomous material transport vehicle is reported to be $32.42 per hour, according to have an annual salary of $47,244 for warehouse drivers in the U.S. Bureau of Labor Statistics compensation data for transportation and material moving full-time employees. Further, it is estimated that each non-autonomous vehicle is in operation for approximately 4,174 hours per year based on 16-hour per workday operation. Indeed.com, a career and jobsite provider. Although the wages are lower in Europe, Asia and rest of the world, there are more industrial vehicles outside the Americas, or about 83% of vehicle units, thereby an even greater total available market internationally than domestically. The global installed base of industrial EV vehicles with a 3-year life span or less is about 3.75 million vehicles. With a fully loaded, global weighted average annual labor costs associated cost of $47,674 with humans operating 883,000 non-autonomous vehicles for manufacturing and distribution yield an assumed, on average, 1.5 work shift operations, our current market potential of $119B. The ability to deliver more consistent operations, reduce accidents, and mitigate personnel issues like attrition and truancy through the use of AVs could create additional market opportunity. Other relevant statistics we consider when evaluating our market potential are that there are an estimated 20,000 warehouses in the US (50,000 globally) with an average of 175 employees per warehouse, according to Statista, and there are an estimated 900,000 employees moving material within these US warehouses, according to “Industries at a Glance: Warehousing and Storage: NAICS 493.” We believe that technological innovation is needed to enable adoption of autonomous MTE that opportunity exceeds $268 billion.

Automating industrial vehicles will address the substantial industry challenges that exist today. following challenges:

These challenges include:

Labor shortages — The hiring and retention of qualified workers is a critical concern for the markets that material transport vehicles operate within. In fact, Deloitte’s 2020 and 2021 2022 Material Handling Industry Report showed that over 50% of the 1,000 supply chain and manufacturing leaders surveyed rated hiring and employee retention as their biggest challenge (source: MHI Deloitte Industry Report). Additionally, in a survey completed in late 2019 prior to the start of the COVID 19 pandemic, 73% of survey respondents indicated that it takes more than 30 days for their companies to fill open positions. By 2030, the impact of unfilled open jobs in manufacturing could cost the US economy more than $1 trillion. Compounding the issue further is the industry’s projected increase in labor demand and cost. According to IBISWorld’s 2020 US Industrial Machinery & Equipment Industry Report, US industry labor needs are expected to increase at an annualized rate of 3.7% to over 375,000 workers through 2025, driven by higher US industrial and manufacturing activity. Average cost of manufacturing labor in the US has also increased by 20% since 2010 according to McKinsey.

Difficulty in scaling — The traditional approaches to vehicle automation make scaling vehicle automation solutions difficult due to strains caused by service lifecycle management and issues with dynamic deployability. Industrial automation customers are forced to coordinate operational components from a variety of different vendors and lack a unifying architecture that allows the technology to scale effectively within and across sites. Significant costs are also associated with expanding the scope of existing automation solutions as they are tightly coupled to specific vehicles and often require an overhaul of the site infrastructure to overcome shortcomings in the automation technology. This can be especially true in niche environments like mines, where the deployability challenges are compounded by unique sites that require heterogeneous fleets. Furthermore, customer service, workforce training, and repair fall under service lifecycle management and must be taken into account along with the technology in order to scale efficiently, according to the “Trends in Supporting and Scaling Modern Automation” report by Ricoh & ABI Research Report.

Lagging technological advancement — Manufacturers of material transport vehicles have core competencies in mechanical, electrical, and control systems while the end users of the vehicles typically specialize in logistics, manufacturing, and material moving. There is limited expertise throughout the material handling value chain in software algorithms, sensing, and high-performance computing. Considering the incumbents’ gaps in leading-edge AV and AI technologies and the pressure existing suppliers face to ship manually-operated vehicles that address the multi-billion dollar demand that already exists, we believe it is unlikely that existing stakeholders will be able to invest in the technological advancements that will solve the industry’s fundamental challenges.

High barriers to adoption — Many solutions for automated material transport require an all-or-nothing commitment from customers: either make a major upfront investment to overhaul operations for automation or postpone automation at the risk of falling behind competition. This all-or-nothing approach to unlocking future return on investment (“ROI”) can be problematic for risk-averse companies that seek to adopt automation solutions. Depending on fleet size, traditional automation solutions such as “robot-in-a-box” may command ROI horizons of up to 4 years. Factoring in ancillary costs like installation, maintenance, on-site testing, integration, and deployment, can also represent a significant annual cost burden, according to findings by Richoh Ricoh & ABI Research Report. According to a PwC 2016 Digital Operations survey, “cost advantage” was the most prevalent prompt cited (86% of responses) for adopting advanced industrial mobility technologies, but in conjunction, “costs are prohibitive” was the most prevalent barrier (58% of responses) to adoption of semi-autonomous/autonomous vehicles.

To combat these challenges, we have built an Enterprise Autonomy Suite for industrial vehicles that leverages advanced in-vehicle autonomous driving technology and incorporates leading supporting technologies like data analytics, fleet management, cloud, and connectivity. EAS provides a differentiated solution that we believe will drive pervasive adoption of industrial autonomy and create value for customers at every stage of their automation growth.

Business Model: The Enterprise Autonomy Suite for Industrial Vehicles

A number of business models have been developed to support industrial autonomy where software is the enabling technology that's transforming supply chain logistics under Industry 4.0 and 5.0. Software as a Service (SaaS) is the initial working business model for the company but this is not entirely accurate as vehicle hardware plays an integrated role in automating materials handling. Autonomy requires both the movement of "bits" (or software) and the movement of "atoms" (or hardware). Robots as a Service (RaaS) is a useful business model given the high cost of AGVs and AMRs where industrial warehouse managers may prefer to rent robots and pay a monthly subscription fee for both software and hardware usage. In our served markets where customers primarily purchase and own their industrial vehicle fleet, we deliver the software that enables self-driving vehicle capability. As such, our EAS software is designed to provide level 4 high automation, fully autonomous driving without the need for a human in the vehicle. Cyngn's business model is thereby more attuned to Driver as a Service (DaaS) as our EAS software integrated with the vehicle hardware enables the customer to remove the human driver into self-driving functionality.

Our unique value proposition stems from the concept that the growth of industrial autonomy requires an approach that deploys applied AV solutions within a system of supportive resources rather than a technology feature that is tuned to a specific industrial vehicle.

Some companies manufacture standard industrial vehicles then integrate industrial automation software for rigid tasks. Others develop new vehicle platforms to enable more advanced automation capabilities, limiting the AV technology to a narrow use case. We develop an developed advanced autonomous vehicle software, DriveMod, for industrial vehicles. DriveMod is a component of EAS that is operationally expansive, vehicle agnostic, and compatible with indoor and outdoor environments. EAS centers around DriveMod's on-vehicle AV software and is supported by our Cyngn Insight and Cyngn Evolve technology and tools.

Figure 2: The core components that make up our EAS product offering.

Our approach drives value at every stage of a company's autonomy journey

EAS provides extensible industrial autonomy solutions that can include data-driven actionable insights, partial autonomy to augment existing workflows and support human drivers, and fully autonomous vehicle mobility. By offering flexible data and autonomous services through subscription-based business models, we assuage the industry's existing challenge of all-or-nothing adoption for autonomous vehicles. Installing DriveMod onto any vehicle unlocks a collection of valuable product offerings that customers can activate over the air, creating lower barriers to entry and enabling customers to benefit from novel data insights while adopting industrial AVs at their own pace. Our solutions also do not require infrastructure investments to enable autonomous vehicle operation.

EAS galvanizes the relationship between AVs and data

Our EAS combines core autonomous vehicle technology with a suite of tools and products that strengthen the ties between industrial business operations and the positive network effects that underpin the relationship between data and AVs. DriveMod uses data from advanced sensors to navigate AVs, creating a de facto mechanism for rich data collection. Vehicles equipped with DriveMod provide the means for us to collect data then organize, analyze, and expose customers to novel insights. This makes the data collected during vehicle operation a new type of asset that adopters of AV technology can take advantage of. Data can be stored in cloud or on-premises on-premise servers, according to customer requirements. We intend to have our customers own the data collected at their facilities and for Cyngn to have the rights to use that data for certain purposes, such as testing simulation and development. These data assets present a new opportunity to reveal previously unknown insights about day-to-day operational processes that impact safety, efficiency, vehicle maintenance, and growth.

Figure 3: The EAS product flywheel

As the deployment of industrial vehicles with DriveMod scales up, the amount and diversity of data flowing through Cyngn Insight expands, creating an accelerated feedback loop and powers our ability to use Cyngn Evolve to further enhance DriveMod, and update the on-vehicle software over-the-air, resulting in an ever-improving EAS offering.

Continual Improvement Drives Technology Advancement

DriveMod's building blocks enable a more consistent cadence of upgrades, improvements, and customer-specific feature development that can be deployed via over-the-air updates. These capabilities ensure that the deployed system stays in sync with the changing application demands while allowing customers to focus on monetary and operational ROI. Our EAS plugs into business operations by creating and collecting real-time data and aggregating it into configurable analytics dashboards that inform customer operations as well as future DriveMod releases, creating a data set specific to each customer from high-resolution data collected during their operations.

Our Approach Augments and Upskills Workforces

Industrial vehicle autonomy represents an opportunity to minimize the adverse impact that labor shortages, employee health, and safety have on a company's core operations. Autonomous vehicles can be relied upon to fill the voids that commonly create human resource issues like executing repetitive tasks, working during undesirable hours, and operating in uncomfortable or hazardous environments. One Deloitte case study inspected a parts manufacturing and fulfillment facility that utilized Autonomous Mobile Robots ("AMRs") to pick products from the back of their expansive distribution center. Introducing the AMRs saved employee time, provided respite from unstimulating tasks, and improved both morale and productivity overall (Source: Deloitte industry report, 2020).

Furthermore, existing employees can be exposed to cutting-edge technology and develop new valuable career development opportunities. For instance, a manufacturing community in Wisconsin successfully retrained their employees to be skilled in AMR maintenance after AMRs were introduced to replace traditional conveyors, according to the article "Are Autonomous Mobile Robots at the Tipping Point" by AutomationWorld.

We Designed for Scale

EAS provides a powerful solution to scalability issues, especially for dynamic deployability and service lifecycle management. DriveMod's vehicle-agnostic capability to deploy AV technology on diverse vehicle fleets has been proven through its deployment on more than ten different vehicle form factors that we have operated autonomously. DriveMod has been commercially released for the Columbia Stockchaser, and a commercial agreement with a customer is subsidizing the development of DriveMod for electric forklifts towards commercial availability. Stockchaser. Other autonomous vehicles were deployed as prototypes or as a part of proof-of-concept project. More than five past deployments have been at customer or beta customer sites. For one deployment we were paid $166,000. Other past deployments were part of our normal R&D activities and product validation that was performed with beta customers.

Our AV development and testing have included road vehicles that navigate complex dynamic environments. DriveMod is capable of perceiving more than 100 dynamic objects per second and then using that perception information to navigate autonomously. This capability has been proven via road testing in difficult driving settings like urban streets. In contrast, the industrial settings of our target market rarely encounter 100 dynamic actors per minute, let alone per second. Scalability is further strengthened by EAS creating common interfaces and experiences that unify customer data and AV operations within and across sites. Thus, proliferating our solutions with customers will be achieved by iteratively adding onto an existing EAS, which minimizes the marginal cost associated with expanding AV operations. Additionally, the deployment of EAS allows for all of the on-going administration, services, and vendors associated with managing the lifecycle of the system to be integrated.

Figure 4: Illustration of DriveMod's ability to utilize key subsystems across multiple environments and vehicle platforms (left: off-road utility vehicle; right: indoor material handling vehicle).

Our Products

EAS is a suite of technology and tools that is made up by consists of three complementary categories: DriveMod, Cyngn Insight, and Cyngn Evolve.

DriveMod: Industrial Autonomous Vehicle System

We built DriveMod as a modular software product that is compatible with various sensor and computer hardware components that are widely used throughout the autonomous vehicle industry. Our software combined with sensors and components from industry leading technology providers covers the end-to-end requirements that enable vehicles to operate autonomously with leading-edge technology. The modularity of DriveMod allows our AV technology to be compatible across vehicle platforms as well as indoor and outdoor environments. DriveMod can be retrofitted to existing vehicle assets or integrated into a manufacturing partner's vehicles at assembly, providing accessible options for our customers to integrate leading-edge technology whether their AV adoption strategies are evolutionary or revolutionary.

The core vehicle-agnostic DriveMod software stack is targeted and deployed to different vehicles through *DriveMod Kits*, which are the AV hardware systems that take into account the specific needs of operating the DriveMod software on a specific target vehicle. Then, after prototyping and productization, DriveMod kits streamline the integration AV hardware and software integration onto vehicles at scale. The DriveMod Kit for Columbia Stockchasers is commercially released and available at scale. Subsequently, we expect to create different instances of DriveMod Kits to support the commercial release of new vehicles on the EAS platform, such as the electric forklifts and other industrial vehicles.

Figure 5: Overview of Cyngn's autonomous vehicle technology (DriveMod)

DriveMod's flexibility combines with our network of manufacturing and service partners to support customers at different stages of autonomous technology integration. This allows customers to grow the complexity and scope of their industrial autonomy deployments as their business transforms while continually capturing returns throughout their transition to full autonomy. EAS will also grant customers access to over-the-air software upgrades, ad hoc customer support, and flexible consumption based on usage and scale of operations. By lessening both the commercial and technical burdens of traditional vehicle automation and industrial robotics investments, industrial AVs can become universally available to the market, even reaching small and medium-sized businesses that may otherwise struggle to adopt Industry 4.0 and 5.0 technology.

Cyngn Insight: Intelligent Control Center

Cyngn Insight is the customer-facing tool suite for managing AV fleets and aggregating data to extract business insights. Analytics dashboards surface data about the system's status, vehicle telemetry, and performance metrics. Cyngn Insight also provides tools to switch between autonomous, manual, and remote operation when required. This flexibility allows customers to use the autonomous capabilities of the system in a way that is tailored to their own operational environment. Customers can choose when to operate their DriveMod-powered vehicles autonomously and when to have human operators operate the vehicles manually or remotely based on their own business needs. When combined, these capabilities and tools make up the Cyngn Insight intelligent control center that enables flexible fleet management from any location.

Figure 6: An operator uses the Cyngn Insight control center to operate vehicles remotely

Cyngn Insight's tool suite includes configurable cloud dashboards that aggregate diverse data streams at several levels of granularity (i.e., site, fleet, vehicle, module, and component). We can collect data during "open loop" vehicle operation, meaning that the vehicles can be operated manually while still collecting the rich data enabled by the advanced on-vehicle sensors and computers. Data can be used for predictive maintenance, operational improvements, educating employees on digital transformation and more. For example, use cases for performance management analytics driven by automation have experienced productivity increases of 20 – 70% according to studies by Deloitte and McKinsey (source: MHI Deloitte Industry report: Industry 4.0: Reimagining Manufacturing Operations after COVID 19).

Cyngn Evolve: Data Optimization Tools

Cyngn Evolve is our internal tool suite that underpins the relationship between AVs and data. Through a unifying cloud-based data infrastructure, our proprietary data tools strengthen the positive network effects derived from the valuable new data created by AVs. Cyngn Evolve and its data pipelines facilitate AI/ML training and deployment, manage data sets, and support driving simulation and grading to test and validate new DriveMod releases, using both real-world and simulated data.

Figure 7: 6: The Cyngn "AnyDrive" simulation is part of the Cyngn Evolve toolchain. The simulation environment creates a digital version of the physical world. This allows for customer data sets to be leveraged and augmented to achieve testing and validation prior to releasing new AV features.

As AV technology expertise matures globally, there may be opportunities to monetize the sophisticated AV-centric tools of Cyngn Evolve. Currently, we believe that AV development is confined to small groups of experts. Therefore, Cyngn Evolve is currently an internal EAS tool that we use to advance DriveMod and Cyngn Insight, our customer-facing EAS products.

Our Strategy

Corporate Strategy

360° Sales and Marketing

We are building a go-to-market ecosystem that we believe will to be highly leveraged by using our partners as the foundation of our growth strategy. We will plan to utilize these relationships to generate and cultivate customer demand, acquire new customers, and deliver additional services to our customers.

Key elements of our market entry and expansion roadmap include:

Focus: manufacturing and distribution material handling vehicles

Manufacturing and distribution applications require the shortest timeline for deployment due to the common use of material handling vehicles in these environments and the commercial availability of our DriveMod Stockchaser solution. Manufacturing is expected to account for 52% of new material handling machinery demand by 2023, according to findings by Freedonia Focus Reports. We have already deployed DriveMod -powered DriveMod-powered industrial vehicles at multiple manufacturing and distribution facilities. These vehicles were previously deployed as prototypes or as a part of a proof-of-concept project. Of these past deployments, one was paid. Future deployments will primarily be commercial deployments with limited prototype or proof-of-concept deployments that may be engaged opportunistically for strategic value.

Broaden: address other industrial vehicle use cases

The industries that utilize material transport vehicles share trends, challenges, and opportunities. DriveMod has been architected to be vehicle agnostic and allow for efficient expansion to industries such as mining, construction, yard operations, and agriculture.

Expand: develop autonomous vehicle technologies across other sectors

According to a CB Insights report, “33 Industries Other Than Auto That Driverless Cars Could Turn Upside Down,” autonomous vehicle technology brings value to at least 33 industries. Because our core autonomous technology is universal, the Company has an opportunity to generate revenue across a variety of industries. We believe that developing the sales and marketing infrastructure to access these markets is an essential aspect of driving growth in these areas.

Revenue Sources

We anticipate that our technology will generate revenue through three main methods: deployment, EAS subscriptions, and DriveMod customization.

Deployment

Deploying our EAS requires us and our integration partners to work with a new client to map the job site, gather data, and install our AV technology within their fleet and site. New deployments yield project-based revenues that are assessed based on the scope of the deployment. Our major collaborators in this area are our OEM partners, and we can reinforce our deployment capability with integration and services from third party partners. Working directly with our OEM partners as well as with third party experts ensures that we can deploy our technology globally and at scale.at-scale.

EAS Subscription

According to ABI Research, the cloud robotics opportunity will is expected to grow from $3.3 billion in 2019 to $157.8 billion in by 2030, accounting for 30% of the robotic industry's total worth (source: Cloud Robotics Market Predicted to Grow to $157.8 billion by 2030, article by Robotics & Automation News). Sustained revenue growth will is expected to come largely from ongoing recurring subscription revenues that enable companies to tap into an ever-expanding suite of AV and AI capabilities as organizations transition into full industrial autonomy.

Industrial operations are extremely rich with data. However, we believe this data is still being put to limited use, especially as it pertains to equipment transport and autonomy performance. EAS creates a foundation for extracting new and valuable enterprise data insights by the nature of the advanced sensors, electronic control units, and connectivity that supports DriveMod's functionality. We can monetize the data insights in a variety of ways by offering configurable cloud dashboards for fleet/asset management, operational performance data, and predictive analytics to customers. In parallel, exposing this fleet and vehicle data will could be a boon for our OEM partners as they evolve to optimize their product roadmaps and better integrate our technology to serve the future needs of industrial autonomy.

DriveMod Customization and Non-Recurring Engineering (“NRE”)

DriveMod’s capability as an AV software stack will continue to expand in several dimensions—most notably, in the number of vehicles that DriveMod can operate autonomously and the maneuvers that a DriveMod-powered vehicle can execute. Targeting DriveMod to operate new vehicle types autonomously as well as the expansion of autonomous maneuvers that can be executed by DriveMod are both customizations that may generate revenues from OEMs or end customers through NRE contracts. New customizations yield project-based revenues that are assessed based on the scope of the deployment. This revenue stream is substantiated by the commercial contract that was entered into with an end customer for deploying DriveMod on electric forklifts.

Go-to-market Go-to-Market Strategy

Our go-to-market strategy hinges on strategic collaboration and is based on a set of three basic principles:

- Collaborate with industrial vehicle OEMs
- Land & expand with end customers
- Partner instead of compete on adjacent enabling technology

Collaborate — industrial vehicle OEMs

Our focus is on acquiring new customers who are either (a) looking to embed our technology into their vehicle products or (b) upsell their existing clients with our vehicle retrofits. We follow a named account coverage approach. After establishing a customer relationship with an OEM, we seek to embed our technology into their product roadmap and expand our services to their many clients. We believe this category represents a substantial opportunity to generate revenue as a single relationship with an OEM that can lead to revenue opportunities across the entire marketplace. For example, our partner, Columbia Vehicle Group with whom we have partnered through a non-binding memorandum of understanding, provides over 70 years of vehicle manufacturing experience and customer insight.

Land & expand — end customers

Our go-to-market strategy is to acquire new customers that use industrial vehicles in their mission-critical operations. We pursue this strategy by being hyper-focused on building a robust pipeline of prospective customers (“land”) and utilizing strategic sales channels that will result in coordinated opportunities to accelerate growth (“expand”). Our archetypal customers are corporations that deploy fleets of heterogeneous industrial vehicles across many sites. DriveMod’s flexibility is intertwined with the wide-ranging applicability of our EAS and creates the unique leveraged opportunity of expanding across vehicles and sites with these major customers. After an initial win for a first AV deployment with a customer, we can expand within the site to additional vehicle platforms, then expand the use of similar vehicles to other sites operated by the customer and finally repeat across new vehicles and sites.

Partner instead of compete — technology

The scaling of Industrial Autonomy will benefit from an ecosystem made up of different enabling technologies and services, such as hardware manufacturing, connectivity, Internet of Things (“IoT”), and digital integration. Rather than trying to compete with other technology suppliers, we intend to rely on our strategic collaborations that give both partners access to new markets and capabilities. For example, partners like Arilou, Symboticware and Airbiquity respectively provide complementary solutions in technologies like cyber security, digital asset management, and connectivity. These collaborative partnerships are established through mutually beneficial, non-binding memorandums of understanding or partnering agreements for the purpose of joint go-to-market efforts. Thereby we leverage our limited R&D resources with our technology partners through out-sourcing versus in-house development resulting in a more efficient asset-light approach in product development.

Our Technology

Our Technology

Autonomous vehicles must integrate a suite of technologies to generate operational value. Our core competencies are in DriveMod, the on-vehicle AV technology stack that is underpinned by AI and robotics expertise and paramount to enabling autonomous mobility. With Cyngn Insight, EAS integrates analytics, visual dashboards, connectivity, cloud services, and other traditional software systems that allow customers to interact with and extract insights out of our advanced AV technology.

Mapping & localization

Our proprietary system design abstracts mapping and localization data so that DriveMod can use a variety of high-accuracy solutions to create the optimal mapping and localization system for the given environment. Our mapping and localization system distills sensor data into contextually rich representations of the physical world and extracts common insights like required stops and navigation boundaries. These common insights help to create consistent AV operation across diverse sites, enabling our AVs to navigate both indoor and outdoor.

Perception

Granular, efficient perception forms the basis of advanced AVs. Perception is one of the most complex sub-systems, subsystems, requiring specialized data infrastructure and engineering expertise in AI/ML and high-performance computing. We have built a modular sensor fusion pipeline that runs on a low compute footprint and creates the flexibility to customize our perception stack according to application requirements. Our perception architecture streamlines DriveMod deployments on new vehicles. Our approach addresses common industry challenges like integrating different sensor modalities and accounting for different sensor mounting positions. We have now integrated DriveMod into more than ten different vehicle platforms, utilizing various combinations of Light Detecting and Ranging (“LiDAR”), camera, radar, ultrasonic, and positioning sensors.

Path planning

Our system’s ability to react and adjust to real-time changes creates a more efficient workflow than basic automation solutions that can only stop/go along a rigid path and require constant human hand-holding. The Cyngn path planning system provides thousands of trajectory candidates per second, enabling more complex paths to be navigated that may include advanced behavior like carefully nudging around obstacles or negotiating intersections.

Decision making

The Cyngn decision engine holds the logic and decision-making rules that govern driving behavior. The decision engine pulls together insights from mapping, perception, and path planning to enable more complex vehicle maneuvers and automated conflict resolution. The system is extensible to introduce new capabilities with logic that is designed to achieve a high level of abstraction, which enables us to adopt new driving behaviors.

Actuation

A subsystem of our software stack, Cyngn-by-Wire (“CbW”), addresses the basic requirements of mechanical vehicle components that must be met for DriveMod to make a vehicle operate autonomously. Legacy electronic control units (“ECU”) that do not use Drive-by-Wire (“DbW”) technology that enables software commands to electronically control vehicle actuation typically create a hurdle for integrating AV technology. CbW addresses this issue by decoupling the hardware and software components of DbW systems. For vehicles with legacy ECU’s, CbW allows customers to replace existing ECUs with DbW hardware that can be tuned to meet the needs of the selected vehicle platform using CbW software. When vehicles have DbW ECUs already installed, the CbW software layer is configured and applied without the need for replacing the hardware. Thus, CbW enables AV actuation across vehicle fleets with varying levels of vehicle age and sophistication.

Competitive Environment

Competitive Environment

There is an increasing demand for autonomous vehicle solutions in an effort to increase safety, improve efficiency, and enhance productivity to meet the goals set out by Industry 4.0. 4.0 and 5.0. Autonomous vehicles are an enabling technology that gives us the opportunity to add more value to customers.

For Industry 4.0 markets, the global management consulting firm McKinsey & Company has published reports indicating that the upswing in adoption will be dependent on the ability for technology to provide companies with solutions that give customers a pathway that balances cost constraints with short-term resilience and long-term growth (source: "Industry 4.0: Reimagining manufacturing operations after COVID 19," by McKinsey & Company). As market participants develop their Industry 4.0 roadmap, technology partners that have an ability to adapt features to their changing needs will be required. As a result, we believe there will continue to be a need for technology companies to help push the industry 4.0 markets forward.

The market for automated vehicle solutions is burgeoning, and the advanced technology required to enable autonomous solutions in industrial environments is still developing. As a result, we face competition from a range of companies seeking to develop autonomous vehicle solutions. These competitors include traditional industrial vehicle manufacturers (such as Crown Equipment's automated forklifts) forklifts or Toyota Materials Handling) robotics providers (such Locus Robotics for stock picking AMRs or SeeGrid for pallet and tow AMRs), and software companies (such as Brain Corp for floor scrubbers or Oxbotica for people and goods transport), as well as large corporate competitors that provide a broad range of software, service, and logistics solutions across many markets. These competitors are also working to advance technology, reliability, and innovation in their development of new and improved solutions.

We will continue to face competition from existing competitors and new companies entering the industrial autonomy landscape. Many of our competitors either have technical or strategic barriers that limit their product offerings to specific deployment environments, operations protocols, or vehicle form factors. It is our belief that it will take a substantial period of time to develop features that satisfy the dynamic needs of industry customers. Additionally, larger corporate competitors are likely to encounter roadblocks due to competitive overlap with end customers, limiting their ability to address the needs of the broader industrial market. With specific regard to manufacturing and distribution, a number of competitors have already begun to deploy products, but we believe the benefits stemming from our modular software-centric approach, technical expertise in the area of autonomous vehicles, and the ubiquitous applicability of EAS gives us the potential to displace current offerings and capture a significant share of this rapidly growing market.

Governmental and Environmental Regulations

Regulatory considerations contribute to our current strategic position that targets enterprise customers with operations mostly confined to private property. This decreases our exposure to regulations, which mitigates some deployment risks. Typically, we will satisfy regulatory requirements by adhering to the protocols of the site operator (the end customer).

The regulatory environment for autonomous industrial vehicles is still being developed. In 2016, the United States Department of Transportation (“USDoT” US DoT”) issued regulations that require the submission of documentation covering specific topics related to autonomy and government regulators, but these regulations are targeted towards road vehicles. As the autonomous industrial vehicle regulatory environment continues to develop, it will be imperative not only to comply with applicable standards but to be an active participant in the development of new standards. Outside of government standards, third party organizations, industrial workplace advocates, and industry groups have and will continue to impose self-regulatory standards. In certain cases, these standards may be contractually applicable to our systems, products, and operations. Thus, we expect and prepare to comply with various standards, including Occupational Safety and Health Administration (“OSHA”), International Organization for Standardization (“ISO”), International Electrotechnical Commission (“IEC”), or American National Standards Institute (“ANSI”) on a case-by-case basis.

U.S. and international regulations related to data privacy are also of great importance to our company’s products, operations, and culture. Like the autonomous vehicle regulatory environment, the regulatory framework for data privacy, protection, and security worldwide is continuously evolving and developing. As a result, interpretation and implementation standards and enforcement practices are likely to remain fluid for the foreseeable future. As our company expands its operations, the collection, use, and protection of any and all data assets will be internally scrutinized to ensure compliance with this changing landscape.

Decreasing the environmental impact of industrial vehicles is a high priority. Research has shown that equipment utilization rate, configuration, and operational consistency have a strong effect on the emissions released by industrial vehicle equipment (Source: Journal of the Air & Waste Management Association). A key focus of Cyngn’s EAS will be working to minimize the environmental impact of industrial vehicles through new data insights that can contribute to more sustainable practices. Our historic vehicle platforms have primarily been electric vehicles (“EV”). While electric drivetrains are not a requirement for DriveMod’s technology, EVs are often an application requirement since the vehicles operate alongside humans in enclosed spaces.

Intellectual Property

Our ability to drive impact and growth within the autonomous industrial vehicle market largely depends on our ability to obtain, maintain, and protect our intellectual property and all other property rights related to our products and technology. To accomplish this, we utilize a combination of patents, trademarks, copyrights, and trade secrets as well as employee and third-party non-disclosure agreements, licenses, and other contractual obligations. In addition to protecting our intellectual property and other assets, our success also depends on our ability to develop our technology and operate without infringing, misappropriating, or otherwise violating the intellectual property and property rights of third parties, customers, and partners.

Our software stack has over 30 subsystems, including those designed for perception, mapping & localization, decision making, planning, and control. As of the date of this Annual Report, February 29, 2024, we have 3 19 granted U.S. patents and 19 submitted 6 pending U.S. patent and 20 international patent applications and expect to continue to file additional patent applications with respect to our technology in the future.

Corporate Social Responsibility and Sustainability

Our mission is to deliver the benefits of autonomous industrial vehicle technology to enhance the safety and operational efficiency of materials handling in a cost-effective method in supply chain logistics. We seek to make the movement of goods in warehouse settings safer, faster, cheaper while reducing greenhouse gas emissions through greater operating efficiencies.

Human Capital Resources

Our team is composed of energetic, motivated and highly experienced visionaries. They include machine vision, AI, and autonomous software engineers from the greatest universities in the world. Together with a highly talented and skilled support team, we solve real-world industrial applications in autonomy. As of the date of this Annual Report, February 29, 2024, we had 66 81 full-time employees. The majority of our employees are based in Silicon Valley, California.

Our core values include focus on impact, display curiosity, communicate proactively, apply good judgment, and demonstrate selflessness. We believe these values encourage innovation and a team-oriented culture. Our employees have access to a wide range of training, different career paths, and, most importantly, challenging and purposeful work. Our culture is also built on diversity, inclusion, camaraderie, and celebration. We organize regular team building activities and public recognition forums to celebrate our diversity and invest in strong relationships.

In addition to a positive culture and career development, we offer a robust benefits package. This package includes a flexible vacation policy, access to a 401(k) plan, premier health plan options and numerous voluntary benefits for employees and their dependents.

Corporate History

Corporate Information

The Company was originally incorporated in the State of Delaware on February 1, 2013, under the original name Cyanogen, Inc. or Cyanogen. The Company started as a venture funded company with offices in Seattle and Palo Alto, aimed at commercializing CyanogenMod, direct to consumer consumers and through collaborations with mobile phone manufacturers. CyanogenMod was an open-source operating system for mobile devices, based on the Android mobile platform.

Between 2013 and 2015, Cyanogen released multiple versions of its mobile operating system and collaborated with an ecosystem of companies including mobile phone OEMs, content providers and leading technology partners.partners from 2013 to 2015.

In 2016 the Company's management and board of directors, determined to pivot its product focus and commercial direction from the mobile device and telecom space to industrial and commercial autonomous driving. driving with the hiring of Lior Tal in June 2016 to serve as the company's chief operating officer. Mr. Tal, a seasoned executive of startup firms where prior to joining the company, co-founded Snaptu which later was acquired by Facebook (currently known as Meta Platforms, Inc.), as well as held various leadership roles at Actimize, DiskSites and Odigo; all of these companies which were also later acquired. Mr. Tal was promoted to chief executive officer in October 2016 and continues to serve in this role along with chairman of the board. In May 2017, the Company changed its name to Cyngn Inc.

Available Information

Our common stock is quoted on the Nasdaq under the symbol "CYN". We file annual, quarterly, and current reports, proxy statements and other information with the U.S. Securities Exchange Commission (the "SEC"). These filings are available to the public on the Internet at the SEC's website at http://www.sec.gov.

Our principal business address is 1015 O'Brien Dr., Menlo Park, CA 94025. We maintain our corporate website at *https://cyngn.com* (this website address is not intended to function *as a hyperlink and the information contained on our website is not intended to be a part of this Annual Report*). We make available free of charge on https://investors.cyngn.com/ our annual, quarterly, and current reports, and amendments to those reports if any, as soon as reasonably practical after we electronically file such material with, or furnish it to, the SEC. We may from time to time provide important disclosures to investors by posting them in the Investor Relations section of our website.

Our common stock is quoted on the Nasdaq under the symbol "CYN". We file annual, quarterly, and current reports, proxy statements and other information with the U.S. Securities Exchange Commission (the "SEC") and are subject to the requirements of the Securities and Exchange Act of 1934, as amended (the Exchange Act). These filings are available to the public on the Internet at the SEC's website at http://www.sec.gov.

Item 1A. Risk Factors

Risks Related to Our Technology, Business, and Industry

Autonomous driving is an emerging technology and involves significant risks and uncertainties.

We develop and deploy a suite of autonomous driving software products that are compatible with existing sensors and hardware to enable autonomous driving on industrial vehicle platforms manufactured and designed by OEMs and other third-party industrial vehicle suppliers. Our autonomous driving technology is highly dependent on internally developed software, as well as on partnerships with third parties such as industrial OEMs and other suppliers.

We partner with OEMs that are seeking to manufacture purpose-built industrial vehicles capable of incorporating our autonomous driving technology. The collaborative partnerships are established through mutually beneficial, non-binding memorandums of understanding or partnership agreements for the purpose of joint go-to-market efforts. In addition to OEMs, we depend on other third parties to produce hardware components, and, in some cases adjacent software solutions, that support our core suite of autonomous driving software products and tools. The timely development and performance of our autonomous driving programs is dependent on the materials, cooperation, and quality delivered by these partners. Further, we do not control the initial design of the industrial vehicles we work with and therefore have limited influence over the production and design of systems for braking, gear shifting, and steering. There can be no assurance that these systems and supporting technologies can be developed and validated at the high reliability standard required for deployment of autonomous industrial vehicles using our technology in a cost-effective and timely manner. Our dependence on these relationships exposes us to the risk that components manufactured by OEMs or other suppliers could contain defects that would cause our autonomous driving technology not to operate as intended.

Our autonomous driving technology is available for production release and is currently available as a private beta release, during which phase, we will prepare for being licensed to customers. We plan to continue our scaled commercialization in 2024. throughout 2024 and beyond. Although we believe that our algorithms, data analysis and processing, and artificial intelligence technology are promising, we cannot assure you that our technology will achieve the necessary reliability for scaled commercialization of autonomous industrial vehicles. For example, we are still improving our technology in terms of handling edge cases, unique environments, and discrete objects. There can be no assurance that our data analytics and artificial intelligence could predict every single potential issue that may arise during the operation of an autonomous industrial vehicle utilizing our autonomous vehicle technology. Furthermore, the release and adoption of EAS and our other technologies and products may not be successful and may take longer than anticipated. If the development of EAS and our other technologies and products is delayed or customers do not adopt and buy our solutions to the extent we anticipate, our business and operating results will be adversely impacted.

We have a limited operating history in a new market and face significant challenges as our industry is rapidly evolving.

You should consider our business and prospects in light of the risks and challenges we face as a new entrant into a novel industry, including, among other things, with respect to our ability to:

- design, integrate, and deploy safe, reliable, and quality autonomous vehicle software products and tools for industrial vehicles with our partners on an ongoing basis;
- navigate an evolving and complex regulatory environment;
- successfully produce with OEM partners a line of purpose-built autonomous industrial vehicles on the timeline we estimate;
- improve and enhance our software and autonomous technology;

- establish and expand our customer base;
- successfully market our autonomous driving solutions and our other products and services;
- properly price our products and services;
- improve and maintain our operational efficiency;
- maintain a reliable, secure, high-performance, and scalable technology infrastructure;
- attract, retain, and motivate talented employees;
- anticipate and adapt to changing market conditions, including technological developments and changes in competitive landscape; and
- build a well-recognized and respected brand.

If we fail to address any or all of these risks and challenges, our business may be materially and adversely affected. There are also a number of additional challenges to the execution and adoption of autonomous vehicle technology in industrial markets, many of which are not within our control, including market acceptance of autonomous driving, governmental licensing requirements, concerns regarding data security and privacy, actual and threatened litigation (whether or not a judgment is rendered against us), and the general perception that an autonomous vehicle is not safe because there is no human driver. There can be no assurance that the market will accept our technology, in which case our future business, results of operations and financial condition could be adversely affected.

The autonomous industrial vehicle industry is in its early stages and is rapidly evolving. Our autonomous driving technology has not yet been commercialized at scale. We cannot assure you that we will be able to adjust to changing market or regulatory conditions quickly or cost-effectively. If we fail to do so, our business, results of operations, and financial condition will be adversely affected.

Our business model has yet to be tested and any failure to commercialize our strategic plans would have an adverse effect on our operating results and business.

Investors should be aware of the difficulties normally encountered by a relatively new enterprise that is beginning to scale its business, many of which are beyond our control, including unknown future challenges and opportunities, substantial risks and expenses in the course of entering new markets and undertaking marketing activities. The likelihood of our success must be considered in light of these risks, expenses, complications, delays, and the competitive environment in which we operate. There is, therefore, substantial uncertainty that our business plan will prove successful, and we may not be able to generate significant revenue, raise additional capital, or operate profitably. We will continue to encounter risks and difficulties frequently experienced by early commercial stage companies, including securing market acceptance for our product and service offerings, scaling up our infrastructure and headcount. We may encounter unforeseen expenses, difficulties, or delays in connection with our growth. In addition, as a result of the capital-intensive nature of our business, we can be expected to continue to sustain substantial operating expenses without generating sufficient revenue to cover expenditures. Any investment in our company is therefore highly speculative and could result in the loss of your entire investment.

Our future business depends in large part on our ability to continue to develop and successfully commercialize our suite of software products and tools. Our ability to develop, deliver, and commercialize at scale our technology to support or perform autonomous operation of industrial vehicles is still unproven.

Our technology suite is currently available as a private beta release which on stockchasers and tuggers for production release. However, this technology will need to be continually developed and enhanced for further scaled commercialization. Our continued commercialization. Continued enhancement of our autonomous driving technology is and will be subject to risks, including with respect to:

- our ability to continue to enhance our data analytics and software technology;
- designing, developing, and securing necessary components on acceptable terms and in a timely manner;
- our ability to attract and retain customers;
- our ability to pay for research and development costs;
- our ability to attract, recruit, hire, and train skilled employees;
- our ability to fund the development and commercialization of our technology; and
- our ability to enter into strategic relationships with key members in the industrial vehicles and industrial automation industries and component suppliers.

We operate in a highly competitive market and will face competition from both established competitors and new market entrants.

The market for autonomous industrial vehicles and industrial automation solutions is highly competitive. Many companies are seeking to develop autonomous driving and delivery solutions. Competition in these markets is based primarily on technology, innovation, quality, safety, reputation, and price. Our future success will depend on our ability to further develop and protect our technology in a timely manner and to stay ahead of existing and new competitors. Our competitors in this market are working towards commercializing autonomous driving technology and may have substantial financial, marketing, research and development, and other resources.

In addition, we also face competition from traditional industrial vehicle and solution companies. Traditional vehicle and solution providers operating with human drivers are still the predominant operators in the market. Because of the long history of such traditional companies serving our potential customers and industries, there may be many constituencies in the market that would resist a shift towards autonomous industrial vehicles, which could include lobbying and marketing campaigns, particularly because our technology will displace machine operators and drivers.

In addition, the market leaders in our target industries, such as Industrial Material Handling, (“IMH”) may start, or have already started, pursuing large scale deployment of autonomous industrial vehicle technology on their own. These companies may have more operational and financial resources than we do. We cannot guarantee that we will be able to effectively compete with them.

We may also face competition from component suppliers and other technology and industrial solution companies if they decide to expand vertically and develop their own autonomous industrial vehicles, some of whom have significantly greater resources than we do. We do not know how close these competitors are to commercializing autonomous driving systems.

Many established and new market participants have entered or have announced plans to enter the autonomous industrial vehicle market. Most of these participants have significantly greater financial, manufacturing, marketing, and other resources than we do and may be able to devote greater resources to the design, development, manufacturing, distribution, promotion, sale, and support of their products. If existing competitors or new entrants commercialize earlier than expected, our competitive advantage could be adversely affected.

Business collaboration with third parties is subject to risks and these relationships may not lead to significant revenue.

Strategic business relationships are and will continue to be an important factor in the growth and success of our business. We have alliances and partnerships, through mutually beneficial non-binding memoranda of understanding or partnering arrangements with other companies in the industrial equipment, automation and automotive industries to help us in our efforts to continue to enhance our technology, commercialize our solutions, and drive market acceptance.

Collaboration with these third parties is subject to risks, some of which are outside our control. For example, certain agreements with our partners grant our partner or us the right to terminate such agreements for cause or without cause. If any of our collaborations with third parties are terminated, it may delay or prevent our efforts to deploy our software products and tools on purpose-built autonomous industrial vehicles at scale. In addition, such agreements may contain certain exclusivity provisions which, if triggered, could preclude us from working with other businesses with superior technology or with whom we may prefer to partner with for other reasons. We could experience delays to the extent our partners do not meet agreed upon timelines or experience capacity constraints. We could also experience disagreement in budget or funding for joint development projects. There is also a risk of other potential disputes with partners in the future, including with respect to intellectual property rights. Our ability to successfully commercialize could also be adversely affected by perceptions about the quality of our or our partners' vehicles or products.

Risks Related to Our Financial Position and Need for Additional Capital

Losses for the foreseeable future.

We incurred net losses of $19.2 million $22.8 million and $7.8 million $19.2 million for the years ended December 31, 2022 December 31, 2023, and 2021, 2022, respectively. We have not recognized a material substantial amount of revenue to date, and we had an accumulated deficit of $135.7 million $160.0 million and $116.5 million $135.7 million as of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022, respectively. We have developed and tested our autonomous driving technology but there can be no assurance that it will be commercially successful at scale. Our potential profitability is dependent upon a number of factors, many of which are beyond our control. If we are unable to achieve and sustain profitability, the value of our business and common stock may significantly decrease.

We expect the rate at which we will incur losses to be significantly higher in future periods as we:

- design, develop, and deploy our autonomous vehicle software products and tools on industrial vehicle platforms with OEM partners and end customers.
- seek to achieve and commercialize deployments of level 4 autonomy for industrial vehicles;
- seek to expand our commercial deployments, on a nationwide basis in the United States and internationally;
- expand our design, development, maintenance, and repair capabilities;
- respond to competition in the autonomous driving market and from traditional industrial solution providers;
- respond to evolving regulatory developments in the nascent autonomous industrial vehicle and industrial automation markets;
- increase our sales and marketing activities; and
- increase our general and administrative functions to support our growing operations and for being a public reporting company.

Because we will incur the costs and expenses from these efforts before we receive any incremental substantial revenue, our losses in future periods will be significant. In addition, we may find that these efforts are more expensive than we currently anticipate or that these efforts may not result in revenue, which would further increase our losses. In particular, we expect to incur substantial and potentially increasing research and development ("R&D") costs as we continue to develop and enhance EAS and other technology and products for commercialization. While our R&D costs were $9.5 million $12.7 million and $5.0 million $9.5 million during the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively, and are likely to grow in the future, we have minimal recurring revenues. Further, because we account for R&D as an operating expense, these expenditures will adversely affect our results of operations in the future. Our R&D program may not produce successful results, and our new products may not achieve market acceptance, create additional revenue, or become profitable.

We have a limited operating history, which makes it difficult to forecast our future results of operations.

We were founded in 2013. As a result of our limited operating history, our ability to accurately forecast our future results of operations is limited and subject to a number of uncertainties, including our ability to plan for and model future growth. Our historical performance should not be considered indicative of our future performance. Further, in future periods, our revenue growth could fluctuate for a number of reasons, including shifts in our offering and revenue mix, slowing demand for our offering, increasing competition, decreased effectiveness of our sales and marketing organization, and our sales and marketing efforts to acquire new customers, failure to retain existing customers, changing technology, a decrease in the growth of our overall market, or our failure, for any reason, to continue to take advantage of growth opportunities. We anticipate that we will encounter, risks and uncertainties frequently experienced by growing companies in rapidly changing industries, such as the risks and uncertainties described in this Annual Report.

If our assumptions regarding these risks and uncertainties and our future revenue growth are incorrect or change, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations, and our business could suffer.

We expect fluctuations in our financial results making it difficult to project future results.

Our results of operations may fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, our past results may not be indicative of our future performance. In addition to the other risks described herein, factors that may affect our results of operations include the following:

- changes in our revenue mix and related changes in revenue recognition;
- changes in actual and anticipated growth rates of our revenue, customers, and key operating metrics;
- fluctuations in demand for or pricing of our offering; product offerings;
- our ability to attract new customers;
- our ability to retain our existing customers, particularly large customers;
- customers and potential customers opting for alternative products, including developing their own in-house solutions;
- investments in new offerings, features, and functionality;
- fluctuations or delays in development, release, or adoption of new features and functionality for our offering;
- delays in closing sales which may result in revenue being pushed into the next quarter;
- changes in customers’ budgets and in the timing of their budget cycles and purchasing decisions;
- our ability to control costs;
- the amount and timing of payment for operating expenses, particularly research and development and sales and marketing expenses;
- timing of hiring personnel for our research and development and sales and marketing organizations;
- the amount and timing of costs associated with recruiting, educating, and integrating new employees and retaining and motivating existing employees;
- the effects of acquisitions and their integration;
- general economic conditions, both domestically and internationally, as well as economic conditions specifically affecting industries in which our customers participate;
- the impact of new accounting pronouncements;

- changes in revenue recognition policies that impact our technology license revenue;
- changes in regulatory or legal environments that may cause us to incur, among other things, expenses associated with compliance;
- the impact of changes in tax laws or judicial or regulatory interpretations of tax laws, which are recorded in the period such laws are enacted or interpretations are issued and may significantly affect the effective tax rate of that period;

- the impact of global events, including the outbreak of war or conflicts
  - health epidemics or pandemics, such as the COVID-19 pandemic;
  - changes in the competitive dynamics of our market, including consolidation among competitors or customers; and
  - significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our offering.

Any of these and other factors, or the cumulative effect of some of these factors, may cause our results of operations to vary significantly. If our quarterly results of operations fall below the expectations of investors and securities analysts who follow our stock, the price of our common stock could decline substantially, and we could face costly lawsuits, including securities class action suits.

We may need to raise additional funds and these funds may not be available to us on attractive terms when we need them, or at all.

The commercialization of autonomous vehicles is capital intensive. This includes autonomous industrial vehicles outfitted with our technology and purpose-built autonomous industrial vehicles manufactured by OEMs we intend to partner with. To date, we have financed our operations primarily through the issuance of equity securities in private and public placements. We may need to raise additional capital to continue to fund our commercialization activities, sales and marketing efforts, enhancement of our technology and to improve our liquidity position. Our ability to obtain the necessary financing to carry out our business plan is subject to a number of factors, including general market volatility, investor acceptance of our business plan, regulatory requirements and the successful development of our autonomous technology. These factors may make the timing, amount, terms, and conditions of such financing unattractive or unavailable to us.

We may raise these additional funds through the issuance of equity, equity related, or debt securities. To the extent that we raise additional financing by issuing equity securities or convertible debt securities, our stockholders may experience substantial dilution, and to the extent we engage in debt financing, we may become subject to restrictive covenants that could limit our flexibility in conducting future business activities. Financial institutions may request credit enhancement such as third-party guarantee and pledge of equity interest in order to extend loans to us. We cannot be certain that additional funds will be available to us on attractive terms when required, or at all. If we cannot raise additional funds when we need them, our financial condition, results of operations, business, and prospects could be materially adversely affected.

We have incurred significant losses, have limited cash on hand and there is substantial doubt as to our ability to continue as a goingconcern.

The Company incurred net losses of approximately $22.8 million and $19.2 million for the year ended December 31, 2023 and 2022, respectively. In addition, the Company had accumulated deficits of approximately $160.0 million and $135.7 million as of December 31, 2023 and December 31, 2022, respectively, and net cash used in operating activities was approximately $19.5 million and $16.3 million for the year ended December 31, 2023 and 2022, respectively. As of December 31, 2023, the Company's unrestricted cash balance was $3.6 million, and its short-term investments balance was $4.6 million. As of December 31, 2022, the Company's cash balance was approximately $10.5 million, and the short-term investments balance was $12.1 million. Based on cash flow projections from operating and financing activities and the existing balance of cash and short-term investments, management is of the opinion that the Company has insufficient funds for sustainable operations, and it may not be able to meet its payment obligations from operations and related commitments, if the Company is not able to complete the required funding transactions to allow the Company to continue as a going concern. Based on these factors, the Company has substantial doubt that it will continue as a going concern for the 12 months following the issuance date of the financial statements included elsewhere in this report.

The Company's plan to alleviate the going concern issue is to increase revenue while controlling operating costs and expenses and obtaining funds from outside sources of financing to generate positive financing cash flows. While management is optimistic about its ability to raise substantial funds to continue as a going concern for one year following the financial statement issuance date, there can be no assurance that any such measures will be successful. We currently do not generate substantial revenue from product sales. Accordingly, we expect to rely primarily on equity and/or debt financings to fund our continued operations. The Company's ability to raise additional funds will depend, in part, on the success of our product development activities, and other events or conditions that may affect the share value or prospects, as well as factors related to financial, economic and market conditions, many of which are beyond our control. There can be no assurances that sufficient funds will be available to us when required or on acceptable terms, if at all. Accordingly, management has concluded that these plans do not alleviate substantial doubt about the Company's ability to continue as a going concern. Our failure to achieve or maintain profitability could negatively impact the value of our common stock.

We may be subject to risks associated with potential future acquisitions.

Although we have no current acquisition plans, if appropriate opportunities arise, we may acquire additional assets, products, technology or businesses that are complementary to our existing business. Any future acquisitions and the subsequent integration of new assets and businesses would require significant attention from our management and could result in a diversion of resources from our existing business, which in turn could have an adverse effect on our operations, and consequently our results of operations and financial condition. Acquired assets or businesses may not generate the financial results we expect. Acquisitions could result in the use of substantial amounts of cash, potentially dilutive issuances of equity securities, significant goodwill impairment charges, amortization expenses for other intangible assets and exposure to potential unknown liabilities of the acquired business. Moreover, the costs of identifying and consummating acquisitions may be significant.

Risks Related to Our Business Operations

Our success depends largely on the continued services of our senior management team, technical engineers, and certain key employees.

We rely on our executive officers and key employees in the areas of business strategy, research and development, marketing, sales, services, and general and administrative functions. From time to time, there may be changes in our executive management team or key employees resulting from the hiring or departure of executives or key employees, which could disrupt our business. We do not maintain key-man insurance for any member of our senior management team or any other employee. We do not have None of the employment agreements and offer letters with our executive officers or other key personnel that require them to continue to work for us for any specified period and, therefore, they could terminate their employment with us at any time. The loss of one or more of our executive officers or key employees could have a serious adverse effect on our business.

To execute our growth plan, we must attract and retain highly qualified personnel. Competition for these personnel is intense in the technology industry, especially for engineers with high levels of experience in artificial intelligence and designing and developing autonomous driving related algorithms. Furthermore, it can be difficult to recruit personnel from other geographies to relocate to our California location. We may also need to recruit highly qualified technical engineers internationally and therefore subject us to the compliance of relevant immigration laws and regulations. We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we have and can offer more attractive compensation packages for new employees. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or our company have breached their legal obligations, resulting in a diversion of our time and resources and potentially in litigation. In addition, job candidates and existing employees often consider the value of the share incentive awards they receive in connection with their employment. If the perceived value of our share awards declines, it may adversely affect our ability to recruit and retain highly skilled employees. If we fail to attract new personnel on a timely basis or fail to retain and motivate our current personnel, we may not be able to commercialize and then expand our solutions and services in a timely manner and our business and future growth prospects could be adversely affected.

If we fail to manage our growth effectively, we may be unable to execute our business plan, maintain high levels of service, or adequately address competitive challenges.

We expect to invest in our growth for the foreseeable future. Any growth in our business is expected to place a significant strain on not only our managerial, administrative, operational, and financial resources, but also our infrastructure. We plan to continue to expand our operations in the future. Our success will depend in part on our ability to manage this growth effectively and execute our business plan. To manage the expected growth of our operations and personnel, we will need to continue to improve our operational, financial, and management controls and our reporting systems and procedures.

We rely heavily on information technology ("IT") systems to manage critical business functions. To manage our growth effectively, we must continue to improve and expand our infrastructure, including our IT, financial, and administrative systems and controls. In particular, we may need to significantly expand our IT infrastructure as the amount of data we store and transmit increases over time, which will require that we both utilize existing IT products and adopt new technology. If we are not able to scale our IT infrastructure in a cost-effective and secure manner, our ability to offer competitive solutions will be harmed and our business, financial condition, and operating results may suffer.

We must also continue to manage our employees, operations, finances, research and development, and capital investments efficiently. Our productivity and the quality of our solutions may be adversely affected if we do not integrate and train our new employees quickly and effectively or if we fail to appropriately coordinate across our executive, research and development, technology, service development, analytics, finance, human resources, marketing, sales, operations, and customer support teams. As we continue to grow, we will incur additional expenses, and our growth may continue to place a strain on our resources, infrastructure, and ability to maintain the quality of our solutions. If we do not adapt to meet these evolving challenges, or if the current and future members of our management team do not effectively manage our growth, the quality of our solutions may suffer and our corporate culture may be harmed. Failure to manage our future growth effectively could cause our business to suffer, which, in turn, could have an adverse impact on our business, financial condition, and operating results.

Our management team has limited experience managing a public company.

Our management team has limited experience managing a publicly-traded company, interacting with public company investors, and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage our transition to being a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition, and operating results.

We may be subject to product liability or warranty claims that could result in significant direct or indirect costs, including reputational harm, increased insurance premiums or the need to self-insure, which could adversely affect our business and operating results.

Our technology is used for autonomous driving, which presents the risk of significant injury, including fatalities. We may be subject to claims if one of our or a customer's industrial vehicles is involved in an accident and persons are injured or purport to be injured or if property is damaged. Any insurance that we carry may not be sufficient or it may not apply to all situations. If we experience such an event or multiple events, our insurance premiums could increase significantly or insurance may not be available to us at all. Further, if insurance is not available on commercially reasonable terms, or at all, we might need to self-insure. In addition, lawmakers or governmental agencies could pass laws or adopt regulations that limit the use of autonomous driving or industrial automation technology or increase liability associated with its use. Any of these events could adversely affect our brand, relationships with users, operating results, or financial condition.

If our autonomous driving software fails to perform as expected our ability to market, sell or lease our autonomous driving software could be harmed.

Our autonomous industrial vehicle software products and tools as well as the vehicles, sensors, and hardware they utilize and are deployed on may contain defects in design and manufacture that may cause them not to perform as expected or require repair. For example, our autonomous vehicle software will require modification and updates over the life of the vehicle it is deployed on. Software products are inherently complex and often contain defects and errors when first introduced. There can be no assurance that we will be able to detect and fix any defects in the industrial vehicles' hardware or software prior to commencing user sales or during the life of the vehicle. Autonomous industrial vehicles utilizing our suite of products and tools may not perform consistent with users' expectations or consistent with other vehicles that may become available. Any product defects or any other failure of our software, supportive hardware, or deployment vehicle platform or to perform as expected could harm our reputation, result in adverse publicity, lost revenue, delivery delays, product recalls, product liability claims, and significant warranty and other expenses, and could have a material adverse impact on our business, financial condition, operating results, and prospects.

If we are unable to establish and maintain confidence in our long-term business prospects among users, securities and industry analysts, and within our industries, or are subject to negative publicity, then our financial condition, operating results, business prospects, and access to capital may suffer materially.

Users may be less likely to purchase or use our technology and the industrial vehicles it is deployed on if they are not convinced that our business will succeed or that our service and support and other operations will continue in the long term. Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed. Accordingly, in order to build and maintain our business, we must maintain confidence among users, suppliers, securities and industry analysts, and other parties in our long-term financial viability and business prospects. Maintaining such confidence may be particularly complicated by certain factors including those that are largely outside of our control, such as our limited operating history at scale, user unfamiliarity with our solutions, any delays in scaling manufacturing, delivery, and service operations to meet demand, competition and uncertainty regarding the future of autonomous vehicles, and our performance compared with market expectations**.**

Pandemics Catastrophic events, such as pandemics and epidemics, or outbreak of an infectious disease, such as COVID-19 and subsequent variants, natural disasters, terrorist activities, political unrest, and other manmade problems such as war could have a material adverse impact on our business, results of operations, financial condition and cash flows or liquidity.

Our business is vulnerable to damage or interruption from pandemics and epidemics, or outbreak of an infectious disease, such as COVID-19 and subsequent variants, natural disasters, terrorist attacks, political unrest, acts of war including (such as the current conflict ongoing conflicts between Russia and Ukraine, and similar events.Israel and Palestine).

The COVID-19 pandemic as well as the recent inflation in the United States, and foreign and domestic government sanctions imposed on Russia as a result of its recent invasion of Ukraine, and the conflicts in Israel and Palestine has caused or may continue to result in extreme volatility and disruptions in the capital and credit markets, which may adversely affect investor’s confidence and, in turn may affect our ability to raise additional capital.

The COVID-19 occurrence of an epidemic or a pandemic, is evolving, and to date has led to the implementation of various responses, including government-imposed quarantines, travel restrictions and other public health and safety measures. The effects of this outbreak on our business practices have included and could continue to include temporary modifications to employee travel plans and cancellation of physical participation in meetings, events, and conferences, and we may take further actions such as required by governmental authorities or that we determine are in the best interests of our employees, users, and business partners. In addition, the business and operations of our manufacturers, suppliers, and other business partners have also been adversely impacted by the COVID-19 pandemic, has had and may be further adversely impacted in the future, which could result in delays in continue to have an adverse effect on our ability to commercialize our suite of autonomous vehicle software products and tools.

operating results. The extent to which COVID-19 will epidemics and pandemics impact our and those of our partners and potential users, business, financial condition or results of operations and financial condition will depend on future developments, which are uncertain many factors outside of our control and cannot be predicted, including, but not limited to, whether there is a material impact on the occurrence businesses or productivity of a “second wave,” duration our customers, employees, suppliers and spread of the outbreak, its severity, the actions to contain the virus or treat its impact, and how quickly and to what extent normal economic and operating conditions can resume. Even if the COVID-19 outbreak subsides, we may continue to experience materially adverse impacts to our business as a result of its global economic impact, including any recession that has occurred or may occur in the future.other partners.

Other considerations related to the current conflict ongoing conflicts between Russia and Ukraine, and Israel and Palestine that may affect the Company include possible cyberattacks and potential disruptions in the banking systems and capital market, as well as supply chain and increased costs and expenditures on domestic and internationally-sourced materials and services. As an example, we engage third-party software development engineers who reside in Russia. Due to the current ongoing conflict, we may experience an interruption in the services provided by these parties.

We are also vulnerable to natural disasters and other calamities. Although we have servers that are hosted in an offsite location, our backup system does not capture data on a real-time basis, and we may be unable to recover certain data in the event of a server failure. We cannot assure you that any backup systems will be adequate to protect us from the effects of fire, floods, typhoons, earthquakes, power loss, telecommunications failures, break-ins, war, riots, terrorist attacks or similar events. Any of the foregoing events may give rise to interruptions, breakdowns, system failures, technology platform failures or internet failures, which could cause the loss or corruption of data or malfunctions of software or hardware as well as adversely affect our ability to provide services.

Risks Related to Our Intellectual Property, Information Technology and Data Privacy

We may become subject to litigation brought by third parties claiming infringement, misappropriation or other violation by us of their intellectual property rights.

The industry in which our business operates is characterized by a large number of patents, some of which may be of questionable scope, validity or enforceability, and some of which may appear to overlap with other issued patents. As a result, there is a significant amount of uncertainty in the industry regarding patent protection and infringement. In recent years, there has been significant litigation globally involving patents and other intellectual property rights. Third parties may in the future assert, that we have infringed, misappropriated or otherwise violated their intellectual property rights. As we face increasing competition and as a public company, the possibility of intellectual property rights claims against us grows. Such claims and litigation may involve one or more of our competitors focused on using their patents and other intellectual property to obtain competitive advantage, or patent holding companies or other adverse intellectual property rights holders who have no relevant product revenue, and therefore our own pending patents and other intellectual property rights may provide little or no deterrence to these rights holders in bringing intellectual property rights claims against us. There may be intellectual property rights held by others, including issued or pending patents and trademarks, that cover significant aspects of our technologies or business methods, and we cannot assure that we are not infringing or violating, and have not infringed or violated, any third-party intellectual property rights or that we will not be held to have done so or be accused of doing so in the future. In addition, because patent applications can take many years until the patents issue, there may be applications now pending of which we are unaware, which may later result in issued patents that our products may infringe. We expect that in the future we may receive notices that claim we or our collaborators have misappropriated or misused other parties’ intellectual property rights, particularly as the number of competitors in our market grows.

To defend ourselves against any intellectual property claims brought by third parties, whether with or without merits, can be time-consuming and could result in substantial costs and a diversion of our resources. These claims and any resulting lawsuits, if resolved adversely to us, could subject us to significant liability for damages, impose temporary or permanent injunctions against our products, technologies or business operations, or invalidate or render unenforceable our intellectual property.

If our technology is determined to infringe a valid and enforceable patent, or if we wish to avoid potential intellectual property litigation on any alleged infringement, misappropriation or other violation of third party intellectual property rights, we may be required to do one or more of the following: (i) cease development, sales, or use of our products that incorporate or use the asserted intellectual property right; (ii) obtain a license from the owner of the asserted intellectual property right, which may be unavailable on commercially reasonable terms, or at all, or which may be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us; (iii) pay substantial royalties or other damages; or (iv) redesign our technology or one or more aspects or systems of our autonomous industrial vehicles to avoid any infringement or allegations thereof. The aforementioned options sometimes may not be commercially feasible. Additionally, in our ordinary course of business, we agree to indemnify our customers, partners, and other commercial counterparties for any infringement arising out of their use of our intellectual property, along with providing standard indemnification provisions, so we may face liability to our users, business partners or third parties for indemnification or other remedies in the event that they are sued for infringement.

We may also in the future license third party technology or other intellectual property, and we may face claims that our use of such in-licensed technology or other intellectual property infringes, misappropriates or otherwise violates the intellectual property rights of others. In such cases, we will seek indemnification from our licensors. However, our rights to indemnification may be unavailable or insufficient to cover our costs and losses.

We also may not be successful in any attempt to redesign our technology to avoid any alleged infringement. A successful claim of infringement against us, or our failure or inability to develop and implement non-infringing technology, or license the infringed technology on acceptable terms and on a timely basis, could materially adversely affect our business and results of operations. Furthermore, such lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management's time and attention from our business, which could seriously harm our business. Also, such lawsuits, regardless of their success, could seriously harm our reputation with users and in the industry at large.

Our business may be adversely affected if we are unable to adequately establish, maintain, protect, and enforce our intellectual property and proprietary rights or prevent third parties from making unauthorized use of our technology and other intellectual property rights.

Our intellectual property is an essential asset of our business. Failure to adequately protect our intellectual property rights could result in our competitors offering similar products, potentially resulting in the loss of our competitive advantage, and a decrease in our revenue which would adversely affect our business prospects, financial condition, and operating results. Our success depends, at least in part, on our ability to protect our core technology and intellectual property. We rely on a combination of intellectual property rights, such as patents, trademarks, copyrights, and trade secrets (including know-how), in addition to employee and third-party nondisclosure agreements, intellectual property licenses, and other contractual rights, to establish, maintain, protect, and enforce our rights in our technology, proprietary information, and processes. Intellectual property laws and our procedures and restrictions provide only limited protection and any of our intellectual property rights may be challenged, invalidated, circumvented, infringed or misappropriated. If we fail to protect our intellectual property rights adequately, we may lose an important advantage in the markets in which we compete. While we take measures to protect our intellectual property, such efforts may be insufficient or ineffective, and any of our intellectual property rights may be challenged, which could result in them being narrowed in scope or declared invalid or unenforceable. Other parties may also independently develop technologies that are substantially similar or superior to ours. We also may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. However, the measures we take to protect our intellectual property from unauthorized use by others may not be effective and there can be no assurance that our intellectual property rights will be sufficient to protect against others offering products, services, or technologies that are substantially similar or superior to ours and that compete with our business.

Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Our efforts to enforce our intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property. Any litigation initiated by us concerning the violation by third parties of our intellectual property rights is likely to be expensive and time-consuming and could lead to the invalidation of, or render unenforceable, our intellectual property, or could otherwise have negative consequences for us. Furthermore, it could result in a court or governmental agency invalidating or rendering unenforceable our patents or other intellectual property rights upon which the suit is based. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management’s attention and resources, could delay the introduction and implementation of new technologies, result in our substituting inferior or more costly technologies into our products or injure our reputation. Moreover, policing unauthorized use of our technologies, trade secrets, and intellectual property may be difficult, expensive, and time-consuming, particularly in foreign countries where the laws may not be as protective of intellectual property rights as those in the United States and where mechanisms for enforcement of intellectual property rights may be weak. If we fail to meaningfully establish, maintain, protect, and enforce our intellectual property and proprietary rights, our business, operating results, and financial condition could be adversely affected.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

There are a number of recent changes to the patent laws that may have a significant impact on our ability to protect our technology and enforce our intellectual property rights. For example, the Leahy-Smith America Invents Act (the “AIA”) enacted in September 2011, resulted in significant changes in patent legislation. An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned from a “first-to-invent” to a “first-to-file” system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. Under a “first-to-file” system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to a patent on the invention regardless of whether another inventor had made the invention earlier. A third party that files a patent application in the United States Patent and Trademark Office (“USPTO”) after that date but before us could therefore be awarded a patent covering an invention of ours even if we made the invention before it was made by the third party. Circumstances could prevent us from promptly filing patent applications on our inventions.

The AIA also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. The AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Further, the standards applied by the USPTO and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable for business methods. As such, we do not know the degree of future protection that we will have on our technologies, products, and services. While we will endeavor to try to protect our technologies, products, and services with intellectual property rights such as patents, as appropriate, the process of obtaining patents is time-consuming, expensive, and sometimes unpredictable.

Additionally, the U.S. Supreme Court has ruled on several patent cases in recent years, such as Impression Products, Inc. v. Lexmark International, Inc., Association for Molecular Pathology v. Myriad Genetics, Inc., Mayo Collaborative Services v. Prometheus Laboratories, Inc. and Alice Corporation Pty. Ltd. v. CLS Bank International, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained.

Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

Our patent applications may not issue as patents, which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours.

We cannot be certain that we are the first inventor of the subject matter to which we have filed a particular patent application, or if we are the first party to file such a patent application. If another party has filed a patent application to the same subject matter as we have, we may not be entitled to the protection sought by the patent application. Further, the scope of protection of issued patent claims is often difficult to determine. As a result, we cannot be certain that the patent applications that we file will issue, or that our issued patents will be broad enough to protect our proprietary rights or otherwise afford protection against competitors with similar technology. In addition, the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Our competitors may challenge or seek to invalidate our issued patents, or design around our issued patents, which may adversely affect our business, prospects, financial condition or operating results. Also, the costs associated with enforcing patents, confidentiality and invention agreements, or other intellectual property rights may make aggressive enforcement impracticable.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting, maintaining, defending, and enforcing patents and other intellectual property rights on our product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection or other intellectual property rights to develop their own products and may export otherwise infringing, misappropriating, or violating products to territories where we have patent or other intellectual property protection, but enforcement rights are not as strong as those in the United States. These products may compete with our product candidates, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of some countries do not favor the enforcement of patents and other intellectual property rights, which could make it difficult for us to stop the infringement, misappropriation, or other violation of our intellectual property rights generally. Proceedings to enforce our intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

Many countries, including European Union countries, India, Japan, and China, have compulsory licensing laws under which a patent owner may be compelled under specified circumstances to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In those countries, we may have limited remedies if patents are infringed or if we are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license, which could adversely affect our business, financial condition, results of operations, and prospects.

In addition to patented technology, we rely on our unpatented proprietary technology, trade secrets, processes, and know-how.

We rely on proprietary information (such as trade secrets, know-how, and confidential information) to protect intellectual property that may not be patentable, or that we believe is best protected by means that do not require public disclosure. We generally seek to protect this proprietary information by entering into confidentiality agreements, or consulting, services, or employment agreements that contain non-disclosure and non-use provisions with our employees, consultants, contractors, scientific advisors, and third parties. However, we cannot guarantee that we have entered into such agreements with each party that has or may have had access to our trade secrets or proprietary information and, even if entered into, these agreements may be breached or may otherwise fail to prevent disclosure, third-party infringement or misappropriation of our proprietary information, may be limited as to their term and may not provide an adequate remedy in the event of unauthorized disclosure or use of proprietary information. We have limited control over the protection of trade secrets used by our third-party manufacturers and suppliers and could lose future trade secret protection if any unauthorized disclosure of such information occurs. In addition, our proprietary information may otherwise become known or be independently developed by our competitors or other third parties. To the extent that our employees, consultants, contractors, and other third parties use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain protection for our proprietary information could adversely affect our competitive business position. Furthermore, laws regarding trade secret rights in certain markets where we operate may afford little or no protection to our trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that trade secret to compete with us. If any of our trade secrets were to be disclosed (whether lawfully or otherwise) to or independently developed by a competitor or other third party, it could have a material adverse effect on our business, operating results, and financial condition.

We also rely on physical and electronic security measures to protect our proprietary information, but we cannot guarantee that these security measures provide adequate protection for such proprietary information or will never be breached. There is a risk that third parties may obtain unauthorized access to and improperly utilize or disclose our proprietary information, which would harm our competitive advantages. We may not be able to detect or prevent the unauthorized access to or use of our information by third parties, and we may not be able to take appropriate and timely steps to mitigate the damages (or the damages may not be capable of being mitigated or remedied).

We utilize open-source software, which may pose particular risks to our proprietary software, technologies, products, and services in a manner that could harm our business.

We use open-source software in our products and services and anticipate using open-source software in the future. We utilize a distribution of the open-source Linux system, and tools such as ROS (open-source publish-subscribe tool) in the technical stack. Professional open-source license scanning systems such as WhiteSource and ScanCode are used in both places. Both Continuous Integration and Continuous Deployment ("CI/CD") level open-source scan and overall system opensource scan is performed to protect the systems and our intellectual property. In the event that our scanning and open-source check protocols fail, the Company could be negatively affected Some open-source software licenses require those who distribute open-source software as part of their own software products to publicly disclose all or part of the source code to such software product or to make available any modifications or derivative works of the open-source code on unfavorable terms or at no cost. This could result in our proprietary software being made available in the source code form and/or licensed to others under open-source licenses, which could allow our competitors or other third parties to use our proprietary software freely without spending the development effort, and which could lead to a loss of the competitive advantage of our proprietary technologies and, as a result, sales of our products and services. The terms of many open-source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that open-source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide or distribute our products or services or retain our ownership of our proprietary intellectual property. Additionally, we could face claims from third parties claiming ownership of, or demanding release of, the open-source software or derivative works that we developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of, or alleging breach of, the applicable open-source license. These claims could result in litigation and could require us to make our proprietary software source code freely available, purchase a costly license, or cease offering the implicated products or services unless and until we can re-engineer them to avoid breach of the applicable open-source software licenses or potential infringement. This re-engineering process could require us to expend significant additional research and development resources, and we cannot guarantee that we will be successful.

Additionally, the use of certain open-source software can lead to greater risks than use of third-party commercial software, as open-source licensors generally do not provide warranties or controls on the origin of software. There is typically no support available for open-source software, and we cannot ensure that the authors of such open-source software will implement or push updates to address security risks or will not abandon further development and maintenance. Many of the risks associated with the use of open-source software, such as the lack of warranties or assurances of title, non-infringement, or performance, cannot be eliminated, and could, if not properly addressed, negatively affect our business. We have processes to help alleviate these risks, including a review process for screening requests from our developers for the use of open-source software, but we cannot be sure that all open-source software is identified or submitted for approval prior to use in our products and services. Any of these risks could be difficult to eliminate or manage, and, if not addressed, could adversely affect our ownership of proprietary intellectual property, the security of our vehicles, or our business, results of operations, and financial condition.

Unauthorized control or manipulation of systems in autonomous industrial vehicles may cause them to operate improperly or not at all, or compromise their safety and data security, which could result in loss of confidence in us and our products, cancellation of contracts with future OEM or supplier partners.

There have been reports of vehicles of certain automotive OEMs being “hacked” to grant access to and operation of the vehicles to unauthorized persons. Our autonomous vehicle software products and tools as well as the vehicles they are deployed on contain or will contain complex IT systems and are designed with built-in data connectivity. We are in the process of and will continue implementing security measures intended to prevent unauthorized access to our information technology networks and systems. However, hackers may attempt to gain unauthorized access to modify, alter, and use such networks and systems to gain control of, or to change the functionality of the autonomous industrial vehicles’ running our software, user interface and performance characteristics, or to gain access to data stored in or generated by our products. As techniques used to obtain unauthorized access to or sabotage systems change frequently and may not be known until launched against us or our third-party service providers, there can be no assurance that we will be able to anticipate, or implement adequate measures to protect against, these attacks. Any such security incidents could result in unexpected control of or changes to the vehicles’ functionality and safe operation and could result in legal claims or proceedings and negative publicity, which would negatively affect our brand and harm our business, prospects, financial condition, and operating results.

Our information technology systems or data, or those of our service providers or customers or users could be subject to cyber-attacks or other security incidents, which could result in data breaches, intellectual property theft, claims, litigation, regulatory investigations, significant liability, reputational damage and other adverse consequences.

We continue to expand our information technology systems as our operations grow, such as product data management, procurement, inventory management, production planning and execution, sales, service and logistics, financial, tax and regulatory compliance systems. This includes the implementation of new internally developed systems and the deployment of such systems in the U.S. and abroad. While, we maintain information technology measures designed to protect us against intellectual property theft, data breaches, sabotage and other external or internal cyber-attacks or misappropriation, our systems and those of our service providers are potentially vulnerable to malware, ransomware, viruses, denial-of-service attacks, phishing attacks, social engineering, computer hacking, unauthorized access, exploitation of bugs, defects and vulnerabilities, breakdowns, damage, interruptions, system malfunctions, power outages, terrorism, acts of vandalism, security breaches, security incidents, inadvertent or intentional actions by employees or other third parties, and other cyber-attacks.

To the extent any security incident results in unauthorized access or damage to or acquisition, use, corruption, loss, destruction, alteration or dissemination of our data, including intellectual property and personal information, or our products, or for it to be believed or reported that any of these occurred, it could disrupt our business, harm our reputation, compel us to comply with applicable data breach notification laws, subject us to time consuming, distracting and expensive litigation, regulatory investigation and oversight, mandatory corrective action, require us to verify the correctness of database contents, or otherwise subject us to liability under laws, regulations and contractual obligations, including those that protect the privacy and security of personal information. This could result in increased costs to us and result in significant legal and financial exposure and/or reputational harm.

We also rely on service providers, and similar incidents relating to their information technology systems could also have a material adverse effect on our business. Our ability to monitor our service providers' security measures is limited, and, in any event, malicious third parties may be able to circumvent those security measures.

Further, the implementation, maintenance, segregation and improvement of these systems require significant management time, support and cost, and there are inherent risks associated with developing, improving and expanding our core systems as well as implementing new systems and updating current systems, including disruptions to the related areas of business operation. These risks may affect our ability to manage our data and inventory, procure parts or supplies or manufacture, sell, deliver and service products, adequately protect our intellectual property or achieve and maintain compliance with, or realize available benefits under, tax laws and other applicable regulations.

Moreover, if we do not successfully implement, maintain or expand these systems as planned, our operations may be disrupted, our ability to accurately and/or timely report our financial results could be impaired and deficiencies may arise in our internal control over financial reporting, which may impact our ability to certify our financial results. Moreover, our proprietary information, including intellectual property and personal information, could be compromised or misappropriated and our reputation may be adversely affected. If these systems or their functionality do not operate as we expect them to, we may be required to expend significant resources to make corrections or find alternative sources for performing these functions.

The costs to comply with, or our actual or perceived failure to comply with, changing U.S. and foreign laws related to data privacy, security and protection, could adversely affect our financial condition, operating results, and our reputation.

In operating our business and providing services and solutions to clients, we collect, use, store, transmit, and otherwise process employee, partner, and customer data, including personal data, in and across multiple jurisdictions. We use the electronic systems within the autonomous industrial vehicles that log information about each industrial vehicle's use in order to aid us in vehicle diagnostics, repair, and maintenance, as well as to help us collect data regarding operators' use patterns and preference in order to help us customize and optimize the driving and operating experiences. The integrated autonomous industrial vehicles leveraging our software products and tools may also collect personal information of drivers, operators and passengers, such as a voice command of a person, in order to aid the manual operation of our industrial vehicles. When our autonomy enabled industrial vehicles are in operation, the camera, LiDAR, and other sensing components of the vehicles will collect site and route view, mapping data, landscape images, and other LiDAR information, which may include personal information such as license plate numbers of other vehicles, facial features of pedestrians, appearance of individuals, GPS data, geolocation data, in order train the data analytics and artificial intelligence technology equipped in our industrial vehicles for the purpose of identifying different objects, and predicting potential issues that may arise during the operation of our integrated industrial vehicles.

We plan to utilize systems and applications that are spread over the globe, requiring us to regularly move data across national borders. As a result, we are subject to a variety of laws and regulations in the United States, and other foreign jurisdictions as well as contractual obligations, regarding data privacy, protection, and security. Some of these laws and regulations require obtaining data subjects’ consent to the collection and use of their data, honoring data subjects’ request to delete their data or limit the processing of their data, providing notifications in the event of a data breach, and setting up the proper legal mechanisms for cross-border data transfers. Some customers may refuse to provide consent to our collection and use of their personal information, or may restrict our use of such personal information, and in some cases it is not feasible to obtain consent from data subjects in the general public whose personal information may be captured by our autonomous industrial vehicles, all of which may hinder our ability to train our data analytics and artificial intelligence technology, and may harm the competitiveness of our technology. In many cases, these laws and regulations apply not only to the collection and processing of personal information from third parties with whom we do not have any contractual relationship, but also to the sharing or transfer of information between or among us, our subsidiaries and other third parties with which we have commercial relationships, such as our service providers, partners, and customers. The regulatory framework for data privacy, protection, and security worldwide is continuously evolving and developing and, as a result, interpretation and implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future. In particular, some of these laws and regulations may require us to store certain categories of data collected from individuals residing in a jurisdiction only on servers physically located in such jurisdiction, and may further require us to conduct security assessments and/or adopt other cross-border data transfer mechanisms in order to transfer such data outside of such jurisdiction. With the continuously evolving and rapidly changing privacy regulatory regime, our ability to freely transfer data among our affiliates and with our partners in different jurisdictions may be impeded, or we may need to incur significant costs in order to comply with such requirements. In addition, the number of high-profile data breaches at major companies continues to accelerate, which will likely lead to even greater regulatory scrutiny.

The scope and interpretation of the laws and regulations that are or may be applicable to us are often uncertain and may be conflicting, particularly with respect to foreign laws. For example, the E.U. General Data Protection Regulation (the “GDPR”), which became effective in May 2018, greatly increased the European Commission’s jurisdictional reach of its laws and added a broad array of requirements for handling personal data with respect to EU data subjects. EU member states are tasked under the GDPR to enact, and have enacted, certain implementing legislation that adds to and/or further interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU member states and the United Kingdom governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer, and otherwise process personal data with respect to EU and UK data subjects. In particular, the GDPR includes obligations and restrictions concerning the consent and rights of individuals to whom the personal data relates, the transfer of personal data out of the European Economic Area or the United Kingdom, security breach notifications and the security and confidentiality of personal data. Among other stringent requirements, the GDPR restricts transfers of data outside of the EU to third countries deemed to lack adequate privacy protections (such as the U.S.), unless an appropriate safeguard specified by the GDPR is implemented. A July 16, 2020 decision of the Court of Justice of the European Union invalidated a key mechanism for lawful data transfer to the U.S. and called into question the viability of its primary alternative. As such, the ability of companies to lawfully transfer personal data from the EU to the U.S. is presently uncertain. Other countries have enacted or are considering enacting similar cross-border data transfer rules or data localization requirements. These developments could limit our ability to launch our products in the EU and other foreign markets. The GDPR authorizes fines for certain violations of up to 4% of global annual revenue or €20 million, whichever is greater. Such fines are in addition to any civil litigation claims by data subjects. Much remains unknown with respect to how to interpret and implement the GDPR and guidance on implementation and compliance practices is often updated or otherwise revised. Given the breadth and depth of changes in data protection obligations, including classification of data and our commitment to a range of administrative, technical and physical controls to protect data and enable data transfers outside of the EU and the United Kingdom, our compliance with the GDPR’s requirements will continue to require time, resources and review of the technology and systems we use to satisfy the GDPR’s requirements, including as EU member states enact their legislation. Further, while the United Kingdom enacted the Data Protection Act 2018 in May 2018 that supplements the GDPR, and has publicly announced that it will continue to regulate the protection of personal data in the same way post-Brexit, Brexit has created uncertainty with regard to the future of regulation of data protection in the United Kingdom.

The U.S. federal government and various states and governmental agencies also have adopted or are considering adopting various laws, regulations, and standards regarding the collection, use, retention, security, disclosure, transfer, and other processing of sensitive and personal information. In addition, many states in which we operate have laws that protect the privacy and security of sensitive and personal information. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to sensitive and personal information than federal, international, or other state laws, and such laws may differ from each other, which may complicate compliance efforts. State laws are changing rapidly and there is discussion in Congress of a new federal data protection and privacy law to which we would become subject if it is enacted. All of these evolving compliance and operational requirements impose significant costs that are likely to increase over time, may require us to modify our data processing practices and policies, and may divert resources from other initiatives and projects. Furthermore, non-compliance with data privacy laws and regulations, or a major breach of our network security and systems, could have serious negative consequences for our businesses and future prospects, including possible fines, penalties, and damages, reduced customer demand for our products, and harm to our reputation and brand, all of which may have a material and adverse impact on our business, financial condition, and operating results.

We make public statements about our use and disclosure of personal information through our privacy policy, information provided on our website and press statements. Also, we enter into contracts with third parties (such as our partners and clients) that contain provisions regarding the collection, sharing, and processing of personal information. Although we endeavor to comply with our public statements and documentation as well as our contractual and other privacy-related obligations, we may at times fail to do so or be alleged to have failed to do so. The publication of our privacy policy and other statements that provide promises and assurances about data privacy and security can subject us to potential government or legal action if they are found to be deceptive, unfair or misrepresentative of our actual practices. In addition, from time to time, concerns may be expressed about whether our products and services compromise the privacy of clients and others. Any concerns about our data privacy and security practices (even if unfounded), or any failure, real or perceived, by us to comply with our posted privacy policies, contractual obligations, or any legal or regulatory requirements, standards, certifications, or orders, or other privacy or consumer protection-related laws and regulations applicable to us, could cause our clients to reduce their use of our autonomous industrial vehicles and could affect our financial condition, operating results, and our reputation, and may result in governmental or regulatory investigations, enforcement actions, regulatory fines, criminal compliance orders, litigations, breach of contract claims, or public statements against us by government regulatory authorities, our partners and/or clients, data subjects, consumer advocacy groups, or others, all of which could be costly and have an adverse effect on our business.

Furthermore, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy violations continue to increase. Non-compliance could result in proceedings against us by data protection authorities, governmental entities or others, including class action privacy litigation in certain jurisdictions, which would subject us to significant fines, penalties, judgments, and negative publicity, and may otherwise affect our financial condition, operating results, and our reputation. Given the complexity of operationalizing the GDPR and other data privacy and security laws and regulations to which we are subject, the maturity level of proposed compliance frameworks and the relative lack of guidance in the interpretation of the numerous requirements of the GDPR and other data privacy and security laws and regulations to which we are subject, we may not be able to respond quickly or effectively to regulatory, legislative, and other developments, and these changes may in turn impair our ability to offer our existing or planned products and services and/or increase our cost of doing business. In addition, if our practices are not consistent or viewed as not consistent with legal and regulatory requirements, including changes in laws, regulations, and standards or new interpretations or applications of existing laws, regulations and standards, we may become subject to audits, inquiries, whistleblower complaints, adverse media coverage, investigations, loss of export privileges, or severe criminal or civil sanctions, all of which may affect our financial condition, operating results, and our reputation. Unauthorized access or disclosure of personal or other sensitive or confidential data of Company (including data about third parties which the Company possesses), whether through systems failure, employee negligence, fraud, or misappropriation, by the Company, our service providers or other parties with whom we do business (if they fail to meet the standards we impose, or if their systems on which our data is stored experience any data breaches or security incidents) could also subject us to significant litigation, monetary damages, regulatory enforcement actions, fines, and criminal prosecution in one or more jurisdictions.

Risks Related to our Common Stock

There is no established trading a limited market for our shares; further, our shares will be subject common stock that may make it more difficult to potential delisting if we do not maintain the listing requirements dispose of the Nasdaq Capital Market. your stock.

Prior to our initial public offering in October 2021, there was no public market for our shares of common stock. Although our Our common stock began trading is currently listed on the Nasdaq Capital Market on October 20, 2021, under the symbol “CYN”. There is a limited trading market for our common stock. Accordingly, there can be no assurance as to the liquidity of any markets that an active trading market may develop for these securities will develop or be sustained.

In addition, Nasdaq has rules for continued listing, including, without limitation, minimum market capitalization and other requirements. Failure to maintain our listing, or de-listing from NASDAQ, would make it more difficult for shareholders to dispose common stock, the ability of holders of our common stock and more difficult to obtain accurate price quotations on our common stock. This could have an adverse effect on the price sell shares of our common stock. Our ability stock, or the prices at which holders may be able to issue additional securities for financing or other purposes, or otherwise to arrange for any financing we may need in the future, may also be materially and adversely affected if our sell their common stock is not traded on a national securities exchange. stock.

We are not in compliance with The Nasdaq Capital Market $1.00 minimum bid price requirement and failure to maintain compliance with this standard could result in delisting and adversely affect the market price and liquidity of our common stock.

Our common stock is currently traded on The Nasdaq Capital Market under the symbol “CYN”. If we fail to meet any of the continued listing standards of The Nasdaq Capital Market, our common stock will be delisted from The Nasdaq Capital Market. These continued listing standards include specifically enumerated criteria, such as a $1.00 minimum closing bid price. On December 15, 2022 August 24, 2023, we received a notification letter from The Nasdaq Stock Market advising that, for 30 consecutive business days preceding the notification letter, the Company did not meet the minimum $1.00 per share bid price requirement for continued inclusion on The Nasdaq Capital Market pursuant to Nasdaq Marketplace Listing Rule 5550(a)(2). To demonstrate compliance with this requirement, the closing bid price of our common stock needs to be at least $1.00 per share for a minimum of 10 consecutive business days before June 13, 2023 February 20, 2024. In order to satisfy this requirement, On February 21, 2024, Nasdaq granted the Company intends an additional 180-day extension to continue actively monitoring its listing on the bid price for its common stock between now and June 13, 2023. and will consider available options Nasdaq Capital Market. The Company was given until August 19, 2024 to resolve the deficiency and regain compliance with the Nasdaq’s $1 minimum bid price per share requirement.

While we intend to regain compliance with the minimum bid price rule, there can be no assurance that we will be able to maintain continued compliance with this rule or the other listing requirements of The Nasdaq Capital Market. If we were unable to meet these requirements, we would receive another delisting notice from the Nasdaq Capital Market for failure to comply with one or more of the continued listing requirements. If our common stock were to be delisted from The Nasdaq Capital Market, trading of our common stock most likely will be conducted in the over-the-counter market on an electronic bulletin board established for unlisted securities such as the OTC Markets or in the “pink sheets.” Such a downgrading in our listing market may limit our ability to make a market in our common stock and which may impact purchases or sales of our securities.

Costs as a result of operating as a public company are significant, and our management is required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we incur significant legal, accounting and other expenses that private companies do not incur, and we expect these costs to further increase after we are no longer an “emerging growth company.” The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Capital Market, and other applicable securities rules and regulations impose various requirements on public companies. Our management and other personnel will devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the specific timing of such costs.

As a result of being a public company, we are obligated to develop and maintain proper and effective internal controls over financial reporting, and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We will be required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting as of the end of the fiscal year that coincides with the filing of our second annual report on Form 10-K. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. In addition, our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting in our first annual report required to be filed with the SEC following the date we are no longer an “emerging growth company.” We have commenced the costly and time-consuming process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404, and we may not be able to complete our evaluation, testing and any required remediation in a timely fashion once initiated. Our compliance with Section 404 will require that we incur substantial expenses and expend significant management efforts. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and compile the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. In addition, changes in accounting principles or interpretations could also challenge our internal controls and require that we establish new business processes, systems and controls to accommodate such changes. Additionally, if these new systems, controls or standards and the associated process changes do not give rise to the benefits that we expect or do not operate as intended, it could adversely affect our financial reporting systems and processes, our ability to produce timely and accurate financial reports or the effectiveness of internal control over financial reporting. Moreover, our business may be harmed if we experience problems with any new systems and controls that result in delays in their implementation or increased costs to correct any post-implementation issues that may arise.

The growth and expansion of our business places a continuous, significant strain on our operational and financial resources. Further growth of our operations to support our customer base, our information technology systems and our internal controls and procedures may not be adequate to support our operations. For example, we are still in the process of implementing information technology and accounting systems to help manage critical functions such as billing and revenue recognition and financial forecasts. As we continue to grow, we may not be able to successfully implement requisite improvements to these systems, controls and processes, such as system access and change management controls, in a timely or efficient manner. Our failure to improve our systems and processes, or their failure to operate in the intended manner, whether as a result of the growth of our business or otherwise, may result in our inability to accurately forecast our revenue and expenses, or to prevent certain losses. Moreover, the failure of our systems and processes could undermine our ability to provide accurate, timely and reliable reports on our financial and operating results and could impact the effectiveness of our internal control over financial reporting. In addition, our systems and processes may not prevent or detect all errors, omissions or fraud.

Future sales of our common stock in the public market could cause the market price of our common stock to decline.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. Many of our existing equity holders have substantial unrecognized gains on the value of the equity they hold based upon the price of our initial public offering, and therefore, they may take steps to sell their shares or otherwise secure the unrecognized gains on those shares. We are unable to predict the timing of or the effect that such sales may have on the prevailing market price of our common stock.

Our stock price may be volatile, and the value of our common stock may decline.

Prior to our initial public offering in October 2021, there was no public market for our common stock. stock and our common stock is not actively traded. The lack of an active market for our common stock may impair investors' ability to sell their shares at the time they wish to sell them or at a price that they consider reasonable, may reduce the market value of their shares and may result in significant price and volume fluctuations. The market price of our common stock may fluctuate or decline significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our financial condition or results of operations;
- variance in our financial performance from expectations of securities analysts;
- changes in the pricing of the solutions on our platforms;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our technology;
- announcements by us or our competitors of significant business developments, acquisitions or new offerings;
- sales of shares of our common stock by us or our shareholders;
- significant data breaches, disruptions to or other incidents involving our technology;
- our involvement in litigation;
- future sales of our common stock by us or our stockholders, as well as the anticipation of lock-up releases; stockholders;
- changes in senior management or key personnel;

- the trading volume of our common stock;
- changes in the anticipated future size and growth rate of our market;
- general economic and market conditions; and
- other events or factors, including those resulting from war, incidents of terrorism, global pandemics or responses to these events.

Broad market and industry fluctuations, as well as general economic, political, regulatory and market conditions, may also negatively impact the market price of our common stock. In addition, technology stocks have historically experienced high levels of volatility. In the past, companies who have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial expenses and divert our management’s attention.

If securities or industry analysts do not publish research or publish unfavorable or inaccurate research about our business, the market price and trading volume of our common stock could decline.

The market price and trading volume of our common stock will be heavily influenced by the way analysts interpret our financial information and other disclosures. We do not have control over these analysts. If few securities analysts commence coverage of us, or if industry analysts cease coverage of us, our stock price would be negatively affected. If securities or industry analysts do not publish research or reports about our business, downgrade our common stock, or publish negative reports about our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our stock price to decline and could decrease the trading volume of our common stock.

Our executive officers, directors and principal stockholders, if they choose to act together, have the ability and will continue to have the ability to control or significantly influence all matters submitted to stockholders for approval.

Our executive officers, directors and principal stockholders (including entities affiliated with Benchmark), beneficially own approximately 52 % 23.38% of our common stock. See *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*. Such persons acting together, will have the ability to control or significantly influence all matters submitted to our stockholders for approval, as well as our management and business affairs. This concentration of ownership may have the effect of delaying, deferring or preventing a change in control, impeding a merger, consolidation, takeover or other business combination involving us, or discouraging a potential acquiror from making a tender offer or otherwise attempting to obtain control of our business, even if such a transaction would benefit other stockholders.

Future securities issuances could result in significant dilution to our stockholders and impair the market price of our common stock.

Future issuances of shares of our common stock could depress the market price of our common stock and result in dilution to existing holders of our common stock. Also, to the extent outstanding options and warrants to purchase our shares of our common stock are exercised or options or other equity-based awards are issued or become vested, there will be further dilution. The amount of dilution could be substantial depending upon the size of the issuances or exercises. Furthermore, we may issue additional equity securities that could have rights senior to those of our common stock.

We anticipate that we will need to raise additional capital, and our issuance of additional capital stock in connection with financings, acquisitions, investments, our equity incentive plans or otherwise will dilute all other stockholders.

We expect to issue additional capital stock in the future that will result in dilution to all other stockholders. We expect to grant equity awards to employees, directors and consultants under our equity incentive plans. We may also raise capital through equity financings in the future. As part of our business strategy, we may acquire or make investments in companies, products or technologies and issue equity securities to pay for any such acquisition or investment. We may not be able to obtain additional capital if and when needed on terms acceptable to us, or at all. Further, if we do raise additional capital, it may cause stockholders to experience significant dilution of their ownership interests and the per share value of our common stock to decline.

We do not intend to pay cash dividends for the foreseeable future and, as a result, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our capital stock, and, subject to the discretionary dividend policy described in the section entitled “Dividend Policy” of this Annual Report, we do not intend to pay any cash dividends in the foreseeable future. On September 29, 2023, our board of directors declared a one-time special dividend of 10% on our issued and outstanding shares of our common stock to holders of record on October 23, 2023. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, you may need to rely on sales of our common stock after price appreciation, which may never occur, as the only way to realize any future gains on your investment.

We are an “emerging growth company,” and we cannot be certain if the reduced reporting and disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an “emerging-growth company,” as defined in the JOBS Act, and we have elected to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies,” including the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, or Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Pursuant to Section 107 of the Jumpstart Our Business Startups (“JOBS”) Act, as an emerging growth company, we have elected to use the extended transition period for complying with new or revised accounting standards until those standards would otherwise apply to private companies. As a result, our consolidated financial statements will not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors. In addition, if we cease to be an emerging growth company, we will no longer be able to use the extended transition period for complying with new or revised accounting standards.

We will remain an emerging-growth company until the earliest of: (1) the last day of the fiscal year following the fifth anniversary of this our initial public offering; (2) the last day of the first fiscal year in which our annual gross revenue is $1.07 billion or more; (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities; and (4) the date we qualify as a "large accelerated filer," with at least $700 million of equity securities held by non-affiliates.

We cannot predict if investors will find our common stock less attractive as a result of choosing to rely on these exemptions. For example, if we do not adopt a new or revised accounting standard, our future results of operations will not be as comparable to the results of operations of certain other companies in our industry that adopted such standards. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile.

Anti-takeover provisions in our charter documents may discourage our acquisition by a third party, which could limit our stockholders' opportunity to sell their shares, at a premium.

Our amended and restated certificate of incorporation includes provisions that could limit the ability of others to acquire control of our company. These provisions could have the effect of depriving our stockholders of an opportunity to sell their shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control in a tender offer or similar transaction. Among other things, the charter documents will provide:

- certain amendments to our bylaws that will require the approval of two-thirds of the combined vote of our then-outstanding shares of our common stock; and
- our board of directors has the authority, without further action by our stockholders, to issue preferred stock in one or more series and to fix their designations, powers, preferences, privileges, and relative participating, optional, or special rights, and the qualifications, limitations, or restrictions, including dividend rights, conversion rights, voting rights, terms.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware and federal court within the State of Delaware as the exclusive forum for certain types of actions and proceedings that our stockholders may initiate, which could limit a stockholder's ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware will be exclusive forums for any:

- derivative action or proceeding brought on our behalf;
- action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders;
- action asserting a claim against us, our directors or officers or employees arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or amended and restated bylaws; or
- other action asserting a claim against us, our directors or officers or employees that is governed by the internal affairs doctrine.

This choice of forum provision does not apply to actions brought to enforce a duty or liability created under the Exchange Act. Our amended and restated certificate of incorporation to be in effect after this offering also provides that the federal district courts of the United States are the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. We intend for this provision to apply to any complaints asserting a cause of action under the Securities Act despite the fact that Section 22 of the Securities Act creates concurrent jurisdiction for the federal and state courts over all actions brought to enforce any duty or liability created by the Securities Act or the rules and regulations promulgated thereunder. There is uncertainty as to whether a court would enforce such a provision with respect to claims under the Securities Act, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our amended and restated certificate of incorporation described above.

These choice of forum provisions may limit a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Risk management and strategy

We recognize the critical importance of developing, implementing, and maintaining robust cybersecurity measures to safeguard our information systems and protect the confidentiality, integrity, and availability of our data.

Managing Material Risks & Integrated Overall Risk Management

We have strategically integrated cybersecurity risk management into our broader risk management framework to promote a company-wide culture of cybersecurity risk management. This integration ensures that cybersecurity considerations are an integral part of our decision-making processes at every level. Our management team works closely with our IT department to continuously evaluate and address cybersecurity risks in alignment with our business objectives and operational needs.

Oversee Third-party Risk

Because we are aware of the risks associated with third-party service providers, we have implemented stringent processes to oversee and manage these risks. We conduct thorough security assessments of all third-party providers before engagement and maintain ongoing monitoring to ensure compliance with our cybersecurity standards. The monitoring includes annual assessments of the SOC reports of our providers and implementing complementary controls. This approach is designed to mitigate risks related to data breaches or other security incidents originating from third-parties.

Risks from Cybersecurity Threats

We have not encountered cybersecurity challenges that have materially impaired our operations or financial standing.

Item 2. Properties

Description of Property

Our corporate headquarters is located in Menlo Park, California and acts as the main operational facility for our vehicle engineering, software engineering and business units. We lease our corporate headquarters which contains approximately 16,400 square feet. We believe that our office space is adequate for our current needs and, should we need additional space, we believe we will be able to obtain additional space on commercially reasonable terms.

Item 3. Legal Proceedings

We are not a party to any pending legal proceeding, nor is our property the subject of a pending legal proceeding, that is not in the ordinary course of business or otherwise material to the financial condition of our business. None of our directors, officers or affiliates are involved in a proceeding adverse to our business or have a material interest adverse to our business.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Information with Respect to our Common Stock

Our common stock is traded on the The Nasdaq Capital Market, LLC, or Nasdaq, and began trading under the symbol "CYN" on October 20, 2021.

Holders of Record

As of December 31, 2022 December 31, 2023, we had 89 58 shareholders of record.

Dividend Policy

We have not declared or paid cash dividends on our capital common stock and have no present intention of paying any cash dividends on our capital common stock. We currently intend to retain all available funds and future earnings, if any, to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. On September 29, 2023, our board of directors declared a one-time special stock dividend of 10% on our issued and outstanding shares of our common stock to holders of record on October 23, 2023. Any future determination regarding the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

Recent Sales of Unregistered Securities

NoneNone.

Issuer Purchases of Equity Securities

The Company did not repurchase any of its equity securities during the fourth quarter its fiscal year ended December 31, 2022 December 31, 2023.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The objective of this Management's Discussion and Analysis is to allow investors to view the Company from management's perspective, considering items that would have a material impact on future operations. The following discussion and analysis summarizes the significant factors affecting our results of operations and financial condition as of and during the years ended December 31, 2022 December 31, 2023 and 2021 2022 and should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Annual Report. This discussion contains forward-looking statements based upon current plans, expectations and beliefs that involve risks and uncertainties. Our actual results and the timing of certain events could differ materially from those anticipated in or implied by these forward-looking statements as a result of several factors, including those discussed in the section captioned "Risk Factors" included under Part I, Item 1A and elsewhere in this Annual Report. See also the section captioned "Forward-Looking Statements" in this Annual Report.

Overview

We are an autonomous vehicle ("AV") technology company that is focused on addressing industrial uses for autonomous vehicles. We believe that technological innovation is needed to enable adoption of autonomous industrial vehicles that will address the substantial industry challenges that exist today. These challenges include labor shortages, lagging technological advancements from incumbent vehicle manufacturers, and high upfront investment commitment.

Industrial sites are typically rigid environments with consistent standards as opposed to city streets that have more variable environmental and situational conditions and diverse regulations. These differences in operational design domains will be major factors that make proliferation of industrial AVs in private settings achievable with less time and resources than AVs on public roadways. Namely, safety and infrastructure challenges are cited as roadblocks that have delayed AVs from operating on public roadways at scale. Our focus on industrial AVs simplifies these challenges because industrial facilities (especially those belonging to a single end customer that operates similarly at different sites) share much more in common than different cities do. Furthermore, our end customers own their infrastructure and can make changes more easily than governments can on public roadways.

With these challenges in mind, we are developing an Enterprise Autonomy Suite (“EAS”) that leverages advanced in-vehicle autonomous driving technology and incorporates leading supporting technologies like data analytics, asset tracking, fleet management, cloud, and connectivity. EAS provides a differentiated solution that we believe will drive pervasive proliferation of industrial autonomy and create value for customers at every stage of their journey towards full automation and the adoption of Industry 4.0.

EAS is a suite of technologies and tools that we divide into three complementary categories:

1. *DriveMod*, our modular industrial vehicle autonomous driving software;
2. *Cyngn Insight*, our customer-facing tool suite for monitoring and managing AV fleets (including remotely operating vehicles) and generating/aggregating/analyzing data (including the Infinitracker asset tracker and IoT gateway device); and
3. *Cyngn Evolve*, our internal tool suite and infrastructure that facilitates artificial intelligence (“AI”) AI and machine learning (“ML”) training to continuously enhance our algorithms and models and provides a simulation framework (both record/rerun and synthetic scenario creation) to ensure that data collected in the field can be applied to validating new releases.

Legacy automation providers manufacture specialized industrial vehicles with integrated robotics software for rigid tasks, limiting automation to narrow uses. Unlike these specialized vehicles, EAS can be compatible with the existing vehicle assets in addition to new vehicles that have been purpose built for autonomy by vehicle manufacturers. EAS is operationally expansive, vehicle agnostic, and compatible with indoor and outdoor environments. By offering flexible autonomous services, we aim to remove barriers to industry adoption.

We understand that scaling of autonomy solutions will require an ecosystem made up of different technologies and services that are enablers for AVs. Our approach is to forge strategic collaborations with complementary technology providers that accelerate AV development and deployment, provide access to new markets, and create new capabilities. Our focus on designing DriveMod to be modular will combine with our experience deploying AV technology on diverse industrial vehicle form factors, which will be difficult for competitors to replicate.

We expect our technology to generate revenue through two main methods: deployment and EAS subscriptions. Deploying our EAS requires us and our integration partners to work with a new client to map the job site, facility, gather data, and install our AV technology within their fleet and site. We anticipate that new deployments will yield project-based revenues based on the scope of the deployment. After deployment, we expect to generate revenues by offering EAS through a Software as a Service (“SaaS”) model, which can be considered the AV software component of Robotics as a Service (“RaaS”).

RaaS is a subscription model that allows customers to use robots/vehicles without purchasing the hardware assets upfront. We will seek to achieve sustained revenue growth largely from ongoing SaaS-style EAS subscriptions that enable companies to tap into our ever-expanding suite of AV and AI capabilities as organizations transition into full industrial autonomy.

Although both the components and the combined solutions of EAS are still under development, components of we have EAS licenses with paying customers and have already been used piloted EAS for a paid customer trial and pilot deployments. We have not yet derived any significant recurring revenues from EAS but began marketing EAS to customers in 2022. 2022 with our first, paid commercial deployment commencing in the first quarter of 2023. We expect EAS to continually be developed and enhanced according to evolving customer needs, which will take place concurrently while other completed features of EAS are commercialized. We expect annual R&D expenditures in the foreseeable future to equal or exceed that of 2020 and 2021. 2023. We also expect that had limited paid pilot deployments in 2023 will that offset some of the ongoing R&D costs of continually developing EAS. We target scaled deployments to begin in 2024.

Our go-to-market strategy is to acquire new customers that use industrial vehicles in their mission-critical and daily operations by (a) leveraging the relationships and existing customers of our network of strategic partners, (b) bringing AV capabilities to industrial vehicles as a software service provider, and (c) executing a robust in-house sales and marketing effort to nurture a pipeline of industrial organizations. Our focus is on acquiring new customers who are either looking (a) to embed our technology into their vehicle product roadmaps or (b) to apply autonomy to existing fleets with our vehicle retrofits. In turn, our customers are any organizations that could utilize our EAS solution, including original equipment manufacturers (“OEMs”) OEMs that supply industrial vehicles, end customers that operate their own industrial vehicles, or service providers that operate industrial vehicles for end customers.

As OEMs and leading industrial vehicle users seek to increase productivity, reinforce safer working environments, and scale their operations, we believe we are uniquely positioned to deliver a dynamic autonomy solution via our EAS to a wide variety of industrial uses. Our long-term vision is for EAS to become a universal autonomous driving solution with minimal marginal cost for companies to adopt new vehicles and expand their autonomous fleets across new deployments. We have already deployed DriveMod software on more than 10 different vehicle form factors that range from stockchasers and stand-on floor scrubbers forklifts to 14-seat shuttles and 5-meter-long cargo vehicles demonstrating the extensibility of our AV building blocks. These deployments were prototypes or part of proof-of-concept projects. Of these deployments, two were at customer sites. For one deployment we were paid $166,000 and the other was part of our normal R&D activities.

Our strategy upon establishing a customer relationship with an OEM, is to seek to embed our technology into their vehicle roadmap and expand our services to their many clients. Once we solidify an initial AV deployment with a customer, we intend to seek to expand within the site to additional vehicle platforms and/or expand the use of similar vehicles to other sites operated by the customer. This “land and expand” strategy can repeat iteratively across new vehicles and sites and is at the heart of why we believe industrial AVs that operate in geo-fenced, constrained environments are poised to create value.

Meanwhile, according to the “Money Pit: Self-Driving Cars’ $16 Billion Cash Burn” article by The Information, more than $16 billion has been invested into passenger AV development during the last several years with negligible revenues generated and frequent delays. The $200 billion annual industrial equipment market (projected by 2027) is substantial, but it does not justify billions of dollars of annual research and development spend. These leading passenger AV companies will need to take the approach of first capturing the trillion-dollar markets of passenger AV to achieve their desired returns.

Critical Accounting Policies and Estimates and Judgements

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities, disclosure of contingent liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. We continually evaluate our estimates and judgments. We base our estimates and judgments on historical experience and other factors that we believe to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known. Besides the estimates identified below that are considered critical, we make many other accounting estimates in preparing our consolidated financial statements and related disclosures. All estimates, whether or not deemed critical, affect reported amounts of assets, liabilities, revenues and expenses, as well as disclosures of contingent liabilities. These estimates and judgments are also based on historical experience and other factors that are believed to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known, even for estimates and judgments that are not deemed critical.

The Company consider considers costs to develop software, warrants and share-based compensation to be critical accounting estimates and believe believes the associated assumptions and estimates to have the greatest potential impact on our consolidated financial statements.

Warrants Costs to Develop Software

The Company incurs costs related to internally developed software. Based on the nature of the software the Company capitalizes software costs under the following guidance.

Internal-Use Software

The Company capitalizes certain costs related to internal-use software, primarily consisting of direct labor and third-party vendor costs associated with creating the software. Software development projects generally include three stages: the preliminary project stage (all costs are expensed as incurred), the application development stage (certain costs are capitalized and certain costs are expensed as incurred) and the post-implementation/operation stage (all costs are expensed as incurred). Costs capitalized in the application development stage include costs related to the design and implementation of the selected software components, software build and configuration infrastructure, and software interfaces. Capitalization of costs requires judgment in determining when a project has reached the application development stage, the proportion of time spent in the application development stage, and the period over which the Company expects to benefit from the use of that software. Once the software is placed in service, these costs are amortized on the straight-line method over the estimated useful life of the software, which is generally three to five years. There is judgment involved in the determination of the useful life. Internal-use software is classified as property and equipment in accordance with ASC 350, *Intangibles – Goodwill and Other*.

Costs to Develop Software to be Sold, Leased or Otherwise Marketed

The Company accounts for research costs of computer software to be sold, leased or otherwise marketed as expense until technological feasibility has been established for the product. Once technological feasibility is established, all software costs are capitalized until the product is available for general release to customers. Judgment is required in determining when technological feasibility of a product is established. We have determined that technological feasibility for our software products is reached shortly after a working prototype is complete and meets or exceeds design specifications including functions, features, and technical performance requirements. After technological feasibility is established, judgment is required to determine the amount of payroll and stock-based compensation costs to be capitalized on the remaining development efforts. These costs will continue to be capitalized until such time as when the product or enhancement is available for general release to customers. Computer software to be sold, leased or otherwise marketed is classified as an intangible asset in accordance with ASC 985, *Software*.

Common Stock Warrants

The Company issued to its lead underwriter in the Company’s initial public offering consummated in October 2021, (the “IPO”), warrants to purchase up to 140,000 shares of its common stock, exercisable at a price per share of $9.373 and expiring on October 19, 2026. Additionally, in connection with the Private Placement offering completed on April 29, 2022, the Company issued warrants to purchase 6,451,613 shares of its common stock, exercisable at a price per share of $2.98 and expiring on April 29, 2027. The Company accounts for warrants in accordance with ASC 480, *Distinguishing Liabilities from Equity*, depending on the specific terms of the warrant agreement. The Company determined the fair value of the warrants using the Black-Scholes pricing model and treated the valuation as equity instruments in consideration of the cashless settlement provisions in the warrant agreement. agreements.

The Company also applied the guidance in ASC 340-10-S99-1, *Other Assets and Deferred Costs*, that states specific incremental costs directly attributable to a proposed or actual offering of equity securities may properly be deferred and charged against the gross proceeds of the offering. The Company treated the valuation of the warrants as directly attributable to the issuance of an equity contract and, accordingly, classified the warrants as additional paid-in capital.

Stock-based Compensation

The Company recognizes the cost of share-based awards granted to employees and directors based on the estimated grant-date fair value of the awards. Cost is recognized on a straight-line basis over the service period, which is generally the vesting period of the award. The Company recognizes stock-based compensation cost and reverses previously recognized costs for unvested awards in the period forfeitures occur. occur, if any. The Company determines the fair value of stock options using the Black-Scholes option pricing model, which is impacted by the fair value of the Company's common stock, expected price volatility of the common stock, expected term, risk-free interest rates, and expected dividend yield.

Results of Operations

Revenue

We currently derive revenue from two sources. First, we enter into fixed-price NRE contracts related to trial projects that consist of several independent phases and includes design, data gathering, hardware installation on an industrial vehicle, customer-specific configuration of the DriveMod software, and demonstrations. The determination of the contract price is based on labor and hardware costs estimated to achieve the required milestones specified in the contract. The purpose of these fully funded projects is to exhibit the feasibility of the Company's technology offering to the customer on additional vehicle types and provide a level of confidence to encourage the customer to enter into a multi-year, commercial arrangement with the Company in the future. Revenue on these multi-phase contracts is generally recognized at the point in time when the performance obligations of each independent phase has have been completed and customer acceptance has been acknowledged. Contracts often allow mutual termination without penalty. To the extent our actual costs vary from the fixed fee, we will generate more or less profit or could incur a loss.

We also sell Infinitracker, an off-the-shelf asset tracking devise. Second, we derive revenue from EAS subscriptions. Revenue on product sales from these subscriptions is recognized at monthly over the point in time when ownership of the goods is transferred, generally service contract life, beginning at the time that a customer acknowledges acceptance of shipment to the customer. service.

Prior to 2022, the Company had not generated any revenue. During 2022, 2023, the Company recognized $262.0 thousand $1.49 million of revenue, of which $250.0 thousand $1.42 million was associated with NRE contracts and the remaining $12.0 thousand $0.07 million related to revenue from EAS subscriptions. During 2022, the Company recognized $0.26 million of revenue, of which $0.25 million was associated with NRE contracts and the remaining $0.01 million related to sales of Infinitracker devices.

Cost of Revenue

Cost of revenues consists primarily of direct labor and related fringe benefits for internal engineering resources costs incurred for the completion of the contracts and hardware costs.

During 2022, 2023, the company reported cost of revenue of $186.8 thousand $1.2 million consisting primarily of fully burdened internal engineering development resources and hardware costs incurred for the completion of the final phases of NRE contracts. During 2022, the Company reported cost of revenue of $0.2 million consisting primarily of fully burdened internal engineering development resources and hardware costs incurred for the completion of the initial phases of NRE contracts. Included in cost of revenue for 2022 is an onerous contract provision of $114.7 thousand for an anticipated loss for the first phase of an NRE contract expected to be completed in the first quarter of 2023. This onerous contract provision is based on total anticipated costs for the initial phase of the arrangement in excess of the revenue to be recognized upon completion and acceptance of the initial phase. Upon execution of the agreement, management's expectation was that costs would approximate the arrangement fee per the contract. However, as the project progressed, it was determined that total projected direct labor costs and related fringe benefits exceeded the arrangement fee.

Research and Development

Research and development expense consist consists primarily of outsourced engineering services, internal engineering and development expenses, materials, labor and stock-based compensation related to development of the Company's products and services. Research and development costs incurred during NRE projects are capitalized and expensed when the associated NRE revenue is recognized. All other research and development costs are expensed as incurred.

Research and development expense for the year ended December 31, 2022 December 31, 2023 increased by $4.5 million $3.2 million or 90.0% 34% to $9.5 million $12.7 million from $5.0 million $9.5 million for the year ended December 31, 2021 December 31, 2022. The increase is attributable to the increase in personnel engaged in the research and development of our AV technology in 2022 2023 compared to headcount levels in 2021, 2022, including provisions for non-cash stock-based compensation expense, and external R&D contractors, allocated occupancy costs, R&D related travel costs. contractors. The Company plans to continue to expand its level of engineering and other R&D personnel to support its research and development efforts and expects research and development costs to increase over time.

General and Administrative

General, and administrative expense consist primarily of personnel costs, facilities expenses, depreciation and amortization, travel, and advertising costs.

General and administrative expenses increased by approximately $5.6 million $0.9 million or 126.7% 9% to $10.9 million for the year ended December 31, 2023 from $10.0 million for the year ended December 31, 2022 from $4.4 million for the year ended December 31, 2021. The increase was attributed to the following factors: i) an increase in personnel related costs, including provisions for non-cash stock-based compensation expense, as the Company increased staff to support being a public company; ii) the company responsibilities, an increase in occupancy costs following the renewal of the lease that expanded the square footage of the leased area; iii) directors marketing and officers insurance coverage taken by the Company and; iv) advertising expenses, an increase in legal and professional fees related to required compliance associated with public filings and regulatory filings following the Company becoming a public company increases in October 2021other general and administrative expenses.

Interest income, net

Interest (expense) income increased by $53.7 $93.8 thousand to $137.9 thousand for the year ended December 31, 2023 from $44.1 thousand for the year ended December 31, 2022 from ($9.6 thousand) for the year ended December 31, 2021. Interest income consists primarily of interest earned of $49.5 $149.9 thousand from the Company's interest-bearing bank accounts, offset by interest expense of $5.4 $12.0 thousand representing amortization of the present value interest on the adoption of lease accounting guidelines under ASC 842, *Leases,* on right-of-use assets and operating liabilities.

Other Income

Other income increased by $112.9 $276.7 thousand to $396.8 thousand for the year ended December 31, 2023 from $120.1 thousand for the year ended December 31, 2022 from $7.2 thousand for the year ended December 31, 2021. Other income consists primarily of realized gains earned on the Company's short-term investments of approximately $90.2 thousand and other miscellaneous income items.investments.

For the year ended December 31, 2022, other income (expense), net, decreased by approximately $1.6 million from the year ended December 31, 2021. The decrease is attributed to the absence of comparable gains during the year ended December 31, 2022 compared to the forgiveness of Payroll Protection Program ("PPP") Notes by the U.S. Small Business Administration ("SBA") that occurred during the year ended December 31, 2021.

Liquidity and Capital Resources

The Company's principal source of liquidity is its cash and current maturities of short-term investments. Short-term investments consist of placements in U.S. government securities with original maturities between three to nine months. As of December 31, 2022 December 31, 2023, the Company had unrestricted cash of approximately $10.5 million $3.6 million and short-term investments of $12.1 million $4.6 million. As of December 31, 2021 December 31, 2022, the Company had unrestricted cash of $21.9 million. On October 22, 2021, the Company closed its IPO which resulted in net proceeds $10.5 million and short-term investments of approximately $23.3 million after deducting underwriting discounts, commissions and offering expenses. Additionally, on $12.1 million. On April 29, 2022, the Company received net proceeds of approximately $18.1 million from the sale of common stock and exercise of pre-funded warrants in a private placement offering.

On May 31, 2023, the Company entered into an ATM Sales Agreement with Virtu Americas LLC (the "ATM Sales Agreement"), under which the Company may, from time to time, sell shares of the Company's common stock at market prices by methods deemed to be an "at-the-market offering" as defined in Rule 415 promulgated under the Securities Act of 1933, as amended. The ATM Sales Agreement and related prospectus are limited to sales of up to $8.8 million of shares of the Company's common stock. The ATM Sales Agreement expires at the earliest of 5 years after the date of the agreement or exhaustion of the aggregate limit available under the ATM Sales Agreement. The Company pays Virtu Americas LLC up to 3.0% of the gross proceeds as a commission. For the year ended as of December 31, 2023, a total of 3,731,524 shares of common stock were sold through Virtu Americas LLC under the ATM Sales Agreement for net proceeds of $1,747,468 after payment of commission fees of $36,897 and other related expenses of $60,465. As of December 31, 2023, the Company had $6.9 million of common stock remaining available for sale under the ATM Sales Agreement.

On December 8, 2023, the Company entered into a Placement Agent Agreement with Aegis Capital Corp. ("Aegis"), pursuant to which Aegis acted as the Company's placement agent, on a reasonable best efforts basis, in connection with the sale by the Company of an aggregate of 33,333,333 shares of common stock in a public offering, which included: (i) 11,466,733 shares of Common Stock, and (ii) pre-funded warrants to purchase 21,866,600 shares of Common Stock. The public offering closed on December 12, 2023. The Company received gross proceeds of approximately $5 million before deducting transaction related expenses payable by the Company. All commissions, qualified legal, accounting, registration and other direct costs of $0.5 million related to the public offering were offset against the gross proceeds.

The Company's liquidity is based on its ability to enhance its operating cash flow position, obtain capital financing from equity interest investors and borrow funds to fund its general operations, research and development activities and capital expenditures. The Company's ability to continue as a going concern is dependent on management's ability to successfully execute its business plan, which includes increasing revenue while controlling operating costs and expenses to generate positive operating cash flows and obtaining funds from outside sources of financing to generate positive financing cash flows.

Based on cash flow projections from operating and financing activities and the existing balance of cash and short-term investments, management is of the opinion that the Company has sufficient insufficient funds for sustainable operations, and it will may not be able to meet its payment obligations from operations and debt-related obligations related commitments, if the Company is not able to complete the required funding transactions to allow the Company to continue as a going concern, for at least one year from the issuance date of this report. next year. Based on these factors, the above considerations, Company has substantial doubt that it will be able to continue as a going concern for the Company's 12 months following the date that these interim financial statements were issued. These consolidated financial statements have been prepared do not include any adjustments to reflect the possible future effects on a going concern basis, which contemplates the realization recoverability and classification of assets and liquidation of liabilities during that may result in the normal course of operations.Company not being able to continue as a going concern.

Cash Flows

Operating activities

Net cash used in operating activities for the year ended December 31, 2022 December 31, 2023 was $16.3 million $19.5 million, an increase of approximately $7.7 million $3.2 million or 88.6% 20% compared to $8.6 million $16.3 million for the year ended December 31, 2021 December 31, 2022. The increase is primarily attributed to the level of increases in personnel costs and professional services related to the Company's research and development activities, as well as increases in general and administrative personnel-related costs and professional services as the Company increased staff continues to support being a public company, grow, both of which led to the increase in the Company's net loss for the period.

Investing activities

Net cash used in provided by investing activities for the year ended December 31, 2022 December 31, 2023 was approximately $13.3 million $6.4 million, an increase of approximately $13.3 million $19.7 million compared to net cash used in investing activities of approximately $20 thousand $13.3 million for the year ended December 31, 2021 December 31, 2022. The increase consists of additional investment maturities of $29.5 million, which were offset by purchases of short-term investments of $27.0 million approximately $21.5 million and approximately $1.4 million $1.6 million in purchases of R&D-related hardware equipment, and acquisition of intangible asset, which were partially offset by investment maturities capitalization of $15.0 million.software and disposal of assets.

Financing activities

Cash provided by financing activities for the year ended December 31, 2023 was $6.1 million, of which $6.1 million relate to the proceeds from the sale of common stock. Cash provided by financing activities for the year ended December 31, 2022 was $18.2 million, of which $18.1 million relate to the consisted of proceeds from the April 2022 private placement offering of $18.1 million and $114.2 thousand relate related to stock option exercises. Cash provided by financing activities for the year ended December 31, 2021 was $24.2 million, which consisted of proceeds from the IPO of $23.3 million, the February 2021 PPP Note proceeds of $0.9 million from the SBA, and stock option exercises of approximately $14.2 thousand.

Emerging Growth Company Status

We are an "emerging-growth company", as defined in the JOBS Act, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to emerging growth companies, including, but not limited to, not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. As an emerging growth company we can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We intend to avail ourselves of these options. Once adopted, we must continue to report on that basis until we no longer qualify as an emerging growth company.

We will cease to be an emerging growth company upon the earliest of: (i) the end of the fiscal year following the fifth anniversary of the initial public offering; (ii) the first fiscal year after our annual gross revenue are $1.07 billion or more; (iii) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt securities; or (iv) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeded $700 million as of the end of the second quarter of that fiscal year. We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. If, as a result of our decision to reduce future disclosure, investors find our common shares less attractive, there may be a less active trading market for our common shares and the price of our common shares may be more volatile.

We are also a "smaller reporting company", meaning that the market value of our stock held by non-affiliates plus the aggregate amount of gross proceeds to us as a result of the IPO is less than $700 million and our annual revenue was less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensationcompensation.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

As a "Smaller Reporting Company", this Item and the related disclosure is not required.

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of
Cyngn Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cyngn Inc. (the “Company”) as of December 31, 2022 December 31, 2023 and 2021, 2022, the related consolidated statements of operations, stockholders’ equity and cash flows for each of the two years in the period ended December 31, 2022 December 31, 2023, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 December 31, 2023 and 2021, 2022, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022 December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph – Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 1, the Company has incurred significant losses and needs to raise additional funds to meet its obligations and sustain its operations. These conditions raise substantial doubt about the Company’s ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company’s Company's management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Marcum LLP

Marcum LLP
We have served as the Company’s auditor since 2021.2021.
San Jose, Francisco, California
March 16, 2023 7, 2024

PCAOB ID Number NUMBER 688

CYNGN INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31, 2023	**December 31, 2022**
Assets		
Current assets		
Cash	$ 3,591,623	$ 10,536,273
Restricted cash	-	50,000
Short-term investments	4,561,928	12,064,337
Prepaid expenses and other current assets	1,316,426	1,126,137
Total current assets	9,469,977	23,776,747
Property and equipment, net	1,486,672	884,000
Right-of-use asset, net	992,292	371,189
Intangible assets, net	1,084,415	473,076
Total Assets	$ 13,033,356	$ 25,505,012
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 196,963	$ 155,943
Accrued expenses and other current liabilities	1,201,142	854,920
Current operating lease liability	682,718	376,622
Total current liabilities	2,080,823	1,387,485
Non-current operating lease liability	317,344	-
Total liabilities	2,398,167	1,387,485
Commitments and contingencies (Note 12)		
Stockholders' Equity		
Common stock, Par $0.00001; 200,000,000 shares authorized, 64,773,756 and 33,684,864 shares issued and outstanding as of December 31, 2023 and 2022, respectively	648	337
Additional paid-in capital	170,652,160	159,847,229
Accumulated deficit	(160,017,619)	(135,730,039)
Total stockholders' equity	10,635,189	24,117,527
Total Liabilities and Stockholders' Equity	$ 13,033,356	$ 25,505,012

	December 31, 2022	**December 31, 2021**
Assets		
Current assets		
Cash	**$ 10,536,273**	**$ 21,945,981**
Restricted cash	**50,000**	**50,000**
Short-term investments	**12,064,337**	**-**
Prepaid expenses and other current assets	**1,126,137**	**525,304**
Total current assets	**23,776,747**	**22,521,285**
Property and equipment, net	**884,000**	**102,787**
Right of use asset, net	**371,189**	**-**
Intangible assets, net	**473,076**	**30,917**
Total Assets	**$ 25,505,012**	**$ 22,654,989**
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	**$ 155,943**	**$ 112,271**
Accrued expenses and other current liabilities	**854,920**	**295,156**
Operating lease liability	**376,622**	**-**
Total current liabilities	**1,387,485**	**407,427**
Total liabilities	**1,387,485**	**407,427**
Commitments and contingencies (Note 13)		
Stockholders' Equity		
Common stock, Par $0.00001; 100,000,000 shares authorized, 33,684,864 and 26,487,680 shares issued and outstanding as of December 31, 2022 and 2021	**337**	**265**
Additional paid-in capital	**159,847,229**	**138,740,827**
Accumulated deficit	**(135,730,039)**	**(116,493,530)**
Total stockholders' equity	**24,117,527**	**22,247,562**

Total Liabilities and Stockholders’ Equity	**$ 25,505,012**	**$ 22,654,989**

The accompanying notes are an integral part of these consolidated financial statements.

CYNGN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		**Year Ended December 31,**	
	2022	**2021**	**2023**	**2022**
Revenue	**$ 262,000**	**$ -**	$ 1,489,317	$ 262,000
Costs and expenses:				
Cost of revenue	**186,823**	**-**	1,222,321	186,823
Research and development	**9,481,329**	**4,990,407**	12,719,983	9,481,329
General and administrative	**9,994,575**	**4,409,651**	10,892,955	9,994,575
Total costs and expenses	**19,662,727**	**9,400,058**	24,835,259	19,662,727
Loss from operations	**(19,400,727)**	**(9,400,058)**	(23,345,942)	(19,400,727)
Other income, net				
Interest income (expense)	**44,100**	**(9,580)**		
Interest income			137,887	44,100
Other income	**120,118**	**7,173**	396,825	120,118
Paycheck Protection Program Note forgiveness	**-**	**1,602,936**		
Total other income, net	**164,218**	**1,600,529**	534,712	164,218
Net loss	**$ (19,236,509)**	**$ (7,799,529)**	$ (22,811,230)	$ (19,236,509)
Net loss per share attributable to common stockholders, basic and diluted	**$ (0.62)**	**$ (1.33)**	$ (0.57)	$ (0.55)
Weighted-average shares used in computing net loss per share attributable to common shareholders’, basic and diluted	**31,233,071**	**5,861,730**		
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted			39,987,864	34,947,710

The accompanying notes are an integral part of these consolidated financial statements.

CYNGN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS’ EQUITY

	Convertible Preferred Stock		Common Stock		Additional Paid in	Accumulated	Total Stockholders’	Convertible Preferred Stock		Common Stock		Additional Paid in	Accumulated
	Shares	Amount	Shares	Amount	Capital	Deficit	Equity	Shares	Amount	Shares	Amount	Capital	Deficit
Balance as of December 31, 2020	**21,982,491**	**$ 220**	**951,794**	**$ 10**	**$ 114,291,505**	**$ (108,694,001)**	**$ 5,597,734**						
Exercise of stock options	**-**	**-**	**53,395**	**-**	**14,220**	**-**	**14,220**						
Issuance of common stock in connection with initial public offering, net of closing costs of $2,954,110	**-**	**-**	**3,500,000**	**35**	**23,125,458**	**-**	**23,125,493**						
Issuance of warrants					**170,397**		**170,397**						
Conversion of convertible preferred stock to common stock in connection with initial public offering	**(21,982,491)**	**(220)**	**21,982,491**	**220**	**-**	**-**	**-**						
Stock-based compensation	**-**	**-**	**-**	**-**	**1,139,247**	**-**	**1,139,247**						
Net loss	**-**	**-**	**-**	**-**	**-**	**(7,799,529)**	**(7,799,529)**						
Balance as of December 30, 2021	**-**	**-**	**26,487,680**	**265**	**138,740,827**	**(116,493,530)**	**22,247,562**	-	-	26,487,680	$ 265	$ 138,740,827	$ (116,493,53
Exercise of stock options	**-**	**-**	**717,041**	**7**	**114,162**	**-**	**114,169**	-	-	717,041	7	114,162	
Issuance of common stock in connection with issued RSUs	**-**	**-**	**28,530**	**-**	**-**	**-**	**-**	-	-	28,530	-	-	
Issuance of common stock and pre-funded warrants in connection with the private placement offering, net of offering costs	**-**	**-**	**3,790,322**	**38**	**11,989,471**	**-**	**11,989,509**						

Issuance of common stock and pre-funded warrants in connection with the private placement offering, net of offering costs of $1,857,700								-	-	3,790,322	38	11,989,471	
Issuance of common stock upon exercise of pre-funded warrants	**-**	**-**	**2,661,291**	**27**	**2,635**	**-**	**2,662**	-	-	2,661,291	27	2,635	
Issuance of common warrants at fair value in connection with the private placement	**-**		**-**		**6,132,436**	**-**	**6,132,436**	-		-		6,132,436	
Stock-based compensation	**-**		**-**		**2,867,698**	**-**	**2,867,698**	-		-		2,867,698	
Net loss	**-**		**-**		**-**	**(19,236,509)**	**(19,236,509)**	-		-		-	(19,236,50
Balance as of December 31, 2022	**-**	**$ -**	**33,684,864**	**$ 337**	**$ 159,847,229**	**$ (135,730,039)**	**$ 24,117,527**	-	$ -	33,684,864	$ 337	$ 170,652,160	$ (135,730,03
Exercise of stock options								-	-	172,492	2	8,526	
Issuance of common stock and pre-funded warrants in connection with the public offering, net of offering costs of $618,965								-	-	22,966,733	230	4,380,745	
Issuance of common stock at-the-market equity financing, net of offering costs of $97,362								-	-	3,731,524	37	1,747,431	
Stock dividend, net of offering costs of $16,182										4,218,143	42	1,460,126	(1,476,35
Stock-based compensation								-		-		3,208,103	
Net loss								-		-		-	(22,811,23
Balance as of December 31, 2023								-	$ -	64,773,756	$ 648	$ 170,652,160	$ (160,017,61

The accompanying notes are an integral part of these consolidated financial statements.

CYNGN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,	
	2022	2021
Cash flows from operating activities		
Net loss	$ (19,236,509)	$ (7,799,529)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	604,871	85,855
Stock-based compensation	2,867,698	1,139,247
Gain on disposal of asset	-	(31,355)
Realized gain on short-term investments	(90,216)	-
Gain on forgiveness of Paycheck Protection Program Notes	-	(1,602,936)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(1,425,126)	(476,452)
Accounts payable	43,672	39,255
Accrued expenses and other current liabilities	936,387	3,496
Net cash used in operating activities	(16,299,223)	(8,642,419)
Cash flows from investing activities		
Purchase of property and equipment	(918,318)	(62,204)
Acquisition of intangible assets	(456,822)	-
Purchase of short-term investments	(27,000,000)	-
Proceeds from maturities of short-term investments	15,025,879	-
Disposal of assets	-	42,189
Net cash used in investing activities	(13,349,261)	(20,015)
Cash flows from financing activities		
Proceeds from issuance of common stock upon initial public offering, net of offering costs	-	23,295,890
Proceeds from issuance of common stock from PIPE financing, net of offering costs	18,121,945	-
Proceeds from exercise of pre-funded warrants from PIPE financing	2,662	-
Proceeds from Paycheck Protection Program notes	-	892,115
Proceeds from exercise of stock options	114,169	14,220
Net cash provided by financing activities	18,238,776	24,202,225
Net (decrease)/increase in cash and cash equivalents and restricted cash	(11,409,708)	15,539,791
Cash and cash equivalents and restricted cash, beginning of year	21,995,981	6,456,190
Cash and cash equivalents and restricted cash, end of year	$ 10,586,273	$ 21,995,981
Supplemental disclosure of cash flow:		
Cash paid during the year for taxes	$ 10,131	$ 16,719

Supplemental disclosure of non-cash financing activities:

The Company's Paycheck Protection Program Notes were forgiven by the SBA in the amount of $1,602,936.

	Year Ended December 31,	
	2023	2022
Cash flows from operating activities		
Net loss	$ (22,811,230)	$ (19,236,509)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	961,281	604,871
Stock-based compensation	3,208,103	2,867,698
Realized gain on short-term investments	(443,392)	(90,216)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(1,403,049)	(1,425,126)
Accounts payable	41,020	43,672
Accrued expenses and other current liabilities	969,662	936,387
Net cash used in operating activities	(19,477,605)	(16,299,223)
Cash flows from investing activities		
Purchase of property and equipment	(1,045,822)	(918,318)
Acquisition of intangible assets	(718,711)	(456,822)
Purchase of short-term investments	(21,573,199)	(27,000,000)
Proceeds from maturities of short-term investments	29,519,000	15,025,879
Disposal of assets	180,898	-
Net cash provided by (used in) investing activities	6,362,166	(13,349,261)

Cash flows from financing activities		
Proceeds from at-the-market equity financing, net of issuance costs	1,747,468	-
Proceeds from public issuance of common stock and pre-funded warrants, net of offering costs	4,380,975	18,121,945
Proceeds from exercise of pre-funded warrants	-	2,662
Issuance costs for stock dividend	(16,182)	-
Proceeds from exercise of stock options	8,528	114,169
Net cash provided by financing activities	6,120,789	18,238,776
Net decrease in cash and cash equivalents and restricted cash	(6,994,650)	(11,409,708)
Cash and cash equivalents and restricted cash, beginning of year	10,586,273	21,995,981
Cash and cash equivalents and restricted cash, end of year	$ 3,591,623	$ 10,586,273
Supplemental disclosure of cash flow:		
Cash paid during the year for income taxes	$ -	$ -
Supplemental disclosure of non-cash activities:		
Recognition of operating lease right-of-use asset and operating lease liabilities	$ 1,212,760	$ 842,292
Stock dividend	$ 1,460,126	$ -

The accompanying notes are an integral part of these consolidated financial statements.

1. Description of Business

CYNGN Cyngn Inc., together with its subsidiaries (collectively, “Cyngn” or the “Company”), was incorporated in Delaware in 2013. The wholly owned subsidiaries are Cyngn Singapore PTE. LTD., a Singaporean limited company organized in 2015 and Cyngn Philippines, Inc., a Philippine corporation incorporated in 2018 are wholly owned subsidiaries. and dissolved as of December 31, 2023. The Company is headquartered in Menlo Park, CA.

Cyngn develops and deploys scalable, differentiated autonomous vehicle technology for industrial organizations. Our full-stack autonomous driving software, that (“DriveMod”), can be deployed on multiple integrated onto vehicles manufactured by Original Equipment Manufacturers (“OEM”) either via retrofit of existing vehicles or by integration directly into vehicle types in various environments. assembly. The Enterprise Autonomy Suite (“EAS”) is designed to be compatible with sensors and components from leading hardware technology providers and integrate our proprietary Autonomous Vehicle (“AV”) software to produce differentiated autonomous vehicles.
The Company has been operating autonomous vehicles in production environments. environments and in 2023 began licensing EAS commercially. Built and tested in difficult and diverse real-world environments, DriveMod, the self-driving system (“DriveMod”), fleet management system and our proprietary Software Development Kit (“DriveMod Kit”) combine to create a full-stack advanced autonomy solution designed to be modular, extendable, and safe. The Company operates in one business segment.

Initial Public Offering

On October 22, 2021, the Company closed its initial public offering (the “IPO”) of 3,500,000 shares of its authorized common stock at an offering price of $7.50 per share. Simultaneously with the closing of the IPO, the common stock began trading on the Nasdaq Capital Market under the symbol “CYN.” The IPO generated net proceeds of $23.3 million after deducting underwriting discounts, commissions Liquidity and offering expenses. The Company also granted its underwriters the election to exercise a 45-day over-allotment option to purchase an additional 525,000 shares of common stock at the IPO offering price, less underwriting discounts.

Simultaneous with the closing of its IPO, the Company also issued 140,000 warrants (the “Purchase Warrant”) to the underwriters. Each Purchase Warrant entitles its holder the option to purchase at a future exercise date, one share of common stock at an initial exercise price of $9.375 per share, subject to certain adjustments and restrictions relating to subsequent resale and transfers. The Purchase Warrants are currently exercisable and expire on October 18, 2026. The Purchase Warrants met all the criteria for equity classification and as such, do not require subsequent remeasurement after the issuance (see Note 8. Capital Structure).

At the completion of the IPO, all shares of the Company’s outstanding redeemable convertible preferred stock automatically converted to shares of common stock (see Note 8. Capital Structure).

Immediately after the IPO, the Company filed an amended and restated certificate of incorporation, which became effective on October 22, 2021. The amended and restated certificate of incorporation authorized 110,000,000 shares consisting of 100,000,000 shares of common stock, at a par value of $0.00001, and 10,000,000 shares of preferred stock at a par value of $0.00001. The rights of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that the Company may designate in the future.

Private Placement Offering Going Concern

On April 28, 2022, the Company entered into a Securities Purchase Agreement (the “Purchase Agreement”) with certain accredited and institutional investors for a private placement offering (“Private Placement”) of the Company’s common stock (the “Common Stock”) and pre-funded warrants (the “Pre-Funded Warrants”) and warrants exercisable for Common Stock (the “Common Warrants”). Pursuant to the Purchase Agreement, the Company sold (i) 3,790,322 shares of its Common Stock together with Common Warrants to purchase up to 3,790,322 shares of Common Stock, and (ii) 2,661,291 Pre-Funded Warrants with each Pre-Funded Warrant exercisable for one share of Common Stock, together with Common Warrants to purchase up to 2,661,291 shares of Common Stock. The Common Warrants totaled 6,451,613. The Company allocated the proceeds between the Common Stock, Pre-Funded Warrants, and Common Warrants on a relative fair value basis and recorded the amount allocated to the Common Warrants within additional paid-in capital on the accompanying consolidated balance sheet as the Common Warrants met all the criteria for equity classification. As the Common Warrants were equity classified, they do not require subsequent remeasurement after the issuance (see Note 8. Capital Structure).

The Pre-Funded Warrants were exercised in full in May 2022 at a nominal exercise price of $0.001. Each share of Common Stock and accompanying Common Warrant were sold together at a combined offering price of $3.10, and each Pre-Funded Warrant and accompanying Common Warrant were sold together at a combined offering price of $3.09.

The Common Warrants have an exercise price of $2.98 per share (subject to adjustment as set forth in the warrant), are exercisable upon issuance and will expire five years from the date of issuance. The Common Warrants contain standard adjustments to the exercise price including for stock splits, stock dividend, rights offerings and pro rata distributions. There were Common Warrants exercised as of December 31, 2022 (see Note 8. Capital Structure).

The Private Placement closed on April 29, 2022. The Company received gross proceeds of approximately $20 million before deducting transaction related expenses payable by the Company. All qualified legal, accounting, registration and other direct costs related to the Private Placement were offset against the gross proceeds. The Company intends to use the net proceeds to fund its cash needs.

Liquidity

The Company has incurred losses from operations since inception. The Company incurred net losses of $19.2 million approximately $22.8 million and $7.8 million $19.2 million for the year years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively. Accumulated deficit amounted to $135.7 million approximately $160.0 million and $116.5 million $135.7 million as of December 31, 2022 December 31, 2023 and 2021, December 31, 2022, respectively. Net cash used in operating activities was $16.3 million approximately $19.5 million and $8.6 million $16.3 million for the year ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively.

The Company's liquidity is based on its ability to enhance increase its operating cash flow position, obtain capital financing from equity interest investors and borrow funds money to fund its general operations, research and development activities, and capital expenditures. The Company's ability to continue as a going concern is dependent on management's ability to successfully execute its business plan, which includes increasing revenue while controlling operating costs and expenses to generate positive operating cash flows and obtaining funds from outside sources of financing to generate positive financing cash flows. As of December 31, 2022 December 31, 2023, the Company's unrestricted cash balance was $3.6 million, and its short-term investments balance was $4.6 million. As of December 31, 2022, the Company's cash balance was $10.5 million approximately $10.5 million, and the short-term investments balance was $12.1 million. As of December 31, 2021, the Company's unrestricted balance of cash was $21.9 million. The Company did not hold any short-term investments as of December 31, 2021 $12.1 million.

Based on cash flow projections from operating, investing and financing activities and the existing balance of cash and short-term investments, management is of the opinion that the Company has sufficient insufficient funds for sustainable operations, and it will may not be able to meet its payment obligations from operations and debt related commitments, for at least one year from if the issuance date of this report on its consolidated financial statements. Company is not able to complete the required funding transactions to allow the Company to continue as a going concern. Based on these factors, the above considerations, Company has substantial doubt that it will continue as a going concern for the Company's 12 months following the date these financial statements were issued. These consolidated financial statements have been prepared do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets and liabilities that may result in the Company not being able to continue as a going concern.

The Company's plan to alleviate the going concern issue is to increase revenue while controlling operating costs and expenses and obtaining funds from outside sources of financing to generate positive financing cash flows. While management is optimistic about its ability to raise substantial funds to continue as a going concern basis, for one year following the financial statement issuance date, there can be no assurance that any such measures will be successful. We currently do not generate substantial revenue from product sales. Accordingly, we expect to rely primarily on equity and/or debt financings to fund our continued operations. The Company's ability to raise additional funds will depend, in part, on the success of our product development activities, and other events or conditions that may affect the share value or prospects, as well as factors related to financial, economic and market conditions, many of which contemplates are beyond our control. There can be no assurances that sufficient funds will be available to us when required or on acceptable terms, if at all. Accordingly, management has concluded that these plans do not alleviate substantial doubt about the realization of assets and liquidation of liabilities during the normal course of operations. Company's ability to continue as a going concern.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements as of and for the years ended December 31, 2022 December 31, 2023 and 2021 2022 have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") and pursuant to applicable rules and regulations of the Securities and Exchange Commission ("SEC"). The consolidated financial statements include all normal adjustments necessary for a fair presentation of the Company's financial position at December 31, 2022 December 31, 2023 and 2021, 2022, and operating results and cash flows for the periods presented.

These consolidated financial statements should be read in conjunction with the discussion under "Management's Discussion and Analysis of Financial Condition and Results of Operations"

Principles of Consolidation

The consolidated financial statements include the accounts of CYNGN Cyngn Inc. and its wholly owned subsidiaries. subsidiaries, including the dissolved subsidiary Cyngn Philippines, Inc. The Company investigated economic viability in the Philippines and determined it cost more to operate the subsidiary than any profit it could generate. Consequently, the subsidiary was shut-down, which had minimal impact on our consolidated financial statements. Intercompany accounts and transactions have been eliminated upon consolidation.

Foreign Currency Translation

The functional and reporting currency for Cyngn is the U.S. dollar. Monetary assets and liabilities denominated in currencies other than U.S. dollar are translated into the U.S. dollar at period end rates, income and expenses are translated at the weighted average exchange rates for the period and equity is translated at the historical exchange rates. Foreign currency translation adjustments and transactional gains and losses are immaterial to the consolidated financial statements.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the balance sheet date, as well as reported amounts of revenue and expenses during the reporting period. The Company's significant estimates and judgments include but are not limited to internal-use software and developed software to be sold, leased or marketed, warrants and share-based compensation. Management bases its estimates on historical experience and on various other assumptions believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could differ from those estimates.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash, which is placed with high-credit-quality financial institutions and at times exceeds federally insured limits.

Cash maintained with domestic financial institutions generally exceed the Federal Deposit Insurance Corporation insurable limit. To date, the Company has not experienced any losses on its deposits of cash. Cyngn invests in U.S. Treasury securities and carries these at amortized cost and recognizes gains and losses when realized.

Concentration of Supplier Risk

The Company generally utilizes suppliers for outside development and engineering support. The Company does not believe that there is any significant supplier concentration risk as of December 31, 2022 December 31, 2023 and 2021. December 31, 2022.

Cash, Restricted Cash and Short-term Investments

The Company considers its bank accounts and all highly liquid investments that are both readily convertible to cash with minimal risk of changes in value due to changes in interest rates, to be cash equivalents. cash. As of December 31, 2022 December 31, 2023 and 2021, December 31, 2022, the Company had $10.5 million approximately $3.6 million and $21.9 million $10.5 million of cash, respectively.

In addition, the Company had $50,000 in restricted cash as of December 31, 2022 and 2021, respectively, reported separately as current assets on its consolidated balance sheets. The Company's restricted cash consists of cash not available for immediate use that the Company is obligated to maintain in accordance with the terms of its credit card spending arrangement.

The following table provides a reconciliation of cash and restricted cash to amounts shown in the consolidated statements of cash flows:

	December 31,	
	2022	**2021**
Cash	$ 10,536,273	$ 21,945,981
Restricted cash	50,000	50,000
Total Cash and Restricted cash	$ 10,586,273	$ 21,995,981

The Company considers short-term investments to include marketable U.S. government securities that it intends to hold until maturity and redeem within one year. The Company treated its U.S. government treasury bill placements as held-to-maturity securities in accordance with the Financial Accounting Standards Board's ("FASB' FASB") Accounting Standards Codification Topic ("ASC") 320, "Investments*Investments – Debt and Equity Securities" Securities,* and recorded these securities at its amortized cost on the accompanying consolidated balance sheet sheets as of December 31, 2023 and December 31, 2022.

Accounts Receivable

Accounts receivables are recorded at the invoiced amount and do not bear interest. The Company provides for probable uncollectible amounts based upon its assessment of the current status of the individual receivables and after using reasonable collection efforts. The allowance for doubtful accounts was zero as of December 31, 2023 and December 31, 2022.

Fair Value Measurements

The accounting guidance under Accounting Standards Codification ("ASC") ASC Topic 820, *Fair Value Measurements Measurement*, defines fair value, establishes a consistent framework for measuring fair value, and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price representing the amount that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants. As such, fair value is considered a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability.

The Company uses the following fair value hierarchy prescribed by U.S. GAAP, which prioritizes the inputs used to measure fair value as follows:

Level 1—Unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Assets and liabilities are considered to be fair valued on a recurring basis if fair value is measured regularly. However, if the fair value measurement of an instrument does not necessarily result in a change in the amount recorded on the consolidated balance sheets, assets and liabilities are considered to be fair valued on a nonrecurring basis. This typically occurs when accounting guidance requires assets and liabilities to be recorded at the lower of cost or fair value, or on certain nonfinancial assets and liabilities. Nonfinancial assets and liabilities that are measured at fair value on a nonrecurring basis include certain long-lived assets, intangible assets, and share-based compensation measured at fair value upon initial recognition.

The carrying amounts of the Company's cash and accounts payable and notes payable receivable are reasonable estimates of their fair values due to their short-term nature. The fair values of the Company's share-based compensation and underwriter warrants were based on observable inputs and assumptions used in Black-Scholes valuation models derived from independent external valuations.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. depreciation and amortization. Construction work in progress include includes production costs and costs of materials used in the development of the Company’s autonomous driving software .Assets software. Assets are held as construction work in progress until placed into service, at which date depreciation commences over the estimated useful lives of the respective assets. Depreciation is recorded on a straight-line basis over each asset’s estimated useful life. Repair and maintenance costs are expensed as incurred.

Property and Equipment	**Useful life**
Internal-use software	3 to 5 years
Computer and equipment	5 years
Furniture and fixtures	7 years
Leasehold improvements	Shorter of 3 years or lease term
Automobile Vehicles	5 years

Leases Operating Lease

The Company accounts for leases in accordance with ASC Topic 842 (“ASC 842”), *Leases*. All contracts are evaluated to determine whether or not they represent a lease. A lease conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Leases are classified as finance or operating in accordance with the guidance in ASC 842. The Company does not hold any finance leases. The Company recognized a “right-of-use” right-of-use asset and lease liability in the consolidated balance sheets under ASC 842 on the office space lease that was amended and renewed in February 2022. On a prospective basis, lease until May 2025. Lease expense will be recognized on a straight-line basis over the remaining term of the lease. Operating leases are recognized on the balance sheet as right-of-use assets, and operating lease liabilities.

Upon adoption***Costs to Develop Software***

The Company incurs costs related to internally developed software. Based on the nature of ASC 842, the software, the Company elected capitalizes software costs under the “package following guidance.

Internal-Use Software costs

The Company determined when to capitalize its internal-use software after planning and design efforts are successfully completed. Management has implicitly authorized funding and the software is expected to be completed and used as intended. The Company determines the amount of practical expedients” which allowed it internal software costs to not reassess: (a) whether expired be capitalized based on the amount of time spent by the developers on projects in the application stage of development. There is judgment involved in estimating time allocated to a particular project in the application stage. Costs associated with building or existing other contracts significantly enhancing the internally built software platform for internal use is capitalized, while costs associated with planning new developments and maintaining the internally built software platforms are or contain leases, (b) expensed as incurred. Capitalized costs include certain payroll and stock compensation costs, as well as subscription server and consulting costs.

Internal-use software is classified as property and equipment and is amortized on a straight-line basis over their estimated useful life of three to five years. There is judgment involved in the lease classification for any expired or existing leases, and (c) the treatment of initial direct costs relating to any existing leases as determination of the adoption date. useful life. Amortization of the software asset will begin when the software is substantially complete and ready for its intended use. No amortization has begun for the internal use software, as the projects are still in the application development phase. Management evaluates the useful lives of these assets on a quarterly basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets. No impairment charges were associated with the Company’s internal-use software for the year ended December 31, 2023.

Costs to Develop Software to be Sold, Leased or Otherwise Marketed

The package Company accounts for research costs of practical expedients was made computer software to be sold, leased or otherwise marketed as expense until technological feasibility has been established for the product. Once technological feasibility is established, certain payroll and stock compensation, occupancy, and professional service costs that are incurred to develop functionality for the Company’s software and internally built software platforms, as well as certain upgrades and enhancements that are expected to result in enhanced functionality are capitalized. Judgment is required in determining when technological feasibility of a single election and was applied to the lease renewed in February 2022. product is established. Management has determined that technological feasibility is established when a working model is complete.

Upon adoption

Computer software to be sold, leased or otherwise marketed is classified as an intangible asset. Capitalized software development costs are amortized using the greater of ASC 842, (a) the Company also elected amount computed using the practical expedient ratio that current gross revenue for a product bear to total of current and anticipated future gross revenue for that product or (b) the straight-line method, beginning upon commercial release of the product, and continuing over the remaining estimated economic life of the product, not separate non-lease components, such to exceed three years to five years and recorded as common area maintenance, from cost of revenue. Amortization will begin when the product or enhancement is available for general release to customers. No amortization has begun for externally sold software, as the software enhancement is still in development. Management evaluates the useful lives of these assets on a quarterly basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets. No impairment charges were associated lease components with the Company's sold, leased or otherwise marketed software for its ground and office space leases (see Note 5. Leases) the year ended December 31, 2023.

Long-Lived Assets and Finite Lived Intangibles

The Company has finite-lived intangible assets consisting of patents and trademarks. These assets are amortized on a straight-line basis over their estimated remaining economic lives. The patents and trademarks are amortized over 15 years.

On April 1, 2022, the Company entered into an agreement for exclusive rights to certain hardware and software products and the rights to subsequently sell the software products and accompanying services. The Company paid a purchase price of $100,000 for these rights. The Company evaluated if substantially all of the assets acquired is are concentrated in a single identifiable asset or group of similar identifiable assets to determine if the transaction should be accounted for as an asset acquisition. Since the only substantive assets acquired pertained to rights to the intellectual property, the entire purchase price was allocated to intellectual property and accounted for as intangible assets with a useful life of 15 years. In accordance with ASC 805-50, *Business Combination*“Business Combination”, the agreement was treated as an asset acquisition rather than a business combination.

The Company reviews its long-lived assets and finite-lived intangibles for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The events and circumstances the Company monitors and considers include significant decreases in the market price of similar assets, significant adverse changes to the extent and manner in which the asset is used, an adverse change in legal factors or business climate, an accumulation of costs that exceed the estimated cost to acquire or develop a similar asset, and continuing losses that exceed forecasted costs. The Company assesses the recoverability of these assets by comparing the carrying amount of such assets or asset group to the future undiscounted cash flow it expects the assets or asset group to generate. The Company recognizes an impairment loss if the sum of the expected long-term undiscounted cash flows that the long-lived asset is expected to generate is less than the carrying amount of the long-lived asset being evaluated. An impairment charge would then be recognized equal to the amount by which the carrying amount exceeds the fair value of the asset. For the year ended December 31, 2023 the Company determined the existence of an impairment associated with the Company's intangible asset "Right to intellectual property" and accordingly recorded an impairment charge of $30,000. No impairment charge was associated with the Company's intangible assets for the year ended December 31, 2022. (See Note 7. Intangible Assets).

Income Taxes

The Company accounts for income taxes using the asset and liability method, under which deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis.

A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. Due to the Company's lack of earnings history, the net deferred tax assets have been fully offset by a valuation allowance as of December 31, 2022 December 31, 2023 and 2021 December 31, 2022 (see Note 12. 11. Income Taxes).

There are no uncertain tax positions that would require recognition in the consolidated financial statements. If the Company were to incur an income tax liability in the future, interest on any income tax liability would be reported as interest expense and penalties on any income tax would be reported as income taxes. Management's conclusions regarding uncertain tax positions may be subject to review and adjustment at a later date based upon ongoing analysis of or changes in tax laws, regulations and interpretations thereof as well as other factors.

Convertible Preferred Common Stock Warrants

The Company has applied the guidance in ASC 480-10-S99-3A, *SEC Staff Announcement: Classification and Measurement of Redeemable Securities* and has classified all of its outstanding convertible preferred shares as permanent equity. The Company records shares of convertible preferred stock at their respective issuance price, net of issuance costs. The Company's convertible preferred stock share's redemption and conversion provisions are not exclusively at the option of the holder and are contingent on certain deemed liquidation events within the Company's control (see Note 8. Capital Structure).

Warrants

The Company issued to its lead underwriter in the Company's IPO warrants to purchase up to 140,000 shares of the Company's common stock. In addition, the Company issued 6,451,613 common stock warrants as a part of the private placement offering. The Company accounts for warrants in accordance with ASC 480, *Distinguishing "Distinguishing Liabilities from Equity*Equity". The Company determined the fair value of the warrants using the Black-Scholes pricing model and treated the valuation warrants as equity instruments in consideration of the cashless settlement provisions in the warrant agreement. agreements.

The Company also applied the guidance in ASC 340-10-S99-1, *Other Assets and Deferred Costs*, that states specific incremental costs directly attributable to a proposed or actual offering of equity securities may properly be deferred and charged against the gross proceeds of the offering. The Company treated the valuation of the warrants as directly attributable to the issuance of an equity contract, and accordingly, classified the warrants as additional paid-in capital.

Stock-based Compensation

The Company recognizes the cost of share-based awards granted to employees and directors based on the estimated grant-date fair value of the awards. Cost is recognized on a straight-line basis over the service period, which is generally the vesting period of the award. The Company recognizes stock-based compensation cost and reverses previously recognized costs for unvested awards in the period forfeitures occur. occur, if any. The Company determines the fair value of stock options using the Black-Scholes option pricing model, which is impacted by the fair value of common stock, expected price volatility of common stock, expected term, risk-free interest rates, and expected dividend yield (see Note 10. 9. Stock-based Compensation Expense**)**.

Net Loss Per Share Attributable to Ordinary Shareholders Common Stockholders

The Company computes loss per share attributable to common shareholders by dividing net loss attributable to common shareholders by the weighted-average number of common shares outstanding. Diluted net loss per share reflects the potential dilution that could occur if securities or other contracts to issue shares were exercised into shares. In calculating diluted net loss per share, the numerator is adjusted for the change in the fair value of the shares (only if dilutive) and the denominator is increased to include the number of potentially dilutive common shares assumed to be outstanding (see Note 9. 8. Net Loss per Share Attributable to Common Stockholders).

Research and Development Expense

Research and development expense consist expenses consists primarily of outsourced engineering services, internal engineering and development expenses, materials, labor and stock-based compensation of Company personnel involved in the development of the Company’s products and services, and allocated lease costs based on the approximate square footage area used in research and development activities. Research and development costs are expensed as incurred.

Selling, General, and Administrative Expense

Selling, general, and administrative expense consist primarily of personnel costs, facilities expenses, depreciation and amortization, travel, and advertising costs. Advertising costs are expensed as incurred in accordance with ASC 720-35, “Other Expense – Advertising Costs”, other than trade show expenses which are deferred until occurrence of the future event. Advertising costs for the years ended December 31, 2023 and 2022 were $413,170 and $194,566, respectively.

Commitments

The Company recognizes a liability with regard to loss contingencies when it believes it is probable a liability has occurred and the amount can be reasonably estimated. If some amount within a range of loss appears at the time to be a better estimate than any other amount within the range, the Company accrues that amount. When no amount within the range is a better estimate than any other amount the Company accrues the minimum amount in the range. There have been no such liabilities recorded by the Company as of December 31, 2022 December 31, 2023 and 2021. December 31, 2022.

Segment Reporting

The Company's chief operating decision maker, its Chief Executive Officer, manages operations and business as one operating segment for the purposes of allocating resources, makes making operating decisions and evaluates evaluating financial performance.

Revenue Recognition

The Company enters into NRE Non-Recurring Engineering ("NRE") contracts that are principally comprised of engineering services related to customer-specific configuration of the DriveMod. Generally, with respect to these NRE contracts, i) the determination of the contract price is based on labor and hardware costs estimated to achieve the required milestones specified in the contract; ii) payment under these arrangements are comprised of upfront payments due upon execution of the agreements as well as payments due upon the achievement of specific milestones specified in each arrangement; and iii) contain mutual termination clauses without penalty. The Company recognizes revenue from NRE contracts that are fully funded by customers and the sale of its products when promised goods or engineering services are transferred to customers customers. Each of the Company's NRE arrangements are comprised of multi-phase deliverables recognized at a point in time upon completion and acceptance from the customer of each phase of the arrangement.

For NRE contracts revenue, the Company recognizes revenue in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services, by following a five-step process which includes i) identify the contract with a customer; ii) identify the performance obligations in the contract; iii) determine the transaction price; iv) allocate the transaction price to performance obligations in the contract and; v) recognize revenue when or as the Company satisfies a performance obligation.

Each The following table sets forth the percentages of total revenue for customers that represents 10% or more of the Company's NRE arrangements are comprised of multi-phase deliverables recognized at a point in time upon completion and acceptance from respective amounts for the customer of each phase of the arrangement. periods shown.

	2023	2022
Customer A	36.9 %	95.4 %
Customer B	58.4 %	*

One domestic customer which is a subsidiary of a global conglomerate represented 95.4% of revenue recognized in 2022, associated with an NRE contract.

* Below 10%

There were no accounts receivable from these customers at December 31, 2023 and December 31, 2022.

For the years ending December 31, 2023 and December 31, 2022, NRE revenue was $1.5 million and $0.2 million, respectively. All other revenue streams for the years ended December 31, 2023 and 2022 are not material.

Cost of Revenue

Cost of revenue consists primarily of direct labor and related fringe benefits for internal engineering resources, and deployment related travel costs incurred for the completion of the contracts and hardware costs. Also included in the cost of revenue is a provision for onerous contracts of $114. 7 thousand which represents which represents total anticipated costs of a contract that is in excess of the revenue to be recognized upon completion and acceptance from a customer.

Recent Accounting Standards

There were no significant updates to In June 2016, the recently FASB issued accounting standards. Although there are several other new accounting standards issued or proposed by the Financial Accounting Standards Board Update ("FASB" ASU") 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which provides new guidance regarding the measurement and recognition of credit loss impairment for certain financial assets. The Company adopted this standard in the first quarter of 2023 and there was no impact on our consolidated financial statements upon adoption. As a result of this standard, the Company does utilizes current and historical collection data as well as assesses current economic conditions in order to determine expected trade credit losses on a prospective basis. The adoption of this standard did not believe result in any of those accounting standards have had or will have a material impact to our allowance for doubtful accounts balance as of December 31, 2023. In addition, the Company evaluated their debt securities for credit losses. Because the Company's sole investments of held-to-maturity debt securities are short-term U.S. Treasury bills, no provision for credit losses on such securities was deemed necessary.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, to enhance the transparency and decision usefulness of income tax disclosures. ASU 2023-09 is effective for annual periods beginning after December 15, 2024 on a prospective basis and early adoption is permitted. The Company is currently evaluating the potential effect of this accounting standard update on its consolidated financial position or operating results. statements and related disclosures.

3. Revenue and Contracts with Customers

Contract Balances

Timing differences between revenue recognized, billings, and customer payments result in contract assets and liabilities. Contract assets represent revenue recognized in excess of customer billings. Contract liabilities represent payments received from customers in advance of satisfying performance obligations. The Company had no contract assets or and no liabilities as of December 31, 2022 December 31, 2023 and 2021. December 31, 2022.

Deferred Contract Costs

The Company defers costs associated with fulfilling its contracts if those costs meet all of the following criteria: (i) the costs relate directly to a contract, (ii) the costs generate or enhance resources of the Company that will be used in satisfying performance obligations in the future, and (iii) the costs are expected to be recovered. Costs are recognized over the life of the contract or when the respective milestone has been completed as cost of revenue. The Company had deferred contract costs totaling $0.1 million $0 and $114,654 as of December 31, 2023 and December 31, 2022, (none as of December 31, 2021). respectively. Deferred contract costs are included in prepaid and other current assets in the consolidated balance sheets. As of December 31, 2022, the Company had backlog, or revenue related to remaining performance obligations of $1.4M. We expect that all the backlog will be recognized in 2023.

4. Balance Sheet Components

Financial Instruments

The Company's short-term investments consisted of U.S. government treasury bills, which are accounted for as held-to-maturity ("HTM") securities. HTM securities are carried at adjusted amortized cost and, as a result, are not remeasured to fair value on a recurring basis. As of December 31, 2023 and December 31, 2022, the adjusted amortized cost of the Company's U.S. government treasury bills totaled $4.6 million and $12.1 million, respectively, which approximated its their fair value based on Level 1 inputs. All of the Company's short-term investments will mature within three months one year of December 31, 2022 December 31, 2023. The Company did does not hold any investments as of December 31, 2021. expect a credit loss for its short-term investments.

Property and Equipment, Net

Property and equipment is comprised of the following:

	December 31,	
	2022	**2021**
Automobiles	$ 397,816	$ 279,617
Furniture and fixtures	176,402	133,102
Computer and Equipment	380,457	76,048
Leasehold improvement	93,120	—
Construction work in progress	359,289	—
Property and equipment, gross	1,407,084	488,767
Less: accumulated depreciation	(523,084)	(385,980)
Total property and equipment, net	$ 884,000	$ 102,787

Depreciation expense for the year ended December 31, 2022 and 2021 was $137,105 and $82,389, respectively.

Accrued Expenses and Other Current Liabilities

Accrued Prepaid expenses and other current liabilities assets

Prepaid expenses and other current assets are comprised of the following:

	December 31,	
	2022	**2021**
Credit card payable	$ 5,194	$ 11,678
Accrued expenses	283,118	82,478
Accrued payroll	566,608	201,000
Total accrued expenses and other current liabilities	$ 854,920	$ 295,156

	December 31, 2023	**December 31, 2022**
Inventory, net	$ -	$ 66,780
Prepaid Expenses	385,474	706,452
Security Deposits	155,729	141,961
Tax Receivables	765,697	-
Receivables and current assets	9,526	210,944
Total prepaid and expenses and other current assets	$ 1,316,426	$ 1,126,137

On March 27, 2020, the United States Congress passed the Coronavirus, Aid, Relief and Economic Security Act (the “CARES Act”) in response to the economic impact of the coronavirus (“COVID-19”) pandemic in the United States (see Note 14. Risks and Uncertainties). Section 2302 of the CARES Act allowed employers to defer the deposit and payment of the employer’s share of social security taxes that were otherwise required to be deposited between March 27 and December 31, 2020, and to pay the deferred taxes in two installments — with the first half due on December 31, 2021, and the remainder by December 31, 2022. As of December 31, 2021, the Company remitted $67,958 in social security taxes due that were deferred between May 1 and December 31, 2020. The remaining $67,958 was paid during 2022.

5. Leases

The Company leases its office space in Menlo Park, California, under a lease agreement which expired in February 2022 and was subsequently renewed and amended for an 18-month term that expires in August 2023. Monthly payments are approximately $47,000. The lease includes non-lease components (i.e. common area maintenance costs) that are paid separately from rent based on actual costs incurred.

The Company’s future lease payments under non-cancellable leases as of December 31, 2022 are as follows, which are presented as lease liabilities on the Company’s consolidated balance sheet:

Period	**Operating Lease**
2023	$ 382,326
Less: imputed interest	(5,704)
Present value of lease liabilities, all current	$ 376,622
Weighted-average remaining lease term (in years)	0.67
Weighted-average discount rate	4.40 %

Lease expense under the Company’s operating lease was $517,296 and $236,476 for the years ended December 31, 2022 and 2021, respectively. The amortization of the operating lease right-of-use assets totaled $453,103 and $0 for the years ended December 31, 2022 and 2021, respectively. The weighted-average discount rate is based on the implicit interest rate of the present value of the remaining lease payments and the remaining lease term.

6.*Property and Equipment, Net*

Property and equipment is comprised of the following:

	December 31, 2023	December 31, 2022
Vehicles	$ 616,947	$ 397,816
Furniture and fixtures	178,491	176,402
Computer and equipment	517,181	380,457
Capitalized software	342,136	-
Leasehold improvements	458,406	93,120
Construction work in progress	208,848	359,289
Property and equipment, gross	2,322,009	1,407,084
Less: accumulated depreciation and amortization	(835,337)	(523,084)
Total property and equipment, net	$ 1,486,672	$ 884,000

Depreciation and amortization expense for the years ended December 31, 2023 and 2022 was $312,253 and $137,105, respectively.

Accounts Payable

Accounts payable includes independent director fees payable of $41,250 and $0 as of December 31, 2023 and 2022, respectively.

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities are comprised of the following:

	December 31, 2023	December 31, 2022
Credit card payable	$ 1,103	$ 5,194
Accrued expenses	214,286	283,118
Accrued payroll	985,753	566,608
Total accrued expenses and other current liabilities	$ 1,201,142	$ 854,920

5. Operating Lease

The Company leases its office space in Menlo Park, California, under an operating lease agreement dated August 18, 2017, that was originally signed for a term of five years. The lease has been amended and extended several times since the original signing and currently expires in May 2025. Monthly payments are approximately $60,000. The lease includes common area maintenance costs that are paid separately from rent based on actual costs incurred.

The Company's future lease payments under the non-cancellable lease as of December 31, 2023, which are presented as lease liabilities on the Company's consolidated balance sheet, are as follows:

For the years ended December 31,	**Operating Lease**
2024	$ 722,641
2025	301,100
Total lease payments	1,023,741
Less: imputed interest	(31,449)
Present value of lease liability	$ 992,292

	December 31,	
	2023	**2022**
Weighted-average remaining lease term (in years)	1.42	0.67
Weighted -average discount rate	3.05 %	4.40 %

Lease expense was $601,913 and $517,296 for the years ended December 31, 2023 and 2022, respectively. The amortization of the operating lease right-of-use assets, which is included in the lease expense, totaled $591,656 and $453,103 for the years ended December 31, 2023 and 2022, respectively. The weighted average discount rate is based on the incremental borrowing rate that is utilized to present value the remaining lease payments over the lease term.

7. Intangible Assets, Net

The gross carrying amount and accumulated amortization of separately identifiable intangible assets are as follows:

	As of December 31, 2022			As of December 31, 2023				
	Gross Carrying Amount	**Accumulated Amortization**	**Net Carrying Amount**	**Gross Carrying Amount**	**Accumulated Amortization**	**Fair Market Value Adjustment**	**Impairment**	**Net Carrying Amount**
Developed software				$ 542,692	$ -	$ -	$ -	$ 542,691
Patents	$ 363,821	$ (11,856)	$ 351,965	539,840	(20,117)	-	-	519,723
Trademark	45,000	(20,000)	25,000	45,000	(23,000)	-	-	22,000
Rights to intellectual property	100,000	(3,889)	96,111	100,000	(20,000)	(50,000)	(30,000)	-
Total intangible assets	$ 508,821	$ (35,745)	$ 473,076	$ 1,227,532	$ (63,117)	$ (50,000)	$ (30,000)	$ 1,084,415

	As of December 31, 2021			As of December 31, 2022		
	Gross Carrying Amount	**Accumulated Amortization**	**Net Carrying Amount**	**Gross Carrying Amount**	**Accumulated Amortization**	**Net Carrying Amount**
Patent	$ 7,000	$ (4,083)	$ 2,917			
Developed software				$ -	$ -	$ -
Patents				363,821	(11,856)	351,965
Trademark	45,000	(17,000)	28,000	45,000	(20,000)	25,000
Rights to intellectual property				100,000	(3,889)	96,111
Total intangible assets	$ 52,000	$ (21,083)	$ 30,917	$ 508,821	$ (35,745)	$ 473,076

Amortization expense for each of the years ended December 31, 2022 December 31, 2023 and 2021 2022 was $27,372 and $14,662, respectively. There was no amortization expense for the developed software for the years ended December 31, 2023 and $3,466, respectively. 2022.

ASC 360, *Property, Plant, and Equipment*, defines a multi-step process to test long-lived assets, including intangible assets, for recoverability that if failed would indicate impairment. First, the Company must consider whether indicators of impairment of long-lived assets are present. The Company determined the Triggering Events in conjunction with preparation of its financial statements for the year ended December 31, 2023 provided such indication.

Next, the Company must review the long-lived assets to define asset group(s) that would reflect the lowest level of assets to which discrete cash flows are identifiable, and test these asset groups for impairment.

In performing this review, the Company identified that the long-lived asset “Rights to intellectual property”, all of which relate to the Infinitracker, should be classified as abandoned (the “Abandoned Asset”) with the Company determining that it no longer has plans to provide support and sale of the product. The Abandoned Asset’s carrying value was set to its salvage value which is zero given no future cash flows. In addition, the Company abandoned the use of the associated inventory and recorded a loss of $66,690 to impair the inventory to $0.

For the year ended December 31, 2023, the Company recorded a fair market value adjustment of $50,000 and a $30,000 impairment charge under amortization expense on its consolidated statement of operations to adjust the Abandoned Asset to its salvage value of zero.

It was determined for all remaining long-lived assets (excluding the Abandoned Asset) that there were no triggering events, and therefore, no further impairment charges to long-lived assets were necessary as of December 31, 2023.

Estimated amortization expense for all intangible assets subject to amortization in future years is expected to be:

Years ended December 31,	**Amortization**	**Amortization**
2023	$ 32,321	
2024	32,321	$ 22,209
2025	32,321	22,441
2026	32,321	22,441
2027		22,441
2028		22,441
Thereafter	337,392	972,442
Total	$ 473,076	$ 1,084,415

7. Debt

Paycheck Protection Program Notes

In April 2020, the Company entered into a Note with JPMorgan Chase (the “Lender”) under the U.S. Small Business Administration (“SBA”) Paycheck Protection Program (“PPP”) established under Section 1102 of the CARES Act, pursuant to which the Company borrowed $695,078 (the “Note”). The Note accrues interest at a rate of 0.98% per annum and matures in 24 months from the date of the Note. The Note may be repaid at any time with no prepayment penalty. All of the funds received under the PPP had been used for qualified purposes. The Company applied for forgiveness of the Note in accordance with PPP guidelines, and in October, 2021, received approval of the forgiveness application. As of December 31, 2022 and 2021, there was no outstanding balance for the Note.

In February 2021, the Company entered into a second Note (the “PPP2 Note”) with the Lender, pursuant to which the Lender agreed to make a loan to the Company under the PPP offered by the SBA in a principal amount of $892,115 pursuant to Title 1 of the CARES Act. The PPP2 Note matures in five years with interest accruing at 0.98% per annum. Proceeds of the PPP2 Note are available to be used to pay for payroll costs, including salaries, commissions, and similar compensation, group health care benefits, and paid leaves; rent; utilities; and interest on certain other outstanding debt. All of the funds received under the PPP2 Note were used for qualified purposes during 2021. The Company applied for forgiveness of the PPP2 Note in accordance with PPP guidelines, and in November, 2021, received approval of the forgiveness application. As of December 31, 2022 and 2021, there was no outstanding balance for the PPP2 Note.

The PPP and PPP2 Notes that were forgiven by the SBA were recognized as gains and included in ‘Other income’ or the non-operating section of the Company’s consolidated statements of operations.

8. Capital Structure

Common Stock

As of December 31, 2022 December 31, 2023 and 2021, December 31, 2022, the Company is authorized to issue 200,000,000 and 100,000,000, respectively, shares of common stock with a par value of $0.00001 per share. As of December 31, 2022 December 31, 2023 and 2021, December 31, 2022, the Company had 33,684,864 64,773,756 and 26,487,680 33,684,864 shares of common stock issued and outstanding, respectively. Holders of common stock have no preemptive, conversion or subscription rights and there is are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that the Company may designate in the future.

Convertible Preferred Stock

In October 2021, the Company amended its Certificate of Incorporation and revised the number of preferred stock shares authorized for issuance to 10,000,000 shares at a par value of $0.00001. As of December 31, 2023 and December 31, 2022, there were no shares of preferred stock issued and outstanding. As of December 31, 2020 and prior to the completion of the IPO, the Company was authorized to issue up to 21,982,491 shares of preferred stock at a par value of $0.00001.

Conversion Common Stock Offering

The On December 8, 2023, the Company entered into a Placement Agent Agreement with Aegis Capital Corp. (“Aegis”), pursuant to which Aegis acted as the Company’s convertible preferred stock shares that were outstanding at placement agent, on a reasonable best efforts basis, in connection with the completion sale by the Company of the IPO on October 20, 2021 automatically converted to an aggregate of 33,333,333 shares of common stock in a public offering, which included: (i) 11,466,733 shares of common stock, and (ii) pre-funded warrants to purchase 21,866,600 shares of common stock. The Pre-Funded Warrants had a nominal exercise price of $0.00001. Each share of common stock was sold at an offering price of $0.15, and each Pre-Funded Warrant was sold at an offering price of $0.14999.

The public offering closed on December 12, 2023. The Company received gross proceeds of approximately $5 million before deducting transaction related expenses payable by the Company. All commissions, qualified legal, accounting, registration and other direct costs of $0.5 million related to the public offering were offset against the gross proceeds. The Company is using the net proceeds to fund its cash needs.

At the Market Equity Financing

On May 31, 2023, the Company entered into an ATM Sales Agreement with Virtu Americas LLC (the “ATM Sales Agreement”), under which the Company may, from time to time, sell shares of the Company’s common stock at market prices by methods deemed to be an “at-the-market offering” as defined in Rule 415 promulgated under the Securities Act of 1933, as amended. The ATM Sales Agreement and related prospectus is limited to sales of up to an aggregate maximum $8.8 million of shares of the Company’s common stock. The Company pays Virtu Americas LLC up to 3.0% of the gross proceeds as a commission. For the years ended as of December 31, 2023, a total of 3,731,524 shares of common stock were sold through Virtu Americas LLC under the ATM Sales Agreement for net proceeds of $1,747,468 after payment of commission fees of $36,897 and other related expenses of $60,465.

Private Placement Offering

On April 28, 2022, the Company entered into a Securities Purchase Agreement (the “Purchase Agreement”) with certain accredited and institutional investors for a private placement offering (“Private Placement”) of the Company’s common stock (the “Common Stock”) and pre-funded warrants (the “Pre-Funded Warrants”) and warrants exercisable for Common Stock (the “Common Stock Warrants”). Pursuant to the Purchase Agreement, the Company sold (i) 3,790,322 shares of its Common Stock together with Common Stock Warrants to purchase up to 3,790,322 shares of Common Stock, and (ii) 2,661,291 Pre-Funded Warrants with each Pre-Funded Warrant exercisable for one share of Common Stock, together with Common Stock Warrants to purchase up to 2,661,291 shares of Common Stock. The Common Stock Warrants totaled 6,451,613. The Company allocated the proceeds between the Common Stock, Pre-Funded Warrants, and Common Stock Warrants on a 1:1 basis. relative fair value basis and recorded the amount allocated to the Common Stock Warrants within additional paid-in capital on the accompanying consolidated balance sheet as the Common Stock Warrants met all the criteria for equity classification. As the Common Stock Warrants were equity classified, they do not require subsequent remeasurement after the issuance (see below).

The authorized, issued and outstanding shares of the convertible preferred stock and liquidation preferences prior to the IPO were as follows:

Series	Shares Authorized	Shares Issued and Outstanding	Per Share Liquidation Preference	Aggregate Liquidation Amount	Gross Proceeds
Series A	10,157,843	10,157,843	0.6842	6,949,996	6,949,996
Series B	6,567,670	6,567,670	3.3939	22,290,015	22,290,015
Series C	5,256,978	5,256,978	15.7933	83,025,031	83,025,031
	21,982,491	21,982,491		112,265,042	112,265,042

The Pre-Funded Warrants were exercised in full in May 2022 at a nominal exercise price of $0.001. Each share of Common Stock and accompanying Common Stock Warrant were sold together at a combined offering price of $3.10, and each Pre-Funded Warrant and accompanying Common Stock Warrant were sold together at a combined offering price of $3.09.

The Common Stock Warrants have an exercise price of $2.98 per share (subject to adjustment as set forth in the warrant), are exercisable upon issuance and will expire five years from the date of issuance. The Common Stock Warrants contain standard adjustments to the exercise price including for stock splits, stock dividends, rights offerings and pro rata distributions. As a result of the stock dividend in October 2023, the exercise price was adjusted to $2.71. There were no Common Stock Warrants exercised as of December 31, 2023 (see below).

The Private Placement closed on April 29, 2022. The Company received gross proceeds of approximately $20 million before deducting transaction related expenses payable by the Company. All qualified legal, accounting, registration and other direct costs related to the Private Placement were offset against the gross proceeds. The Company is using the net proceeds to fund its cash needs.

Common Stock Warrants

The following warrants were outstanding as of December 31, 2022December 31, 2023, all of which contain standard anti-dilution protections in the event of subsequent rights offerings, stock splits, stock dividends or other extraordinary dividends, or other similar changes in the Company's common stock or capital structure, and none of which have any participating rights for any losses:

Securities into which warrants are convertible	**Warrants outstanding**	**Exercise Price**	**Expiration Date**	**Fair value**	**Warrants outstanding**	**Exercise Price**	**Expiration Date**	**Fair value**
Common stock (Initial Public Offering; see Note 1)	140,000	$ 9.375	October 2026	$ 170,397				
Common stock (Private Placement; see Note 1)	6,451,613	$ 2.98	April 2027	6,132,436				
Common stock (Initial Public Offering)					140,000	$ 9.375	October 2026	$ 170,397
Common stock (Private Placement)					7,096,776	$ 2.71	April 2027	6,745,681
Total	6,591,613			$ 6,302,833	7,236,776			$ 6,916,078

The Company accounts for warrants in accordance with ASC 480, *Distinguishing Liabilities from Equity*, depending on the specific terms of the warrant agreement. The Company determined the fair value of the warrants using the Black-Scholes pricing model and treated the valuation as equity instruments in consideration of the cashless settlement provisions in the warrant agreements. The warrants are not marked-to-market each reporting period, and thus there is no impact to earnings. Any future exercises of the warrants will be recorded as cash received and recorded in cash, with a corresponding increase to common stock and additional paid-in capital in stockholders' equity.

The Company used the following assumptions:

	Initial Public Offering Warrants	**Private Placement** Warrants
Fair value of underlying securities	$ 2.88	$ 1.37
Expected volatility	51.0 %	45.0 %
Expected term (in years)	5.0	5.0
Risk-free interest rate	1.13 %	2.92 %

Dividends

The holders of preferred stock are entitled to receive dividends, when and if declared by the Company's Board of Directors, out of any legally available funds. The holders of preferred stock are entitled to receive dividends, prior and in preference to dividends declared on common stock, at the rate of: Series A - $0.0411 per share per annum; Series B - $0.2036 per share per annum; and Series C - $0.9476 per share per annum. Dividends are non-cumulative and will be paid pro rata, on an equal priority, pari passu basis. After payment of preferred stock dividends, any additional dividends will be paid ratably among holders of common stock and preferred stock on an as converted to Common Stock basis. As of December 31, 2022 and 2021, respectively, no dividends have been declared.

Voting

The holder of each share of Preferred Stock is entitled to voting rights equal to the number of shares of common stock.

Preferred stockholders shall cast the number of votes equal to the number of whole shares of common stock into which the shares of Preferred Stock held by such holder are convertible. So long as any shares of Series A Preferred Stock remain outstanding, the holders of the Series A Preferred Stock, voting as a separate class, are entitled to elect one director of the Company. So long as any shares of Series B Preferred Stock remain outstanding, the holders of the Series B Preferred Stock, voting as a separate class, are entitled to elect one director of the Company. So long as any shares of Series C Preferred Stock remain outstanding, the holders of the Series C Preferred Stock, voting as a separate class, are entitled to elect one director of the Company. The holders of Common Stock, voting as a separate class, are entitled to elect two directors of the Company. The holders of Preferred Stock and Common Stock, on an as converted to basis, are entitled to elect any remaining members to the Board of Directors.

Liquidation

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, the holders of preferred stock on a pari passu basis, are entitled to receive, prior to and in preference over holders of common stock, an amount equal to the original issuance price—Series A - $0.6842 per share; Series B - $3.3939 per share; and Series C - $15.7933 per share. 2) If the assets of the Company available for distribution to its stockholders shall be insufficient to pay the holders of the shares of Preferred Stock the full amount to which they are entitled, the holders of shares of Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amount which would otherwise be payable in respect to the share of Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

9. 8. Net Loss Per Share Attributable to Common Stockholders

The Company declared a 10% stock dividend that was distributed on October 30, 2023 to shareholders of record on October 23, 2023. In accordance with ASC 260, basic and diluted earnings per shares amounts, and weighted-average shares outstanding have been restated for all periods presented to reflect the effect of these stock dividends. The following table summarizes the computation of basic and diluted loss per share:

	Year Ended December 31,		**Years Ended December 31,**	
	2022	**2021**	**2023**	**2022**
Net loss attributable to common stockholders	$ (19,236,509)	$ (7,799,529)	$ (22,811,230)	$ (19,236,509)
Basic and diluted weighted average common shares outstanding	31,233,071	5,861,730	39,987,864	34,947,710
Loss per share:				
Basic and diluted	$ (0.62)	$ (1.33)	$ (0.57)	$ (0.55)

Basic loss per share is based upon the weighted average number of shares of common stock outstanding during the period. Diluted loss per share would include the effect of unvested restricted stock awards and the convertible preferred stock; however, such items were not considered in the calculation of the diluted weighted average common shares outstanding since they would be anti-dilutive.

Common stock reserved for future issuance, on an as-if converted basis, are shown below:

	December 31,	
	2022	**2021**
Issuance of options under incentive plans	14,931,146	8,769,694
Shares available for future stock-based award grants (see Note 10)	3,583,173	—
Underwriter's common stock option	—	525,000
Underwriter's warrant	140,000	140,000
Total	18,654,319	9,434,694

10. 9. Stock-based Compensation Expense

Stock-Based Compensation

The Company uses stock-based compensation, including restricted stock units, to provide long-term performance incentives for its employees and board directors. The Company measures employee and director stock-based compensation awards based on the award's estimated fair value on the date of grant. Forfeitures are recognized as they occur. Expense associated with these awards is recognized using the straight-line attribution method over the requisite service period for stock options, restricted stock units ("RSUs") and restricted stock and is reported in our consolidated statements of stockholders' equity.

The fair value of the Company’s stock options is estimated using the Black-Scholes option-pricing model. The resulting fair value is recognized on a straight-line basis over the period during which an employee is required to provide service in exchange for the award. The Company has elected to recognize forfeitures as they occur. Stock options generally vest over four years and have a contractual term of ten years.

Determining the grant date fair value of options requires management to make assumptions and judgments. These estimates involve inherent uncertainties and if different assumptions had been used, stock-based compensation expense could have been materially different from the amounts recorded.

The assumptions and estimates for valuing stock options are as follows:

- *Fair value per share of Company’s common stock.* Because there was no public market for Cyngn’s common stock prior to the IPO, its Board of Directors, with the assistance of a third-party valuation specialist, determined the common stock fair value at the time of the grant of stock options by considering a number of objective and subjective factors, including its actual operating and financial performance, market conditions and performance of comparable publicly traded companies, developments and milestones in the company, and the likelihood of achieving a liquidity event among other factors. Since the Company’s common stock began publicly trading on the Nasdaq, the value of its common stock underlying stock options or RSUs have been valued based on prevailing market prices.
- *Expected volatility. volatility.* Because the Company’s common stock had no publicly traded history prior to the IPO, it estimated the expected volatility using its own stock price volatility to the extent applicable or a combination of its stock price volatility and the stock price volatility of peer companies, for a period equal to the expected term of the options.
- *Expected term.* The expected term of employee stock options represents the weighted-average period that the stock options are expected to remain outstanding. The Company estimates the expected term of options granted based upon the “simplified method” provided under *Staff Accounting Bulletin, Topic 14*, or SAB Topic 14.
- *Risk-free interest rate.*The risk-free interest rate is based on the U.S. Treasury yield curve in effect during the period the options were granted corresponding to the expected term of the awards.
- *Estimated dividend yield.*The estimated dividend yield is zero, as the Company does not currently intend to declare dividends in the foreseeable future.

Equity Incentive Plans

In February 2013, the Company's Board of Directors adopted the 2013 Equity Incentive Plan ("2013 Plan"). The 2013 Plan authorizes the award of stock options, stock appreciation rights, restricted stock awards, stock appreciation rights, RSUs, performance awards, and other stock or cash awards.

In October 2021, the Company's Board of Directors adopted the Cyngn Inc. 2021 Equity Incentive Plan (the "2021 Plan"). The 2021 Plan replaces the 2013 Plan. However, awards outstanding under the 2013 Plan will continue to be governed by their existing terms.

In November 7, 2023, the shareholders of the Company approved an amendment to the Company's 2021 Equity Incentive Plan to increase the number of shares authorized for issuance by 5,000,000 shares of common stock and to allow an annual increase to the 2021 Plan equal to the least of (i) 5% of the outstanding common stock on a fully diluted basis as of the end of the Company's immediately preceding fiscal year, (ii) 1,500,000 shares, or (iii) a lesser amount as determined by the Board. As of December 31, 2023, a total of 17,000,000 shares of common stock were reserved under the 2021 Plan.

As of December 31, 2022 December 31, 2023 and 2021, December 31, 2022, approximately 3.6 million 0.7 million shares, which does not include the shares aforementioned as these were not registered until January 2024, and 10.5 million 3.6 million shares of common stock were reserved and available for issuance under the 2021 Plan, and 2013 Plan, respectively.

Options issued under the Plan Plans generally vest based on continuous service provided by the option holder over a four-year period. Compensation expense related to these options is recognized on a straight-line basis over the four-year period based upon the fair value at the grant date.

The following table summarizes information about the Company's stock options outstanding as well as stock options vested and exercisable as of December 31, 2022 December 31, 2023, and activity during the year then ended:

	Shares	Weighted-average exercise price	Weighted-average remaining contractual term (years)	Aggregate intrinsic value	Shares	Weighted-average exercise price	Weighted-average remaining contractual term (years)	Aggregate intrinsic value
Outstanding as of December 31, 2021	8,769,694	$ 1.20	7.15	$ 15,746,916				
Outstanding as of December 31, 2022					14,715,110	$ 1.23	7.84	$ 2,571,013
Granted	6,842,500	1.20			4,519,000	0.67		
Exercised	(717,041)	0.16		1,012,175	(25,750)	0.33		16,403
Cancelled/forfeited	(180,043)	$ 2.77			(1,705,107)	1.66		
Outstanding as of December 31, 2022	14,715,110	$ 1.23	7.84	$ 2,571,013				
Vested and expected to vest at December 31, 2022	14,715,110	$ 1.23	7.84	$ 2,571,013				
Vested and exercisable at December 31, 2022	6,266,135	$ 0.73	5.65	$ 2,555,579				
Outstanding as of December 31, 2023					17,503,253	$ 1.04	7.37	$ 42,527
Vested and expected to vest at December 31, 2023					17,503,253	$ 1.04	7.37	$ 42,527
Vested and exercisable at December 31, 2023					8,531,483	$ 0.96	5.67	$ 42,527

The following table summarizes information about the Company's RSUs as of December 31, 2022 December 31, 2023, and activity during the year then ended:

	Shares	Weighted-average grant date fair value	Shares	Weighted-average grant date fair value
Unvested shares at December 31, 2021	-	$ -		
Unvested shares at December 31, 2022			216,036	$ 5.52
RSUs granted	244,566	5.52	108,000	1.05
RSUs vested	(28,530)	5.52	(146,742)	5.52
RSUs forfeited	-	-	-	-
Unvested Shares at December 31, 2022	216,036	$ 5.52		
Unvested Shares at December 31, 2023			177,294	$ 2.80

The fair value of a stock option is estimated using an the Black-Scholes option-pricing model that takes into account as of the grant date the exercise price and expected life of the option, the current price of the underlying stock and its expected volatility, expected dividends on the stock, and the risk-free interest rate for the expected term of the option. The Company has used the simplified method in calculating the expected term of all option grants based on the vesting period and contractual term. Compensation costs related to share-based payment transactions are recognized in the financial statements upon satisfaction of the requisite service or vesting requirements.

The weighted average per share grant-date fair value of options granted during the years ended December 31, 2022 nine months December 31, 2023 and 2021 2022 was $0.59 $0.55 and $2.78, $0.74, respectively.

The following weighted average assumptions were used in estimating the grant date fair values in December 31, 2022 December 31, 2023 and 2021: 2022:

	December 31,		December 31,	
	2022	2021	2023	2022
Fair value of common stock	$ 1.20	$ 2.78	$ 1.02	$ 1.76
Expected term (in years)	6.03	6.15	6.02	6.05
Risk-free rate	3.77 %	0.95 %	3.63 %	2.6 %
Expected volatility	48.72 %	51.0 %	52.74 %	40.3 %
Dividend yield	0 %	0 %	0 %	0 %

For the year ended December 31, 2022 and 2021, the Company We recorded stock-based compensation expense from stock options and RSUs of approximately $2.9 million $3,208,103 and $1.1 million, $2,867,698, during the years ended December 31, 2023 and 2022, respectively.

As of December 31, 2022 December 31, 2023, total stock-based compensation cost related to outstanding unvested stock options that are expected to vest was $ 9.3 million approximately $7.3 million. This unrecognized stock-based compensation cost is expected to be recognized over a weighted-average period of approximately 3.5 2.9 years. Income tax benefits recognized from stock-based compensation expense recognized for the year nine months ended December 31, 2022 December 31, 2023 were immaterial due to cumulative losses and valuation allowances.

11.

10. Retirement Savings Plan

Effective November 17, 2017, the Company established the Cyngn Inc. 401(k) Plan for the exclusive benefit of all eligible employees and their beneficiaries with the intention to provide a measure of retirement security for the future. This plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA) and qualifies under Section 401(k) of the Internal Revenue Code. Cyngn, Inc. The Company did not offer and has not provided a company match for its 401(k) Plan.

12. 11. Income Taxes

Domestic and international pre-tax loss consists of the following:

	December 31,	
	2023	2022
United States	(22,812,381)	(19,236,289)
International	1,150	(220)
Loss before income taxes	(22,811,231)	(19,236,509)

For the years ended December 31, 2022 December 31, 2023 and 2021, the Company recorded 2022, income tax expense of $850 and $800, respectively. The effective tax rate attributable to operations is 0% for the years ended December 31, 2022 and 2021. immaterial.

	December 31,	
	2022	2021
Current:		
Federal	-	-
State	850	800
Total current	850	800
Deferred:		
Federal	-	-
State	-	-
Total deferred	-	-
Total	$ 850	$ 800

Income tax expense differed from the amount computed by applying the federal statutory income tax rate of 21% to pretax income for the years ended December 31, 2022 December 31, 2023 and 2021 2022 as a result of the following:

	December 31,	
	2022	2021
Federal tax at statutory rate	$ (4,039,453)	$ (1,635,786)
State taxes	(415,015)	(543,984)
Nondeductible expenses	22,081	(308,449)
Research and development credit	(673,881)	(897,331)
Foreign tax rate difference		1,779
Stock compensation	204,047	150,330
True-up and rate change	386,624	26,751
Valuation allowance	4,516,446	3,207,490
Total	$ 850	$ 800

	December 31,	
	2023	2022
Federal tax at statutory rate	$ (4,790,600)	$ (4,039,453)
State income taxes	(815,249)	(415,015)
Stock based compensation	276,371	204,047
Foreign taxes	-	-
Tax credits	(1,071,338)	(673,881)
Nondeductible items	(142,058)	22,081
Valuation allowance	5,517,860	4,516,446
Deferred true up	1,320,182	-
Rate change	(247,773)	369,874
Other items	(47,395)	15,901
Total	$ -	$ -

The Deferred income taxes reflect the net tax effects of temporary differences that give rise to significant portions between the carrying amount of assets and liabilities for financial reporting purposes and the Company's amounts for income tax purposes. Significant components of our deferred tax assets and liabilities as of December 31, 2022 December 31, 2023 and 2021 related to the 2022 are as following:

	December 31,		December 31,	
	2022	2021	2023	2022
Deferred tax assets:				
Net operating loss carryforwards	$ 30,186,203	$ 28,231,596	$ 32,935,845	$ 30,186,203
Research and development credits	4,867,437	4,193,556	5,938,775	4,867,437
Intangibles	1,303,262	1,772,704	1,192,900	1,303,262
Fixed assets	61,295	89,979	67,200	61,295
Stock based compensation	654,860	243,970	410,323	654,860
Accruals and reserves			146,482	69,486
Lease liability	87,233	-	245,790	87,233
Capitalized research costs	1,969,682	-	3,905,973	1,969,682
Accruals and others	70,982	40,173		
Other			6,876	1,496
Gross deferred tax assets	39,200,954	34,571,977	44,850,164	39,200,954

Valuation allowance	(39,088,423)	(34,571,977)	(44,606,284)	(39,088,423)
Total deferred tax assets	112,531	-	243,880	112,531
Deferred tax liabilities:				
Right of use asset	(85,975)	-	(243,880)	(85,975)
Deferred project costs	(26,536)	-	-	(26,556)
Total deferred tax liabilities	(112,531)	-	(243,880)	(112,531)
Net deferred tax assets:	$ -	-		
Net deferred tax assets			$ -	-

Management regularly assesses the ability to realize deferred tax assets recorded based upon the weight of available evidence, including such factors as recent earnings history and expected future taxable income on a jurisdiction-by-jurisdiction jurisdiction by jurisdiction basis. In the event that the Company changes its determination as to the amount of realizable deferred tax assets, the Company will adjust its valuation allowance with a corresponding charge impact to the provision for income taxes in the period in which such determination is made. The Company's management believes that, based on a number of factors, it is more likely than not, that all or some portion of the deferred tax assets will not be realized; and accordingly, for the years ending December 31, 2022 and 2021, year ended December 31, 2023, the Company has provided a valuation allowance against the Company's U.S. net deferred tax assets. The net change in the valuation allowance for the years ended December 31, 2022 December 31, 2023 and 2021 2022 was an increase of $4,516,446 $5,517,861 and $3,207,490, $4,516,446, respectively.

As of December 31, 2022 December 31, 2023, the Company had net operating loss carryforwards for federal and state income tax purposes of approximately $109,139,982 $119,789,248 and $105,895,217, $116,634,520, respectively, which will both begin to expire in 2034 with $73,802,785 $84,452,051 of our federal net operating loss carryforward lasting indefinitely.

As of December 31, 2022 December 31, 2023, the Company had federal and state research credit carryforwards of approximately $4,870,011 $5,870,310 and $2,637,304, $3,308,423, respectively. The federal research credit carryforwards will begin to expire in 2033 while the California research credits carry forward have an indefinite life.

The Internal Revenue Code of 1986, as amended, imposes restrictions on the utilization of net operating losses in the event of an "ownership change" of a corporation. Accordingly, a company's ability to use net operating losses may be limited as prescribed under Internal Revenue Code Section 382 ("IRC Section 382"). Events which may cause limitations in the amount of the net operating losses that the Company may use in any one year include, but are not limited to, a cumulative ownership change of more than 50% over a three-year period. Utilization of the federal and state net operating losses may be subject to substantial annual limitation due to the ownership change limitations provided by the IRC Section 382 and similar state provisions. The Company has not completed a study to assess whether a change of ownership has occurred, or whether there have been multiple ownership changes since its formation, due to the significant cost and complexity associated with such a study. Any limitation may result in expiration of a portion of the NOL carryforwards before utilization. Further, until a study is completed by the Company and any limitation is known, no amounts are being presented as an uncertain tax position.

The CARES Act contained modifications to Section 163(j) pertaining to the limitation of business interest Effective for tax years beginning in 2019 and 2020. The modifications to Section 163(j) increased the allowable business interest deduction from 30% of adjusted taxable income to 50% of adjusted taxable income. This modification increased the allowable interest expense deduction of the Company.

Under after December 31, 2021, the Tax Cuts and Jobs Act of 2017 eliminates the option to deduct research and development expenditures currently and requires taxpayers to amortize such costs are over a period of five or fifteen years. While it is possible that Congress may modify, defer, or repeal such provision, we have no longer fully deductible and are required to assurance that the provision will be capitalized and amortized for modified, deferred or repealed. This legislation has accelerated the utilization of our net operating losses in the U.S., but it has not impacted our current tax purposes effective January 1, 2022. The mandatory capitalization requirement increases our deferred tax assets and is fully offset with the valuation allowance. obligations.

In response to the COVID-19 pandemic, the Coronavirus Aid, Relief and Economic Security Act, or the CARES Act, and the Consolidated Appropriations Act, 2021 were passed into law and provide additional economic stimulus to address the impact of the COVID-19 pandemic, including among other items, several U.S. income tax provisions related to, among other things, net operating loss carrybacks, alternative minimum tax credits, modifications to interest expense limitations, and an option to defer payroll tax payments for a limited period. In 2023, we assessed our eligibility to claim a refund of employer taxes available under the Employee Retention Credit provisions of the CARES Act. For the years ended December 31, 2023, we calculated eligible credits of approximately $763,624 provided by the CARES Act, which have been recognized as offsets to salaries costs in operating expenses. As of December 31, 2023, the aggregate eligible credit amount has been accrued as a receivable on our consolidated balance sheets.

The following table reflects changes in gross unrecognized tax benefits:

	December 31,		December 31,	
	2022	2021	2023	2022
Balance at beginning of year	$ 1,797,238	$ 1,412,668	$ 2,086,044	$ 1,797,238
Increase in balance related to tax positions taken during the current year	288,806	199,218	459,145	288,806
Increase in balance related to tax positions taken during prior years	-	185,352	-	-
Decrease in balance related to prior year tax positions	-	-	-	-
Decrease in balance related to settlement with tax authorities	-	-	-	-
Balance at end of year	$ 2,086,044	$ 1,797,238	$ 2,545,189	$ 2,086,044

As of December 31, 2022 December 31, 2023, $2,086,044 $2,545,189 of the total unrecognized tax benefits, if recognized, would have an impact on the Company's Company's effective tax rate. The Company estimates that there will be no material changes in its uncertain tax positions in the next 12 months. In accordance with FASB ASC 740, the Company The Company's has adopted the accounting policy that not recorded any interest and or penalties recognized are classified as part of related to its income taxes. Total interest and penalties recognized in the consolidated statement of operations was zero unrecognized tax benefits for 2022 and 2021. 2023 or 2022.

The Company files income tax returns in the US U.S. federal and various state jurisdictions. jurisdictions with varying statutes of limitations. The Company's tax years for 2019 and forward are Company is generally no longer subject to examination by the US tax authorities. The Company's tax examinations for years prior to 2020 for 2018 federal purposes and forward are subject to examination by various 2019 for state tax authorities. purposes, except in certain limited circumstances.

However, due to the fact that the Company had loss and credits carried forward in some jurisdictions, certain items attributable to technically closed years are still subject to adjustment by the relevant taxing authority through an adjustment to tax attributes carried forward to open years. The Company files U.S. and foreign income tax returns with varying statutes of limitations. Due to the Company's net carryover of unused operating losses, all years remain subject to future examination by tax authorities.

The Company is currently seeking relief in filing of foreign tax returns related to both foreign subsidiaries that are in the process of winding down operations. In the event that they are required, and relief is not available, filings will be completed as part of the overall dissolution process. No loss carryforwards or other attributes are recorded as part of the provision for income taxes, as there will not be future income to utilize any deferred assets in those foreign jurisdictions.

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"), as part as part of its overall simplification initiative to reduce costs and complexity of applying accounting standards while maintaining or improving the usefulness of the information provided to users of financial statements. Amendments include removal of certain exceptions to the general principles of ASC 740, *Income Taxes* and simplification in several other areas such as accounting for a franchise tax (or similar tax) that is partially based on income. ASU 2019-12 is effective for public business entities for annual reporting periods beginning after December 15, 2020, and interim periods within those reporting periods. The impact to the company is immaterial.

13.

12. Commitments and Contingencies

Legal Proceedings

The Company is subject to legal and regulatory actions that arise from time to time. The assessment as to whether a loss is probable or reasonably possible, and as to whether such loss or a range of such loss is estimable, often involves significant judgment about future events, and the outcome of litigation is inherently uncertain. There is no material pending or threatened litigation against the Company that remains outstanding as of December 31, 2022 December 31, 2023 and 2021. December 31, 2022.

Nasdaq Compliance

On August 24, 2023, the Company received a notification letter from The Nasdaq Stock Market advising that, for 30 consecutive business days preceding the notification letter, the Company did not meet the minimum $1.00 per share bid price requirement for continued inclusion on The Nasdaq Capital Market pursuant to Nasdaq Marketplace Listing Rule 5550(a)(2). To demonstrate compliance with this requirement, the closing bid price of the Company's common stock needs to be at least $1.00 per share for a minimum of 10 consecutive business days before February 20, 2024. On February 21, 2024, Nasdaq granted the Company an additional 180-day extension to continue its listing on the Nasdaq Capital Market. The Company was given until August 19, 2024 to regain compliance with Nasdaq's $1 minimum bid price per share requirement.

14. 13. Risks and Uncertainties

The Company's business operations, operating results, and financial condition are vulnerable to certain risks and uncertainties including:including:

- Inflation and its related impact on costs and expenditures on domestic and foreign-sourced materials and services;
- Rising interest rates and its impact on the equity markets, investment valuations, and interest rate-sensitive calculations such as discount rate assumptions used in cash flow projections and going-concern going concern assessments;
- Effects of the Russia-Ukraine conflict such as possible cyberattacks and potential disruptions in the banking systems and capital markets and the supply chain; and
- Other factors beyond its control such as natural disasters, terrorism, civil unrest, infectious diseases and pandemics including COVID-19 and its variants variants.

The Company is is unable to predict and quantify at this time the extent of the related potential adverse effects but continuously monitors these risks and uncertainties on its future operations and financial performance.

15. 14. Subsequent Events

The Company performed a review of events subsequent Subsequent to the balance sheet date year-end through the date of this report, the financial statements were issued Company has sold 1,978,807 additional shares under the ATM Sales Agreement, for net proceeds of $477,734 after payment of commission and determined that there were no such events requiring recognition or disclosure in the financial statements. fees of $9,750.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

There were no disagreements related to accounting principles or practices, financial statement disclosure, internal controls or auditing scope or procedure during the two fiscal years and their respective interim periods.

Item 9A. Controls and Procedures

Management's Report on Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our Principal Executive Officer (our Chief Executive Officer) and Principal Financial Officer (our Chief Financial Officer), has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2022 December 31, 2023, the end of our fiscal year covered by this report. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or person performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2022 December 31, 2023, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures are effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Responsibility on estimates and judgments by management are required to assess the expected benefits and related costs of control procedures. The objectives of internal control include providing management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States. Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2022 December 31, 2023. In making this assessment, our management used the criteria set forth in the report entitled "*Internal Control — Integrated Framework*" published by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Our management has concluded that, as of December 31, 2022 December 31, 2023, our internal control over financial reporting is effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US generally accepted accounting principles. Our management reviewed the results of their assessment with our Board of Directors. While the Company believes the remediation measures taken to date will improve the effectiveness of its internal control over financial reporting, the Company will continue to perform additional procedures and employ additional tools and resources deemed necessary to ensure that its consolidated financial statements are fairly stated in all material respects.

Inherent Limitations on Effectiveness of Controls

Internal control over financial reporting has inherent limitations which include but is not limited to the use of independent professionals for advice and guidance, interpretation of existing and/or changing rules and principles, segregation of management duties, scale of organization, and personnel factors. Internal control over financial reporting is a process which involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis, however these inherent limitations are known features of the financial reporting process and it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Changes in Internal Control over Financial Reporting

As reported in our Quarterly Reports on Form 10-Q as of June 30, 2022 and September 30, 2022, the following was identified as a material weakness during the second quarter of 2022: ineffective oversight of third parties engaged to assist in the Company's financial reporting and disclosure process. During the third quarter of 2022, management revised the processes surrounding this material weakness. We believe that this previously reported material weakness was successfully remediated as of December 31, 2022.

The SEC defines 'material weakness' as a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the registrant's annual or interim financial statements will not be prevented or detected on a timely basis by the company's internal controls. While we are in the process of adopting remediation procedures related to this identified material weakness, there can be no assurance that such remedies will be effective. In addition, if this is not remediated, we will be unable to certify that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Except as described as above, there There has been no change in our internal control over financial reporting during the quarter ended December 31, 2022 December 31, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None. Rule 10b5-1 Trading Arrangement

During the three months ended December 31, 2023, no director or officer of the Company adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as each term is defined in Item 408(a) of Regulation S-K.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The following table sets forth the names and ages of all of our directors and executive officers. Our Board of Directors is currently comprised of five members. Our Board is divided into three classes of directors, each serving a staggered three-year term. At each annual meeting of stockholders, a class of directors is elected for a three-year term to succeed the class whose term is then expiring. Executive officers serve at the discretion of the Board of Directors and are appointed by the Board of Directors.

Name	Age	Position	Class of Director
Lior Tal	49 50	Chief Executive Officer, Chairman of the Board of Directors and Director	I
Donald Alvarez	58 59	Chief Financial Officer and Director	I
Ben Landen	35 36	Vice President of Business Development	-
Karen Macleod	59	Director	
Colleen Cunningham	60	Director	II
Colleen Cunningham	61	Director	III
James McDonnell	67 69	Director	II

The principal occupations and business experience for the past five years (and, in some instances, for prior years) of each of our directors and executive officers are as follows:

Lior Tal

Mr. Tal has served as the Company's Chief Executive Officer and a Director Chairman of the Board since October 2016. From June 2016 to October 2016, Mr. Tal served as the Company's Chief Operating Officer. Prior to joining the Company, Mr. Tal was the director of international growth and partnerships at Facebook where he worked from April 2011 to June 2016. Mr. Tal co-founded Snaptu (acquired by Facebook) in September 2007 and was the vice president of business development until May 2011. During his time at Snaptu, Mr. Tal helped grow the user base from launch to tens of millions of users. Prior to co-founding Snaptu, Mr. Tal was a partner at Barzam, Tal, Lerer Attorneys-at-Law & Patent attorneys from March 2004 to August 2007. Mr. Tal has also held leadership roles at Actimize (acquired by NICE), DiskSites (acquired by EMC), and Odigo (acquired by Comverse). Mr. Tal holds a law degree from Tel Aviv University and an LLB in law and a BA in Business Management from Reichman University.

Mr. Tal's executive and technology industry experience qualify him to serve on our board of directors.

Donald Alvarez

Mr. Alvarez has served as the Company’s Chief Financial Officer since June 2021 and a Director since August 2022. Prior to joining the Company, Mr. Alvarez was the vice president of finance of the International Council of Shopping Centers from 2017 to August 2020. During his time at the International Council of Shopping Centers, Mr. Alvarez helped improve internal controls, increase productivity and reduce cost. Mr. Alvarez was active in renegotiating merchant credit card fees. He also implemented a company-wide, annual budget process and deployment of a new budgeting software tool. From 2015 to 2017, Mr. Alvarez was vice president of finance of QuVa Pharma, Inc. (“QuVa”), where he helped create an accounting and finance department. From 2011 to 2014, Mr. Alvarez was the national managing partner, COO and CFO of Tatum, a Randstand Company (“Tatum”). During his time with Tatum, Mr. Alvarez oversaw a business turnaround that significantly improved Tatum’s financial performance. Mr. Alvarez has held several other senior financial and operational roles in both private and public companies, including CFO of Broadband Discovery Systems, Inc., CFO of Fatbrain.com, CFO of Shop.com, and Regional Managing Director of Resources Global Professionals. Mr. Alvarez began his career in the audit and assurance practice of Deloitte where he spent seven years. Mr. Alvarez holds a BS in Business Administration from California State University, East Bay.

Mr. Alvarez’s financial expertise and significant audit and reporting knowledge qualify him to serve on the Company’s board of directors.

Ben Landen

Mr. Landen has served as the Company’s Vice President of Business Development since May 2021. 2021, including responsibilities in Sales and Marketing. Prior to that, Mr. Landen served as the Company’s Senior Director of Product & Partnerships from September 2019 to May 2021. From May 2017 to September 2019, Mr. Landen was the head of product & business development at DeepScale (acquired by Tesla), a venture-backed startup that developed AI perception solutions for autonomous vehicles. From August 2015 to April 2017, Mr. Landen was a senior business manager of Maxim Integrated, where he managed a $100 million automotive semiconductor product line and supervised a team of product managers. Mr. Landen was a business manager from September 2013 to August 2015 and an associate business manager from August 2010 to September 2013. Mr. Landen holds an MBA from UC Berkeley’s Haas School of Business and a BS in Electrical Engineering from California Polytechnic University, San Luis Obispo and an MBA from UC Berkeley’s Haas School of Business. Obispo.

Non-Executive Directors

Karen Macleod

Ms. Macleod has served as a member of the Company’s board of directors since July 2021. Ms. Macleod was the founder and chief executive officer of The Arete Group, LLC from 2015 to 2021. Ms. Macleod She was the president of Tatum, Randstand Holdings NV Company from 2011 to 2014. Ms. Macleod was the president of Resources Connection, Inc. North America from 2004 to 2009 and previously served in other capacities after joining the company firm in 1996. From 1985 to 1994, Ms. Macleod She was a senior manager at Deloitte. Deloitte from 1985 to 1994. Ms. Macleod additionally has served on the Board board of Directors of Track Group Inc. (OTCQX — TRCK) since 2016 and currently chairs the Audit Committee. She also has served on the Board of the directors at Lakeland Hills YMCA since 2020, and currently serves on chair of the Finance Committee. Ms. Macleod served as a finance committee since 2022 and member of the executive committee in 2023. She has also served on the board of directors and a member of the audit committee of the FWA of New York from 2018 to 2021. From 1998 to 2009, Ms. Macleod served on 2021, the board of directors of Resources Connection, Track Group Inc. (Nasdaq — RGP). From since 2016, Overland Solutions from 2006 to 2013, Ms. Macleod served on the board of directors of Overland Solutions. Ms. Macleod holds a BA in Business Economics and Resource Connection, Inc. from University of California, Santa Barbara. 1998 to 2009.

Ms. Macleod prior board experience and particularly her role serving on audit committees qualify her to serve on the Company’s board of directors.

Colleen Cunningham

Ms. Cunningham has served as a member of the Company's board of directors since September 2021. Ms. Cunningham has served as a board member and the treasurer of Northstar Pet Rescue since 2017. From 2012 to 2018, Ms. Cunningham was the senior vice president and corporate controller of Zoetis, Inc. from 2012 to 2018. Prior to that, Ms. Cunningham she was the global managing director of Resources Connection, Inc. from 2007 to 2012. From 2003 to 2007, Ms. Cunningham was the president and chief executive officer of Financial Executives International. From 2001 International from 2003 to 2003, Ms. Cunningham 2007. She was the chief financial officer of at Havas Advertising, North America. America from 2001 to 2003. Ms. Cunningham was served at AT&T as chief accountant at AT&T, Inc. from 1999 to 2001. Prior to that, Ms. Cunningham was a 2001, division manager of accounting policy and external reporting for AT&T, Inc. from 1995 to 1999. Ms. Cunningham was the 1999, and assistant controller from 1988 to 1995 of AT&T Capital Corporation from 1988 to 1995. From 1984 to 1988, Ms. Cunningham Corporation. She was a senior auditor at Touche Ross/Coopers & Lybrand. Lybrand from 1984 to 1988. Ms. Cunningham has also served on various committees. From 2015 to 2018, Ms. Cunningham as a board of director and treasurer of Northstar Pet Rescue since 2017. She served as a member of the US Chamber of Commerce Financial Reporting Committee. From 2012 financial reporting committee from 2015 to 2018, Ms. Cunningham served as a member of the FEI Committee committee on Corporate Reporting. From 2007 corporate reporting from 2012 to 2012, Ms. Cunningham served as 2018, and a member of the International Issues Conference Committee international issues conference committee of AICPA. From 2005 to 2009, Ms. Cunningham served as a board member and the chair of the Ethics Resource Center Finance Committee. From 2005 to 2018, Ms. Cunningham She served as a member of the advisory board to the accounting department of Pennsylvania State University. From 2003 University from 2005 to 2007, 2018. Ms. Cunningham served as a board of director and chair of the Ethics Resource Center finance committee from 2005 to 2009. She served as a member of both the International Accounting Standards Board Standing Advisory Committee international accounting standards board standing advisory committee and the Financial Accounting Standards Board Advisory Committee. (FASB) advisory committee from 2003 to 2007. Ms. Cunningham holds a BA in economics from Rutgers University and an MBA in management from New York University's Stern School of Business. Business and a BA in economics from Rutgers University.

Ms. Cunningham's prior management experience and expertise in corporate reporting, governance and accounting issues qualify her to serve on the Company's board of directors.

James McDonnell

Mr. McDonnell has served as a member of the Company's board of directors since September 2021. Mr. McDonnell is currently the Senior Vice President of Sales & Marketing for Vispero, since 2017. Mr. McDonnell was vice president of sales at Honeywell from 2013 to 2017. Mr. McDonnell served on the board of Asetek from 2014-2019. Mr. McDonnell was senior vice president of sales & marketing at Intermec from 2010 to 2013. Prior to this, Mr. McDonnell was a senior vice president and served in many executive sales and marketing roles at Hewlett-Packard from 1983 to 2009. Mr. McDonnell began his career at the General Electric Company from 1977 to 1983. Mr. McDonnell has holds a BS degree in Electrical engineering from Villanova University.

Mr. McDonnell's prior experiences in sales & marketing leadership within various technology companies and his experience in industrial markets qualify him to serve on the Company's board of directors.

Board Composition

Our board currently consists of five directors, Lior Tal, Donald Alvarez, Karen Macleod, Colleen Cunningham and James McDonnell. Ms. Macleod, Ms. Cunningham and Mr. McDonnell are *"independent directors"* within the meaning of the Listing Rules (the "Nasdaq Listing Rules") of the Nasdaq Stock Market ("Nasdaq").

Family Relationships

No family relationships exist between any of our officers or directors.

Role of Board of Directors in Risk Oversight Process

The board of directors has extensive involvement in the oversight of risk management related to us and our business and accomplishes this oversight through the regular reporting by the Audit Committee. The purpose of the Audit Committee is to assist the board of directors in fulfilling its fiduciary oversight responsibilities relating to (1) the integrity of the Company’s financial statements, (2) the effectiveness of the Company’s internal control over financial reporting, (3) the Company’s compliance with legal and regulatory requirements, and (4) the independent auditor’s qualifications and independence. Through its regular meetings with management, including the finance, legal and internal audit functions, the Audit Committee reviews and discusses all significant areas of our business and summarizes for the board of directors all areas of risk and the appropriate mitigating factors. In addition, our board of directors receives periodic detailed operating performance reviews from management.

Director Independence

The Board evaluates the independence of each nominee for election as a director of our Company in accordance with the Nasdaq Listing Rules. Pursuant to these rules, a majority of our Board must be “independent directors” within the meaning of the Nasdaq Listing Rules, and all directors who sit on our Audit Committee, Nominating and Corporate Governance Committee and Compensation Committee must also be independent directors.

Committees of the Board of Directors

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Our board of directors may establish other committees as it deems necessary or appropriate from time to time.

Audit Committee

The members of our Audit Committee are Karen Macleod, Colleen Cunningham and James McDonnell, with Ms. Cunningham serving as the Chairperson. Each of Ms. Macleod, Ms. Cunningham and Mr. McDonnell, is independent under the rules and regulations of the SEC and the listing standards of the Nasdaq Stock Market applicable to audit committee members. Our board of directors has determined that each of Ms. Macleod and Ms. Cunningham qualify as an audit committee financial expert within the meaning of SEC regulations and meet the financial sophistication requirements of the Nasdaq Stock Market.

Our Audit Committee has the responsibility for, among other things, (i) selecting, retaining and overseeing our independent registered public accounting firm, (ii) obtaining and reviewing a report by independent auditors that describe the accounting firm’s internal quality control, and any materials issues or relationships that may impact the auditors, (iii) reviewing and discussing with the independent auditors standards and responsibilities, strategy, scope and timing of audits, any significant risks, and results, (iv) ensuring the integrity of the Company’s financial statements, (v) reviewing and discussing with the Company’s independent auditors any other matters required to be discussed by PCAOB Auditing Standard No. 1301, (v1) reviewing, approving and overseeing any transaction between the Company and any related person and any other potential conflict of interest situations, (vii) overseeing the Company’s internal audit department, (v) reviewing, approving and overseeing related party transactions, and (viii) establishing and overseeing procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential, anonymous submission by Company employees of concerns regarding questionable accounting or auditing matters.

Compensation Committee

The members of our Compensation Committee are Ms. Macleod, Ms. Cunningham and Mr. McDonnell, with Ms. Macleod serving as the Chairperson. Our Compensation Committee has the responsibility for, among other things, (i) reviewing and approving the chief executive officer’s compensation based on an evaluation in light of corporate goals and objectives, (ii) reviewing and recommending to the Board the compensation of all other executive officers, (iii) reviewing and recommending to the Board incentive compensation plans and equity plans, (iv) reviewing and discussing with management the Company’s Compensation Discussion and Analysis and related information to be included in the annual report on Form 10-K and proxy statements, and (v) reviewing and recommending to the Board for approval procedures relating to Say on Pay Votes.

Nominating and Corporate Governance Committee

The members of our Nominating and Corporate Governance Committee are Ms. Macleod, Ms. Cunningham and Mr. McDonnell, with Mr. McDonnell serving as the Chairperson. Our Nominating and Corporate Governance Committee has the responsibility relating to assisting the Board in, among other things, (i) identifying and screening individuals qualified to become members of our board of directors, consistent with criteria approved by our board of directors, (ii) recommending to the Board the approval of nominees for director, (ii) developing and recommending to our board of directors a set of corporate governance guidelines, and (iv) overseeing the evaluation of our board of director.

Code of Business Conduct and Ethics

Our board of directors has adopted a Code of Business Conduct and Ethics (the “Code”). The Code applies to all of our directors, officers and employees. We have made the Code available on our website https://investors.cyngn.com/corporate-governance-documents/. We intend to disclose future amendments to, or waivers of, our Code, as and to the extent required by SEC regulations, at the same location on our website identified above or in public filings.

Board Diversity

Each year, our nominating and corporate governance committee will review, with the board of directors, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates, our nominating and corporate governance committee will consider factors including, without limitation, an individual’s character, integrity, judgment, potential conflicts of interest, other commitments and diversity. While we have no formal policy regarding board diversity for our board of directors as a whole nor for each individual member, the nominating and corporate governance committee does consider such factors as gender, race, ethnicity, experience and area of expertise, as well as other individual attributes that contribute to the total diversity of viewpoints and experience represented on the board of directors.

On August 6, 2021, the Securities and Exchange Commission (“SEC”) approved The Nasdaq Stock Market LLC’s (“Nasdaq”) proposal to adopt listing rules for Nasdaq-listed companies related to board diversity. The new Rule 5605(f) (Diverse Board Representation) requires Nasdaq-listed companies, subject to certain exceptions, (1) to have at least one director who self-identifies as a female, and (2) to have at least one director who self-identifies as Black or African American, Hispanic or Latinx, Asian, Native American or Alaska Native, Native Hawaiian or Pacific Islander, two or more races or ethnicities, or as LGBTQ+, or (3) to explain why the reporting company does not have at least two directors on its board who self-identify in the categories listed above. In addition, Rule 5606 (Board Diversity Disclosure) requires each Nasdaq-listed company, again subject to certain exceptions, to provide statistical information about such company’s Board of Directors, in a proposed uniform format, related to each director’s self-identified gender, race, and self-identification as LGBTQ+. The Company has elected to include the requested disclosures in the uniform format proposed by Nasdaq in our annual report herein, as set forth in the matrix below.

The Company believes that it is presently in compliance with the diversity requirements imposed by the Nasdaq listing rules.

Board Diversity Matrix (as of March 16, 2023)

Total Number of Directors	**5**			
	Female	**Male**	**Non-Binary**	**Did Not Disclose Gender**
Part I: Gender Identity				
Directors	**2**	**3**	**-**	**-**
Part II: Demographic Background				
African American or Black	**-**	**-**	**-**	**-**
Alaskan Native or Native American	**-**	**-**	**-**	**-**
Asian	**-**	**-**	**-**	**-**
Hispanic or Latinx	**-**	**1**	**-**	**-**
Native Hawaiian or Pacific Islander	**-**	**-**	**-**	**-**
White	**2**	**2**	**-**	**-**
Two or More Races or Ethnicities	**-**	**-**	**-**	**-**
LGBTQ+	**-**	**1**	**-**	**-**
Did Not Disclose Demographic Background	**-**	**-**	**-**	**-**

Involvement in Certain Legal Proceedings

Our directors and executive officers have not been involved in any of the following events during the past ten years:

1. any bankruptcy petition filed by or against such person or any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;

2. any conviction in a criminal proceeding or being subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);

3. being subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from or otherwise limiting his involvement in any type of business, securities or banking activities or to be associated with any person practicing in banking or securities activities;

4. being found by a court of competent jurisdiction in a civil action, the SEC or the Commodity Futures Trading Commission to have violated a Federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated;

5. being subject of, or a party to, any Federal or state judicial or administrative order, judgment decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of any Federal or state securities or commodities law or regulation, any law or regulation respecting financial institutions or insurance companies, or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or

6. being subject of or party to any sanction or order, not subsequently reversed, suspended, or vacated, of any self-regulatory organization, any registered entity or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Item 11. Executive Compensation

The following table provides information regarding the compensation earned by or paid to our named executive officers with respect to the years ended December 31, 2022 December 31, 2023 and 2021. 2022.

Summary Compensation Table

Name and Principal Position	Fiscal Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Award ($)(1)	Non-Equity Incentive Plan Compensation	Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)	Fiscal Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Award ($)
Lior Tal	2022	$ 500,000	$ 300,000	$ -	$ 1,152,831	$ -	$ -	$ -	$ 1,952,831	2023	$ 500,000	$ 300,000		$ 228,4
CEO	2021	350,000	150,000	-	506,857	-	-	-	1,006,857	2022	500,000	$ 300,000	$ -	1,152,8
Donald Alvarez	2022	300,000	-	-	300,096	-	-	-	600,096	2023	$ 300,000	$ 60,000		48,0
CFO	2021	152,885	-	-	139,336	-	-	-	292,221	2022	300,000	-	-	300,0
Ben Landen	2022	250,000	-	-	80,982	-	-		330,982	2023	$ 250,000	$ 50,000		24,8
VP of Business Development	2021	222,454	-	-	32,256	-	-	5,000 (1)	259,710	2022	250,000	-	-	80,9

(1) Represents relocation expenses paid by the Company on behalf of Mr. Landen.

Executive Employment Agreements

Lior Tal

On January 1, 2022, we entered into an employment agreement (the “Employment Agreement”) with our Chief Executive Officer, Lior Tal, which agreement superseded and replaced the offer letter entered into by and between the Company and Mr. Tal on April 17, 2016.

Pursuant to the employment agreement, Employment Agreement, as compensation for his services as Chief Executive Officer of the Company, Mr. Tal will receive: (1) a salary of $500,000 per annum (the “Base Salary”) and commensurate benefits; (2) eligibility, subject to Mr. Tal’s continued employment with the Company, to earn an annual performance based bonus in the target of 60% of his Base Salary; (3) eligibility, also subject to Mr. Tal’s continued employment with the Company, to participate in the Company’s 2013 Equity Incentive Plan, the Company 2021 Incentive Plan, or any successor plan, subject to the terms of such plan; and (4) entitlement, also subject to Mr. Tal’s continued employment with the Company, to reimbursement for all reasonable and necessary out-of-pocket business, entertainment, and travel expenses incurred by Mr. Tal in connection with the performance of Mr. Tal’s duties as the Company’s Chief Executive Officer and the Company’s expense reimbursement policies and procedures.

The agreement also provides for severance to In the event the Company terminates Mr. Tal's employment without Cause (as defined in the Employment Agreement) or if Mr. Tal pursuant to resigns for Good Reason (as defined in the terms described therein Employment Agreement) other than during the Protection Period (as defined below), and the extension of the post termination exercise period of stock options held by provided Mr. Tal upon the termination of his employment, upon the terms and complies with certain other conditions outlined in the Agreement.
Ben Landen Employment Agreement, the Company will pay Mr. Tal severance, as outlined in the Employment Agreement, comprising of: (a) the continued payment of his base salary for the first twelve months following the termination date, payable in accordance with the Company's standard payroll procedures; (b) a lump sum payment equal to the pro-rated amount of Mr. Tal's target annual bonus for the year of termination; (c) reimbursement of Mr. Tal for medical, vision and dental coverage under Consolidated Omnibus Budget Reconciliation Act of 1985, as amended or comparable state law ("COBRA") for the first twelve months after the termination date; and (d) acceleration of the vesting of each of the Mr. Tal's then-outstanding time-based equity awards as to 25% of the then-unvested shares subject to each such award, effective as of the termination date.

In addition, pursuant to the Employment Agreement, if immediately prior to, on or within 12 months after a Change of Control (the "Protection Period"), the Company terminates Mr. Tal's employment without Cause (as defined in the Employment Agreement), or if Mr. Tal resigns for Good Reason (as defined in the Employment Agreement) during the Protection Period, the Company will pay Mr. Tal severance, as outlined in the Employment Agreement, comprising of: (a) a lump sum payment equal to eighteen months of Mr. Tal's base salary as in effect on the date of his termination; (b) a lump sum payment equal to 150% of Mr. Tal's target annual bonus as in effect on the date of his termination, payable on the 60th day following the termination date; (c) reimbursement to Mr. Tal for medical, vision and dental coverage under COBRA for the first eighteen months after the termination date; and (d) acceleration of the vesting of each of the Mr. Tal's then-outstanding time-based equity awards in full, effective as of the termination date.

Mr. Tal's receipt of any severance payments or benefits will be subject to Mr. Tal's continuing to comply with the terms of that certain Confidential Information Agreement and the provisions of the Employment Agreement.

Ben Landen

On September 19, 2019, we entered into an immediately effective offer letter with Mr. Ben Landen. Pursuant to Mr. Landen's offer letter, he will serve as our Senior Director of Business and Corporate Development. Mr. Landen's offer letter shall continue until terminated by either the Company or Mr. Landen. Pursuant to Mr. Landen's offer letter, he will receive (i) an annual base salary of $220,000, and (ii) an option to purchase 150,000 shares of the Company's common stock at an exercise price of $0.23 per share, which is based on the Board of Directors-approved fair market valuation as of March 31, 2019, as determined by an independent financial consultant. The option shall vest and become exercisable over a four-year period with 25% vesting on the one-year anniversary of Mr. Landen's employment start date and the balance vesting equally after each additional one-month period for continuous service completed over the following 36 months, subject to and in accordance with the terms of the Company's 2013 Stock Incentive Plan. Mr. Landen's options expire in November, 2029. The offer letter contains customary provisions relating to vacation, benefits, and non-compete. Subsequent to Mr. Landen's offer letter on December 24, 2021, his annual base salary was increased to $250,000.

Donald Alvarez

On May 28, 2021, we entered into an offer letter with Mr. Donald Alvarez, effective June 1, 2021. Pursuant to Mr. Alvarez’s offer letter, he serves as our Chief Financial Officer. Mr. Alvarez’s offer letter shall continue until terminated by either the Company or Mr. Alvarez. Pursuant to Mr. Alvarez’s offer letter, he will receive (i) an annual base salary of $250,000 for his first year of employment, which annual base salary will increase to $300,000 upon the completion by the Company of an initial public offering, and (ii) a stock option to purchase 400,000 shares of the Company’s common stock at an exercise price of $2.88 per share, which option shall vest and become exercisable over a four-year period with 25% vesting on the one-year anniversary of Mr. Alvarez’s employment start date and the balance vesting equally after each additional one-month period for continuous service completed over the following 36 months, subject to and in accordance with the terms of the Company’s 2013 Stock Incentive Plan. Mr. Alvarez’s options will expire in June 2031. The offer letter contains customary provisions relating to vacation, benefits, and non-compete.

Severance and Change of Control Agreements

We have entered into a Severance and Change of Control Agreements (the “Severance Agreement”) with Ben Landen, our Vice-President of Business Development. The Severance Agreement provides for a lump sum payment to the officer if the Company terminates the officer’s employment without Cause (as defined in the Severance Agreement), or if the officer terminates its employment for Good Reason (as defined in the Severance Agreement) or in the case of a Change of Control (as defined in the Severance Agreement) of the Company. The term, Change of Control, includes the acquisition of Common Stock of the Company resulting in one person or company owning more than 50% of the outstanding shares, a merger, consolidation or similar transaction resulting in the transfer of ownership of more than fifty percent (50%) of the Company’s outstanding Common Stock, or a liquidation or dissolution of the Company or sale of substantially all of the Company's assets.

In the event that, other than during a Change of Control Period (as defined below), the Company terminates the officer’s employment without Cause (as defined in the Severance Agreement), or if the officer terminates his employment for Good Reason (as defined in the Severance Agreement), or in the event of a qualifying termination within sixty days before or six months following the consummation of a Change of Control (as such events are defined in the Severance Agreement) (the “Change of Control Period”), then the Company shall pay the officer a lump sum amount equal to (i) six months of the officer’s then current base salary, plus (ii) the annual bonus the officer is eligible to receive for the calendar year in which the officer’s termination occurs assuming Company performance is achieved at target (100% for both Company and personal performance) and pro-rated based on the officer’s termination date, which will be payable within the period of time set forth in the Severance Agreement following the termination of employment, and (iii) 6 months of COBRA premium payments based on the coverages in effect as of the date of the officer’s termination of employment. All of the officer’s severance benefits are subject to his execution of a release in a form reasonably acceptable to the Company.

Outstanding Equity Awards at Fiscal Year-End

The following table discloses information regarding outstanding equity awards granted or accrued as of December 31, 2022 December 31, 2023, for our named executive officers.

Outstanding Equity Awards	**Outstanding Equity Awards**						**Outstanding Equity Awards**					
	Option Awards				**Stock Awards**		**Option Awards**				**Stock Awards**	
Name	**Number of Securities Underlying Unexercised Options (#) Vested**	**Number of Securities Underlying Unexercised Options (#) Unvested**	**Option Exercise Price ($)**	**Option Expiration Date**	**Number of Shares or Units of Stock that have not Vested (#)**	**Market Value of Shares or Units of Stock that have not Vested ($)**	**Number of Securities Underlying Unexercised Options (#) Vested**	**Number of Securities Underlying Unexercised Options (#) Unvested**	**Option Exercise Price ($)**	**Option Expiration Date**	**Number of Shares or Units of Stock that have not Vested (#)**	**Market Valu of Shares o Units of Stock that have no Vested ($)**
Lior Tal (Chief Executive Officer)	2,878,004	—	$ 0.13	4/5/27; 3/22/28	—	—	3,378,004	—	$ 0.13	4/5/27; 3/22/28	—	—
	1,987,000	—	$ 0.22	5/30/28	—	—	1,987,000	—	$ 0.22	5/30/28	—	—
	566,667	1,033,333	$ 2.88	7/25/31	—	—	883,333	716,667	$ 2.88	7/25/31	—	—
	47,187	2,217,813	$ 0.9775	11/7/32	—	—	613,437	1,651,563	$ 0.9775	11/7/32	—	—
							19,000	893,000	$ 0.2505	11/6/33		
Donald Alvarez Chief Financial Officer)	150,000	250,000	$ 2.88	7/25/31	—	—	250,000	150,000	$ 2.88	7/25/31	—	—
							128,645	346,355	$ 0.9775	11/7/32		
	9,895	465,105	$ 0.9775	11/7/32			4,000	188,000	$ 0.2505	11/6/33		
Ben Landen (Vice President of Business Development)	81,875	28,125	$ 0.23	11/4/29	—	—	150,000	-	$ 0.23	11/4/29	—	—
	35,416	64,584	$ 2.88	7/25/31			60,416	39,584	$ 2.88	7/25/31		
	—	50,000	$ 1.45	3/21/32			21,875	28,125	$ 1.45	3/21/32		
	5,375	252,625	$ 0.9775	11/7/32	—	—	69,875	188,125	$ 0.9775	11/7/32	—	—
							2,062	96,937	$ 0.2505	11/6/33		

Compensation of Directors

Each of our independent directors receives annual cash compensation of $35,000. In addition, the chairperson of the Audit Committee, Compensation Committee and Nominating and Governance Committee receives an annual compensation of $20,000, $15,000 and $10,000, respectively; and the lead independent director receives an annual cash compensation of $15,000. Each independent director receives (i) an initial award of $270,000 in restricted stock units of the Company to which shall be awarded on May 1st of each fiscal year and which will vest monthly over three (3) years, and (ii) an annual award of $180,000 in restricted stock units of the Company, which shall be granted on May 1st of each fiscal year and which will vest in its entirety one (1) year from the grant date.

The following table sets forth the summary compensation information (described above) for each of our non-employee directors for the fiscal year ended December 31, 2022 December 31, 2023:

DIRECTOR COMPENSATION	**DIRECTOR COMPENSATION**							**DIRECTOR COMPENSATION**					
Name	**Fees Earned or Paid in Cash ($)**	**Stock Awards ($)**	**Option Awards ($)**	**Non-Equity Incentive Plan Compensation ($)**	**Nonqualified Deferred Compensation Earnings ($)**	**All Other Compensation ($)**	**Total ($)**	**Fees Earned or Paid in Cash ($)**	**Stock Awards ($)**	**Option Awards ($)**	**Non-Equity Incentive Plan Compensation ($)**	**Nonqualified Deferred Compensation Earnings ($)**	**All Othe Compensa ($)**
Karen Macleod	50,000	10,365	-	-	-	-	60,365	50,000	47,399	-	-	-	
Colleen Cunningham	55,000	10,365	-	-	-	-	65,365	55,000	47,399	-	-	-	
James McDonnell	60,000	10,365	-	-	-	-	70,365	60,000	47,399	-	-	-	

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table sets forth certain information with respect to the beneficial ownership of our voting securities as of March 15, 2023 February 29, 2024 by (i) any person or group beneficially owning more than 5% 10% of any class of voting securities; (ii) our directors, and; (iii) each of our named executive officers; and (iv) all executive officers and directors as a group as of the date of March 15, 2023 February 29, 2024. The information presented below regarding beneficial ownership of our voting securities has been presented in accordance with the rules of the Securities and Exchange Commission and is not necessarily indicative of ownership for any other purpose. Under these rules, a person is deemed to be a "beneficial owner" of a security if that person has or shares the power to vote or direct the voting of the security or the power to dispose or direct the disposition of the security. A person is deemed to own beneficially any security as to which such person has the right to acquire sole or shared voting or investment power within 60 days through the conversion or exercise of any convertible security, warrant, option or other right. More than one person may be deemed to be a beneficial owner of the same securities. Unless otherwise indicated, the address of all listed stockholders is c/o Cyngn Inc., 1015 O'Brien Drive, Menlo Park, CA 94025.

Name of Beneficial Owner	**Common Stock Beneficially Owned**	**Percentage of Common Stock[(1)]**	**Common Stock Beneficially Owned**	**Percentage of Common Stock[(1)]**
Directors and Officers:				
Lior Tal(2)	6,348,129	16.04 %	7,262,191	8.16 %
Donald Alvarez(3)	251,041	0.74 %	471,562	0.57 %
Ben Landen(4)	227,041	0.67 %	350,478	0.42 %
Karen Macleod(5)	56,422	017 %	90,541	0.11 %
Colleen Cunningham(6)	46,553	0.14 %	79,297	0.10 %
James McDonnell(7)	46,553	0.14 %	79,297	0.10 %
All Executive Officers and Directors as a Group (6 persons)	6,975,739	17.90 %	8,333,366	9.46 %
Beneficial owners of more than 5%:				
Beneficial owners of more than 10%:				
Entities affiliated with Benchmark(8)	9,238,787	27.40 %	10,162,667	12.35 %
Andreessen Horowitz Fund III, L.P(9)	5,234,828	15.52 %		
Entities affiliated with Redpoint(10)	2,463,851	7.31 %		

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(1) We have based our calculation of the percentage of beneficial ownership on 33,719,592 82,287,127 shares of common stock outstanding on March 15, 2023 February 29, 2024. We have deemed shares of common stock subject to stock options that are currently exercisable or exercisable within 60 days of March 15, 2023 February 29, 2024 to be outstanding and to be beneficially owned by the person holding the stock option for the purpose of computing the percentage ownership of that person. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

(2) Includes 500,000 550,000 shares of common stock held directly and 5,848,129 6,712,191 shares of common stock issuable upon the exercise of stock options that are exercisable within 60 days of March 15, 2023 February 29, 2024.

(3) Represents shares of common stock underlying 251,041 471,562 options to purchase shares of common stock of the Company which are vested and currently exercisable and shares underlying options which will become exercisable within 60 days of March 15, 2023 February 29, 2024.

(4) Includes 40,000 44,000 shares of common stock held directly and 187,041 306,478 options to purchase shares of common stock of the Company which are vested and currently exercisable and shares underlying options which will become exercisable within 60 days of March 15, 2023 February 29, 2024.

(5) Represents shares of common stock underlying 56,422 90,541 options to purchase shares of common stock of the Company which are vested and currently exercisable and shares underlying options which will become exercisable within 60 days of March 15, 2023 February 29, 2024.

(6) Represents shares of common stock underlying 46,553 79,297 options to purchase shares of common stock of the Company which are vested and currently exercisable and shares underlying options which will become exercisable within 60 days of March 15, 2023 February 29, 2024.

(7) Represents shares of common stock underlying 46,553 79,297 options to purchase shares of common stock of the Company which are vested and currently exercisable and shares underlying options which will become exercisable within 60 days of March 15, 2023 February 29, 2024.

(8) Based solely on a Schedule 13G filed with the SEC on February 14, 2022 February 13, 2024 by entities and individuals affiliated with Benchmark. Represents 9,238,787 10,162,667 shares, of which 239,529 263,483 are directly owned by Benchmark Capital Partners VI, L.P. (“BCP VI”), 14,980 16,478 are directly owned by Benchmark Founders’ Fund VI, L.P. (“BFF VI”), 9,832 10,815 are directly owned by Benchmark Founders’ Fund VI-B, L.P. (“BFF VI-B”), 25,821 28,403 are held in nominee form for the benefit of persons associated with Benchmark Capital Management Co. VI, L.L.C. (“BCMC VI”), 7,111,971 7,823,167 are directly owned by Benchmark Capital Partners VII, L.P. (“BCP VII”), 789,847 868,833 are directly owned by Benchmark Founders’ Fund VII, L.P. (“BFF VII”) and 1,046,807 1,151,488 are directly owned by Benchmark Founders’ Fund VII-B, L.P. (“BFF VII-B”). BCMC VI is the general partner of BCP VI, BFF VI and BFF VI-B, and BCMC VII is the general partner of BCP VII, BFF VII and BFF VII-B. Matthew R. Cohler (“Cohler”), a member of BCMC VI and BCMC VII, may be deemed to have shared power to dispose of the shares held directly by these entities. BCMC VI, the general partner of BCP VI, BFF VI and BFF VI-B, may be deemed to have sole power to vote and sole power to dispose of shares of the Company directly owned by BCP VI, BFF VI and BFF VI-B. BCMC VII, the general partner of BCP VII, BFF VII and BFF VII-B, may be deemed to have sole power to vote and sole power to dispose of shares of the Company directly owned by BCP VII, BFF VII and BFF VII-B. Alexandre Balkanski (“Balkanski”), Matthew R. Cohler (“Cohler”), Bruce W. Dunlevie (“Dunlevie”), Peter Fenton (“Fenton”), J. William Gurley (“Gurley”), Keven R. Harvey (“Harvey”), Robert C. Kagle (“Kagle”) and Mitchell H. Lasky (“Lasky”) are members of BCMC VI and may be deemed to have shared power to vote and shared power to dispose of shares of the Company directly owned by BCP VI, BFF VI and BFF VI-B. Cohler, Dunlevie, Fenton, Gurley, Harvey and Lasky are members of BCMC VII and may be deemed to have shared power to vote and shared power to dispose of shares of the Company directly owned by BCP VII, BFF VII and BFF VII-B. The principal business address for each of these entities and individuals is 2965 Woodside Road, Woodside, California 94062. Mr. Lasky previously served as a director of the Company through August 9, 2022.

(9) Based solely on a Schedule 13G filed with the SEC on February 14, 2022 by entities and individuals affiliated with Andreessen Horowitz Fund III, L.P. (“AH III”). Represents 5,234,828 shares of common stock, all of which are held of record by AH III. The address of the stockholder is Andreessen Horowitz Fund III, L.P. 2865 Sand Hill Road, Suite 101 Menlo Park, CA 94025 Attn: Robin Casey. Marc Andreessen and Ben Horowitz share voting and dispositive power over the securities held by the stockholder.

(10) Based solely on a Schedule 13G filed with the SEC on February 11, 2022 by entities affiliated with Redpoint. Represents (i) 2,402,255 shares of common stock, held of record by Redpoint Ventures IV, L.P. (“RV IV”) and (ii) 61,596 shares of common stock held of record by Redpoint Associates IV, L.L.C. (“RA IV,” and together with RV IV, the “Redpoint Entities”). Redpoint Ventures IV, LLC (“RV IV LLC”) is the sole general partner of RV IV and the managers of RV IV LLC commonly control RA IV. Voting and dispositive decisions with respect to the shares held by RV IV and RA IV are made by the managers of RV IV LLC and RA IV: W. Allen Beasley, Jeffrey D. Brody, Satish Dharmaraj, R. Thomas Dyal, Timothy M. Haley, Christopher B. Moore, Scott C. Raney, John L. Walecka and Geoffrey Y. Yang. The address for each of the Redpoint Entities is 2969 Woodside Road, Woodside, CA 94062.

Securities Authorized for Issuance under Equity Compensation Plans

In October 2021, our Board of Directors adopted the Cyngn Inc. 2021 Equity Incentive Plan (the “2021 Plan”) and the 2021 Plan was submitted to our stockholders for approval. Our 2021 Plan became effective immediately on adoption. Our 2021 Plan replaces our 2013 Plan. However, awards outstanding under our 2013 Plan will continue to be governed by their existing terms. Our 2021 Plan has the features described below.

Share Reserve. The number of shares of our common stock available for issuance under our 2021 Plan is 1,500,000 8,500,000 plus up to 8,500,000 shares common stock that are reserved and not yet issued or subject to awards granted under the 2013 Plan or that have subsequently forfeited, expire or lapse unexercised or unsettled. There will also be an annual increase to be added as of the first day of the Company’s fiscal year beginning in 2022 equal to the least of (i) 5% of the outstanding common stock Common Stock on a fully diluted basis as of the end of the Company’s immediately preceding fiscal year, (ii) 1,000,000 2,500,000 shares, and (iii) a lesser amount determined by the board; Board; provided, however, that any shares from any such increases in previous years that are not actually issued shall continue to be available for issuance under the 2021 Plan.

Notwithstanding any other provisions in the 2021 Plan, we may cancel any award, require reimbursement of any award by a participant, and effect any other right of recoupment of equity or other compensation provided under the 2021 Plan in accordance with any Company policies that may be adopted and/or modified from time to time (the “Clawback Policy”). In addition, a participant may be required to repay to us previously paid compensation, whether provided pursuant to the 2021 Plan or an award agreement, in accordance with the Clawback Policy.

As of December 31, 2022 December 31, 2023 and 2021, 2022, the number of shares of common stock were reserved and available for issuance under the 2021 Plan is 661,280 and 3,583,173, and 10,502,696, respectively.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)
Equity compensation plans approved by security holders	17,503,253	$ 1.04	42,527
Equity compensation plans not approved by security holders	—	$ —	$ —
December 31, 2023 Total	17,503,253		$ 42,527

Item 13. Certain Relationships and Related Transactions, and Director Independence

Other than as set forth below and compensation arrangements, including employment, and indemnification arrangements, discussed, there have been no transactions since January 1, 2020, the beginning of our last fiscal year, in which the amount involved in the transaction exceeded or will exceed the lesser of $120,000 or one percent of the average of our total assets as at the year-end for the last two completed fiscal years, and to which any of our directors, executive officers or beneficial holders of more than 5% of our capital stock, or any immediate family member of, or person sharing the household with, any of these individuals, had or will have a direct or indirect material interest.

Amended and Restated Investor Rights Agreement

We are parties to that certain second amended and restated investor rights agreement dated December 24, 2014, entered into with our certain of our stockholders, including an entity with which a former director is affiliated. These stockholders are entitled to rights with respect to the registration of their shares following our initial public offering.

Indemnification Agreements

Indemnification Agreements

On October 29, 2021, the Board of Directors entered into indemnification agreements with each of its directors and executive officers (the “D&O Indemnification Agreements”). The D&O Indemnification Agreements provide that the Corporation will indemnify each of its directors, executive officers, and such other key employees against any and all expenses incurred by that director or executive officer because of his or her status as one of the Corporation’s directors or executive officers, to the fullest extent permitted by Delaware law and the Corporation’s amended and restated certificate of incorporation. In addition, the D&O Indemnification Agreements provide that, to the fullest extent permitted by Delaware law, the Corporation will advance all expenses incurred by its directors, executive officers, and other key employees in connection with a legal proceeding involving his or her status as a director, executive officer, or key employee.

Limitation of Liability and Indemnification of Officers and Directors

Our certificate of incorporation, as amended and restated, limits the liability of directors to the maximum extent permitted by Delaware General Corporation Law (the “DGCL”). The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors.

Our bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by law, and may indemnify employees and other agents. Our bylaws also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding.

Our bylaws, subject to the provisions of the DGCL contain provisions which allow the corporation to indemnify any person against liabilities and other expenses incurred as the result of defending or administering any pending or anticipated legal issue in connection with service to us if it is determined that person acted in good faith and in a manner which he or she reasonably believed was in the best interest of the corporation. Insofar as indemnification for liabilities arising under the Securities Act of 1933 as amended, or the Securities Act, may be permitted to our directors, officers and controlling persons, we have been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

The limitation of liability and indemnification provisions in our bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might provide a benefit to us and our stockholders. Our results of operations and financial condition may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

At present, there is no pending litigation or proceeding involving any of our directors or officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Policies and Procedures for Related Party Transactions

We have adopted a formal, written related party transactions policy that provides that transactions with directors, officers and holders of five percent or more of our voting securities and their affiliates, each a related party must be approved by our audit committee. Pursuant to this policy, the audit committee will have the primary responsibility for reviewing and approving or disapproving “related party transactions,” which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed the lesser of (i) $120,000 or (ii) one percent of the average of our total assets for the last two completed fiscal years, and in which a related person has or will have a direct or indirect material interest. For purposes of this policy, a related person will be defined as a director, executive officer, nominee for director, or greater than 5% beneficial owner of our common stock, in each case since the beginning of the most recently completed year, and their immediate family members.

Director Independence

Director Independence

The Board evaluates the independence of each nominee for election as a director of our Company in accordance with the Nasdaq Listing Rules. Pursuant to these rules, a majority of our Board must be "independent directors" within the meaning of the Nasdaq Listing Rules, and all directors who sit on our Audit Committee, Nominating and Corporate Governance Committee and Compensation Committee must also be independent directors.

Our board currently consists of five directors, Lior Tal, Donald Alvarez, Karen Macleod, Colleen Cunningham and James McDonnell. Ms. Macleod, Ms. Cunningham and Mr. McDonnell are *"independent directors"* within the meaning of the Listing Rules (the "Nasdaq Listing Rules") of the Nasdaq Stock Market ("Nasdaq").

Item 14. Principal Accountant Fees and Services

The following table summarizes the fees billed by Marcum LLP for the fiscal years ended December 31, 2022 December 31, 2023 and 2021, 2022, inclusive of out-of-pocket expenses. All fees described below were pre-approved by the audit committee.

	Year Ended December 31,		Year Ended December 31,	
Fee Category	**2022**	**2021**	**2023**	**2022**
Audit fees(1)	$ 230,000	$ 185,482	$ 230,000	$ 230,000
Audit-related fees(2)	27,000	74,852	128,800	38,011
All other fees(3)	11,011	7,290		
Total fees	$ 268,011	$ 267,624	$ 358,800	$ 268,011

(1) Audit fees consist of fees for professional services rendered in connection with the annual audit of our consolidated financial statements, the review of our quarterly condensed consolidated financial statements and consultations on accounting matters directly related to the audit.

(2) Audit-related fees consist of fees for professional services rendered in connection with the submission of our Registration Statements on Form S-3 and Form S-8

(3) All other fees consist of fees related to S-1 and engagement administration.

PART IV

Item 15. Exhibits, Financial Statement Schedules

a) Financial Statements

1) Financial statements for our Company are listed in the index under Item 8 of this document.

2) All financial statement schedules are omitted because they are not applicable, not material or the required information is shown in the financial statements or notes thereto.

b) Exhibits

Exhibit Number	Description
3.1	Fourth Amended and Restated Certificate of Incorporation of Registrant incorporated by reference to Exhibit 3.1 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
3.2	Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of Registrant incorporated by reference to Exhibit 3.2 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
3.3	Second Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of Registrant incorporated by reference to Exhibit 3.3 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
3.4	Third Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of Registrant incorporated by reference to Exhibit 3.4 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
3.5	Fourth Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation of Registrant incorporated by reference to Exhibit 3.5 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
3.6	Fifth Amended and Restated Certificate of Incorporation of Registrant incorporated by reference to Exhibit 3.6 to the Company's Quarterly Report on Form 10-Q filed with the SEC on November 19, 2021.
3.7	Certificate of Amendment to the Fifth Amended and Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit 3.8 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-275530) filed with the SEC on November 28, 2023.
3.8	Amended and Restated Bylaws of Registrant, incorporated by reference to Exhibit 3.8 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
4.1	Description of Registrant's Securities (filed as Exhibit 4.1 to the Company's Annual Report on Form 10-K for year ended December 31, 2021)
10.1	Offer Letter between the Company and Ben Landen dated as of September 18, 2019 incorporated by reference to Exhibit 10.2 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
10.2	Offer Letter between the Company and Donald Alvarez dated as of May 28, 2021 incorporated by reference to Exhibit 10.3 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
10.3	2013 Equity Incentive Plan incorporated by reference to Exhibit 10.4 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
10.4	2021 Incentive Plan incorporated by reference to Exhibit 10.5 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
10.5	Amendment to 2021 Equity Incentive Plan incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-8 filed with the SEC on January 31, 2024.
10.6	Second Amended and Restated Investors' Rights Agreement dated as of December 24, 2014 incorporated by reference to Exhibit 10.6 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
10.6 10.7	Form of Indemnification Agreement to be entered into with the Registrant and each of its officers and directors incorporated by reference to Exhibit 10.7 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-259278) filed with the SEC on October 15, 2021.
10.7 10.8	Employment Agreement by and between Cygn Inc. and Lior Tal dated as of January 1, 2022 incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on January 6, 2022.
10.810.9	Engagement Letter dated April 27, 2022 incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on April 29, 2022.
10.910.10	Form of Securities Purchase Agreement incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC on April 29, 2022.

10.1010.11	Form of Warrant incorporated by reference to Exhibit 10.3 to the Company’s Current Report on Form 8-K filed with the SEC on April 29, 2022.
10.1110.12	Form of Registration Rights Agreement incorporated by reference to Exhibit 10.4 to the Company’s Current Report on Form 8-K filed with the SEC on April 29, 2022.
10.1210.13	Form of Pre-Funded Warrants incorporated by reference to Exhibit 10.5 to the Company’s Current Report on Form 8-K filed with the SEC on April 29, 2022.
21.1* 10.14	ATM Sales Agreement by and between the Company and Virtu Americas LLC, dated May 31, 2023 incorporated by reference to Exhibit 1.2 to the Company’s Registration Statement on Form S-3 filed with the SEC on May 31, 2023
10.15	Placement Agent Agreement between the Company and Aegis Capital Corp. dated December 8, 2023 incorporated by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed with the SEC on December 11, 2023
10.16	Form of Pre-funded Warrant incorporated by reference to Exhibit 10.2 to the Company’s Current Report on Form 8-K filed with the SEC on December 11, 2023
10.17*	Form of Severance and Change of Control Agreement
21.1*	List of Subsidiaries of the Registrant
23.1*	Consent of Marcum LLP
31.1*	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act, as amended.
31.2*	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act, as amended.
32.1**	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Rules 13a-14(b) or 15d-14(b) of the Securities Exchange Act, as amended, and 18 U.S.C. Section 1350.
97*	Cyngn Inc. Clawback Policy, effective November 7, 2023
101.INS	Inline XBRL Instance Document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Filed herewith.

** Furnished herewith.

Item 16. Form 10-K Summary

None.

SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CYNGN INC.

By: /s/ Lior Tal
Lior Tal
Chief Executive Officer and
Chairman of the Board
(Principal Executive Officer)

Date: March 7, 2024
March
16, 2023

In accordance with the Exchange Act, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	**Title**	**Date**
/s/ Lior Tal	Chief Executive Officer and Director	March 16, 2023 7, 2024
Lior Tal	(Principal Executive Officer)	
/s/ Donald Alvarez	Chief Financial Officer and Director	March 16, 2023 7, 2024
Donald Alvarez	(Principal Financial Officer)	
/s/ Karen Macleod	Director	March 16, 2023 7, 2024
Karen Macleod		
/s/ Colleen Cunningham	Director	March 16, 2023 7, 2024
Colleen Cunningham		
/s/ James McDonnell	Director	March 16, 2023 7, 2024
James McDonnell		

Exhibit 10.17

Severance and Change of Control Agreement

This Severance and Change of Control Agreement (the “Agreement”) is made and entered into, effective as of ________ (the “Effective Date”), by and between Cyngn Inc. (the “Company”), and ______________ (“Employee”).

Upon acceptance of this Agreement, the following terms and conditions shall apply to your employment:

1.Term of Employment and Severance Benefits.

It is important for you to understand that California is an “at will” employment state. This means that you will have the right to terminate your employment relationship with the Company at any time for any reason. Similarly, the Company will have the right to terminate its employment relationship with you at any time for any reason. Your employment and this Agreement will be governed by the laws of California, without regard to the conflict of law rules thereof. Notwithstanding the foregoing, in the event that, other than during a Change of Control Period (as defined below), the Company terminates your employment without Cause (as defined below), or if you terminate your employment for Good Reason (as defined below), then the Company shall pay you a lump sum amount equal to (i) Six (6) months of your then current base salary, plus (ii) the annual bonus you are eligible to receive for the calendar year in which your termination occurs assuming Company performance is achieved at target (100% for both Company and personal performance) and pro-rated based on your termination date, which will be payable within the period of time set forth in Section 3 below following your termination of employment. In addition, the Company will directly pay, or reimburse you for, the premium cost for you and your dependents of medical and dental insurance benefits to the extent you were receiving such benefits immediately prior to your termination date from the date of your termination of employment through the earlier of the six month anniversary of the termination of your employment, or the date you become eligible for medical and dental insurance benefits from a subsequent employer, provided, that, if you are eligible, you timely elect “COBRA” coverage under the Company group health insurance plan under which coverage was being provided to you at the time when your employment terminates. If the Company determines that it is unable or it is inadvisable to provide such medical and dental insurance benefits or “COBRA” coverage is not available to you as of the time when your employment is terminated, then the Company will pay to you a lump sum equal to the premium cost of the benefits provided for the six months prior to your termination, payable within the period of time set forth in Section 3 below following your termination of employment.

2.Termination in Connection with a Change of Control.

In the event that within sixty (60) days before or six (6) months following the consummation of a Change of Control (as defined below) (the “Change of Control Period”), the Company, or any successor thereto, terminates your employment without Cause or you terminate your employment for Good Reason, then the Company shall (i) pay a lump sum amount equal to six (6) months of your then current base salary (without giving any effect to any reduction thereof which may constitute Good Reason), which will be payable within the period of time set forth in Section 3 below following your termination of employment, (ii) pay a lump sum amount equal to six (6) months of the annual bonus you are eligible to receive for the current calendar year assuming performance is achieved at target (100% for both Company and personal performance) and, which will be payable within the period of time set forth in Section 3 below following your termination of employment. In addition, the Company will pay, or reimburse you for, the premium cost for you and your dependents of medical and dental insurance benefits to the extent you were receiving such benefits immediately prior to your termination date from the date of your termination of employment through the earlier of the six (6) month anniversary of the termination of your employment or the date you become eligible for medical and dental insurance benefits from a subsequent employer, provided that, if you are eligible, you timely elect “COBRA” coverage under the Company group health insurance plan under which coverage was being provided to you at the time when your employment terminates. If the Company is unable or determines it is inadvisable to provide such medical and dental insurance benefits or “COBRA” coverage is not available to you as of the time when your employment is terminated, then the Company will pay to you a lump sum equal to the premium cost of the benefits provided for the six (6) months prior to your termination, payable within the period of time set forth in Section 3 below following your termination of employment.

3.Release.

The Company's obligations to make such payments and provide such benefits shall be contingent upon your execution of a release in a form reasonably acceptable to the Company (the "Release") which Release must be signed, delivered to the Company and any applicable revocation period with respect thereto must have expired by the 30th day following your termination of employment (unless your termination is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), in which case the date shall be by the 52nd day following your termination of employment). The Release will not waive any of your rights, or obligations of the Company, regarding: (1) any right to indemnification and/or contribution, advancement or payment of related expenses you may have pursuant to the Company's Bylaws, Articles of Incorporation, under any written indemnification or other agreement between the parties, and/or under applicable law; (2) any rights that you may have to insurance coverage under any directors and officers liability insurance, other insurance policies of the Company, COBRA or any similar state law; (3) any claims for worker's compensation, state disability or unemployment insurance benefits, or any other claims that cannot be released as a matter of applicable law; (4) rights to any vested benefits under any stock, compensation or other employee benefit plan of the Company; (5) any rights you may have as an existing shareholder of the Company; and (6) any claims arising after the effective date of the Release. Nothing in the Release or any other agreement between you and the Company will prohibit or prevent you from providing truthful testimony or otherwise responding accurately and fully to any question, inquiry or request for information or documents when required by legal process, subpoena, notice, court order or law (including, without limitation, in any criminal, civil, or regulatory proceeding or investigation), or as necessary in any action for enforcement or claimed breach of this Agreement or any other legal dispute with the Company. If the Release has been signed, delivered and any applicable revocation period has expired prior to the 30th day (or 52nd day, as applicable) following your termination of employment, then the severance payments above may be made on such earlier date; provided, however, that if the 30th day (or 52nd day, as applicable) following your termination of employment occurs in the calendar year following the year of your termination date, then the payments shall not be made earlier than January 1 of such subsequent calendar year.

4.Section 280G of the Internal Revenue Code ("Code").

(a) Notwithstanding anything in this Agreement to the contrary, if any payment, distribution, or other benefit provided by the Company to or for the benefit of you, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (collectively, the "Payments"), (x) constitutes a "parachute payment" within the meaning of Section 280G of the Code, and (y) but for this Section 4 would be subject to the excise tax imposed by Section 4999 of the Code or any similar or successor provision thereto (the "Excise Tax"), then the Payments shall be either: (i) delivered in full pursuant to the terms of this Agreement, or (ii) delivered to such lesser extent as would result in no portion of the payment being subject to the Excise Tax, as determined in accordance with Section 4(b).

(b) The determination of whether Section 4(a)(i) or Section 4(a)(ii) shall be given effect shall be made by the Company on the basis of which of such clauses results in the receipt by you of the greater Net After-Tax Receipt (as defined herein) of the aggregate Payments. The term "Net After-Tax Receipt" shall mean the present value (as determined in accordance with Section 280G of the Code) of the payments net of all applicable federal, state and local income, employment, and other applicable taxes and the Excise Tax.

(c) If Section 4(a)(ii) is given effect, the reduction shall be accomplished in accordance with Section 409A of the Code and the following: first by reducing, on a pro rata basis, cash Payments that are exempt from Section 409A of the Code; second by reducing, on a pro rata basis, other cash Payments; and third by forfeiting any equity-based awards that vest and become payable, starting with the most recent equity-based awards that vest, to the extent necessary to accomplish such reduction.

(d) Unless the Company and Employee otherwise agree in writing, any determination required under this Section 4 shall be made by the Company's independent accountants or compensation consultants (the "Third Party"), and all such determinations shall be conclusive, final and binding on the parties hereto. The Company and Employee shall furnish to the Third Party such information and documents as the Third Party may reasonably request in order to make a determination under this Section 4. The Company shall bear all fees and costs of the Third Party with respect to all determinations under or contemplated by this Section 4.

5. Definitions

For purposes of this Agreement, a “Change of Control” shall mean the occurrence of any of the following events, provided that such event or occurrence constitutes a change in the ownership or effective control of the Company, or a change in the ownership of a substantial portion of the assets of the Company, as defined in Treasury Regulation §§ 1.409A-3(i)(5)(v), (vi), and (vii): (i) any merger that results in the voting securities of the Company outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 50% of the combined voting power of the voting securities of the Company or such surviving or acquiring entity outstanding immediately after such merger or consolidation; (ii) any sale of all or substantially all of the assets of the Company; (iii) the complete liquidation or dissolution of the Company; or (iv) the acquisition of “beneficial ownership” (as defined in Rule 13d-3 under the Exchange Act) of securities of the Company representing 50% or more of the combined voting power of the Company’s then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from the Company) by any “person,” as such term is used in Sections 13(d) and 14(d) of the Exchange Act, or combination of persons, other than the Company, any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportion as their ownership of stock of the Company.

For purposes of this Agreement, “Cause” shall mean (a) your failure to substantially perform your duties for the Company or your failure to perform the duties assigned to you with appropriate diligence, effort and skill (other than such failure resulting from your incapacity due to physical or mental illness); (b) your commission or engagement in an act of theft, embezzlement, dishonesty or fraud, a breach of confidentiality, an unauthorized disclosure or use of inside information, customer lists, trade secrets or other confidential information; (c) your breach of any fiduciary duty to the Company, material violation of any other duty, law, rule, or regulation relating to the performance of your duties to the Company or breach of any policy of the Company or its successor; (d) your commission of a felony or any crime involving moral turpitude; (e) your breach of any confidentiality agreement or proprietary information agreement with the Company or your material breach of any other agreement with the Company or its successor; (f) your willful engagement in unfair competition with the Company or its successor or your willful misconduct that injures the reputation, business or assets of the Company or its successor; or (g) your inducement of a vendor or customer to break or terminate any material contract with the Company or its successor or your inducement of a principal for whom the Company or its successor acts as agent to terminate such agency relationship.

For purposes of this Agreement, “Good Reason” shall mean the occurrence of any of the following events or circumstances without your written consent: (i) a material diminution in your base compensation; (ii) a material diminution in your authority, duties or responsibility which is not as a result of your performance; or (iii) a material breach by the Company of this Agreement or any other material written agreement between you and the Company.

In order to establish a “Good Reason” for terminating employment, you must deliver written notice to the Company of the existence of the condition giving rise to the Good Reason within 90 days of the initial existence of such condition, the Company must fail to cure the condition within 30 days of its receipt of your written notice, and your termination of employment must occur no later than 30 days following the expiration of that 30-day cure period.

6. Section 409A

All severance or change of control payments are intended to be exempt from or, if not, shall be made in full compliance with Section 409A of the Code (“Section 409A”) and shall begin only upon the date of your “separation from service” (as defined below), which occurs on or after the date of termination of the employment relationship, and shall be subject to the rules set forth below.

(a) It is intended that each installment, if any, of the severance or change of control payments and benefits provided under this Agreement shall be treated as a separate “payment” for purposes of Section 409A and the guidance issued thereunder. Neither you nor the Company shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A.

(b) If, as of the date of your “separation from service” from the Company, you are not a “specified employee” (within the meaning of Section 409A), then each installment, if any, of the severance or change of control payments and benefits shall be made on the dates and terms set forth in this Agreement.

(c) If, as of the date of your “separation from service” from the Company, you are a “specified employee” (within the meaning of Section 409A), then:

(i) Each installment, if any, of the severance or change of control payments and benefits due under this Agreement that, in accordance with the dates and terms set forth herein, will in all circumstances, regardless of when the separation from service occurs, be paid within the short-term deferral period (as defined under Section 409A) and shall be treated as a short-term deferral within the meaning of Treasury Regulation Section 1.409A-l(b)(4) to the maximum extent permissible under Section 409A; and

(ii) Each installment, if any, of the severance or change of control payments and benefits due under this Agreement that is not described in paragraph (i) above and that would, absent this subsection, be paid within the six-month period following your “separation from service” from the Company shall not be paid until the date that is six months and one day after such separation from service (or, if earlier, upon your death), with any such installments that are required to be delayed being accumulated during the six-month period and paid in a lump sum on the date that is six months and one day following your separation from service and any subsequent installments, if any, being paid in accordance with the dates and terms set forth herein; provided, however, that the preceding provisions of this sentence shall not apply to any installment of severance or change of control payments and benefits if and to the maximum extent that that such installment is deemed to be paid under a separation pay plan that does not provide for a deferral of compensation by reason of the application of Treasury Regulation Section 1.409A-l(b)(9)(iii) (relating to separation pay upon an involuntary separation from service). Any installments that qualify for the exception under Treasury Regulation Section 1.409A-l(b)(9)(iii) must be paid no later than the last day of your second taxable year following the taxable year in which the separation from service occurs.

(d) The determination of whether and when your separation from service from the Company has occurred shall be made and in a manner consistent with and based on the presumptions set forth in, Treasury Regulation Section 1.409A-l(h). Solely for purposes of this paragraph (d), “the Company” shall include all persons with whom the Company would be considered a single employer under Sections 414(b) and 414(c) of the Code.

(e) All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A to the extent that such reimbursements or in-kind benefits are subject to Section 409A, including, where applicable, the requirement that (i) any reimbursement is for expenses incurred during your lifetime (or during a shorter period of time specified in this Agreement), (ii) the amount of expenses eligible for reimbursement during a calendar year may not affect the expenses eligible for reimbursement in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred and (iv) the right to reimbursement is not subject to set off or liquidation or exchange for any other benefit.

(f) If either you or the Company reasonably determines that any payment hereunder will violate Section 409A, you and the Company shall use best efforts to restructure the payment in a manner that is either exempt from or compliant with Section 409A. You and the Company agree that they will execute any and all amendments to this Agreement as may be necessary to ensure compliance with the distribution provisions of Section 409A in an effort to avoid or minimize, to the extent allowable by law, the tax (and any interest or penalties thereon) associated with Section 409A. If it is determined that a payment under this Agreement was (or may be) made in violation of Section 409A, the Company will cooperate reasonably with any effort by you to mitigate the tax consequences of such violation, including cooperation with your participation in any IRS voluntary compliance program or other correction procedure under Section 409A that may be available to you. Notwithstanding the foregoing, neither the Company nor any of its employees, directors or agents shall have any obligation to reimburse or otherwise hold the Employee harmless for any and all taxes, penalties or interest (including any imposed under Section 409A arising under this Agreement or otherwise).

7. Other Terms

This Agreement will be binding on the parties and their successors and assigns. The Company shall require any successors or assigns to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. The terms of this Agreement and all of your rights hereunder will inure to the benefit of, and be enforceable by, your personal representatives, executors, administrators, successors, heirs, distributes, devisees and legatees.

This Agreement shall be governed by and construed in accordance with California law, without regard to the conflict of law rules thereof.

If any provision of this Agreement is determined to be illegal or unenforceable, then the remainder of this Agreement nonetheless shall be fully enforceable and binding upon the parties hereto, and it is the intent of the parties that a court or arbitrator shall enforce the remainder of this Agreement to the maximum extent permitted by law. The prevailing party in any dispute concerning the interpretation or enforcement of this Agreement will be entitled to an award of his or its costs and reasonable attorneys' fees, in addition to any other eligible relief.

This Agreement (a) represents our entire understanding regarding the subject matter hereof, and supersedes and replaces all prior and contemporaneous understandings regarding such subject matter, whether oral or written and (b) may not be modified or amended, except by a written instrument executed by you and by a duly authorized officer of the Company. In the event of any conflict between any of the terms in this Agreement and the terms of any other agreement between you and the Company, the terms of this Agreement shall control.

ACCEPTANCE

The undersigned agrees to and accepts the terms and conditions set forth above.

Date:

Employee

Exhibit 21.1

Subsidiaries of the Registrant
as of December 31, 2022

Name of Subsidiary	Jurisdiction of Incorporation
Cyngn Singapore PTE. LTD.(1)	Singapore
Cyngn Philippines, Inc.(2)	Philippines

(1) Cyngn Singapore PTE. LTD. is being dissolved.

(2) Cyngn Philippines, Inc. is being dissolved.

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of Cyngn Inc. on Post-Effective Amendment No. 1 No.1 to Form S-1 on Form S-3 (File No. 333-264887), Form S-8 (File No. 333-262130), Form S-3 (File No. 333-271567) and on Form S-8 (File no. 333-262130) No. 333-276792) of our report dated March 16, 2023 March 7, 2024, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the consolidated financial statements of Cyngn Inc. as of December 31, 2022 December 31, 2023 and 2021 2022 and for the years ended December 31, 2022 December 31, 2023 and 2021, 2022, which report is included in this Annual Report on Form 10-K of Cyngn Inc. for the year ended December 31, 2022 December 31, 2023.

/s/ Marcum LLP

Marcum LLP
San Jose, Francisco, California
March 16, 2023
7, 2024

Exhibit 31.1

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULES 13A-14 AND 15D-14
OF THE SECURITIES EXCHANGE ACT OF 1934

I, Lior Tal, certify that:

1) I have reviewed this Annual Report of Cyngn Inc.;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared.

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any changes in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5) The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: March 16, 2023 March 7, 2024

/s/ Lior Tal
Lior Tal
Chief Executive Officer, Chairman of the Board of Directors and Director
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULES 13A-14 AND 15D-14
OF THE SECURITIES EXCHANGE ACT OF 1934

I, Donald Alvarez, certify that:

1) I have reviewed this Annual Report of Cyngn Inc.;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared.

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any changes in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5) The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: March 16, 2023 March 7, 2024

/s/ Donald Alvarez
Donald Alvarez
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Cyngn Inc. (“Company”) on Form 10-K for the year ending December 31, 2022 December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (“Report”), the undersigned, in the capacities and on the date indicated below, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the knowledge of each of the undersigned:

1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 16, 2023 March 7, 2024

/s/ Lior Tal
Lior Tal
Chief Executive Officer, Chairman of the Board of Directors and Director
(Principal Executive Officer)

/s/ Donald Alvarez
Donald Alvarez
Chief Financial Officer
(Principal Financial Officer)

Exhibit 97

CYNGN INC.
CLAWBACK POLICY
EFFECTIVE November 7, 2023

1. Purpose. The purpose of this CYNGN Inc. (the "Company") Clawback Policy (this "Policy") is to enable the Company to recover Erroneously Awarded Compensation from Covered Executive Officers in the event that the Company is required to prepare an Accounting Restatement. This Policy is designed to comply with, and shall be interpreted to be consistent with, Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as codified in Section 10D of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), Rule 10D-1 promulgated under the Exchange Act ("Rule 10D-1") and Listing Rule 5608 of the corporate governance rules of The Nasdaq Stock Market ("Nasdaq") (the "Listing Standards"). Unless otherwise defined in this Policy, capitalized terms shall have the meaning ascribed to such terms in Section 2.

2. Definitions. As used in this Policy, the following capitalized terms shall have the meanings set forth below.

   a. "Accounting Restatement" means an accounting restatement of the Company's financial statements due to the Company's material noncompliance with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements (i.e., a "Big R" restatement), or to correct an error that is not material to the previously issued financial statements, but that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (i.e., a "little r" restatement).

   b. "Accounting Restatement Date" means the earlier to occur of (i) the date the Board, a committee of the Board, or the officer or officers of the Company authorized to take such action if the Board's action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement and (ii) the date a court, regulator, or other legally authorized body directs the Company to prepare an Accounting Restatement.

   c. "Applicable Period" means, with respect to any Accounting Restatement, the three completed fiscal years immediately preceding the Accounting Restatement Date, as well as any transition period (that results from a change in the Company's fiscal year) within or immediately following those three completed fiscal years (except that a transition period that comprises a period of at least nine months shall count as a completed fiscal year).

   d. "Board" means the board of directors of the Company.

   e. "Code" means the U.S. Internal Revenue Code of 1986, as amended. Any reference to a section of the Code or regulation thereunder includes such section or regulation, any valid regulation or other official guidance promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing, or superseding such section or regulation.

f. "Covered Executive Officer" means an individual who is currently or previously served as the Company's principal executive officer, principal financial officer, principal accounting officer (or, if there is no such accounting officer, the controller), vice president of the Company in charge of a principal business unit, division, or function (such as sales, administration, or finance), an officer who performs (or performed) a policy-making function, or any other person who performs (or performed) similar policy-making functions for the Company or is otherwise determined to be an executive officer of the Company pursuant to Item 401(b) of Regulation S-K. An executive officer of the Company's parent or subsidiary is deemed a "Covered Executive Officer" if the executive officer performs (or performed) such policy- making functions for the Company.

g. "Erroneously Awarded Compensation" means, in the event of an Accounting Restatement, the amount of Incentive-Based Compensation previously received that exceeds the amount of Incentive-Based Compensation that otherwise would have been received had it been determined based on the restated amounts in such Accounting Restatement, and must be computed without regard to any taxes paid by the relevant Covered Executive Officer; provided, however, that for Incentive-Based Compensation based on stock price or total stockholder return, where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in an Accounting Restatement: (i) the amount of Erroneously Awarded Compensation must be based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total stockholder return upon which the Incentive-Based Compensation was received and (ii) the Company must maintain documentation of the determination of that reasonable estimate and provide such documentation to Nasdaq.

h. "Financial Reporting Measure" means any measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements and any measure that is derived wholly or in part from such measure. A Financial Reporting Measure is not required to be presented within the Company's financial statements or included in a filing with the U.S. Securities and Exchange Commission to qualify as a "Financial Reporting Measure."

i. "Incentive-Based Compensation" means any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure. Incentive-Based Compensation is deemed "received" for purposes of this Policy in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of such Incentive-Based Compensation occurs after the end of that period.

3. Administration. This Policy shall be administered by the Board, the Compensation Committee of the Board (the "Compensation Committee"), the Audit Committee of the Board (the "Audit Committee") or a special committee comprised of members of the Compensation Committee and Audit Committee. For purposes of this Policy, the body charged with administering this Policy shall be referred to herein as the "Administrator." The Administrator is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate or advisable for the administration of this Policy, in each case, to the extent permitted under the Listing Standards and in compliance with (or pursuant to an exemption from the application of) Section 409A of the Code. All determinations and decisions made by the Administrator pursuant to the provisions of this Policy shall be final, conclusive and binding on all persons, including the Company, its affiliates, its stockholders and Covered Executive Officers, and need not be uniform with respect to each person covered by this Policy.

In the administration of this Policy, the Administrator is authorized and directed to consult with the full Board or such other committees of the Board as may be necessary or appropriate as to matters within the scope of such other committee's responsibility and authority. Subject to any limitation at applicable law, the Administrator may authorize and empower any officer or employee of the Company to take any and all actions necessary or appropriate to carry out the purpose and intent of this Policy (other than with respect to any recovery under this Policy involving such officer or employee). Any action or inaction by the Administrator with respect to a Covered Executive Officer under this Policy in no way limits the Administrator's decision to act or not to act with respect to any other Covered Executive Officer under this Policy or under any similar policy, agreement or arrangement, nor shall any such action or inaction serve as a waiver of any rights the Company may have against any Covered Executive Officer other than as set forth in this Policy.

4. Application of this Policy. This Policy applies to all Incentive-Based Compensation received by a person: (a) after beginning service as a Covered Executive Officer; (b) who served as a Covered Executive Officer at any time during the performance period for such Incentive-Based Compensation; (c) while the Company had a listed class of securities on a national securities exchange; and (d) during the Applicable Period. For the avoidance of doubt, Incentive-Based Compensation that is subject to both a Financial Reporting Measure vesting condition and a service-based vesting condition shall be considered received when the relevant Financial Reporting Measure is achieved, even if the Incentive-Based Compensation continues to be subject to the service-based vesting condition.

5. Recovery Erroneously Awarded Compensation. In the event of an Accounting Restatement, the Company must recover Erroneously Awarded Compensation reasonably promptly, in amounts determined pursuant to this Policy. The Company's obligation to recover Erroneously Awarded Compensation is not dependent on the filing of restated financial statements. Recovery under this Policy with respect to a Covered Executive Officer shall not require the finding of any misconduct by such Covered Executive Officer or such Covered Executive Officer being found responsible for the accounting error leading to an Accounting Restatement. In the event of an Accounting Restatement, the method for recouping Erroneously Awarded Compensation shall be determined by the Administrator in its sole and absolute discretion, to the extent permitted under the Listing Standards and in compliance with (or pursuant to an exemption from the application of) Section 409A of the Code.

Recovery may include, without limitation, (i) reimbursement of all or a portion of any incentive compensation award, (ii) cancellation of incentive compensation awards and (iii) any other method authorized by applicable law or contract.

The Company is authorized and directed pursuant to this Policy to recover Erroneously Awarded Compensation in compliance with this Policy unless the Compensation Committee has determined that recovery would be impracticable solely for the following limited reasons, and subject to the following procedural and disclosure requirements:

a. The direct expenses paid to a third party to assist in enforcing this Policy would exceed the amount to be recovered. Before reaching such conclusion, the Administrator must make a reasonable attempt to recover such Erroneously Awarded Compensation, document such reasonable attempt(s) to recover, and provide that documentation to Nasdaq;

b. Recovery would violate home country law where that law was adopted prior to November 28, 2022. Before reaching such conclusion, the Administrator must obtain an opinion of home country counsel, acceptable to Nasdaq, that recovery would result in such a violation, and must provide such opinion to Nasdaq; or

c. Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of Section 401(a)(13) or Section 411(a) of the Code.

6. Prohibition on Indemnification and Insurance Reimbursement. The Company is prohibited from indemnifying any Covered Executive Officer against the loss of any Erroneously Awarded Compensation. Further, the Company is prohibited from paying or reimbursing a Covered Executive Officer for the cost of purchasing insurance to cover any such loss. The Company is also prohibited from entering into any agreement or arrangement whereby this Policy would not apply or fail to be enforced against a Covered Executive Officer.

7. Required Policy-Related Disclosure and Filings. The Company shall file all disclosures with respect to this Policy in accordance with the requirements of the federal securities laws, including disclosures required by U.S. Securities and Exchange Commission filings. A copy of this Policy and any amendments hereto shall be posted on the Company's website and filed as an exhibit to the Company's annual report on Form 10-K.

8. Acknowledgement. Each Covered Executive Officer shall sign and return to the Company within thirty (30) calendar days following the later of (i) the effective date of this Policy set forth below or (ii) the date such individual becomes a Covered Executive Officer, the Acknowledgement Form attached hereto as Exhibit A, pursuant to which the Covered Executive Officer agrees to be bound by, and to comply with, the terms and conditions of this Policy.

9. Amendment; Termination. The Board may amend this Policy from time to time in its sole and absolute discretion and shall amend this Policy as it deems necessary to reflect the Listing Standards or to comply with (or maintain an exemption from the application of) Section 409A of the Code. The Board may terminate this Policy at any time; provided, that the termination of this Policy would not cause the Company to violate any federal securities laws, or rules promulgated by the U.S. Securities and Exchange Commission or the Listing Standards.

10. Other Recovery Obligations; General Rights. The Board intends that this Policy shall be applied to the fullest extent of the law. To the extent that the application of this Policy would provide for recovery of Incentive- Based Compensation that the Company already recovered pursuant to Section 304 of the Sarbanes-Oxley Act or other recovery obligations, any such amount recovered from a Covered Executive Officer will be credited to any recovery required under this Policy in respect of such Covered Executive Officer.

11. Effective Date. This Policy shall be effective as of November 7, 2023. The terms of this Policy shall apply to any Incentive- Based Compensation that is received by Covered Executive Officers on or after October 2, 2023, even if such Incentive-Based Compensation was approved, awarded or granted to Covered Executive Officers prior to such date.

This Policy shall not limit the rights of the Company to take any other actions or pursue other remedies that the Company may deem appropriate under the circumstances and under applicable law, in each case, to the extent permitted under the Listing Standards and in compliance with (or pursuant to an exemption from the application of) Section 409A of the Code.

This Policy is binding and enforceable against all Covered Executive Officers and their beneficiaries, heirs, executors, administrators or other legal representatives.

EXHIBIT A

CYNGN CLAWBACK POLICY

ACKNOWLEDGEMENT FORM

By signing below, the undersigned acknowledges and confirms that the undersigned has received and reviewed a copy of the CYNGN Inc. (the “Company”) Clawback Policy (the “Policy”).

By signing this Acknowledgement Form, the undersigned acknowledges and agrees that the undersigned is and will continue to be subject to the Policy and that the Policy will apply both during and after the undersigned’s employment or service with the Company. Further, by signing below, the undersigned agrees to abide by the terms of the Policy, including, without limitation, by returning any Erroneously Awarded Compensation (as defined in the Policy) to the Company to the extent required by, and in a manner consistent with, the Policy.

EXECUTIVE OFFICER

Signature

Print Name

Date

DISCLAIMER