

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 23, 2022

CYNGN INC.

(Exact name of registrant as specified in charter)

Delaware

(State or other jurisdiction
of incorporation)

001-40932

(Commission File Number)

46-2007094

(IRS Employer
Identification No.)

1015 O'Brien Dr.

Menlo Park, CA 94025

(Address of principal executive offices) (Zip Code)

(650) 924-5905

(Registrant's telephone number, including area code)

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	CYN	The Nasdaq Stock Market LLC (The Nasdaq Capital Market)

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by 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. ☐

Item 7.01 Regulation FD Disclosure.

On May 23, 2022, Cyngn Inc. (the “Company”) updated its corporate presentation. Representatives of the Company intend to present some of or all of the information in the corporate presentation at investor conferences to current and prospective investors. A copy of the investor presentation is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is posted on the Company’s website.

The investor presentation shall not be deemed “filed” for any purpose, including for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that Section. The information in this Item 7.01, as well as Exhibit 99.1, shall not be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act regardless of any general incorporation language in such filing.

This Current Report on Form 8-K and Exhibit 99.1, may include statements regarding the intent, belief or current expectations of the Company and members of its management team, as well as the assumptions on which such statements are based, and generally are identified by the use of words such as “may,” “will,” “seeks,” “strives,” “anticipates,” “believes,” “estimates,” “expects,” “plans,” “intends,” “should” or similar expressions. Actual results may differ materially from those contemplated by such forward-looking statements, including as a result of those factors set forth in the Risk Factors section of the Company’s most recent Quarterly Report on Form 10-Q for the three months ended March 31, 2022 filed with the SEC on May 12, 2022 or any of the risks described in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2021 filed with the SEC on March 24, 2022. Forward-looking statements speak only as of the date they are made, and the Company undertakes no obligation to update or revise forward-looking statements to reflect changed assumptions, the occurrence of unanticipated events or changes to future operating results over time, unless required by law.

ITEM 9.01 Exhibits

Exhibit No.	Description
99.1	Investor Presentation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 24, 2022

CYNGN INC.

By: /s/ Donald Alvarez
Donald Alvarez
Chief Financial Officer



Autonomous vehicle software
for industrial and commercial enterprises



CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

This presentation of Cyngn, Inc. ("the Company") contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act and other securities law. Words such as "expects," "intends," "plans," "believes," "seeks," "estimates," and similar expressions or variations of such words are intended to identify forward-looking statements. For example, the Company is using forward-looking statements when it discusses its vision, the potential of its product, its strategy, market potential for its product(s), its paradigm, commercialization of its product(s), the benefits and use of its product(s), its product roadmap and anticipated adoption of its solutions by customers, anticipated pricing, the development of its solutions and product(s) in the manner and schedule anticipated by management, its product launches and corresponding revenue generation, its ability to attract and retain customers, competition and its future growth.

Forward-looking statements are not historical facts, and are based upon management's current expectations, beliefs and projections, many of which, by their nature, are inherently uncertain.

There can be no assurance that management's expectations, beliefs and projections will be achieved, and actual results may differ materially from what is expressed or indicated by the forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. For a more detailed description of the risks and uncertainties affecting the Company, reference is made to the Company's reports filed from time to time with the Securities and Exchange Commission (the "SEC"), including, but not limited to, the Company's Annual Report on Form 10-K for the year ended December 31, 2021, and any subsequent quarterly filings on Form 10-Q.

Forward-looking statements speak only as of the date the statements are made. The Company undertakes no obligation to update forward-looking statements to reflect actual results, subsequent events or circumstances, changes in assumptions or changes in other factors affecting forward-looking information except to the extent required by applicable securities laws.



COMPANY OVERVIEW

Cyngn is an autonomous vehicle technology company focused on addressing industrial uses for autonomous vehicles.



- **TICKER:** NASDAQ: CYN
- **RECENT STOCK PRICE:** \$3.69 (as of 5/11/2022)
- **SHARES OUTSTANDING:** 30.9 million (as of 5/11/2022)
- **MARKET CAP:** \$114.0 million
- **HEADQUARTERS:** Menlo Park, Calif.
- **EMPLOYEES:** 42 (as of 3/24/2022)
- **WEBSITE:** www.cyngn.com



COMPANY HIGHLIGHTS



Proprietary Industry 4.0 solutions for industrial autonomous vehicles

- Cyngn's Enterprise Autonomy Suite (EAS) is a proprietary, full-stack software solution for operating fleets of autonomous vehicles in various industrial applications (beta stage) and delivering real-time industrial intelligence insights.
- Cyngn's technology can operate a wide range of vehicle types, creating unique opportunities for productivity and scalability across sites.



Large market opportunity fueled by the need to achieve productivity goals

- Labor shortage, increase in labor cost and supply chain disruptions accelerate the demand for automated solutions.
- 883,000 material handling vehicles shipped by the top 10 manufacturers in 2019.¹ The labor cost to drive these vehicles for two shifts per day is >\$119B.²



Experienced leadership supported by global partnerships

- The executive team has 20+ years of combined experience in AI/ML and mobility at companies such as Facebook, Baidu, and Maxim Integrated, including leadership roles at startups acquired by Tesla and Facebook.
- Renowned partners include Columbia Vehicle Group, First Transit, Here Maps, Formel D, and more.



1. ABI Research Whitepaper: "Trends in Supporting And Scaling Modern Automation"

2. Bureau of Labor Statistics: "Employer Costs For Employee Compensation - June 2021", and management estimates

INDUSTRIAL VEHICLES MOVE THE WORLD

All major industries, from manufacturing, fulfillment, and logistics to mining and construction, rely on their industrial vehicle fleets to operate.

Vehicles do the hard work, moving heavier loads at higher speeds than humans can.

With the growth of ecommerce, the demand for skilled labor to operate these vehicles has accelerated.

Vehicles have never been able to do this work without a human operator.

Until now...



MANUAL LABOR COMES AT A VERY HIGH COST

Massive workforce

- 900,000 material handlers, stock pickers, and industrial vehicle drivers in the United States¹
- Estimated **\$140 billion** spent on human labor across 20,000 warehouses in the US alone.²

Widespread labor shortages³

- Over 50% of supply chain & manufacturing leaders rated hiring and employee retention as their biggest challenge.
- 73% said it takes 30+ days to fill open positions.
- By 2030, the impact of unfilled manufacturing jobs could cost the US economy more than **\$1 trillion**.

Significant losses due to accidents

- An industrial vehicle accident, on average, costs \$42,000, not including cost due to lost production.⁴
- The average American warehouse experiences 9 accidents per year.⁵
- The total cost of preventable workplace injuries in the US in 2019 was **\$171 billion**.⁴

1. Bureau of Labor Statistics: "Employer Costs For Employee Compensation - June 2021"
2. Statista: "Number of Warehouses in U.S."

3. MHI Deloitte Industry report

4. National Safety Council: "Work Injury Costs - Injury Facts"
5. Bureau of Labor Statistics: "Warehousing and Storage: NAICS 493"



THE SOLUTION IS AUTOMATION

FORWARD-LOOKING ENTERPRISES THAT
HARNESS AUTOMATION BENEFIT FROM:



**INCREASED
PRODUCTIVITY**



**INCREASED
SAFETY**



**LOWER COST
OF LABOR**



**REDUCED
DEPENDENCE
ON LABOR**

Automation enables new forms of competitive advantage
EVOLVE OR BE DISRUPTED



OUR MISSION AND VISION

Our mission is to develop and deploy **autonomous driving software**, built to serve a broad spectrum of industrial applications, from logistics to mining.

Our solutions will give our customers a **competitive advantage** in the race to efficiency, safety, and productivity.

Our vision is to be the leading advanced autonomy software solution for **industrial and commercial** enterprises.

We are applied autonomy.



CYNGN'S OPPORTUNITY TODAY

\$119+ BILLION¹

annual driver labor costs for material handling vehicles



883,000

units shipped in 2019 by the
top 10 material handling
vehicle manufacturers²



\$32

average cost per hour for
transportation and material
moving employees in the US³



4,174

hours a vehicle is used per
year, based on typical two-
shift per day operation



**"EVERYTHING THAT
MOVES WILL BECOME
AUTONOMOUS"**

– Nvidia CEO, Jensen Huang

1. 883,000 vehicles x 4,174 hours/yr x \$32.34/hr = \$119B
2. ABI Research Whitepaper: "Trends In Supporting And Scaling Modern Automation"
3. Bureau of Labor Statistics: "Employer Costs For Employee Compensation – June 2021"

WIDE ADOPTION OF AUTONOMOUS VEHICLES STARTS WITH INDUSTRIAL APPLICATIONS

Compared to Passenger Vehicles,
Industrial Vehicles Offer:



MORE
STRUCTURED
OPERATION



LOWER SPEED
REQUIREMENTS



LOWER
REGULATORY
HURDLES



PREDICTABLE
WORKFLOWS



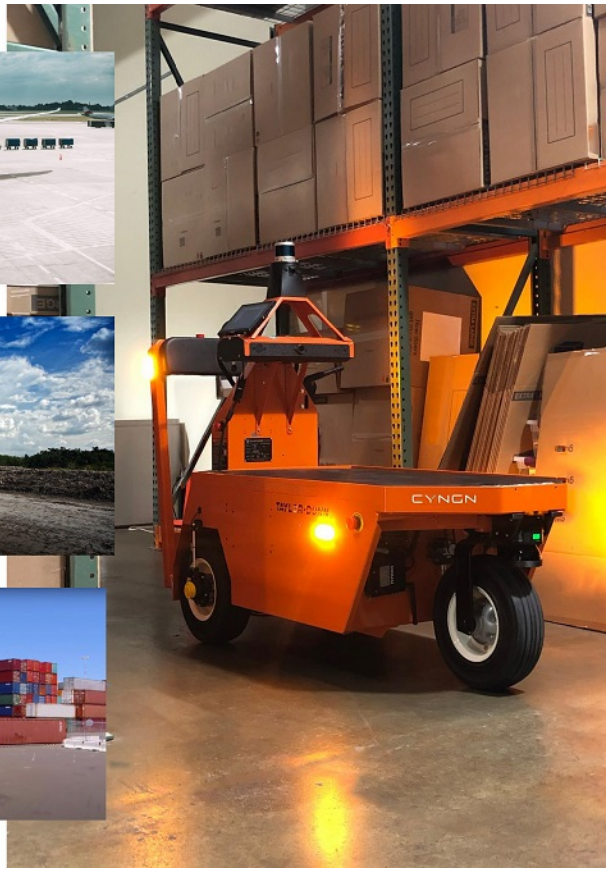
LESS COMPLEX
ROUTES



MORE
COMMONALITY
FROM SITE TO
SITE



CONTROLLED
INTERACTIONS
WITH TRAINED
HUMANS



MATERIAL HANDLING IS JUST THE BEGINNING

Industrial and commercial autonomous applications share fundamental technological building blocks.

Cyngn developed these building blocks and integrates them across diverse autonomous driving solutions.

Our current focus

\$119B¹



annual driver costs for vehicles sold by the top-10 material handling OEMs

Our technology already applies to additional industrial applications



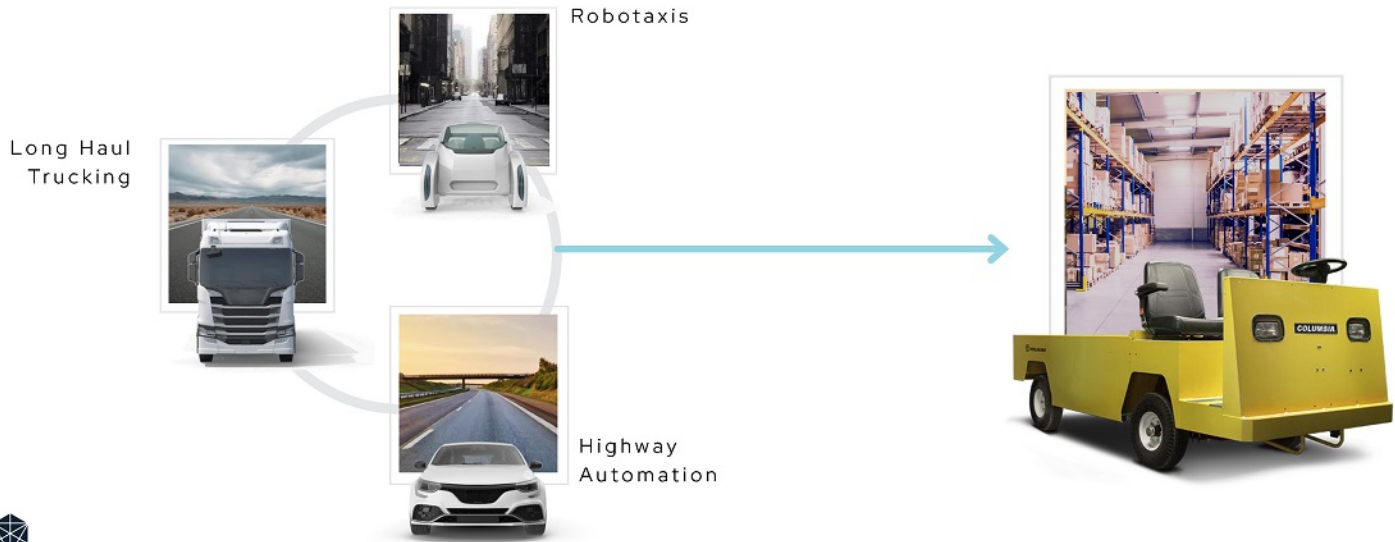
In the future, we can expand our offering to public roadways:



¹ Management estimate from Bureau of Labor Statistics data. See slide 11.

WE BRING THE BEST OF AUTONOMOUS DRIVING TECHNOLOGY TO INDUSTRIAL APPLICATIONS

Billions of dollars in funding and long years of research have focused on robotaxis, trucking, and highway automation, which are not being built to address industrial needs. We apply best practices and domain knowledge from public road solutions and bring advanced autonomy to industrial vehicles and applications.



OUR COMPETITIVE ADVANTAGE



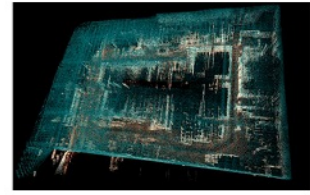
ADVANCED AUTONOMY

- Developed for robotaxi capability by using leading technology like AI, sensor fusion, and abstract decision making.
- Takes advantage of sensor and computing advancements that are driven by high-volume, high-quality automotive industry.



MULTIPLE APPLICATIONS

- DriveMod can be deployed on a wide range of vehicles, creating a unique offering to support multiple applications across sites.
- EAS collects data that can expand capabilities within the application and grow into adjacent applications.



YOUR VEHICLE POWERED BY OUR SOFTWARE

- DriveMod can be retrofitted onto existing vehicles to accelerate adoption, and vehicles can still be driven manually.
- We partner with vehicle manufacturers that are trusted incumbents.
- Customers can take advantage of established distribution and support networks.



CYNGN'S ENTERPRISE AUTONOMY SUITE (EAS)*

CUSTOMER-FACING PRODUCTS



DRIVEMOD

Full-Stack
Autonomous Driving
Software System



Successfully tested on multiple
different vehicle types



CYNGN INSIGHT

Intelligent
Control Center

- Fleet management system
- Human-machine interfaces:
web, mobile, on-vehicle
- Asset tracking
- Operational analytics
- Teleoperation
- Real-time diagnostics



CYNGN EVOLVE

Data Optimization
Tools

- Data pipeline
- Performance analytics
- Simulation
- Machine learning
infrastructure



*EAS is currently available as a private beta release to select customers

DRIVEMOD

Robotaxi Brain for Industrial Vehicles

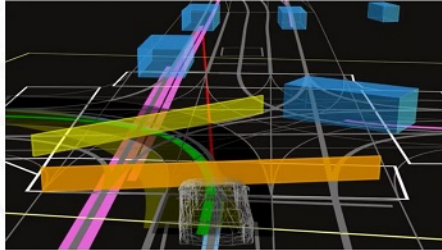
The result is superhuman capability:

- 360° perception around the vehicle
- Detect 1,000+ objects/obstacles per second
- 1,000+ candidate paths per second
- Navigate optimal detailed path



SEE

- Multi-modal sensor fusion
- AI/ML powered perception
- Existence-based virtual bumper
- High-definition semantic maps
- Laser-accurate localization



DECIDE

- Abstracted behavioral decision framework
- Context-aware prediction
- Thousands of candidate paths proposed per second
- Dynamic routing and motion planning system



ACT

- Adaptive, intelligent control that can operate a wide range of vehicle types and sizes.



CYNGN INSIGHT

Fleet monitoring and management to maximize asset utilization:
operate, observe, and analyze



Remote Support and Teleoperation



Business and Operational Insight

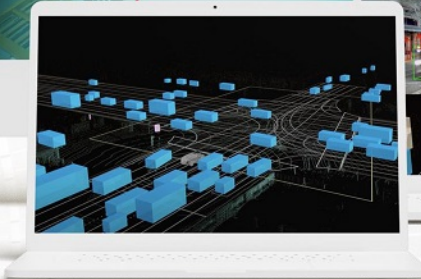
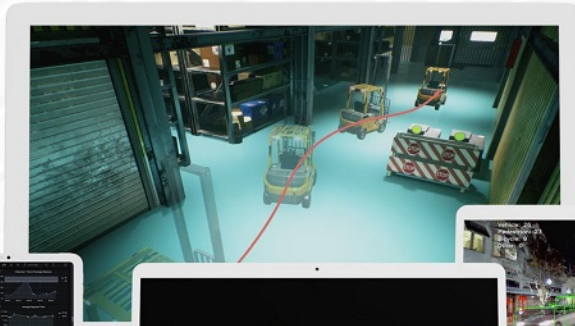


Fleet Management and Diagnostics



CYNGN EVOLVE

How Cyngn expands
its autonomous
vehicle capabilities



Hybrid Simulation & Automatic
Grading Frameworks



Machine Learning Infrastructure &
Data Pipeline



Autonomous Vehicle
Performance Analytics



"The role of Industry 4.0 becomes even more critical in the backdrop of a crisis such as COVID-19. Players utilizing digital solutions are better-positioned to weather the storm, having moved faster and further than their peers during the crisis."

McKinsey
&Company

CYNGN'S EAS UNDERPINS THREE INDUSTRY 4.0 PILLARS

- **Human-machine interaction:**
Robotics and automation
- **Connectivity, data, computational power:**
Sensors and IoT
- **Analytics and intelligence:**
Advanced analytics, machine learning and AI



⁽¹⁾ <https://www.mckinsey.com/business-functions/operations/our-insights/industry-40-reimagining-manufacturing-operations-after-covid-19>



COLLABORATIVE GO-TO-MARKET APPROACH

An ecosystem designed to support scaled,
high-quality autonomous fleet deployments



 **COLUMBIA**  **GREENLAND**

 **ARILOU**  **First Transit**

 **nerospec**  **here**

 **Symbioticware**  **Airbiquity**

 **Formel D**



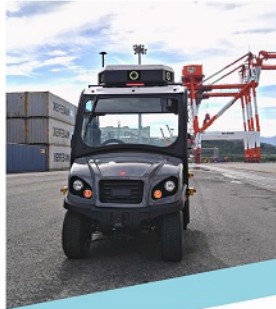
TRAIN HARD, DRIVE EASY

STRESS TESTED UNDER EXTREME CONDITIONS TO ENSURE COMMERCIAL READINESS



2016

Began developing AV solutions in complex mixed traffic to overshoot the requirements of industrial sites.



2017

Autonomous electric utility vehicles at an International Container Terminals Services (ICTSI) container port in the Philippines.



2019

Autonomous electric shuttle buses at the Loblaw corporate headquarters in Canada.



RECENT MILESTONES



INFINITRACKER LAUNCH

Launched new Cygn Insight product: 15-year battery GPS asset tracker and IoT gateway ([link](#)).



BUILDING WITH AN OEM

Columbia Vehicle Group announces it is building a fleet of autonomous industrial vehicles that use Cygn's AV technology ([link](#)).



LAUNCH OF DRIVEMOD KIT

Cygn begins to build patent-pending sensor module that streamlines deployment of DriveMod's self-driving technology at scale ([link](#)).



EXPANDING TO FORKLIFTS

Greenland Technologies chooses Cygn to provide AV technology to their electric forklifts ([link](#)).



CYNGN EAS WILL BE OFFERED AS SAAS VIA ANNUAL LICENSE PER VEHICLE

Pricing Factors:

- Target Vehicle
- Utilization
- Vehicle Application
- Number of Vehicles

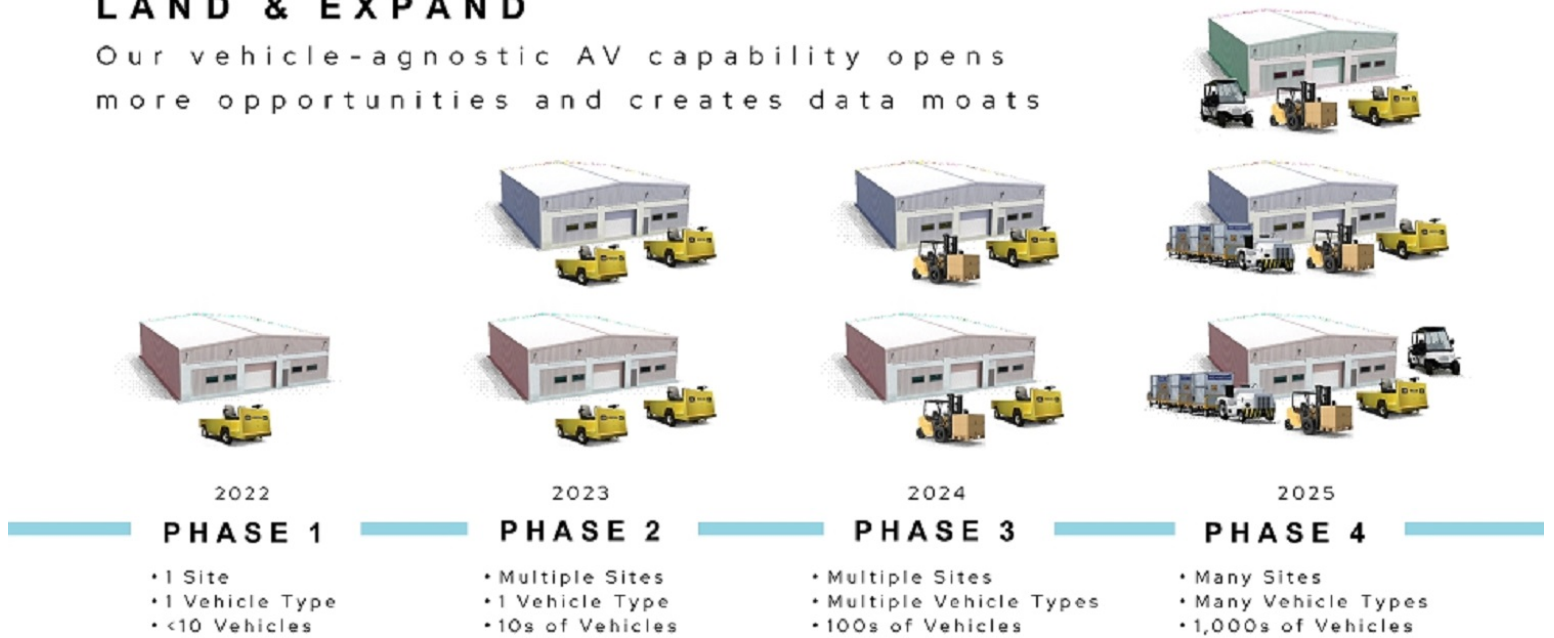


Remember: the top 10 material handling manufacturers shipped 883,000 units in 2019.



LAND & EXPAND

Our vehicle-agnostic AV capability opens more opportunities and creates data moats



Real-world Example: One of our potential customers, a building solutions company, has 400+ sites that use 20+ different forklift models from 5 different manufacturers, as well as front loaders and yard sweepers.

KEY TAKEAWAYS

\$119 Billion Market

An opportunity to invest in a company focused on **practical applications in the growing automation market** that addresses the very real problem of dependence on a human workforce, particularly in an ongoing pandemic environment

Advanced Autonomy

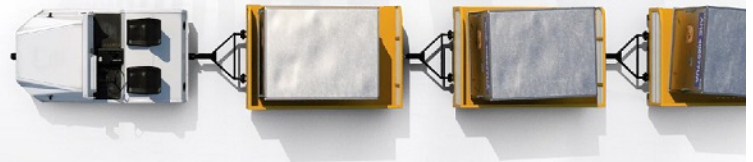
Proprietary, innovative technologies for operating various industrial vehicles autonomously within a flexible, scalable framework

Key Strategic Partnerships

Product and go-to-market strategies supported by **partnerships with reputable global firms** in mobility, logistics, and industrial markets

Winning Team

Experienced leadership backed by **best-in-class R&D team**



THANK YOU



INVESTOR RELATIONS

At Cyngn

Don Alvarez, CFO

831.239.5625

dalvarez@cyngn.com

At The Equity Group

Carolyn Sohn, VP

415.568.2255

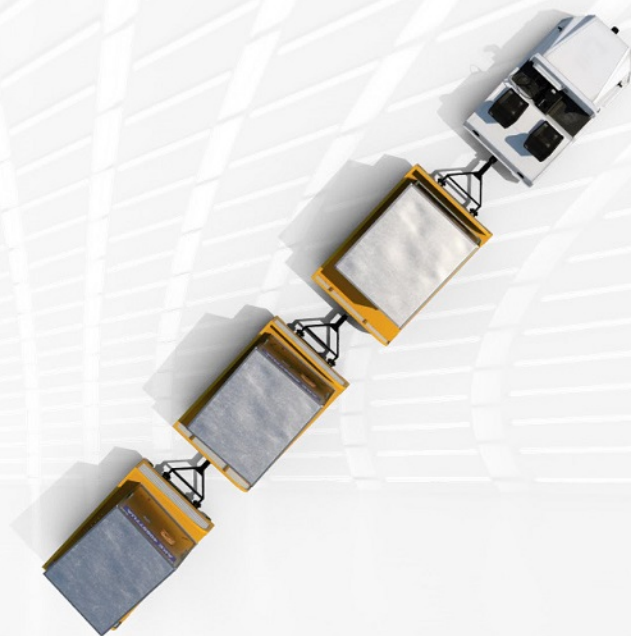
investors@cyngn.com

csohn@equityny.com

www.cyngn.com



APPENDIX



AUTONOMOUS VEHICLES DRIVE ESG IMPACT



SUSTAINABILITY

- Our fleet is comprised of all electric vehicles
- Autonomous vehicles can be programmed to drive with more conservative throttling and braking



PRODUCTIVITY

Centre for Economic Performance study found:

- Investment in robots contributed 10% of growth in GDP per capita in OECD countries from 1993 to 2016.¹
- The impact of adding robots to industrial productivity is assessed to be higher than introducing steam technology was in the 19th century.²



¹ Information Technology & Innovation Foundation: "Robotics and the Future of Production and Work"
² Centre for Economic Performance: "Robots at Work"



BALANCE SHEET HIGHLIGHTS

Following the completion of a private placement in April 2022, Cyngn is well capitalized with \$36.6 million in cash and cash equivalents on the balance sheet.

	12.31.21	3.31.22	3.31.22 Pro Forma Includes PIPE Proceeds
Cash & Cash Equivalents (including restricted cash)	\$21.9m	\$18.5m	\$36.6m
Working Capital	\$22.1m	\$18.2m	\$36.3m
Total Stockholder's Equity	\$22.2m	\$19.0m	\$37.2m