

AUTOMOTIVE VENTURES

AUTO INTEL REPORT \\ FEBRUARY 2022

FEBRUARY 2022

AUTUMUTURA VENTURAS INTEL REPORT We're already into February, and I've been overdue to update the "Investors in AutoTech" whitepaper. So, this month we do a deep-dive into the PE, VC and Corporate VC players who are deploying capital into the mobility space.

I hope that you enjoy.

It's only a month or so before the NADA Convention in Las Vegas, and I look forward to seeing many of you out there.

As always, please send me a note if there's anything I've missed, or that comes to mind while reviewing this month's content.

Many thanks,

Steve Greenfield steve@automotiveventures.com

>> CONTENTS

- 04 WHITEPAPERS AVAILABLE
- 05 IN THE NEWS
- 07 THEY SAID IT
- **08 INVESTORS IN AUTOTECH**
- 26 AV MOBILITY INDEX
- 35 MOBILITY TECH LANDSCAPE
- 3743COMPANY VALUATIONS
- 41 DEALERSHIP AUTO TECH LANDSCAPE
- 43 TRANSACTIONS
- 56 COMPANIES TO WATCH

>>> WHITEPAPERS AVAILABLE

AUCTION DISRUPTORS





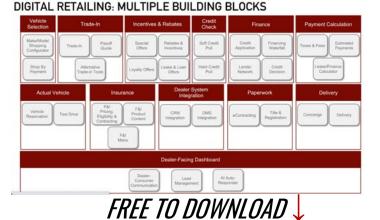




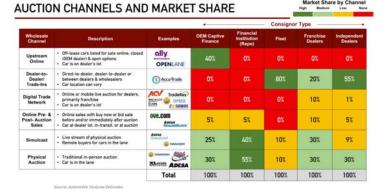


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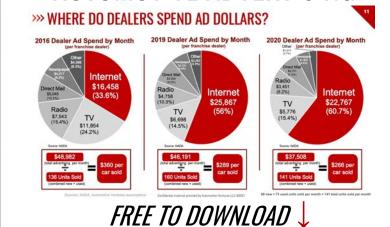


WHOLESALE AUCTIONS



FREE TO DOWNLOAD \

AUTOMOTIVE ADVERTISING



AUTO INDUSTRY OVERVIEW



INVESTORS IN AUTO TECH

>>> PRIVATE EQUITY PLAYERS FOCUSED ON AUTOMOTIVE



FREE TO DOWNLOAD







> IN THE NEWS,

U.S. Inflation Hit 7% in December, Fastest Pace Since 1982 Jan 12, 2022

THE WALL STREET JOURNAL.

Toyota cuts Feb. output, expects to miss annual target on chips crunch

Jan 18, 2022

Automotive News

Chips' sales grip may only slightly ease in '22

Jan 3, 2022

Automotive News

Jan 31, 2022

U.S. stocks end January on a high note, but still chalk up worst month since March 2020 The Washington Post

> Fed Could Hike at Every Meeting This Year, BofA Says Jan 28, 2022

Bloomberg

U.S. Economy Grows as Fourth-Quarter GDP Shows Strongest Year in Decades THE WALL STREET JOURNAL.

Jan 27, 2022

Flaws in third-party software exposed dozens of Teslas to remote access

Dec 24, 2022



NADA CEO says in-person show plans are still

Jan 24, 2022

Automotive News

Titans of Carmaking Are Plotting the Overthrow of Elon Musk

Jan 5, 2022

Bloomberg

GM aims to sell personal autonomous vehicles by mid decade

Jan 5, 2022

T TechCrunch

EV Makers' Next Headache: Scarce Battery Chemicals, Made in China THE WALL STREET JOURNAL.

Jan 21, 2022

Chrysler to go all-EV by 2028

Jan 5, 2022

Automotive News

>>> THEY SAID IT



"My prediction for Level 5 [autonomous] cars remains the same as it did years ago: we'll never have Level 5 cars; only humans are dumb enough to think they should be driving in every condition possible, whereas machines are much smarter than that."

- Trucks VC GP Reilly Brennan



>>> PRIVATE EQUITY PLAYERS FOCUSED ON AUTOMOTIVE



















>>> PRIVATE EQUITY PLAYERS FOCUSED ON AUTOMOTIVE







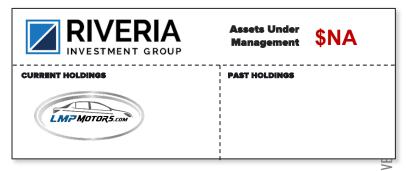












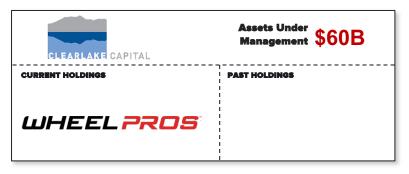
>>> PRIVATE EQUITY PLAYERS FOCUSED ON AUTOMOTIVE



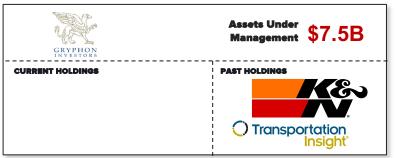












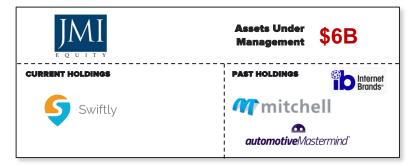


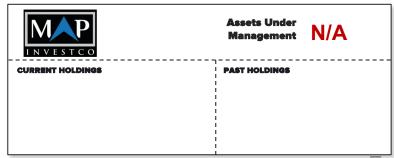


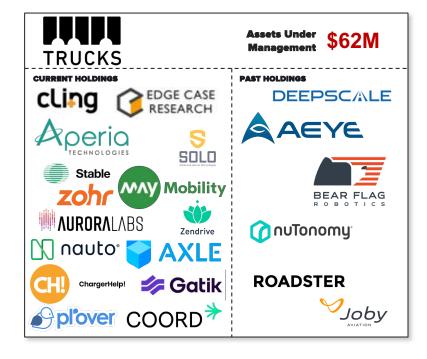


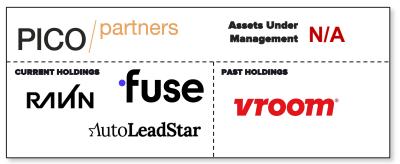


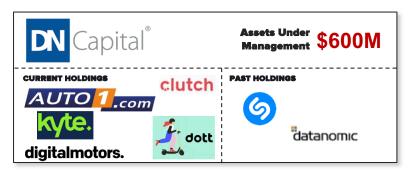


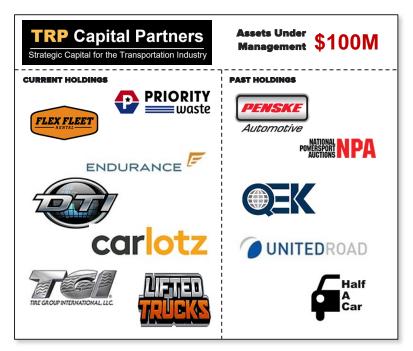


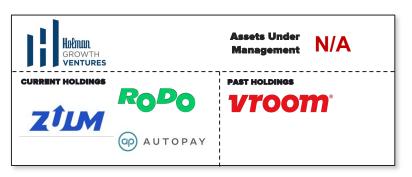






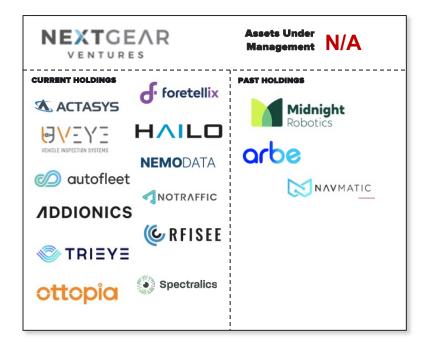


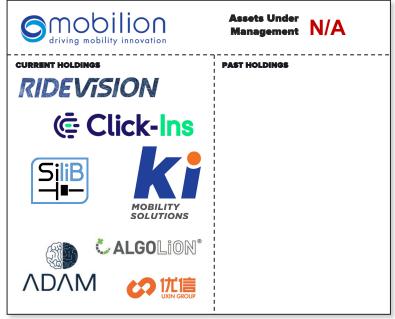


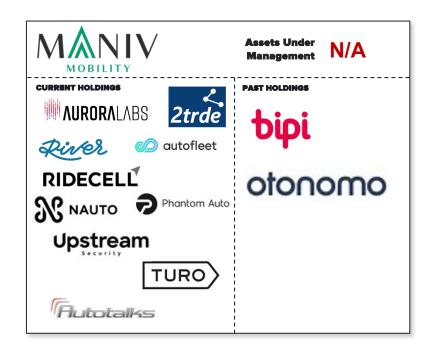






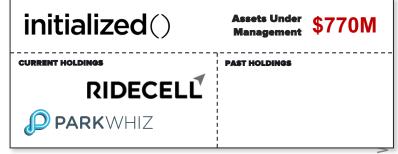


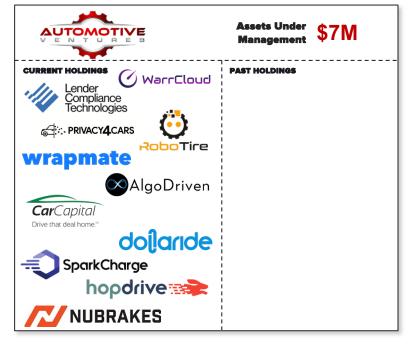


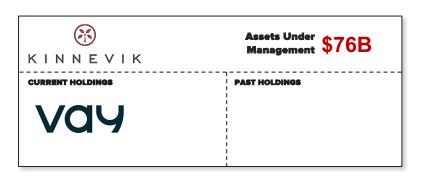






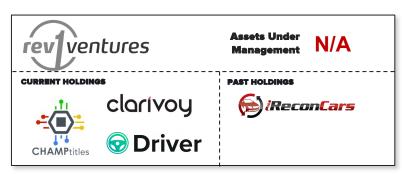




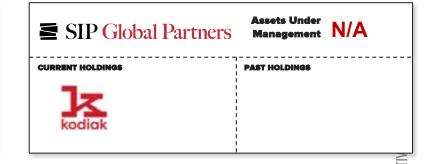












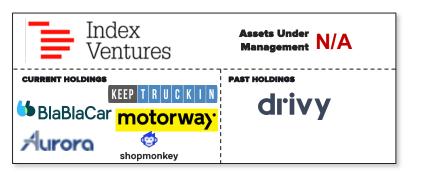
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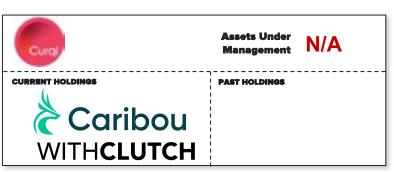
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WeaveGrid **buyncsy**

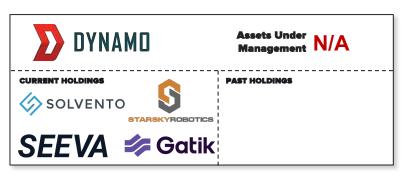
🖊 eMotorWerks





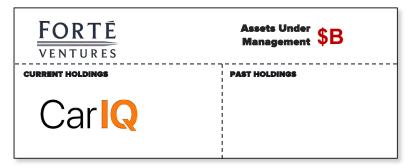




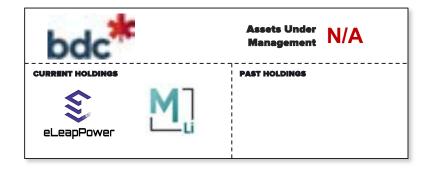


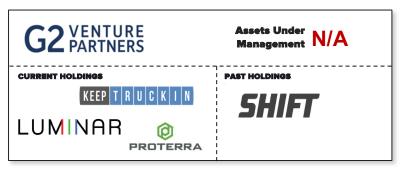


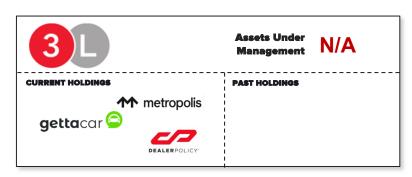


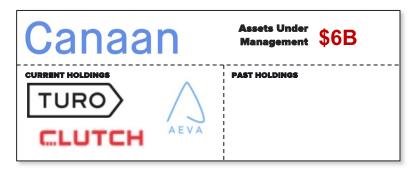


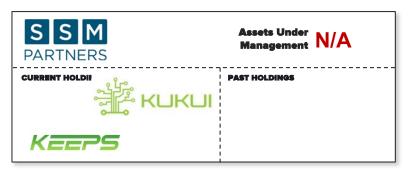


























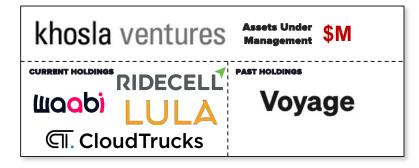


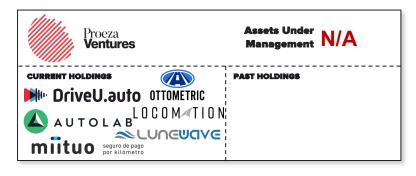


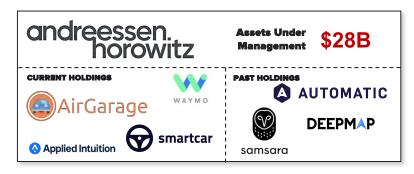


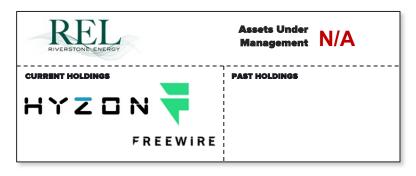


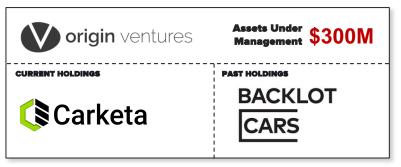








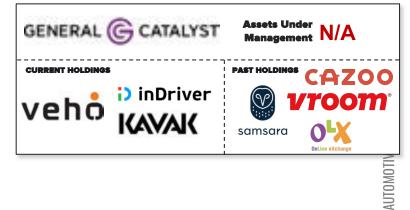


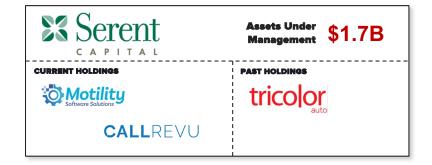


























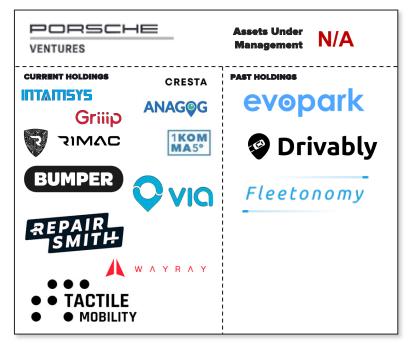
Assets Under

PAST HOLDINGS











HONDA

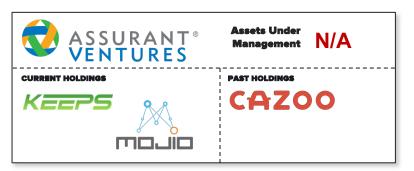
INNOVATIONS

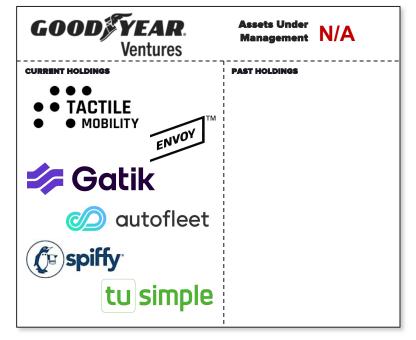
helm.ai

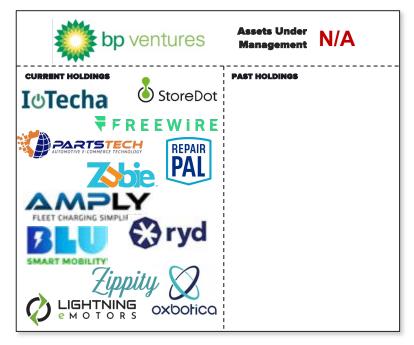
CURRENT HOLDINGS

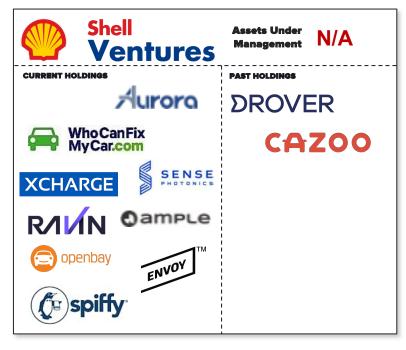
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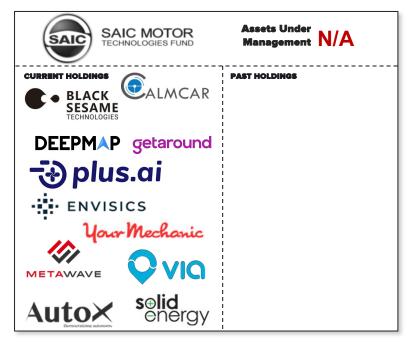


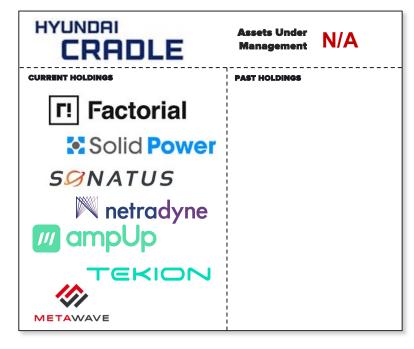


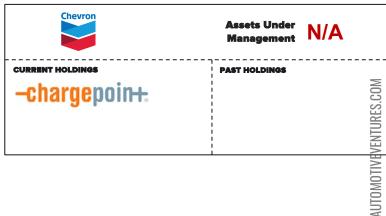




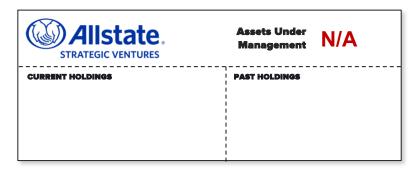


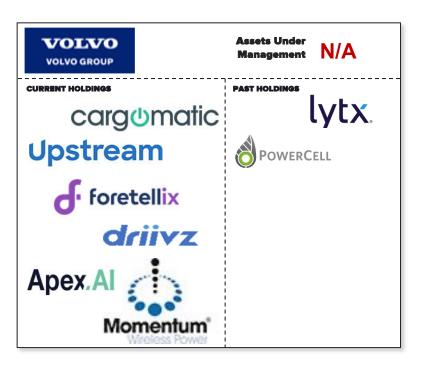














>>> AUTOMOTIVE VENTURES MOBILITY INDEX

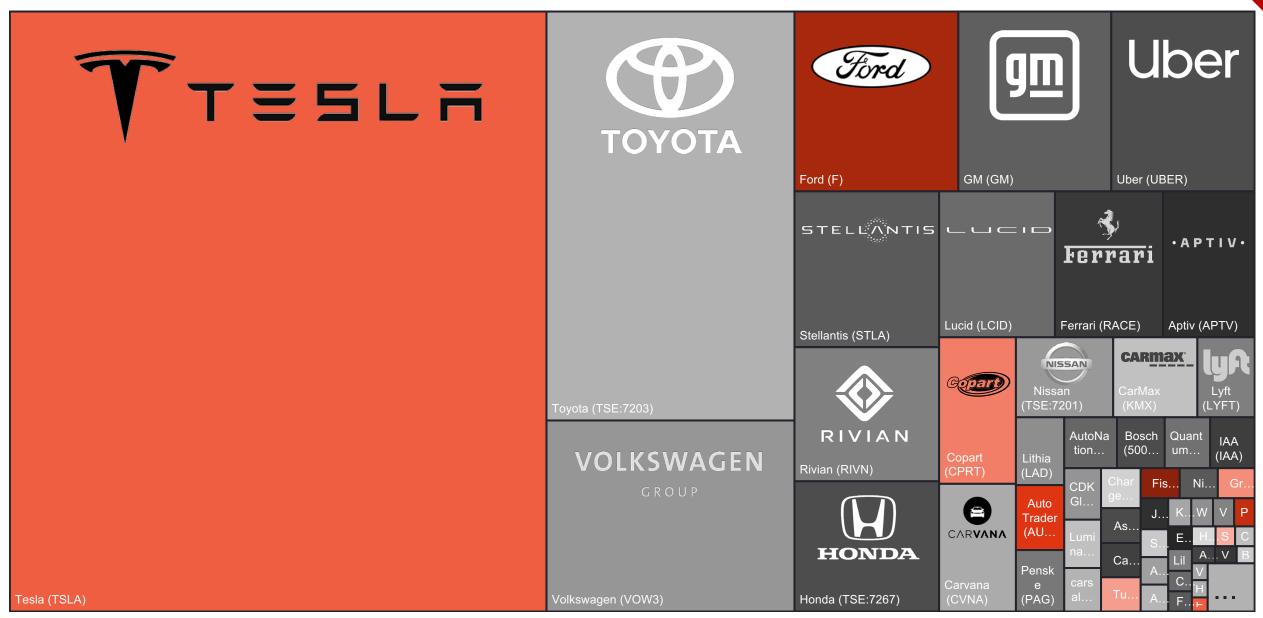
WHAT IS THE INDEX?

The Automotive Ventures Mobility Index is a group of publicly traded mobility stocks that tracks the health of the mobility market, composed of the global publicly traded mobility companies, weighted by market capitalization of each company and indexed back to 100 as of January 1, 2015

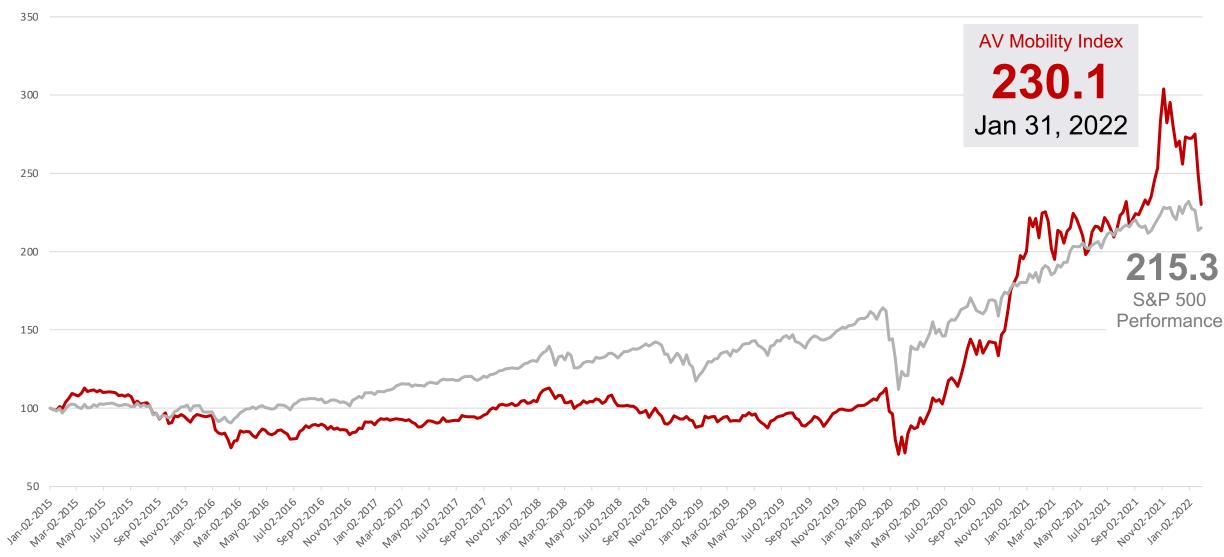
WHICH PUBLIC STOCKS ARE INCLUDED?



>>> AV MOBILITY INDEX: RELATIVE MARKET CAPS



>>> AUTOMOTIVE VENTURES MOBILITY INDEX



Source: Automotive Ventures; Market Cap weighted; Indexed back to Jan 2015



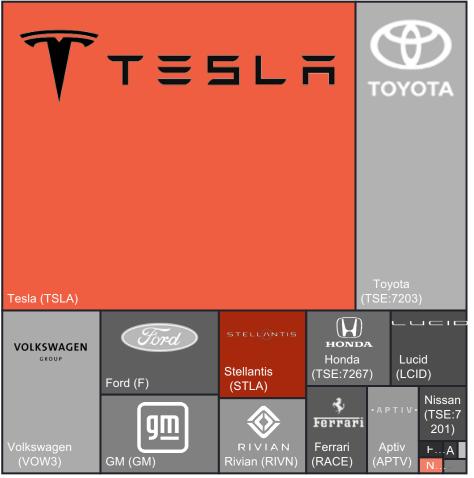


>>> SUB-INDEX: AUTO MANUFACTURER



Source: Automotive Ventures; Market Cap weighted; Indexed back to Jan 2015

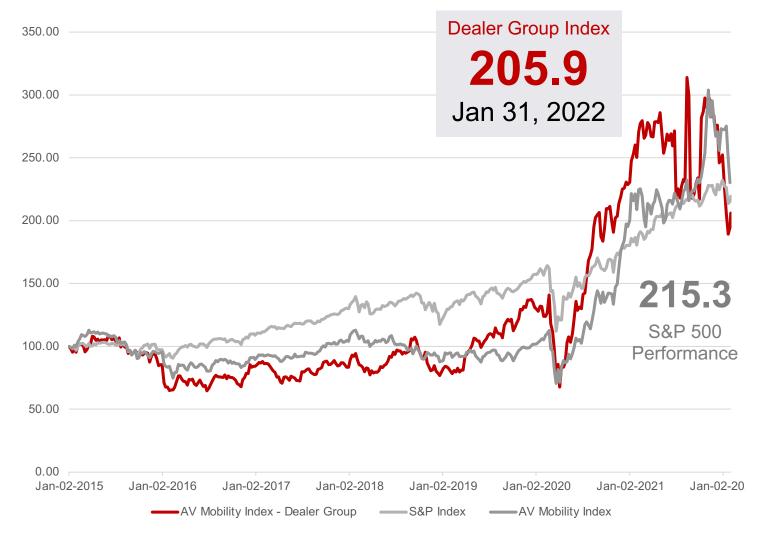
RELATIVE MARKET VALUATIONS







>>> SUB-INDEX: DEALER GROUP/ONLINE DEALER



Source: Automotive Ventures; Market Cap weighted; Indexed back to Jan 2015

RELATIVE MARKET VALUATIONS



Relative market cap; As of January 31, 2022



>>> SUB-INDEX: THIRD PARTY MARKETPLACES



Source: Automotive Ventures; Market Cap weighted; Indexed back to Jan 2015

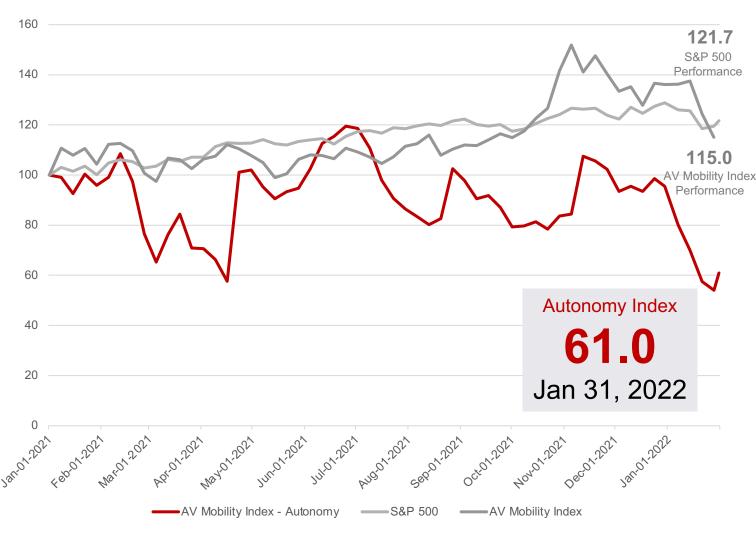
RELATIVE MARKET VALUATIONS



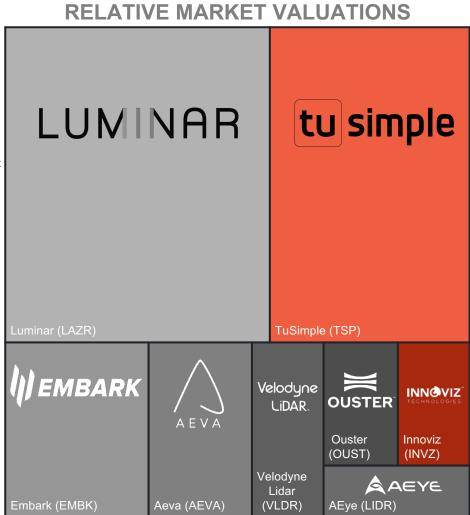




>>> SUB-INDEX: AUTONOMY

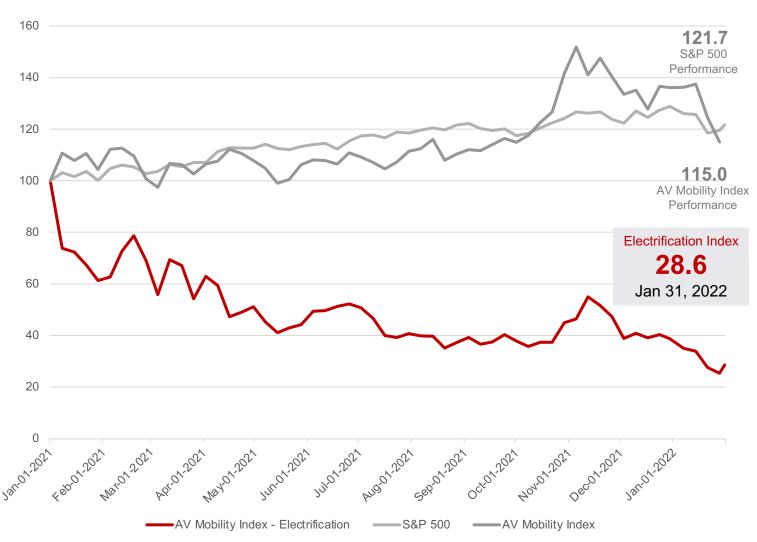


Source: Automotive Ventures; Market Cap weighted; Indexed back to Jan 2021





>>> SUB-INDEX: ELECTRIFICATION



Source: Automotive Ventures; Market Cap weighted; Indexed back to Jan 2021

RELATIVE MARKET VALUATIONS







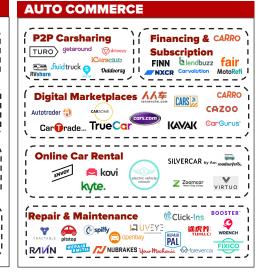


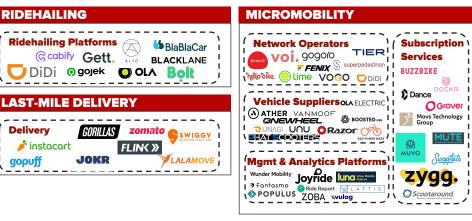
>>> MOBILITY TECHNOLOGY LANDSCAPE



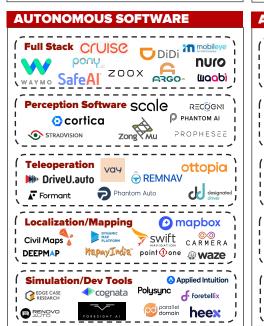




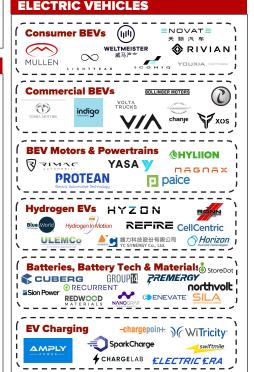
















COMPANY VALUATIONS

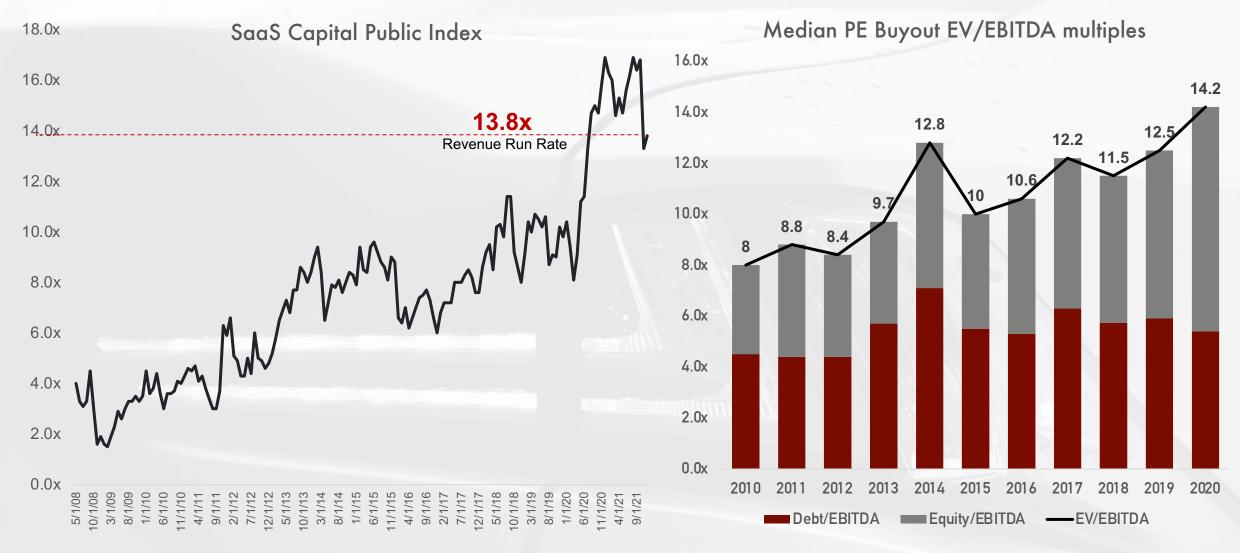
FUNDING LEVELS (Categories are rough estimates only)



Source: Christoph Janz at Point Nine Capital

	PRE-SEED	SEED	SERIES A	SERIES B	SERIES C
ARR	\$0	\$0 - \$200k	\$1m - \$1.5m	\$3m - \$5m	\$10m+
ARR GROWTH (Y/Y)	NA	300%	300%	250%	200%
VALUATION	\$1m - \$3m	\$4m - \$11m	\$15m - \$40m	\$50m - \$140m	\$100m+
ROUND SIZE	\$200k - \$500k	\$1m - \$4m	\$5m - \$14m	\$15m - \$40m	\$20m+
INVESTORS	Friends, Family, Angels	Angels, Micro VCs	VCs	VCs	VCs, PE
TEAM	Smart, committed team with relevant experience	Strong fit between founders' skills and market need	Proven ability to attract and manage great hires	Experienced leaders in most functions; Proven ability to recruit senior people	Complete senior management team
PRODUCT/MARKET FIT	Market research indicates strong need for the project	Product is loved by early users; strong engagement & stickiness	High usage, low churn; passionate customers; large TAM	Increasing evidence of strong product/market fit in huge market	Clear and increasing evidence of product/market fit
SALES/MARKETING & UNIT ECONOMICS	Understanding best practices; good ideas	Signs of organic traction	Early evidence of a repeatable, scalable, profitable sales model; CAC payback <12 months	Short sales cycle relative to ACV; Net dollar retention>100%; LTV:CAC >3:1	Predictable, profitable, scalable sales/marketing machine
TRACTION	Growing waiting list of first pilot customers	Engaged first users; adding a few \$k in MRR per month	Get from 0 to \$100k MRR within 12 – 18 months; Growing 300%/year	Growing 250% per year	Growing 200% per year; negative net MRR churn
DEFENSIBILITY	None	Speed to market	Brand is emerging; evidence of unique data asset	First signs of a successful brand, platform or data play	Strong signs of a successful brand, platform or data play
MARKET POTENTIAL	Belief in \$10M+ ARR potential	Conviction there's \$100m - \$300m+ ARR potential	Increasing evidence of \$500m+ ARR potential	Increasing confidence in exit potential	Increasing confidence in strategic buyer or IPO potential

>>> PUBLIC MARKET SAAS AND PE BUYOUT MULTIPLES



Source: The SaaS Capital Index







>>> AUTOMOTIVE TECHNOLOGY TRANSACTION MULTIPLES

Business Model	Definition	Revenue Multiple
Pure SaaS	Uses software to provide customers with a service. Creates, develops, hosts, and updates the product. Has access to a global market and can scale without increasing product delivery costs.	10.0x+
Tech- Enabled Services	Brings new or innovative user-experiences using existing technologies to the market. Consumes and/or creates technology (physical infrastructure, hardware or software) designed and configured into a solution delivered to an end user customer.	3.0x-5.0x
Pure Services	A business that generates income by providing services instead of selling physical products.	1.0x-2.0x

Multiples higher for companies that have:

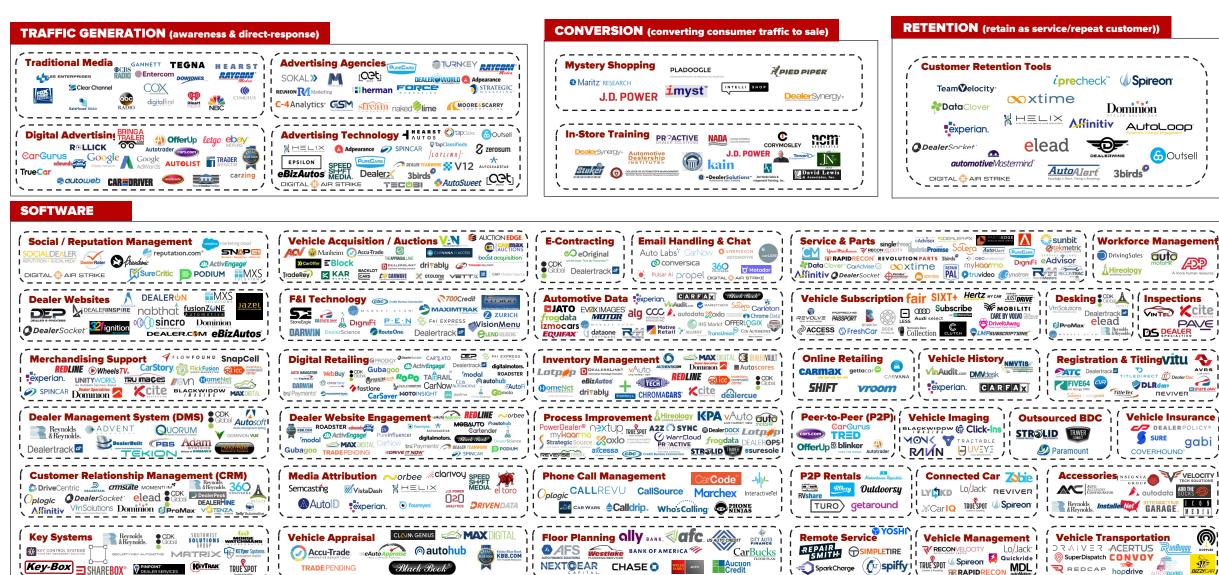
- 1. Predictable, recurring revenue
- 2. Low churn
- 3. High gross margins
- 4. High growth rates
- 5. High annual revenue growth
- 6. Strong upsell opportunities







>>> DEALERSHIP AUTO TECH LANDSCAPE





TRANSACTIONS



>>> JANUARY 2022 TRANSACTIONS



























































































>>> 2021 TRANSACTIONS: JAN - MAR

Jan 2021









Feb 2021











Mar 2021





CRESTA

Investment by

PORSCHE



S3.4b SPAC

III





















































(KEEPS

Investment by

SSM

































R/I/N

S15m Series A

× KAR











\$1.5m Seed

Overline









as**Tech**

















ENEVATE

\$81m Series E

Fidelity



\$12m Series A

USV















>>> 2021 TRANSACTIONS: APR - JUN

Apr 2021





















May 2021































Jun 2021



DRIVENDATA

\$4.5M Series Seed B

Aa

Aramisauto

IP0







lendbuzz

\$60M Series C

MANAGEMENT







Justos

Raised S2.8M

KaszeK



Joyride

\$3.7M Financing

Exeter

Acquisition by

WARBURG PINCUS

NASPERS Cathay Africany































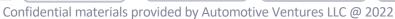
(S) HESAI

\$300M Series D













SPINCAR

E/NRIDE

\$110m Series B

\$15m Series A

ROCSYS

\$6.3m Fundraising

FORWARD.one

Series C Funding

OD AUTOPAY

Merger

WeRide



(II) OCULII

\$55m Series B

CATAPULT CONDUCTIVE

Auction Frontier

KAR

:) Affectiva

Acquired by

smart eye

MotoRefi

\$45m financing

Goldman

@DealerSocket

Acquisition by

Solera

Sachs

Acquisition by







S37M Series B

QUIET CAPITAL

Zong

\$190M Series D

ELECTRIC ERA

S3M Seed Round

REMUS

m xiaomi



S10M Series A

CRAFT

QUANERGY SPAC Merger

CITIC CAPITAL 中信資本

L**®**CUS

\$50M Series C

Qualcom

WhereIsMyTransport

\$14.5 Series A Ext.





Mister

Filed To Go Public



'c/

buser

\$138M Fundraise









\$13.8m Investment

ocado

\$550m Funding

IDELIC

\$20m Funding

HIGHLAND AXA
Venture Partner

WaveSense

\$15m Fundraising



STREET

Car Trade...

Filed for IPO



carsales

Acquiring 49% of

TRADER









>>> 2021 TRANSACTIONS: JUL - AUG

Jul 2021



















Aug 2021















































































































































FIX

\$7.2m financing

TACTICO



CarlQ

\$25m Series B

FORTÉ



CEPTON

SPAC IPO

GROWTH CAPITAL

















Series A

 \mathcal{M}









\$50m Series C

CELOT



S5m Seed Round

Blu Venture

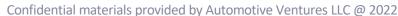












>>> 2021 TRANSACTIONS: SEP - OCT

Sep 2021





foretellix

S32m Series B



KAVAK

\$700m Series F

GENERAL (G) CATALYST



Acquired by



S8M Series A

BLUE BEAR





TB出行

\$1.2b investment





CHALO

\$40m Series C

✓ liahtrock



dellfer

S8m Series A

DENSO

Oct 2021



多SWFT

\$10m Seed



Neusoft

\$101m Financing

SDIC ///



kvte.

\$30m Series A



C/D

CYBELLUM

\$240m Acquisition

(b) LG Electronics













Shuttl

Acquired by

CHALO





























AirGarage

\$12.5m Series A







 $\Theta \cap \Theta$

S25m Series A

Breakthrough Energy VENTURE



AUTOMOTIVE

Investments



Just

\$8m Funding









CARSOME

\$170m Funding



TACTILE

\$27m Series C

D

AutoLeap⁷

\$18m Series A

BainCapital



(spiffy

\$22m Series B

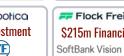




GO

\$41m Financing

SYNTERRACAPITAL





HAILO

\$136m Series C

POALIMEQUITY







Cargamos

\$7m funding



VOLTA TRUCKS

€37m Financing

LUXOR

EDGE CASE RESEARCH

\$12m Series A

wabeo 🞾



marshmallow

S85m Series B

gogolo

\$2.3b SPAC

PRINCEVILLE



CARS 24

\$259m Financing

DST

GLOBAL



ryd

€10m Financing

bp ventures





Acquisition by

GO>TO



S15m Series A

CALIBRATE (>



OUSTER

S69m Acquisition

SENSE



\$50m Financing

Vito



\$25m Series A

bp ventures



\$2.0m Series A

global. ventures

@2022









Series C Funding

ByteDance















CATL



CarNow \$30m Financing Battery













>>> 2021 TRANSACTIONS: NOV - DEC

Nov 2021



NOUNTIL

S3.0m Seed Round

ponooc



greyp 🧚

Majority Acquired



samsara





Gett.

\$1.1b SPAC IPO

ROSECLIFF











O VIQ

Planned IPO

nuvo cargo

\$20.5m Financing

TIGERGLOBAL

\$13m Seed

Uber

serve

TIRE RACK

Acquisition by



aifleet

\$21m Series A

OBVIOUS

Valuinsight

Acquired by

360









Seatron TECHNOLOGIES

\$11m Series A



SWIPCAR

€30m Acquisition

CAZOO

Carketa

\$6m Seed Round

origin ventures

S-1 Filed for IPO



\$700k Seed

Quest

sıasearch

Acquisition by

scale

optibus

\$7.5m Pre-A

AT **O**NE

TEVV

\$57m Financing

CT

\$101m Series C

TEMASEK



() METOAK元權

\$15m Series A

CTC Capital 和利资本

Inspiration

\$200m Financing

ARCLIGHT

point@one

\$10m Series A

DP.PARTNERS

\$74m Series B

■ M&G



TRED

\$25m Series B

W Westake Financia

metromile

\$500m Acquisition

Lemonade

Zoomcar
Never Stop Living

\$92m Series E

STERNAFEIS

CreditIQ

CARS

\$30 Acquisition

ADIA

\$50m Financing

Blackstone



IONITY

€700m Investment

BlackRock

TIER

\$200m Series D

NOVATOR

compace

\$25m Series A

Aurora

ClearFlame

\$17m Series A

Breakthrough Energy

Γ!

Factorial

Undisclosed

B KV

ĕ SPΛRTΛN

\$15m Series A

Prime Movers



xeal

\$11m Series A

ARCTERN

VERTICAL

\$200m Financing

actnano

\$21.75m Series B

BMW I VENTURES





CloudTrucks

\$115m Series B

TIGERGLOBAL

beetrack

Acquired by

DispatchTrack

O VIO

SPREE





carma

\$20m Seed

FIGERGLOBA

CANDELA

\$24m Financing

VENTURES

carwow

\$55m Venture Debt

Hercules









A arc

\$30m Series E

ECLIPSE

Deliverr

\$250 Financing

TIGERGLOBAL

Gabi

\$320m Acquisition

experian.

















MITRACHEM

S20m Series A

SOCIALCAPITAL



\$125m Series B

■ SIP Global Partners





DATA DRIVEN

Acquired by

Verisk









M nowports

\$60m Series B

TIGERGLOBAI

otoklix

\$10m Series A

ALPHA JWC

VENTURES





AMPLY

Acquisition by

bp







OLA

\$52.7m Financing

TEMASEK

BUMPER

\$12m Series A







FLYTREX

\$40m Series C

BRM







O IMOTIONS

\$46.6m Acquisition

smart eve



















\$56.5m Series B

♠ ORILLION



\$20m Series C

∆ Forestay





































>>> 2020 TRANSACTIONS





















































































































CARVANA Offers 5.0m Class A stock



@ conversica \$20m Financing









CarOffer

\$275m Acquisition

@ar@urus

















Lightico

\$13m Financing



finn.auto

€20 million

Series A

























AFFIVAL

\$5.4b+ SPAC

(((

























>>> MOST IMPORTANT AUTO TECH DEALS BY YEAR: 2012-2016

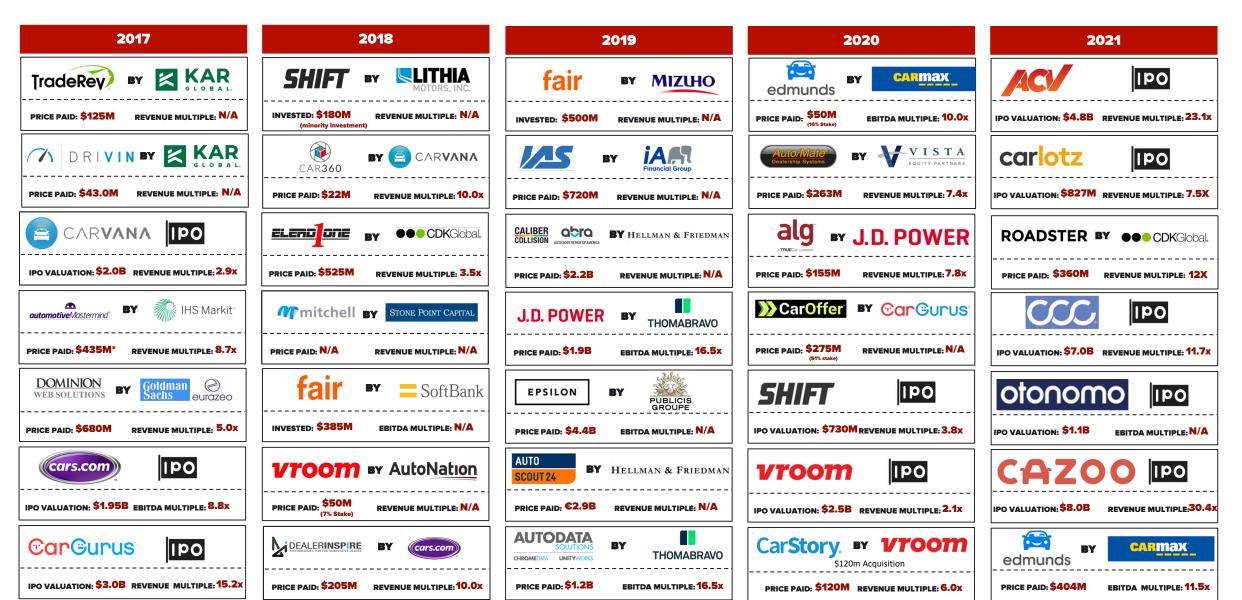








>>> MOST IMPORTANT AUTO TECH DEALS BY YEAR: 2017-2021





>>> JANUARY COMPANIES TO WATCH

VOLTAIQ

voltaiq.com

For top automakers, consumer electronics and energy storage companies, Voltaiq's battery analytics platform ensures the safety of new products and accelerates the transformational shift in how we use our devices, power our vehicles and balance the electric grid. Voltaiq is now partnering with leading finance organizations, providing the battery intelligence to unlock capital and accelerate the global transformation to an electrified economy.

1KOM MA5°

1komma5grad.com/en

Building a network of experienced specialist companies in Europe who are focused on one thing: to enable you to live a CO2-neutral life in accordance with the 1.5 ° climate target of Paris.



RLP is developing a new class of 3D printers that can produce large-scale, high-resolution, soft and stretchable products in minutes with the highest quality industrial materials. They are working with researchers and industry-leading companies around the world on applications including medical devices, footwear, home goods, furniture, aviation, and automotive components.



visionarymachines.com

Visionary Machines has created a revolution in 3D sensing using camera arrays. Delivering better than human vision for machines — with unparalleled depth, color, motion, and trajectory. Their vision is to enable machines to see — so they can navigate, measure distances, perceive objects and intelligently interact with the world around them.



driveu.auto

Offers a superior connectivity platform for robot and autonomous vehicle teleoperation.
Remotely operate robots and autonomous vehicles through low-latency video, using their cellular-bonding technology. Easy to integrate. Field-proven.



<u>lectrium.io</u>

Lectrium handles your EV charger installation. Quick, safe and lowest prices anywhere. Book your installation today. Lectrium provides a fully managed service that combines high-quality design, materials, and installation into a single, stress-free charger installation experience.



knowsmoke.com

Knowsmoke helps car shoppers measure whether a car has been smoked in. Their thirdhand smoke test kit is simple, easy to use, and provides results in minutes. Before buying a used car, verify it's smoke-free.



pionix.com

With the rise of EVs, the charging experience has to be reinvented. Pionix accelerates innovation within a unified EV charging ecosystem. They are driving the mobility transformation with Everest, an open-source software stack, and they offer solutions and services to enable a unified ecosystem.





DEC

TAILHAND.

tailhand.com

>>> 2021 COMPANIES TO WATCH

APR

CARPAY

carpay.com

autoAPR

Installe Net

installernet.com

Dealer×

dealerx.com

FAPID



JAN



FEB















MAR

FIXED OPS D I G I T A L



































nubrakes.com



widewail

widewail.com

Karus

karus.ai

TRACTABLE

tractable.ai

REINVENT**AUCTIONS**





JUL

wrapmate

blyncsy

blyncsy.com

QUANTUM

quantum5.ai



























SEP



recurrentauto.com















OCT

rdtstech.com

STYRATA

tyrata.com

autority.io

everrati

everrati.com

(7) Coulomb

coulomb.ai

♦ interplai

interpl.ai



NOV

















AUTOCORP

autocorp.ai





smartcar

>>> 2020 COMPANIES TO WATCH



www.autohub.io





https://qet.fixdapp.com



www.dignifi.com



††GENERATIONS DIGITAL



www.generationsdigital.com





https://autotitling.com

=AutoFi

www.autofi.com

www.darwinautomotive.com

digitalmotors:

www.digitalmotors.com

♠ PRODIGY

https://getprodigy.com



TRUE SPOT

www.truespot.com

DRIVENDATA

www.driven-data.com

A2Z (SYNC

www.a2zsync.com

as**Tech**)

https://astech.com

() spiffy

www.getspiffy.com



REVIVER

www.reviver.com

PARTSEDGE

www.partsedge.com

inSearch X

www.insearchx.com

B AUTO GROUP

www.cbautogroupinc.com

BLACKWIDOW

www.blackwidowimaging.com







WORK TRUCK

SOLUTIONS

www.worktrucksolutions.com

Spireon



Matador

https://matador.ai

Dealer DOCX

www.dealerdocx.com



& F L U E N C Y











Lotp

www.lotpop.com

boost acquisition

www.boostacquisition.com

ACERTUS

https://acertusdelivers.com









(WarrCloud

www.warrcloud.com









REVOLUTION PARTS

















https://pave.bot











www.ravin.ai





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