



AUTO INTEL REPORT

JUNE 2022

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THE NEW AUTOMOTIVE VENTURES DEALERFUND

The new Automotive Ventures DealerFund will help auto dealerships navigate through the next decade of unprecedented change and participate financially in the AutoTech startups they help to grow.



[LEARN MORE](#)

WELCOME TO THE AUTOMOTIVE VENTURES INTEL REPORT

Thank you for responding to our survey and providing feedback on the Intel Report. As a result, you'll see significant changes in this issue, and more to come next month.

As promised, we have made a donation to [BestFriends.org](https://www.bestfriends.org), to help them on their mission to get our animal shelters to 100% "no-kill" by 2025.

In this month's issue, market valuations are in the process of resetting, and as a result, many VC firms are communicating with their portfolio companies to prepare for the worst: to cut costs, conserve cash and raise money if they can.

Yet, auto dealerships are very likely to experience another year of record profitability in 2022.



Thanks as always to you, our 4k+ loyal readers, and please send me a note if you have thoughts on how we can improve the Intel Report.

Many thanks,

Steve Greenfield
steve@automotiveventures.com




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POINT OF VIEW

STEVE GREENFIELD





AN UNCERTAIN MARKET

What a difference a few months have made.

Inflation is running much higher than the Fed's target of 2.0%, the US central bank is raising short-term rates, and market expectations for further tightening are climbing. This has caused substantial market turmoil, with most major stock indexes down by double digits since the start of the year. Many of the high-flying tech stocks that have driven market gains for years are down more than 30%.

The S&P 500 ended May at 13.9% below the all-time high it closed at on the first trading day of the year. The tech-heavy NASDAQ is down 23.7% over the same period.

The Automotive Ventures Mobility Index ended May at 194.3, which is 34% down from its high in November 2021.

The SaaS Capital Index, which tracks the annualized run rate revenue multiples of the larger publicly-traded B2B SaaS companies sits at 9.3x, down from 16.9x last August, a drop of 45%.

The reset of valuation multiples in the public markets has started to hit private company valuations, although it may take a couple of quarters to trickle down to really feel the impact.

POINT OF VIEW



CONSUMER SENTIMENT

University of Michigan's Index of Consumer Sentiment dropped to 58.4 in May, down almost 30% from the prior year. Reasons cited include continued negative views on current buying conditions for houses and durables, as well as consumers' future outlook for the economy, primarily due to concerns over inflation.

It doesn't help that Russia's invasion of Ukraine, which started on February 24th, doesn't seem likely to find a resolution anytime soon.

There will not be a lack of funding for startups as the store of dry powder (record of \$1.81 trillion in January 2022) will continue to support fundraising. However, funders will be extra cautious with the stock market on the cusp of bear territory, and the possibility of a recession looming in the near future.

ADVICE TO STARTUPS

Sequoia Capital, the successful 50-year-old venture firm, has become known over the years for issuing memos to warn founders in its portfolio about market shifts. Their "R.I.P Good Times" memo in 2008 and "Black Swan" memo in March of 2020 have become legendary. This month, Sequoia published their "Adapting to Endure" memo to their portfolio companies, and it's worth noting some of their content.

POINT OF VIEW

Sequoia is calling this period of turbulence a "crucible moment." Just as they noted back in 2008, the same advice applies:

1. Manage what you can control:
 - a) Spending
 - b) Growth assumptions
 - c) Earnings assumptions
2. Focus on quality
3. Lower risk
4. Reduce debt

Y COMBINATOR'S PERSPECTIVE

Y Combinator, a Silicon Valley kingmaker, is advising its portfolio founders to "plan for the worst."

"The safe move is to plan for the worst. If the current situation is as bad as the last two economic downturns, the best way to prepare is to cut costs and extend your runway within the next 30 days. Your goal should be to get to Default Alive."

-Y Combinator memo titled "Economic Downturn"

The investment firm suggested startups cut their expenses and focus on extending their runways within the next 30 days. For those who don't have the runway to "reach default alive," YC is strongly suggesting that they consider raising money.

"If your plan is to raise money in the next 6-12 months, you might be raising at the peak of the downturn. Remember that your chances of success are extremely low even if your company is doing well. We recommend you change your plan."

-Y Combinator memo titled "Economic Downturn"

DEALERSHIP PROFITABILITY

Despite all of this, dealerships continue to print record profits.

POINT OF VIEW

>>>PUBLIC DEALER GROUPS: Q1 2022 PERFORMANCE

COMPANY	Gross Margin (% of Rev.)	Change (vs. prior year)	SG&A* (% of Gross Profit)	Change (vs. prior year)	EBITDA Margin (% of Rev.)	Change (vs. prior year)
Asbury (ABG)	20.2%	+2.8%	56.0%	-(2.8%)	8.6%	+1.9%
AutoNation (AN)	19.4%	+1.9%	55.4%	-(5.9%)	8.3%	+1.9%
Group 1 (GPI)	18.9%	+2.6%	59.1%	-(3.7%)	7.3%	+1.8%
Lithia (LAD)	19.1%	+2.6%	55.7%	-(5.3%)	8.2%	+2.1%
Penske (PAG)	17.7%	+1.9%	57.4%	-(8.9%)	6.1%	+2.0%
Sonic (SAH)	15.9%	+1.5%	65.5%	-(3.2%)	5.0%	+1.2%

Source: Stephens

SG&A after removing Rent

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POINT OF VIEW

HOW WILL DEALERS COME OUT OF THIS?

Regardless of the aforementioned economic uncertainties, the overall macro view of the automotive segment is strong. J.D. Power reports that in addition to the 2.9 million new vehicles that weren't sold into fleets over the past two years, there is an additional 1.9 million retail units that were lost during the same period. Add the two figures together, and we have nearly 5.0 million new vehicle sales that must be fulfilled before the market equilibrates back to normal.

>>> 4.8 MILLION PENT UP UNIT DEMAND

New vehicles sales that must be fulfilled before the market equilibrates back to normal



© 2022

Source: J.D. Power

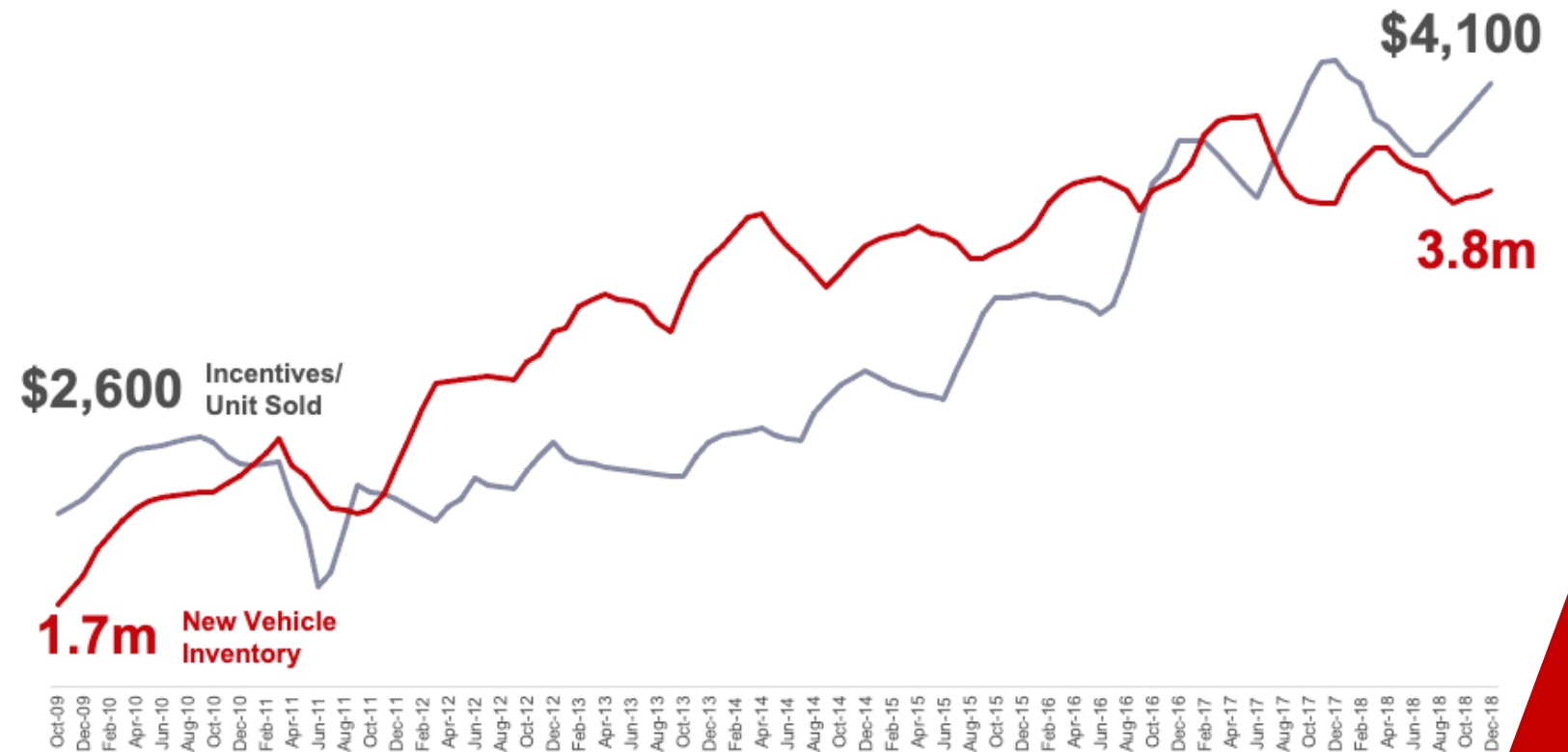
WILL THE OEMS MAINTAIN DISCIPLINE?

With all the talk about “Build to Order”, keeping “Days in Stock” down, and better matching of supply/demand on the production line, time will tell if OEMs can maintain discipline without being tempted to get back into an environment where they overproduce to claim market share gains.

If history is any indication, it’s very likely that we’ll get back to our old ways of inflated inventory, which will, in turn, drive increased incentives to help liquidate units. Thanks to J.D. Power for this data of how the years after the 2008 recession played out. Discipline be damned.

OEMs are also maintaining pressure on dealerships to hit Sales Effectiveness targets, which measures a dealership's performance relative to the market area of responsibility and average dealership sales penetration.

HISTORY: LACK OF OEM PRODUCTION/PRICE DISCIPLINE



Source: J.D. Power

Dealerships which have below average sales will be driven to sell more vehicles once availability returns, which drives down prices. Dealerships that are far below the average are targets for consolidation.

POINT OF VIEW

ACCELERATING RATE OF CHANGE FOR DEALERSHIPS

The changes facing auto dealers keep coming.

News this week out of Europe about the evolution of the dealer body away from franchisees and towards more of an “Agency” model.

The agency model, which is being talked about more and more in the press but is not very well defined, is an evolution away from a more typical franchised dealership model to “agents” who sell product on the OEM’s behalf. This model is more attractive to the automakers because they see the potential to reduce operating costs and eliminate discounting.

The Concept: As an OEM moves towards a direct-sales model, the dealers need less expensive facilities - to store fewer vehicles; consumers order the vehicle ahead of time so inventory costs are lower; advertising costs are lower; and, there isn’t any competition on price as all vehicles sell at MSRP.

Outside of the U.S., Mercedes-Benz is also moving toward a more direct-sales – or “agency” – model, and is targeting 80 percent of European sales through this method by 2025.

This week, Mercedes-Benz announced plans to cut 15 to 20 percent of its dealerships in Germany, and about 10 percent of their dealerships globally, as part of a broad overhaul of its distribution network.

They were quick to add that there are no plans for a U.S. dealership consolidation at the present time.

At the same time, Mercedes is targeting 25% of all of their international sales to be online by 2025.

The automaker says the moves will cut distribution costs and allow it to rein in incentives as the automaker seeks to move even farther upmarket with higher average selling prices.

And it isn’t only Mercedes who is making big changes overseas.

Just last week, Stellantis has said it would end all current sales and services contracts with European dealers for its 14 brands, effective June 2023.

The plan is to move the Stellantis distribution structure in Europe towards an “agency model,” where carmakers take more control of sales transactions and prices while dealers focus on handovers and servicing, no longer acting as the customer’s contractual partner.

POINT OF VIEW

The new Stellantis distribution structure would be operational in all of Europe's 10 largest markets by 2026, and they envision allowing their dealerships to capture 5% front-end profit on new cars sold.

We will be keeping a watchful eye on how this dynamic unfolds over in Europe and its implications on the U.S. market.

We continue to make dealership visits, asking owners to articulate their vision of what the future looks like and identify operational gaps that might be filled by technology solutions, a process that will ultimately define the areas of investment for the DealerFund. I look forward to sharing our findings with you in future Intel Reports.

WRAPPING UP

As Sequoia noted in their March 5, 2020 "Black Swan" memo communicating the potential impact of COVID-19 on their portfolio companies:

"Having weathered every business downturn for nearly fifty years, we've learned an important lesson — nobody ever regrets making fast and decisive adjustments to changing circumstances..."

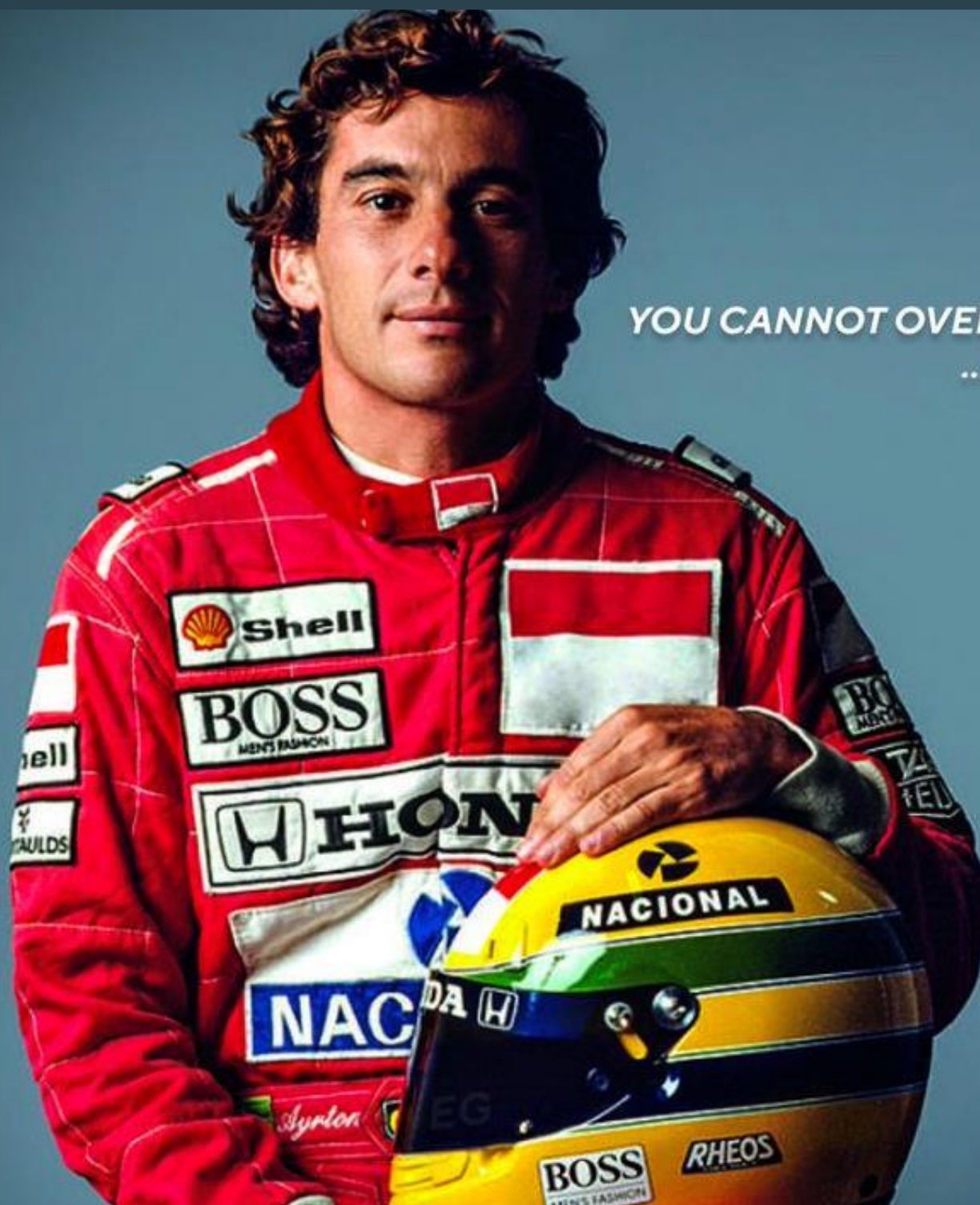
...In downturns, revenue and cash levels always fall faster than expenses. In some ways, business mirrors biology. As Darwin surmised, those who survive "are not the strongest or the most intelligent, but the most adaptable to change."

It's an exciting time for this industry, and I look forward to working with you to create the future.



Steve Greenfield
CEO and Founder
Automotive Ventures





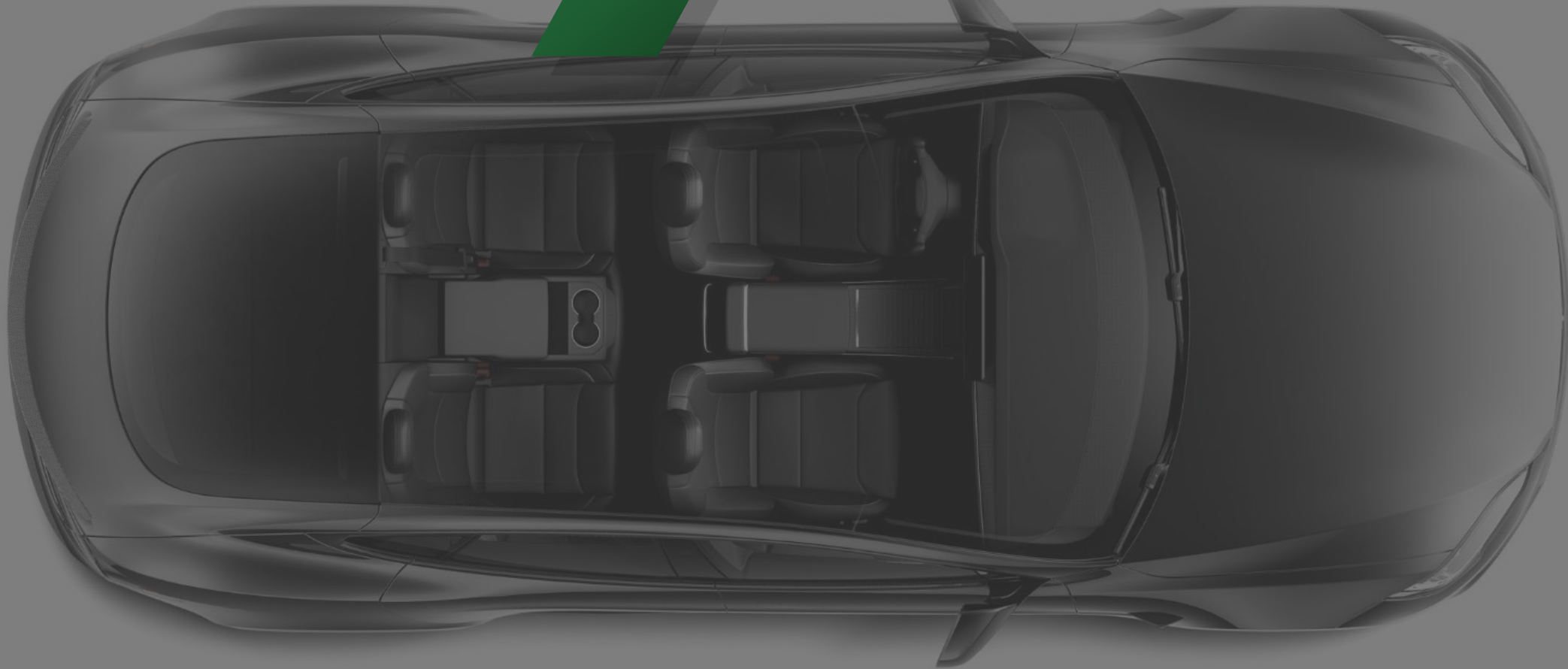
YOU CANNOT OVERTAKE 15 CARS IN SUNNY WEATHER
...BUT YOU CAN WHEN IT'S RAINING."

-AYRTON SENNA

POINT OF VIEW

MOBILITY INDEX

AUTOMOTIVE VENTURES



THE AUTOMOTIVE VENTURES MOBILITY 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.



AV MOBILITY INDEX: LARGEST MONTHLY MOVERS

Changes during the month of May 2022

LARGEST \$ CHANGE	
INCREASE	
Penske (PAG)	\$1.50b ↑
AutoNation (AN)	\$907m ↑
CDK Global (CDK)	\$624m ↑
DECREASE	
Tesla (TSLA)	\$335.4b ↓
Uber (UBER)	\$24.8b ↓
Toyota (TSE:7203)	\$20.8b ↓

LARGEST % CHANGE	
INCREASE	
Innoviz (INVZ)	32.2% ↑
Penske (PAG)	20.7% ↑
AutoNation (AN)	15.0% ↑
DECREASE	
AutoWeb (AUTO)	78.0% ↓
Embark (EMBK)	75.9% ↓
Carvana (CVNA)	75.4% ↓

MOBILITY INDEX

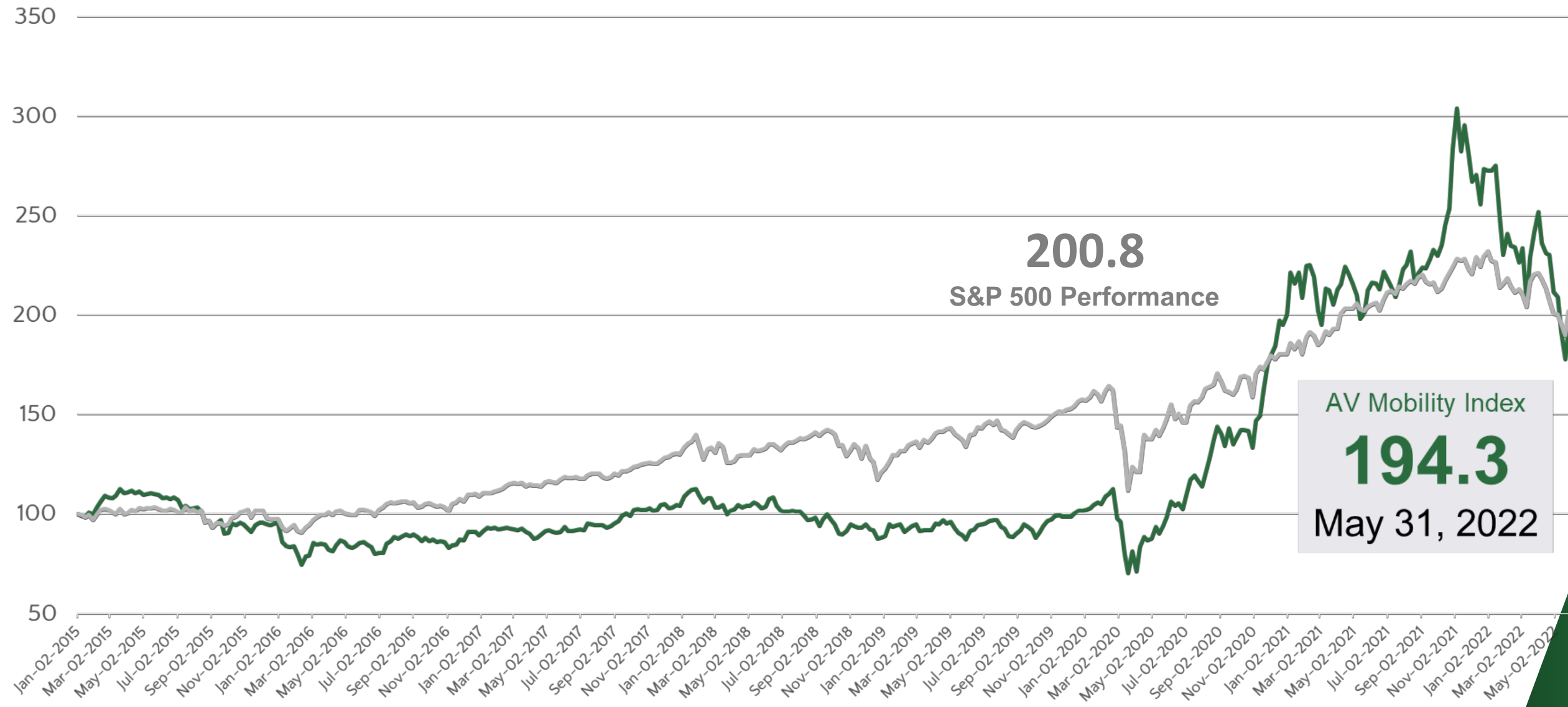
AV MOBILITY INDEX: RELATIVE MARKET CAPS

As of May 31, 2022



MOBILITY INDEX

AUTOMOTIVE VENTURES MOBILITY INDEX



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



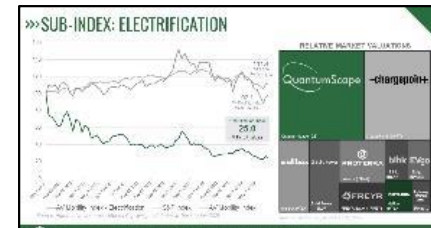
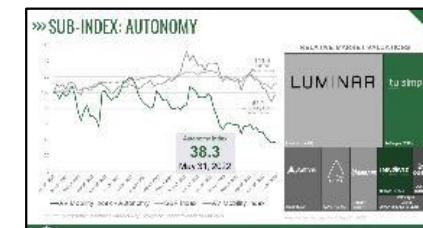


VISIT

WWW.MOBILITYINDEX.INFO

AUTO TECH

Where you can find more information, including sub-indexes for manufacturers, dealer groups, third party marketplaces, auctions, autonomy and electrification.



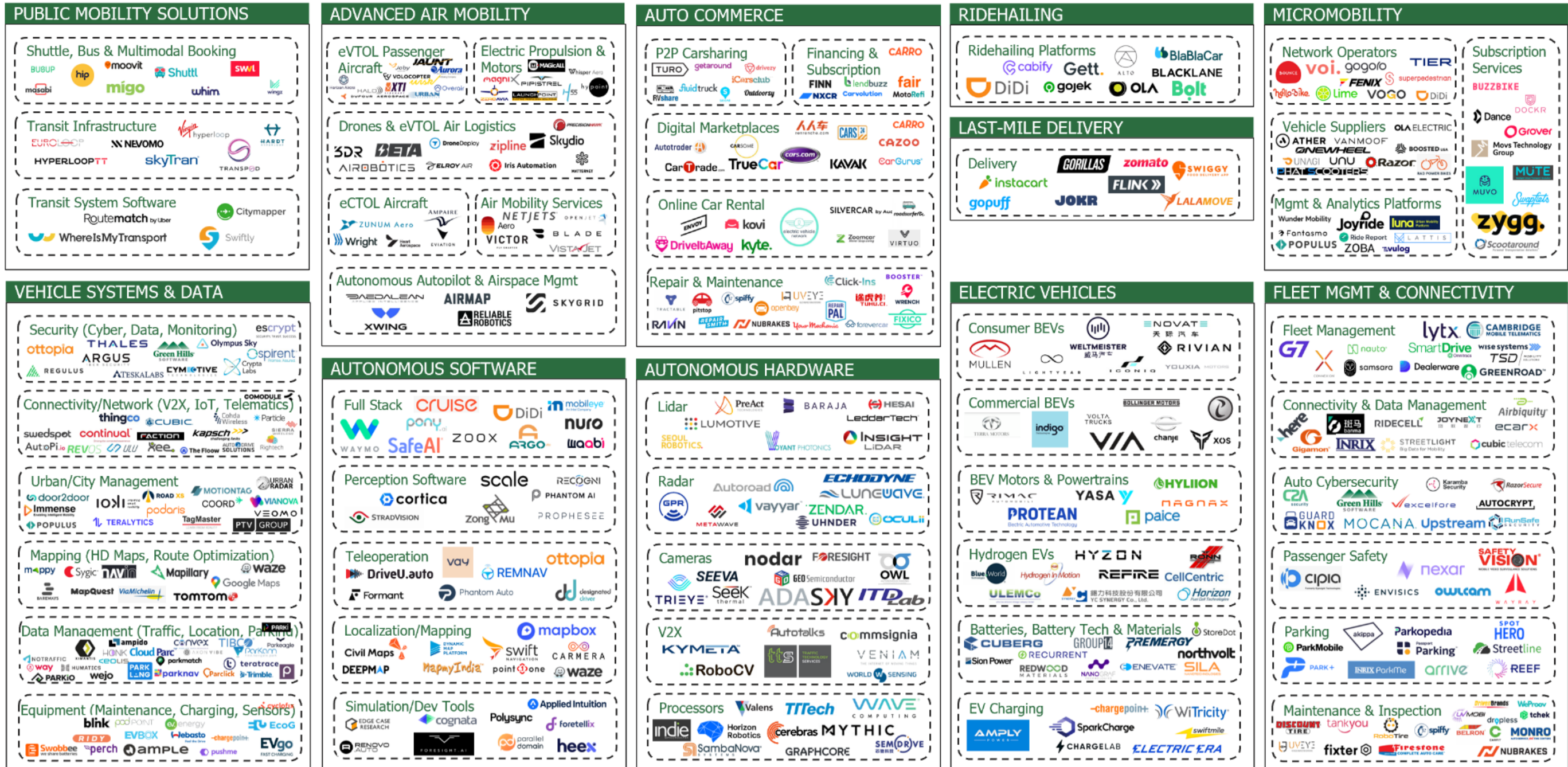
MOBILITY TECH LANDSCAPE



MOBILITY TECHNOLOGY LANDSCAPE



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COMPANY VALUATIONS

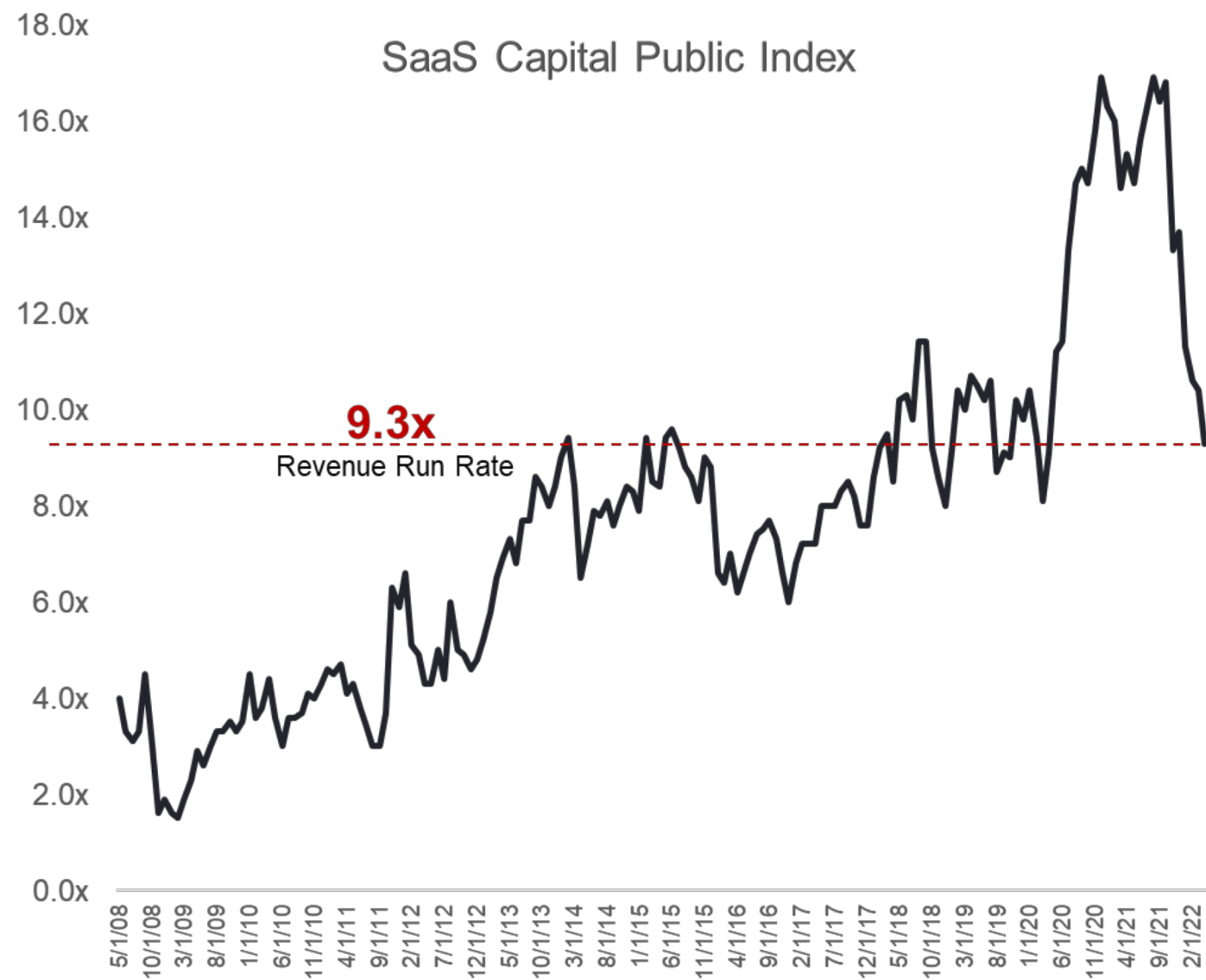
FUNDING LEVELS

Categories are rough estimates only. Source: Christoph Jantz at Point Nine Capital

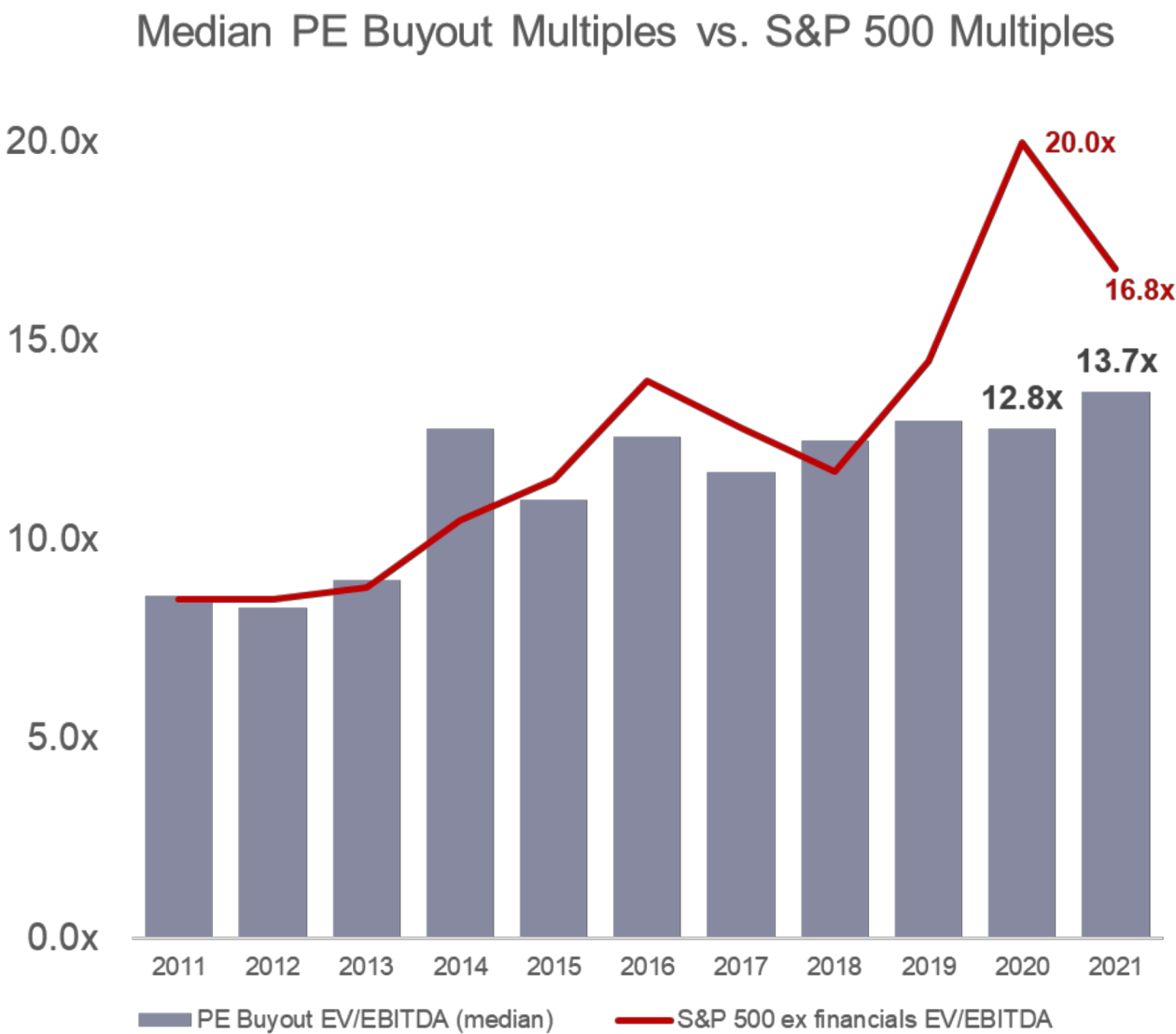
25

	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 as of 5/30/2022



Source: PitchBook | Geography: U.S.

DEALER AUTO TECH LANDSCAPE





AUTOMOTIVE
VENTURE

CONVERSION (converting consumer traffic to sale)

RETENTION (retain as service/repeat customer)

SOFTWARE

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2022 TRANSACTIONS



MAY 2022 TRANSACTIONS



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 VistaDash Acquisition by DealerBuild	 Caribou \$115 Series C Goldman Sachs Asset Management	 optibus \$100m Series D INSIGHT PARTNERS	 motive \$150m Series F INSIGHT PARTNERS	 BOOSTER™ \$125m Series D ROSE PARK ADVISORS	 light Acquisition by JOHN DEERE	 Investments This Month \$23m Series A SPARKCHARGE®
 CHARGE THEORY Acquired by THE MOBILITY HOUSE	 paybycar \$4m Seed Round GENTEX CORPORATION	 GET HENRY €16.5m Seed Round LOCALGLOBE	 Reby \$100m Acquisition by HOUSE OF LITHIUM	 优信 \$100m Convertible Pref. NIO CAPITAL	 FINN \$110m Series B KORELYA capital	
 TWAICE \$30m Series B COATUE	 SOUTH 8 TECHNOLOGIES \$12m Series A ANZU PARTNERS	 WapCar Acquired by CARSOME	 Apex.AI Minority Investment by DAIMLER TRUCK	 ADGILE \$5m Seed Round BFV	 GLOBAL BATTERY SOLUTIONS Acquired by AEC Drivetrain	 SOMIT Solutions GBP 7.68m Acquisition KPIIT
 voltlines Acquired by SWVL	 rinsed \$12m Series A BEDROCK	 getaround Announced SPAC IPO INTERPRIVATE	 REVVO \$6m Seed Round CERCANO	 MWM \$32.6m Private Placement	 manz 9% Sold to DAIMLER TRUCK	 Johnson Matthey Battery Systems CS10.25m Acquisition by nanoOne
 zeelo \$100m Acquisition by SWVL	 driveX \$1.0m Investment by DEPO VENTURES	 amprion Announced SPAC IPO KENSINGTON	 dragonfly™ Announced SPAC IPO CHARDAN NEXTECH ACQ 2	 Avionyx Acquired by Joby AVIATION	 SYLNDR™ \$12.6m Pre-See RAED VENTURES	 SURFAIR Planned SPAC IPO Tuscan Holdings Corp THCB
 SHARENOW✓ Acquired by STELLANTIS	 Li-Cycle® \$200m Investment by GLENCORE	 6K \$102m Series D KOCH INDUSTRIES INC	 MANGROVE LITHIUM Series A-1 BMW i VENTURES	 SEABOUND \$4.4m Seed Round LOWERCARBON CAPITAL	 COROETZ €1.8m Financing VETH INVESTMENTS	 ecarX Planned SPAC IPO COVA Acquisition Corp.
 GROUP14 \$400m Series C PORSCHE	 SWTCH \$10m Series A ALIGNED capital partners inc.	 PRINCETON NUCLEONICS \$7m Seed Round wistron	 ATHER \$128m Series E Hero	 CHARGELAB \$15m Series A KING RIVER	 LogRock \$3.5m Seed Round DYNAMO	 VisionNav Robotics 500m yuan Series C-ext Meituan
						 Minus Zero \$1.7m Seed Round chiratae VENTURES
						 EAS €36m Acquisition by BRITISHVOLT™

OVERVIEW OF TRANSACTION

Caribou (formerly known as MotoRefi), is an auto fintech whose mission is to help people take control of their car payments, and they have closed a \$115 million Series C funding round, which brings the company's valuation to \$1.1 billion.

The round was led by Goldman Sachs Asset Management.

SIGNIFICANCE TO INDUSTRY

Auto lending is the fastest-growing consumer credit market in the U.S., with total auto debt having doubled to roughly \$1.5 trillion in little more than 10 years. With the cost of car ownership soaring, Caribou is providing consumers with much-needed financial relief, ***saving its customers on average more than \$100 a month on their auto loan through refinancing.*** The company is expanding its services across the auto financial landscape, ***recently launching its digital car insurance marketplace.***

Founded in 2016, Caribou has rapidly grown its core auto refinancing offering by connecting car owners with lenders from credit unions, community banks and other trusted financial institutions. Caribou now also provides a quick and easy way to shop and compare car insurance from trusted national carriers in minutes with its new car insurance marketplace. By combining technology with expert lending and insurance teams, Caribou is prioritizing transparency and trust in the car ownership experience.



\$115m Series C

**Goldman
Sachs**

Asset
Management

JANUARY – FEBRUARY 2022 TRANSACTIONS



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January 2022

 \$6.125m Financing FORTRESS	 \$57m investment by Hero	 \$200m Series B ECLIPSE	 \$83m Series C SPARK Asset Management Co., Ltd. Mist Creation Fund	 €200m Series D SoftBank Vision Fund
 Acquired by Joby	 \$28m Seed RedBlue	 \$100m Joint Venture by ADT Ford	 Considering €3.4b IPO	 \$15m Series A State Farm VENTURES
 SPAC IPO KANITE	 Financing BANK VENTURES	 \$7m Financing EON	 \$78m Debt + Equity AUTOTECH VENTURES	 \$12m Series A AUTOTECH VENTURES
 \$6m Equity Financing NASPERS FOUNDRY	 Assets acquired by MAGNA	 \$24m Series B ENERGIZE	 \$70m Series B ENERGY IMPACT PARTNERS	 \$400m Series A Baidu GEELY
 Acquired by WHEELPROS	 €600m Financing SEQUOIA	 \$49.55 Series A ANTHOS	 \$27m Financing DEEP INSIGHT	 \$80m Series C EXOR
 \$80m Series D VINFAST	 \$15.4m Series A UPPARTNERS	 \$5m Seed Extension GIV GRIT VENTURES	 \$21.5m Series A TIGERGLOBAL	 \$4m Financing HYUNDAI MOBIS
 IPO Filing	 \$4.3b acquisition by APTIV	 \$42m Financing ArcBest	 Acquired by Uber	
 Business Combination	 Planned IPO	 €15 million Series A CREANDUM	 \$200m Financing TEKNE	
 Strategic Investment by DECATHLON CAPITAL PARTNERS	 \$300m Financing TEMASEK	 \$450m Financing BOEING	 Sold 60% to ABB	
 \$42m Series A northstar	 \$200m Financing STELLANTIS	 €80m acquisition by CAZOO	 €50m Financing European Investment Bank	

February 2022

 \$1.75m Seed TRUCKS	 \$65m Acquisition by CARS	 \$3.8b Acquisition by ARES	 Acquired by ACV	 \$19m Acquisition ACV	 Volkswagen Group	 Acquired by BOSCH
 U.S. Operations \$2.2b Acquisition by CARVANA	 \$285m Investment by APTIV	 Acquisition by VONTIER	 \$54m Series C GLENCORE	 \$250m Financing BANK VENTURES	 €3.3m Financing breega	
 Acquisition by SOLERA	 \$125m Series C Jefferies	 \$140m Series D FS INVESTORS	 \$50m Series B INSIGHT PARTNERS	 ANY TRUCK ANYTIME ANYWHERE \$96m Financing AQ	 \$15.77m Financing Prosperity?	
 \$1.35b Investment by SoftBank Vision Fund	 Acquisition by DICKSON FLEET SERVICES COLLABORATION - MOBILITY	 \$12.4m Financing by SIAM	 Acquisition by HARMAN	 Series B BAIC	 \$2m Financing MAGMA PARTNERS	
 \$5.95b Acquisition by faurecia	 \$200m Series D SoftBank Latin America Fund	 \$630m Convertible Notes	 \$20.8m Series B KIP Korea Investment Partners	 \$20m Series B Collaborative Fund	 \$93m Series B AFFIRMA CAPITAL	
 IPO	 \$13m Financing GLOBAL FOUNDERS CAPITAL	 Investment by PORSCHE	 Acquisition by cogo	 \$15.8m Series A ECLIPSE	 \$22m Series A Lightspeed	
 \$11m Series A gm VENTURES	 \$115 Series C SoftBank Vision Fund	 \$3.5m Pre-Series A Inflexor	 Auto Exchange Powered by YOU the dealer! Acquisition by E INC	 BRL 53m Financing GRACIOSA CAPITAL	 \$126m Series B BlackRock	
 \$4m Seed AMYV VENTURES AG	 Acquisition by CCC	 \$22.6m Financing Q1	 SPAC IPO NT NeraTech Media	 Minority investment BRIDGESTONE Bridgestone Americas, Inc.	 \$1.6b Acquisition by APOLLO	
 \$24m Series A metaplanet	 Acquired by CBC credit bureau connection	 Acquired by ACTON	 \$40m Series B INSIGHT PARTNERS	 \$3.3m Financing MLTPLY	 \$2.58b Acquisition by C	
 \$70m Series B Extension abrdrn	 Acquired by Jacobs	 \$19m Financing Hertz	 \$10m Financing Capital Group	 \$25m Series B RACV	 \$69m Acquisition by otonomo	

MARCH – APRIL 2022 TRANSACTIONS



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March 2022

AutoFi \$85m Financing by Santander Consumer USA	mykaarma Major investment by UFG PARTNERS	tekmetric Growth Investment SUSQUEHANNA GROWTH EQUITY	autoAPR Acquisition by TRADEPENDING	carwow £17.2m Funding by VITRUVIAN PARTNERS	ASOTU Seed Financing State Of The Union
SUMMIT NANOTECH \$14m Investment C>PRICORN INVESTMENT GROUP	mcove \$105m Series A2 Si Speedinvest	ALPINA Acquisition by BMW GROUP	cruise \$3.45b Investment gm	MAY Mobility Minority investment by BRIDGESTONE Bridgestone Americas, Inc.	fair Marketplace Assets: \$15m + 2.5% Equity SHIFT
STARSHIP \$42m Series B NordicNinja By 30 North Ventures	TYRATA Minority Investment BRIDGESTONE Bridgestone Americas, Inc.	AutoBrains. \$120m Series C TEMASEK	SOLO \$7m Seed TRUCKS	OSRAM Automotive Lighting €65m Acquisition by PLATON	PIX \$11m Pre-A Round PIX MOVING
one \$65m Financing ION VENTURES	SPIN Acquisition by TIER	Mechanical Simulation Acquisition by Applied Intuition	TerraDrone \$70m Series B MITSUI & CO.	WeRide \$400m Financing 广汽集团 GAC GROUP	autorama Up to £200m AutoTrader
URGENTLY Planned SPAC IPO GRAF	VOLOCOPTER \$170m Financing by WP CARE	2trde €7m Seed Round Adevinta Ventures	StoreDot Minority Investment OLA ELECTRIC	REPOWR \$4.2m Seed Round KOCH DISRUPTIVE TECHNOLOGIES	whale dynamic 惠尔智能 \$2.5m Seed Round
DRIVA \$6m Growth Funding CARTHONA CAPITAL	mobileye Filed for IPO Intel Company	IDS \$70m Acquisition by Wolters Kluwer	movi.io \$1.7m Seed	kyte. \$200m Credit Finance Goldman Sachs	FLUX MARINE \$15.5m Series A
EverWash \$6m Series B SPRING MOUNTAIN CAPITAL	FETCH \$3.5m Financing nextview	DAINESE €630m Acquisition by THE CARLYLE GROUP	FREEDOM PHOTONICS Acquisition by LUMINAR	THE ROUTING COMPANY \$15m Financing GALVAN FZE	
CESIUM \$60m Funding AIRBUS VENTURES	INCEPTO \$188m Financing by SEQUOIA CAPITAL SEQUOIA CHINA	spiffy \$32m Series B edisonpartners	serve \$10m Investment by NVIDIA	beep \$25m Series A-1 ABS Capital	
greenscreens.ai Investment by TIGERGLOBAL	pony Series D Financing TOYOTA	WORK \$12m Series A LEVEL EQUITY	Strio AI Acquired by ZOOX	KARGO \$25m Series A SOZO VENTURES	
F&I SENTINEL Majority Recap by CALERA CAPITAL	goto \$5m Pre-IPO Funding ASTARA	Swobbee we share batteries \$6.5m Series A et InnoEnergy	motto €4m Seed Round CASSIUS	HERMEUS \$100m Financing FOUNDERS FUND	

April 2022

CDK Global \$8.3b Acquisition Brookfield	CYTK \$3m Financing Hike Ventures	Bcomp \$35m Investment by ION VENTURES	Automotive Ventures Investments This Month		
THE BORING COMPANY \$675m Financing Vy Capital	hivemapper \$18m Series A Multico Capital	NOVA Investment GOODYEAR	wrapmate \$1.7m Pre-Seed	RECURRENT \$4.5m Financing	Meter Feeder \$2.6m Seed Extension
ShiftEV \$9m Financing usv Union Square Ventures	FIVE Acquisition by BOSCH	Feasible \$8.0m Series A GOOD GROWTH CAPITAL	etap \$1.5m Pre-Seed mobility54 Supply Training Group	ROUTE REPORTS \$3.25m Seed Urban Innovation Fund	SPOT A WHEEL €100m Equity + Debt VentureFriends
A.L.I. Technologies Filed for IPO	TEKFOR \$135m Acquisition by MAZDA	SIGO SEGROS \$5.4m Seed Financing LISTEN	SPEEDDIGITAL Acquisition by HAGERTY	carwow Minority Investment by ION VENTURES	nodar Ro-onvision safety. \$12m Series A NEA
BUILT ROBOTICS \$64m Series C TIGERGLOBAL	EverCharge Acquisition by SK E&S	Trillium Acquisition by optibus	CONVOY \$160m Series E RAILLIE GIFFORD	UXP \$25m Funding by THE OXYGEN GROUP OF COMPANIES	SWTCH \$10m Series A ALIGNED CLIMATE CAPITAL
TURO \$35.2m Venture Round	RideUP \$6.5m Series A EIF ECOSYSTEM INTEGRITY	ShipIn Investment by Munich RE Munich RE Ventures	eZINC \$25m Series A ANZU PARTNERS	ON TIME \$153m Series A pony U WeRide	verge \$7.5m Series A YAMAHA MOTOR VENTURES
Zong & Mu \$157m Investment by 財通資本 Carroo Capital	HIF \$75m Investment PORSCHE	STEER \$1.5m Financing North Central Texas Council of Governments	coreshell TECHNOLOGIES \$12M Series A TRUBALL VENTURES	neuron \$43.5m Series B GSR Ventures	db DAT.BIKE \$5.3m Series A jungle
MotionsCloud \$2m Funding SOSV	BLUECURRENT \$30m Investment by KOCH INDUSTRIES INC	carmoola £27m Financing M	PBSC Acquisition by lyft	PYKA \$37m Series A PIVA	
EPS \$13m Financing jetBlue technology ventures	AUTOLIS \$5m Series A	rapido \$180m Financing SWIGGY	DIVERGENT \$160m Financing by HEDOSOPHIA	Acquisition by sambasafety	
Fantasma Acquired by TIER	re2 \$100m Acquisition by SARCOS	SmartHop \$30m Series B SOZO VENTURES	BETA FLIGHT RECHARGED \$375m Series B TPG RISE CLIMATE	FREEWIRE \$125m Financing BlackRock	

Where you can find more information, about major automotive technology deals for prior years, dating back to 2012.

2022 TRANSACTIONS: JAN - FEB

2022

2022

A collage of various logos and brand names, including McDonald's, Coca-Cola, and others, arranged in a grid-like fashion.

[illegible][illegible]

» 2020 COMPANIES TO WATCH

At the top of the collage, the text reads: "At the top of the list is a company that's not on our list." Below this, the logos are arranged in a grid-like fashion, with some logos appearing larger than others. The logos include: Airbnb, Zoom, Slack, Microsoft, Amazon, Facebook, Google, Apple, Netflix, and many others. The logos are in various colors and sizes, creating a visually busy and colorful collage.

COMPANIES TO WATCH



JUNE 2022 COMPANIES TO WATCH



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stellaautomotive.com

STELLA handles your car dealership's inbound calls, answers questions, finds and books service appointments in seconds accessing multiple automotive dealership booking tools, watches phone lines, transfers calls and takes messages.



theautominer.com

The Auto Miner cleans customer data with managed marketing services designed exclusively for dealers. With industry-leading data cleansing, you can be certain that your marketing is reaching low-funnel customers who are ready to buy.



moove.ai

Moove.ai leverages connected vehicle data to fully realize transportation safety and efficiency. They provide a data backbone to connect all the disparate data required to fully orchestrate the transformation. They apply machine learning to rapidly identify issues in the system. They provide a real-time system for monitoring and managing orchestration.



invisible.ai

Invisible AI's vision platform tracks real-time human motion to help customers run accurate, reliable and safe operations. Invisible AI automates manual work tracking using intelligent cameras, and get results within minutes.



zendar.io

Zendar is building the highest resolution automotive radar in the world. Their product combines the benefits of radar, such as long-range and all-weather operation, with the resolution of lidar. They aim to make autonomous driving safe and accessible for everyone.



2trde.com

2trde is a B2B platform for used car trading, providing software solutions for mobility providers such as car dealerships, leasing companies, and manufacturers, helping to increase efficiency in the secondary market for used cars and driving greater profitability.



voyantphotonics.com

Voyant offers a new class of LiDAR that fit in the palm of your hand, can analyze any environment, in any lighting from bright sunlight to pitch darkness with millimeter precision, are immune to interference, that sense position, motion, and even the materials objects are made of, and are affordable for any application.



serverobotics.com

Serve Robotics was the first autonomous vehicle company to commercially launch Level 4 self-driving robots. They aim to make delivery affordable, sustainable and convenient

2022 COMPANIES TO WATCH



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JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
 awakemobility.de	 voltaiq.com	 fermataenergy.com	 designateddriver.ai	 carmigo.io	 stellaautomotive.com	?	?	?	?	?	?
 eyegage.com	 1komma5grad.com/en	 utilimarc.com	 getathumbsup.com	 turnautomotive.com	 theautominer.com	?	?	?	?	?	?
 cerebrum-sensor.com	 rapidliquidprint.co	 viaduct.ai	 evmatch.com	 heycharge.com	 moove.ai	?	?	?	?	?	?
 vinai.io	 visionarymachines.com	 ottometric.com	 4screen.com	 stableins.com	 invisible.ai	?	?	?	?	?	?
 cardana.co	 driveu.auto	 soelect.com	 mycarmacare.com	 everwash.com	 zendar.io	?	?	?	?	?	?
 chargelab.co	 lectrium.io	 annotell.com	 cinch.io	 summitnanotech.ca	 2trde.com	?	?	?	?	?	?
 kindredmotorworks.com	 knowsmoke.com	 securethings.ai	 rideco.com	 addionics.com	 vovantphotonics.com	?	?	?	?	?	?
 bcomp.ch	 pionix.com	 shift5.io	 assured.claims	 gouach.com	 serverobotics.com	?	?	?	?	?	?



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AUTO TECH

Where you can find more information about our Companies to Watch from 2020 and 2021, as well as our Companies to Watch Press Kit.

»» 2022 COMPANIES TO WATCH

Source: Deloitte's 2022 Global Automotive Outlook

Rank	Company	CEO	FOUNDER	EST.	INDUSTRY	FIN.	TECH.	AI	IoT	5G	Cloud	Blockchain	Quantum	Space	Autonomous	Electric	Hydrogen	Other
1	Tesla	Elon Musk	Elon Musk	2003	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
2	Rivian	Raj Rajkumar	Raj Rajkumar	2009	Automotive	Private	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
3	Lucid	Chris Peabody	Chris Peabody	2007	Automotive	Private	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
4	Nio	William Li	William Li	2014	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
5	XPeng	Chen Chao	Chen Chao	2015	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
6	Geely	Li Shengfu	Li Shengfu	2001	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
7	Volvo	Leif Johansson	Leif Johansson	1927	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
8	Mercedes-Benz	Ola Källenius	Walter F. Fries	1926	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
9	BMW	Oliver Frölich	Karl Schmid	1916	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
10	Audi	Dietmar Voigt	Audi AG	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
11	Volkswagen	Holstenberg	Ferdinand Piëch	1937	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
12	Stellantis	Carlos Tavares	Stellantis	2019	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
13	Ford	Jim Farley	Henry Ford	1902	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
14	General Motors	Mary Barra	General Motors	1908	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
15	FCA	John Elkann	FCA	2014	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
16	Honda	Takanobu Iwai	Soichiro Honda	1946	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
17	Toyota	Toyoda Goro	Toyota	1937	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
18	Nissan	Debraha Lee	Nissan	1933	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
19	Subaru	John Sheahan	Subaru	1953	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
20	Mazda	Hiroyuki Hatakeyama	Mazda	1920	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
21	Lexus	Mark Russell	Lexus	1989	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
22	Infiniti	John Sweeney	Infiniti	1989	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
23	Acura	John Sweeney	Acura	1984	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
24	Jaguar	John Sweeney	Jaguar	1935	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
25	Land Rover	John Sweeney	Land Rover	1970	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
26	Bentley	John Sweeney	Bentley	1919	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
27	Rolls-Royce	John Sweeney	Rolls-Royce	1906	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
28	Aston Martin	John Sweeney	Aston Martin	1913	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
29	Ferrari	John Sweeney	Ferrari	1929	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
30	McLaren	John Sweeney	McLaren	1963	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
31	Lotus	John Sweeney	Lotus	1952	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
32	Koenigsegg	John Sweeney	Koenigsegg	1998	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
33	Bugatti	John Sweeney	Bugatti	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
34	Pagani	John Sweeney	Pagani	1992	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
35	Maserati	John Sweeney	Maserati	1914	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
36	Alfa Romeo	John Sweeney	Alfa Romeo	1910	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
37	Lancia	John Sweeney	Lancia	1907	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
38	Fiat	John Sweeney	Fiat	1911	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
39	Opel	John Sweeney	Opel	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
40	Vauxhall	John Sweeney	Vauxhall	1903	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
41	Peugeot	John Sweeney	Peugeot	1810	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
42	Citroën	John Sweeney	Citroën	1900	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
43	Renault	John Sweeney	Renault	1899	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
44	Dacia	John Sweeney	Dacia	1966	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
45	Skoda	John Sweeney	Skoda	1899	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
46	SEAT	John Sweeney	SEAT	1986	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
47	ŠKODA	John Sweeney	ŠKODA	1899	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
48	Volkswagen	John Sweeney	Volkswagen	1937	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
49	Audi	John Sweeney	Audi	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
50	Mercedes-Benz	John Sweeney	Mercedes-Benz	1926	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
51	BMW	John Sweeney	BMW	1916	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
52	Volvo	John Sweeney	Volvo	1927	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
53	Jaguar	John Sweeney	Jaguar	1935	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
54	Land Rover	John Sweeney	Land Rover	1970	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
55	Bentley	John Sweeney	Bentley	1919	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
56	Rolls-Royce	John Sweeney	Rolls-Royce	1906	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
57	Aston Martin	John Sweeney	Aston Martin	1913	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
58	Ferrari	John Sweeney	Ferrari	1929	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
59	McLaren	John Sweeney	McLaren	1963	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
60	Lotus	John Sweeney	Lotus	1952	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
61	Koenigsegg	John Sweeney	Koenigsegg	1998	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
62	Bugatti	John Sweeney	Bugatti	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
63	Pagani	John Sweeney	Pagani	1992	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
64	Maserati	John Sweeney	Maserati	1914	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
65	Alfa Romeo	John Sweeney	Alfa Romeo	1910	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
66	Lancia	John Sweeney	Lancia	1907	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
67	Fiat	John Sweeney	Fiat	1911	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
68	Opel	John Sweeney	Opel	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
69	Vauxhall	John Sweeney	Vauxhall	1903	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
70	Peugeot	John Sweeney	Peugeot	1810	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
71	Citroën	John Sweeney	Citroën	1900	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
72	Renault	John Sweeney	Renault	1899	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
73	Dacia	John Sweeney	Dacia	1966	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
74	Skoda	John Sweeney	Skoda	1899	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
75	SEAT	John Sweeney	SEAT	1986	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
76	ŠKODA	John Sweeney	ŠKODA	1899	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
77	Volkswagen	John Sweeney	Volkswagen	1937	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
78	Audi	John Sweeney	Audi	1909	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
79	Mercedes-Benz	John Sweeney	Mercedes-Benz	1926	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
80	BMW	John Sweeney	BMW	1916	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
81	Volvo	John Sweeney	Volvo	1927	Automotive	Public	High	Low	Low	Low	Low	Low	Low	Low	High	High	Low	Low
82	Jaguar	John Sweeney	Jaguar	1935	Automotive	Public												



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In memory of Lamb Chop, who crossed
the rainbow bridge on May 12, 2022. You
taught us how to live, LC.



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