PitchBook

EMERGING TECH RESEARCH

Mobility Tech Report

VC trends and emerging opportunities

Q1
2022

REPORT PREVIEW

The full report is available through the PitchBook Platform.

Contents

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Q1 2022 timeline

VC deal

January 11

Bolt, EU-based fast follower in the ridehailing, micromobility and delivery segments, raises $710.5 million in a late-stage VC round led by Fidelity Management & Research and Sequoia Capital. The company will use the round to fund expansion of its super-app platform across Europe, Africa, and beyond.

VC deal

February 21

Sweden's Volta Trucks raises $260.5 million in a late-stage VC round led by Luxor Capital to bridge expansion into manufacturing of electric trucks.

VC deal

March 10

Israel-based AutoBrains raises a $120.0 million Series C round led by Temasek Holdings to further refine its unsupervised artificial intelligence (AI) technology for advanced driver assistance and automated driving systems.

News

March 11

A short squeeze in nickel on the London Metal Exchange suspends trading and cripples the market. Following the Russian invasion of Ukraine, supply concerns (Russia is one of the largest producers and processors of nickel) caused chaos in the metals trading market and exacerbated concerns over the precarious supply of this crucial raw material for batteries for EVs.

News

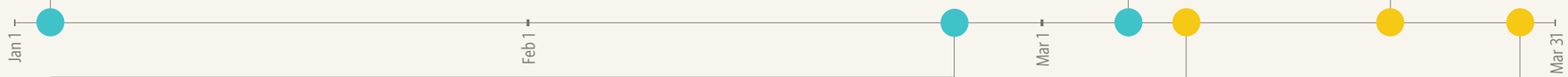
March 18

GM buys out SoftBank Vision Fund stake in autonomous driving subsidiary Cruise for $2.1 billion and will invest another $1.35 billion to fulfill the investment that SoftBank had committed to the subsidiary.

News

March 30

Waymo LLC begins deploying fully autonomous vehicles on the streets of San Francisco. Rides in the Jaguar I-Pace EVs, which follow a similar introduction from competitor Cruise two months ago, are currently limited to Waymo employees between the hours of 10:30pm and 5am.



Q1 VC deal count summary

318
total deals

-10.4%
QoQ growth

-20.1%
YoY growth

Q1 VC deal value summary

$13.9B
total deal value

-35.4%
QoQ growth

-43.1%
YoY growth

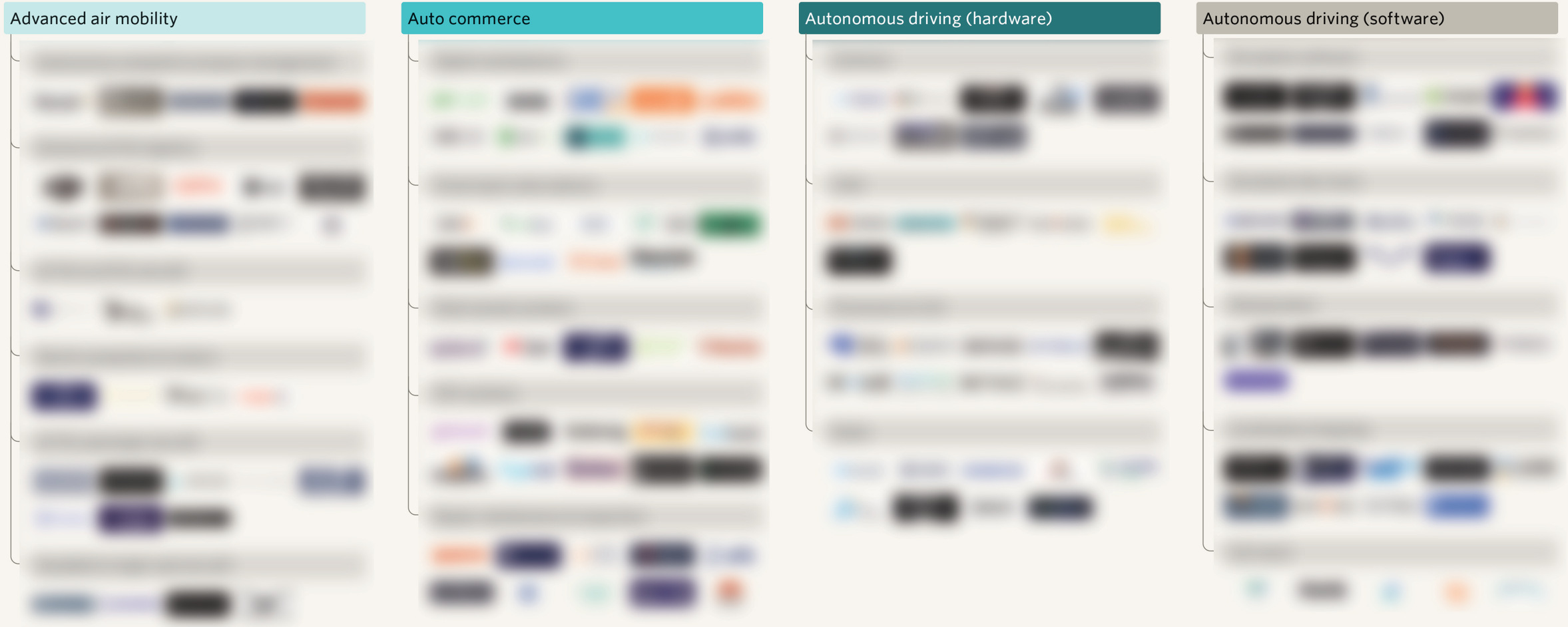
Mobility tech landscape

1. Advanced air mobility
2. Auto commerce
3. Autonomous driving hardware
4. Autonomous driving software
5. Electric vehicles
6. Fleet management & connectivity
7. Micromobility
8. Last-mile delivery
9. Public mobility solutions
10. Ridehailing

Mobility tech VC ecosystem market map

Click to view the interactive market map on the PitchBook Platform.

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.



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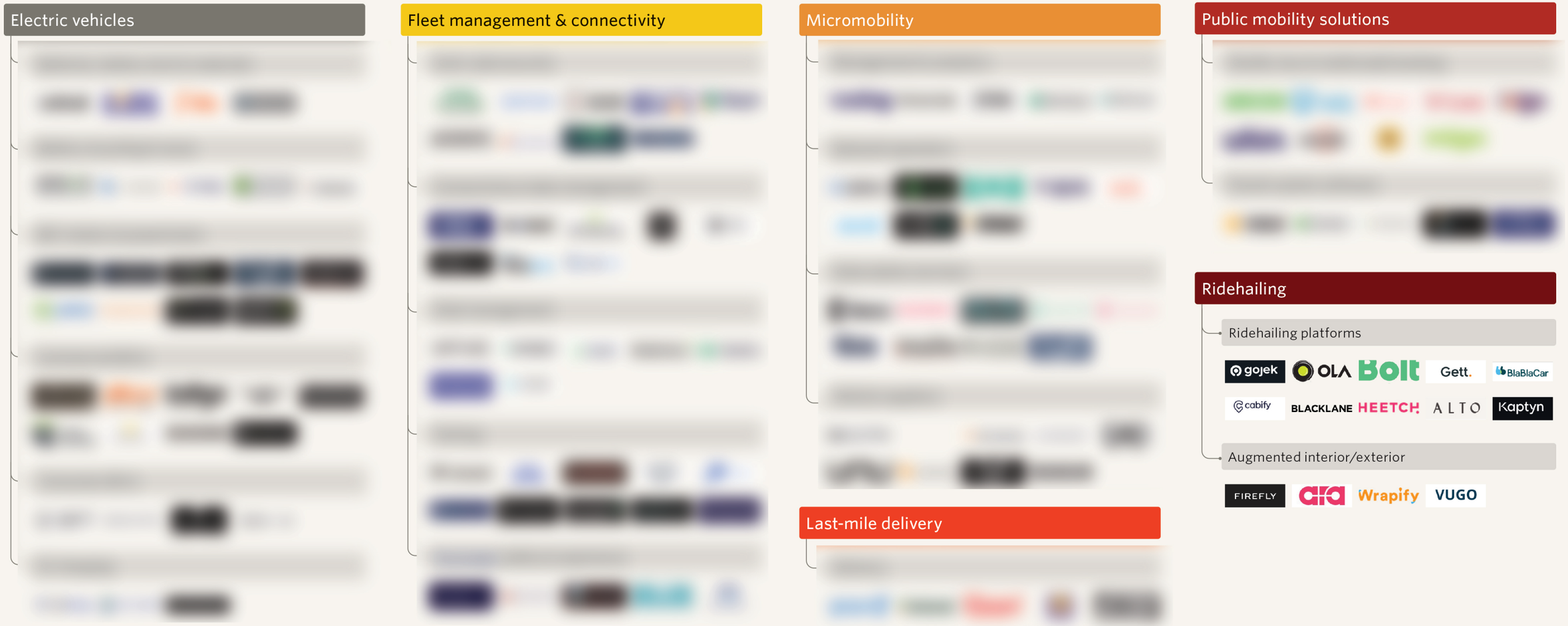
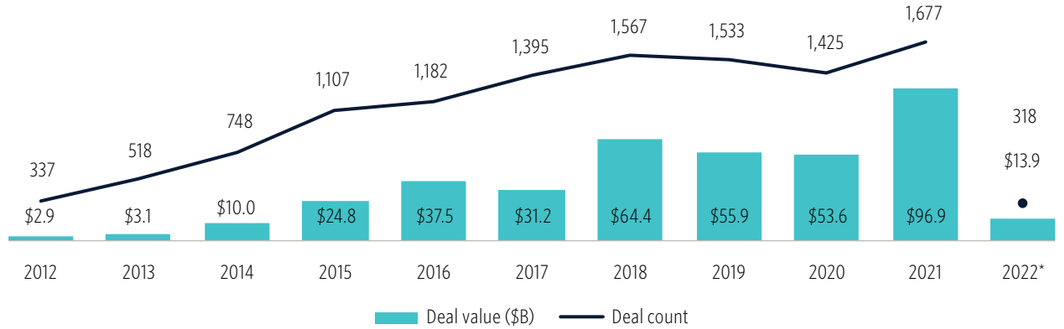


VC activity

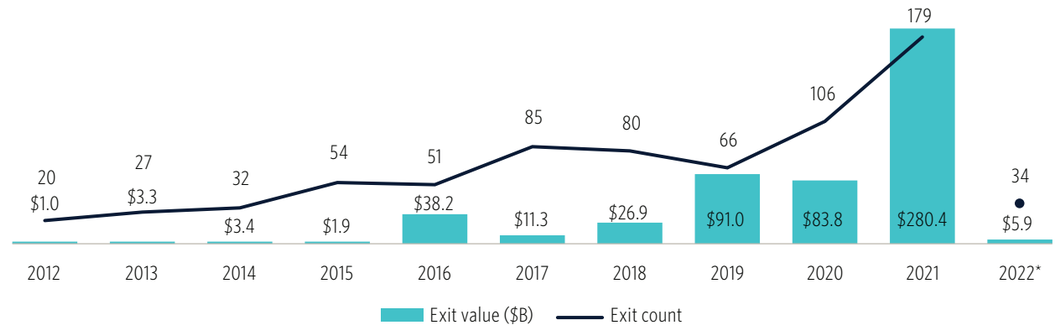
During the first quarter of 2022, activity in mobility tech continued to cool from the blistering pace of 2021. The $13.9 billion in deal value represented a 35% decline compared with Q4 2021 and a 43% drop YoY, while the number of deals declined 10% and 20%, respectively. Autonomous driving, EVs, and micromobility represented the largest segments of dealmaking with nearly a third of the total deal count combined. Notable deals in the quarter included Bolt, which raised $710.5 million to expand its ridehailing, micromobility, and delivery super-app platform across Europe and Africa; Sweden's Volta Trucks attracted to $260.5 million in late-stage investment to accelerate development of heavy-duty electric trucks; and Israel-based AutoBrains, which raised $120.0 million from BMW I-Ventures, among others, to further research and development (R&D) in its self-learning AI technology for autonomous driving. Late-stage VC deals dominated with more than half of total deals in Q1. Although the number of exits was only slightly down in the quarter on a YoY basis, the overall value of exits plummeted to less than one-sixth of Q1 2021's figure. With weaker public equity markets in Q1, public listings accounted for only three of the exits in mobility tech, while acquisitions predominated.

Figure 1. Mobility tech VC deal activity



Source: PitchBook | Geography: Global | *As of March 31, 2022

Figure 2. Mobility tech VC exit activity



Source: PitchBook | Geography: Global | *As of March 31, 2022

Figure 10. **Key mobility tech late-stage VC deals**

Company	Close date	Segment	Stage	Deal size ($M)	Lead investor(s)	Valuation step-up*
Flexport	January 24, 2022	Freight	Series E	$935.0	Andreessen Horowitz, MSD Private Capital	N/A
Getir	March 17, 2022	Last-mile delivery	Series E	$768.0	Mubadala Investment Company	1.5x
Bolt	January 11, 2022	Ridehailing	Series F	$710.5	Fidelity Management & Research, Sequoia Capital	1.6x
Swiggy	January 24, 2022	Last-mile delivery	Series K	$700.0	Invesco	2.1x
Careem	March 10, 2022	Ridehailing	Late-stage VC	$500.0	ADQ and Saudi Arabia's Public Investment Fund	N/A
Weee!	February 28, 2022	Last-mile delivery	Series E	$425.0	SoftBank Investment Advisers	1.3x
Project44	January 11, 2022	Freight	Series F	$420.0	Goldman Sachs Asset Management, TPG, Thoma Bravo	2.0x
WeRide	March 24, 2022	Autonomous driving	Late-stage VC	$400.0	Guangzhou Automobile, Robert Bosch, China-Arab Investment Funds, and The Carlyle Group	0.9x
Exotec	January 17, 2022	N/A	Series D	$335.0	Goldman Sachs Growth Equity	3.8x
Hozon	February 20, 2022	Electric vehicles	Series D3	$314.5	Energy Impact Partners	4.2x

Source: PitchBook | Geography: Global | *As of March 31, 2022

Figure 13. **Top VC investors in mobility tech companies since 2011**

Company	Deal count*	Angel & seed count	Early-stage VC count	Late-stage VC count	Investor type
Sequoia Capital China	98	6	49	43	VC
Accel	87	7	43	37	VC
Alumni Ventures	87	24	27	36	VC
SoftBank Investment Advisers	86	0	9	77	VC
500 Global	79	45	26	8	VC
Qualcomm Ventures	77	5	31	41	CVC
FJ Labs	75	15	34	26	VC
Sequoia Capital	72	4	31	37	VC
GGV Capital	70	7	38	25	VC
Bessemer Venture Partners	67	9	20	38	VC

Source: PitchBook | Geography: Global | *As of March 31, 2022

Founded
2016

83 employees
in three offices globally

Total raised:
$96.1M

Last financing valuation:
Undisclosed

Last financing:
Raised $74.0M in a Series B

Lead investors:
Varana Capital and M&G Investments

Overview

Israel-based TriEye was founded in 2017 by Avi Bakal (CEO); Professor Uriel Levy, (CTO) Director of the Hebrew University of Jerusalem Center to Nanoscience and Nanotechnology; and Omer Kapach (VP of R&D). Under the heading "Seeing Beyond the Visible," the company's mission has been to develop a mass-market SWIR sensor. Currently, ADAS and AV systems work reasonably well on clear days with high visibility. Unfortunately, most severe automotive accidents happen under conditions of low light and adverse weather; 75% of pedestrian fatalities occur at night, despite far fewer cars on the road.[13] TriEye seeks to address these edge cases or gaps in the existing auto sensor fusion solution. SWIR spectrum is in the 1000nm and 1600nm range and wavelengths in this band have a relatively low refractive coefficient. As such, SWIR sensors can more readily detect people and objects through fog, dust, and low-light conditions. SWIR sensors also detect material differences that are invisible to the eye or VIS cameras. They can discern between water and black ice on asphalt, and reflections off animal fur and cotton clothing stand out, making for easier identifications. Unlike radar and lidar, SWIR sensors can be mounted inside the windshield, which reduces exposure to weather, dust, and debris and eliminating the need for cleaning systems. They also operate in eye-safe wavelengths, unlike some lidar systems. The data generated from TriEye's SWIR sensors is processed with the same algorithms that were developed for VIS cameras, reducing or eliminating the need to retrain systems.

The downside of SWIR systems historically has been cost. The sensors were made with a complex indium gallium arsenide (InGaAs) process that suffers from low yields. As a result, applications for the sensors, which could cost tens of thousands of dollars, were largely limited to military, aerospace, and scientific research. TriEye's key innovation is the development of a high-resolution SWIR sensor based on the standard CMOS process. As such, the company can lower costs by several orders of magnitude and deliver a mass-market SWIR sensor. Industry and investors have taken notice. Porsche Ventures, Intel Capital, and Samsung participated in an early VC round in August 2019. All three also participated in the $74.0 million Series B round in November 2021.

13: "AAA Warns Pedestrian Detection Systems Don't Work When Needed Most," AAA Newsroom, Ellen Edmonds, October 3, 2019.

About PitchBook Emerging Tech Research

Independent, objective and timely market intel

As the private markets continue to grow in complexity and competition, it's essential for investors to understand the industries, sectors and companies driving the asset class.

Our Emerging Tech Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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