



Advanced Transportation Market Update

September 2020

*Electric
Vehicles*



*Mobility-as-
a-Service*



*Autonomous
Infrastructure*



*Data &
Analytics*



*Trucking &
Logistics*



*Non-Road
Transportation*



Selected Business Updates

Nomura Greentech's Take:

- OEMs continue to announce a growing number of new EV models and production schedules providing additional clarity around the development of the market

- **Amazon / Zoox**, an AV company, received approval from the State of California to test driverless cars in public within a designated part of Foster City, CA ([TechCrunch](#))
- **Amazon Prime Air** was given clearance from the FAA to begin drone delivery testing within an undisclosed test range ([SmartCitiesDive](#))
- **ARM**, a semiconductor developer, announced a new chip which provides power-efficient, safety-enabled processing for ADAS systems ([VentureBeat](#))
- **Daimler** announced plans for an electric bus equipped with a solid-state battery ([Electrek](#))
- **Georgia Power**, an electric utility, announced plans to electrify 50% of its utility fleet by 2030 along with plans to invest \$6mm in EVs over next three years ([Environmental Leader](#))
- **GM** announced the all-electric Hummer pickup truck will be revealed on October 20th with production scheduled to begin in late 2021 ([The Verge](#))
- **GM** started testing its Ultium battery system designed for autonomous EVs ([Electrek](#))
- **Lucid Motors**, an EV developer, unveiled its first production vehicle, the Air Sedan, initial delivery scheduled for Spring 2021 ([CNBC](#))
- **Motional**, an AV joint venture between Hyundai and Aptiv, released self-driving data with over 1.4bn annotated LiDAR points ([VentureBeat](#))
- **Revel**, a shared moped service, announced it would be returning to New York City after a month of suspended service ([SmartCitiesDive](#))
- **Tesla** announced plans for a new battery cathode plant, improved battery cells, cobalt-free cathodes and a \$25k goal for the cost of a new car ([The Verge](#))
- **Toyota** announced that its research institute (TRI-AD) will create Woven Capital, an \$800mm global growth-stage investment fund focused on AV and AI ([Press Release](#))
- **Uber** pledged to be a zero-emission platform by 2040 in part by incentivizing riders to choose zero-emission vehicles and by committing \$800mm to help drivers make the transition to zero-emission vehicles ([SmartCitiesDive](#))
- **Volocopter**, an eVTOL manufacturer, opened reservations for the world's first commercial electric air taxi ([CleanTechnica](#))
- **Volta Trucks**, a heavy duty truck company, announced its first pilot trucks are expected in 2021 with production and deliveries scheduled to start in 2022 ([CleanTechnica](#))
- **ZeroAvia**, a developer of a zero emission aviation powertrain, completed its first test flight of a hydrogen fuel cell powered passenger airplane ([CleanTechnica](#))

Selected Regulatory Developments

- **California** issued an executive order banning the sale of new gasoline and diesel powered cars, minivans and SUVs by 2035 ([WSJ](#))
- **China, Japan, Germany and Canada**, among others, agreed to work collaboratively to identify best practices to support and accelerate the growing zero-emission vehicle market through the campaign Clean Energy Ministerial ([CleanTechnica](#))
- **The Federal Energy Regulatory Commission** approved EV batteries and other small energy resources as potential suppliers for the U.S. wholesale power markets ([FT](#))
- **The U.K.** announced a new proposal under consideration to move the ban of gasoline and diesel powered vehicles forward to 2030 ([CleanTechnica](#))

Selected Partnerships

Nomura Greentech's Take:

- State and National bans of new ICE¹ vehicles will accelerate EV adoption and catalyze further advanced transportation technology and infrastructure

- **BMW** partnered with **Tactile Mobility**, a provider of tactile sensing and dynamics data for AVs, to install sensing software across its product lines ([Forbes](#))
- **GM** announced a partnership with **Nikola** to engineer and manufacture its all-electric and fuel-cell pickup trucks in exchange for an 11% stake in Nikola ([Press Release](#))
- **GM** partnered with **Uber** to accelerate the transition to EVs by offering Uber drivers special pricing on the purchase of new EVs and charging accessories ([Press release](#))
- **Mobileye** partnered with Dubai's **Al Habtoor Group**, a UAE conglomerate, to create a fleet of self-driving robotaxis to be deployed by the end of 2022 ([MSN](#))
- **Nuve Corporation**, a charging and grid services company, partnered with **Blue Bird**, a school bus supplier, to bring V2G-capable busses to schools in the U.S. ([CleanTechnica](#))
- **Polaris**, a snowmobile manufacturer, partnered with **Zero Motorcycles**, an electric motorcycle manufacturer, to co-develop electric ATVs and snowmobiles ([The Verge](#))
- **Yandex**, a Russia-based internet company, and **Uber** announced they would spin out their self-driving joint venture into a standalone company ([VentureBeat](#))

Advanced Transportation

September 2020 Transactions

Select Private Company Capital Raises

Nomura Greentech's Take:

- Electrification continues to penetrate markets adjacent to cars and trucks, including micromobility, air and marine transportation

- **WM Motor**, a developer of EVs, raised **\$1.5bn** led by **SAIC Capital** ([TechCrunch](#))
- **Star Charge**, an EV charging company, raised **\$125mm** led by **Schneider** and **CICC** with participation from **China Construction Bank**, **CCB international** and others ([CX Tech](#))
- **Seegrid**, a developer of self-driving vehicles, raised **\$52mm** led by **G2VP** and other leading technology and robotics investors ([VentureBeat](#))
- **Volansi**, a provider of vertical take-off and landing middle-mile drone delivery, raised **\$50mm** led by **Icon Ventures** with participation from **Harpoon Ventures**, **Lightspeed Ventures**, **Mark Global Health Innovation Fund** and **Ycombinator** ([Press Release](#))
- **Ouster LiDAR**, a manufacturer of digital LiDAR for AVs, robotics and smart infrastructure, raised **\$42mm** led by undisclosed investors ([Press Release](#))
- **VanMoof**, a designer and producer of commuter e-bikes, raised **\$40mm** led by **Norwest Venture Partners**, **Felix Capital** and **Balderton Capital** ([Press Release](#))
- **Turntide Technologies**, a software-based motor efficiency company, raised **\$33mm** with participation from **Amazon Climate Fund**, **BMW iVentures** and others ([Press Release](#))
- **Aurora Labs**, a connected car analytics startup, raised **\$23mm** led by **LG Technologies** and **Marius Nacht** with participation from **Porsche** and others ([VentureBeat](#))
- **Pure Watercraft**, a developer of electric outboard motor systems for all types of boats, raised **\$23mm** led by **L37** with participation from individual investors ([TechCrunch](#))
- **Idriverplus**, a China-based supplier of driverless vehicles and robotics systems, raised **\$15mm** led by **Xin Ding Capital** and **Huaxia Weiming Investment** ([VentureBeat](#))
- **Neuron Mobility**, a Singapore-based e-scooter rental startup, raised **\$12mm** led by **Square Peg** and **GSR Ventures** ([TechCrunch](#))
- **Acerta Analytics**, a developer of an automotive intelligence platform, raised **\$7mm** led by **OMERS Ventures** with participation from **M12** and others ([Press Release](#))
- **Annotell**, a cloud-based provider of an AV analytics and annotation software, raised **\$7mm** led by **Ernstström & Co** and **Stena Sessan** ([Press Release](#))
- **BluSmart**, an India-based electric ride hailing platform, raised **\$7mm** led by **Inflection Point**, **Venture Catalyst**, **Mumbai Angels**, **Survam** and others ([Mint](#))
- **HumanForest**, a U.K.-based dockless, shared and ad-supported e-bike service, raised **\$2mm** led by **Juan de Antonio** and **Vicente Pascual** ([TechCrunch](#))

Selected Public Equity Deals

- **QuantumScape**, a developer of solid-state lithium batteries, announced plans to merge with **Kensington Capital**, a SPAC¹, at a valuation of **\$3.3bn** ([TechCrunch](#))
- **ChargePoint**, a provider of EV charging networks, announced plans to merge with **Switchback Energy**, a SPAC¹, at a valuation of **\$2.4bn** ([Press Release](#))
- **XL Fleet**, an EV fleet solutions company, announced plans to merge with **Pivotal Investment Corporation II**, a SPAC¹, at a valuation of **\$1.0bn** ([Press Release](#))

Selected Mergers & Acquisitions

Nomura Greentech's Take:

- Due to the growing level of digitalization and electrification, automotive semiconductors are the fastest growing segment of the overall semiconductor market

- **NVIDIA**, a developer of graphics processors and software, acquired **ARM**, a developer of semiconductor IP and software, for **\$40bn** ([Press Release](#))
- **Omnitracs**, a SaaS-based fleet management company, acquired **SmartDrive**, a video-based safety and transportation intelligence company, for **\$450mm**² ([Press Release](#))
- **Blink**, an owner and operator of EV charging equipment and services, acquired **BlueLA Carsharing**, a carsharing platform, for an undisclosed amount ([Press Release](#))
- **KAR Global**, a used-car transaction platform, signed an agreement to acquire **BacklotCars**, a dealer-to-dealer platform, for an undisclosed amount ([Press Release](#))
- **SpotHero**, a parking reservation app, signed an agreement to acquire **Rover Parking**, a Canada-based consumer parking app, for an undisclosed amount ([Press Release](#))
- **Total** signed an agreement to acquire **Blue Point London**, an U.K.-based EV charging network, for an undisclosed amount ([Press Release](#))
- **The Traton Group**, Volkswagen's heavy-truck business, acquired minority stake in **TuSimple**, a self-driving truck company, for an undisclosed amount ([TechCrunch](#))

Source: Nomura Greentech Analysis, Public Disclosures, Pitchbook.

1. The special purpose acquisition vehicles (SPACs), **Kensington Capital Acquisition Corp.** (NYSE: KCAC), **Switchback Energy Acquisition Corp.** (NYSE: SBE) and **Pivotal Investment II** (NYSE: PIC) announced they will acquire **QuantumScape**, **ChargePoint** and **XL Fleet** respectively. The transactions have not yet closed. Upon close, **QuantumScape**, **ChargePoint** and **XL Fleet** will become publicly listed companies.

2. Estimated amount from Pitchbook.

Private Company Capital Raises

Date	Company	Amount Raised (\$mm)	Disclosed Investors	Company Description
Sep. 03	Phantasma Labs	ND	Apex Ventures, Signals VC EF, IBB, Wi Ventures	Germany-based developer of AV software
Sep. 07	BluSmart	\$7	Inflection Point Ventures, Venture Catalyst, Survam Partners, Mumbai Angels, Chhatisgarh Investments Ltd. JITO Angels, Lets Venture Fund, Kaplavriksh Fund	India-based electric ride hailing platform
Sep. 07	HumanForest	\$2	Juan de Antonio, Vicente Pascual	U.K.-based dockless, shared and ad-supported e-bike service
Sep. 08	Ouster LiDAR	\$42	ND	California-based manufacturer of high-resolution digital LiDAR sensors for AVs
Sep. 09	Connexin	\$105	Whitehelm Capital	U.K.-based provider of smart city infrastructure and end-to-end broadband services
Sep. 11	Effenco	\$8	Business Development Bank of Canada, Center of Excellence in Energy Efficiency, David Arseneault, Investissement Québec	Canada-based provider of fleet management software and EV technology for heavy trucks
Sep. 14	Idriverplus	\$15	Xin Ding Capital, Huaxia Weiming Investment	China-based supplier of driverless vehicles and robotics systems
Sep. 15	Seegrid	\$52	G2VP	Pennsylvania-based developer of self-driving vehicles
Sep. 15	Volansi	\$50	Icon Ventures, Harpoon Ventures, Lightspeed Venture Partners, Merck Global Health Innovation Fund, Ycombinator	California-based provider of vertical take-off and landing middle-mile drone delivery
Sep. 16	VanMoof	\$40	Norwest Venture Partners, Felix Capital, Balderton Capital	Netherlands-based designer and producer of commuter e-bikes
Sep. 21	Acerta Analytics	\$7	OMERS Ventures, M12, StandUp Ventures, Radical Ventures, EDC, Techstars	Canada-based developer of an automotive intelligence platform
Sep. 22	WM Motor	\$1,470	SAIC Capital China, Baidu Ventures, Guangzhou Financial, Agile Group, Yingke Capital, Hefei Hi-Tech VC, Susquehanna Asia Investments, Hongta Venture, Tsinghua Unigroup	China-based developer of EVs
Sep. 22	Aurora Labs	\$23	LG Technology Ventures, Marius Nacht, Porsche, Toyota Tsusho, UL Ventures	Israel-based connected car analytics startup
Sep. 22	Pure Watercraft	\$23	L37, Angel investors	Washington-based developer of electric outboard systems for all types of boats
Sep. 23	Evum Motors	\$14	Bayern Kapital, Franz Schabmuller Group, Glatthaar Group, Otto Spanner	Germany-based manufacturer of electric utility vehicles
Sep. 24	Turntide Technologies	\$33	Amazon Climate Fund, Meson Capital, BMW iVentures, JLL Spark, WIND Ventures	California-based, software-based motor efficiency company
Sep. 25	Star Charge	\$125	Schneider, CCIC, China Construction Bank, CCB International, Shanghai Guohe Capital, Wujin National Hi-Tech Industrial Zone, CDB-CDC Investment Management	China-based EV charging company
Sep. 29	Annotell	\$7	Ernstström & Co and Stena Sessan	Sweden-based, cloud-based provider of an AV analytics and annotation software
Sep. 29	E-Trio	\$3	ND	India-based manufacturer of EVs
Sep. 30	Neuron Mobility	\$12	Square Peg, GSR Ventures	Singapore-based e-scooter rental startup

M&A

Date	Target	Acquiror	EV (\$mm)	Revenue	EV / EBITDA	Target Description
Sep. 08	BacklotCars	KAR Global	ND	ND	ND	Missouri-based dealer-to-dealer platform
Sep. 09	SmartDrive	Omnitracs	\$450	ND	ND	California-based, video-based safety and transportation intelligence company
Sep. 10	Rover Parking	SpotHero	ND	ND	ND	Canada-based consumer parking app
Sep. 11	TuSimple ₁	The Traton Group	ND	ND	ND	California-based self-driving truck company
Sep. 13	ARM	NVIDIA	\$40,000	ND	ND	U.K.-based developer of semiconductor IP and software
Sep. 16	Uber Freight European Operations	Sennder	\$1,070	ND	ND	Netherlands-based provider of freight transportation services through an online platform across Europe
Sep. 18	BlueLA Carsharing	Blink	ND	ND	ND	California-based carsharing platform
Sep. 29	Blue Point London	Total	ND	ND	ND	U.K.-based EV charging network

Special Purpose Acquisition Corporation (SPAC) Transactions

Date	Company	SPAC	Offer Price	Implied EV (\$mm)	Revenue ²	EV / EBITDA ²	Company Description
Sep. 03	QuantumScape	Kensington Capital Acquisition Corp.	ND	\$3,300	ND	ND	California-based developer of solid-state lithium batteries
Sep. 18	XL Fleet	Pivotal Investment II	ND	\$1,000	1.5x	8.5x	Massachusetts-based EV fleet solutions company
Sep. 24	ChargePoint	Switchback Energy Acquisition Corp.	ND	\$2,400	4.0x	ND	California-based provider of EV charging networks

Source: FactSet, PitchBook, Public Disclosures.

1. The Traton Group acquired minority stake.
2. Based off 2023E revenue and EBITDA

Advanced Transportation Trading Comparables

Company	Price as of	% 52-Week	Market	Firm	EV/Revenue		EV/EBITDA		P / E	
	9/30/20	High	Cap (\$mm)	Value (\$mm)	2020E	2021E	2020E	2021E	2020E	2021E
Automotive Companies										
Tesla	\$ 429.01	86.1%	\$444,025	\$452,166	15.0x	10.7x	NM	NM	NM	NM
Toyota	¥ 6,932	87.4%	\$183,660	\$319,975	1.3x	1.2x	13.0x	12.1x	13.3x	11.4x
Volkswagen	€ 149.20	81.5%	\$87,706	\$273,217	1.1x	1.0x	8.1x	6.5x	17.8x	6.9x
Daimler	€ 46.04	85.4%	\$57,751	\$203,883	1.1x	1.0x	17.9x	11.2x	37.6x	9.8x
BMW	€ 61.99	81.7%	\$47,894	\$161,977	1.5x	1.3x	13.8x	11.3x	14.2x	8.9x
Ford	\$ 6.66	69.8%	\$26,587	\$142,252	1.1x	1.0x	34.8x	13.0x	NM	8.8x
General Motors	\$ 29.59	76.4%	\$42,373	\$124,721	1.0x	1.0x	12.4x	9.2x	11.4x	6.3x
Honda	¥ 2,474	76.6%	\$40,470	\$84,372	0.7x	0.7x	8.9x	9.2x	15.3x	8.8x
Hyundai	₩ 178,500	96.5%	\$39,723	\$82,808	0.9x	0.8x	12.0x	9.6x	15.8x	8.9x
Nissan	¥ 372	52.0%	\$13,783	\$68,052	0.9x	0.8x	38.0x	25.0x	NM	NM
BYD	HK\$ 121.40	100.0%	\$42,735	\$52,195	2.5x	2.1x	19.2x	17.5x	NM	NM
Renault	€ 22.20	40.3%	\$7,053	\$40,900	0.8x	0.7x	13.3x	6.9x	NM	16.1x
SAIC Motor	¥ 19.13	75.6%	\$32,817	\$38,521	0.3x	0.3x	10.1x	7.9x	10.2x	8.2x
Fiat Chrysler	€ 10.47	71.3%	\$19,290	\$23,802	0.2x	0.2x	3.1x	1.9x	NM	5.8x
NIO	\$ 21.22	100.0%	\$22,379	\$23,609	10.9x	6.1x	NM	NM	NM	NM
Suzuki	¥ 4,483	83.8%	\$20,620	\$22,101	0.8x	0.7x	7.6x	6.8x	22.1x	18.1x
Tata Motors	RS 133.30	66.6%	\$6,546	\$16,715	0.5x	0.5x	5.3x	4.0x	NM	NM
Li Auto	\$ 17.39	74.4%	\$14,704	\$15,947	12.7x	7.0x	NM	NM	NM	NM
Fisker ¹	\$ 44.75	82.4%	\$14,074	\$15,853	8.5x	26.4x	15.6x	NM	24.1x	16.1x
Geely	HK\$ 15.40	80.8%	\$18,474	\$15,281	1.1x	1.0x	8.8x	7.0x	17.7x	13.2x
KIA ²	₩ 46,900	96.7%	\$16,078	\$14,712	0.3x	0.3x	4.2x	3.5x	12.3x	7.3x
Peugeot	€ 15.50	59.5%	\$17,151	\$13,959	0.2x	0.2x	1.9x	1.5x	7.7x	4.8x
Subaru	¥ 2,032	64.8%	\$14,765	\$10,263	0.4x	0.3x	4.2x	3.9x	16.0x	11.9x
Xpeng	\$ 20.07	92.9%	\$8,525	\$9,845	NM	NM	NM	NM	NM	NM
Dongfeng Motor ²	HK\$ 4.81	59.5%	\$5,348	\$8,343	0.6x	0.5x	NM	29.5x	3.9x	2.9x
FAW Car Group	¥ 12	79.6%	\$8,176	\$6,997	0.4x	0.4x	8.7x	6.7x	12.6x	11.0x
Mazda	¥ 611	59.6%	\$3,646	\$4,455	0.2x	0.2x	6.8x	4.8x	NM	NM
Lordstown ¹	\$ 25.75	82.0%	\$4,428	\$3,753	31.8x	2.2x	NM	NM	NM	NM
Mitsubishi	¥ 231	43.8%	\$3,258	\$3,166	0.2x	0.2x	NM	7.6x	NM	NM
Guangzhou Automobile	HK\$ 6.45	64.7%	\$8,520	\$2,497	0.3x	0.3x	12.2x	7.0x	8.5x	6.6x
Canoo ¹	\$ 11.14	85.7%	\$2,727	\$2,120	17.7x	6.4x	NM	NM	NM	NM
XL Fleet ¹	\$ 11.53	86.6%	\$1,658	\$1,308	17.4x	4.7x	NM	42.6x	NM	NM
Mean		77.1%			4.3x	2.6x	12.2x	10.6x	15.3x	9.6x
Median		79.6%			0.9x	0.8x	10.1x	7.6x	14.2x	8.8x
Truck Companies										
Daimler	€ 46.04	85.4%	\$57,751	\$203,883	1.1x	1.0x	17.9x	11.2x	37.6x	9.8x
Volvo	KR 173.05	98.4%	\$39,317	\$49,676	1.3x	1.2x	11.5x	8.8x	26.5x	15.5x
PACCAR	\$ 85.28	94.3%	\$29,575	\$35,697	2.2x	1.9x	23.1x	15.4x	25.2x	17.1x
Traton SE	€ 16.98	67.0%	\$9,956	\$18,751	0.7x	0.7x	14.6x	6.3x	NM	9.6x
MAN SE	€ 40.40	77.0%	\$6,966	\$9,274	0.6x	0.6x	5.5x	5.3x	NM	NM
Isuzu	¥ 917	65.8%	\$6,412	\$7,722	0.4x	0.4x	5.4x	4.8x	16.1x	11.6x
Nikola	\$ 20.48	25.7%	\$8,135	\$7,432	49.5x	24.8x	NM	NM	NM	NM
Mean		73.4%			8.0x	4.4x	13.0x	8.6x	26.4x	12.7x
Median		77.0%			1.1x	1.0x	13.1x	7.6x	25.9x	11.6x
Tier 1 Suppliers										
Denso	¥ 4,597	89.2%	\$33,754	\$35,272	0.8x	0.7x	8.7x	6.3x	44.3x	17.3x
Continental	€ 92.48	69.7%	\$21,690	\$28,803	0.7x	0.6x	7.2x	4.9x	NM	12.0x
Bridgestone	¥ 3,317	71.4%	\$22,132	\$26,453	0.9x	0.8x	6.5x	5.3x	23.4x	10.9x
Aptiv	\$ 91.68	93.7%	\$23,656	\$26,250	2.2x	1.8x	18.2x	12.1x	NM	24.9x
Michelin	€ 91.72	78.4%	\$19,199	\$25,027	1.0x	0.9x	6.7x	5.1x	25.0x	10.7x
Knorr-Bremse	€ 100.64	92.4%	\$19,024	\$20,561	2.9x	2.6x	17.0x	13.9x	35.6x	26.5x
Magna	C\$ 60.93	81.5%	\$13,611	\$18,036	0.6x	0.5x	7.9x	5.0x	23.2x	8.4x
Valeo	€ 26.25	71.8%	\$7,364	\$12,258	0.6x	0.5x	8.3x	4.4x	NM	17.2x
Faurecia	€ 36.92	72.9%	\$5,927	\$10,476	0.6x	0.5x	6.3x	4.1x	NM	10.8x
BorgWarner	\$ 38.74	83.7%	\$7,980	\$8,932	1.1x	0.9x	7.5x	5.7x	18.1x	10.8x
Lear	\$ 109.05	77.0%	\$6,554	\$8,840	0.5x	0.5x	8.7x	5.3x	31.6x	8.7x
Hyllion ¹	\$ 49.83	89.2%	\$9,136	\$8,617	NM	NM	NM	NM	NM	NM
Goodyear	\$ 7.67	44.9%	\$1,795	\$8,546	0.7x	0.6x	16.9x	6.0x	NM	12.6x
QuantumScape ¹	\$ 16.75	74.4%	\$7,960	\$6,805	NM	NM	NM	NM	NM	NM
Gentex	\$ 25.75	82.7%	\$6,223	\$5,887	3.7x	3.1x	13.2x	9.5x	21.6x	14.5x
Dana	\$ 12.32	65.0%	\$1,780	\$4,166	0.6x	0.5x	8.0x	5.3x	33.3x	7.0x
American Axle & Manufacturing Holdings	\$ 5.77	52.2%	\$653	\$3,897	0.9x	0.7x	7.2x	5.0x	NM	9.8x
Luminar Technologies ¹	\$ 11.42	84.8%	\$3,869	\$3,381	NM	NM	NM	NM	NM	NM
Delphi	\$ 16.71	91.0%	\$1,443	\$3,044	0.9x	0.8x	10.8x	7.3x	NM	12.7x
Velodyne ¹	\$ 18.69	61.4%	\$3,229	\$3,037	29.9x	20.0x	NM	NM	NM	NM
Visteon	\$ 69.22	72.2%	\$1,924	\$2,161	0.9x	0.7x	13.9x	7.9x	NM	18.7x
Nexteer	HK\$ 5.37	66.7%	\$1,738	\$1,702	0.6x	0.5x	4.8x	3.3x	17.1x	7.8x
Gentherm	\$ 40.90	83.3%	\$1,333	\$1,336	1.6x	1.4x	13.5x	9.6x	33.7x	17.9x
Veoneer	\$ 14.70	82.1%	\$1,640	\$1,006	0.8x	0.6x	NM	NM	NM	NM
Stoneridge	\$ 18.37	54.6%	\$495	\$592	1.0x	0.9x	25.2x	9.6x	NM	28.3x
Mean		75.7%			2.4x	1.8x	10.8x	6.8x	27.9x	14.4x
Median		75.7%			0.9x	0.7x	8.5x	5.5x	25.0x	12.3x

Source: FactSet, SEC Filings and Third Party Providers. Values in U.S. Dollars. Share prices shown in local currencies. Multiples above 50.0x not shown.

- Fisker, QuantumScape, Lordstown, Canoo, XL Fleet, Hyllion, Luminar Technologies and Velodyne were acquired by Apollo Global Management (NYSE: APO), Kensington Capital Acquisition Corp. (NYSE: KCAC), DiamondPeak Holdings Corp. (NASDAQ: DPHC), Hennessy Capital Acquisition Corp IV (NASDAQ: HCACU), Pivotal Investment Corp. II (NYSE: PIC), Tortoise Acquisition Corp. (NYSE: SHELL), Gores Metropoulos Inc (NASDAQ: GMHI), Graf Industrial Corp. (NYSE: GRAF), respectively on July 13th, September 3rd, August 3rd, August 18th, September 18th, June 19th, August 24th and July 2nd 2020. Upon closing on the transactions, the companies will become publicly listed. For transactions which have not yet closed, the share price reflects that of the acquiring SPAC.
- Firm value excludes investments in unconsolidated subsidiaries.

Advanced Transportation Trading Comparables (cont.)

Company	Price as of	% 52-Week	Market	Firm	EV/Revenue		EV/EBITDA		P / E	
	9/30/20	High	Cap (\$mm)	Value (\$mm)	2020E	2021E	2020E	2021E	2020E	2021E
Mobility-as-a-Service										
Uber	\$ 36.48	88.4%	\$62,016	\$63,128	5.0x	3.5x	NM	NM	NM	NM
Lyft	\$ 27.55	51.1%	\$8,519	\$6,793	2.7x	1.8x	NM	NM	NM	NM
Mean		69.7%			3.9x	2.7x	NM	NM	NM	NM
Median		69.7%			3.9x	2.7x	NM	NM	NM	NM
Autonomous Driving Chip Makers										
Nvidia	\$ 541.22	94.3%	\$338,804	\$335,518	21.9x	18.3x	49.0x	40.3x	NM	NM
Intel	\$ 51.78	75.6%	\$221,826	\$230,841	3.1x	3.1x	6.6x	6.9x	10.7x	10.9x
Qualcomm	\$ 117.68	95.5%	\$134,038	\$139,865	6.2x	4.9x	18.1x	13.7x	26.0x	17.7x
Texas Instruments	\$ 142.79	96.7%	\$132,366	\$134,178	10.1x	9.4x	22.1x	20.1x	27.7x	26.4x
Advanced Micro Devices	\$ 81.99	88.9%	\$100,602	\$99,659	11.2x	9.2x	NM	42.4x	NM	50.0x
Analog Devices	\$ 116.74	93.7%	\$43,428	\$48,250	8.6x	8.0x	19.5x	17.7x	23.7x	20.4x
Infineon	€ 24.12	97.8%	\$35,801	\$42,569	4.0x	3.4x	15.9x	12.2x	35.3x	24.3x
NXP	\$ 124.81	90.0%	\$34,840	\$41,342	5.2x	4.6x	17.4x	13.8x	25.8x	18.4x
STMicro	€ 26.26	89.4%	\$28,057	\$27,731	2.9x	2.6x	14.6x	10.7x	32.5x	20.3x
Renesas	¥ 765	93.2%	\$12,631	\$18,128	2.8x	2.6x	10.0x	9.4x	39.3x	28.0x
ON Semi	\$ 21.69	84.7%	\$8,895	\$11,746	2.3x	2.1x	11.9x	9.2x	32.4x	16.3x
Mean		90.9%			7.1x	6.2x	18.5x	17.9x	28.2x	23.3x
Median		93.2%			5.2x	4.6x	16.7x	13.7x	27.7x	20.4x
Intelligent Transport / ITS / Smart Tolling										
Atlanta	€ 13.43	58.3%	\$12,883	\$60,794	6.1x	5.0x	11.1x	8.2x	NM	13.8x
Roper Technologies	\$ 395.11	87.2%	\$41,684	\$45,680	8.2x	7.2x	23.0x	20.2x	31.5x	27.4x
FLIR Systems	\$ 35.85	61.0%	\$4,721	\$5,269	2.8x	2.7x	11.7x	11.6x	16.2x	15.9x
LS Corp	₩ 52,500	81.1%	\$1,246	\$3,770	0.4x	0.4x	6.9x	6.7x	12.4x	8.2x
Autostrada	€ 17.87	59.5%	\$2,773	\$3,340	1.4x	1.1x	4.6x	3.3x	15.1x	10.1x
Cubic Corporation	\$ 58.17	77.6%	\$1,821	\$2,505	1.7x	1.6x	16.0x	13.4x	21.5x	18.5x
Conduent	\$ 3.18	43.1%	\$665	\$2,319	0.6x	0.6x	5.4x	5.2x	7.6x	6.6x
Vaisala	€ 36.95	100.0%	\$1,570	\$1,602	3.5x	3.4x	22.2x	19.9x	41.3x	35.9x
INIT Innovation in Traffic Systems	€ 30.80	81.9%	\$360	\$378	1.8x	1.6x	12.1x	10.6x	24.0x	20.3x
Kapsch TrafficCom	€ 12.35	39.8%	\$188	\$357	0.5x	0.5x	NM	9.5x	NM	NM
Iteris	\$ 4.10	70.3%	\$167	\$145	1.3x	1.2x	23.4x	14.2x	21.7x	23.8x
Q-Free	NOK 4.30	61.4%	\$41	\$67	0.7x	0.7x	15.9x	7.5x	NM	NM
Image Sensing Systems	\$ 3.63	61.4%	\$19	\$14	0.9x	0.9x	5.1x	5.0x	NM	NM
Mean		68.4%			2.3x	2.1x	13.1x	10.4x	21.3x	18.1x
Median		65.9%			1.4x	1.2x	11.9x	9.5x	21.5x	17.2x
Telematics										
NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Descartes Systems	\$ 56.98	91.3%	\$4,886	\$4,818	14.1x	12.8x	35.4x	31.2x	NM	NM
Inseeq	\$ 10.32	70.0%	\$996	\$1,137	3.8x	3.2x	NM	22.4x	NM	46.9x
TomTom	€ 6.42	60.0%	\$979	\$588	0.9x	0.8x	NM	49.6x	NM	NM
Orbcomm	\$ 3.40	70.8%	\$265	\$471	1.9x	1.7x	8.9x	7.3x	NM	NM
CalAmp	\$ 7.19	60.4%	\$246	\$375	1.1x	1.1x	15.4x	9.3x	NM	18.8x
Ituran	\$ 13.92	52.9%	\$290	\$317	1.3x	1.1x	5.5x	4.8x	11.0x	9.2x
Quartix	£ 3.29	74.6%	\$205	\$193	5.8x	6.0x	21.8x	24.1x	28.6x	31.6x
MIX Telematics	€ 6.03	70.0%	\$202	\$186	1.6x	1.6x	6.6x	7.1x	36.8x	32.6x
TeleNav	\$ 3.60	57.0%	\$170	\$66	0.3x	0.3x	8.8x	8.0x	NM	NM
Quarterhill	C\$ 1.80	81.1%	\$160	\$58	0.8x	0.6x	11.9x	3.6x	NM	30.0x
Mean		68.8%			3.2x	2.9x	14.3x	16.7x	25.5x	28.2x
Median		70.0%			1.5x	1.4x	10.4x	8.6x	28.6x	30.8x
Logistics										
UPS	\$ 166.63	98.7%	\$144,801	\$165,543	2.0x	1.9x	16.4x	14.7x	23.5x	20.8x
FedEX	\$ 251.52	98.9%	\$66,150	\$97,225	1.3x	1.2x	12.3x	10.3x	22.4x	15.4x
Deutsche Post	€ 38.90	97.2%	\$57,237	\$73,727	1.0x	0.9x	8.0x	7.1x	19.5x	15.4x
AP Moeller Maersk	DKK 10,080	97.8%	\$30,996	\$41,920	1.1x	1.0x	6.0x	5.8x	20.6x	16.8x
Hapag Lloyd	€ 46.15	24.7%	\$9,514	\$15,805	1.1x	1.1x	5.9x	6.3x	15.0x	15.6x
XPO Logistics	\$ 84.66	85.4%	\$7,704	\$14,977	1.0x	0.9x	12.0x	9.2x	NM	24.1x
C.H. Robinson	\$ 102.19	98.2%	\$13,858	\$14,934	1.0x	0.9x	19.8x	16.7x	28.9x	24.2x
J.B. Hunt	\$ 126.38	88.5%	\$13,470	\$14,502	1.6x	1.4x	11.5x	9.9x	26.3x	21.0x
Knight-Swift Trucking	\$ 40.70	87.0%	\$6,944	\$7,579	1.7x	1.6x	7.7x	7.0x	17.7x	15.4x
Schneider Trucking	\$ 24.73	89.1%	\$4,390	\$3,966	0.9x	0.8x	6.8x	6.1x	20.6x	17.1x
Werner	\$ 41.99	89.2%	\$2,916	\$3,036	1.3x	1.2x	6.3x	5.8x	17.8x	15.2x
Mean		86.8%			1.3x	1.2x	10.3x	9.0x	21.2x	18.3x
Median		89.2%			1.1x	1.1x	8.0x	7.1x	20.6x	16.8x
Communications / Infrastructure										
AT&T	\$ 28.51	71.9%	\$204,417	\$395,939	2.3x	2.3x	7.1x	7.0x	8.9x	8.8x
Verizon	\$ 89.49	95.8%	\$246,348	\$372,492	2.9x	2.8x	8.0x	7.7x	12.5x	12.1x
T-Mobile	\$ 114.36	96.2%	\$141,409	\$228,112	3.4x	3.0x	9.8x	8.9x	NM	NM
Cisco Systems	\$ 39.39	78.9%	\$167,171	\$152,059	3.1x	3.1x	9.3x	8.7x	13.9x	12.3x
Hitachi	¥ 3,543	75.8%	\$32,467	\$39,802	0.5x	0.5x	4.7x	4.2x	11.0x	8.9x
Toshiba	¥ 2,671	67.1%	\$11,480	\$8,289	0.3x	0.3x	4.2x	3.6x	33.3x	9.2x
ChargePoint ¹	\$ 15.60	100.0%	\$5,109	\$4,762	35.3x	24.0x	NM	NM	NM	NM
Blink Charging	\$ 10.31	81.8%	\$4,154	\$3,449	NM	12.8x	NM	NM	NM	NM
Mean		83.4%			6.8x	6.1x	7.2x	6.7x	15.9x	10.3x
Median		80.4%			2.9x	2.9x	7.5x	7.4x	12.5x	9.2x

Source: FactSet, SEC Filings and Third Party Providers. Values in U.S. Dollars. Share prices shown in local currencies. Multiples above 50.0x not shown.

1. ChargePoint was acquired by Switchback Energy Acquisition (NYSE: SBE) on September 24th 2020. Upon closing on the transactions, the companies will become publicly listed. For transactions which have not yet closed, the share price reflects that of the acquiring SPAC.

Advanced Transportation Trading Comparables (cont.)

Company	Price as of	% 52-Week	Market	Implied	EV/Revenue		EV/EBITDA	
	9/30/20	High	Cap (\$mm)	EV (\$mm)	2020E	2021E	2020E	2021E
Recent SPACs								
Hyllion	\$ 49.83	89.2%	\$8,788	\$8,269	NM	NM	NM	NM
Nikola	\$ 20.48	25.7%	\$8,135	\$7,432	NM	NM	NM	NM
QuantumScape	\$ 16.75	74.4%	\$7,497	\$6,342	NM	NM	NM	NM
ChargePoint	\$ 15.60	100.0%	\$5,109	\$4,762	NM	35.3x	NM	NM
Fisker	\$ 14.42	82.9%	\$4,320	\$3,821	NM	NM	NM	NM
Lordstown	\$ 25.75	82.0%	\$4,428	\$3,753	NM	31.8x	NM	NM
Luminar Technologies	\$ 11.42	84.8%	\$3,869	\$3,381	NM	NM	NM	NM
Velodyne	\$ 18.69	61.4%	\$3,229	\$3,029	29.8x	19.9x	NM	NM
Canoo	\$ 11.14	85.7%	\$2,727	\$2,120	NM	17.7x	NM	NM
XL Fleet	\$ 11.53	86.6%	\$1,658	\$1,308	NM	17.4x	NM	NM
Shift Technologies	\$ 11.81	84.5%	\$863	\$556	2.9x	1.4x	11.8x	NM
Eos	\$ 10.65	87.7%	\$584	\$382	NM	7.6x	NM	NM
Mean		77.6%			16.3x	18.7x	11.8x	NM
Median		89.2%			16.3x	17.7x	11.8x	NM

Source: FactSet, SEC Filings and Third Party Providers. Values in U.S. Dollars. Share prices shown in local currencies. Multiples above 50.0x not shown.

Nomura Greentech Offices



Nomura Greentech Transactions

Mergers & Acquisitions

- Corporate sales
- Acquisitions
- Minority investments
- Joint ventures
- Fairness opinions

\$33bn

Asset Transactions

- Acquisitions
- Divestitures
- Passive equity
- Development capital formation

Operating **27GW** | Development **50GW**

Capital Raising

- Equity private placements
- Debt private placements
- Project finance advisory
- Co-managed public offerings

\$4bn

Strategic Advisory

- Strategic consulting
- IPO preparation
- Financial restructuring
- Specialized opinions
- Independent capital markets advice

>25 assignments

Note: As of September 30th, 2020.

Highly Experienced Senior Leadership Supported by 65 Professionals

<p>Jeff McDermott</p> <p>Managing Director, Group Head New York</p> <p>jeff.mcdermott@nomura.com</p> <ul style="list-style-type: none"> ■ 30+ years of experience ■ >150 completed transactions ■ Founder and head of advisory business ■ Large industrials and energy companies ■ Broad coverage of senior leaders 	<p>Derek Bentley</p> <p>Managing Director New York</p> <p>derek.bentley@nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >35 completed transactions ■ Renewable energy assets ■ Energy storage ■ Distributed generation ■ Water 	<p>Laurent Dallet</p> <p>Managing Director Zürich</p> <p>laurent.dallet@nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >30 completed transactions ■ Renewable energy assets ■ Distributed energy production ■ Energy efficiency and services 	<p>PJ Deschenes</p> <p>Managing Director New York</p> <p>pj.deschenes@nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >30 completed transactions ■ Renewable energy assets ■ Power infrastructure services ■ Renewable energy value chain ■ Environmental services 	<p>Michael Horwitz</p> <p>Managing Director San Francisco</p> <p>michael.horwitz@nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >40 completed transactions ■ Energy efficiency ■ Energy software and services ■ Energy storage ■ Renewable energy ■ Smart grid ■ Blockchain 	<p>Olav Junttila</p> <p>Managing Director Chicago</p> <p>olav.junttila@nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >30 completed transactions ■ Energy software and services ■ Energy efficiency ■ Renewable energy ■ Utilities 	<p>John McClure</p> <p>Managing Director San Francisco</p> <p>john.mcclure@nomura.com</p> <ul style="list-style-type: none"> ■ 25+ years of experience ■ >20 completed transactions ■ Advanced transportation ■ Edge computing ■ Semi-conductors ■ Industrial sensors
<p>Steve Megyery</p> <p>Managing Director New York</p> <p>steve.megyery@nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >30 completed transactions ■ Head of Private Placements ■ Cleantech ■ Power infrastructure 	<p>Frank Nicklaus</p> <p>Managing Director New York</p> <p>frank.nicklaus@nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >25 completed transactions ■ Renewable energy assets ■ Power infrastructure services ■ Renewable energy value chain 	<p>Diego Pignatelli</p> <p>Managing Director Zürich</p> <p>diego.pignatelli@nomura.com</p> <ul style="list-style-type: none"> ■ 30+ years of experience ■ >60 completed transactions ■ European coverage ■ Industrials and energy companies ■ Utilities 	<p>Damien Sauer</p> <p>Managing Director Zürich</p> <p>damien.sauer@nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >50 completed transactions ■ Energy efficiency ■ Power infrastructure ■ Renewable energy value chain ■ Smart grid 	<p>Alex Stein</p> <p>Managing Director Zürich</p> <p>alex.stein@nomura.com</p> <ul style="list-style-type: none"> ■ 10+ years of experience ■ >20 completed transactions ■ Energy transition ■ Industry 4.0 ■ Environmental technology and services 	<p>Duncan Williams</p> <p>Managing Director San Francisco</p> <p>duncan.williams@nomura.com</p> <ul style="list-style-type: none"> ■ 25+ years of experience ■ >40 completed transactions ■ Advanced Transportation ■ Sustainable Food & AgTech ■ Industrial IoT & software ■ Environmental services ■ Water 	

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