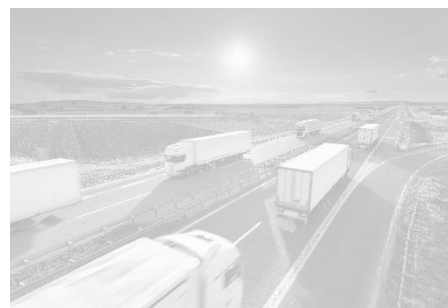
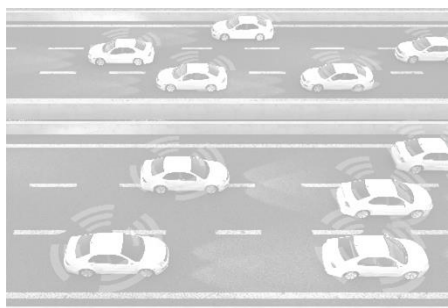


Advanced Mobility Market Update



March 2018

Electric
Vehicles



Ecosystem
Intelligence



Mobility-as-
a-Service



Autonomous
Infrastructure



Data &
Analytics



About Greentech Capital Advisors

Our mission is to empower companies and investors who are creating a more efficient and sustainable global infrastructure. We are purpose-built to ensure that our clients achieve success. We have deeply experienced senior bankers and investment professionals who are sector experts and understand our clients' industry and needs. We reach a vast global network of buyers, growth companies, asset owners and investors, and thereby provide clients with more ways to succeed through a deeper relationship network. We have directly relevant transaction experience which enables us to find creative structures and solutions to close transactions. We are an expert team of 55 professionals working seamlessly on our clients' behalf in New York, Zurich and San Francisco and through a strategic partnership in Japan. Our team of experienced bankers and investment professionals provides conflict-free advice and thoughtful, innovative solutions, and we do so with an intensely focused effort that does not stop until our clients achieve success.

Business Developments

Greentech's Take:

- > Lyft's pricing of the subscription plan further pushes individuals to consider the Mobility-as-a-Service model versus vehicle ownership

Greentech's Take:

- > While many companies pursue self-driving cars, autonomous trucks appear to be on the near term horizon and have the potential to drastically disrupt the goods movement market

- > **Audi** announced plans to invest €40 billion over the next five years to expand its lineup and accelerate a shift into electric vehicles ([Bloomberg](#))
- > **AutoNavi**, Alibaba's mapping unit, announced the launch of their own carpooling business with plans to roll out across China ([China Money](#))
- > **Ford** announced it will revamp its vehicle lineup with hybrid engine technology, expecting to beat Toyota in hybrid sales by 2021 ([CNBC](#))
- > **Ford** and **Alibaba** opened a facility in China which allows car shoppers to try or buy a car using a smartphone app and a car vending machine ([TechCrunch](#))
- > **General Motors** intends to begin mass production of their self-driving Cruise AV in 2019 at their Michigan assembly plant ([The Drive](#))
- > **Jaguar** debuted a fully electric SUV with a range of 240 miles putting the car in direct competition with Tesla's Model X ([CNBC](#))
- > **Lyft** is reportedly testing a monthly subscription plan for the app with a similar price point to the average monthly car payment (\$199) ([TechCrunch](#))
- > **Nissan** announced it will develop eight new electric vehicles and make an aggressive electric vehicle push in China as a part of its new plan to sell 1 million electric vehicles annually by 2022 ([Fortune](#))
- > **Panasonic** confirmed they have started producing their first battery cells for electric vehicles in China ([electrek](#))
- > **Tesla** is voluntarily recalling approximately 123,000 Model S sedans after learning specific corroding bolts could lead to power-steering failures ([WSJ](#))
- > **Uber** disclosed its self-driving trucks have been carrying cargo on highways in Arizona for commercial freight customers for the past few months ([NYTimes](#))
- > **UPS** reported that a technological development would allow its entire central London fleet soon to be made up of electric vehicles ([FT](#))
- > **Via** announced the city of Arlington, Texas will replace its local bus service with 10 of Via's commuter vans for on-demand ridesharing ([TechCrunch](#))
- > **Volkswagen** announced that its all-electric, self driving Sedric shuttle will go into production after an internal design refinement ([TechCrunch](#))
- > **Waymo** has expanded their self-driving technology into trucking, announcing their autonomous trucks would soon begin delivering freight to Google's data centers in Atlanta ([Medium](#))
- > **Yandex**, the Russian search and internet services company, expanded its ride-hailing services to its first European Union country, Latvia, after merging its operations with Uber in Russia ([Yandex](#))

Regulatory Developments

Greentech's Take:

- > This accident is the first known fatality by a self-driving vehicle and is likely to pave the way for the regulation of testing and the future of autonomous vehicles

- > For the first time, **China** issued licenses to **SAIC Motor** and electric car startup, **NIO**, to road test self-driving vehicles ([Newsweek](#)); The city of Beijing also issued a permit to **Baidu**, China's most frequented search engine, to test its autonomous vehicles in the city suburbs ([Reuters](#))
- > An **Uber** autonomous test SUV struck and killed a pedestrian while in self-driving mode in Tempe, Arizona ([TechCrunch](#)); In response, Uber halted all testing of their autonomous vehicles and were subsequently suspended by the Governor of Arizona to test autonomous vehicles ([The Verge](#)); Nvidia, Uber's GPU supplier, and Velodyne, who manufactured the LIDAR unit used in the fatality, have quickly distanced themselves from Uber, suggesting the flaw lay with Uber's software not with their products ([The Verge](#))
- > Other companies, such as Toyota, quickly followed suit by suspending testing of their self-driving vehicles as well ([NYTimes](#))

Selected Capital Raises

Greentech's Take:

- > BMW's investment in Blackmore underscores a continuing trend of OEMs placing large bets on LiDAR technology for self-driving applications

- > **Alta Motors**, a manufacturer of lightweight electric motorcycles, announced an equity investment from Harley-Davidson ([Newswire](#))
- > **Ascent Robotics**, a Japanese company developing AI training software for autonomous driving, raised \$10.3 million from SBI Investment ([The Bridge](#))
- > **Bestmile**, a mobility platform that enables service providers to manage, operate and optimize autonomous vehicle fleets, received \$11 million in a funding round led by Road Ventures ([VentureBeat](#))
- > **Blackmore Sensors and Analytics**, a developer of LiDAR sensors for self-driving cars, received \$18 million in a round led by BMW i Ventures ([Newswire](#))
- > **CHJ Automotive**, a Chinese electric car start up, announced a \$473 million Series B round led by Matrix Partners China and Beijing Shougang ([DealStreet](#))
- > **Desktop Metal**, a 3D metal printing company, received a \$65 million investment from Ford and Future Fund ([TechCrunch](#))
- > **EVelozcity**, an electric car startup founded by former Farraday Future and BMW executives, announced it had raised \$1 billion in funding ([Forbes](#))
- > **KeepTruckin**, a fleet management software company, raised \$50 million ([WSJ](#))
- > **Smartcar**, a developer of a connected car platform, raised \$10 million from New Enterprise Associates and Andreessen Horowitz ([VentureBeat](#))
- > **Starsky Robotics**, an autonomous trucking company, raised \$16.5 million in Series A funding led by Shasta Ventures ([TechCrunch](#))
- > **Yestock Car Rental**, a Chinese integrated car service provider, announced it received an investment from DiDi Chuxing ([DealStreet](#))
- > **Zūm**, a provider of on demand ride and care services for children, raised \$19 million from Spark Capital and Sequoia Capital ([Newswire](#))

Selected Mergers & Acquisitions

- > **Daimler** purchased the remaining 25% stake of **Car2Go** from EuropCar, valuing the car-sharing company at €280 million ([TechCrunch](#))
- > **Denso** purchased an ~\$800 million stake in Japanese chipmaker, **Renesas**, bringing Denso's total ownership stake to 5% ([Reuters](#))
- > **Platinum Equity**, through its subsidiary, **American Traffic Solutions**, has acquired **Highway Toll Administration**, a provider of electronic toll collection and violation management solutions for fleets ([Newswire](#))
- > **Uber** has sold its Southeast Asia business to **Grab**, in exchange for a 27.5% stake in the company with Uber's CEO joining Grab's board ([TechCrunch](#))

Selected Partnerships

Greentech's Take:

- > Waymo's use of Jaguar's fully electric SUVs marks Waymo's first pure EV play along with a significant bet on the future of premium luxury Mobility-as-a-Service

- > **BMW** and **Daimler** combined their mobility services businesses into one company, with each automaker owning a 50% stake ([TechCrunch](#))
- > **DiDi Chuxing** and **CHJ Automotive** will to customize production of electric cars for the ride-sharing industry in addition to partnering on intelligent networks, autonomous driving, and smart car fleet operations ([DealStreet](#))
- > **Innogy** and **DKV**, a mobility service provider, formed an e-mobility JV to offer services for commercial fleet operators across Europe ([electrive](#))
- > **Jaguar** and **Waymo** are partnering to offer a premium fully electric self-driving vehicle, built for Waymo's transportation platform, with the goal of producing up to 20,000 Jaguar I-Pace's over the next few years ([Medium](#))
- > **Toyota** and **Aisin Seiki**, announced a \$2.8 billion JV focused on the development of self-driving cars by 2020 ([WSJ](#))
- > **Volkswagen** has picked LG Chem, Samsung and Chinese battery maker Contemporary Amperex Technology to provide battery cells and related technology worth ~€20 billion for its electric car program ([The National](#))

Capital Raises

Date	Company	Invested (\$mm)	Investors	Company Description
3/23	CHJ Automotive	\$473.0	Beijing Shougang Company, BlueRun Ventures, China Yintai Holdings, Funcity Capital, Future Capital Discovery Fund, Matrix Partners China, Source Code Capital	Developer and manufacturer of next generation electric vehicles. The company's electric cars consist of automobiles which run on batteries and can be used for short distance travelling and other general purposes
3/22	Bestmile	\$11.0	Road Ventures, Partech Ventures, Groupe ADP, Airbus Ventures, Serena Capital and MobilityFund	Developer of a fleet management platform that allows intelligent operation and optimization of autonomous vehicle fleets, regardless of their brand or type and managing both fixed-route and on-demand service types as well as handles real-time automated dispatching, intelligent routing and energy management, enabling autonomous vehicles to work together as a fleet and allows mobility providers to deploy, operate and scale autonomous mobility services
3/20	Ascent Robotics	\$10.3	SBI Investment, Bart Joseph Broadman	Developer of mobile intelligence designed to conduct research in deep reinforcement learning. The company is developing AI training software for autonomous driving
3/20	KeepTruckin	\$50.0	GV, Index Ventures (UK), IVP, Scale Venture Partners	Developer of software for maintenance of electronic driver logs and general fleet management
3/20	Blackmore Sensors and Analytics	\$18.0	BMW i Ventures, Toyota AI Ventures, Millennium Technology Value Partners, Next Frontier Capital	Developer of frequency-modulated continuous-wave (FMCW) LiDAR imaging. The company specializes in developing 3D LiDAR sensors for automotive safety and self-driving cars and allows commoditization of ubiquitous 3D geospatial data
3/19	Desktop Metal	\$65.0	Ford Motor Company, The Future Fund	Developer of 3D metal printers designed to make 3D printing accessible for engineering teams. The company's 3D metal printers are office-friendly and do not require third party equipment or special facilities, enabling engineering and manufacturing teams to produce metal parts from prototyping to mass production in an affordable way
3/19	Yestock	n.a.	DiDi Chuxing	Yestock is an integrated car services provider with its headquarters located in Shenzhen. It primarily offers leasing services with a purchase option and a long-term rental service to customers with coverage over the economic cycle of vehicles, with special expertise in used-vehicles management
3/14	Lyft	\$200.0	Magna	Provider of an on-demand ride-sharing platform designed to match customers with local drivers through their smartphone. The company's ride-sharing platform offers an online marketplace that connects local drivers with passengers who request rides through their smartphones
3/13	Zum	\$19.0	Spark Capital, Sequoia Capital	Provider of on demand ride and care services intended to offer reliable child transportation and care for children. The company's ride sharing service provides safe and reliable child transportation for schools and parents by providing flexible ride options, through highly vetted drivers via its mobile application, enabling parents to save time spent driving children to school and other activities
3/13	EVelozcity	\$1,000.0	Undisclosed	A California-based company focused on the design, development and delivery of competitive, capable and connected electric vehicles developed for urban needs
3/8	Starsky Robotics	\$16.5	Fifty Years Fund, Grishin Robotics, Point Nine Capital, Shasta Ventures, Trucks Venture Capital, Y Combinator	Operator of autonomous trucking company designed to bring driverless trucks to the market. The company's autonomous trucks using a combination of business models and technology that drives trucks on the highway and remote controlled by drivers for the first and last mile, enabling users to make their vehicle autonomous
3/1	Alta Motors	n.a.	Harley Davidson	Manufacturer of electric motor bikes. The company's electric motor bikes are an alternative to gasoline counterparts with high battery backup, enabling consumers to drive without thinking about draining of battery life
3/1	Smartcar	\$10.0	New Enterprise Associates, Andreessen Horowitz	Developer of a connected car platform. The company's connected car platform lets developers read vehicle data and send commands using HTTP requests to any vehicles in a single engineering effort, enabling them to get started easily and build apps to communicate with vehicles

Mergers & Acquisitions

Date	Target	Acquiror	EV	EV		Target Description
			(\$mm)	Revenue	EBITDA	
3/25	Uber Southeast Asia	Grab	n.a.	n.a.	n.a.	Uber sold its ride-sharing business in eight countries in Southeast Asia to rival, Grab. In exchange, Uber will get a 27.5% stake in Singapore-based Grab while Uber CEO Dara Khosrowshahi will join Grab's board
3/8	Renesas	Denso	\$796.9	n.a.	n.a.	Manufacturer of semiconductors for various electrical applications. Denso is raising their stake in the chipmaker from 0.5% to 5% with the intention using their in-car microcontrollers for autonomous driving technology
3/2	Highway Toll Administration	American Traffic Solutions	n.a.	n.a.	n.a.	Developer of comprehensive electronic toll collection and violation management solutions for the rental car industry and other fleet operators across North America
3/1	car2Go	Daimler	\$280.0	n.a.	n.a.	World's largest car sharing company with over 14,000 vehicles in 26 locations across North America, Europe, and Asia

Advanced Mobility Market Update

Trading Comparables

Company	Price as of 3/30/2018	Market Cap	Firm Value	EV / Revenue		EV / EBITDA		P / E	
				2018E	2019E	2018E	2019E	2018E	2019E
Automotive Companies									
Toyota	¥ 6842.0	\$209,924	\$357,997	1.3x	1.3x	11.1x	10.4x	9.3x	9.0x
Volkswagen	€ 162.60	99,936	269,099	0.9x	0.9x	6.0x	5.8x	6.1x	5.8x
Daimler	€ 68.97	90,747	221,087	1.1x	1.0x	9.0x	8.7x	7.3x	7.2x
BMW	€ 88.15	70,425	173,514	1.4x	1.3x	9.5x	9.0x	7.8x	7.5x
Ford	\$ 11.08	44,026	159,512	1.1x	1.1x	12.5x	12.4x	7.1x	7.3x
General Motors	\$ 36.34	50,987	120,835	0.8x	0.8x	6.4x	6.4x	5.8x	5.7x
Nissan	¥ 1094.50	43,437	117,142	1.0x	1.0x	10.3x	9.8x	7.0x	6.9x
Honda	¥ 3641.0	62,016	111,121	0.8x	0.7x	8.5x	8.1x	8.1x	8.2x
Hyundai	₩ 143500.0	35,165	80,462	0.9x	0.8x	10.0x	9.3x	7.8x	7.0x
Renault	€ 98.50	35,824	78,089	1.0x	1.0x	9.3x	8.8x	6.1x	5.7x
SAIC Motor	¥ 32.94	61,168	71,999	0.5x	0.5x	12.8x	11.2x	10.0x	9.3x
Tesla	\$ 266.13	44,941	54,943	3.0x	2.2x	34.2x	14.6x	NM	NM
Fiat Chrysler	€ 16.50	39,556	45,722	0.3x	0.3x	2.6x	2.5x	5.1x	4.9x
BYD	HK\$ 61.20	23,270	33,906	1.6x	1.4x	11.6x	10.1x	22.7x	18.0x
Suzuki	¥ 5703.0	26,331	25,677	0.7x	0.7x	4.9x	4.6x	11.8x	11.3x
Geely	HK\$ 22.60	25,841	24,034	1.3x	1.1x	8.6x	7.2x	11.8x	9.3x
Tata Motors	₹ 327.45	15,930	19,976	0.4x	0.4x	2.9x	2.6x	9.0x	7.0x
Guangzhou Automobile	HK\$ 14.46	21,475	19,784	1.4x	1.3x	15.9x	13.6x	6.1x	5.5x
Peugeot	€ 19.55	21,755	18,934	0.2x	0.2x	2.3x	2.1x	7.7x	6.9x
Subaru	¥ 3489.0	25,234	17,110	0.5x	0.5x	3.6x	3.3x	9.8x	8.7x
KIA	₩ 31850.0	12,113	11,295	0.2x	0.2x	3.3x	3.1x	6.5x	5.7x
Dongfeng Motor	HK\$ 9.11	10,001	10,209	0.5x	0.5x	24.0x	21.6x	4.6x	4.4x
Mazda	¥ 1409.50	8,374	8,096	0.2x	0.2x	3.7x	3.3x	7.9x	7.2x
Mitsubishi	¥ 752.0	10,538	5,987	0.3x	0.3x	3.7x	3.1x	11.1x	10.2x
Mean				0.9x	0.8x	9.4x	8.0x	8.5x	7.8x
Median				0.9x	0.8x	8.8x	8.4x	7.8x	7.2x
Truck Companies									
Daimler	€ 68.97	\$90,747	\$221,087	1.1x	1.0x	9.0x	8.7x	7.3x	7.2x
Volvo	₩ 152.25	38,708	49,854	1.2x	1.2x	8.5x	8.2x	12.8x	12.2x
PACCAR	\$ 66.17	23,298	28,445	1.4x	1.3x	10.8x	10.8x	12.2x	11.8x
MAN SE	€ 94.75	17,136	20,079	1.1x	1.1x	10.1x	9.3x	38.2x	34.3x
Isuzu	¥ 1609.0	12,836	14,069	0.7x	0.7x	6.1x	5.6x	10.6x	9.8x
Navistar	\$ 34.97	3,451	7,567	0.8x	0.8x	10.1x	8.9x	15.8x	11.0x
Mean				1.0x	1.0x	9.1x	8.6x	16.2x	14.4x
Median				1.1x	1.0x	9.5x	8.8x	12.5x	11.4x
Tier 1 Suppliers									
Continental	€ 224.30	\$55,173	\$58,398	1.0x	1.0x	6.5x	6.0x	13.0x	11.9x
Denso	¥ 5782.0	43,172	41,517	0.8x	0.8x	6.1x	5.7x	13.6x	12.4x
Bridgestone	¥ 4628.0	33,140	31,094	0.9x	0.8x	5.0x	4.8x	11.1x	10.6x
Michelin	€ 119.90	26,472	27,542	1.0x	1.0x	5.2x	4.9x	11.4x	10.4x
Aptiv	\$ 84.97	22,572	25,312	1.8x	1.7x	10.8x	10.0x	16.5x	14.9x
Magna	C\$ 72.57	20,174	23,310	0.6x	0.5x	5.6x	5.4x	8.3x	7.5x
Valeo	€ 53.64	15,810	18,781	0.8x	0.7x	5.8x	5.2x	12.5x	10.8x
Autoliv	\$ 145.94	12,710	13,226	1.1x	1.1x	9.1x	7.9x	19.3x	16.3x
Lear	\$ 186.09	12,453	13,107	0.6x	0.6x	5.8x	5.6x	9.6x	8.9x
BorgWarner	\$ 50.23	10,586	12,338	1.2x	1.1x	6.9x	6.5x	11.6x	10.7x
Faurecia	€ 65.72	11,157	11,961	0.5x	0.5x	4.8x	4.4x	12.6x	11.5x
Goodyear	\$ 26.58	6,392	11,325	0.7x	0.7x	4.6x	4.2x	7.2x	6.1x
Delphi	\$ 47.65	4,222	5,582	1.1x	1.1x	6.7x	6.3x	9.9x	9.1x
Visteon	\$ 110.24	3,409	3,217	1.0x	0.9x	8.4x	7.7x	16.8x	14.5x
ATS Automation Tooling Systems	C\$ 17.69	1,288	1,285	1.5x	1.4x	11.7x	10.7x	22.6x	19.4x
Stoneridge	\$ 27.60	778	841	1.0x	1.0x	7.7x	7.2x	13.8x	12.8x
Mean				1.0x	0.9x	6.9x	6.4x	13.1x	11.7x
Median				1.0x	0.9x	6.3x	5.9x	12.5x	11.1x
Autonomous Driving Chip Makers									
Intel	\$ 52.08	\$243,734	\$257,411	4.0x	3.8x	9.4x	9.1x	14.7x	13.8x
Nvidia	\$ 231.59	140,112	135,009	10.8x	9.5x	27.3x	23.8x	37.8x	32.7x
Qualcomm	\$ 55.41	82,027	69,470	3.1x	3.0x	10.8x	8.7x	15.9x	14.7x
Advanced Micro Devices	\$ 10.05	9,740	9,948	1.6x	1.5x	15.5x	12.1x	26.3x	18.6x
Mean				4.9x	4.5x	15.8x	13.4x	23.7x	19.9x
Median				3.5x	3.4x	13.2x	10.6x	21.1x	16.6x

Source: FactSet, SEC filings and third party providers. Values in U.S. Dollars. Share prices shown in local currencies.

Advanced Mobility Market Update

Trading Comparables (cont.)

Company	Price as of 3/30/2018	Market Cap	Firm Value	EV / Revenue		EV / EBITDA		P / E	
				2018E	2019E	2018E	2019E	2018E	2019E
Intelligent Transport									
Roper Technologies	\$ 280.69	\$28,862	\$33,346	6.7x	6.4x	19.7x	18.7x	25.3x	23.4x
FLIR Systems	\$ 50.01	6,947	6,849	3.9x	3.7x	15.6x	14.4x	23.9x	21.9x
LS Corp	W 73600.0	2,223	5,914	0.6x	0.6x	7.4x	7.2x	9.1x	8.5x
Conduent	\$ 18.64	3,921	5,457	1.0x	0.9x	7.6x	7.1x	17.9x	15.3x
Gosuncn Technology Group	Y 13.69	2,557	2,498	4.9x	3.8x	NM	NM	27.4x	21.7x
Beijing E-Hualu IT	Y 30.19	1,802	2,283	3.5x	2.7x	NM	NM	35.5x	23.2x
Cubic Corporation	\$ 63.60	1,731	1,958	1.3x	1.2x	15.9x	12.3x	42.1x	NM
Vaisala	€ 43.40	972	860	2.0x	1.9x	13.3x	11.4x	21.9x	18.8x
Kapsch TrafficCom	€ 39.80	636	606	0.7x	0.7x	6.6x	6.1x	13.2x	11.2x
Beijing Wanji Technology ⁽¹⁾	Y 27.06	466	462	NM	NM	NM	NM	NM	NM
INIT Innovation in Traffic Systems	€ 20.0	247	274	1.6x	1.4x	NM	10.6x	26.5x	20.3x
Iteris, Inc	\$ 4.96	164	147	1.3x	1.1x	NM	16.3x	NM	42.6x
Q-Free	NOK 7.50	85	113	0.9x	0.9x	NM	7.7x	60.0x	15.3x
Image Sensing Systems ⁽¹⁾	\$ 4.25	22	19	NM	NM	NM	NM	NM	NM
Mean				2.4x	2.1x	12.3x	11.2x	27.5x	20.2x
Median				1.4x	1.3x	13.3x	11.0x	25.3x	20.3x
ITS / Smart Tolling									
Atlantia	€ 25.15	\$25,542	\$45,356	5.9x	5.7x	9.6x	9.1x	16.6x	15.6x
Abertis Infraestructuras	€ 18.22	22,192	44,343	6.5x	6.4x	9.7x	9.4x	17.3x	15.6x
Ferrovial	€ 16.97	15,278	20,720	1.4x	1.4x	19.7x	18.0x	34.0x	28.6x
Autostrada ⁽¹⁾	€ 20.45	2,490	4,587	NM	NM	NM	NM	NM	NM
Mean				4.6x	4.5x	13.0x	12.2x	22.7x	19.9x
Median				5.9x	5.7x	9.7x	9.4x	17.3x	15.6x
Telematics									
Descartes Systems	\$ 28.55	\$2,191	\$2,193	8.0x	7.3x	23.1x	20.1x	60.6x	47.4x
TomTom	€ 7.48	2,166	2,020	2.0x	2.1x	9.3x	8.2x	23.2x	18.6x
Orbcomm	\$ 9.37	701	913	3.0x	2.8x	16.1x	11.3x	NM	NM
CalAmp	\$ 22.88	815	816	2.1x	1.9x	13.4x	11.3x	17.8x	15.3x
Ituran ⁽¹⁾	\$ 31.10	652	619	2.4x	2.2x	8.1x	7.4x	14.5x	12.6x
MiX Telematics	R 7.39	377	354	2.3x	2.1x	8.4x	7.5x	26.4x	23.0x
Quartix	£ 3.55	237	227	6.6x	6.8x	21.5x	24.5x	28.1x	32.3x
Inseeqo	\$ 1.78	105	215	1.0x	1.0x	9.1x	6.4x	44.5x	10.2x
TeleNav	\$ 5.40	241	146	1.4x	0.7x	NM	NM	NM	NM
Kerlink	€ 20.60	129	115	2.6x	1.8x	NM	NM	NM	19.6x
Quarterhill (fka Wi-LAN)	C\$ 1.87	172	96	0.9x	0.8x	5.3x	4.3x	10.1x	7.6x
Mean				2.9x	2.7x	12.7x	11.2x	28.1x	20.7x
Median				2.3x	2.1x	9.3x	8.2x	24.8x	18.6x
Logistics									
UPS	\$ 104.66	\$90,036	\$110,286	1.6x	1.5x	9.9x	9.3x	14.5x	13.3x
FedEx	\$ 240.11	64,161	78,952	1.1x	1.1x	7.9x	7.1x	14.7x	12.7x
Deutsche Post	€ 35.52	53,910	56,722	0.7x	0.7x	8.3x	7.6x	15.0x	13.6x
Fortive	\$ 77.52	26,979	30,091	4.1x	4.0x	17.2x	16.2x	22.6x	20.9x
J.B. Hunt	\$ 117.15	12,858	13,929	1.7x	1.5x	11.4x	10.1x	22.1x	18.8x
Penske	\$ 44.33	3,817	9,729	0.4x	0.4x	12.0x	12.8x	8.7x	8.4x
Mean				1.6x	1.5x	11.1x	10.5x	16.3x	14.6x
Median				1.4x	1.3x	10.7x	9.7x	14.9x	13.5x
Communications / Infrastructure									
AT&T	\$ 35.65	\$218,946	\$333,939	2.1x	2.1x	6.4x	6.3x	10.3x	10.1x
Verizon	\$ 47.82	197,399	314,006	2.4x	2.4x	6.6x	6.5x	10.5x	10.3x
Cisco Systems	\$ 42.89	206,623	172,306	3.5x	3.4x	10.1x	9.7x	15.9x	14.7x
T-Mobile	\$ 61.04	52,154	81,844	1.9x	1.8x	6.9x	6.4x	18.2x	14.8x
Sprint	\$ 4.88	19,493	51,811	1.6x	1.6x	4.5x	4.2x	11.2x	NM
Hitachi	¥ 763.10	34,682	50,333	0.6x	0.5x	4.7x	4.6x	9.5x	8.7x
Toshiba	¥ 306.0	18,762	25,426	0.7x	0.7x	14.0x	13.5x	7.5x	11.3x
Conduent	\$ 18.64	3,921	5,457	1.0x	0.9x	7.6x	7.1x	17.9x	15.3x
Mean				1.7x	1.7x	7.6x	7.3x	12.6x	12.2x
Median				1.8x	1.7x	6.8x	6.5x	10.9x	11.3x
Aggregate Mean				1.8x	1.7x	9.9x	9.0x	16.4x	13.8x
Aggregate Median				1.1x	1.1x	9.0x	8.1x	12.8x	11.5x

Source: FactSet, SEC filings and third party providers. Values in U.S. Dollars. Share prices shown in local currencies.

(1) Denotes limited equity research coverage.

Global Experts in Sustainable Technology and Infrastructure



San Francisco



New York



Zürich

Tokyo

Partnership with Sangyo Sosei Advisory Inc.



INVESTMENT BANKING

Mergers & Acquisitions

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

\$13bn

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

>20 assignments

ASSET MANAGEMENT

Public Equity

- GCA Sustainable Growth Fund
- GCA Emerging Markets Sustainable Growth Fund

\$630mm

Highly Experienced Partners Supported by 55 Professionals

Jeff McDermott



Managing Partner
New York
+1 212 946 3940
jeff@greentechcapital.com

- > 30+ years of experience
- > >150 completed transactions
- > Founder and head of advisory business
- > Large industrials and energy companies
- > Broad coverage of senior leaders

Derek Bentley



Partner
New York
+1 212 946 3948
dbentley@greentechcapital.com

- > 15+ years of experience
- > >35 completed transactions
- > Renewable energy assets
- > Distributed generation Water

Laurent Dallet



Partner
Zürich
+41 44 578 3917
laurent@greentechcapital.com

- > 15+ years of experience
- > >30 completed transactions
- > Renewable energy assets
- > Distributed energy production
- > Energy efficiency and services

PJ Deschenes



Partner
New York
+1 212 946 3362
pjdeschenes@greentechcapital.com

- > 15+ years of experience
- > >30 completed transactions
- > Renewable energy assets
- > Power infrastructure services
- > Renewable energy value chain
- > Environmental services

Michael Horwitz



Partner
San Francisco
+1 415 697 1561
mhorwitz@greentechcapital.com

- > 20+ years of experience
- > >30 completed transactions
- > Energy software and services
- > Energy efficiency
- > Renewable energy
- > Smart grid

Karen Mozes Laton



Partner & Head of Marketing
New York
+1 212 946 3375
karen@gcainvest.com

- > 20+ years of experience
- > Chief Operating Officer of GCA Investment Management

Jim Long



Partner
Zürich
+41 79 510 3920
jim@greentechcapital.com

- > 25+ years of experience
- > >75 completed transactions
- > Energy companies
- > Utilities

Steve Megyery



Partner
New York
+1 212 946 3949
steve@greentechcapital.com

- > 15+ years of experience
- > >30 completed transactions
- > Head of Private Placements
- > Cleantech
- > Power infrastructure

Diego Pignatelli



Partner
Zürich
+41 44 578 3941
diego@greentechcapital.com

- > 30+ years of experience
- > >60 completed transactions
- > European coverage
- > Industrials and energy companies
- > Utilities

Damien Sauer



Partner
Zürich
+41 44 578 3914
damien@greentechcapital.com

- > 20+ years of experience
- > >50 completed transactions
- > Energy efficiency
- > Power infrastructure
- > Renewable energy value chain
- > Smart grid

Rob Schultz



Partner & COO
New York
+1 212 946 3950
robert@greentechcapital.com

- > 25+ years of experience
- > Chief Operating Officer
- > Chief Compliance Officer

David Smith



Partner & Portfolio Manager
New York
+1 212 946 2231
david@gcainvest.com

- > 20+ years of experience
- > Chief Investment Officer
- > Portfolio Manager of GCA Sustainable Growth Long-Only Fund

Duncan Williams



Partner
San Francisco
+1 415 697 1560
duncan@greentechcapital.com

- > 20+ years of experience
- > >40 completed transactions
- > Advanced transportation
- > Industrial IoT & software
- > Environmental services
- > Advanced building products
- > Water

Disclaimer

This industry update, (the “Monthly Update”) was developed from publicly available information, without any independent investigation or verification thereof by Greentech Capital Advisors, LLC, taken together with its affiliates, (“Greentech”), and Greentech makes no representation or warranty as to the accuracy and completeness of such information. The Monthly Update is not intended to provide, and should not be relied upon for, legal, tax, regulatory, financial, accounting or investment advice. Prior to entering into any transaction advised by Greentech (a “Transaction”), you should determine, without reliance upon Greentech, the economic risks and merits (and independently determine that you are able to assume these risks) as well as the legal, tax and accounting characterizations and consequences of any such Transaction. In this regard, by accepting this Presentation, you acknowledge that (a) Greentech is not in the business of providing (and you are not relying on Greentech for) legal, tax or accounting advice, (b) there may be legal, tax or accounting risks associated with any Transaction, (c) you should receive (and rely on) separate and qualified legal, tax and accounting advice and (d) you should apprise senior management in your organization as to such legal, tax and accounting advice (and any risks associated with any Transaction) and our disclaimers to these matters.

The Monthly Update does not purport to be complete on any topic addressed. The information in the Presentation is provided to you as of the dates indicated and Greentech does not intend to update the information after its distribution, even in the event that the information becomes materially inaccurate. Certain information contained in the Presentation includes calculations or figures which have been prepared by Greentech using physically available information and have not been audited or verified by Greentech or a third party. Greentech has used data sourced from FactSet and has not reviewed or verified this data in the preparation of the Monthly Update. Greentech expressly prohibits any redistribution of the Monthly Update without the prior written consent of Greentech. The Monthly Update is not intended for distribution, or use by, any person or entity in any jurisdiction or country where such distribution or use is contrary to law, rule or regulation.

Greentech is engaged in or may be engaged in the future in investment banking, securities trading, brokerage activities and principal investing activities, as well as providing financial advisory services. The Monthly Update is neither an expressed nor an implied agreement by Greentech to act in any capacity with respect to you, and any such agreement shall only be as set forth in an executed engagement letter, the terms of which are to be agreed upon by you and Greentech. The Monthly Update in no way restricts Greentech or its affiliates from any other engagement, including acting in any capacity in a manner adverse to you.

No fiduciary, advisory or agency relationship between Greentech, on the one hand, and you and your affiliates, employees, officers, directors, or stockholders on the other hand, has been created in respect of the Presentation, and none of your affiliates, employees, officers, directors, or stockholders may rely on the Presentation.