



February 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:

- > The success of Embark's cross-country trip is a signal of the massive disruption advanced mobility will create on the trucking industry

Greentech's Take:

- > Despite the public noise surrounding the Waymo and Uber lawsuit, the relatively amicable settlement reflects both companies' recognition that the future of mobility will be collaborative, and that they may ultimately see value in a partnership in the future

- > **Autoliv** will spin-off of its Electronics business segment—now to be named Veoneer—to create a new, independent, publicly traded company that will focus on ADAS and autonomous driving ([Cision](#))
- > **Bosch** is establishing a new dedicated mobility services division ([TechCrunch](#))
- > **Didi Chuxing** revealed that it has been testing two self-driving vehicles on public roads for several months ([FT](#)); it is also setting up an electric vehicle sharing service with 12 automakers ([Reuters](#))
- > **Dyson** is working on 3 electric vehicles and plans on ultimately developing its own solid state battery technology to include in later vehicles ([Electrek](#))
- > **Embark's** self-driving truck completed a 2,400 mile autonomous coast-to-coast trip from L.A. to Jacksonville, FL ([TechCrunch](#))
- > **Grab** plans to launch autonomous taxis on the roads before 2022 ([FT](#))
- > **JingChi**, founded by Baidu's former autonomous driving chief, launched a 3-month public demonstration of its self-driving cars in Guangzhou ([SCMP](#))
- > **Nissan** intends to spend 1 trillion yen (\$9 billion) over five years in China as it vies to become the largest global EV maker in the country ([BNEF](#)); the company is also introducing a line of four EVs over the next five years with luxury brand Infiniti getting two EVs in the same time frame ([Drive](#))
- > **Pony.ai** launched an autonomous ride-hailing service pilot on a 1.7-mile route in Guangzhou, the first to offer such a service in China ([TechCrunch](#))
- > **Porsche** will double its investment in plug-in hybrids and pure EVs by 2022 to more than 6 billion euros (\$7.4 billion) and further invest in what it calls "new technologies, charging infrastructure and smart mobility" ([Verge](#))
- > **Sony** has plans for a joint venture with local domestic taxi firms to develop an artificial intelligence (AI)-based taxi hailing system in Japan ([CNBC](#))
- > **TDK** will work with automakers to develop wireless charging systems for EVs, hoping to make cable-free charging a commercial reality by 2021 ([Nikkei](#))
- > **Uber Technologies** will pay \$245 million worth of its own shares to Waymo to settle a legal dispute over trade secrets ([Reuters](#)); it is also preparing to sell its SE Asia business to Grab, similar to its deal with Didi in China ([CNBC](#))
- > **Waymo** was approved to operate as a TNC in Arizona, clearing the way for it to launch its own driverless ride-hailing service ([Quartz](#)); the company also has now logged 5 million self-driven miles on public roads ([Medium](#))
- > **Yandex**, the Russian search and internet services giant, demonstrated a public pilot of its self-driving test car in snow-covered Moscow ([TechCrunch](#))

Regulatory Developments

Greentech's Take:

- > A seldom discussed topic regarding EVs is material handling and recycling services for Li-ion batteries
- > China's approach holds potential for minimizing waste in the new mobility ecosystem

- > **California** approved new rules allowing driverless cars that do not require a human operator to sit behind the wheel; however, vehicles without a human driver must have a "remote operator" that can take over using a wireless connection or talk to the car's occupants ([FT](#))
- > The **U.S. Senate's** AV START Act, intended to remove regulatory obstacles to the development of self-driving vehicles, is being placed on hold by three Senators, citing safety and other concerns ([WSJ](#))
- > **China** issued "interim" rules that hold carmakers responsible for the recovery of EV batteries and that require them to set up recycling channels and service outlets for the old batteries to be disposed of properly ([Reuters](#))
- > **China** is increasing subsidies for EVs that can travel longer distances on a single charge; the minimum subsidy benchmark elevated from 100km to 150km, and subsidies increased for EVs with more than 400km range ([BNEF](#))

Selected Capital Raises

Greentech's Take:

- > Technologies aimed at helping self-driving cars "see" are proliferating around the market (e.g. LiDAR, radar, computer vision, thermal cameras, etc.) but the ultimate winner in self-driving vehicles and technology will likely incorporate many or all of these technologies

- > **Aurora**, a Palo Alto-based developer of autonomous car technology founded by highly regarded veterans of AV research, raised \$90 million in a round led by Greylock Partners and Index Ventures ([Fortune](#))
- > **Ionic Materials**, a solid-state battery material developer, raised \$65 million in Series C funding to commercialize its polymer technology ([Bloomberg](#))
- > **May Mobility**, a Michigan-based developer of self-driving small shuttles, raised \$11.5 million in seed funding ([TechCrunch](#))
- > **Moovit**, a transit data and mobility analytics company, raised \$50 million in an investment round led by Intel Capital ([Reuters](#))
- > **Otonomo**, an Israel-based car data exchange platform, received \$3 million in funding from NTT Docomo Ventures ([Bloomberg](#))
- > **Owl**, a Palo Alto-based connected car security camera startup, announced \$18 million in funding led by Defy.vc ([VB](#))
- > **ParkBee**, a Dutch parking technology company, raised €5m in a Series A funding round led by Statkraft Ventures ([FinSMES](#))
- > **Prophesee (fka Chronocam)**, a developer of machine vision for autonomous vehicles, raised \$19 million in the initial phase of a larger Series B round ([VB](#))
- > **Yoshi**, a San Francisco-based subscription service for on-demand and on-site car maintenance and fuel delivery, raised \$13.7 million in a Series A funding round co-led by GM Ventures and Exxon Mobil ([VB](#))
- > **Zoomcar**, a Bangalore-based operator of on-demand car rental services, raised a \$40 million Series C round led by Mahindra & Mahindra ([FinSMES](#))

Selected Mergers & Acquisitions

- > **KAR Auction Services** acquired **STRATIM (fka ZIRX)**, a San Francisco-based provider of urban fleet and autonomous vehicle logistics solutions ([KAR](#))
- > **SEAT**, a Spanish automaker, acquired **Respiro**, a Madrid-based vehicle rental and car-sharing company, for an undisclosed amount ([FinSMES](#))
- > **Bosch** acquired **SPLT**, a ride-sharing startup that offers workforce-focused ridesharing and carpooling services, for an undisclosed amount ([TechCrunch](#))

Selected Partnerships

Greentech's Take:

- > Ford's approach to autonomous driving appears to significantly differ from that of GM and Waymo: Ford first launched its AV technology on unmanned delivery services

- > **BMW** signed an agreement with Chinese auto manufacturer **Great Wall Motor** to produce electric Minis ([BNEF](#))
- > **Byton** has partnered with self-driving vehicle technology startup **Aurora** to work on bringing Level 4 AV capabilities into Byton vehicles ([Fortune](#))
- > **Daimler** and **HERE Technologies** are developing "HERE HD Live Maps" that will be integrated in future autonomous Mercedes Benz vehicles ([Daimler](#))
- > **Ford** launched a pilot program in Miami with **Domino's** and **Postmates** to test deliveries using Ford's self-driving cars ([CNBC](#))
- > The **HumanDrive initiative**, a collaboration between Nissan, Hitachi Europe, and other universities and government agencies, will have a self-driving car embark on an autonomous 200-mile journey around the U.K. ([Engadget](#))
- > **NIO**, a Chinese electric-car startup, is working with **British Petroleum** on setting up a new energy vehicle fund ([BNEF](#))
- > **Nissan** and tech firm **DeNA** will test out a self-driving taxi service in Japan, seeking to launch an autonomous taxi service in the early 2020s ([CNBC](#))
- > **Nvidia** and **Continental AG** are partnering to create top-to-bottom AI self-driving vehicle systems built on the NVIDIA DRIVE™ platform ([Nvidia](#))
- > **UPS** and **Workhorse**, a battery-electric transportation technology company, will develop and deploy a fleet of 50 electric delivery trucks ([TechCrunch](#))

Capital Raises

Date	Company	Invested (\$mm)	Investors	Company Description
2/28	Aurora	\$90.0	Greylock Partners, Index Ventures, other undisclosed investors	Developer of autonomous car technology, founded by highly regarded veterans of autonomous vehicle research who led development programs at Google, Tesla and Uber
2/26	May Mobility	\$11.5	BMW i Ventures, Toyota AI Ventures, Maven Ventures, SV Angel, Tandem Ventures, Trucks Venture Capital, Y Combinator	Developer of self-driving microtransit services and autonomous vehicle technology. The company's shuttles are entirely autonomous and can drive passengers short distances around the community
2/21	Moovit	\$50.0	Intel Capital, Sequoia, BMW i Ventures, NGP Capital, Sound Ventures, BRM Group, Gemini Israel Ventures, Vaizra Investments, Vintage Investment Partners, Hanaco	Provider of a public transit application created to simplify urban mobility all around the world. The company's public transit app combines information from public transit operators and authorities with live information from the user community
2/21	ParkBee	\$6.1	Statkraft Ventures, InnovationQuarter, other undisclosed existing investors	Provider of a cloud-based car parking application that monetizes underutilized spaces such as private office car parks, hotel car parks, shopping centers and private plots of land sitting in locations available for public use
2/21	Prophesee (fka Chronocam)	\$19.0	360 Capital Partners, Supernova Invest, iBionext, Intel Capital, Renault Group, Robert Bosch Venture Capital	Developer of biologically-inspired computer vision sensors and systems designed to dramatically improve the efficiency and intelligence of video processing, with applications in autonomous vehicles, connected devices, security and surveillance systems, among others
2/20	Otonomo	\$3.0	NTT Docomo Ventures	Developer of a car data exchange platform designed to access, integrate and explore car-generated data. The company's exchange platform allows car manufacturers, app developers and service providers to safely exchange car-generated data, enabling them to connect drivers to dozens of car applications and services
2/16	Zoomcar	\$40.0	Mahindra and Mahindra, Ford, Empire Angels, Sequoia Capital India	Provider of an online platform designed to offer on-demand car rental service. The company's online platform, ZAP, offers cars for rent by the hour, day, week, or month from a vehicle catalog with an extensive variety of cars
2/7	Ionic Materials	\$65.0	Alliance Ventures, Kleiner Perkins Caufield & Byers, other undisclosed investors	Developer of cobalt-free, solid-state battery materials created to provide polymers for batteries. The company's cobalt-free, solid-state battery materials have developed a new solid polymer that has all of the properties required to replace the liquid electrolytes used in currently-available batteries
2/7	Yoshi	\$13.7	General Motor Ventures, ExxonMobil, The Durant Company, Y Combinator, Arab Angel, other undisclosed investors	Provider of on-demand vehicle re-fueling services intended to deliver gas to customers for their vehicles. The company's on-demand vehicle re-fueling services include car-washes, details, wiper-blade replacements, tire-checks and even oil changes at the cost of a monthly membership
2/1	Owl	\$18.0	Defy.vc, Khosla Ventures, Menlo Ventures, Sherpa Capital, Moment Ventures, Maniv Mobility, CSAA Insurance Group	Developer of a security camera for cars. The company's LTE-Connected security camera offers 24/7 complete car security to protect against crashes, stops and break-ins, etc. by providing drivers instant video recordings of events inside and outside of the car

Mergers & Acquisitions

Date	Target	Acquiror	EV (\$mm)	EV		Target Description
				Revenue	EBITDA	
2/21	SPLT	Bosch	n.a.	n.a.	n.a.	Developer of a ridesharing platform that allows companies, universities, and municipal authorities to offer their workforces ridesharing services
2/16	Respiro	SEAT	n.a.	n.a.	n.a.	Provider of a pay-per-use car sharing service in cities, based in Madrid with revenues of €1.8 million, 15,000 active users and 200 electric and hybrid vehicles in its fleet
2/7	STRATIM	KAR Auction Services	n.a.	n.a.	n.a.	Provider of an enterprise logistics platform intended to help companies maintain their fleets, consolidating all of their logistical operations under one central hub

Advanced Mobility Market Update

Trading Comparables

Company	Price as of 2/28/2018	Market Cap	Firm Value	EV / Revenue		EV / EBITDA		P / E	
				2018E	2019E	2018E	2019E	2018E	2019E
Automotive Companies									
Toyota	¥ 7235.0	\$225,647	\$373,227	1.4x	1.3x	11.8x	11.2x	9.8x	9.4x
Volkswagen	€ 164.50	101,257	262,940	0.9x	0.9x	5.9x	5.7x	6.2x	5.9x
Daimler	€ 70.47	91,821	221,080	1.1x	1.0x	9.0x	8.8x	7.5x	7.4x
BMW	€ 86.82	69,503	174,015	1.4x	1.4x	9.6x	9.3x	7.8x	7.5x
Ford	\$ 10.61	42,159	157,645	1.1x	1.1x	12.8x	12.8x	6.7x	7.0x
General Motors	\$ 39.35	56,344	126,192	0.9x	0.9x	6.8x	6.9x	6.2x	6.3x
Nissan	¥ 1125.0	44,796	118,255	1.0x	1.0x	10.5x	10.1x	7.2x	7.0x
Honda	¥ 3885.0	67,429	116,370	0.8x	0.8x	8.9x	8.5x	8.8x	8.8x
Hyundai	₩ 161500.0	38,388	78,716	0.9x	0.8x	9.8x	9.1x	8.6x	7.8x
SAIC Motor	¥ 33.64	63,455	74,216	0.5x	0.5x	12.6x	11.5x	10.2x	9.5x
Renault	€ 89.48	31,981	73,896	1.0x	0.9x	8.7x	8.2x	5.6x	5.2x
Tesla	\$ 343.06	59,271	69,273	3.7x	2.7x	44.5x	18.7x	NM	NM
Fiat Chrysler	€ 17.57	42,208	48,324	0.3x	0.3x	2.7x	2.7x	5.4x	5.2x
BYD	HK\$ 72.45	26,798	37,465	1.7x	1.4x	12.7x	11.1x	24.4x	20.0x
Suzuki	¥ 6146.0	28,604	27,952	0.8x	0.7x	5.3x	5.0x	12.7x	12.1x
Geely	HK\$ 25.55	28,724	26,005	1.4x	1.2x	9.5x	8.0x	13.5x	10.4x
Tata Motors	₹ 370.20	18,156	22,207	0.4x	0.4x	3.2x	2.8x	10.2x	8.0x
Guangzhou Automobile	HK\$ 17.40	22,523	20,828	1.5x	1.3x	15.4x	13.2x	7.4x	6.6x
Subaru	¥ 3780.0	27,529	19,432	0.6x	0.6x	3.9x	3.7x	10.3x	9.1x
Peugeot	€ 18.62	20,080	14,576	0.2x	0.2x	1.8x	1.7x	7.9x	7.1x
KIA	₩ 34350.0	12,896	12,091	0.2x	0.2x	3.6x	3.3x	6.9x	6.1x
Dongfeng Motor	HK\$ 9.91	11,187	11,696	0.6x	0.6x	19.2x	18.6x	5.0x	4.8x
Mazda	¥ 1496.50	8,985	8,708	0.3x	0.3x	3.8x	3.4x	8.0x	7.3x
Mitsubishi	¥ 849.0	11,983	7,448	0.3x	0.3x	4.4x	3.8x	12.2x	11.1x
Mean				1.0x	0.9x	9.9x	8.3x	9.1x	8.2x
Median				0.9x	0.8x	8.9x	8.4x	7.9x	7.4x
Truck Companies									
Daimler	€ 70.47	\$91,821	\$221,080	1.1x	1.0x	9.0x	8.8x	7.5x	7.4x
Volvo	₩ 156.95	40,463	51,729	1.2x	1.2x	8.7x	8.4x	13.2x	12.5x
PACCAR	\$ 71.59	25,072	30,220	1.5x	1.4x	11.5x	11.4x	13.3x	12.9x
MAN SE	€ 93.60	16,901	19,875	1.1x	1.1x	10.5x	10.0x	40.4x	43.1x
Isuzu	¥ 1687.0	13,736	14,964	0.7x	0.7x	6.5x	6.0x	11.1x	10.3x
Navistar	\$ 37.32	3,836	7,741	0.8x	0.8x	10.3x	9.2x	15.8x	12.0x
Mean				1.1x	1.0x	9.4x	9.0x	16.9x	16.4x
Median				1.1x	1.1x	9.7x	9.0x	13.3x	12.3x
Tier 1 Suppliers									
Continental	€ 225.70	\$55,105	\$59,776	1.0x	1.0x	6.6x	6.1x	13.0x	11.8x
Denso	¥ 6285.0	48,029	46,380	0.9x	0.9x	6.9x	6.5x	14.7x	13.5x
Bridgestone	¥ 4782.0	34,464	32,425	0.9x	0.9x	5.2x	5.0x	11.5x	11.0x
Michelin	€ 126.70	27,676	28,737	1.1x	1.1x	5.5x	5.2x	12.1x	11.1x
Aptiv	\$ 91.33	24,622	27,362	2.0x	1.9x	11.7x	10.8x	17.7x	16.0x
Magna	C\$ 70.60	20,438	23,703	0.6x	0.6x	5.7x	5.4x	8.3x	7.3x
Valeo	€ 53.46	15,936	18,882	0.8x	0.7x	5.8x	5.2x	11.8x	10.6x
Lear	\$ 186.57	12,606	13,318	0.6x	0.6x	5.9x	5.7x	9.7x	9.0x
Autoliv	\$ 143.44	12,735	13,252	1.1x	1.1x	9.1x	8.0x	19.1x	16.0x
Faurecia	€ 69.28	11,680	12,478	0.6x	0.5x	5.0x	4.6x	13.3x	12.2x
Goodyear	\$ 28.94	7,087	12,020	0.7x	0.7x	4.8x	4.4x	7.8x	6.6x
BorgWarner	\$ 49.08	10,109	11,861	1.1x	1.0x	6.6x	6.3x	11.3x	10.4x
Delphi	\$ 47.75	4,292	5,652	1.1x	1.1x	6.8x	6.2x	10.0x	9.0x
Visteon	\$ 123.84	3,846	3,654	1.1x	1.1x	9.5x	8.8x	18.9x	16.3x
ATS Automation Tooling Systems	C\$ 17.60	1,280	1,277	1.4x	1.4x	11.5x	10.5x	22.5x	19.3x
Stoneridge	\$ 21.76	630	715	0.8x	0.8x	6.9x	6.4x	12.7x	10.6x
Mean				1.0x	1.0x	7.1x	6.6x	13.4x	11.9x
Median				1.0x	0.9x	6.6x	6.2x	12.4x	11.1x
Autonomous Driving Chip Makers									
Intel	\$ 49.29	\$233,579	\$247,256	3.8x	3.7x	9.0x	8.8x	13.9x	13.0x
Nvidia	\$ 242.0	149,112	144,004	11.6x	10.3x	29.1x	25.6x	39.7x	34.4x
Qualcomm	\$ 65.0	98,207	85,650	3.8x	3.7x	13.3x	10.6x	18.7x	17.2x
Advanced Micro Devices	\$ 12.11	12,089	12,297	2.0x	1.8x	19.2x	15.0x	31.0x	22.0x
Mean				5.3x	4.9x	17.7x	15.0x	25.8x	21.7x
Median				3.8x	3.7x	16.3x	12.8x	24.8x	19.6x

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 2/28/2018	Market Cap	Firm Value	EV / Revenue		EV / EBITDA		P / E	
				2018E	2019E	2018E	2019E	2018E	2019E
Intelligent Transport									
Roper Technologies	\$ 275.09	\$28,825	\$33,309	6.7x	6.4x	19.6x	18.6x	25.0x	23.1x
FLIR Systems	\$ 49.10	6,813	6,714	3.8x	3.6x	15.2x	14.0x	23.4x	21.4x
LS Corp	W 76000.0	2,304	5,096	0.5x	0.5x	6.6x	6.4x	9.8x	9.0x
Beijing E-Hualu IT	Y 30.92	1,789	2,267	3.4x	2.5x	25.1x	NM	35.5x	22.7x
Gosuncn Technology Group	Y 12.75	2,309	2,251	4.1x	3.1x	NM	NM	24.5x	19.7x
Cubic Corporation	\$ 61.40	1,681	1,908	1.2x	1.2x	NM	12.0x	40.6x	NM
Vaisala	€ 41.10	922	811	1.9x	1.8x	12.6x	10.8x	20.7x	17.8x
Beijing Wanji Technology ⁽¹⁾	Y 22.30	382	378	NM	NM	NM	NM	NM	NM
INIT Innovation in Traffic Systems	€ 18.25	220	260	1.6x	1.5x	11.9x	10.0x	29.8x	22.0x
Iteris, Inc	\$ 5.57	188	171	1.5x	1.3x	NM	18.9x	NM	47.9x
Image Sensing Systems ⁽¹⁾	\$ 3.10	15	13	NM	NM	NM	NM	NM	NM
Mean				2.8x	2.4x	15.2x	13.0x	26.2x	22.9x
Median				1.9x	1.8x	13.9x	12.0x	24.7x	21.7x
ITS / Smart Tolling									
Abertis Infraestructuras	€ 19.60	\$23,711	\$45,678	6.6x	6.3x	10.0x	9.6x	18.2x	16.5x
Atlantia	€ 25.38	25,612	45,261	6.0x	5.8x	9.7x	9.2x	16.9x	15.9x
Ferrovial	€ 17.77	16,063	22,477	1.6x	1.5x	20.9x	19.3x	34.8x	29.8x
Autostrada ⁽¹⁾	€ 19.90	2,362	5,693	NM	NM	NM	NM	9.9x	NM
Conduent	\$ 18.90	3,896	5,441	1.0x	0.9x	7.6x	7.1x	17.8x	15.3x
Kapsch TrafficCom	€ 43.90	709	729	0.8x	0.8x	7.7x	7.3x	13.7x	12.2x
Q-Free	NOK 7.92	90	117	1.0x	0.9x	12.0x	8.0x	72.0x	15.5x
Mean				2.8x	2.7x	11.3x	10.1x	26.2x	17.5x
Median				1.3x	1.2x	9.8x	8.6x	17.8x	15.7x
Telematics									
TomTom	€ 7.89	\$2,293	\$2,148	2.2x	2.2x	9.9x	8.7x	24.1x	19.4x
Orbcomm	\$ 10.40	786	996	3.6x	3.3x	15.6x	12.5x	NM	NM
CalAmp	\$ 23.40	848	849	2.2x	2.0x	14.0x	11.7x	18.2x	15.7x
Ilturan ⁽¹⁾	\$ 34.55	712	684	NM	NM	NM	NM	NM	NM
MiX Telematics	R 6.29	321	299	1.9x	1.8x	7.1x	6.3x	22.4x	19.6x
Quartix	£ 3.60	236	226	6.2x	5.9x	21.7x	20.9x	28.3x	27.1x
Inseego	\$ 1.87	115	225	1.0x	0.9x	9.7x	7.9x	51.0x	13.4x
Quarterhill (fka Wi-LAN)	C\$ 2.20	201	171	1.6x	1.4x	8.8x	6.4x	12.9x	7.8x
TeleNav	\$ 5.45	252	158	1.5x	0.7x	NM	NM	NM	NM
Kerlink	€ 23.0	141	127	2.9x	2.0x	NM	NM	NM	21.9x
Mean				2.6x	2.3x	12.4x	10.6x	26.2x	17.8x
Median				2.2x	2.0x	9.9x	8.7x	23.3x	19.4x
Logistics									
UPS	\$ 104.41	\$90,920	\$111,170	1.6x	1.5x	10.0x	9.3x	14.4x	13.3x
FedEx	\$ 246.41	66,635	79,308	1.2x	1.1x	8.1x	7.3x	15.8x	13.3x
Deutsche Post	€ 37.64	55,957	60,686	0.8x	0.8x	8.9x	8.3x	15.4x	14.3x
Fortive	\$ 76.80	27,045	30,157	4.1x	4.0x	17.2x	16.3x	22.5x	20.8x
J.B. Hunt	\$ 118.57	13,239	14,310	1.7x	1.6x	11.7x	10.4x	22.5x	19.0x
Penske	\$ 45.80	4,059	9,971	0.5x	0.5x	12.5x	12.7x	9.0x	8.6x
Descartes Systems	\$ 26.45	2,021	2,042	7.6x	7.0x	21.6x	19.0x	55.0x	43.9x
Mean				2.5x	2.3x	12.9x	11.9x	22.1x	19.0x
Median				1.6x	1.5x	11.7x	10.4x	15.8x	14.3x
Communications / Infrastructure									
AT&T	\$ 36.30	\$226,382	\$341,375	2.1x	2.1x	6.5x	6.5x	10.6x	10.4x
Verizon	\$ 47.74	195,979	312,586	2.4x	2.4x	6.6x	6.5x	10.6x	10.4x
Cisco Systems	\$ 44.78	216,981	182,664	3.7x	3.6x	10.7x	10.3x	16.6x	15.3x
T-Mobile	\$ 60.61	51,214	80,904	1.9x	1.8x	6.8x	6.3x	18.0x	14.7x
Hitachi	¥ 818.0	38,408	54,007	0.6x	0.6x	5.2x	5.1x	10.5x	9.6x
Sprint	\$ 5.19	20,971	53,289	1.6x	1.6x	4.6x	4.3x	12.1x	NM
Toshiba	¥ 317.0	19,372	26,014	0.7x	0.7x	14.4x	13.7x	8.2x	11.9x
Xerox	\$ 30.32	7,704	12,178	1.2x	1.3x	6.8x	7.5x	8.5x	8.2x
Mean				1.8x	1.8x	7.7x	7.5x	11.9x	11.5x
Median				1.8x	1.7x	6.7x	6.5x	10.6x	10.4x
Aggregate Mean				1.8x	1.7x	10.4x	9.2x	16.8x	14.2x
Aggregate Median				1.1x	1.1x	9.0x	8.5x	13.0x	12.1x

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

\$12bn

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

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

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- > Environmental services
- > Advanced building products
- > Water

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