

# Business Services Quarterly Update

Spring 2018



# Q Sector Spotlight

Throughout 2017, the Business Services sector continued to grow as a result of positive industry tailwinds and robust M&A markets. Duff & Phelps breaks down the Business Services sector into 10 unique subsectors: Marketing, Technology, Facilities Maintenance, Environmental, Specialty Consulting, Professional, Education and Training, Engineering, and Automation Engineering. In this addition, we are spotlighting the Engineering Services subsector.

The Engineering Services sector has experienced tepid growth over the past five years, with M&A activity slowing down and demand from downstream industries drying up. Demand from mining, oil and gas and construction drove growth early in the period, before coming to a halt as commodity prices declined precipitously in late 2015.

As the sector has rebounded, driven primarily by rising commercial and industrial construction activity, demand has grown from rising building and construction services. Engineering Services providers are diversifying their suite of services in order to capitalize on new opportunities within the recovering industrial projects segment, with industry revenues marginally improving over the five year period from 2012 to 2017.

Despite labor shortages and rising material costs that continue to impact the construction sector, The American Institute of Architects (AIA) Construction Forecast indicates the commercial construction sectors will continue to drive growth, and by 2019 the industrial and institutional sectors will dominate the projected construction growth.

In recent months, the Trump administration has unveiled a \$1 trillion investment plan to upgrade the United States' aging infrastructure. The ambitious infrastructure plan would deploy billions of dollars each year in order to upgrade highways, ports, and various other infrastructure projects aimed to increase the quality of life for Americans.

## 2017 CLOSED TRANSACTIONS BY SUBSECTOR



Source: Capital IQ as of March 20, 2018.  
 Note: M&A deal count is defined by a list of subsectors viewed as the best representation of the industry

# Business Services Subsectors

## Public Company Overview

Industry Sector	Number of Public Companies	Median Enterprise Value (\$M)	Median Market Capitalization (\$M)	Median LTM EBITDA Margin	Enterprise Value/EBITDA	
					LTM	2018E
Marketing Services	8	\$11,889	\$10,515	15.1%	8.3x	7.6x
Automation Engineering	7	5,762	6,286	12.8	12.4	10.9
Engineering Services	14	5,445	4,686	6.5	11.6	9.6
Education Training	7	2,843	3,276	15.2	12.7	20.7
Facilities Maintenance	8	2,378	2,108	6.6	9.6	9.8
Technology Services	10	2,048	1,353	3.7	8.5	7.0
Specialty Consulting	7	1,332	1,138	9.5	11.8	11.4
Environmental Services	8	1,256	866	14.5	11.7	10.2
Education Services	8	499	560	15.1	10.9	9.1
Professional Services	8	491	497	10.5	12.3	8.7

Source: Capital IQ as of March 20, 2018

**DEFINITIONS**

**EBITDA:** earnings before interest, taxes, depreciation and amortization

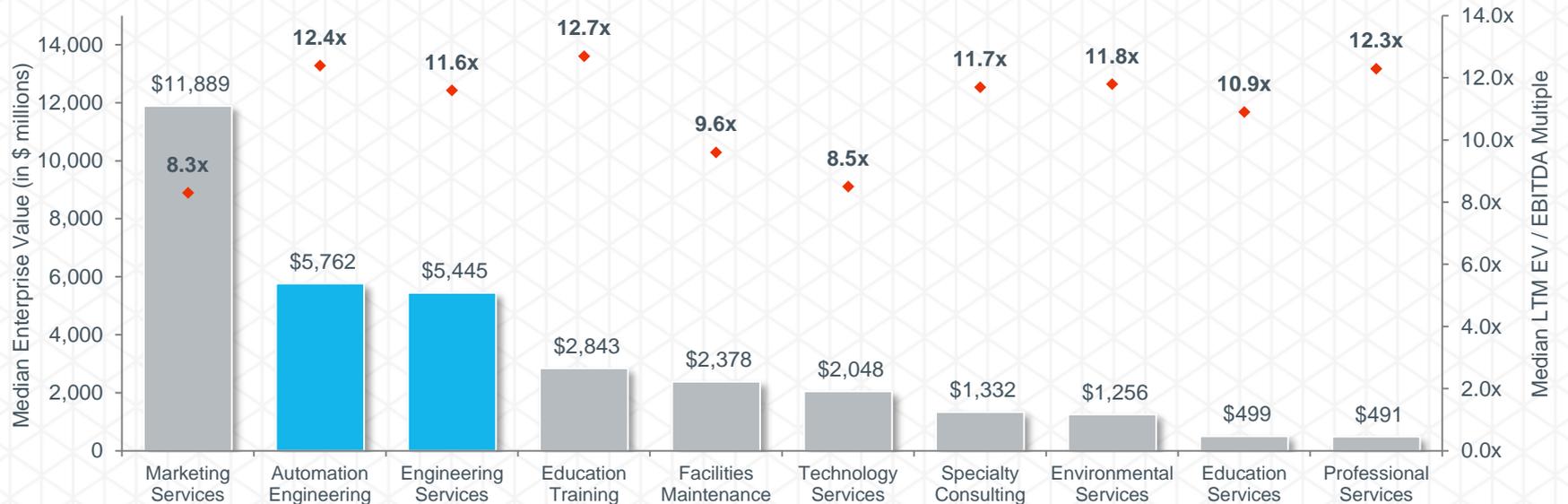
**EPS:** earnings per share

**Enterprise Value (EV):** market capitalization + total debt + preferred equity + minority interest – cash and short-term investments

**LTM:** publicly announced last twelve months

# Business Services Subsector

## Public Company Overview



Source: Capital IQ

**DEFINITIONS**

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# Spotlight on Engineering Services

## Key Economic Indicators

### Strong End Markets

U.S. Total Private Construction Spending (\$B)



Source: U.S. Census Bureau

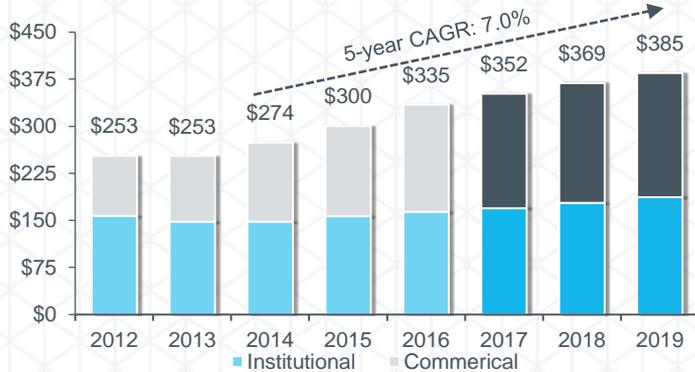
U.S. Office and Commercial Construction (\$B)



Source: U.S. Census Bureau

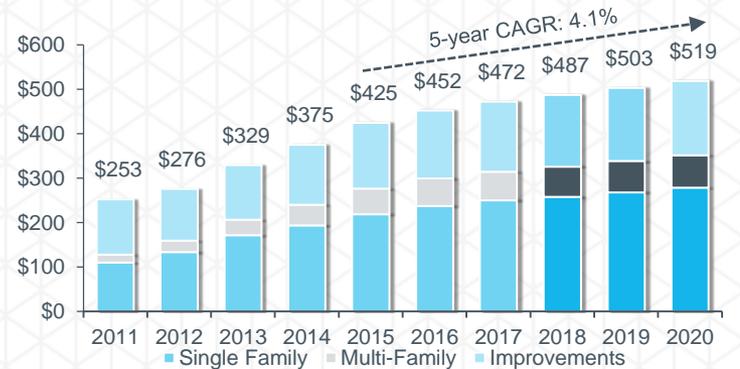
### Serve as a Platform for Future Growth

U.S. Total Institutional and Commercial Spending (\$B)



Source: FMI Consulting, U.S. Census Bureau

Value of Residential Housing Spending (\$B)



Source: U.S. Census Bureau

# Spotlight on Engineering Services

## Public Trading Data

Company Name	Ticker	Price as of 03/20/2018	52-Week		% of 52- Week High	Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA	
			Low	Hi					LTM	2018E		LTM	2018E
<b>Engineering Services</b>													
AECOM	ACM	\$36.51	\$30.15	\$39.90	91.5%	\$5,811.3	\$9,126.7	\$18,755.9	\$792.6	\$946.1	4.2%	11.5x	9.6x
Arcadis NV	ARCAD	22.19	17.12	24.59	90.2	1,906.2	2,418.2	3,865.1	245.0	277.0	6.3	9.9	8.7
Babcock International Group plc	BAB	9.33	8.45	14.41	64.8	4,714.2	6,680.0	6,289.0	741.7	969.9	11.8	9.0	6.9
Chicago Bridge & Iron Company N.V.	CBI	16.78	9.55	31.69	53.0	1,716.3	4,083.1	6,673.3	NM	521.5	NM	NA	7.8
EMCOR Group, Inc.	EME	79.80	59.76	85.08	93.8	4,658.2	4,501.8	7,687.0	478.5	467.6	6.2	9.4	9.6
Fluor Corporation	FLR	57.18	37.04	62.09	92.1	8,000.2	7,804.0	19,521.0	671.6	970.9	3.4	11.6	8.0
Jacobs Engineering Group Inc.	JEC	60.13	49.31	72.18	83.3	8,518.7	10,144.9	10,221.5	662.0	1,043.2	6.5	15.3	9.7
John Wood Group PLC	WG.	8.36	7.74	11.61	72.0	5,590.6	7,274.9	5,394.4	271.9	734.2	5.0	26.8	9.9
KBR, Inc.	KBR	17.10	13.36	21.70	78.8	2,398.6	2,459.6	4,171.0	243.0	329.2	5.8	10.1	7.5
MasTec, Inc.	MTZ	48.30	36.40	55.53	87.0	3,931.8	5,262.6	6,607.0	587.2	683.1	8.9	9.0	7.7
SNC-Lavalin Group Inc.	SNC	43.48	38.43	45.38	95.8	7,631.2	9,496.4	7,443.5	647.0	751.7	8.7	14.7	12.6
Stantec Inc.	STN	25.20	22.25	29.25	86.2	2,867.8	3,261.5	2,724.9	276.9	311.9	10.2	11.8	10.5
Tetra Tech, Inc.	TTEK	51.35	39.00	53.40	96.2	2,867.9	3,142.9	2,089.3	228.8	252.1	10.9	13.7	12.5
WSP Global Inc.	WSP	46.32	34.70	47.83	96.8	4,793.7	5,626.8	5,535.7	408.0	496.8	7.4	13.8	11.3
<b>Mean</b>					86.0%	\$4,597.6	\$5,726.7	\$7,114.0	\$475.7	\$621.7	7.3%	11.9x	9.4x
<b>Median</b>					88.6%	\$4,686.2	\$5,444.7	\$6,448.0	\$478.5	\$602.3	6.5%	11.6x	9.6x
<b>Automation Engineering</b>													
Alten SA	ATE	\$96.16	\$79.92	\$103.58	92.8%	\$3,208.3	\$3,178.3	\$2,372.0	\$233.5	\$281.1	9.8%	13.6x	11.3x
Altran Technologies S.A.	ALT	17.04	16.63	20.59	82.7	2,941.9	2,941.9	2,740.4	310.6	365.2	11.3	9.5	8.1
Cappgemini SE	CAP	127.97	101.18	133.43	95.9	21,515.1	23,190.2	15,360.2	1,944.0	2,211.6	12.7	11.9	10.5
Cyient Limited	532175	9.85	7.03	10.50	93.8	1,109.1	971.1	591.7	76.0	94.9	12.8	12.8	10.2
EPAM Systems, Inc.	EPAM	119.15	71.58	125.88	94.7	6,319.7	5,762.1	1,450.4	209.6	315.1	14.5	NM	18.3
Genpact Limited	G	32.49	23.34	34.79	93.4	6,286.1	7,001.8	2,736.9	424.8	500.9	15.5	16.5	14.0
HCL Technologies Limited	HCLTECH	14.36	12.20	15.95	90.1	19,995.0	19,244.7	7,616.5	1,719.9	0.0	22.6	11.2	NA
<b>Mean</b>					93.0%	\$7,750.2	\$7,625.8	\$3,383.3	\$579.7	\$311.4	13.4%	12.4x	11.5x
<b>Median</b>					93.4%	\$6,286.1	\$5,762.1	\$2,736.9	\$310.6	\$315.1	12.8%	12.4x	10.9x
<b>Aggregate Mean</b>					88.2%	\$5,482.0	\$6,284.8	\$6,301.8	\$508.5	\$542.8	9.4%	12.1x	10.0x
<b>Aggregate Median</b>					91.5%	\$4,714.2	\$5,626.8	\$5,535.7	\$416.4	\$496.8	9.4%	11.8x	9.8x

(1) \$ millions, except for per share data. Average excludes highest and low est values. EBITDA does not reflect adjustments for extraordinary items.

Source: S&P Global Market Intelligence as of January 31, 2018. Represents most publicly traded business services companies.

### DEFINITIONS

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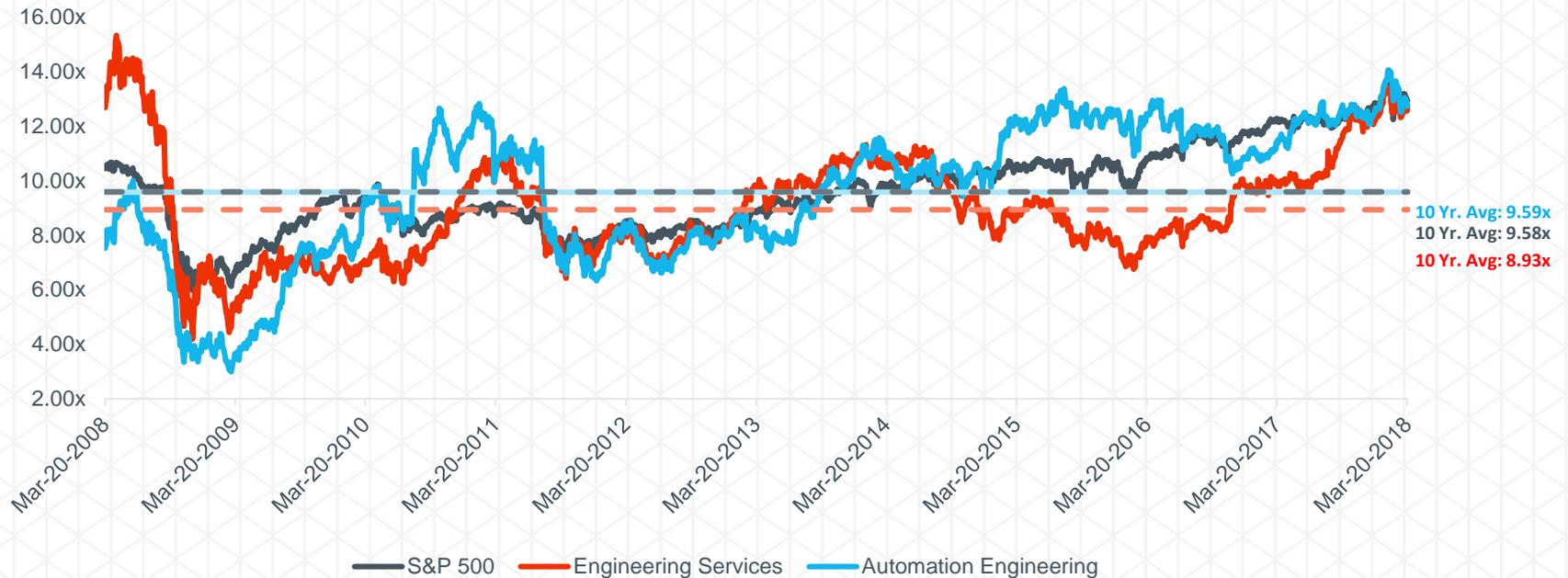
**Enterprise Value (EV):** market capitalization + total debt + preferred equity + minority interest – cash and short-term investments

**LTM:** publicly announced last twelve months

# Spotlight on Engineering Services

## Average Historical Trading Multiples

Historical EV/EBITDA Multiples



# Spotlight on Engineering Services

## Average Historical Trading Multiples

Sector	Q1'18 Low	Q1'18 High	Current Multiple	5-Yr Avg.	10-Yr Avg.	Premium to 10-Yr Avg.
<b>Engineering Services</b>	12.3x	13.4x	12.7x	9.7x	8.9x	3.8x
<b>Automation Engineering</b>	12.5x	14.1x	12.7x	11.3x	9.6x	3.1x

### Engineering Services

- Currently, Engineering Services businesses are trading at a 3.9x EBITDA premium to their 10-year historical average. The rebound in macro economic indicators, as well as increased spending on infrastructure has increased the demand for the sector's services, and in turn, has increased sector revenue.
- Continued industry consolidation has come as a result of larger firms moving into higher value-added services in order to win more business in an increasingly competitive bidding environment.
- Consumer sentiment now favors green building and clean energy projects, likely opening the door for new ventures and an opportunity for the industry to expand into untapped markets.

### Automation Engineering

- The Automation Engineering sector has undergone a transformation in recent years, as the Internet of Things (IoT) has shifted connected technologies across most sectors, spurring demand for the sector's services in improving efficiency.
- The convergence between information technology and operations highlights the tight integration between the factory floor and business enterprise systems, which result in improved manufacturing efficiency. Thus, paving the way for automated industrial systems to help manufacturers design, produce and optimize processes.

Source: SEC filings, S&P Global Market Intelligence, Mergermarket, company press releases and various news sources (e.g., *New York Times DealBook*, *The Deal*, *The Wall Street Journal*)

# Spotlight on Engineering Services

## Notable Transaction Activity

### Notable Transactions within the Engineering Services Sector

Date

Deal Value

Transaction Highlights



December 2017

\$3.8 Billion

- McDermott International, Inc. (NYSE:MDR) acquired Chicago Bridge & Iron Company N.V. (NYSE:CBI), a design, engineering and construction company
- Chicago Bridge & Iron generated \$9,147 million in revenue and -\$114 million of EBITDA for LTM September 30, 2017, suggesting an implied revenue multiple of 0.4x



August 2017

\$3.2 Billion

- Jacobs Engineering Group Inc. (NYSE:JEC) acquired CH2M HILL Companies, Ltd., an engineering, construction, design and consulting company
- CH2M HILL generated \$5,138 million in revenue for LTM June 30, 2017, suggesting an implied revenue multiple of 0.6x



March 2017

\$4.0 Billion

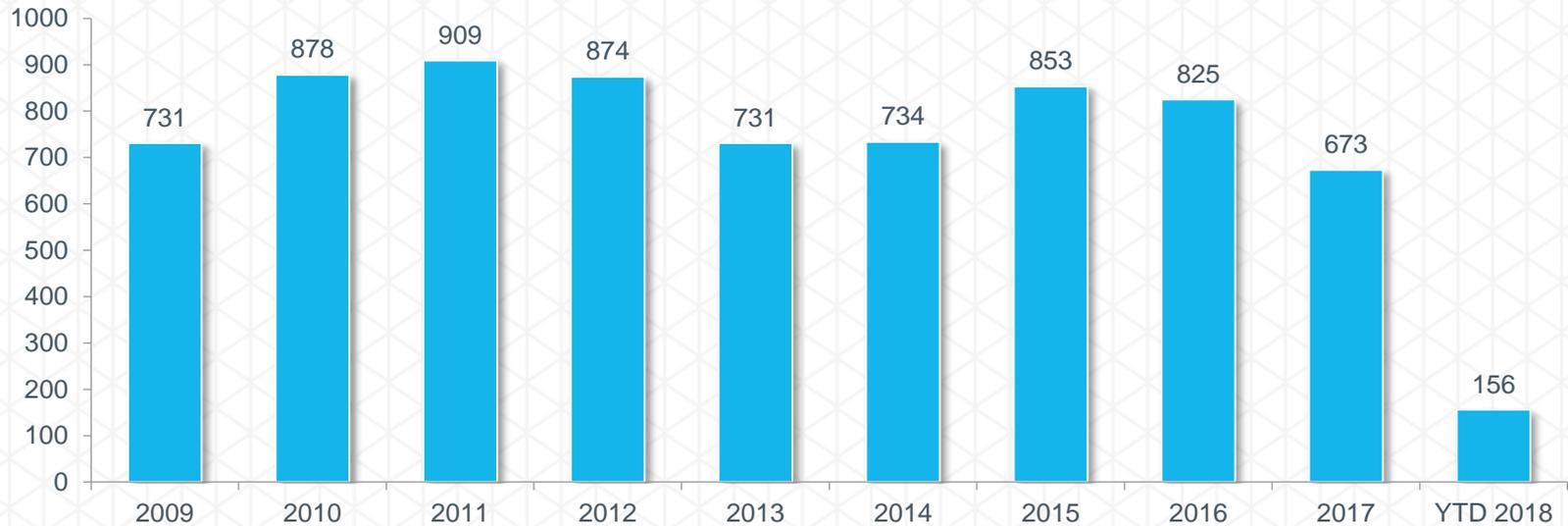
- John Wood Group (LSE:WG.) acquired Amec Foster Wheeler (AMFW), a consultancy, engineering and project management firm
- Amec Foster Wheeler generated \$6,716 million in revenue and \$372 million of EBITDA, suggesting an implied EBITDA multiple of 10.6x and 0.6x revenue multiple

Source: SEC filings, S&P Global Market Intelligence, Mergermarket, company press releases and various news sources (e.g., *New York Times DealBook*, *The Deal*, *The Wall Street Journal*)

# Spotlight on Engineering Services

## Notable Transaction Activity

Engineering Services Transaction Volume – 2009 to Year-to-Date 2018



Source: SEC filings, S&P Global Market Intelligence, Mergermarket, company press releases and various news sources (e.g., *New York Times DealBook*, *The Deal*, *The Wall Street Journal*)

# Spotlight on Engineering Services

## M&A Activity

Select M&A Transaction Analysis

(\$ in millions)

Announced	Target Name	Target Business Description	Acquirer Name	Enterprise Value	LTM Revenue	LTM EBITDA	EBITDA Margin	EV / Revenue	EV / EBITDA
Dec-17	Suzunui Corporation	Engaged in construction, civil engineering, water and sewage construction, and piping work planning, designing and management activities.	Asahi Corporation	\$59.1	\$143.1	\$12.0	8.4%	0.41x	4.9x
Dec-17	Chicago Bridge & Iron Company N.V.	Provides conceptual design, technology, engineering, procurement, fabrication, modularization, construction, commissioning, maintenance, program management and environmental services worldwide.	McDermott International, Inc.	\$3,807.4	\$9,147.5	NA	NA	0.42x	NA
Dec-17	CJ Engineering & Construction Corporation	Provides civil engineering and construction services for clients.	CJ Logistics Corporation	\$85.1	\$533.2	\$18.9	3.5%	0.16x	4.5x
Oct-17	Aecon Group Inc.	Provides construction and infrastructure development services to private and public sector clients in Canada, the United States and internationally.	CCCC International Holding Limited	\$1,381.7	\$2,372.8	\$121.0	5.1%	0.58x	11.4x
Sep-17	NAPEC Inc.	Constructs and maintains electrical transmission and distribution lines, power houses, and substations for the public utility and heavy industrial markets in Canada and the United States.	Oaktree Capital Management, L.P.	\$253.7	\$311.1	\$20.5	6.6%	0.82x	12.4x
Aug-17	Korea Engineering Consultants Corp.	Provides various construction services to public and private clients in Korea and internationally.	Korea Engineering Consultants Corp. Employee Stock Ownership Association	\$118.7	\$168.1	\$2.8	1.7%	0.71x	42.8x
Aug-17	Opus International Consultants Limited	Provides infrastructure consultancy and project management services for government and quasi-government sector in New Zealand, Canada, United States, United Kingdom and Australia.	WSP Global Inc.	\$202.3	\$337.5	\$24.9	7.4%	0.60x	8.1x

# Spotlight on Engineering Services

## M&A Activity

Select M&A Transaction Analysis

(\$ in millions)

Announced	Target Name	Target Business Description	Acquirer Name	Enterprise Value	LTM Revenue	LTM EBITDA	EBITDA Margin	EV / Revenue	EV / EBITDA
Aug-17	CH2M HILL Companies, Ltd.	Provides engineering, construction, consulting, design, design-build, procurement, engineering-procurement-construction (EPC), operations and maintenance, program management and technical services.	Jacobs Engineering Group Inc.	\$3,263.1	\$5,183.3	NA	NA	0.63x	NA
Jul-17	CDI Corp.	Provides engineering, IT and staffing solutions worldwide.	AE Industrial Partners, LLC	\$154.2	\$761.2	NA	NA	0.20x	NA
Jun-17	Lemminkäinen Oyj	Constructs asphalt and paving, mineral aggregates and post-tensioned structures; provisions waterproofing services and crushing, screening and quarrying of mineral aggregates.	YIT Oyj	\$860.7	\$1,824.4	\$70.1	3.8%	0.47x	12.3x
Apr-17	Bock & Clark Corporation	Provides commercial real estate due diligence services in the United States.	NV5 Global, Inc.	\$42.0	\$39.0	NA	NA	1.08x	NA
Apr-17	WS Atkins plc	Provides design, engineering and project management consultancy services.	SNC-Lavalin Group Inc.	\$2,702.4	\$2,606.6	\$227.8	8.7%	1.04x	11.9x
Mar-17	Amec Foster Wheeler plc	Provides consultancy, engineering, project management, operations and construction services, project delivery, and specialized power equipment services worldwide.	John Wood Group PLC	\$4,032.4	\$6,716.7	\$371.6	5.5%	0.60x	10.9x

Source: Capital IQ and company filings

Mean	\$1,304.8	\$2,318.8	\$96.6	5.6%	0.59x	13.2x
Median	\$253.7	\$761.2	\$24.9	5.5%	0.60x	11.4x

# Spotlight on Engineering Services

## Transaction Announcement

### Sell Side Advisor



has been acquired by



**FALFURRIAS CAPITAL**

E-Technologies Group (“E-Tech” or the “Company”) has been acquired by Falfurrias Capital Partners (“FCP”)

### About the Company

E-Tech is a leading provider of system integration services in the fields of manufacturing intelligence, process automation, machine automation, engineering design, and information technology. The Company designs customized, turn-key engineering and automation solutions for a blue-chip customer base across multiple end markets including consumer packaged goods, logistics, food and beverage, pharmaceutical, logistics and government.

### About the Buyer

FCP is a private investment firm specializing in corporate buyouts of lower middle-market companies, with typical equity investments ranging from \$15 million to \$75 million. The firm primarily makes investments with conservative capital structures in family- and entrepreneur-owned businesses across a diverse set of industries. FCP was founded in 2006 by former Bank of America executives Marc Oken and Hugh McColl and is based in Charlotte, NC.

### Transaction Role

Duff & Phelps served as the exclusive financial advisor to the ownership group of E-Technologies Group and provided sell-side M&A advisory services in connection with the negotiated sale to Falfurrias Capital Partners.

# Business Services Subsector Update

## Marketing and Technology Services - Public Trading Data

Company Name	Ticker	Price as of 03/20/2018	52-Week		% of 52- Week High	Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA	
			Low	Hi					LTM	2018E		LTM	2018E
<b>Marketing Services</b>													
Dentsu Inc.	4324	\$43.40	\$41.38	\$61.53	70.5%	\$12,234.0	\$14,113.3	\$8,246.5	\$1,713.3	\$1,713.8	20.8%	8.2x	8.2x
Hakuhodo DY Holdings Inc	2433	13.87	12.09	15.94	87.0	5,173.1	4,268.6	11,686.0	532.5	577.9	4.6	8.0	7.4
Huntsworth plc	HNT	1.36	0.56	1.38	98.6	444.9	493.9	266.2	39.5	46.0	14.8	12.5	10.7
The Interpublic Group of Companies, Inc.	IPG	22.88	18.30	26.01	88.0	8,796.7	9,665.2	7,882.4	1,130.7	1,272.5	14.3	8.5	7.6
MDC Partners Inc.	MDCA	7.10	6.80	12.26	57.9	414.9	1,463.0	1,513.8	175.8	215.7	11.6	8.3	6.8
Omnicom Group Inc.	OMC	72.18	65.32	86.71	83.2	16,620.7	18,507.9	15,273.6	2,341.8	2,412.1	15.3	7.9	7.7
Publicis Groupe S.A.	PUB	69.53	63.79	84.58	82.2	15,714.0	16,584.5	11,635.4	2,144.6	2,068.2	18.4	7.7	8.0
WPP plc	WPP	16.03	15.69	24.82	64.6	19,992.6	26,685.7	20,633.1	3,190.0	3,501.6	15.5	8.4	7.6
<b>Mean</b>					79.3%	\$9,349.9	\$10,097.8	\$9,598.2	\$1,265.1	\$1,309.3	14.3%	8.2x	7.7x
<b>Median</b>					82.7%	\$10,515.3	\$11,889.2	\$9,941.0	\$1,422.0	\$1,493.2	15.1%	8.3x	7.6x
<b>Technology Services</b>													
Arrow Electronics, Inc.	ARW	\$79.56	\$69.67	\$87.26	91.2%	\$6,978.2	\$9,586.8	\$26,812.5	\$1,180.4	\$1,315.4	4.4%	8.1x	7.3x
Avnet, Inc.	AVT	43.60	35.67	45.99	94.8	5,229.6	6,235.1	18,230.9	698.1	890.2	3.8	8.9	7.0
CDW Corporation	CDW	75.21	55.80	76.73	98.0	11,463.8	15,054.1	15,191.5	1,127.0	1,224.9	7.4	13.4	12.3
Datatec Limited	DTC	1.96	1.92	5.43	36.0	473.1	798.5	5,952.1	100.1	249.1	1.7	8.0	3.2
ePlus inc.	PLUS	75.50	63.76	97.75	77.2	1,053.1	1,116.3	1,413.3	99.9	105.6	7.1	11.2	10.6
Insight Enterprises, Inc.	NSIT	35.09	32.10	53.19	66.0	1,257.5	1,784.3	6,703.6	237.8	257.4	3.5	7.5	6.9
PC Connection, Inc.	CNXN	26.06	22.66	30.48	85.5	699.8	649.8	2,911.9	89.4	103.6	3.1	7.3	6.3
PCM, Inc.	PCMI	9.00	6.90	31.20	28.8	106.1	349.0	2,193.4	29.2	52.6	1.3	12.0	6.6
Presidio, Inc.	PSDO	15.75	12.75	19.74	79.8	1,448.1	2,311.3	2,784.7	216.9	236.0	7.8	10.7	9.8
Tech Data Corporation	TECD	84.98	81.42	111.10	76.5	3,243.0	3,925.3	36,775.0	655.6	759.3	1.8	6.0	5.2
<b>Mean</b>					75.9%	\$2,547.8	\$3,300.9	\$10,097.6	\$403.1	\$478.3	4.1%	9.2x	7.5x
<b>Median</b>					78.5%	\$1,352.8	\$2,047.8	\$6,327.9	\$227.4	\$253.3	3.7%	8.5x	7.0x
<b>Aggregate Mean</b>					77.4%	\$5,702.8	\$6,659.9	\$9,941.5	\$780.2	\$840.9	8.4%	9.0x	7.7x
<b>Aggregate Median</b>					81.0%	\$4,208.0	\$4,097.0	\$8,064.4	\$594.0	\$668.6	7.2%	8.3x	7.5x

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<b>Facilities Maintenance</b>													
ABM Industries Incorporated	ABM	\$34.47	\$33.29	\$45.12	76.4%	\$2,264.7	\$3,376.5	\$5,715.2	\$218.5	\$351.4	3.8%	15.5x	9.6x
Aeon Delight Co., Ltd.	9787	37.10	30.06	43.02	86.2	1,951.0	1,379.3	2,635.5	182.3	199.6	6.9	7.6	6.9
GDI Integrated Facility Services Inc.	GDI	12.19	11.35	13.57	89.9	258.9	345.4	773.2	35.9	42.5	4.6	9.6	8.1
Interserve plc	IRV	0.98	0.74	3.49	28.0	142.0	738.9	4,233.1	249.4	194.5	5.9	3.0	3.8
ISS A/S	ISS	36.37	35.61	47.71	76.2	6,697.6	8,537.1	12,887.7	811.5	836.7	6.3	10.5	10.2
Rollins, Inc.	ROL	51.97	35.51	53.00	98.1	11,340.4	11,233.3	1,674.0	350.6	391.2	20.9	NM	28.7
ServiceMaster Global Holdings, Inc.	SERV	50.81	36.34	55.36	91.8	6,872.9	9,159.9	2,912.0	661.0	702.0	22.7	13.9	13.0
SP Plus Corporation	SP	37.00	28.10	41.70	88.7	834.1	965.3	911.3	102.1	96.5	11.2	9.5	10.0
<b>Mean</b>					84.9%	\$3,322.9	\$4,156.1	\$2,473.2	\$309.1	\$316.8	10.3%	9.3x	9.7x
<b>Median</b>					87.5%	\$2,107.8	\$2,377.9	\$2,773.8	\$233.9	\$275.5	6.6%	9.6x	9.8x
<b>Environmental Services</b>													
Clean Harbors, Inc.	CLH	\$51.70	\$46.62	\$61.62	83.9%	\$2,921.4	\$4,193.4	\$2,945.0	\$421.1	\$461.1	14.3%	10.0x	9.1x
Derichebourg	DBG	8.94	5.17	12.07	74.0	1,464.4	1,601.2	3,227.9	239.6	274.5	7.4	6.7	5.8
Estre Ambiental, Inc.	ESTR	10.17	8.39	11.01	92.4	520.6	1,060.9	422.0	62.4	NA	14.8	17.0	NA
Groupe Pizzorno Environnement	GPE	32.24	22.09	48.91	65.9	124.6	200.6	254.5	44.2	0.0	17.3	4.5	NA
Heritage-Crystal Clean, Inc.	HCCI	23.15	12.85	25.20	91.9	531.6	519.1	366.0	41.6	51.1	11.4	12.5	10.2
Perma-Fix Environmental Services, Inc.	PESI	4.15	2.95	4.30	96.5	48.8	47.8	49.8	0.4	0.0	0.9	NM	NA
US Ecology, Inc.	ECOL	55.00	44.50	59.70	92.1	1,200.4	1,451.0	504.0	109.9	125.9	21.8	13.2	11.5
Waste Management, Inc.	WM	86.27	70.09	89.73	96.1	37,413.0	46,905.0	14,485.0	3,996.0	4,205.1	27.6	11.7	11.2
<b>Mean</b>					88.4%	\$768.3	\$966.6	\$954.9	\$99.5	\$112.9	14.5%	11.0x	10.7x
<b>Median</b>					92.0%	\$866.0	\$1,256.0	\$463.0	\$86.1	\$125.9	14.5%	11.7x	10.2x
<b>Aggregate Mean</b>					85.9%	\$2,651.8	\$3,197.3	\$2,818.7	\$252.1	\$286.7	12.1%	10.4x	9.6x
<b>Aggregate Median</b>					89.3%	\$1,332.4	\$1,415.1	\$2,154.8	\$200.4	\$199.6	11.3%	10.2x	10.0x

(1) \$ millions, except for per share data. Average excludes highest and low est values. EBITDA does not reflect adjustments for extraordinary items.

Source: S&P Global Market Intelligence as of January 31, 2018. Represents most publicly traded business services companies.

### DEFINITIONS

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**LTM:** publicly announced last twelve months

# Business Services Subsector Update

## Consulting and Professional Services - Public Trading Data

Company Name	Ticker	Price as of 03/20/2018	52-Week		% of 52- Week High	Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA	
			Low	Hi					LTM	2018E		LTM	2018E
<b>Specialty Consulting</b>													
Booz Allen Hamilton Holding Corporation	BAH	\$39.20	\$31.06	\$40.25	97.4%	\$5,686.5	\$7,229.3	\$6,117.6	\$581.2	\$598.7	9.5%	12.4x	12.1x
CACI International Inc	CACI	151.65	112.10	159.40	95.1	3,734.8	4,831.0	4,397.5	372.8	395.1	8.5	13.0	12.2
CRA International, Inc.	CRAI	51.97	31.77	53.00	98.1	435.3	381.5	370.1	25.5	0.0	6.9	14.9	NA
FTI Consulting, Inc.	FCN	48.28	31.65	50.81	95.0	1,762.6	1,968.9	1,807.7	186.9	199.7	10.3	10.5	9.9
Huron Consulting Group Inc.	HURN	37.30	29.53	46.85	79.6	792.7	1,118.9	732.6	104.0	90.5	14.2	10.8	12.4
ICF International, Inc.	ICFI	61.10	40.20	61.80	98.9	1,137.7	1,332.2	1,229.2	112.7	123.2	9.2	11.8	10.8
Navigant Consulting, Inc.	NCI	20.30	14.62	24.47	83.0	914.9	1,039.4	939.6	125.8	127.3	13.4	8.3	8.2
<b>Mean</b>					93.7%	\$1,668.5	\$2,058.1	\$1,821.3	\$180.5	\$187.1	10.2%	11.7x	11.2x
<b>Median</b>					95.1%	\$1,137.7	\$1,332.2	\$1,229.2	\$125.8	\$127.3	9.5%	11.8x	11.4x
<b>Professional Services</b>													
Barrett Business Services, Inc.	BBSI	\$85.68	\$44.52	\$89.87	95.3%	\$625.8	\$569.7	\$920.4	\$35.4	\$42.2	3.8%	16.1x	13.5x
Capita plc	CPI	2.14	2.09	10.09	21.2	1,424.2	4,387.5	6,338.6	872.7	617.9	13.8	5.0	7.1
CBIZ, Inc.	CBZ	19.00	13.40	19.65	96.7	1,036.8	1,218.0	855.3	89.5	108.1	10.5	13.6	11.3
CSRA Inc.	CSRA	41.48	27.38	41.48	100.0	6,799.7	9,742.7	5,064.0	841.3	827.2	16.6	11.6	11.8
GP Strategies Corporation	GPX	22.15	20.30	31.25	70.9	367.5	412.5	509.2	31.6	47.2	6.2	13.1	8.7
IBI Group Inc.	IBG	5.56	4.65	6.88	80.9	173.7	270.5	288.2	32.2	31.9	11.2	8.4	8.5
Management Consulting Group PLC	MMC	0.09	0.08	0.13	67.9	43.6	6.7	53.3	(15.2)	(4.6)	NM	(0.4)	NM
Willdan Group, Inc.	WLDN	27.54	19.25	36.87	74.7	243.7	232.6	273.4	18.0	26.9	6.6	12.9	8.6
<b>Mean</b>					81.1%	\$645.3	\$1,181.8	\$1,318.4	\$174.7	\$145.7	9.6%	10.8x	9.8x
<b>Median</b>					77.8%	\$496.7	\$491.1	\$682.3	\$33.8	\$44.7	10.5%	12.3x	8.7x
<b>Aggregate Mean</b>					87.2%	\$1,410.5	\$1,922.4	\$1,808.1	\$196.7	\$185.3	10.0%	11.3x	10.4x
<b>Aggregate Median</b>					95.0%	\$914.9	\$1,118.9	\$920.4	\$104.0	\$108.1	9.9%	11.8x	10.8x

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# Business Services Subsector Update

## Education Services and Training | Public Trading Data

Company Name	Ticker	Price as of 03/20/2018	52-Week		% of 52- Week High	Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA	
			Low	Hi					LTM	2018E		LTM	2018E
<b>Education Services</b>													
Adtalem Global Education Inc.	ATGE	\$49.50	\$30.15	\$50.00	99.0%	\$2,983.7	\$2,943.9	\$1,809.3	\$319.2	\$279.4	17.6%	9.2x	10.5x
Aspen Group, Inc.	ASPU	7.90	3.78	9.61	82.2	119.0	124.0	19.1	(3.0)	(2.0)	NM	NM	NM
Bridgepoint Education, Inc.	BPI	7.12	5.71	15.85	44.9	193.4	6.2	478.4	27.2	18.8	5.7	0.2	0.3
Cambium Learning Group, Inc.	ABCD	10.63	4.67	10.74	99.0	498.1	537.4	158.2	30.6	0.0	19.3	17.6	NA
K12 Inc.	LRN	15.02	14.01	21.18	70.9	622.1	460.4	884.3	36.7	115.5	4.2	12.5	4.0
Laureate Education, Inc.	LAUR	13.64	10.46	18.96	71.9	2,557.4	5,890.0	4,378.0	662.1	776.0	15.1	8.9	7.6
Lincoln Educational Services Corporation	LINC	1.97	1.49	3.74	52.7	48.7	86.7	261.9	2.4	5.4	0.9	NM	15.9
Navitas Limited	NVT	3.98	3.10	4.34	91.8	1,426.6	1,584.2	728.8	114.5	115.4	15.7	13.8	13.7
<b>Mean</b>					78.1%	\$902.8	\$956.1	\$720.1	\$88.4	\$89.1	11.7%	11.1x	9.0x
<b>Median</b>					77.0%	\$560.1	\$498.9	\$603.6	\$33.7	\$67.1	15.1%	10.9x	9.1x
<b>Education Training</b>													
Capella Education Company	CPLA	\$90.50	\$65.15	\$99.25	91.2%	\$1,054.5	\$902.8	\$440.4	\$70.2	\$88.4	15.9%	12.9x	10.2x
Chegg, Inc.	CHGG	22.20	7.91	23.22	95.6	2,441.2	2,233.0	255.1	(2.3)	75.9	NM	NM	29.4
Graham Holdings Company	GHC	595.40	536.90	615.85	96.7	3,276.5	2,843.8	2,591.8	322.1	0.0	12.4	8.8	NA
New Oriental Education & Technology Gro	EDU	97.04	56.34	108.40	89.5	15,344.0	12,960.8	2,052.6	316.2	408.7	15.4	NM	31.7
Pearson plc	PSON	10.69	7.88	10.85	98.5	8,276.5	9,232.1	6,099.9	742.0	931.8	12.2	12.4	9.9
Strayer Education, Inc.	STRA	103.55	75.84	104.85	98.8	1,108.1	952.2	454.9	73.2	80.1	16.1	13.0	11.9
TAL Education Group	TAL	41.23	16.53	41.75	98.8	20,650.2	19,612.7	1,527.2	229.9	375.3	15.1	NM	52.3
<b>Mean</b>					96.1%	\$6,089.3	\$5,644.4	\$1,413.4	\$202.3	\$205.7	14.7%	12.7x	20.8x
<b>Median</b>					96.7%	\$3,276.5	\$2,843.8	\$1,527.2	\$229.9	\$88.4	15.2%	12.7x	20.7x
<b>Aggregate Mean</b>					87.5%	\$3,069.3	\$3,134.7	\$1,232.4	\$169.4	\$179.9	13.2%	11.5x	14.5x
<b>Aggregate Median</b>					91.8%	\$1,426.6	\$1,584.2	\$728.8	\$73.2	\$88.4	15.1%	12.5x	11.2x

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# Select Duff & Phelps' Business Services Experience

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Sell Side Advisor



Fairness Opinion Provider



Sell Side Advisor



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Sell Side Advisor



Transaction Advisory



Transaction Advisory



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