

# Technology, Media & Telecom

Architecture, Engineering, and Construction  
Technology Sector Review | 1Q 2020



# HW AEC Software Introduction

## HARRIS WILLIAMS (“HW”)

- **25+** years and more than 1,000 closed transactions
- **350+** professionals across eight office globally
- **170+** closed transactions in the last 24 months
- **10** industry groups

## FOCUSED ADVISORY SERVICES

- Mergers and Acquisitions (M&A)
- Capital Raises
- Corporate Divestitures

## CONSISTENT RECOGNITION FOR QUALITY



## HW TECHNOLOGY, MEDIA & TELECOM (“TMT”) GROUP

- 35+ professionals across Boston, San Francisco, and London

### KEY THEMES

- ✓ SaaS / Cloud
- ✓ Data & Analytics
- ✓ Digital Transformation
- ✓ A.I. / Machine Learning

### HORIZONTAL FOCUS AREAS

- Application Software
- Cloud Managed Services and Hosting Solutions
- Compliance Solutions
- CRM and Marketing Automation
- Human Capital Management
- Infrastructure and Security Software
- IT and Tech-Enabled Services
- Marketing, Research, and Insights Services

### VERTICAL FOCUS AREAS

- **Architecture, Engineering, and Construction Software**
- Education Technology and Services
- Energy Technology
- Facilities and Real Estate Software
- Financial Technology and Payments
- Government Technology
- Healthcare IT
- Industrial and Supply Chain Technology
- Internet and eCommerce
- Retail Technology

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SELECT HW  
AEC  
EXPERIENCE

HP HARVEST  
PARTNERS

made a strategic  
investment in

mri  
REAL ESTATE SOFTWARE

ComputerEase

has been acquired by

Deltek

IQMS®

has been acquired by

DS DASSAULT  
SYSTEMES



PROPERTY BRANDS

has been acquired by

INSIGHT  
PARTNERS

BlueCielo

has been acquired by

accruent



has been acquired by

LGP



has been acquired by

KEISO

# HW Current Market Observations and Insights

## CURRENT MARKET OBSERVATIONS

### Economic Outlook

- Volatility in the public markets will likely remain as investors, businesses, and policy-makers evaluate rapidly evolving COVID-19 developments
- Economists and industry analysts expect a meaningful decline in GDP in Q2 and Q3, though they debate the shape and timing of the recovery

### Buyer Sentiment

- The desire to invest remains – buyers are actively seeking to deploy capital
- Private equity firms and strategic acquirers have focused on meeting near-term operational needs and assessing the medium- to long-term impact of COVID-19
- Despite economic uncertainty, financial sponsors have record levels of capital to deploy, and many are communicating that they are “open for business,” while acknowledging high-quality deal flow will be limited
- As capital markets stabilize, companies with strong liquidity positions will be well-positioned to pursue acquisitions that accelerate growth

### Debt Markets

- In contrast to the first half of 1Q'20, debt markets have shifted to a risk-off mentality
- Concerns over liquidity and funding availability contribute to uncertainty regarding the duration of the COVID-19 risk mitigation focus

### M&A Valuations

- COVID-19 has pushed time lines for many transactions, but select deals are still closing successfully. Some may be temporarily on hold, and others are preparing for market and carefully weighing timing
- Companies that prove their ability to weather the current circumstances will receive significant interest and garner premium valuations

## LATEST HW MARKET INSIGHTS



For access to HW's latest insight and perspective, email us at [insights@harriswilliams.com](mailto:insights@harriswilliams.com) or visit [www.harriswilliams.com/news-insights](http://www.harriswilliams.com/news-insights)



### Recent Publications:

Global Consumer Businesses Consider Emergence from COVID-19

M&A Learnings from Past Economic Disruptions

COVID-19 and M&A: Insights from Asia

## Deep Sector Expertise Across Key TMT Focus Areas



- Architecture, Engineering, and Construction
- Education Technology and Services
- Financial Technology and Payments
- Healthcare IT
- Industrial and Supply Chain Technology
- ...and more

For access to HW's TMT content, email us at [TMT\\_Insights@harriswilliams.com](mailto:TMT_Insights@harriswilliams.com)

# Case Study: ComputerEase

HW recently advised ComputerEase on its sale to Deltek, a subsidiary of Roper Technologies.

**ComputerEase**

*has been acquired by*

**Deltek**

*a subsidiary of*



## TRANSACTION OVERVIEW

ComputerEase is a leading provider of mission-critical construction accounting, project management, and payroll processing solutions that enable contractors to manage and gain real-time visibility into their company's operations and financial performance – whether in the office or remotely in the field.

ComputerEase's fully integrated, cloud-based solution is purpose built to meet the unique needs of diverse contractor trades and sizes, with complex and varying union, labor, and equipment requirements. Today, more than 6,000 contractors rely on ComputerEase to streamline their operations and increase profits.

Deltek is a leading global provider of enterprise software and information solutions for project-based businesses. More than 23,000 organizations and millions of users in over 80 countries around the world rely on Deltek for superior levels of project intelligence, management, and collaboration. The company's industry-focused expertise powers project success by helping firms achieve performance that maximizes productivity and revenue.

## RELEVANT SUB-SECTORS

ERP / PROJECT MANAGEMENT

SAAS

ARCHITECTURE, ENGINEERING,  
AND CONSTRUCTION SOFTWARE

## HW DEAL CONTACTS

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# Case Study: IQMS Software

HW advised IQMS, a portfolio company of Technology Crossover Ventures and Banneker Partners, on its sale to Dassault Systemes.

# IQMS

*a portfolio company of*

## TCV

AND



*has been acquired by*



## TRANSACTION OVERVIEW

IQMS is a leading provider of fully integrated software solutions that manage, optimize, and automate production operations and back-office workflows for manufacturers across diverse end markets, globally.

Through its comprehensive manufacturing execution system (MES) and enterprise resource planning (ERP) software platform, IQMS' solutions provide manufacturers with a comprehensive end-to-end suite that provides real-time visibility and actionable insights throughout the manufacturing life cycle.

IQMS serves over 1,000 long-standing customers across diverse end markets, including automotive, medical, packaging, consumer goods, electronics, and aerospace and defense in a growing \$35 billion global market.

Dassault Systemes will help IQMS expand its customer base by leveraging the presence in the mid-market space established through Dassault's SOLIDWORKS applications, which are delivered and supported by the company's Professional Solutions global partner channel.

## RELEVANT SUB-SECTORS

MANUFACTURING & OPERATIONS

MANUFACTURING ERP SOFTWARE

INDUSTRIAL IOT

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# What We're Reading

## AS CORONAVIRUS NECESSITATES TECHNOLOGY USAGE, INVESTORS SEEM KEEN ON CONTECH

Construction Dive

April 8, 2020

Investor sentiment among construction technology (contech) focused venture capital and private equity firms remains high, despite recent government-imposed limitations on construction activity. Many contractors are turning to tech to manage employees working remotely and turning to drones and robotic solutions to help with social distancing. Field focused contech firms may struggle in the near term, while solutions that deliver efficient workflows and back-end design and engineering are currently well positioned.

*Read the full article [here](#).*

## CONSULTANT PREDICTS A POST-CORONAVIRUS 'CONSTRUCTION TSUNAMI'

Construction Dive

April 2, 2020

As the coronavirus has led to major supply chain disruptions in goods sourced from China, U.S. businesses will likely be hesitant to resume orders from this part of the world. This dynamic will lead to a surge in demand for new manufacturing- and supply chain-related projects as the country looks to re-shore manufacturing ability in the U.S. and Mexico. Pent-up sector-wide demand from current construction shutdowns will lead to a “construction tsunami” beginning in Q3 2020. Additionally, an expansion of the design-build delivery model could help deal with fast-moving situations like the coronavirus, where solving problems requires a team approach, flexibility, and fast decision making.

*Read the full article [here](#).*

## CORONAVIRUS 2020 TECHNOLOGY GAME PLAN: CUT COSTS TO SURVIVE BUT ACCELERATE TRANSFORMATION

Construction Dive

April 1, 2020

In the wake of the COVID-19 outbreak, companies are focusing on executing two distinct technology strategies: during and post-pandemic. In the near term, demand for cloud-based services has spiked, though IT services have declined sharply as IT projects have largely been put on hold. Risk mitigation has become the top priority as companies will focus on slashing budgets, but based on Gartner's received inquiries, there is no change in appetite for talking about cloud migration. Those companies that are midway through cloud migration or automation projects will continue full steam ahead.

*Read the full article [here](#).*

## TECHNOLOGICAL ADVANCEMENTS DISRUPTING THE GLOBAL CONSTRUCTION INDUSTRY

Ernst & Young LLP

March 23, 2020

Construction technology tools like Internet of Things (IoT) and Building Information Modeling (BIM) will continue to see steady growth between now and 2025. Niche-focused specialized solutions like smart building technologies and 3D printing will see more rapid growth. Additionally, full-scale digitization in the design and documentation process could lead to an estimated 12% to 20% increase in the industry's current annual cost savings related to those tools in the next 10 years.

*Read the full article [here](#).*

## BENTLEY CONFIDENTIALLY FILES S-1

Business Wire

February 13, 2020

On February 13, Bentley Systems, the Exton, PA-based construction software company, announced that it had confidentially submitted a draft registration statement on Form S-1 with the Securities and Exchange Commission relating to the proposed public listing of its Class B common stock. The business has been contemplating the idea of going public for years and received an additional €50M in investment from Siemens in 2018.

*Read the full article [here](#).*

## PROCORE FILES S-1

Construction Dive

March 4, 2020

On February 28, Procore Technologies, the Carpinteria, CA-based construction project management software company, filed the required paperwork with the U.S. Securities and Exchange Commission announcing its plans for an initial public offering. The IPO is expected to value the company at over \$4B. No date has been set for the listing.

*Read the full article [here](#).*

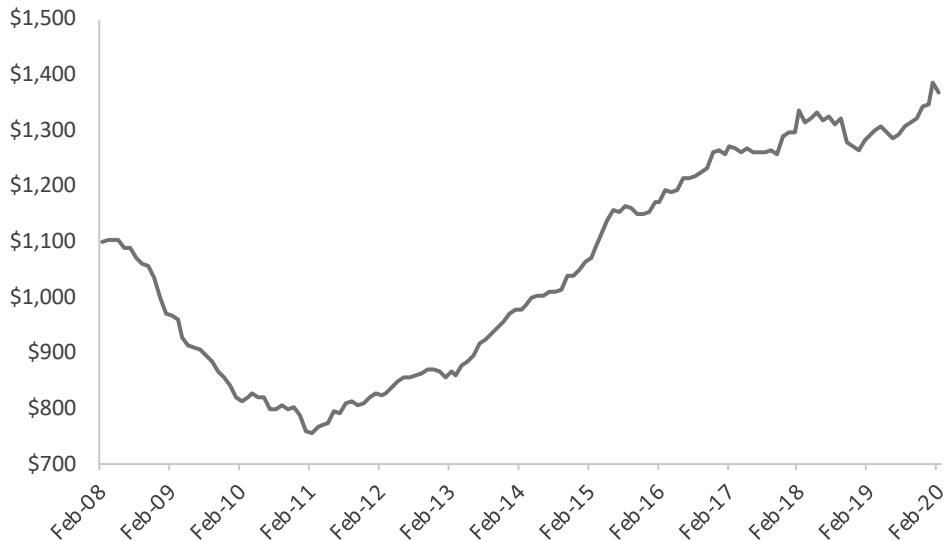
# Construction Activity Trends<sup>1</sup>

## OVERALL CONSTRUCTION SPEND

- The value of construction put in place in Q1 reached \$1,367B, a slight increase from the previous quarter
- The growth in construction volume was driven mainly by increases in the residential and commercial construction sectors
- Residential construction continues to be the largest contributor to construction activity, as the U.S. manages through a lack of inventory in single-family and multifamily inventory

## TOTAL U.S. CONSTRUCTION PUT IN PLACE

(\$ in billions)



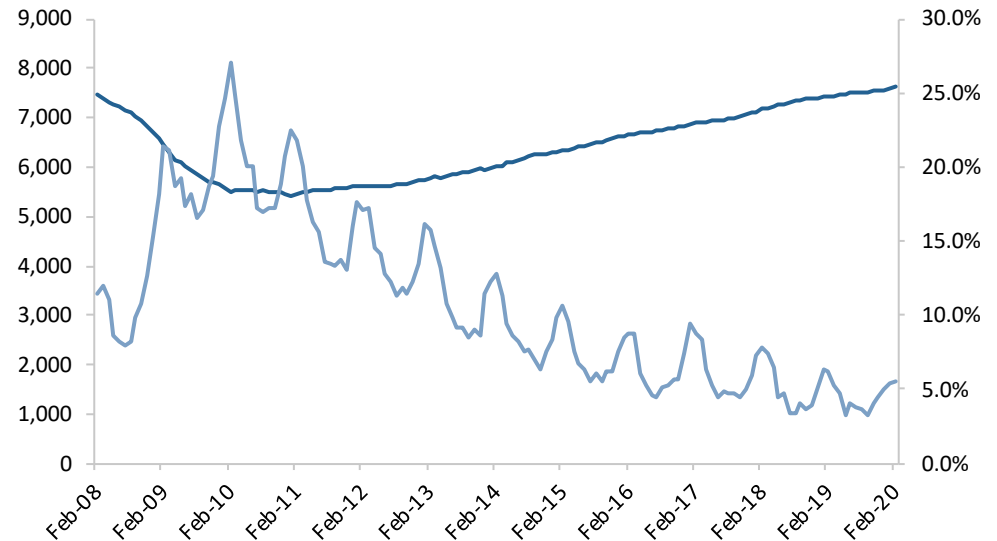
— Value of U.S. Construction Put in Place (SAAR)

## CONSTRUCTION EMPLOYMENT

- Employment in the construction industry reached 7.6M in Q1, remaining in line with the previous quarter
- Construction job growth has remained steady since a trough in early 2010; however, the pace has lagged overall job growth across the economy
- Unemployment in the construction industry has remained below overall unemployment as demand for skilled trades outweighs the supply of specialty contractors

## U.S. CONSTRUCTION EMPLOYMENT

(in 000's)



— U.S. Construction Employment (SAAR) — U.S. Construction Unemployment (Unadjusted)

# Recent AEC Software Transactions<sup>2,3,4</sup>

*Announced: March 31, 2020*



Enterprise Value: NM

EV / Rev: NM

Revenue: NM

EV / EBITDA: NM

## Thoma Bravo's pending acquisition of Command Alkon

- › Command Alkon is a provider of a supply chain integration and digital collaboration platform for the heavy construction ecosystem
- › The Company's cloud-based solution enables contractors and project owners to digitally connect with their heavy material suppliers, producers, and haulers to automate inter-company workflows and provide visibility into real-time order status
- › Post acquisition, Thoma Bravo plans to invest in next-generation cloud capabilities to speed Command Alkon's integration into inter-company supply chain operations in heavy construction

*Closed: March 11, 2020*



Enterprise Value: NM

EV / Rev: NM

Revenue: NM

EV / EBITDA: NM

## Bentley Systems' acquisition of GroupBC

- › GroupBC is a provider of data and information management software for construction project and built asset management
- › The Company's cloud-based common data environment enables project teams and stakeholders to collaborate, manage, and share documents, data, and spatial information from a centralized, secure platform
- › The acquisition of GroupBC follows years of collaboration with Bentley and will allow the combined organization to better serve engineers, contractors, and owners by bringing together their collective information management, operational technologies, and engineering models across a common collaboration platform

*Closed: March 6, 2020*



Enterprise Value: NM

EV / Rev: NM

Revenue: NM

EV / EBITDA: NM

## Battery Ventures' acquisition of WinWorker

- › WinWorker is a provider of business and field service management software for trade craftsmen
- › The Company's desktop and mobile software provides trade contractors, primarily painters, roofers, and landscapers, with tools for workforce management and scheduling, material management, and resource planning amongst a list of additional functional modules
- › Post acquisition, Battery plans to accelerate the company's growth through continued product innovation, enhanced customer service, and the establishment of new partnerships with key industry organizations

*Announced: February 13, 2020*



Enterprise Value: \$1.7B

EV / Rev: 6.2x

Revenue: \$234.7M

EV / EBITDA: 26.4x

## Schneider Electric's pending acquisition of RIB Software

- › RIB is a global provider of a portfolio of ERP and Building Information Modeling (BIM) software solutions for the construction industry
- › The Company's flagship cloud-based construction ERP platform provides project stakeholders native 5D BIM integration and advanced AI tools to manage projects in real time and collaborate across work streams
- › With the acquisition of RIB, Schneider will now be able to provide customers with a suite of energy management solutions that encompass the entire building life cycle from construction through operations

*Closed: January 21, 2020*



Enterprise Value: NM

EV / Rev: NM

Revenue: NM

EV / EBITDA: NM

## Built's acquisition of Lienwaivers.io

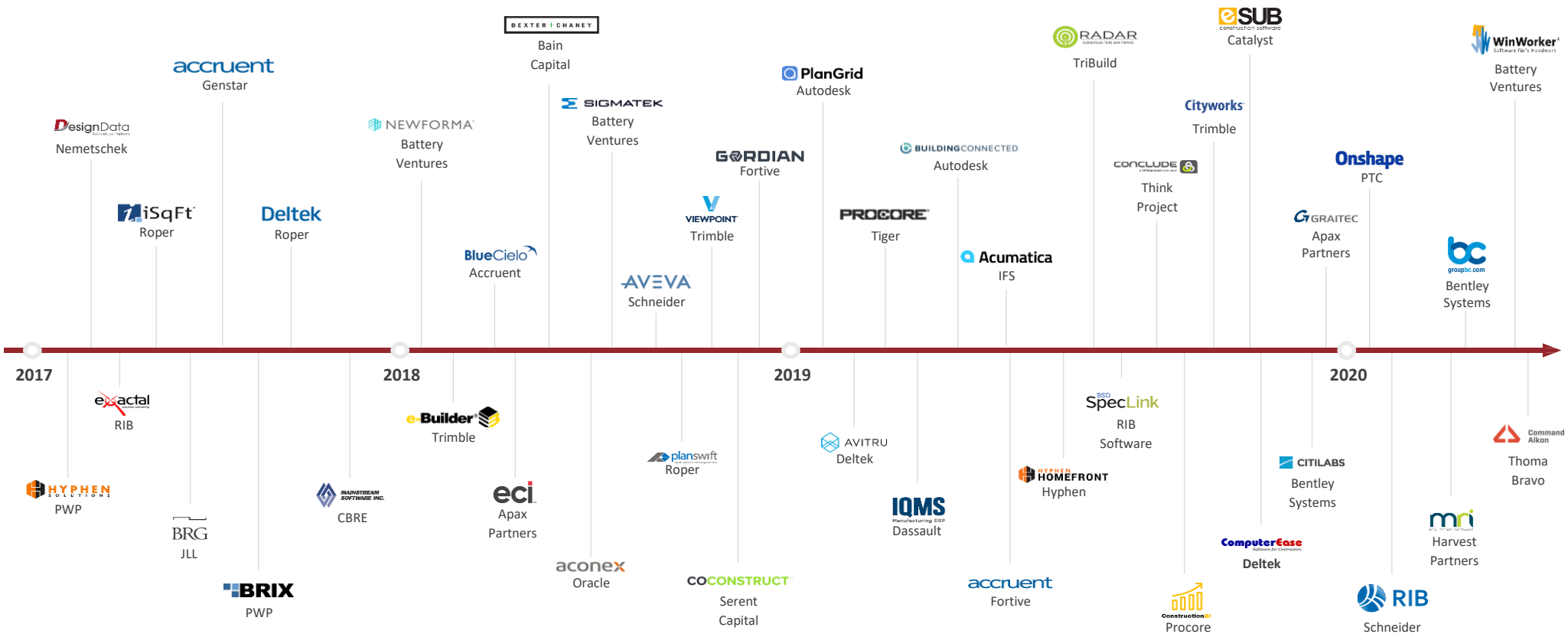
- › Lienwaivers.io is a provider of lien waiver management and payment solutions for commercial and residential construction
- › The Company's API provides a direct integration with the leading construction project management platforms, enabling customers to seamlessly request, collect, and track their lien waivers and payments from within their project management solution
- › The acquisition of Lienwaivers positions Built as the first full-stack construction finance platform, providing solutions for key stakeholders in the construction finance process



# Large Market Opportunity Driving Significant M&A Activity

After decades of technological stagnation in the construction industry, rapid adoption of new technologies has driven strong M&A activity.

## RECENT AEC TRANSACTIONS

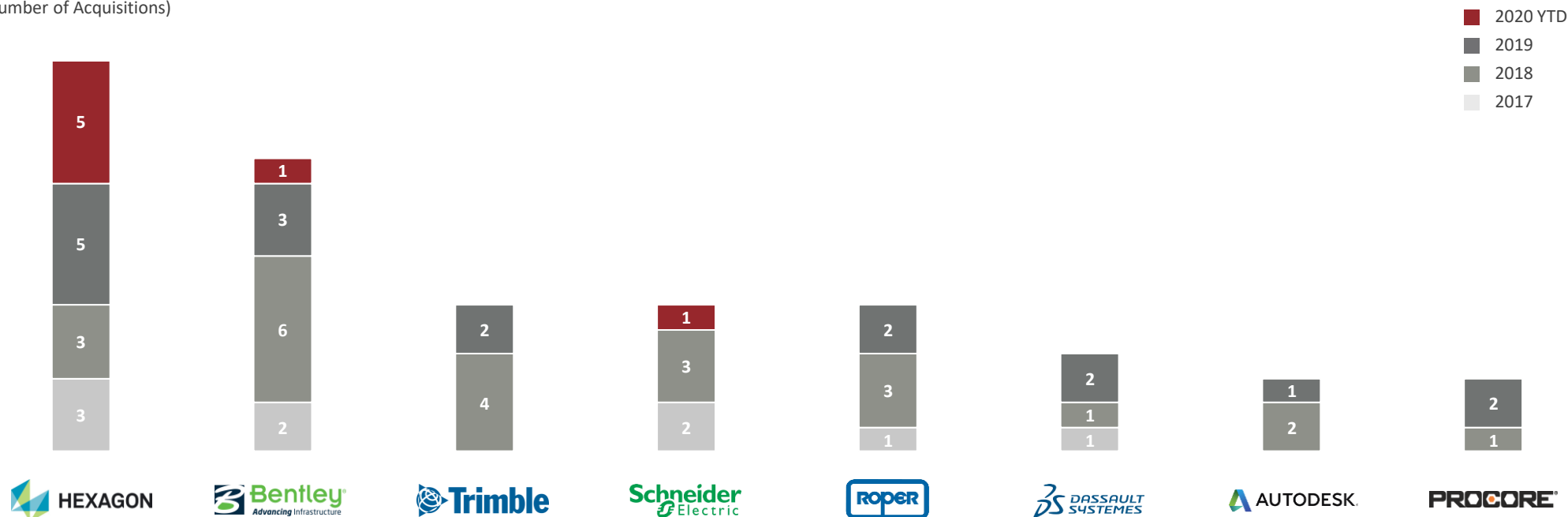


# Active AEC Software Consolidators<sup>3,4</sup>

AEC software providers continue to consolidate the highly fragmented industry to establish platforms of scale.

## NOTABLE INDUSTRY CONSOLIDATORS DEAL COUNT

(Number of Acquisitions)



## DRIVERS OF CONSOLIDATION

- 01** Desire by strategics to create platforms to manage the entire construction life cycle – design, build, and operate
- 02** Pressure for detailed project information to be available and shared in real time across project stakeholders
- 03** Adoption and integration of field and mobile tools into the jobsite to enhance productivity, safety, and project economics
- 04** Rapidly increasing usage of 5D BIM by key project constituents

Note: Includes architecture, engineering, and construction sector control transactions made by parent or subsidiary.

# M&A Transaction Activity<sup>3,4</sup>

## SELECT RECENT M&A TRANSACTIONS












Date Closed	Target	Acquirer	Business Description	Enterprise Value	LTM Multiples	
					Revenue	EBITDA
Pending	Command Alkon	Thoma Bravo	Provider of a supply chain integration and digital collaboration platform for the heavy construction ecosystem	NM	NM	NM
Pending	Lumerical	ANSYS	Provider of photonic simulation software for designers to predict light's behaviour within complex structures and systems	NM	NM	NM
Pending	Mindesk	Vection Technologies	Provider of a real-time 3D design platform to review projects in virtual reality	4	NM	NM
Pending	Romax Technology	Hexagon AB	Provider of computer-aided engineering softwares for automotive, wind energy, bearings, aerospace, marine, off highway, and rail industries	NM	NM	NM
Pending	RIB Software	Schneider Electric	Provider of a portfolio of ERP and Building Information Management software solutions for the construction industry	1,446	6.2 x	NM
04/01/2020	Equipment Management Group	BigRentz	Provider of dumpsters, storage containers, and portable toilets for the retail and commercial construction industry	NM	NM	NM
03/17/2020	CAEfatigue	Hexagon AB	Provider of mechanical fatigue simulation solutions for manufacturers to improve their product design, quality, and reliability	NM	NM	NM
03/11/2020	GroupBC	Bentley Systems	Provider of data and information management software for construction project and built asset management	NM	NM	NM
03/11/2020	Concrete Sensors	Hilti Aktiengesellschaft	Provider of wireless sensors designed to provide General Contractors with real-time data on their concrete	NM	NM	NM
03/10/2020	Cintoo SAS	BNP Paribas	Provider of solutions for managing and leveraging the 3D data for the AEC and BIM industries	NM	NM	NM
03/06/2020	WinWorker	Battery Ventures	Provider of business and field service management software for trade craftsmen	NM	NM	NM
02/21/2020	Tech Soft 3D	Battery Ventures	Provider of modular software toolkits for integration into 3D and CAD modeling software	NM	NM	NM
02/21/2020	Informatique Côté Coulombe	ACCEO Solutions	Provider of enterprise resource planning software for the construction, distribution, retail, sales and service, and printing sectors	NM	NM	NM
02/06/2020	Integrand Software	Cadence Design Systems	Provider of electronic design software solutions for the semiconductor and electronics industries	NM	NM	NM
01/28/2020	Geospin	Thüga SmartService	Provider of a B2B and Saas solution for the analysis of geo-data for the construction industry	NM	NM	NM
01/21/2020	Lienwaivers.io	Built Technologies	Provider of lien waiver management and payment solutions for commercial and residential construction	NM	NM	NM
01/09/2020	uniZite	Symetri Collaboration	Provider of 3D models, drawings, documents, and building information modeling for construction sites	NM	NM	NM
01/07/2020	TriMech Solutions	The Halifax Group	Provider of information technology and software services for engineering teams that work on projects from sketch to manufacturing	NM	NM	NM
01/06/2020	newFASANT	Altair Engineering	Provider of a software solution for the study of antennas, radar cross section, radiation patterns, and telecommunications systems	NM	NM	NM

# M&A Transaction Activity (cont'd)<sup>3,4</sup>

## SELECT RECENT M&A TRANSACTIONS

Date Closed	Target	Acquirer	Business Description	Enterprise Value	LTM Multiples	
					Revenue	EBITDA
12/20/2019	GRAITEC Innovation SAS	Apax Partners	Provider of computer-aided design and analysis solutions for the construction and engineering fields	NM	NM	NM
11/26/2019	EleVia Software	Newforma (Battery Ventures)	Provider of a financial software solution for architecture, engineering, and professional service firms	NM	NM	NM
11/07/2019	DEM Solutions	Altair Engineering	Provider of a discrete element method software for bulk material simulation	13	NM	NM
11/01/2019	Onshape	PTC	Provider of a cloud based, 3D designing and drawing software solution	470	NM	NM
11/01/2019	Livermore Software Technology	ANSYS	Provider of software products for automobile design, aerospace, manufacturing, and bioengineering industries	765	NM	NM
10/31/2019	Conclude GmbH	think project! (TA Associates)	Provider of SaaS solutions for small, medium, large and giant-scale construction projects	NM	NM	NM
10/20/2019	Citilabs Inc.	Bentley Systems	Provider of an analytics platform for businesses and government agencies and tools for the automation of mapping production	NM	NM	NM
10/18/2019	CityWorks	Trimble	Provider of geographic information systems and a public asset management platform for local governments, public works, and utilities agencies	NM	NM	NM
08/19/2019	ComputerEase	Deltek (Roper)	Provider of construction accounting, project management, and field management software solutions for businesses and their assets	HW		
08/08/2019	Construction BI	Procore Technologies	Provider of generation analytics and artificial intelligence software for the construction industry	NM	NM	NM
07/30/2019	Honest Buildings	Procore Technologies	Provider of a data-driven project management and procurement platform for real estate owners	144	NM	NM
06/06/2019	Building Systems Design	RIB Software	Provider of software tools that are used to improve the specification process for architecture, engineering, and construction	70	NM	NM
05/30/2019	HomeFront Software	Hyphen Solutions (PWP)	Provider of an enterprise resource planning platform for residential builders	NM	NM	NM
03/08/2019	RADAR Construction Software	TriBuild	Provider of a cloud-based construction management software for the construction industry	NM	NM	NM
02/14/2019	Browz	Avetta	Provider of supplier qualification and management solutions for various industries	NM	NM	NM
02/11/2019	SignCAD Systems	Bentley Systems	Provider of computer-aided design and manufacture software solutions for the transportation industry	NM	NM	NM
02/04/2019	ServiceMax	Silver Lake	Provider of cloud-based, field service software solutions that help companies to manage contracts and scheduling	NM	NM	NM
01/23/2019	BuildingConnected	Autodesk	Provider of a communication platform to find, communicate, and share documents with general contractors and subcontractors	275	NM	NM
01/08/2019	IQMS	Dassault Systèmes	Provider of enterprise resource planning software systems for manufacturing industries	HW		

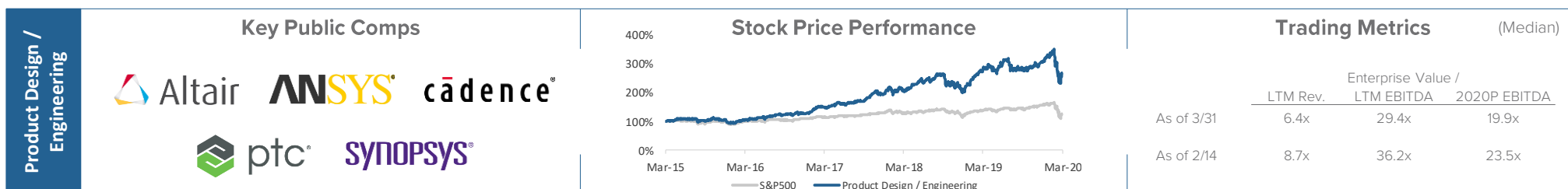
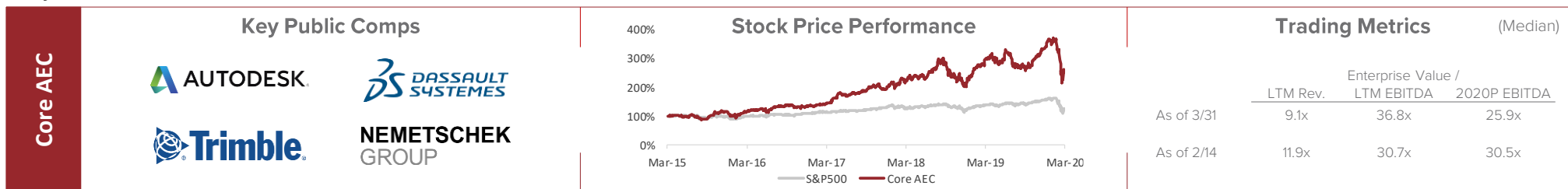
# Recent AEC Software Private Placements<sup>3,4</sup>

DATE	COMPANY	ROUND	ROUND SIZE (\$MM)	TOTAL RAISED (\$MM)	INVESTORS (CURRENT ROUND)	DESCRIPTION
02/11/20	 PypeServer <small>MAKE WORK FLOW</small>	Series A	\$2	\$2	Ferguson Ventures	Provider of a software tool for computer aided pipe spool design and fabrication
Pending	 STRUCTIONSITE	Series A	\$8	\$8	CEMEX Ventures, Obayashi and WND Ventures	Provider of automated jobsite documentation
03/16/20	 1build	Seed	\$0.2	\$3	Y Combinator	Provider of takeoffs and estimation software for framing, insulation, and drywall
03/05/20	 HAULHUB <small>TECHNOLOGIES</small>	Series B	\$30	\$35	T. Rowe Price; Durable Capital Partners	Provider of cloud-based supply chain and logistics management software for heavy construction industry
03/04/20	 PlanRadar	Series A	\$33	\$34	Insight Venture; Berliner Volksbank Ventures; Cavalry Ventures	Provider of a facility management platform for documentation and communication in construction and real estate projects
02/14/20	 XREALITY	Series A	\$7	\$8	Amadeus Capital Partners; Hoxton Ventures	Provider of an augmented reality solution that allows construction workers to view building information models (BIM) on-site
02/11/20	 synavision <small>Perfekte Gebäudeperformance</small>	Seed	NM	NM	Cut Power; Bitstone Capital	Provider of a digital quality management solution for building performance
01/31/20	 CAPMO	Series A	\$6	\$8	Capnamic Ventures	Provider of a construction management platform for task management
01/30/20	 LaborChart	Series A	NM	NM	Five Elms Capital	Provider of a resource management and scheduling application
01/17/20	 3D REPO	Series A	\$3	\$4	Ingenious Infrastructure	Provider of open source version control SaaS solutions for large-scale 3D models
01/06/20	 planblue	Seed	\$1	\$1	West Tech Ventures GmbH	Provider of seafloor monitoring software for construction and conversational use-cases

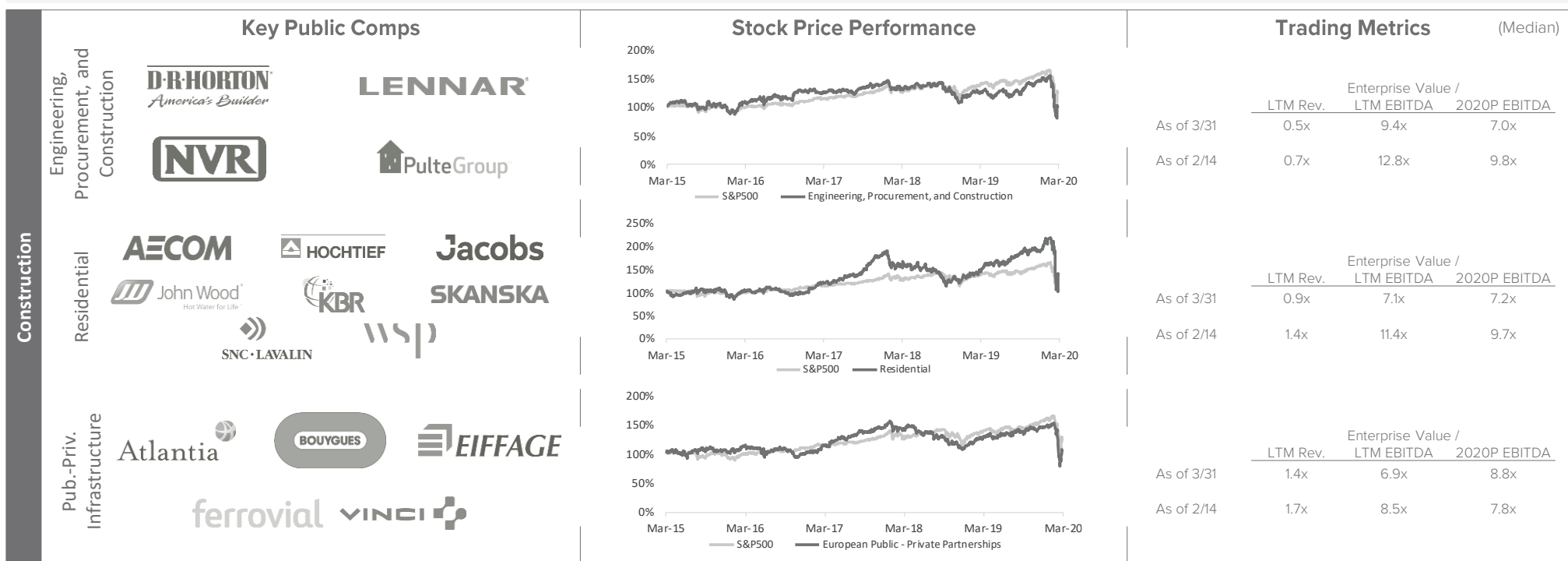
Note: Financial information presented above represents reported capital raised only.

# Public Market Observations<sup>2</sup>

As of March 31, 2020



## CONSTRUCTION - REFERENCE ONLY








# Notable Public Market Activity<sup>2,3,4</sup>

## SCHNEIDER ELECTRIC OFFERS TENDER OFFER FOR RIB (2/13/20)

Read the full article [here](#).

- Schneider Electric launched a €29 per share tender offer to acquire RIB
- The combination with RIB will enable Schneider to provide its customers with an integrated suite of building management tools from construction through operation

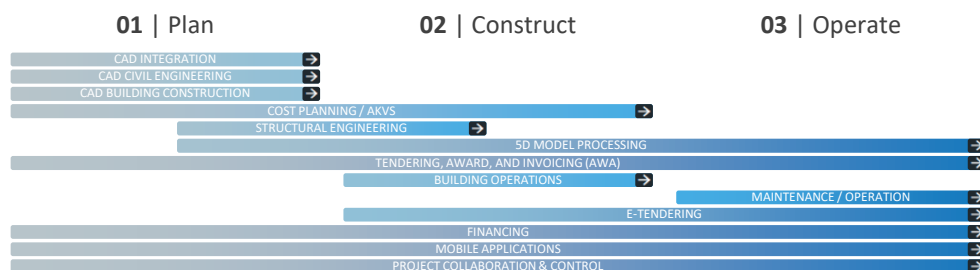
### SCHNEIDER ACQUISITIONS

Target	Date
 RIB running together	2/13/20
 itris	2/1/19
 NXT CONTROL	6/30/17

### RIB ACQUISITIONS

Target	Date
 CCS Construction Computer Software	11/27/19
 U.S. CAD	8/27/19
 BSD Building Systems Design	6/5/19

### RIB SOLUTION OFFERING



### SCHNEIDER ORGANIZATIONAL STRUCTURE



## PROCORE FILES S-1 (2/28/20)




Read the full article [here](#).

- Procore, the Bessemer Venture, Tiger Global, and ICONIQ backed construction company, recently filed its S-1 with the SEC after years of speculation on its IPO timing
- The Carpinteria, CA-based company had raised a total of \$490M, the most recent round valuing the company at \$4.6B
- A time line for the listing has not been set

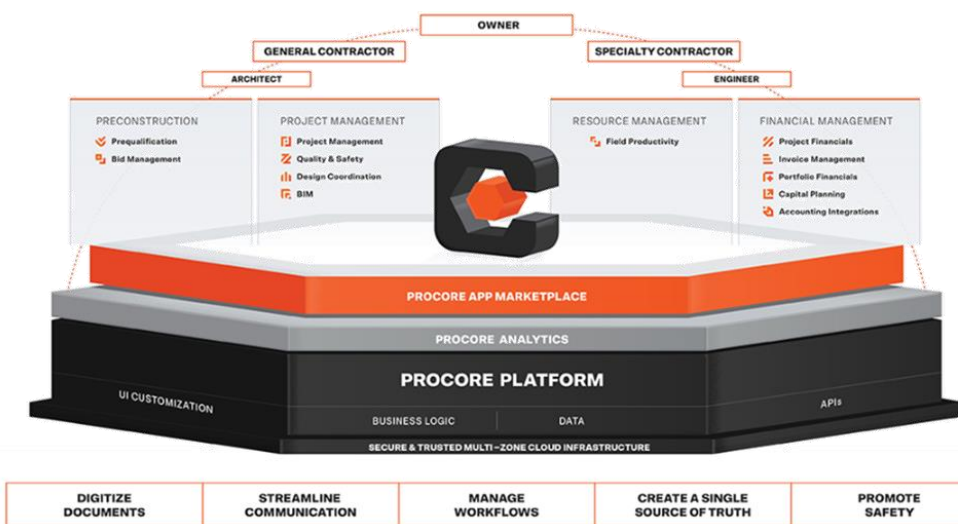
### FUNDING ROUNDS

Round	Amount/Valuation	Date
Series I	\$80.0M/\$4.6B	9/24/19
Series H1	\$103.5M/\$3.2B	7/30/19
Series H	\$75.0M/\$2.9B	12/13/18
Series G	\$50.0M/\$931.1M	12/8/16

### ACQUISITIONS

Target	Date
 HONEST BUILDINGS	12/1/19
 Construction III	8/8/19
 BIManywhere	9/25/18

### SOLUTION OFFERING



# AEC Trading Comparables<sup>2</sup>

## VALUATION AND OPERATING METRICS

As of March 31, 2020 (\$ in millions, excl. stock price)

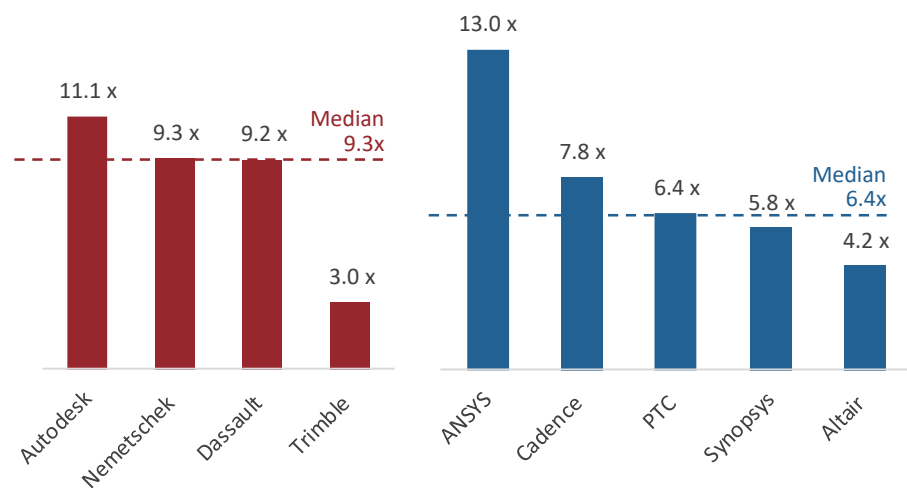
	Mkt Cap		Stock Performance		LTM				TEV / EBITDA	
			Current	% of	Revenue	% Growth	EBITDA	Margin	LTM	2020P
			Price	LTM High						
CORE AEC										
Dassault Systèmes SE	\$38,575	\$41,617	\$148.35	82.2%	\$4,609	13.5%	\$1,129	24.5%	36.8x	24.8x
Autodesk, Inc.	34,267	34,968	156.10	73.8%	3,274	27.4%	468	14.3%	NM	27.1x
Trimble Inc.	7,963	9,761	31.83	68.2%	3,264	5.0%	632	19.3%	15.5x	14.0x
Nemetschek SE	5,747	5,801	49.76	65.6%	627	18.3%	147	23.4%	39.6x	28.4x
Core AEC Median	\$21,115	\$22,365	\$99.05	71.0%	\$3,269	15.9%	\$550	21.4%	36.8x	25.9x
PRODUCT DESIGN / ENGINEERING										
ANSYS, Inc.	\$19,973	\$19,709	\$232.47	77.7%	\$1,516	17.2%	\$582	38.4%	33.9x	27.3x
Synopsys, Inc.	19,348	19,512	128.79	77.2%	3,375	6.4%	663	19.7%	29.4x	16.5x
Cadence Design Systems, Inc.	18,546	18,293	66.04	82.1%	2,378	8.2%	640	26.9%	28.6x	19.9x
PTC Inc.	7,069	8,153	61.21	59.7%	1,277	0.6%	166	13.0%	NM	17.4x
Altair Engineering Inc.	1,922	1,907	26.50	61.2%	459	15.8%	30	6.5%	NM	37.5x
Product Design / Engineering Median	\$18,546	\$18,293	\$66.04	77.2%	\$1,516	8.2%	\$582	19.7%	29.4x	19.9x
AEC Software Median	\$18,502	\$18,249	\$66.04	73.8%	\$2,378	13.3%	\$582	19.7%	31.6x	24.8x
CONSTRUCTION - FOR REFERENCE ONLY										
Residential										
D.R. Horton, Inc.	\$12,456	\$15,007	\$34.00	54.4%	\$18,095	11.3%	\$2,298	12.7%	6.5x	5.8x
Lennar Corporation	11,940	20,387	38.20	53.5%	\$22,897	6.7%	2,689	11.7%	7.6x	8.9x
NVR, Inc.	9,475	9,055	2,569.11	63.1%	\$7,426	3.3%	1,071	14.4%	8.5x	8.7x
PulteGroup, Inc.	6,015	8,024	22.32	47.1%	\$10,213	0.2%	1,409	13.8%	5.7x	4.7x
Median	\$10,708	\$12,031	\$36.10	53.9%	\$14,154	5.0%	\$1,853	13.2%	7.1x	7.2x
Engineering, Procurement, and Construction										
Jacobs Engineering Group Inc.	10,547	12,025	79.27	76.2%	\$13,014	9.6%	977	7.5%	12.3x	10.5x
Skanska AB (publ)	6,273	7,066	15.25	63.0%	\$18,502	(4.3%)	980	5.3%	7.2x	6.9x
WSP Global Inc.	5,983	7,671	56.38	81.5%	\$6,874	18.6%	560	8.2%	13.7x	10.2x
AECOM	4,735	8,584	29.85	57.0%	\$20,053	7.8%	949	4.7%	9.0x	11.3x
HOCHTIEF Aktiengesellschaft	4,682	4,522	66.48	44.8%	\$29,011	6.1%	1,533	5.3%	2.9x	2.3x
KBR, Inc.	2,935	3,717	20.68	64.8%	\$5,639	14.8%	378	6.7%	9.8x	7.2x
SNC-Lavalin Group Inc.	2,571	3,661	14.65	58.8%	\$7,336	(0.7%)	299	4.1%	12.2x	6.8x
John Wood Group, PLC	1,301	3,370	1.94	27.8%	\$9,890	(1.2%)	549	5.5%	6.1x	4.7x
Median	\$4,708	\$5,794	\$25.27	60.9%	\$11,452	7.0%	\$755	5.4%	9.4x	7.0x
European Public - Private Partnerships										
VINCI SA	45,870	76,539	82.86	70.2%	\$54,932	8.2%	8,925	16.2%	8.6x	8.8x
Ferrovial, S.A.	17,591	23,012	24.03	71.7%	\$6,794	3.4%	20	0.3%	NM	39.9x
Bouygues SA	11,155	17,112	29.36	64.7%	\$42,564	4.6%	3,877	9.1%	4.4x	4.3x
Atlantia S.p.A.	10,274	52,143	12.56	45.8%	\$12,804	69.1%	7,268	56.8%	7.2x	8.9x
Eiffage SA	6,903	20,669	70.88	57.7%	\$20,974	8.5%	3,088	14.7%	6.7x	7.1x
Median	\$11,155	\$23,012	\$29.36	64.7%	\$20,974	8.2%	\$3,877	14.7%	6.9x	8.8x
Construction Median	\$6,903	\$9,055	\$29.85	58.8%	\$13,014	6.7%	\$1,071	8.2%	7.4x	7.2x

# Public Comparables: Revenue Multiples<sup>2</sup>

## CORE AEC AND PRODUCT DESIGN / ENGINEERING METRICS

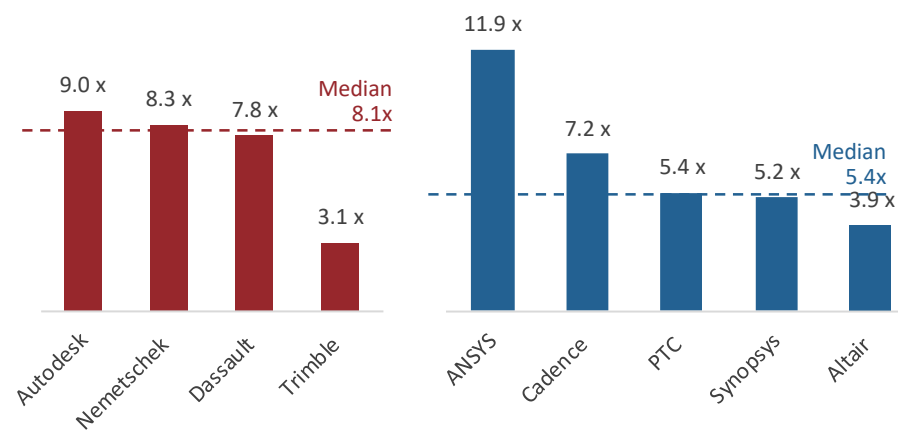
### EV / CY2019 REVENUE MULTIPLES

■ Core AEC ■ Product Design / Engineering



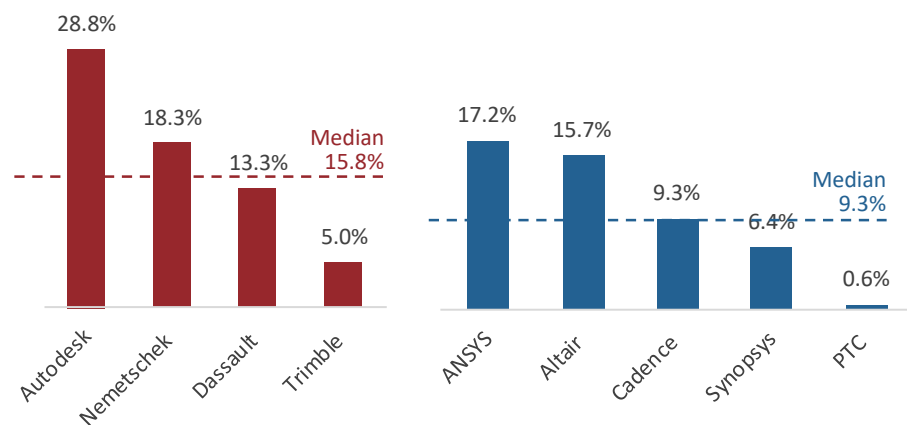
### EV / CY2020P REVENUE MULTIPLES

■ Core AEC ■ Product Design / Engineering



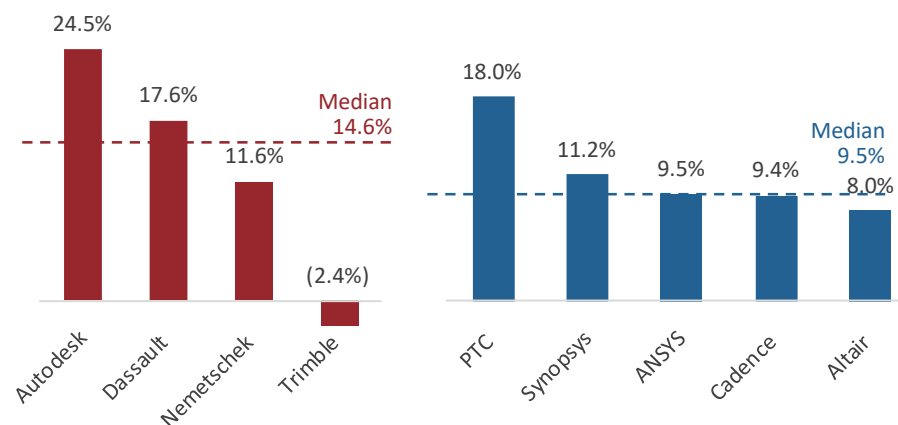
### CY2019 REVENUE GROWTH RATES

■ Core AEC ■ Product Design / Engineering



### CY2020P REVENUE GROWTH RATES

■ Core AEC ■ Product Design / Engineering

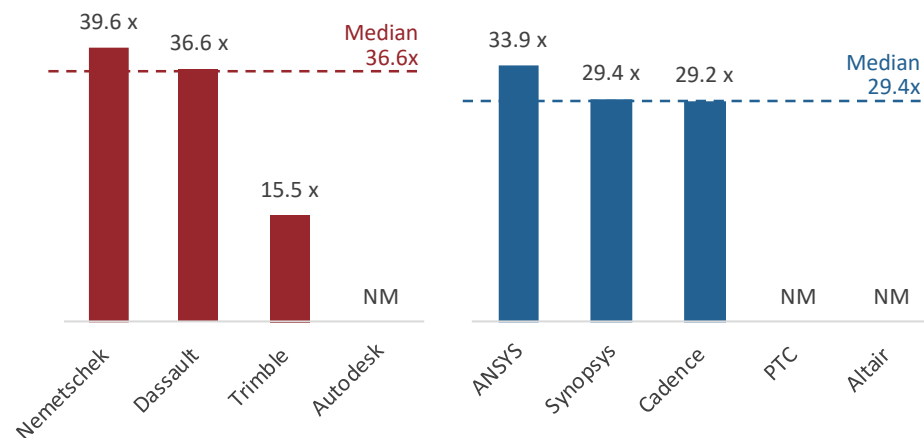


# Public Comparables: EBITDA Multiples<sup>2</sup>

## CORE AEC AND PRODUCT DESIGN / ENGINEERING METRICS

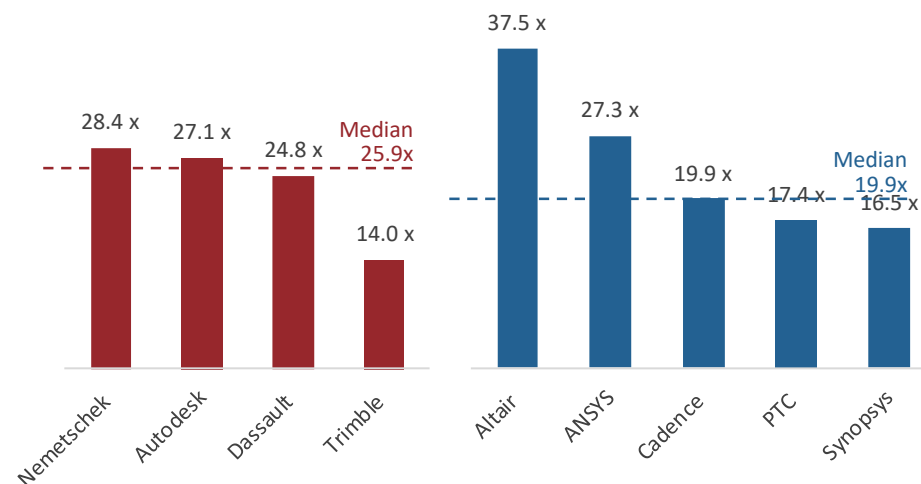
### EV / CY2019 EBITDA MULTIPLES

■ Core AEC ■ Product Design / Engineering



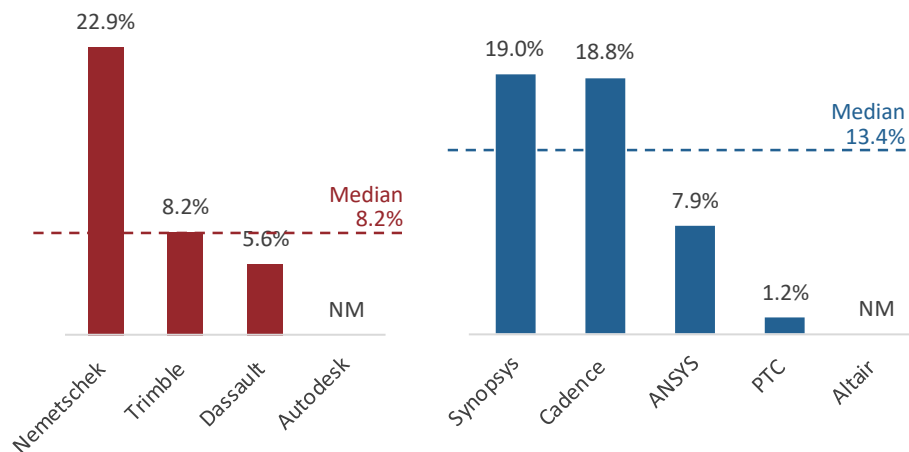
### EV / CY2020P EBITDA MULTIPLES

■ Core AEC ■ Product Design / Engineering



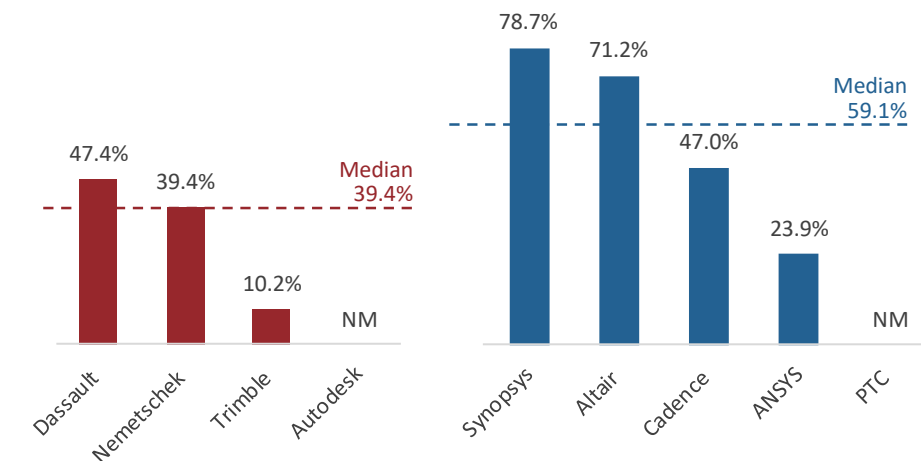
### CY2019 EBITDA GROWTH RATES

■ Core AEC ■ Product Design / Engineering



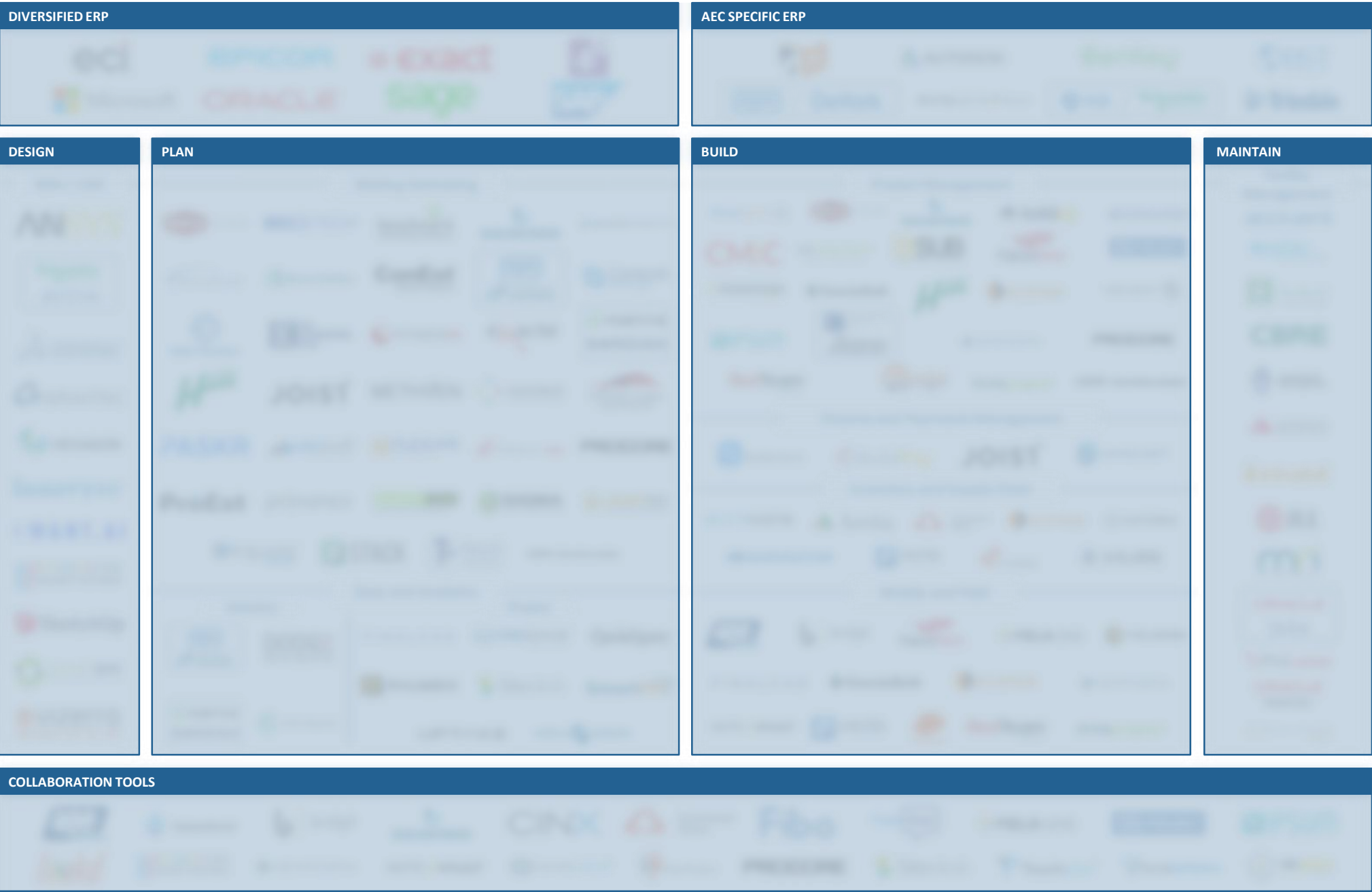
### CY2020P EBITDA GROWTH RATES

■ Core AEC ■ Product Design / Engineering



# AEC Software Landscape

TO VIEW FULL MARKET MAP PLEASE CONTACT:  
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# Sources & Disclosures

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## Sources

1. FRED
2. CapIQ
3. PitchBook
4. MergerMarket

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