

Technology, Media & Telecom

Architecture, Engineering, and Construction
Software Sector Review | 2Q 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

HW ARCHITECTURE, ENGINEERING, AND CONSTRUCTION TEAM

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BUILDING PRODUCTS & MATERIALS GROUP

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

SRS
Distribution

has been acquired by

LGP

U.S.
LBM

has been acquired by

KEISO

Architecture, Engineering, and Construction Software Focus Areas

DESIGN



Solutions to aid in the design and modeling of buildings and infrastructure

Building Information Modeling

Computer-Aided Design

Select Market Participants



Key Trends

Increased mandatory and voluntary adoption of 5D BIM across key project constituents

Integration of building lifecycle considerations, notably maintenance, operations, and energy usage, into the design stage resulting in increased complexity and demand for technology innovation

PLAN



Solutions designed for builders to forecast and manage time, material, and costs before work begins

Bidding

Cost Estimating

Takeoff

Select Market Participants



Key Trends

Incorporation of real-time material and cost data into the project planning stage to give owners and contractors greater clarity into project costs and timelines

Integration of third-party estimation and take-off tools into larger project management suites to create more seamless transitions between construction phases

BUILD



Solutions that manage the construction process

Project Management

Inventory and Supply Chain

Workforce Management

Select Market Participants



Key Trends

Expansion of project management suites through addition of native tools or integration of third-party point solutions to create comprehensive platforms

Adoption of collaboration tools resulting in increased connectivity between the field and the office directly resulting in fewer cost overruns and more on-time project completions

What We're Reading

June 24, 2020

SOCIAL DISTANCING STRATEGIES KEEP CONTRACTORS PRODUCTIVE

Construction Dive

As jobsites begin re-opening around the country, contractors face challenges in balancing productivity and social distancing. Detailed planning and management of workflow proximity and timing has become crucial. Measures like rotational office schedules, jobsite shift work, and infrared temperature screening have all been implemented to keep projects on track. Additionally, those working in close proximity to others have been encouraged to take frequent breaks in order to be able to remove masks and get fresh air.

Read the full article [here](#).

June 23, 2020

RESIDENTIAL BUILDING PRODUCTS: A NEW TAKE ON CYCLICALITY AND INVESTMENT UPSIDE

Harris Williams

The residential building products sector was far healthier entering this COVID-19-driven recession than it was entering the Great Recession. This downturn will reset the conversation around building products cyclicity for the better. While the near-term outlook remains uncertain, we see the prospect for a quick recovery for the residential building products industry, followed by several years of solid growth, creating strong investment appetite and M&A activity.

Read the full article [here](#).

June 22, 2020

TECH, STABILITY MAY MOVE GEN Z THROUGH THE TRADES PIPELINE

Construction Dive

The Associated General Contractors (AGC) of California and several large employers have launched campaigns to recruit thousands of Generation Z (people born in the mid-1990s through early 2000s) into the construction trades. A lack of interest and rejection of manual labor and harsh outdoor work environments by tech-savvy college-bound high schoolers has kept the construction talent pipeline thin. Interestingly, the COVID-driven push towards digital training and construction tools has increased interest among Gen Z career seekers.

Read the full article [here](#).

June 12, 2020

SAVE THE CONSTRUCTION INDUSTRY BY LOOKING WITHIN

Architect Magazine

The mission of many construction technology companies is “fixing” or “saving” the lagging industry. As the construction and housing industries are subject to major outside forces such as political volatility, infrastructure strategy, and job market volatility, the ConTech and PropTech continue to solve various issues, namely productivity. Startups and initiatives also aim to solve other real-world problems like the housing crisis, skilled labor shortage, and the industry’s impact on the environment.

Read the full article [here](#).

May 8, 2020

HOW CONSTRUCTION CAN EMERGE STRONGER AFTER CORONAVIRUS

McKinsey & Company

The rapid tech adoption forced on construction companies by the coronavirus pandemic will continue in the short-term and post-pandemic. Sub-sectors like BIM, off-site construction, digitization, and sustainable building materials will continue to see increased investment over the long-term. An additional lesson learned from the pandemic is how much efficiency can be gained from leveraging construction technology in the face of skilled labor shortages and worksite restrictions.

Read the full article [here](#).

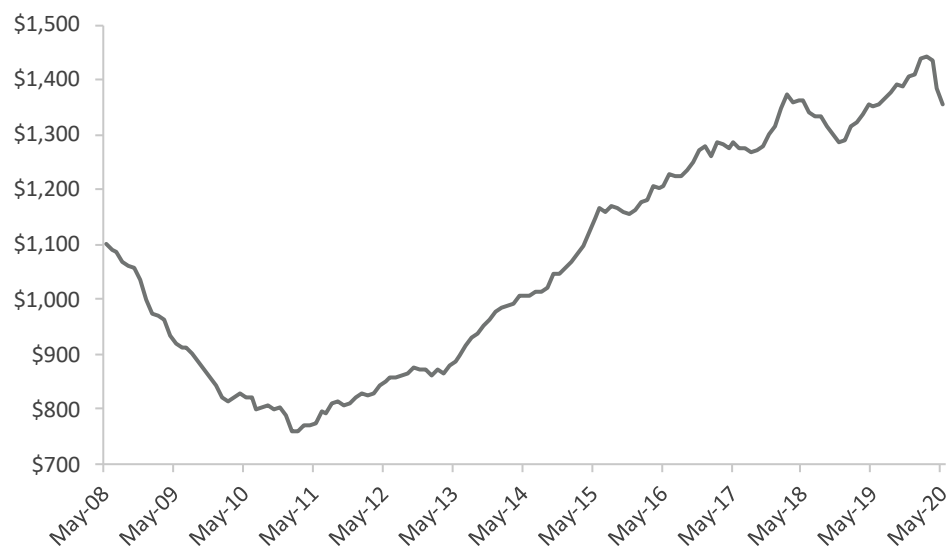
U.S. Construction Activity Trends¹

OVERALL CONSTRUCTION SPEND

- The value of construction put in place in Q2 was \$1,356B, a slight decrease 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, accounting for 40% of total construction spend, as the U.S. manages through a lack of inventory in single-family and multifamily housing

TOTAL U.S. CONSTRUCTION PUT IN PLACE

(\$ in billions)



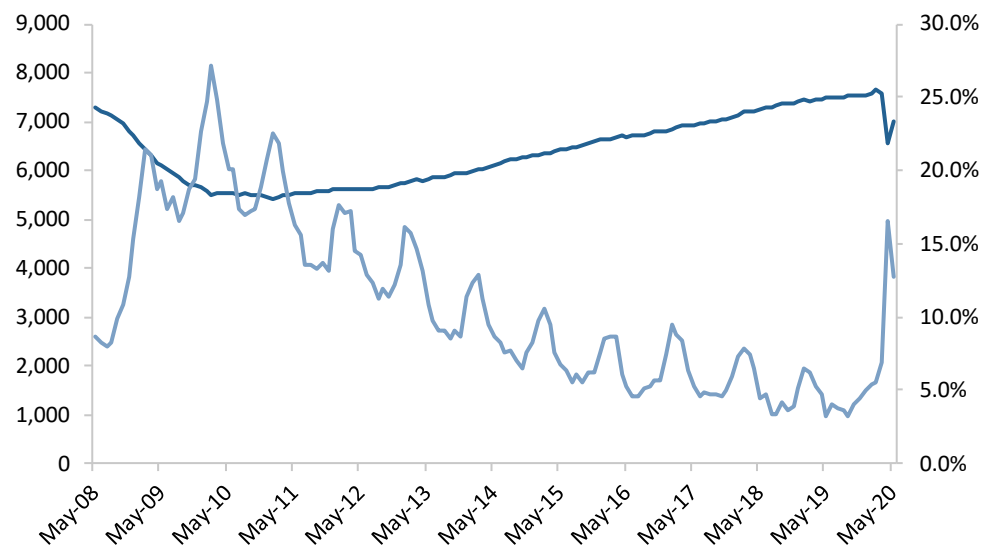
— Value of U.S. Construction Put in Place (SAAR)

CONSTRUCTION EMPLOYMENT

- Employment in the construction industry was 7.0M in Q2, a slight decrease from 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 increased due to the effects of COVID-19 but is declining from its peak in April 2020 as projects restart

U.S. CONSTRUCTION EMPLOYMENT

(in 000's)

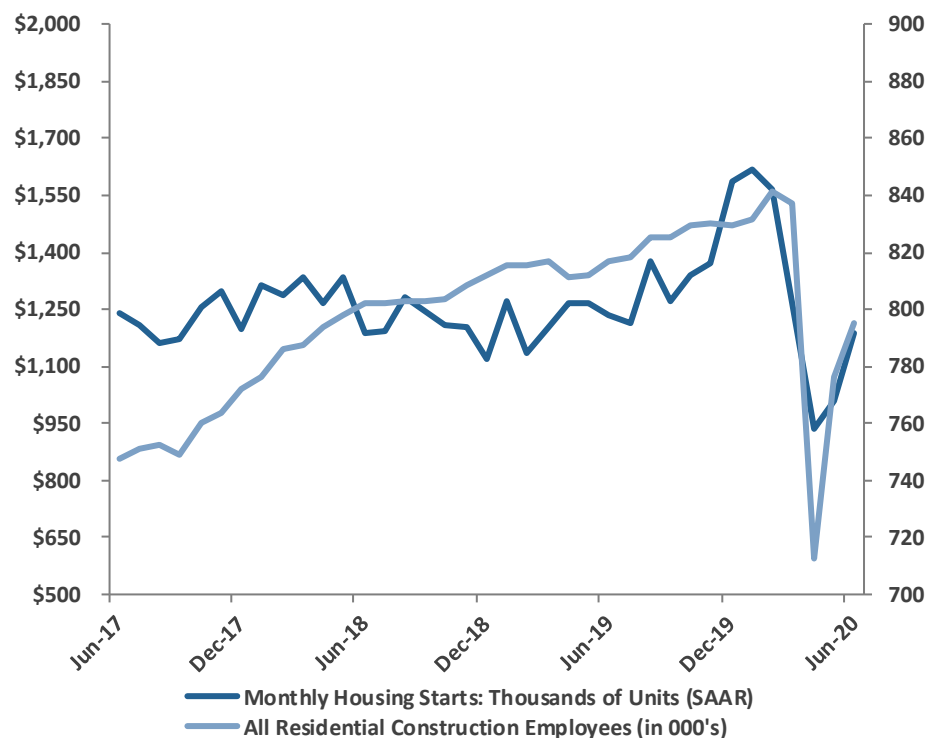


— U.S. Construction Employment (SAAR) — U.S. Construction Unemployment (Unadjusted)

End-Market Focus: Residential Construction^{1,5}

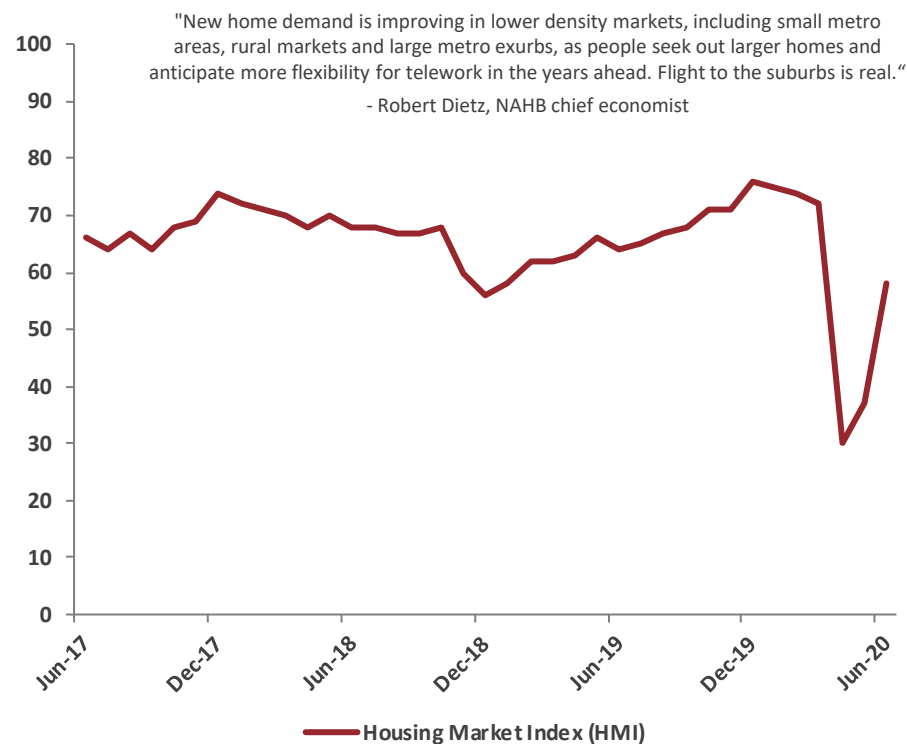
- While the long-term economic impacts of COVID-19 remain unclear, residential construction spending and employment levels were robust heading into the slowdown with states declaring homebuilding an essential sector, keeping construction open and maintaining employment
- While the traditional spring home buying season was disrupted by stay-at-home and social distancing guidelines, demand for single and multi-family housing is expected to rebound through the summer with early indications predicting robust demand
 - Mortgage application activity has rebounded, a leading indicator for home sales
 - Additionally, historically low mortgage rates and growing interest in moving from cities to suburbs have been driving purchasing activity
- Demand for new homes has been especially pronounced in lower density markets, small metro areas, rural markets, and large metro suburbs, as prospective home buyers, increasingly working from home, seek different lifestyles

RESIDENTIAL CONSTRUCTION ECONOMIC INDICATORS



HOMEBUILDER CONFIDENCE INDEX

(NAHB/Wells Fargo Housing Market Index (HMI))

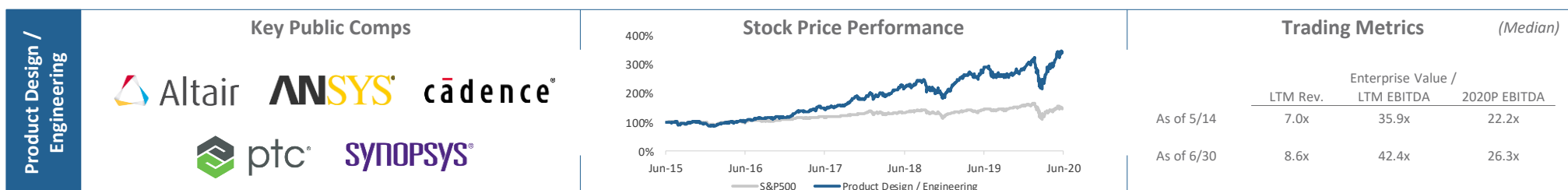
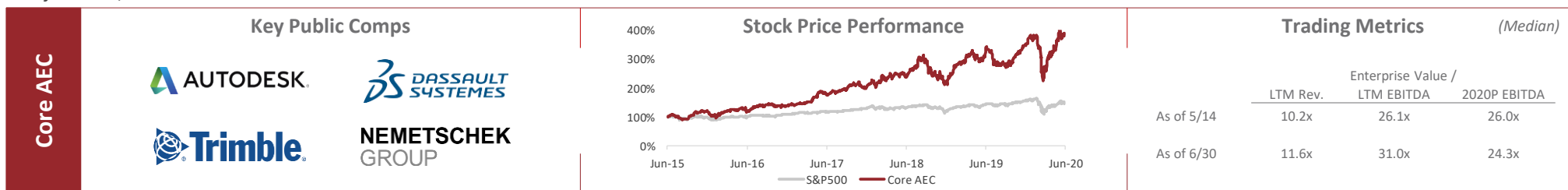


"New home demand is improving in lower density markets, including small metro areas, rural markets and large metro exurbs, as people seek out larger homes and anticipate more flexibility for telework in the years ahead. Flight to the suburbs is real."

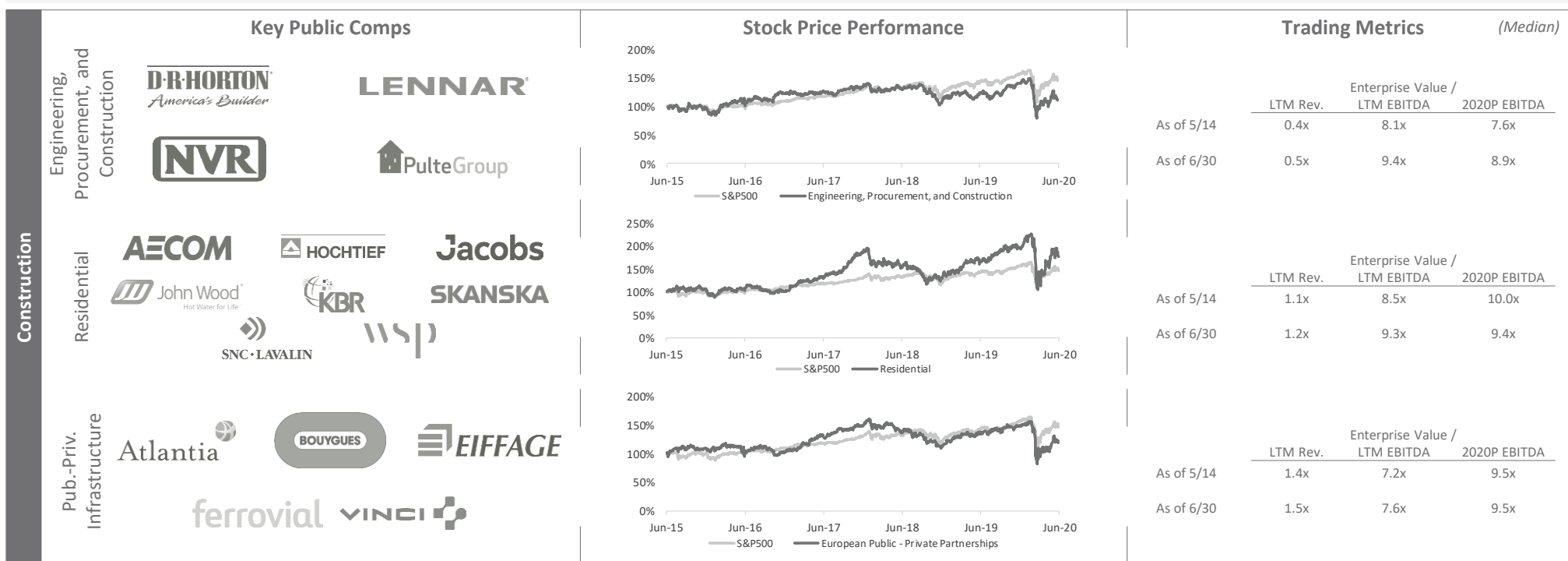
- Robert Dietz, NAHB chief economist

Public Market Observations²

As of June 30, 2020



CONSTRUCTION - REFERENCE ONLY



Recent AEC Software Transactions^{2,3,4}

Closed: June 03, 2020



Bentley Systems' acquisition of NoteVault

- › NoteVault is a provider of a voice-based field documentation application for the construction industry.
- › The Company's solution enables customers to seamlessly capture and annotate voice and photo documentation on the construction site for long-term record keeping and enhanced field to office productivity and collaboration.
- › Following the acquisition, NoteVault will be integrated into Bentley's SYNCHRO digital construction environment, expanding Bentley's portfolio of mobile field applications to track and manage labor, materials, and equipment.

Closed: May 28, 2020



Constellation's acquisition of LandDev

- › LandDev is a provider of a cloud-based land management software platform for commercial and residential land developers.
- › The Company's software enables clients to manage acquisitions, control costs, and monitor cash flow to manage financial needs and improve vendor relations.
- › The acquisition follows years of collaboration and technical integration between Constellation and Land Dev, with Constellation planning to invest in product enhancements and extended customer care capacity post-acquisition.

Closed: May 26, 2020



ServiceTitan's acquisition of Pointman

- › Pointman is a provider of SaaS field service management and operations management software to over 400 customers and 6,000 active users across the home contractor end-market.
- › The Company provides software for core operations management while offering additional features including coaching, analysis, feedback, and peer connections.
- › The acquisition of Pointman will expand ServiceTitan's leadership in the field service management market while adding Pointman's large established customer base.

Closed: May 8, 2020



ECI's acquisition of BuildTools

- › BuildTools is a provider of a web-based construction management platform for custom home builders and remodelers.
- › The Company's business management system provides solutions for project management, scheduling, document storage, and budget tracking designed for the unique needs of small volume builders.
- › Following the acquisition, ECI plans to invest in further platform development and customer success to expand into new markets and accelerate growth.

Closed: April 14, 2020



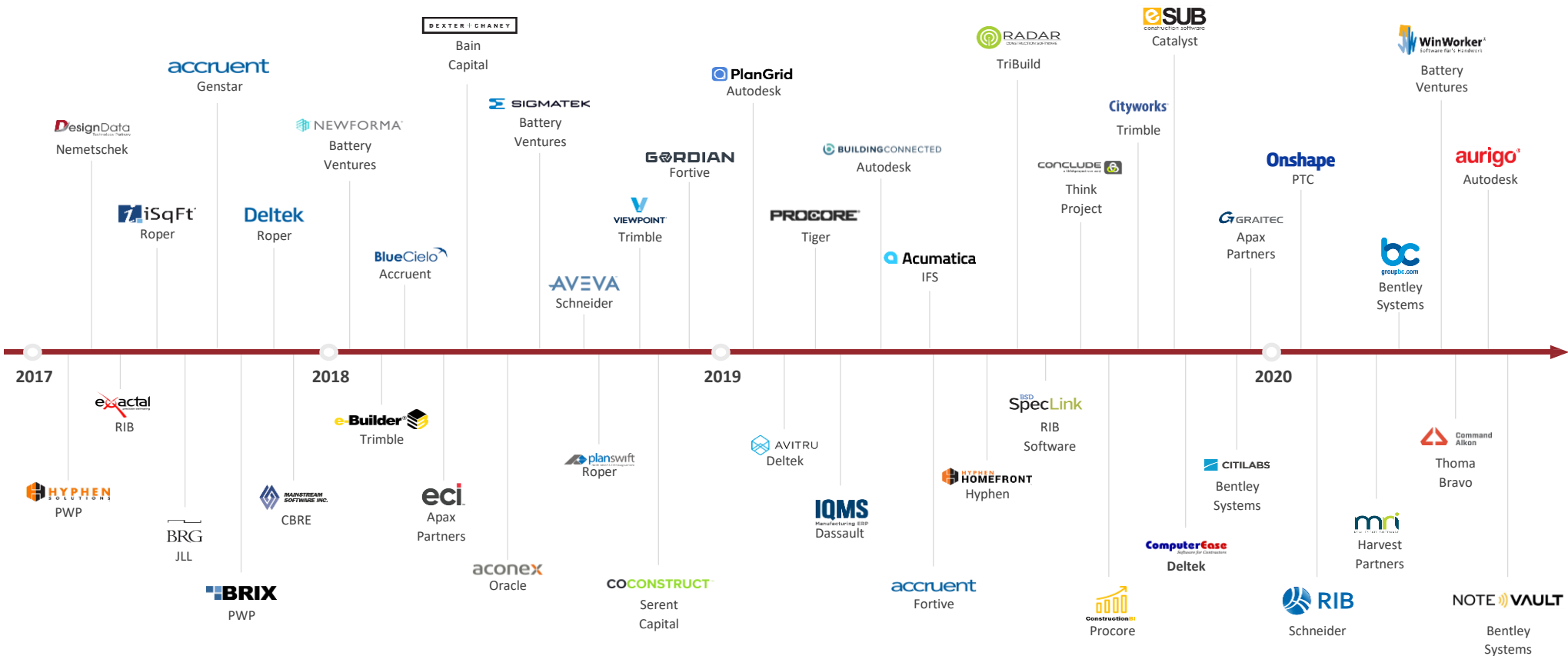
Autodesk's investment in Aurigo

- › Aurigo is a provider of capital project and planning tools for large-scale infrastructure projects for local government agencies and municipal authorities.
- › The Company's cloud-based solution offers a range of tools for project planning, portfolio management, EHS compliance, and property management.
- › As part of the investment, Autodesk intends to integrate Aurigo into the Autodesk Construction Cloud to provide capital asset owners with digital tools for full facility lifecycle management.

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

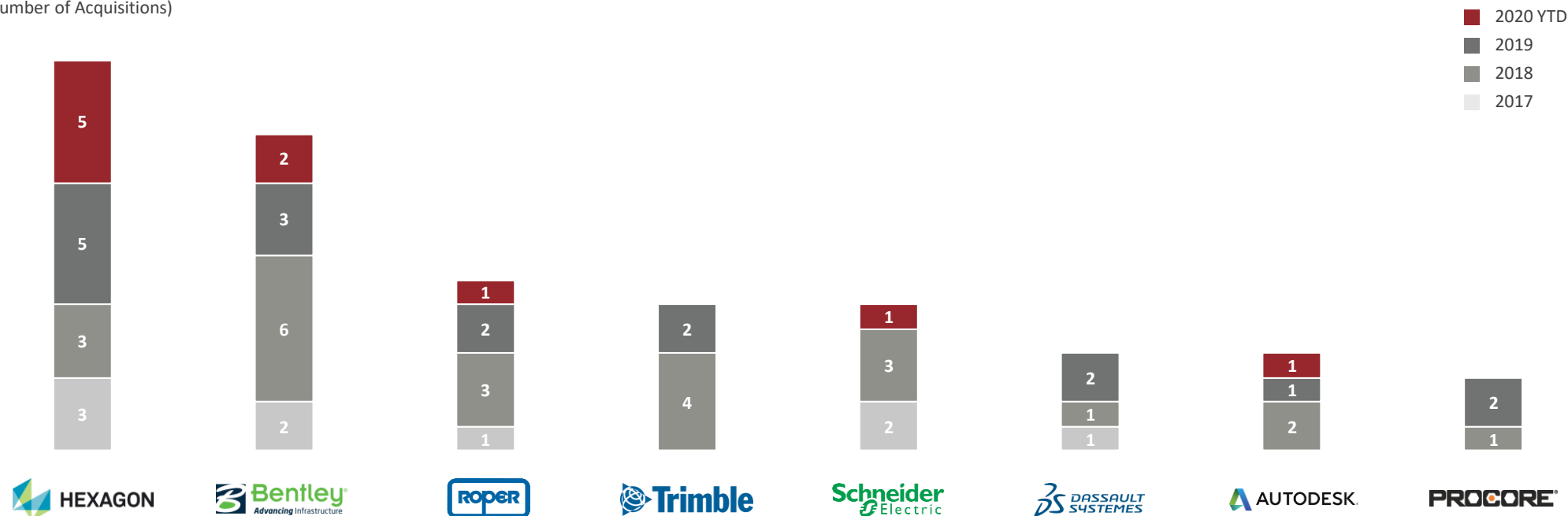


Most Active AEC Software Consolidators^{3,4}

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

NOTABLE INDUSTRY CONSOLIDATORS DEAL COUNT

(Number of Acquisitions)



SELECT 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^{3,4}

SELECT RECENT M&A TRANSACTIONS

Date Closed	Target	Acquirer	Business Description	Enterprise Value	LTM Multiples	
					Revenue	EBITDA
07/10/2020	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
06/25/2020	PenBay Solutions	CarteGraph Systems (Pamlico)	Provider of facility management software for government agencies	NA	NM	NM
06/18/2020	Grit Virtual	Construxiv Technologies	Provider of construction scheduling software	NA	NM	NM
06/09/2020	Mapcom Systems	VertiGIS	Provider of a map-based geographical operations system software suite for telecommunications organizations, campuses, and fiber-based communities	NA	NM	NM
06/08/2020	Buildigo	Die Mobiliar	Provider of a web platform to facilitate search for local craftsmen for construction, renovation, or development work	NA	NM	NM
06/05/2020	Prosperity Computer Solutions	ECi Software Solutions (Apax)	Provider of business management software solutions for the lumber, building materials, and hardlines industry	NA	NM	NM
06/03/2020	NoteVault	Bentley Systems	Provider of a field documentation application for the construction industry	NA	NM	NM
06/02/2020	MotionPort	Enginsoft	Provider of CAE and multi-body dynamic simulation software	NA	NM	NM
05/28/2020	LandDev	Constellation HomeBuilder Systems	Provider of a cloud-based software system for commercial and residential real estate land developers	NA	NM	NM
05/26/2020	Pointman	ServiceTitan	Provider of field service management software for home services businesses	NA	NM	NM
05/15/2020	VIZIYA	Prometheus Group Enterprises	Provider of asset management and CMMS software across end-markets	\$36	NM	NM
05/08/2020	BuildTools	ECi Software Solutions (Apax)	Provider of a web-based construction management platform for custom home builders and remodelers	NA	NM	NM
04/30/2020	ADAPT Corporation	RISA Technologies	Provider of structural engineering software, consulting services, and professional training programs to structural design professionals	NA	NM	NM
04/23/2020	Command Alkon	Thoma Bravo	Provider of a supply chain integration and digital collaboration platform for the heavy construction ecosystem	NA	NM	NP
04/14/2020	Aurigo Software Technologies	Autodesk	Provider of cloud-based capital project planning and management tools	NA	NM	NM
04/06/2020	Birdi	Hanley Wood (MidOcean Partners)	Provider of an online platform for accessing satellite, airborne, and drone imagery	NA	NM	NM
04/02/2020	Geomagical Labs	IKEA A/S	Provider of a software platform for interior designing	NA	NM	NM
04/01/2020	Lumerical	ANSYS	Provider of photonic simulation software for designers to predict light's behavior within complex structures and systems	\$108	NM	NM
03/17/2020	CAEfatigue	Hexagon AB	Provider of mechanical fatigue simulation solutions for manufacturers to improve their product design, quality, and reliability	NA	NM	NM
















M&A Transaction Activity (cont'd)^{3,4}

SELECT RECENT M&A TRANSACTIONS

Date Closed	Target	Acquirer	Business Description	Enterprise Value	LTM Multiples	
					Revenue	EBITDA
03/11/2020	GroupBC	Bentley Systems	Provider of data and information management software for construction project and built asset management	NA	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	NA	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	NA	NM	NM
03/06/2020	WinWorker	Battery Ventures	Provider of business and field service management software for trade craftsmen	NA	NM	NM
03/02/2020	Mindesk	Vection Technologies	Provider of a real-time 3D design platform to review projects in virtual reality	\$4	NM	NM
02/28/2020	Romax Technology	Hexagon AB	Provider of computer-aided engineering softwares for automotive, wind energy, bearings, aerospace, marine, off highway, and rail industries	NA	NM	NM
02/27/2020	APE Mobile	Damstra	Provider of a paperless site application that manages productivity reports, toolbox meetings, and site drawings for contractors	\$4	NM	NM
02/21/2020	Tech Soft 3D	Battery Ventures	Provider of modular software toolkits for integration into 3D and CAD modeling software	NA	NM	NM
02/21/2020	Informatique Côté Coulombe	ACCIO Solutions	Provider of enterprise resource planning software for the construction, distribution, retail, sales and service, and printing sectors	NA	NM	NM
02/06/2020	Integrand Software	Cadence Design Systems	Provider of electronic design software solutions for the semiconductor and electronics industries	NA	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	NA	NM	NM
01/21/2020	Lienwaivers.io	Built Technologies	Provider of lien waiver management and payment solutions for commercial and residential construction	NA	NM	NM
01/09/2020	uniZite	Symetri Collaboration	Provider of 3D models, drawings, documents, and building information modeling for construction sites	NA	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	NA	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	NA	NM	NM
12/20/2019	GRAITEC Innovation SAS	Apax Partners	Provider of computer-aided design and analysis solutions for the construction and engineering fields	NA	NM	NM
11/26/2019	EleVia Software	Newforma (Battery Ventures)	Provider of a financial software solution for architecture, engineering, and professional service firms	NA	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

Recent AEC Software Private Placements^{3,4}

SELECT PRIVATE PLACEMENTS

Date	Company	Round Type	Round Size (\$M)	Raised to Date	Investors	Description
06/29/2020	 CompanyCam	Series A	\$6.0	\$7.5	Undisclosed Investor	Provider of a photo application for contractors to document their work and communicate with their crew
06/16/2020	 CAI Software	Growth	\$19.9	\$19.9	Main Street Capital	Provider of an enterprise resource planning and manufacturing execution software to vertical industrial and construction markets
06/12/2020	 TRADE HOUNDS	Seed	\$3.2	\$9.7	Brick & Mortar Ventures; Corigin Ventures	Provider of an employment and social network for trade workers
06/11/2020	 HEADLIGHT	Series B	\$25.6	\$32.5	Viking Global Investors	Provider of a data and analytics platform for capturing real-time data on infrastructure projects
06/09/2020	 Vizcab	Series A	\$1.6	\$1.6	Banque des Territoires; A/O PropTech	Provider of a platform to model a project's carbon footprint
06/08/2020	 ALASCO	Series A	\$7.5	\$7.5	HV Holtzbrinck Ventures; Picus Capital; Global Founders Capital	Provider of financial planning and management software for construction
06/08/2020	 clixifix	Growth	\$0.3	\$0.3	Northstar Ventures	Provider of a Web-based defect and repair resolution software for housebuilders and commercial contractors
05/20/2020	 MIXED DIMENSIONS	Growth	NA	\$5.4	Mimaki Engineering	Provider of software solutions for the three dimensional (3D) printing industry
05/16/2020	 QUARTZ	Venture	\$7.8	\$7.8	Baseline Ventures	Provider of a photo and data analytics platform for the construction industry
05/15/2020	 STRUCTIONSITE	Series A	\$9.4	\$7.9	D20 Capital	Provider of construction documentation and project tracking software
05/11/2020	 briq	Series A	\$10.0	\$13.0	Blackhorn Ventures	Provider of a financial forecasting and intelligence platform for general and specialty contractors
05/08/2020	 ServiceTitan	Series E	\$73.8	\$327.5	Bessemer Ventures	Provider of mobile, cloud-based field management solutions for HVAC, plumbing, and electrical home services businesses
05/01/2020	 PROCORE	Growth	\$150.0	\$640.0	D1 Capital Partners	Provider of cloud-based project-management platform intended to manage construction and real estate projects
04/22/2020	 SCHUTTELIX	Venture	\$8.0	\$8.0	Speedinvest	Provider of a digital marketplace and delivery platform for bulk construction materials
04/01/2020	 BIGRENTZ	Growth	\$15.0	\$24.6	ITOCHU Corporation	Provider of an online construction and heavy equipment rental marketplace for construction equipment

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

AEC Trading Comparables²

VALUATION AND OPERATING METRICS

As of June 30, 2020

(\$ in millions, excl. stock price)

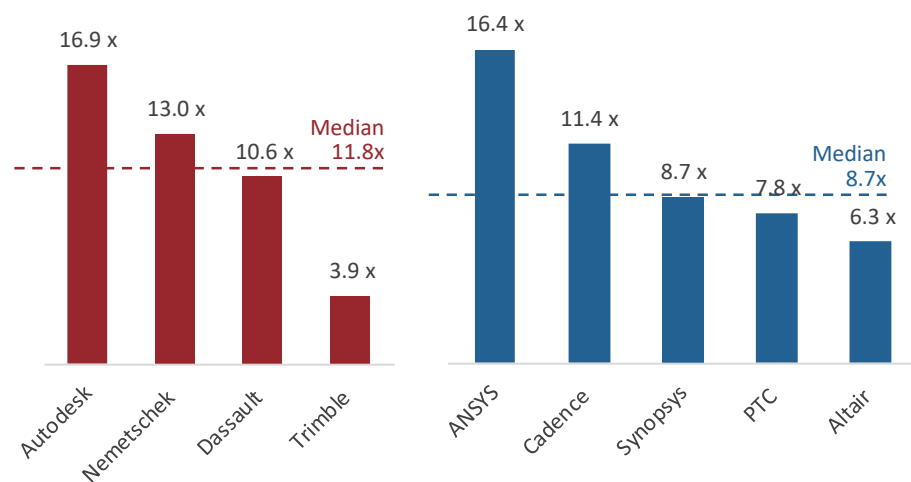
	Mkt Cap		Stock Performance		LTM				TEV / EBITDA	
			Current	% of	Revenue	% Growth	EBITDA	Margin	LTM	2020P
			Price	LTM High						
CORE AEC										
Autodesk, Inc.	\$52,430	\$53,046	\$239.19	96.8%	\$3,425	24.7%	\$562	16.4%	NM	NM
Dassault Systèmes SE	44,997	47,662	172.86	93.6%	4,609	13.5%	1,129	24.5%	42.2x	29.5x
Trimble Inc.	10,787	12,652	43.19	92.5%	3,255	2.8%	640	19.7%	19.8x	19.0x
Nemetschek SE	7,955	8,108	68.87	82.3%	632	14.8%	144	22.8%	NM	NM
Core AEC Median	\$27,892	\$30,157	\$120.86	93.1%	\$3,340	14.2%	\$601	21.2%	31.0x	24.3x
PRODUCT DESIGN / ENGINEERING										
Synopsys, Inc.	\$29,404	\$29,324	\$195.00	98.7%	\$3,400	5.2%	\$692	20.3%	42.4x	24.4x
Cadence Design Systems, Inc.	26,949	26,699	95.96	99.4%	2,378	8.2%	640	26.9%	41.7x	28.2x
ANSYS, Inc.	24,971	24,802	291.73	97.5%	1,504	13.2%	526	35.0%	NM	37.7x
PTC Inc.	9,000	9,994	77.79	83.3%	1,346	7.5%	235	17.4%	42.6x	22.3x
Altair Engineering Inc.	2,896	2,857	39.75	91.8%	463	12.5%	25	5.3%	NM	NM
Product Design / Engineering Median	\$24,971	\$24,802	\$95.96	97.5%	\$1,504	8.2%	\$526	20.3%	42.4x	26.3x
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.	\$20,158	\$23,387	\$55.45	88.7%	\$18,466	11.3%	\$2,453	13.3%	9.5x	10.0x
Lennar Corporation	19,240	25,427	61.62	86.3%	\$22,621	4.9%	2,794	12.4%	9.1x	8.8x
NVR, Inc.	11,995	11,598	3,258.75	80.0%	\$7,320	(0.4%)	1,014	13.9%	11.4x	14.4x
PulteGroup, Inc.	9,125	11,118	34.03	71.8%	\$10,511	2.9%	1,486	14.1%	7.5x	8.1x
Median	\$15,618	\$17,492	\$58.54	83.2%	\$14,489	3.9%	\$1,969	13.6%	9.3x	9.4x
Engineering, Procurement, and Construction										
Jacobs Engineering Group Inc.	11,033	13,295	84.80	81.5%	\$13,350	10.3%	967	7.2%	13.8x	13.1x
Skanska AB (publ)	8,390	8,400	20.38	78.8%	\$17,723	(5.6%)	984	5.6%	8.5x	8.9x
WSP Global Inc.	6,915	8,591	61.21	84.9%	\$6,361	4.1%	516	8.1%	16.6x	11.1x
AECOM	6,016	8,053	37.58	71.7%	\$19,886	15.5%	962	4.8%	8.4x	11.2x
HOCHTIEF Aktiengesellschaft	6,141	7,697	88.85	64.8%	\$28,873	5.7%	1,479	5.1%	5.2x	4.0x
KBR, Inc.	3,209	3,981	22.55	70.6%	\$5,836	11.9%	385	6.6%	10.3x	8.6x
SNC-Lavalin Group Inc.	2,957	3,858	16.84	66.7%	\$6,619	(11.7%)	258	3.9%	15.0x	8.9x
John Wood Group PLC	1,611	3,680	2.40	34.6%	\$9,890	(1.2%)	549	5.5%	6.7x	5.9x
Median	\$6,078	\$7,875	\$30.07	71.2%	\$11,620	4.9%	\$755	5.6%	9.4x	8.9x
European Public - Private Partnerships										
VINCI SA	51,158	81,827	92.28	76.4%	\$54,932	8.2%	8,925	16.2%	9.2x	12.1x
Ferrovial, S.A.	19,458	25,030	26.67	77.7%	\$6,818	4.4%	339	5.0%	NM	NM
Atlantia SpA	13,164	58,062	16.09	57.3%	\$13,395	35.7%	7,470	55.8%	7.8x	10.4x
Bouygues SA	13,002	20,263	34.22	73.6%	\$40,951	(0.9%)	3,619	8.8%	5.6x	6.6x
Eiffage SA	9,104	22,870	91.60	72.8%	\$20,974	8.5%	3,114	14.8%	7.3x	8.6x
Median	\$13,164	\$25,030	\$34.22	73.6%	\$20,974	8.2%	\$3,619	14.8%	7.6x	9.5x
Construction Median	\$9,125	\$11,598	\$37.58	73.6%	\$13,395	4.9%	\$1,014	8.1%	8.8x	8.5x

Public Comparables: Revenue Multiples²

CORE AEC AND PRODUCT DESIGN / ENGINEERING METRICS

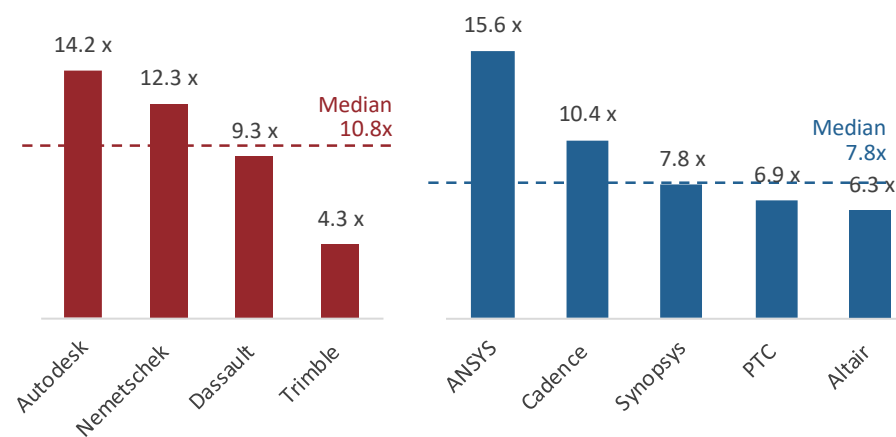
EV / CY2019 REVENUE MULTIPLES

■ Core AEC ■ Product Design / Engineering



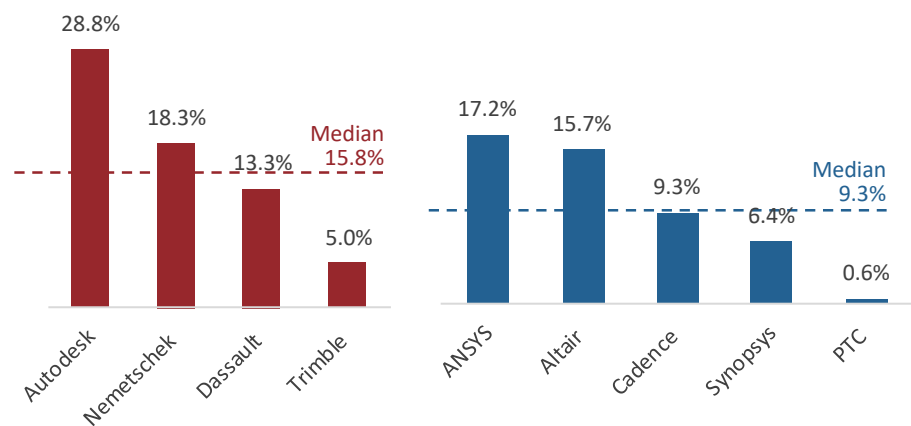
EV / CY2020P REVENUE MULTIPLES

■ Core AEC ■ Product Design / Engineering



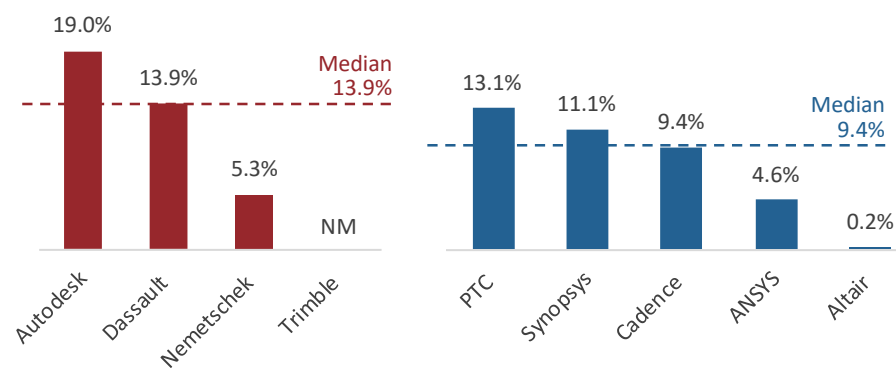
CY2019 REVENUE GROWTH RATES

■ Core AEC ■ Product Design / Engineering



CY2020P REVENUE GROWTH RATES

■ Core AEC ■ Product Design / Engineering

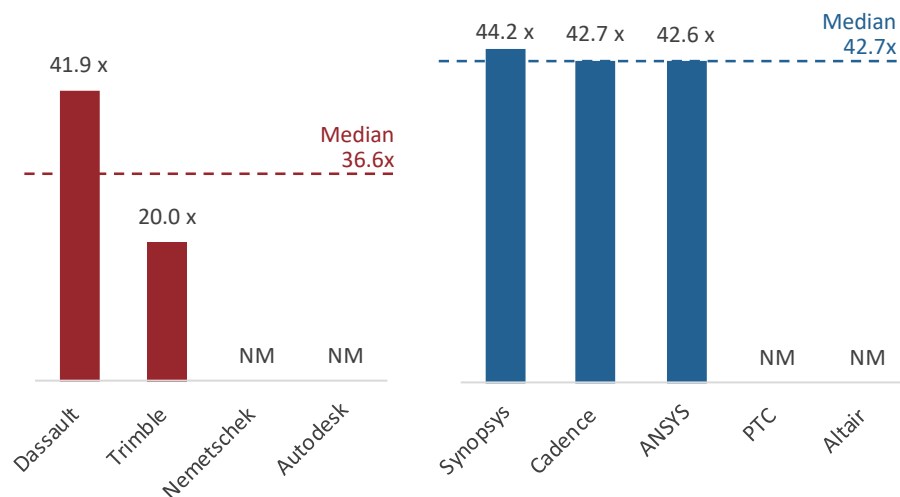


Public Comparables: EBITDA Multiples²

CORE AEC AND PRODUCT DESIGN / ENGINEERING METRICS

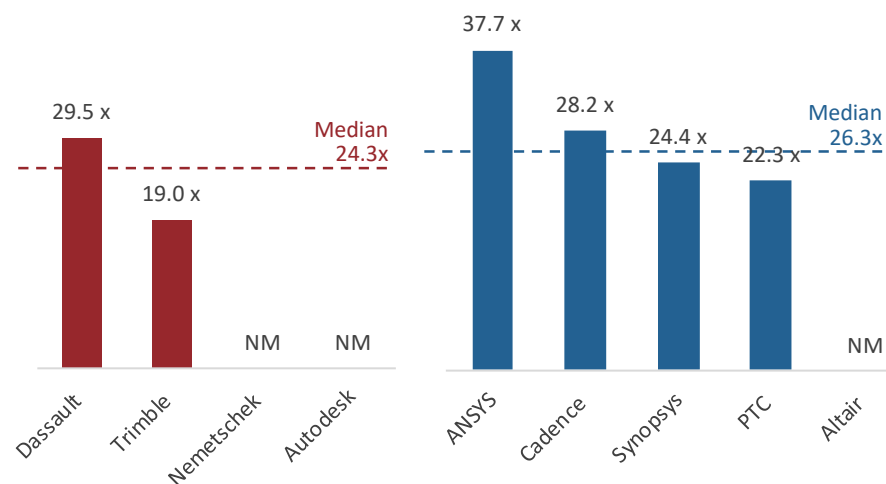
EV / CY2019 EBITDA MULTIPLES

■ Core AEC ■ Product Design / Engineering



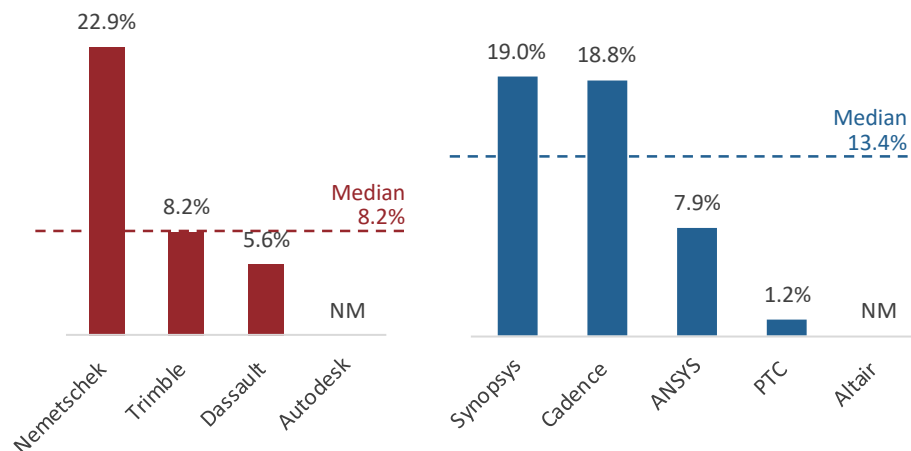
EV / CY2020P EBITDA MULTIPLES

■ Core AEC ■ Product Design / Engineering



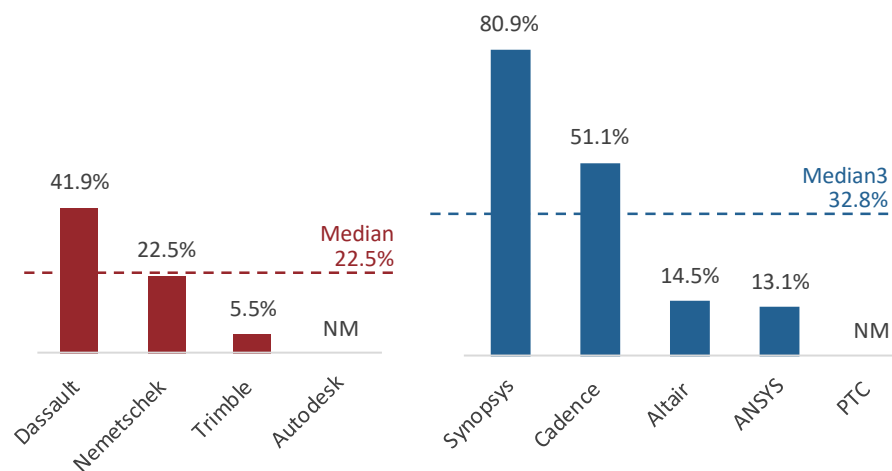
CY2019 EBITDA GROWTH RATES

■ Core AEC ■ Product Design / Engineering



CY2020P EBITDA GROWTH RATES

■ Core AEC ■ Product Design / Engineering

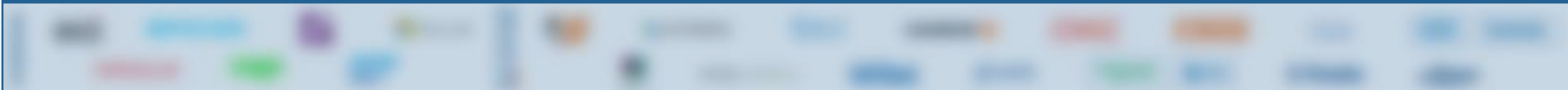


AEC Software Landscape

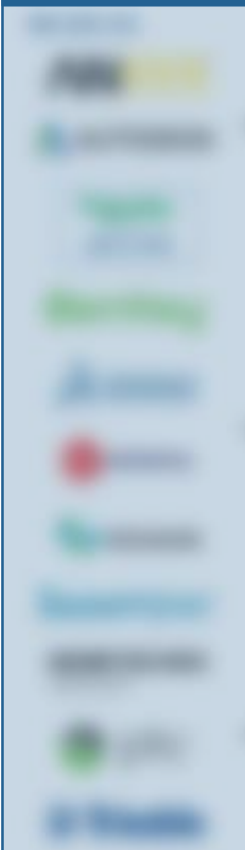
TO VIEW FULL MARKET MAP PLEASE CONTACT:

TMT AEC@HARRISWILLIAMS.COM

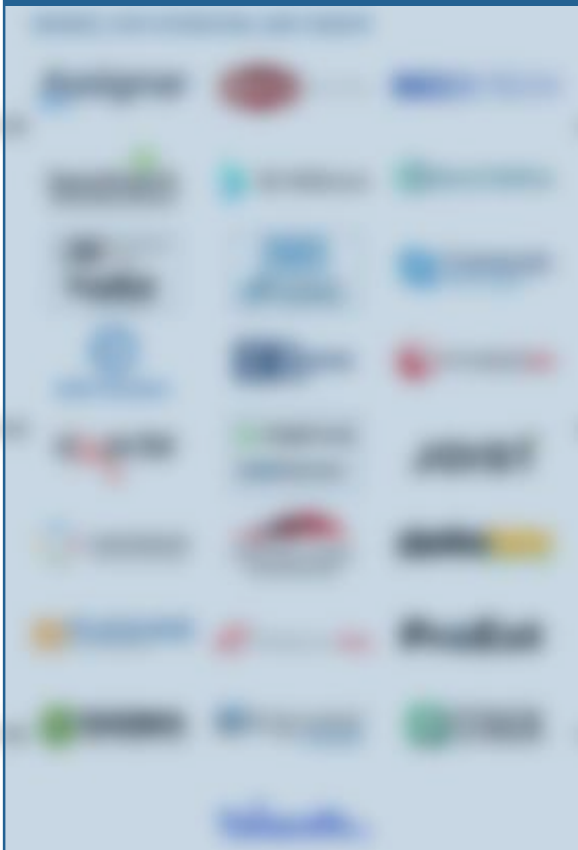
ERP PLATFORMS



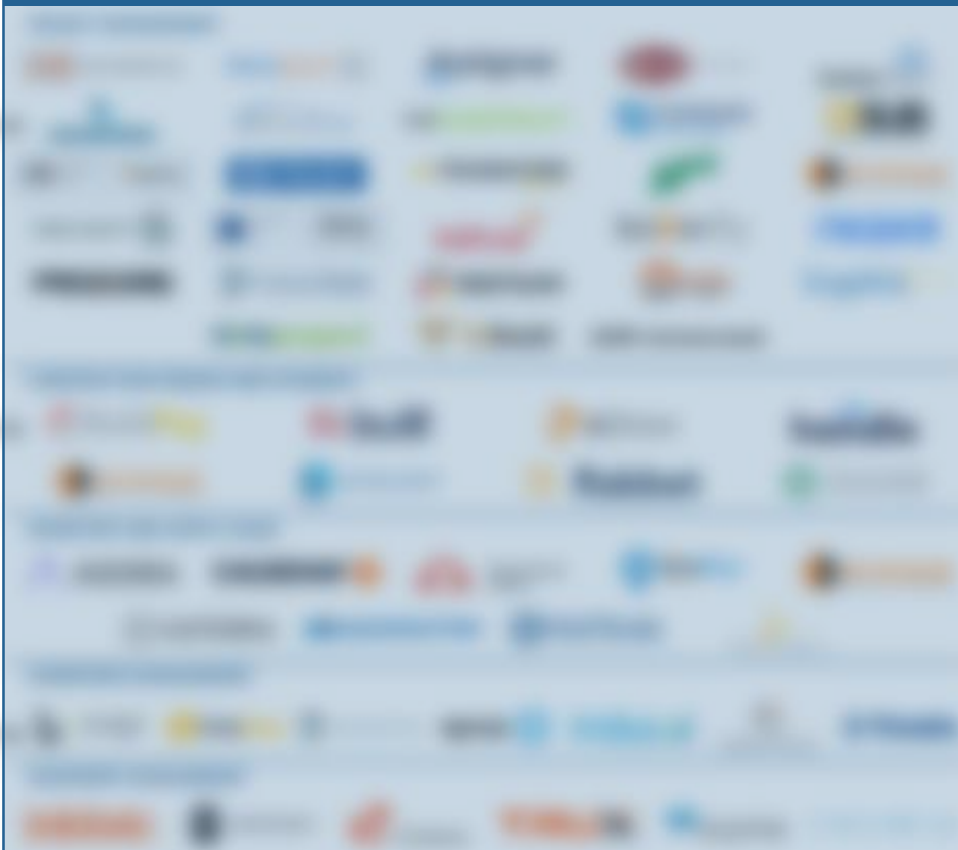
DESIGN



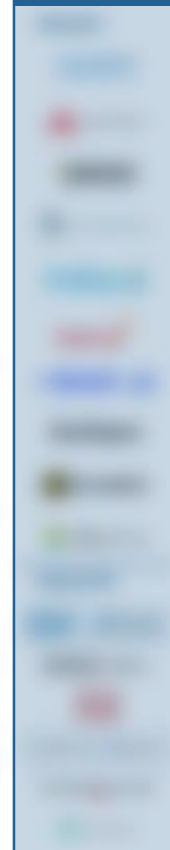
PLAN



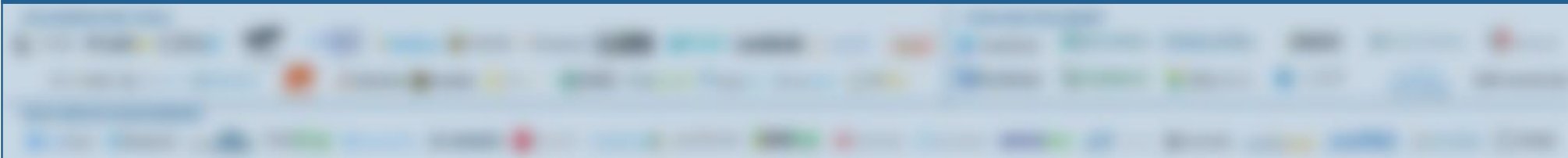
BUILD



DATA



MOBILE AND FIELD



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

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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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Harris Williams Capabilities and Locations

Harris Williams has a broad range of industry expertise, which creates powerful opportunities. Our clients benefit from our deep-sector experience, integrated industry intelligence, and collaboration across the firm, and our commitment to learning what makes them unique. For more information, visit our website at www.harriswilliams.com/industries.



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Sources & Disclosures

Sources

1. FRED
2. CapIQ
3. PitchBook
4. MergerMarket
5. NAHB/Wells Fargo Housing Market Index (HMI)

Disclosures

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