

Technology, Media & Telecom

The background of the slide is a photograph of a construction site at dusk or dawn. The sky is a gradient of blue and orange. In the foreground, three construction workers wearing hard hats are silhouetted against the light. In the background, there are several construction cranes and a large building under construction with visible rebar.

Architecture, Engineering, and Construction
Software Sector Review | Q3 2020

A white horizontal arrow graphic pointing to the right, located below the main title.

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

TECHNOLOGY, MEDIA & TELECOM GROUP

BUILDING PRODUCTS & MATERIALS GROUP

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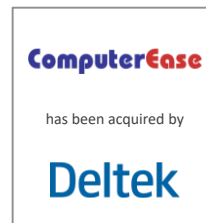
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SELECT HW
AEC
EXPERIENCE



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 life cycle 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, materials, 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

September 21, 2020

HOW INCREMENTAL INNOVATION CAN BENEFIT YOUR CONSTRUCTION BUSINESS

For Construction Pros

The construction industry is poised for change as technology takes hold, but that change is likely to come less in the form of disruption and more in the form of impactful increments. Throughout the pandemic, construction has been affected materially, but not to the degree of many other industries, due to its “essential” designation; therefore, the worry isn't now, but nine months from now.

Read the full article [here](#).

August 26, 2020

HOW DATA IS HELPING CONTRACTORS SURVIVE THE CORONAVIRUS

Engineering News-Record

As construction companies face exceptional levels of uncertainty due to the impact of COVID and the upcoming election, contractors are desperate for signals of future demand. Especially important are how drivers of demand will vary by region and type of structure, as well as the prospects of supply-chain disruptions, raw materials prices, and availability of employees. With all this uncertainty, there is an increased need for collection and utilization of actionable data to help contractors make more informed decisions over the coming years.

Read the full article [here](#).

August 17, 2020

HOME BUILDERS ENJOY COVID IMMUNITY, FOR NOW

The Wall Street Journal

The National Association of Home Builders (NAHB) reported that its index hit a record-high in July as home builder sentiment continues to climb. The home builder market appears more capable and resilient of weathering the economic disruption than many other industries. Record-low interest rates, a demand for homes outside of core urban areas, and a customer base that has proven to be more financially secure and less impacted by job losses from COVID has resulted in continued demand for new single-family housing stock.

Read the full article [here](#).

July 15, 2020

COVID-19 PUTS AN EMPHASIS ON THE BENEFITS OF PREFABRICATION, COMMUNICATION TECH, PAPERLESS JOBSITES

Construction Dive

The challenges arising from the coronavirus pandemic have led to an increased interest in prefabrication, collaboration, and communication tools for project stakeholders, and the potential for paperless jobsites. The limited access to jobsites and remote work for the broader office and project management teams has placed an increased emphasis on collaboration and communication tools for project stakeholders.

Read the full article [here](#).

MIDYEAR 2020 ENGINEERING AND CONSTRUCTION INDUSTRY OUTLOOK

Deloitte

This year began on a positive note for the sector, with first-quarter growth in total construction spend. However, as companies started to gauge the impact of COVID-19 on the US engineering and construction industry toward the end of Q1, confidence among industry leaders plummeted. Though there's still uncertainty and challenges from COVID-19's impact on the engineering and construction industry, the path forward includes a focus on several bright spots in certain end markets and approaches.

Read the full article [here](#).

U.S. Construction Activity Trends¹

OVERALL CONSTRUCTION SPEND

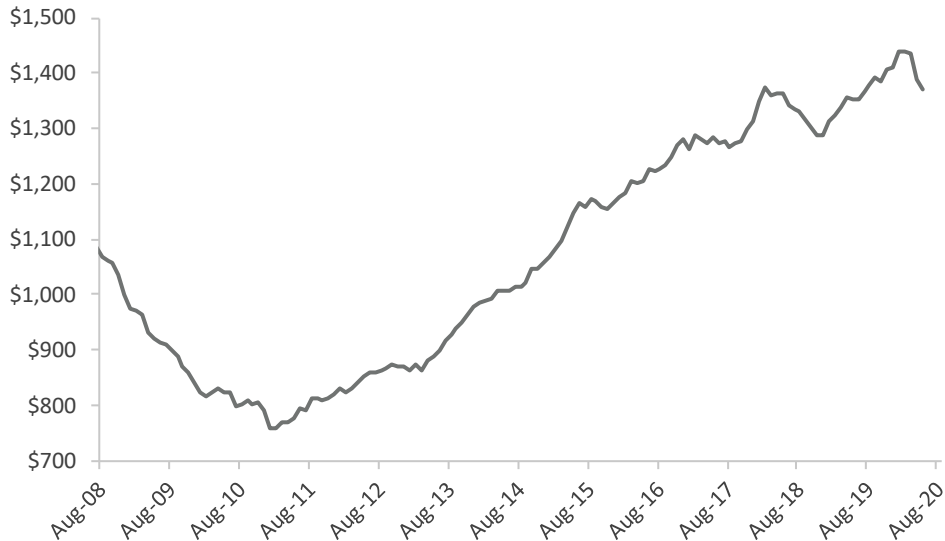
- The value of construction put in place in Q3 was \$1,413B, a slight increase from the previous quarter
- The growth in construction volume was driven mainly by increases in the residential and commercial construction sectors
- Residential construction continues to be the largest contributor to construction activity, accounting for 40% of total construction spend, as the U.S. manages through a lack of inventory in single-family and multifamily housing

CONSTRUCTION EMPLOYMENT

- Employment in the construction industry was 7.2M in Q3, an increase 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 has significantly declined from its peak in April 2020, as it returns to pre-COVID levels

TOTAL U.S. CONSTRUCTION PUT IN PLACE

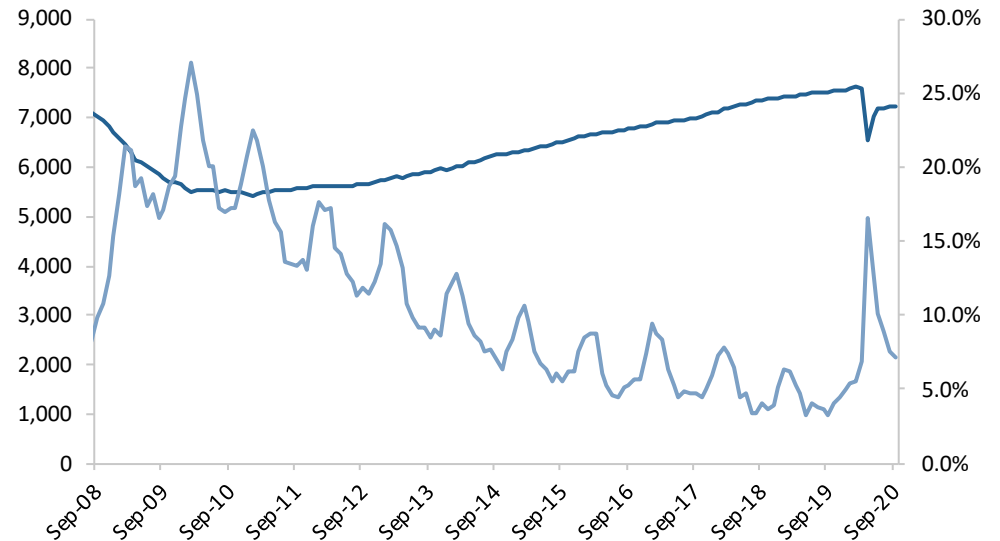
(\$ in billions)



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

U.S. CONSTRUCTION EMPLOYMENT

(in 000's)



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

Public Market Observations²

As of September 30, 2020

Core AEC

Key Public Comps

Stock Price Performance

Trading Metrics (Median)

LTM Rev.	Enterprise Value / LTM EBITDA	2020P EBITDA
10.8x	43.8x	36.9x

As of 9/30

Product Design / Engineering

Key Public Comps

Stock Price Performance

Trading Metrics (Median)

LTM Rev.	Enterprise Value / LTM EBITDA	2020P EBITDA
9.1x	42.3x	29.8x

As of 9/30

CONSTRUCTION - REFERENCE ONLY

Construction

Key Public Comps

Residential

Engineering, Procurement, and Construction

Pub.-Priv. Infrastructure

Stock Price Performance

Trading Metrics (Median)

LTM Rev.	Enterprise Value / LTM EBITDA	2020P EBITDA
1.6x	10.8x	9.5x
0.5x	9.4x	9.9x
1.5x	11.6x	11.7x

As of 9/30

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

Closed: October 1, 2020



Emerson Electric's Acquisition of Open Systems International (OSI)

- › OSI is a provider of power grid management software to utility companies across the global power industry.
- › The Company's solutions are used to monitor, control, and optimize the real-time operation of large-scale power grids.
- › The acquisition of OSI will expand Emerson's current portfolio of solutions for utility customers, providing them with increased visibility into the current status of their power systems and enabling them to optimize energy efficiency from generation through customer delivery.

Closed: October 1, 2020



Autodesk's growth investment in Bridgit

- › Bridgit is a provider of construction workforce planning software for residential and commercial builders to manage workload tasks.
- › The Company's platform provides builders with the ability to manage workforce utilization and capacity, resource allocation, skills tracking, and employee scheduling while providing a real-time view of workforce allocation.
- › Bridgit plans to use Autodesk's investment to increase the pace of technology innovation, add new partner integrations, and build additional features to help contractors understand their workforce utilization and resource planning.

Announced: August 31, 2020



Clayton, Dubilier & Rice's pending acquisition of Epicor Software

- › Epicor Software is a provider of ERP software for the manufacturing, distribution, retail, and services sectors.
- › The Company provides ERP software, retail management, content management, e-commerce, and other back-end business management software to over 20,000 customers globally.
- › Post-acquisition, CD&R will continue to support Epicor's growth through investments to expand the existing product portfolio and enhance their ability to support an ever-increasing range of customer needs.

Closed: August 31, 2020



Thoma Bravo's acquisition of Foundation Software

- › Foundation Software is a provider of construction accounting and payroll software for small and mid-sized general and specialty contractors.
- › The Company's solution offers tools for project management, payroll processing, and construction accounting.
- › Following the acquisition, Foundation Software will leverage Thoma Bravo's capital and expertise in enterprise software to accelerate growth and further product development to enhance their portfolio of solutions for contractors.

Closed: August 17, 2020



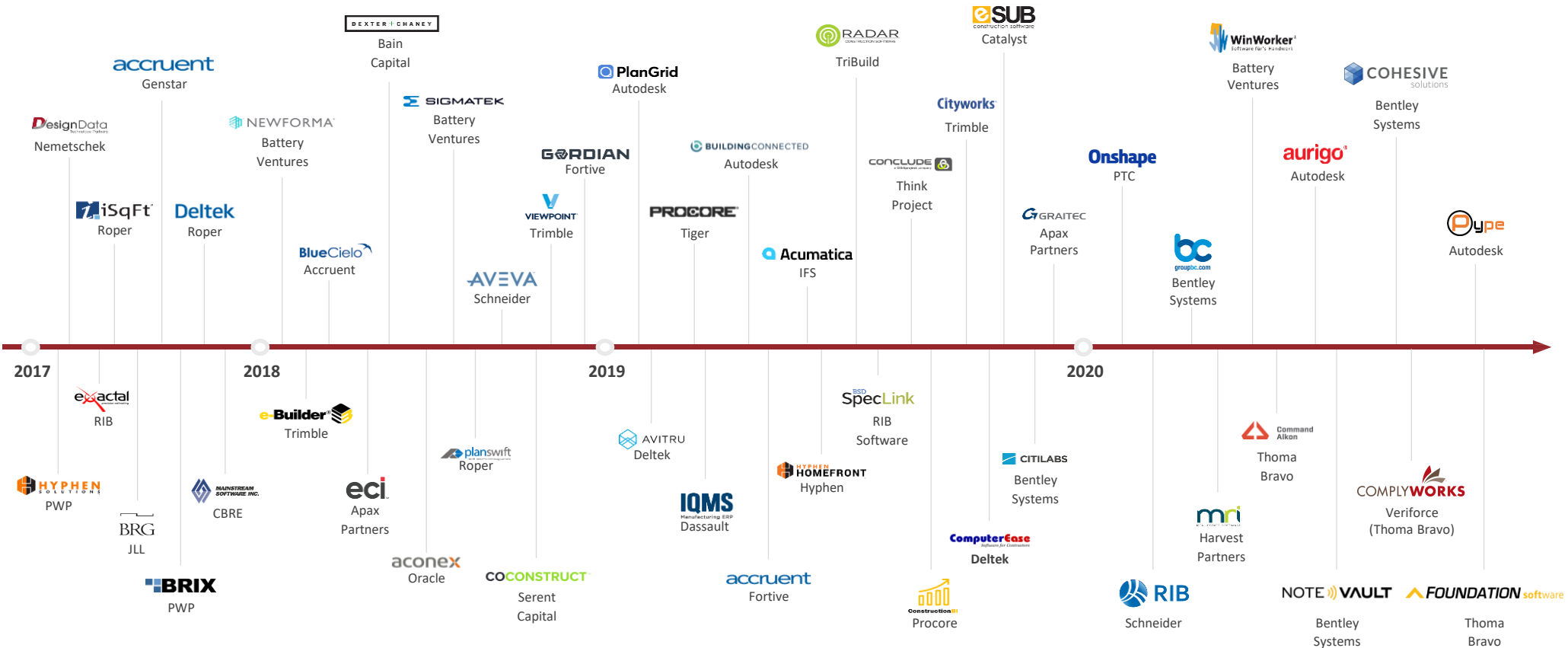
Autodesk's acquisition of Pype

- › Pype is a provider of cloud-based solutions for automating construction project management workflows.
- › The Company's solution uses AI and machine learning to extract and process data from project plans and specifications to gain insights on project management workflows.
- › Following the acquisition, Pype will be integrated into the Autodesk Construction Cloud, allowing general contractors, subcontractors, and owners to automate workflows and project closeouts and reduce risk throughout the project life cycle.

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

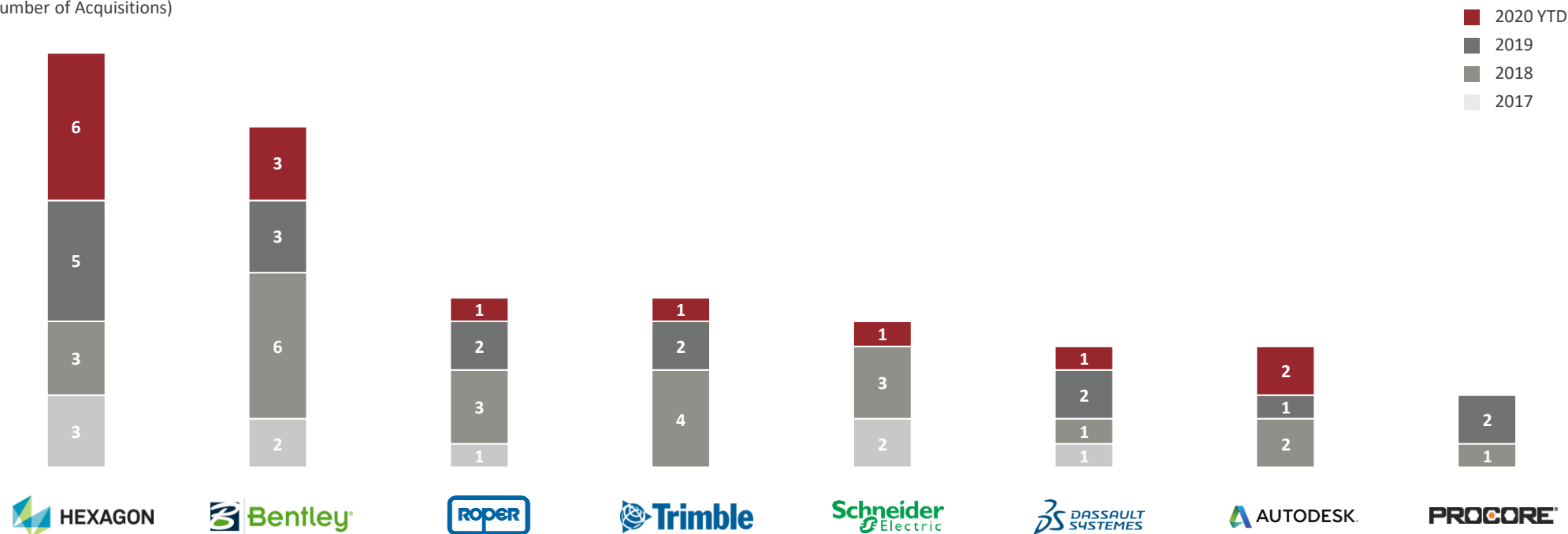


Most Active AEC Software Consolidators^{3,4}

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
Pending	Ubimax	TeamViewer	Provider of industrial wearable computing solutions, hardware, and services for construction managers and workers, engineers, and architects	\$160	NM	NM
Pending	OSIsoft	AVEVA	Provider of enterprise infrastructure systems to manage assets, mitigate risks, and identify new market opportunities for various industries	\$5,020	10.3 x	NM
Pending	Trimble (Construction Logistics Business)	Command Alkon (Thoma Bravo)	Provider of centralized, fleet tracking and scheduling solutions for delivery managers	NA	NM	NM
10/14/2020	Epicor Software	Clayton, Dubilier & Rice	Provider of enterprise application software and services for the manufacturing, distribution, retail, and services sectors	\$4,700	NM	NM
10/01/2020	Open Systems International	Emerson	Provider of management solutions for production, transport, and delivery networks in the transportation, energy, and utility industries	\$1,600	9.6 x	NM
09/22/2020	SEMS Technologies	CarteGraph Systems (Pamlico)	Provider of water and wastewater utility software for municipalities, public works, and utilities	NA	NM	NM
09/14/2020	MidStates VRS	Trimble	Provider of real-time kinematic quality corrections through cellular connections for agriculture, construction, and survey customers	NA	NM	NM
09/01/2020	Everwin	Harris Computer	Provider of business management software tools for industrial and construction service companies	NA	NM	NM
09/01/2020	ThermoGRID	ECi Software Solutions (Apax)	Provider of HVAC software for small businesses and contractors	NA	NM	NM
08/31/2020	Foundation Software	Thoma Bravo	Provider of construction accounting software and payroll services for small-to mid-sized specialty contractors	NA	NM	NM
08/19/2020	Symbrio	Volaris Group	Provider of cloud-based purchasing and invoice management software for construction and installation industries	NA	NM	NM
08/18/2020	ComplyWorks	Veriforce (Thoma Bravo)	Provider of compliance management services for the entire compliance life cycle	NA	NM	NM
08/18/2020	PiSA Sales	BID Equity	Provider of CRM and price quote software solutions for construction and construction supply companies	NA	NM	NM
08/17/2020	Pype	Autodesk	Provider of accounting software solutions for general contractors in the construction industry	NA	NM	NM
08/12/2020	InspectAR Augmented Interfaces	Cadence Design Systems	Provider of an augmented reality application software for electrical engineers and electronic technicians	NA	NM	NM
08/05/2020	Cimex	Arden Software	Provider of CAD and CAM software products for the laser job market	NA	NM	NM
07/13/2020	Cohesive Solutions	Bentley Systems	Provider of asset management software and consultant services for asset and business performance across various industries	NA	NM	NM
07/10/2020	RIB Software	Schneider Electric	Provider of ERP and building information management software solutions for the construction industry	\$1,446	6.2 x	NM
07/01/2020	TACTICAWARE	Hexagon AB	Provider of a LiDAR-based, three-dimensional surveillance software solution for commercial and residential buildings	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
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
03/11/2020	GroupBC	Bentley Systems	Provider of data and information management software for construction project and built asset management	NA	NM	NM

Recent AEC Software Private Placements^{3,4}

SELECT PRIVATE PLACEMENTS

Date	Company	Round Type	Round Size (\$M)	Raised to Date	Investors	Description
09/21/2020	 REDTEAM	Growth	\$5.0	\$6.9	JettyCove	Provider of a construction management software to organize and manage project workflows for the construction industry
09/16/2020	 Remato	Angel	\$0.5	\$0.7	Zenith Capital; Lemonade Stand; Thorgate Ventures	Provider of construction management software for construction entrepreneurs
09/10/2020	 FieldChat	Venture	ND	ND	Round 13 Capital, Inc.	Provider of construction communication software for general contractors and subcontractors
09/08/2020	 HYPAR	Seed	ND	\$2.5	Undisclosed	Provider of building design solutions for architecture, engineering, and construction developers
08/25/2020	 skrap	Seed	\$1.2	\$3.0	Vanneck	Provider of an on-demand construction platform for the entire construction hire supply chain
08/25/2020	 TANGO builder	Accelerator	\$0.1	\$0.1	Y Combinator Management	Provider of a structural designing software for the construction industry
08/20/2020	 M SUITE	Seed	\$4.0	\$4.0	Next Level Ventures; Stanley Ventures	Provider of management software to connect BIM, fab, and field construction teams
08/11/2020	 SCHUTTLIX	Seed	\$9.2	\$9.2	Speedinvest	Provider of a digital marketplace and delivery platform for bulk construction materials
08/10/2020	 INREAL	Growth	\$3.0	\$3.0	BitStone Capital; Signa Holding; Sontowski & Partner Group	Provider of 3-D simulation and product presentation software solutions for residential and commercial builders
07/28/2020	 ToolSense	Seed	\$3.4	\$3.5	b-to-v Partners	Provider of a live-tracking and sensor data-analytics platform for contractors
07/27/2020	 KloudGin	Series A	\$8.3	\$8.3	Cloud Apps Capital Partners	Provider of field service, asset, and inventory management solutions
07/27/2020	 OPENSOURCE	Series B	\$15.9	\$32.7	Menlo Ventures	Provider of a machine vision solution for the construction industry
07/23/2020	 CITIRI	Series A	ND	ND	RCP Equity	Provider of an airport operational readiness software for construction owners
07/21/2020	 reINVENT	Series A	ND	ND	Alternative Strategic Investments; Astutia Ventures; Bayern Kapital	Provider of a digital communication platform for construction projects
07/14/2020	 bridgit	Growth	\$7.0	\$16.8	Autodesk	Provider of construction resource management software for contractors

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

AEC Trading Comparables²

VALUATION AND OPERATING METRICS

As of September 30, 2020 (\$ in millions, excl. stock price)

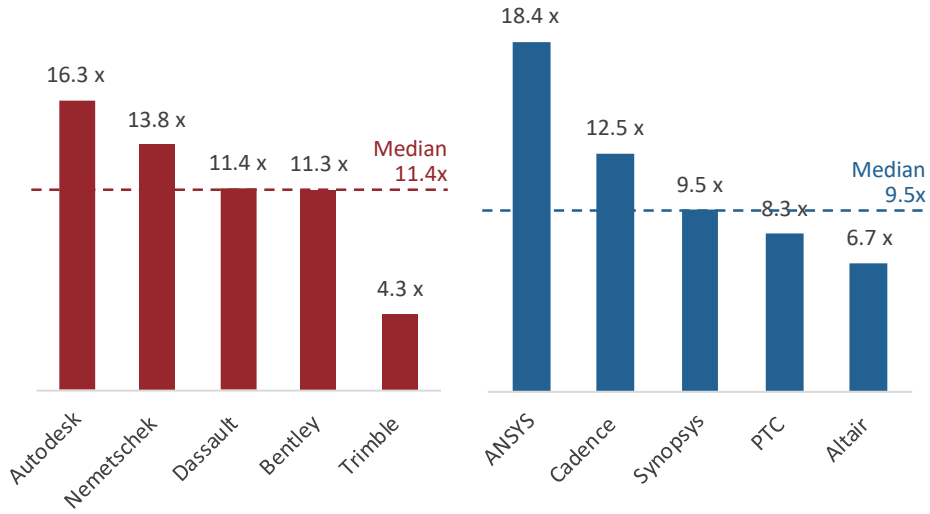
	Mkt Cap	TEV	Stock Performance		LTM				TEV / EBITDA	
			Current Price	% of LTM High	Revenue	% Growth	EBITDA	Margin	LTM	2020P
CORE AEC										
Autodesk, Inc.	\$50,656	\$51,219	\$231.01	88.2%	\$3,541	20.8%	\$630	17.8%	81.3x	44.1x
Dassault Systèmes SE	48,893	51,433	187.59	97.3%	5,186	22.6%	1,174	22.6%	43.8x	29.8x
Trimble Inc.	12,186	13,935	48.70	89.3%	3,134	(3.2%)	627	20.0%	22.2x	20.0x
Nemetschek SE	8,477	8,639	73.39	84.1%	651	11.3%	147	22.6%	58.7x	44.8x
Bentley Systems, Incorporated	8,203	8,334	31.40	88.8%	768	279.3%	216	28.1%	38.6x	NA
Core AEC Median	\$12,186	\$13,935	\$73.39	88.8%	\$3,134	20.8%	\$627	22.6%	43.8x	36.9x
PRODUCT DESIGN / ENGINEERING										
Synopsys, Inc.	\$32,474	\$32,103	\$213.98	93.0%	\$3,511	6.2%	\$758	21.6%	42.3x	25.7x
Cadence Design Systems, Inc.	29,728	29,235	106.63	90.7%	2,523	9.4%	719	28.5%	40.7x	29.8x
ANSYS, Inc.	28,073	27,874	327.23	92.2%	1,521	9.4%	517	34.0%	53.9x	41.1x
PTC Inc.	9,605	10,543	82.72	84.7%	1,402	13.7%	290	20.7%	36.3x	23.5x
Altair Engineering Inc.	3,069	3,036	41.98	94.7%	454	7.0%	24	5.2%	127.6x	82.0x
Product Design / Engineering Median	\$28,073	\$27,874	\$106.63	92.2%	\$1,521	9.4%	\$517	21.6%	42.3x	29.8x
AEC Software Median	\$20,129	\$20,905	\$94.68	90.0%	\$2,022	10.3%	\$572	22.1%	43.1x	29.8x
CONSTRUCTION - FOR REFERENCE ONLY										
Residential										
D.R. Horton, Inc.	\$27,507	\$29,880	\$75.63	97.7%	\$18,950	11.1%	\$2,623	13.8%	11.4x	9.9x
Lennar Corporation	25,504	30,826	81.68	98.7%	\$22,634	4.1%	3,004	13.3%	10.3x	9.0x
NVR, Inc.	15,117	14,408	4,083.12	94.6%	\$7,136	(3.1%)	1,021	14.3%	14.1x	14.2x
PulteGroup, Inc.	12,414	13,864	46.29	96.4%	\$10,616	4.8%	1,635	15.4%	8.5x	7.5x
Median	\$20,311	\$22,144	\$78.66	97.0%	\$14,783	4.4%	\$2,129	14.1%	10.8x	9.5x
Engineering, Procurement, and Construction										
Jacobs Engineering Group Inc.	12,079	13,893	92.77	89.2%	\$13,440	8.9%	1,123	8.4%	12.4x	13.2x
Skanska AB (publ)	8,730	8,504	21.19	78.9%	\$18,730	0.4%	1,174	6.3%	7.2x	7.7x
WSP Global Inc.	7,433	8,487	65.63	89.1%	\$6,456	(0.1%)	536	8.3%	15.8x	10.9x
AECOM	6,711	8,497	41.84	79.8%	\$19,715	27.7%	975	4.9%	8.7x	11.6x
HOCHTIEF Aktiengesellschaft	5,359	7,143	78.03	54.5%	\$29,022	3.3%	1,449	5.0%	4.9x	3.7x
KBR, Inc.	3,183	3,895	22.36	70.1%	\$5,799	8.0%	390	6.7%	10.0x	8.9x
SNC-Lavalin Group Inc.	2,813	3,736	16.02	62.1%	\$6,654	(10.9%)	361	5.4%	10.3x	10.8x
John Wood Group PLC	1,847	3,588	2.75	49.9%	\$9,187	(7.1%)	481	5.2%	7.5x	5.6x
Median	\$6,035	\$7,815	\$32.10	74.5%	\$11,314	1.8%	\$756	5.8%	9.4x	9.9x
European Public - Private Partnerships										
VINCI SA	48,217	79,649	83.98	66.6%	\$51,411	(2.5%)	6,876	13.4%	11.6x	11.7x
Ferrovial, S.A.	17,898	23,392	24.37	68.0%	\$7,162	11.6%	297	4.1%	78.7x	49.6x
Atlantia SpA	12,900	72,191	15.77	57.8%	\$11,898	0.1%	5,450	45.8%	13.2x	13.6x
Bouygues SA	13,232	21,015	34.78	71.7%	\$39,703	(6.8%)	3,265	8.2%	6.4x	6.4x
Eiffage SA	8,132	23,008	81.99	62.5%	\$19,083	(6.6%)	2,607	13.7%	8.8x	8.4x
Median	\$13,232	\$23,392	\$34.78	66.6%	\$19,083	(2.5%)	\$3,265	13.4%	11.6x	11.7x
Construction Median	\$12,079	\$13,893	\$46.29	71.7%	\$13,440	0.4%	\$1,174	8.3%	10.3x	9.9x

Public Comparables: Revenue Multiples²

CORE AEC AND PRODUCT DESIGN / ENGINEERING METRICS

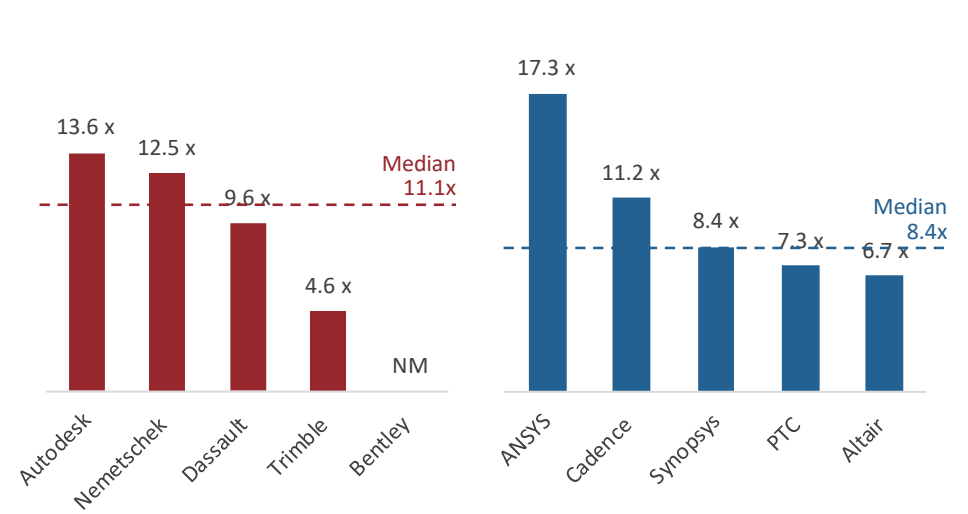
EV / CY2019 REVENUE MULTIPLES

■ Core AEC ■ Product Design / Engineering



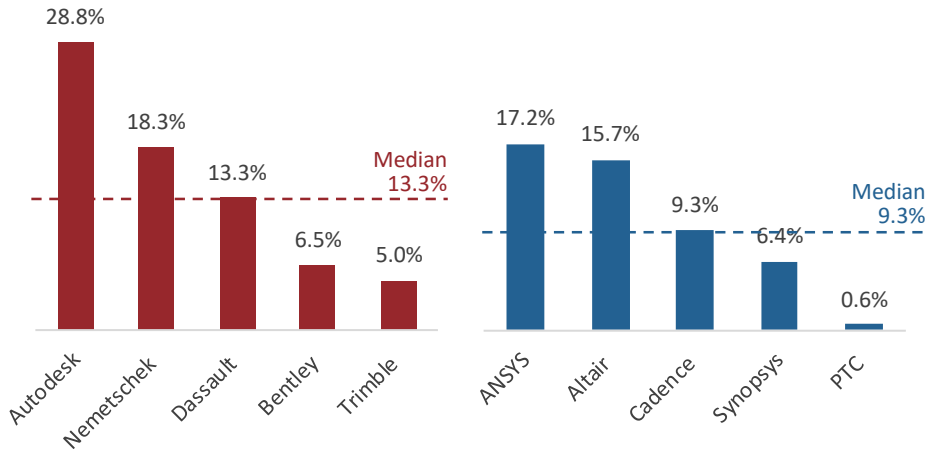
EV / CY2020P REVENUE MULTIPLES

■ Core AEC ■ Product Design / Engineering



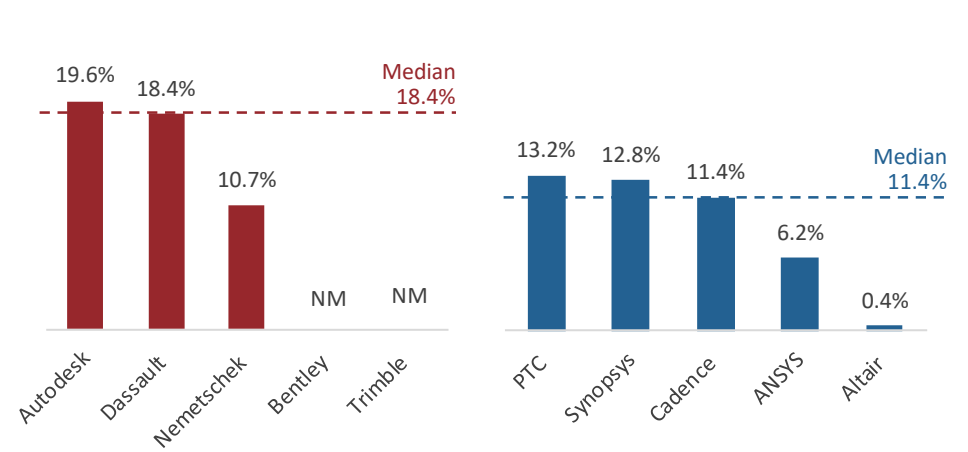
CY2019 REVENUE GROWTH RATES

■ Core AEC ■ Product Design / Engineering



CY2020P REVENUE GROWTH RATES

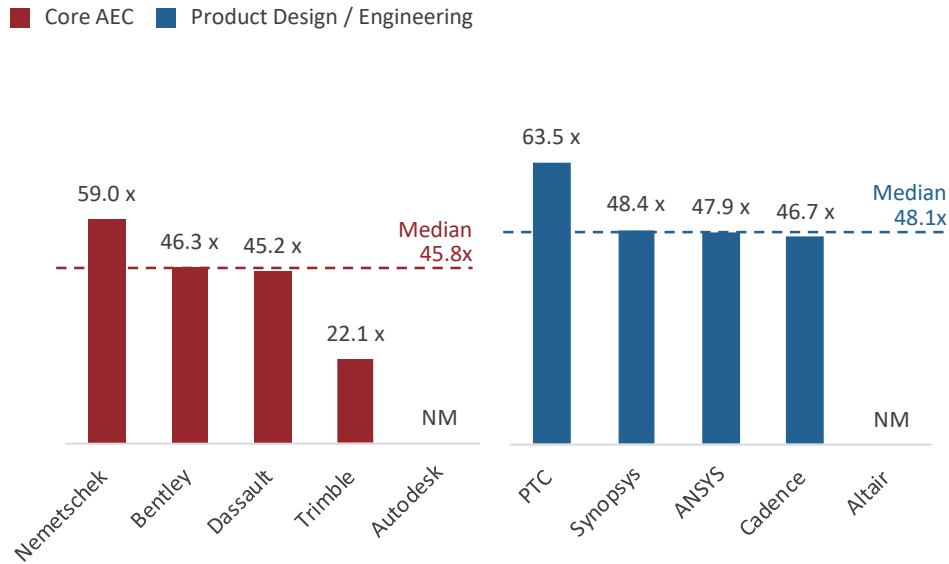
■ Core AEC ■ Product Design / Engineering



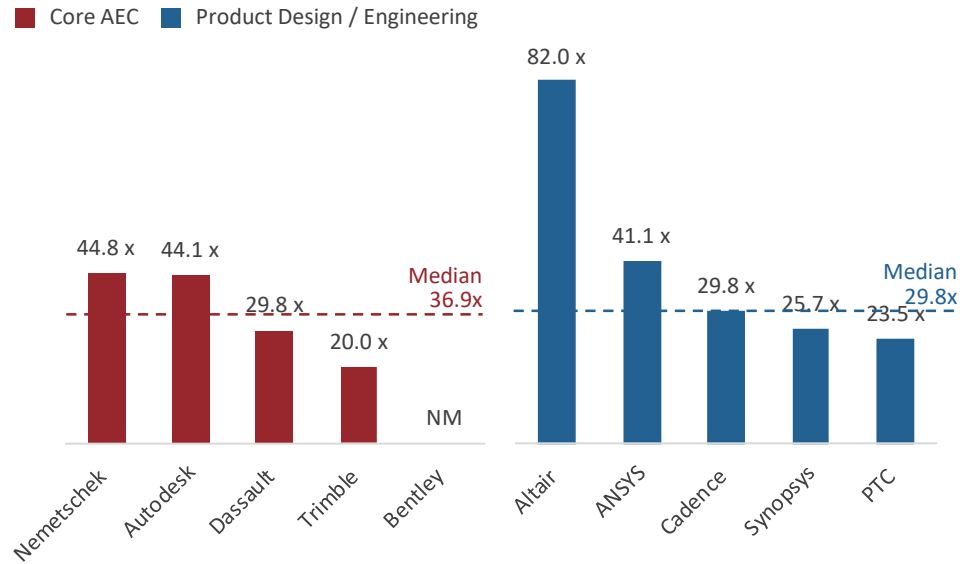
Public Comparables: EBITDA Multiples²

CORE AEC AND PRODUCT DESIGN / ENGINEERING METRICS

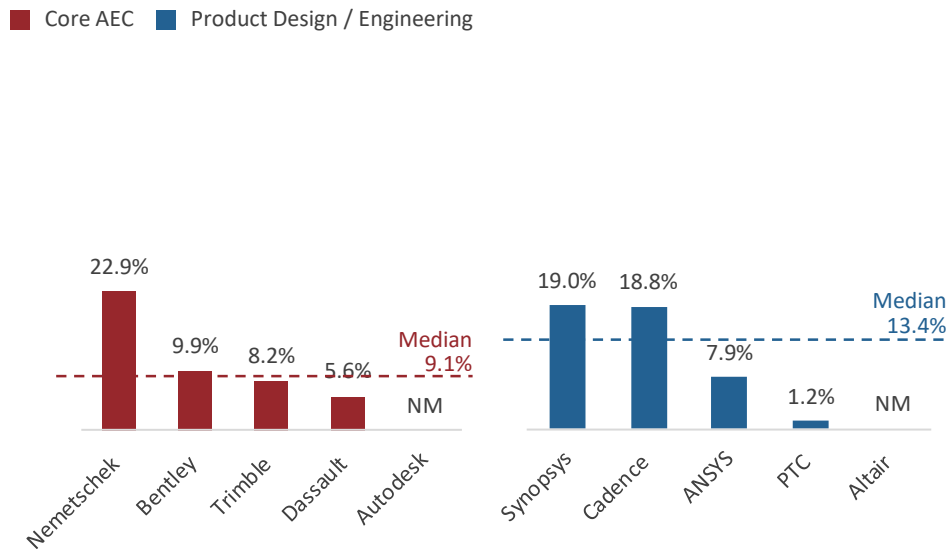
EV / CY2019 EBITDA MULTIPLES



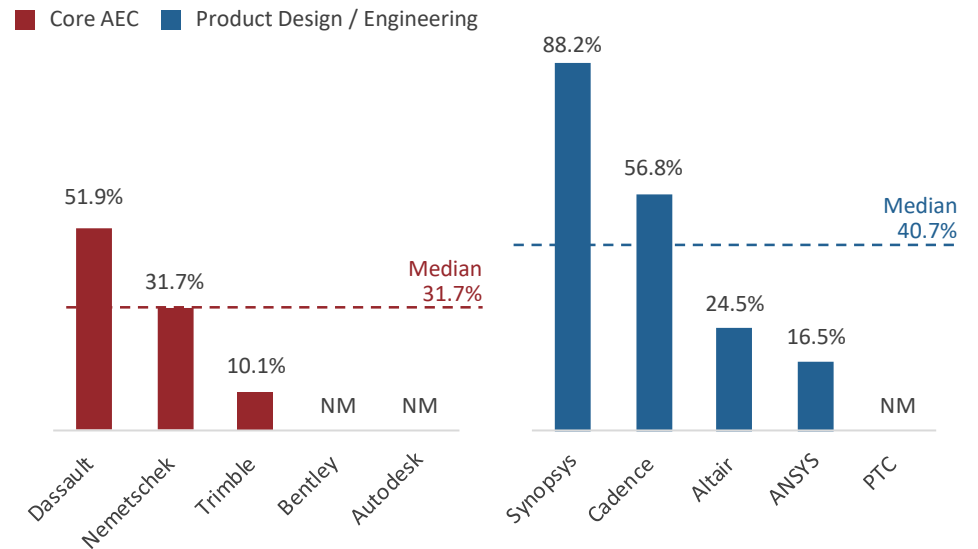
EV / CY2020P EBITDA MULTIPLES



CY2019 EBITDA GROWTH RATES



CY2020P EBITDA GROWTH RATES



AEC Software Landscape

TO VIEW FULL MARKET MAP PLEASE CONTACT:
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ERP PLATFORMS

DESIGN

PLAN

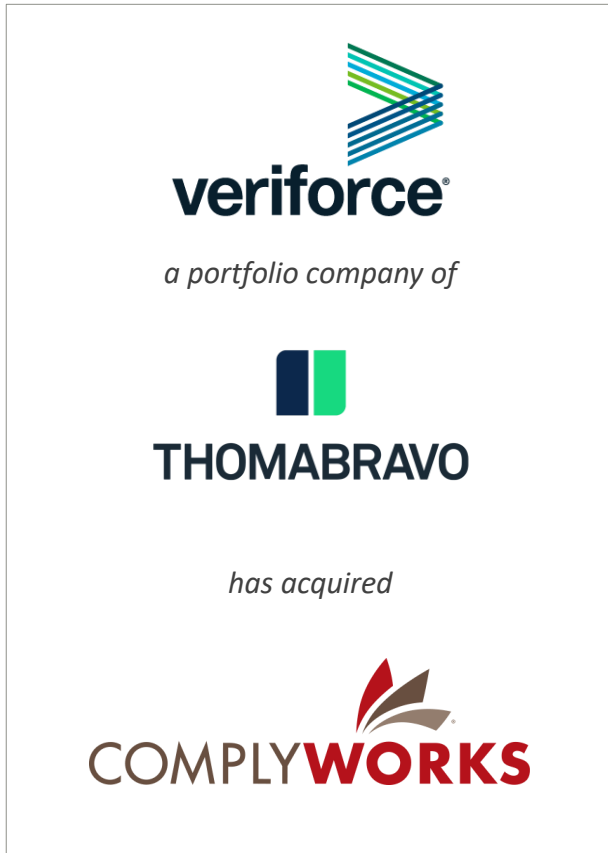
BUILD

DATA

MOBILE AND FIELD

Case Study: ComplyWorks

HW recently advised Veriforce, a portfolio company of Thoma Bravo, on its acquisition of ComplyWorks



TRANSACTION OVERVIEW

ComplyWorks is a premier provider of web-based solutions that cover the entire compliance life cycle from contractor management to workforce management, worksite management, and payment.

ComplyWorks' SaaS platform has global capabilities and local deployment to offer web-based governance, risk management, and compliance (GRC) services, helping employers and suppliers manage the compliance of their suppliers, sub-contractors, workforces, and worksites. Today, ComplyWorks has clients in over 120 countries.

Veriforce is a leader in delivering comprehensive, integrated supply chain risk management solutions that help bring workers home safely and optimize business performance. With the acquisition of ComplyWorks, the combined platform will serve 800 companies in 120 countries and engage with an estimated 50,000 contractors and millions of individuals.

RELEVANT SUB-SECTORS

COMPLIANCE

SAAS

ARCHITECTURE, ENGINEERING,
AND CONSTRUCTION SOFTWARE

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Case Study: ComputerEase

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



has been acquired by



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 companies' 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

 **BANNEKER**
PARTNERS

has been acquired by

 **DASSAULT**
SYSTEMES

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)

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