

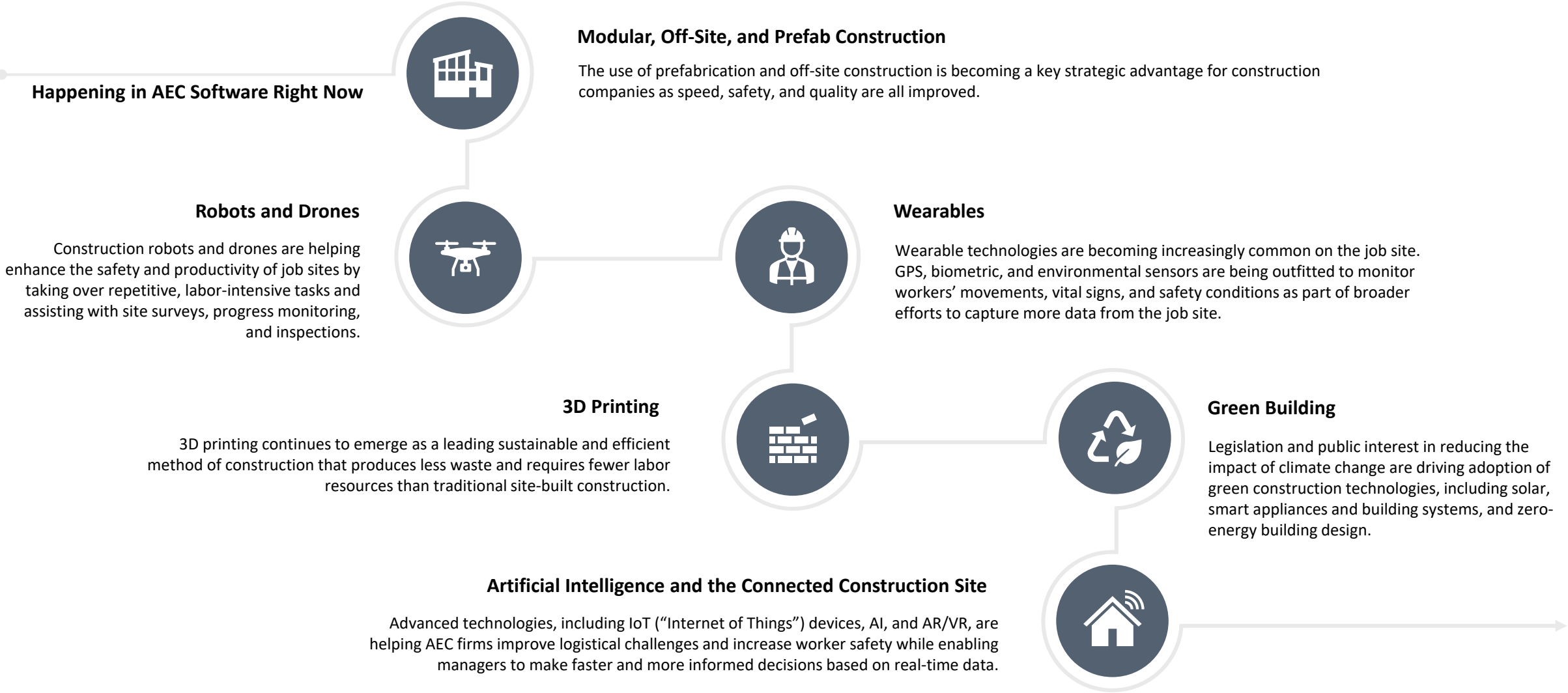


Architecture, Engineering, and Construction (AEC) Software Sector Brief

Harris Williams | Q3 2023

Key Trends in the AEC Software Market

The construction industry continues to embrace new technology and digital transformation efforts to improve safety, efficiency, and profitability.



Perspectives on the AEC Software Landscape



What We're Reading

Construction Industry Has Work, Needs More Workers

Wall Street Journal – April 10, 2023

Spending on construction has increased despite a recent decline in residential construction. This decline was more than offset by the growth in nonresidential construction, primarily industrial / manufacturing facilities, infrastructure / public-works projects, and warehouse locations. The aging construction workforce has not kept up with this increased demand, leading to a growing backlog of projects for builders.

Read the full article [here](#).

Amid High Inflation, the Supply Chain Is Ripe for Optimizing

Construction News UK – June 1, 2023

The U.K. construction industry has had a budget problem for years, with mega-projects routinely running over budget by upward of 30%. This issue has been exacerbated by record inflation leading to increasingly tight margins. As a result, supply chain visibility and efficient project management have become paramount, and companies that can facilitate this are quickly gaining traction.

Read the full article [here](#).

Seven Construction Technology Trends Shaping the Industry in 2023

Planning, Building & Construction Today – June 15, 2023

The construction industry has been undergoing a digital transformation driving toward a more data-driven and sustainable future. There has been an increase in the use and quality of digital twins, BIM software, AI, and data management. These advancements will allow the construction industry to capture significant cost savings, improve overall quality, and facilitate more sustainable practices.

Read the full article [here](#).

How the Construction Industry Is Adopting AI

JLL – June 26, 2023

AI and cloud-based technologies are expected to play an ever-increasing role in the construction space, aiming to minimize delays, mitigate rising costs, and address a labor shortage. The new tools and technologies are focused primarily on the project management function, for which improvements to resource allocation, budgeting, and planning can lead to significant cost and time savings during construction.

Read the full article [here](#).

Recent Harris Williams Publications

- **Sector Update: Engineering & Construction | Q3 2023**



[Link to Read](#)

- **Opportunities in the Energy Transition | Q2 2023**



[Link to Read](#)

- **Residential Services Sector Brief | Q3 2023**



[Link to Read](#)

Select Recent AEC Software Transactions

Foundation's (Thoma Bravo) acquisition of AboutTime Technologies



Closed: May 4, 2023

- AboutTime is a provider of mobile resource management and employee time-tracking software designed to facilitate field-to-office communication for the construction industry.
- This acquisition serves to expand AboutTime's customer base and enables Foundation to provide a more holistic suite of solutions to contractors enhancing their back-office operations.

The Sage Group's acquisition of Corecon Technologies



Closed: May 5, 2023

- Corecon is a provider of preconstruction and project management solutions for contractors, construction managers, and custom homebuilders.
- This acquisition expands Sage Group's offerings in the construction sector by complementing their existing accounting and ERP solutions with a sector-specific project management platform.

Fika Ventures' investment in BuildOps



Closed: May 18, 2023

- BuildOps is a provider of field service management software for commercial service contractors to manage workflows, inventory, quality control, and customer service.
- This investment enables BuildOps to reinvest in their platform and sales team to support and accelerate their projected growth.

KPA's (Providence Equity Partners) acquisition of AnchoRock Solutions



Closed: May 23, 2023

- AnchoRock is a provider of mobile-first safety and compliance management software for the construction industry.
- The acquisition of AnchoRock expands KPA's existing portfolio of EHS software and services by adding an industry-specific solution targeting the construction end market.

Bessemer Venture Partners' investment in Curri



Closed: June 6, 2023

- Curri is a provider of a logistics platform that offers software solutions for middle- and last-mile logistics to construction and industrial companies to move materials, parts, and equipment.
- This investment will enable Curri to accelerate product innovation and speed up new product launches while also funding an expansion in sales and marketing efforts to drive growth.

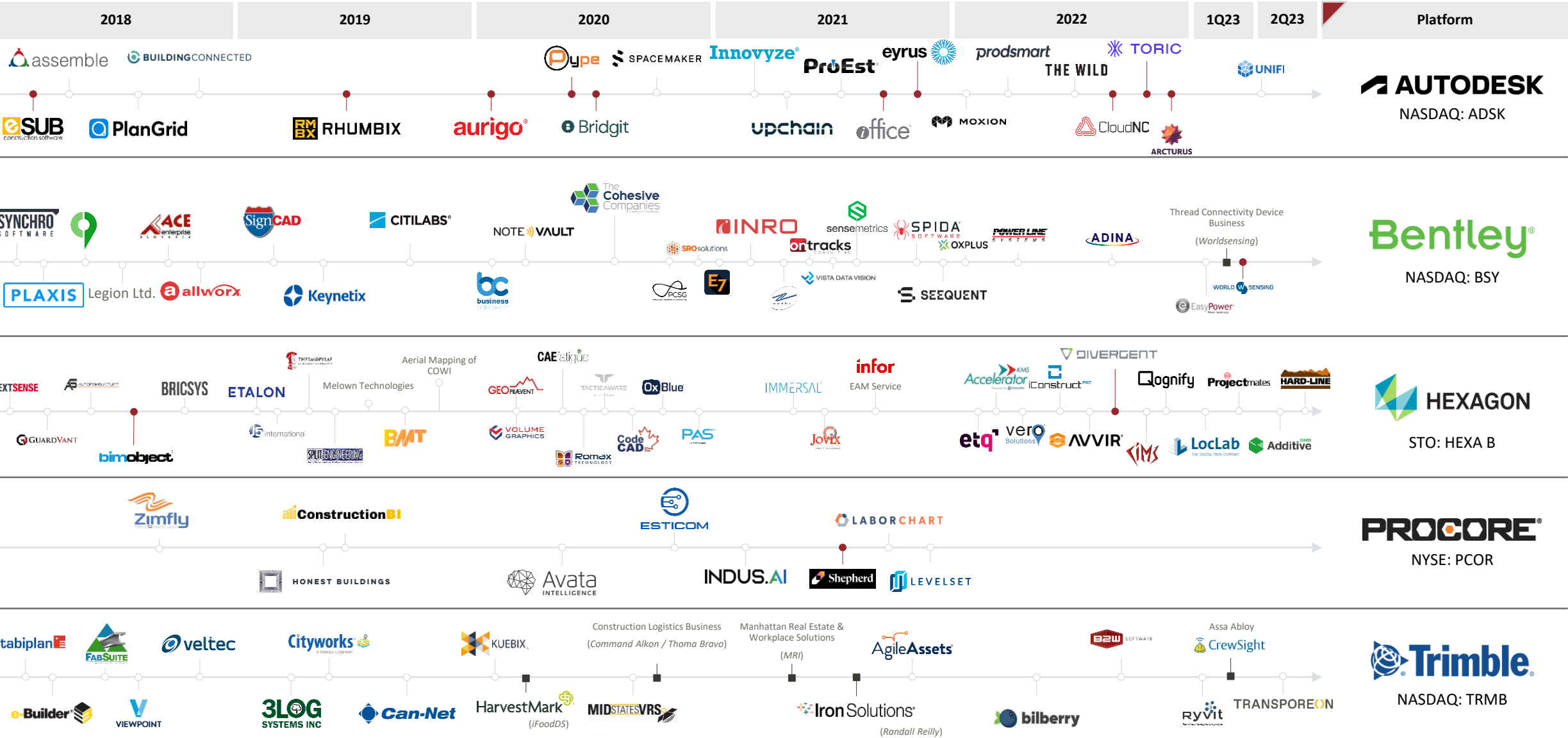
Stirling Square's acquisition of Infobric (Summa Equity)



Closed: June 20, 2023

- Infobric is a provider of a portfolio of construction-focused solutions for managing site safety, equipment, and personnel in Europe.
- This acquisition provides Infobric with the capital needed to continue its growth trajectory by expanding into new geographic markets and accelerating the launch of new software products that enhance the current platform.

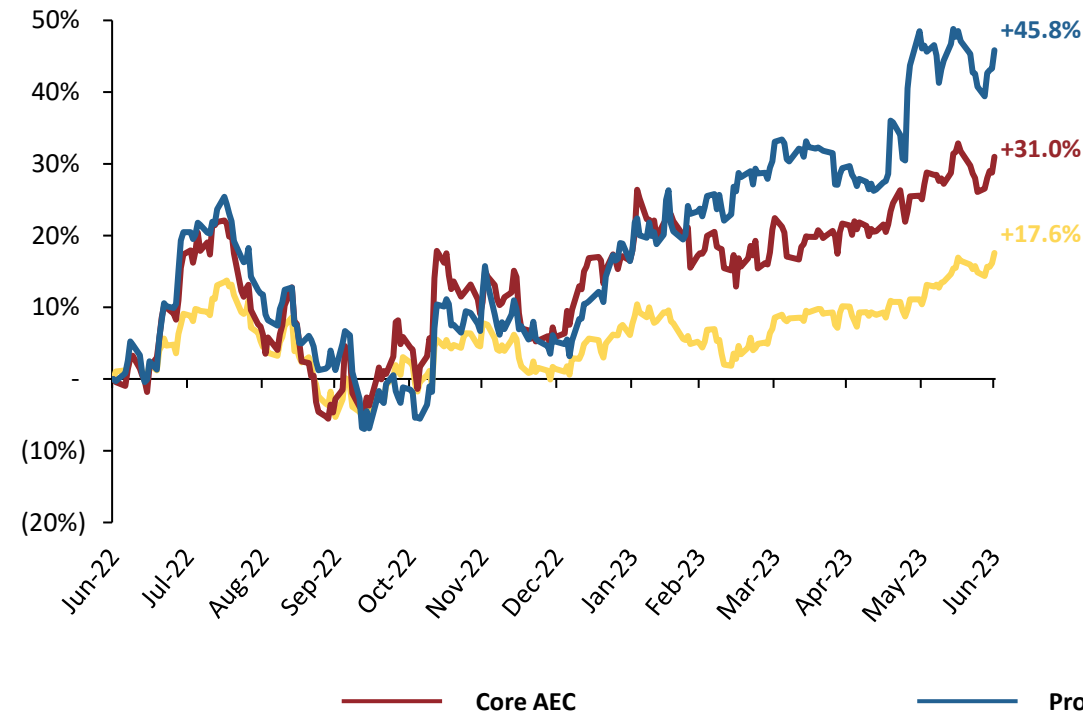
Select Public Company AEC Software Acquisition Activity



AEC Sector Public Company Trended Stock Performance

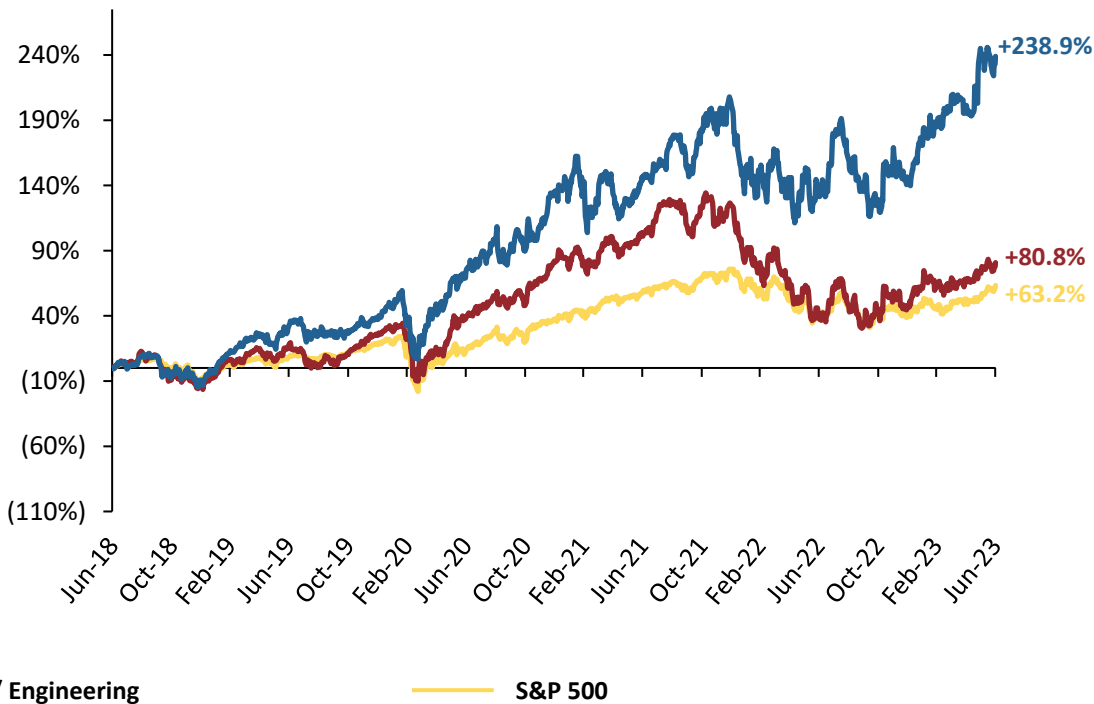
Public Company Stock Performance – Past 12 Months

Indexed stock price performance for the period June 2022 – June 2023



Public Company Stock Performance – 5 Years

Indexed stock price performance for the period June 2018 – June 2023



Core AEC

AUTODESK

NEMETSCHKE GROUP

Bentley®

PROCORE

DASSAULT SYSTEMES

Schneider Electric

HEXAGON

Trimble

Product Engineering / Design

ALTAIR

ptc®

Ansys

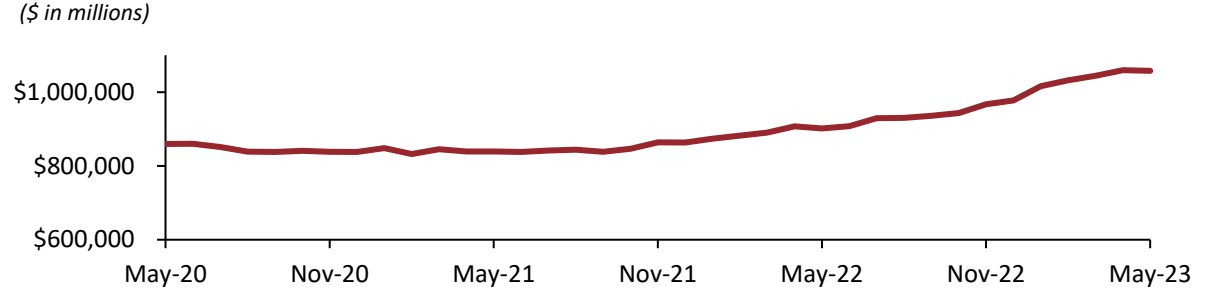
SYNOPSYS®

cā dence®

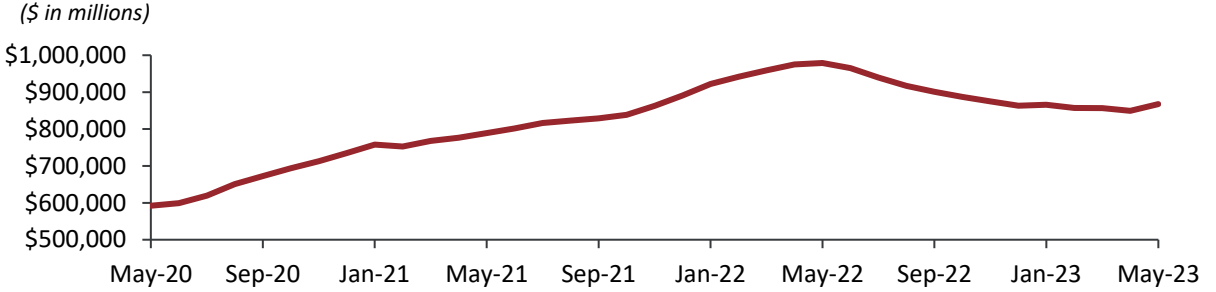
Overall Construction Macroeconomic Environment

U.S. Construction Market

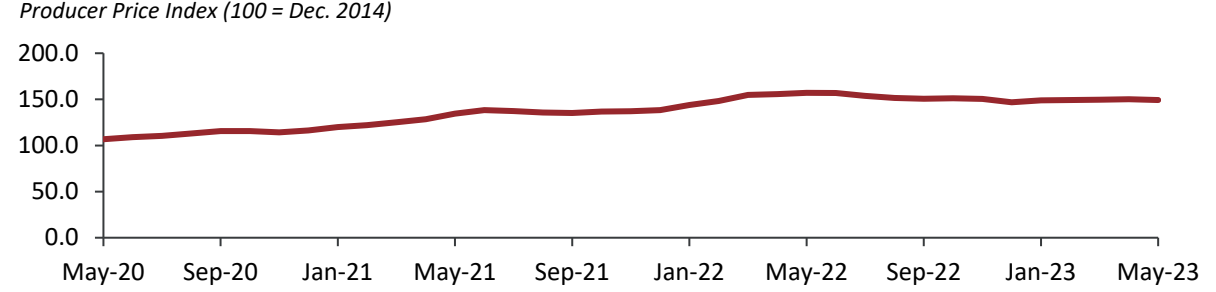
Value of Construction Put in Place – Nonresidential¹
(\$ in millions)



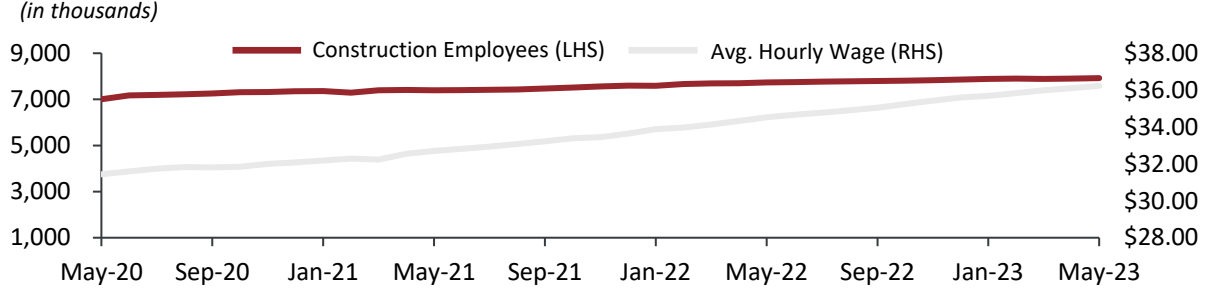
Value of Construction Put in Place – Residential¹
(\$ in millions)



Net Inputs to New Construction²
Producer Price Index (100 = Dec. 2014)

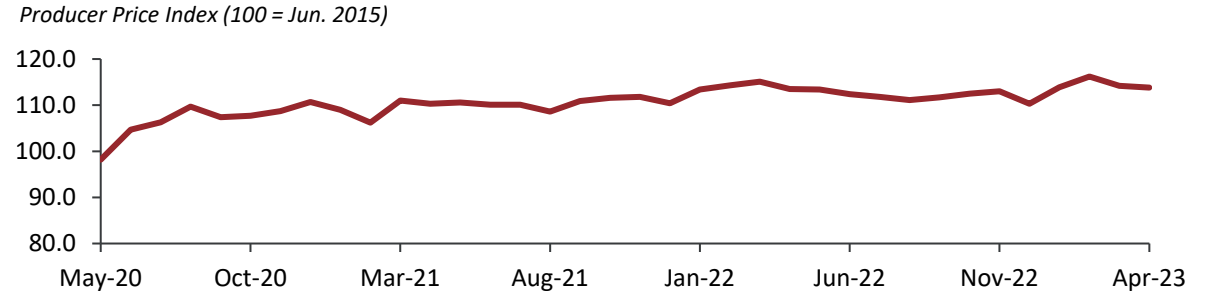


Construction Employment³
(in thousands)

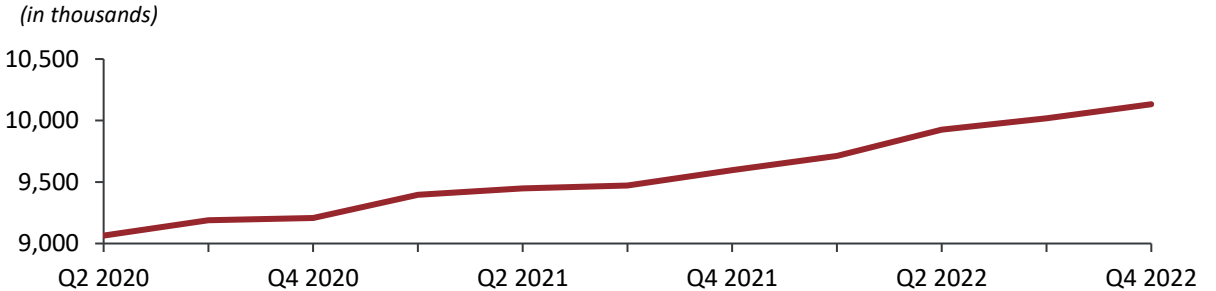


EU Construction Market

EU Total Construction Starts⁴
Producer Price Index (100 = Jun. 2015)



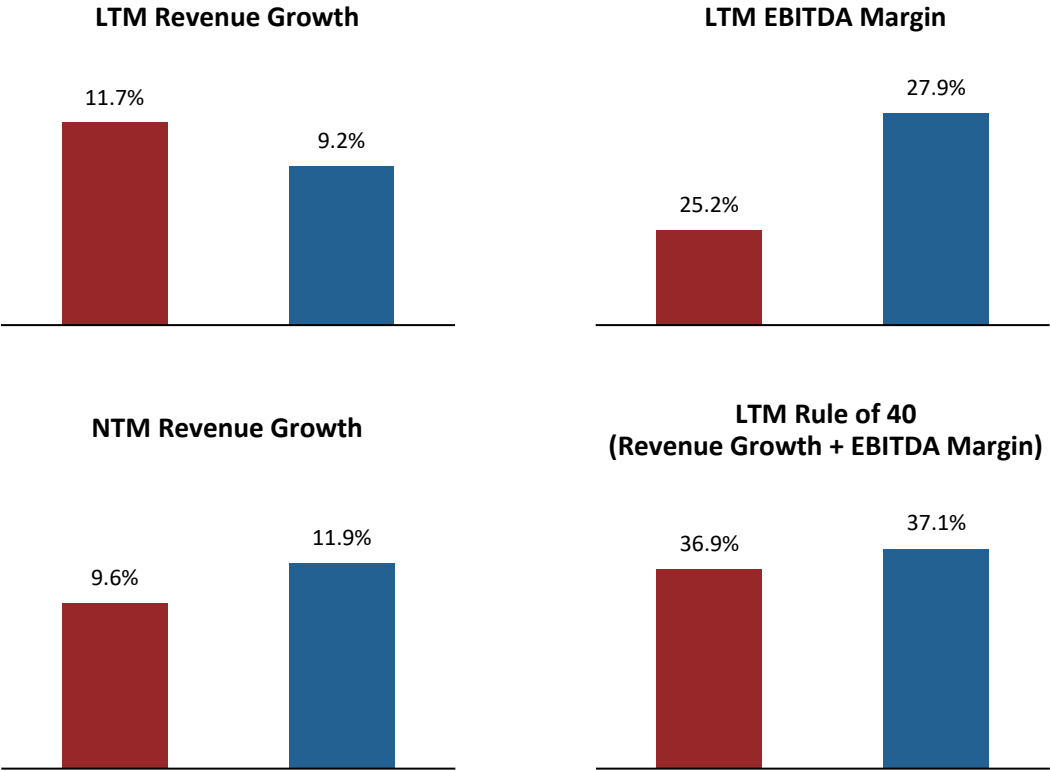
European Construction Employment⁵
(in thousands)



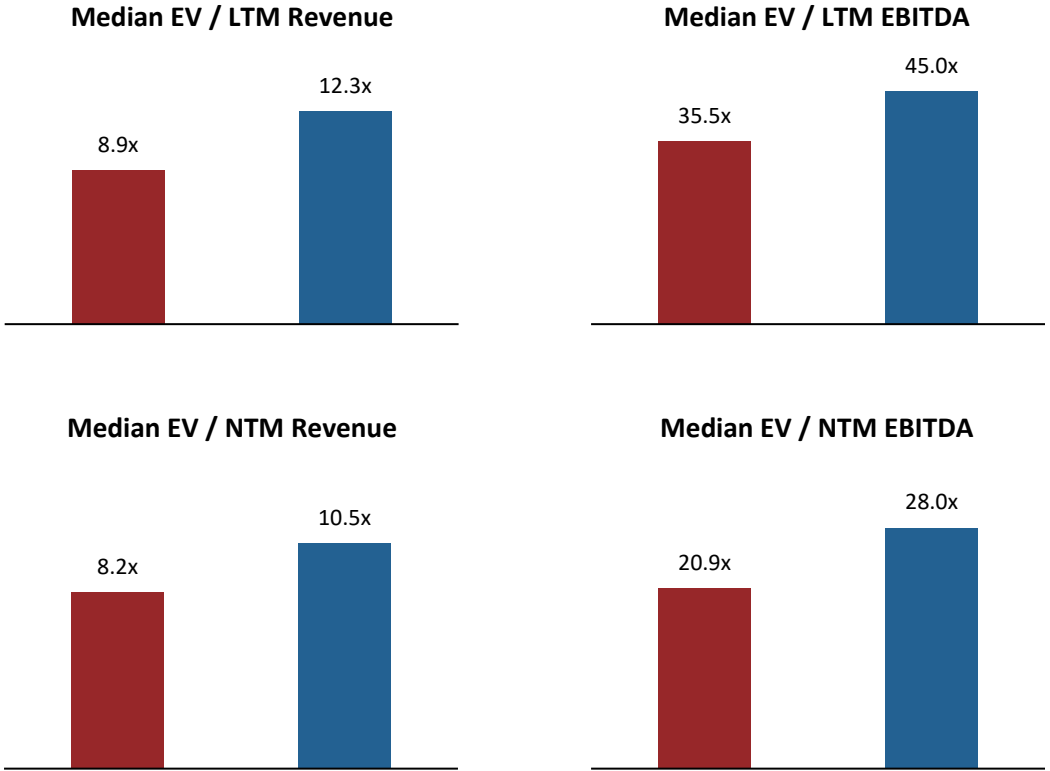
(1) U.S. Census Bureau; (2) U.S. Dept. of Labor – BLS PPI Index for net inputs to new construction, excluding capital investment, labor, and imports (WPUIP231000); (3) U.S. Bureau of Labor Statistics; (4) OECD; (5) OECD Construction Employment Data – Q4 2022 represents latest period available

AEC Public Company Operating and Valuation Metrics

Public Company – Operating Metrics¹



Public Company – Valuation Metrics¹



Core AEC

AUTODESK

Bentley

DASSAULT SYSTEMES

HEXAGON

NEMETSCHKEK GROUP

PROCORE

Schneider Electric

Trimble

Product Engineering / Design

ALTAIR

Ansys

cadence

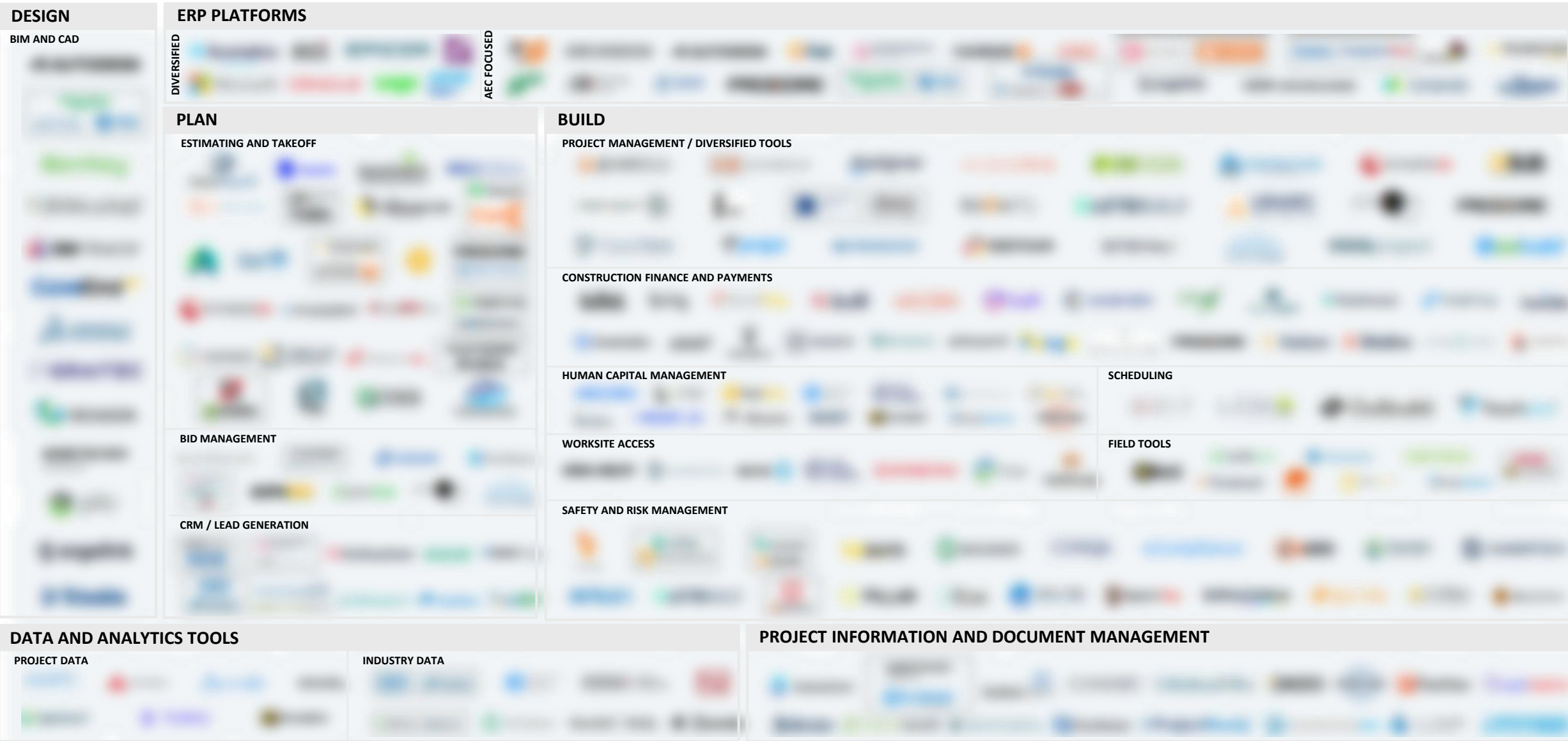
ptc

SYNOPSYS

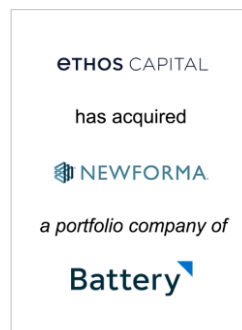
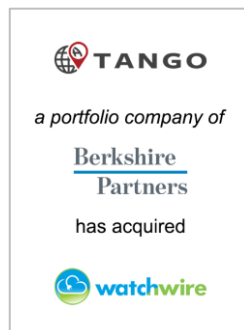
(1) S&P Capital IQ, As of June 30, 2023

AEC Market Landscape

To view full market map, please contact:
TechnologyInsights@harriswilliams.com



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Harris Williams Transaction Experience

 a portfolio company of has been acquired by 	 a portfolio company of has acquired a portfolio company of 	 has acquired a portfolio company of 	 has acquired a portfolio company of 	 a portfolio company of has been recapitalized by 	 a portfolio company of has been acquired by part of 	 a portfolio company of has been acquired by 	 a portfolio company of has been acquired by 	 a portfolio company of has acquired 	 a portfolio company of has been acquired by
Supply Chain / Logistics Technology	HCM Technology	Construction Technology	Healthcare IT	Supply Chain / Logistics Technology	Insurance Technology	SAP Utilities Software & Services	AutoTech / Data	Compliance Software	Oracle Supply Chain Software & Services
 a portfolio company of has been acquired by 	 has received a significant investment from 	 a portfolio company of has received a strategic investment from 	 has made an investment in 	 a subsidiary of a division of has been acquired by 	 a portfolio company of has received a significant growth investment from 	 has acquired a business division of 	 has recapitalized 	 has acquired 	 a portfolio company of has been acquired by
Financial Technology	Education Technology	Supply Chain / Logistics Technology	Compliance Software	Industrial Software	Supply Chain / Logistics Technology	Compliance / Education Technology	Healthcare IT	Healthcare IT	IT Services
 a portfolio company of has been acquired by 	 a portfolio company of has been acquired by 	 a portfolio company of has been acquired by 	 a portfolio company of has been acquired by 	 has acquired a portfolio company of 	 a portfolio company of has been acquired by 	 a portfolio company of has received a significant investment from 	 a portfolio company of has been acquired by a portfolio company of 	 has acquired 	 a portfolio company of has been acquired by
Compliance Software	IT Services	Pharma IT	eCommerce / Retail Technology	Education Technology	Healthcare IT	Supply Chain / Logistics Technology	Education Technology	Compliance Software	Retail Technology
 the artisans of erp software has been acquired by a portfolio company of and funds managed by 	 a portfolio company of has been acquired by 	 a portfolio company of has been acquired by 	 CAPITAL PARTNERS, LLC has invested in 	 has acquired 	 has acquired a portfolio company of 	 has acquired a portfolio company of 	 a portfolio company of has been acquired by 	 a portfolio company of has been acquired by 	 has made a significant investment in
Industrial Software	Property Technology	Industrial Software	Healthcare IT	Education Technology	Infrastructure / Security Software	Healthcare IT	Healthcare IT	Legal Technology	Property Technology

HW Harris Williams / GLOBAL INVESTMENT BANK

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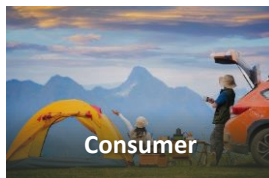
Deep Industry Experience



Aerospace, Defense & Government Services



Business Services



Consumer



Energy, Power & Infrastructure



Healthcare & Life Sciences



Industrials



Technology



Transportation & Logistics

Proven Expertise

MERGERS & ACQUISITIONS

PRIVATE CAPITAL SOLUTIONS

PRIMARY FUND PLACEMENT

Core Values That Drive Success



75% Revenue from repeat clients

87% Managing Directors promoted from within

30+ Year history

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Appendix

Recent Sector M&A Transactions Detail

<u>Closed Date</u>	<u>Target</u>	<u>Acquirer / Investors</u>	<u>Business Description</u>	<u>Enterprise Value (\$M)</u>	<u>Implied EV / Revenue</u>	<u>Implied EV / EBITDA</u>
Pending	4ps Group	Hilti	Provider of business management (ERP) solutions for the construction industry.	NA	NA	NA
07/12/23	Vitruvi	Bow River Capital	Provider of construction project management software for telecommunications and infrastructure projects.	NA	NA	NA
07/11/23	Bridgit	CIBC	Provider of workforce planning and scheduling software for general contractors and specialty contractors.	NA	NA	NA
06/27/23	Clearstory (fka ExTracker)	GS Futures	Provider of construction software for subcontractors, general contractors, and owners to communicate their project changes in real time.	NA	NA	NA
06/23/23	CADS Additive	Hexagon	Provider of a 3D-printing software that helps companies prepare designs for metal additive manufacturing.	NA	NA	NA
06/20/23	Infobric (Summa Equity)	Stirling Square Capital Partners	Provider of communication equipment for information management in the construction industry.	NA	NA	NA
06/19/23	HelpHero	Byggfakta	Provider of marketplace that connects homeowners to service providers for residential construction and repairs.	NA	NA	NA
06/06/23	Curri	Bessemer Venture Partners	Provider of on-demand and last-mile logistics services for construction and industrial supplies deliveries.	NA	NA	NA
05/30/23	UpCodes	Bragiel Brothers; Building Ventures; CapitalX	Provider of a digital building codes library for the construction industry.	NA	NA	NA
05/23/23	AnchoRock Solutions	KPA (Providence Equity)	Provider of construction safety and compliance management solutions for job-site safety.	NA	NA	NA
05/05/23	Corecon Technologies	The Sage Group	Provider of project management software solutions for general contractors, subcontractors, homebuilders, remodelers, developers, and professional service firms.	\$16	NA	NA
05/04/23	AboutTime Technologies	Foundation Software (Thoma Bravo)	Provider of enterprise mobile time tracking and real-time resource management solutions for the construction industry.	NA	NA	NA
05/01/23	eSUB	Catalyst Investors; Revolution Ventures	Provider of construction management software for subcontractors.	NA	NA	NA
04/24/23	Constrafor	Motive Partners	Provider of a cloud-based procurement software and financial solution for general contractors and subcontractors to manage procurement, onboarding, and process payments.	NA	NA	NA
04/13/23	Built Technologies	Citigroup	Provider of a cloud-based construction loan administration and draw management platform to manage risk and maximize productivity.	NA	NA	NA
03/21/23	UNIFI Labs	Autodesk	Developer of a cloud-based platform to create and manage BIM content across the life cycle of building projects.	NA	NA	NA
03/15/23	CrewSight (Trimble)	Assa Abloy	Provider of access control and workforce management solutions to the global construction industry. The company offers electronic worker self-enrollment, real-time labor reporting, and authorized labor-site access control	NA	NA	NA

Public Market Operational and Valuation Metrics¹

\$ in Thousands									
Company	Market Capitalization	Enterprise Value	% of 52-Week High	LTM Gross Margin	LTM EBITDA Margin	Enterprise Value/			
						LTM Revenue	NTM Revenue	LTM EBITDA	NTM EBITDA
Core AEC									
Schneider Electric	\$101,605,052	\$115,488,775	99.1%	40.6%	18.7%	3.2x	2.8x	16.9x	13.9x
Dassault Systèmes	58,298,857	57,812,982	93.6%	83.6%	26.0%	9.2x	8.4x	35.5x	23.4x
Autodesk	43,730,563	44,283,563	87.1%	91.5%	21.3%	8.7x	8.0x	40.7x	20.9x
Hexagon	33,096,352	36,865,148	98.6%	65.8%	34.0%	6.4x	6.0x	18.9x	14.9x
Trimble	13,115,716	14,264,116	73.3%	61.2%	20.2%	4.0x	3.6x	19.6x	14.2x
Bentley Systems	17,006,704	18,629,670	99.5%	78.8%	26.1%	16.4x	14.9x	NM	43.6x
Nemetschek SE	9,142,176	8,621,727	94.7%	80.0%	NM	11.1x	9.0x	NM	NM
Procore Technologies, Inc.	8,654,935	8,573,330	91.1%	53.3%	25.2%	9.7x	8.8x	38.5x	29.4x
Core AEC Median	\$25,051,528	\$27,747,409	94.2%	72.3%	25.2%	8.9x	8.2x	27.5x	20.9x
Product Design / Engineering									
Synopsys	\$66,251,794	\$65,287,243	93.0%	79.9%	22.6%	12.3x	10.5x	54.5x	28.0x
Cadence Design Systems	63,949,852	63,711,190	96.6%	89.2%	33.1%	17.3x	15.5x	52.3x	35.0x
ANSYS	28,621,641	29,001,289	97.3%	91.5%	35.7%	13.5x	12.5x	37.8x	27.4x
PTC	16,841,699	18,640,552	98.4%	79.4%	27.9%	9.4x	8.2x	33.7x	20.5x
Altair Engineering	6,120,955	6,082,549	96.6%	78.6%	2.6%	10.5x	9.6x	NM	48.1x
Product Design / Engineering Median	\$28,621,641	\$29,001,289	96.6%	79.9%	27.9%	12.3x	10.5x	45.0x	28.0x
Comp Set Median	\$28,621,641	\$29,001,289	96.6%	79.4%	25.6%	9.7x	8.8x	36.6x	25.4x

(1) S&P Capital IQ, As of June 30, 2023

Public Market Operational and Valuation Metrics¹

\$ in Thousands									
Company	Market Capitalization	Enterprise Value	% of 52-Week High	LTM Gross Margin	LTM EBITDA Margin	Enterprise Value/			
						LTM Revenue	NTM Revenue	LTM EBITDA	NTM EBITDA
Residential									
D.R. Horton, Inc.	\$41,504,951	\$45,184,251	98.1%	27.7%	20.5%	1.3x	1.4x	6.6x	9.3x
Lennar Corp.	36,016,945	37,308,358	98.6%	18.9%	17.5%	1.1x	1.2x	6.3x	6.8x
NVR, Inc.	20,620,146	18,862,378	99.4%	25.9%	20.9%	1.8x	2.0x	8.7x	11.2x
PulteGroup, Inc.	17,340,058	18,513,850	98.1%	29.7%	21.8%	1.1x	1.2x	5.1x	7.0x
Residential Median	\$28,318,545	\$28,085,368	98.4%	26.8%	20.7%	1.2x	1.3x	6.4x	8.1x
Engineering, Procurement, and Construction									
WSP Global Inc.	\$16,471,629	\$19,457,417	96.1%	19.1%	9.6%	2.1x	2.4x	21.7x	13.5x
Jacobs Solutions Inc.	15,081,197	18,765,661	86.1%	21.6%	8.7%	1.2x	1.1x	13.9x	12.2x
AECOM	11,771,808	13,800,875	91.9%	6.5%	6.7%	1.0x	1.0x	15.1x	13.6x
KBR, Inc.	8,830,082	10,387,082	99.1%	13.4%	8.2%	1.6x	1.4x	19.4x	13.7x
HOCHTIEF Aktiengesellschaft	6,501,025	8,006,373	95.2%	24.3%	2.8%	0.3x	0.3x	9.8x	5.7x
Hochtief	5,755,146	6,258,167	76.4%	10.1%	5.5%	0.4x	0.4x	7.1x	7.1x
SNC-Lavalin Group Inc.	4,606,940	6,125,596	95.2%	6.0%	5.4%	1.1x	1.0x	19.8x	10.9x
John Wood Group PLC	1,164,948	1,917,548	59.2%	12.1%	2.7%	0.4x	0.3x	12.9x	4.7x
EP&C Median	\$7,665,553	\$9,196,728	93.6%	12.7%	6.1%	1.0x	1.0x	14.5x	11.5x
European Public - Private Partnerships									
Vinci SA	\$65,530,026	\$91,837,603	94.6%	14.8%	15.0%	1.4x	1.2x	9.2x	7.1x
Ferrovial SA	22,915,507	32,597,029	96.8%	83.0%	8.2%	4.0x	3.7x	49.3x	30.1x
Bouygues SA	12,497,507	26,951,005	92.5%	56.1%	8.8%	0.5x	0.4x	5.9x	5.2x
Eiffage SA	9,879,316	23,161,351	88.6%	82.8%	15.1%	1.0x	1.0x	6.9x	5.7x
Euro Median	\$17,706,507	\$29,774,017	93.6%	69.4%	11.9%	1.2x	1.1x	8.0x	6.4x
Construction Median	\$13,426,502	\$16,157,362	95.7%	19.0%	8.4%	1.1x	1.1x	11.3x	10.1x

(1) S&P Capital IQ, As of June 30, 2023