



## Industrial Software Sector Review | 4Q 2019

**HW** Harris Williams

# Harris Williams' Industrial Software Practice

## HARRIS WILLIAMS (“HW”)

- › Founded in 1991
- › 370+ professionals across eight offices globally
- › 170+ closed transactions in the last 24 months
- › 100% of revenue from M&A advisory
- › 10 industry groups



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

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

### SENIOR PROFESSIONALS

MIKE WILKINS  
+1 415-217-3411

TYLER DEWING  
+1 617-654-2133

THIERRY MONJAUZE  
+44 20 7518 8901

ERIK SZYNDLAR  
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ANDY LEED  
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JULIEN OUSSADON  
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### HORIZONTAL FOCUS AREAS

- › Compliance Software
- › CRM and Member Management Software
- › Data & Analytics
- › Enterprise Software
- › Human Capital Management
- › Infrastructure & Security Software
- › IT& Tech-Enabled Services
- › Managed Services, Hosting & Data Center Solutions
- › Online Marketing, Data & Research

### VERTICAL FOCUS SECTORS

- › Architecture, Engineering & Construction
- › eCommerce & Retail Software
- › Education Technology
- › Energy Technology
- › Facilities & Real Estate Technology
- › Financial Technology
- › Government Technology
- › Healthcare IT
- › Industrial & Supply Chain Software

## INDUSTRIAL TECHNOLOGY GROUP

- › 20 professionals across Richmond, Frankfurt, and Asia

### SENIOR PROFESSIONALS

GILES TUCKER  
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JOHN ARENDALE  
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JEFF PERKINS  
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ERIC LOGUE  
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JENSON DUNN  
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CHRIS TOUSSAINT  
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### KEY FOCUS AREAS

- › Industrial Technology
- › Process Automation
- › Test & Measurement
- › Industrial Process Solutions
- › Thermal Management

- › Communication & Connectivity
- › Flow Control & Engineered Components/Systems
- › Power & Energy Conditioning
- › Energy Metering
- › Data Centers

# Select Industrial Software and Automation Transactions

## REPRESENTATIVE HW TRANSACTIONS

<p>has been acquired by</p>	<p>Provider of fully integrated environmental, health, and safety ("EHS") compliance, training, and workflow software solutions</p>	<p>has been acquired by</p>	<p>Provider of construction accounting, project management, and payroll processing solutions</p>	<p>has received a majority investment from</p>	<p>Provider of SaaS-based environmental, health, safety and quality (EHSQ) software for global enterprise clients</p>	<p>has been acquired by</p>	<p>Provider of fully-integrated, SaaS-based operator qualification, drug &amp; alcohol, safety &amp; insurance, and training solutions</p>
<p>has been acquired by</p>	<p>Provider of cloud-based manufacturing execution, ERP, and supply chain software for mid-market manufacturers</p>	<p>has been acquired by</p>	<p>Provider of high-performance unmanned aerial systems (UAS) for the global military, public safety, and critical infrastructure markets</p>	<p>has been acquired by</p>	<p>Provider of demand response and energy management solutions</p>	<p>has been acquired by</p>	<p>Provider of intelligent traffic software (ITS) and IoT solutions for the transportation industry</p>
<p>has been acquired by</p>	<p>Provider of highly complex, fully customizable automation solutions for end-of-line packaging applications</p>	<p>has been acquired by</p>	<p>Provider of software solutions that manage engineering information throughout the asset lifecycle</p>	<p>has been acquired by</p>	<p>Provider of demand response, energy efficiency, and customer engagement solutions</p>	<p>has received a growth investment from</p>	<p>Provider of commercial maritime management and logistics software to the bulk markets</p>
<p>has been acquired by</p>	<p>Provider of special machine solutions to address automation, testing, and manufacturing needs for the automotive end market</p>	<p>has been acquired by</p>	<p>Provider of a wide variety of specialty electronic, electromechanical, and software products for the fire and life safety industry</p>	<p>has been acquired by</p>	<p>Provider of cloud-based business management, ERP, and vertical specific applications for the manufacturing, distribution, and building and construction industries</p>	<p>has been acquired by</p>	<p>Designer and manufacturer of distributed solar power generation, inverters, and software applications</p>

# Case Study: ComputerEase

HW's TMT Group 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 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: Cority

HW's TMT Group advised Cority, a portfolio company of Norwest Venture Partners, on the sale of a majority stake to Thoma Bravo.



a portfolio company of



has received a majority investment from



## TRANSACTION OVERVIEW

Cority is the most trusted environmental, health, safety, and quality (EHSQ) software for assuring client success. Cority enables organizations to utilize EHSQ software to advance their journey to sustainability and operational excellence by combining the deepest domain expertise with the most comprehensive and secure true SaaS platform.

With 30+ years of innovation and experience, Cority's team of over 350 experts serve over 800 clients in 100 countries, supporting 2.5 million end users. The company enjoys the industry's highest levels of client satisfaction and has received many awards for its strong employee culture and outstanding business performance.

Thoma Bravo is a leading private equity firm focused on the software and technology-enabled services sectors. With a series of funds representing more than \$30 billion in capital commitments, Thoma Bravo partners with a company's management team to implement operating best practices, invest in growth initiatives and make accretive acquisitions intended to accelerate revenue and earnings, with the goal of increasing the value of the business.

## RELEVANT SUB-SECTORS

ENVIRONMENTAL, HEALTH,  
SAFETY AND QUALITY (EHSQ)

GOVERNANCE, RISK AND  
COMPLIANCE (GRC)

INDUSTRIAL  
SOFTWARE

## HW DEAL CONTACTS

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# Case Study: IQMS Software

HW's TMT Group 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 lifecycle.

IQMS serves over 1,000 longstanding 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

## HW DEAL CONTACTS

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# The Industrial Sector's Appetite for Software is Growing, Driving Demand for Integrated Technology and Data Platforms

## INDUSTRY TRENDS<sup>1,2</sup>

- › The emergence of Industrial IoT Platform-as-a-Service (PaaS) that connects machines, data, and people to drive unconventional growth through new revenue streams, hybrid business models, and enhanced product innovation
- › The global Industrial IoT (IIoT) market is expected to reach \$124B by 2021, growing at a CAGR of more than 7%, driven by improved operational efficiency, improved productivity, creation of new business opportunities, reduction in downtime, and optimization of asset utilization
- › Due to the technical requirements in achieving Manufacturing 4.0, manufacturers today are partnering with IIoT enabled platforms and software providers as a catalyst to achieve digital transformation
- › Product lifecycles are becoming increasingly complex as manufacturers seek real-time visibility and integration across their global supply chains and multisite production operations
- › The proliferation of connected machines and devices is accelerating the adoption of cloud-based solutions capable of delivering real-time information and connecting plants across geographies without the costs and complexity of managing robust technology infrastructure

## KEY STATS

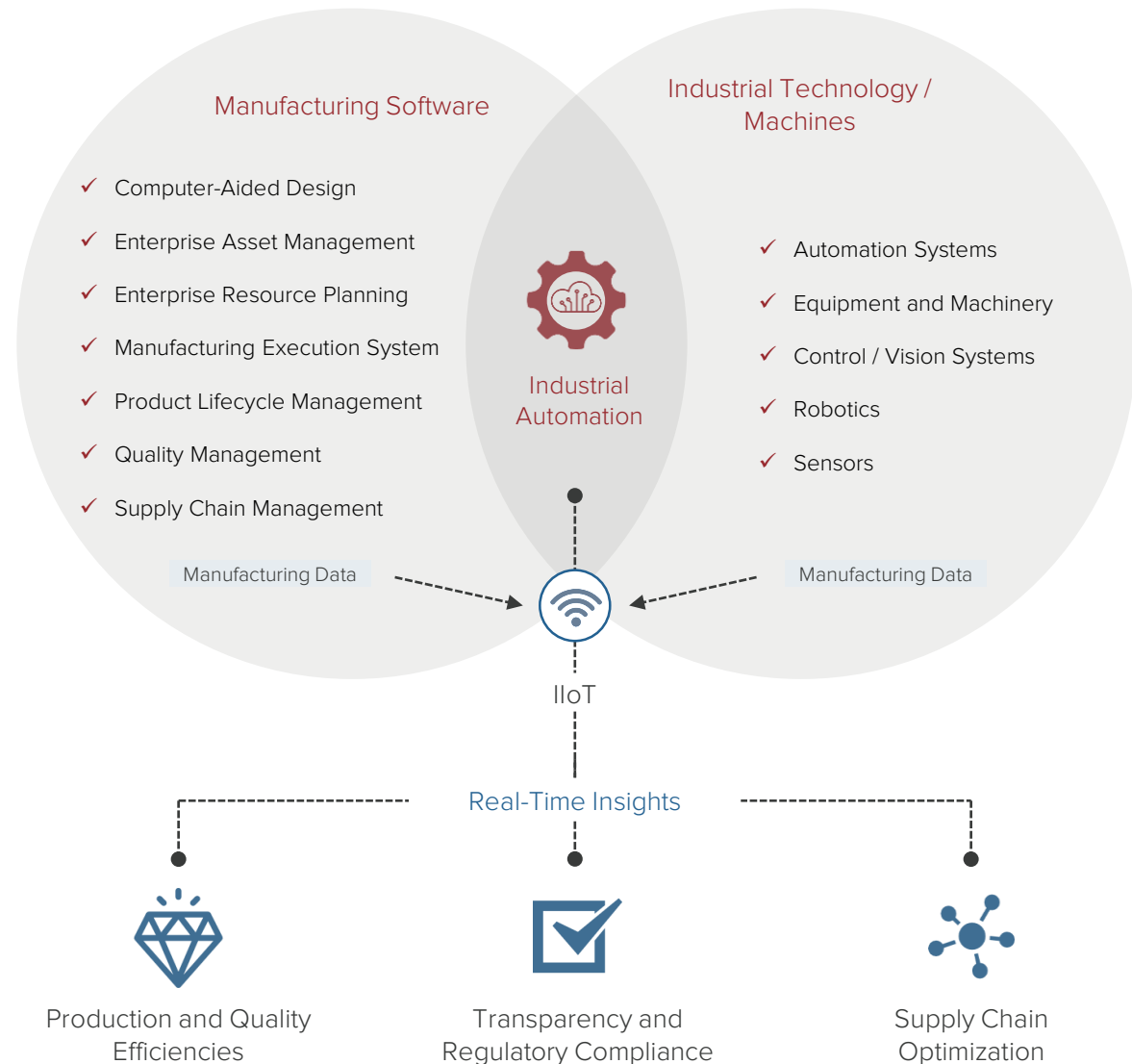
# 100%

Global Population  
Expected to Have LPWAN  
Coverage by 2022

# 41B+

IIoT Devices  
Worldwide by 2025

## INDUSTRY CONVERGENCE DRIVING INNOVATION<sup>1,2</sup>



# Digital Innovation has Become Mission Critical for Industrial Manufacturers

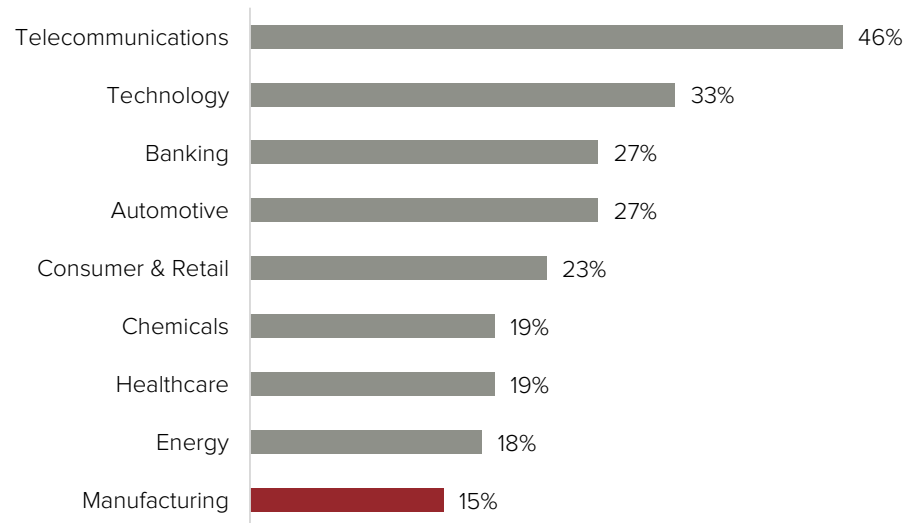
## PRODUCTIVITY GAINS FROM GOING DIGITAL<sup>3</sup>



- › Industrial companies, traditionally the least digitally integrated amongst the industry verticals, are faced with the challenge of transforming to prevent extinction

## DIGITAL CHAMPIONS IN THE U.S.

Percentage of companies



- › The U.S. technology, telecommunications, and banking industries have the greatest percentage of digitally integrated companies
- › Manufacturing has the lowest percentage due to its nondigital product portfolio

## INVESTMENT IN AI, ADVANCED NETWORKING, AND DATA VISUALIZATION TO AUTOMATE LARGE-SCALE PROCESSES<sup>3</sup>



### Artificial intelligence

- › AI has the potential to create value for industrial manufacturers at every stage of production
- › AI-powered analytics can reduce unplanned downtime, and improve efficiency, product quality, and safety performance
- › Manufacturers can also leverage AI-fueled algorithms on customer and product data to closely match supply with demand



### Advanced Networking

- › Advanced networking is crucial to connecting assets and devices to deliver real-time flexibility, visibility, and efficiency
- › 5G and ultra-broadband can ensure seamless vertical, horizontal, and cross-geographic integration across the value chain
- › Benefits include insights into production and product consumption, real-time updates on market conditions, as well as supporting new “as-a-service” business models



### Data Visualization

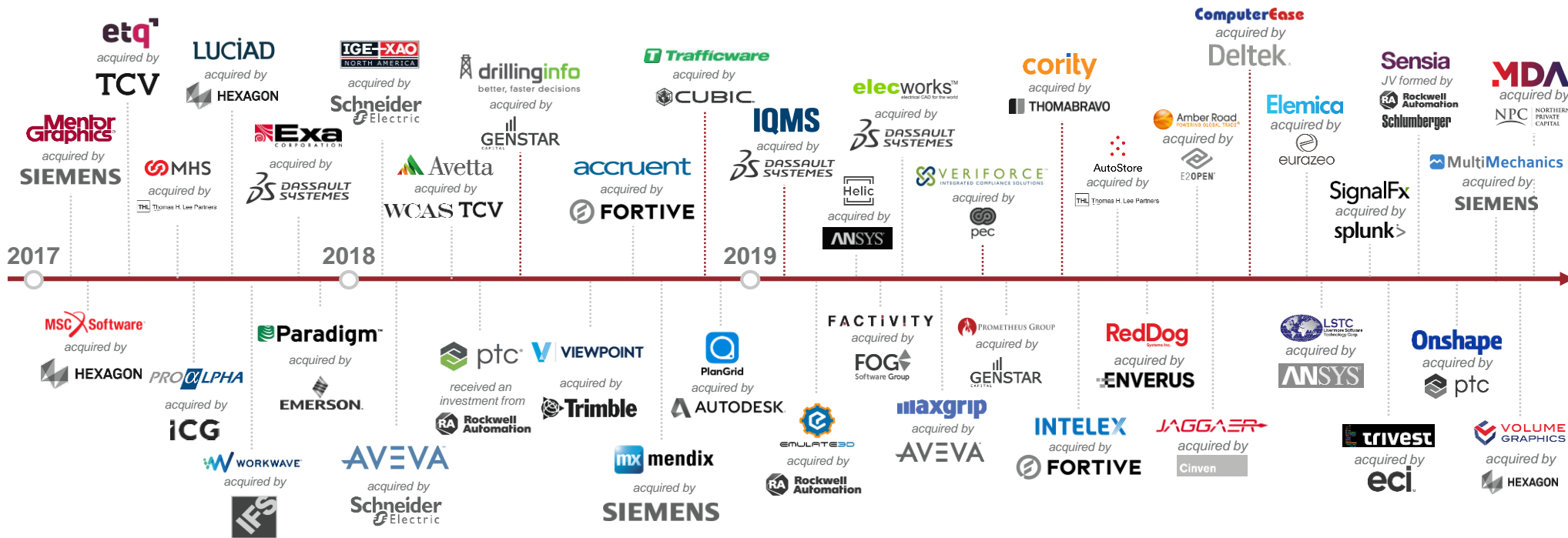
- › Improvements in 3-D visualization, augmented reality, and virtual reality enable industrial manufacturers to more easily digest complex information
- › Visualization via a digital twin (an interactive, working, and digital representation of the physical asset) helps companies simulate repairs, enabling safe practice and training ahead of site visits



# Increasing M&A Momentum Across the Industrial Software Market

## SELECT NOTABLE INDUSTRIAL SOFTWARE M&A ACTIVITY

..... HW Transaction



## NOTABLE INDUSTRY CONSOLIDATORS



Note: Logos are representative of M&A participants and not comprehensive.

# Recent Industrial Software Transactions<sup>4,5</sup>

Announced: December 30, 2019



Enterprise Value: \$765M

EV / Rev: 2.1x

Revenue: \$370M

EV / EBITDA: 9.0x

## Northern Private Capital's acquisition of MDA

- › Provider of surveillance, intelligence, robotics, and satellite systems for clients in the aerospace and defense industries
- › The transaction includes all of MDA's Canadian businesses, encompassing ground stations, radar satellite products, robotics, defense, and satellite components, representing approximately 1,900 employees
- › Post-transaction, the MDA team will operate as a stand-alone company within NPC's portfolio
- › MDA expects to continue to supply Maxar with certain components and subsystems, and the companies expect to sell each other's complementary satellite data

Announced: November 22, 2019



Enterprise Value: NP

EV / Rev: NP

Revenue: NP

EV / EBITDA: NP

## Hexagon's acquisition of Volume Graphics

- › Volume Graphics high-end analysis and visualization CT software enables manufacturers to produce three-dimensional external and internal representations of scanned objects
- › Using CT technology, manufacturers can "see" inside the complicated structures of components to measure and inspect for dimensional deviations and flaws
- › Hexagon and Volume Graphics will merge capabilities to ensure that customers yield the highest product quality
- › The acquisition strengthens Hexagon's CT software capabilities as more and more industries embrace additive manufacturing

Closed: November 15, 2019



Enterprise Value: NP

EV / Rev: NP

Revenue: NP

EV / EBITDA: NP

## Siemens' acquisition of MultiMechanics

- › Provider of MultiMech, a material modeling and simulation software tool
- › MultiMech enables companies to accelerate the product development lifecycle by virtually predicting material properties and behavior, including failure starting at the microstructural level
- › Siemens plans to integrate MultiMechanics into its Digital Industries Software, which will allow customers to create a digital twin of materials by closely integrating materials engineering with part design, performance engineering, and manufacturing for a range of applications

Closed: October 23, 2019



Enterprise Value: \$470M

EV / Rev: NP

Revenue: NP

EV / EBITDA: NP

## PTC's acquisition of Onshape

- › Provider of a SaaS product development platform that unites computer aided design (CAD) software with data management and collaboration tools
- › Accessible from any connected location or device, Onshape's software eliminates the need for costly hardware and administrative staff, and enables collaboration that dramatically reduces the time it takes to bring new products to market
- › The acquisition of Onshape gives PTC a strategic advantage to serve the growing demand for "CAD in the Cloud" and provides the company with a pure SaaS product innovation platform

Closed: October 3, 2019



Enterprise Value: NP

EV / Rev: NM

Revenue: NM

EV / EBITDA: NM

## Rockwell Automation and Schlumberger's joint venture of Sensia

- › Provider of digitally-enabled, integrated automation solutions to the oil and gas industry
- › The joint venture will leverage Schlumberger's oil and gas domain expertise and Rockwell's strengths in automation
- › Sensia will make industrial-scale digitalization and seamless automation available to every oil and gas company so their assets can operate more productively and profitably
- › The joint venture will operate as an independent entity, with Rockwell Automation owning a majority stake

# Industrial Software Landscape - Incumbents

To receive the latest Industrial Software market maps, please contact HW at [\\*TMT\\_IndustrialSoftware@harriswilliams.com](mailto:TMT_IndustrialSoftware@harriswilliams.com)

## INCUMBENTS IN INDUSTRIAL SOFTWARE

DIVERSIFIED	MULTI-VERTICAL APPLICATIONS				DIVERSIFIED
INDUSTRIAL SOFTWARE	DESIGN & ENGINEERING (PLM, CAD, CAE, CAM, SIMULATION)				INDUSTRIAL TECH
ANSYS	[Blurred logos]				ABB
Aspentech	[Blurred logos]				BOSCH
AUTODESK	MANUFACTURING & OPERATIONS (MES, MOM, QMS)		EHS		DANAHER
AVEVA	[Blurred logos]				EMERSON
Bentley	MAINTENANCE & SERVICES (EAM, ASSET TRACKING, SLM, FACILITY MGMT.)		SUPPLY CHAIN & LOGISTICS		FORTIVE
DASSAULT SYSTEMES	[Blurred logos]				GE
HEXAGON	INDUSTRIAL 4.0 SOLUTIONS				Honeywell
IFS	IIOT ENABLEMENT PLATFORM		LOCATION INTELLIGENCE		KOCH
ORACLE	[Blurred logos]		[Blurred logos]		KÖRBER
QAD	IIOT SECURITY & DATA		INDUSTRIAL AUTOMATION		Rockwell Automation
ROPER	[Blurred logos]		[Blurred logos]		SANDVIK
SAP	SENSORS		ROBOTICS		Schneider Electric
	[Blurred logos]		[Blurred logos]		SIEMENS

# Industrial Software Landscape - Emerging Players

## EMERGING PLAYERS IN INDUSTRIAL SOFTWARE

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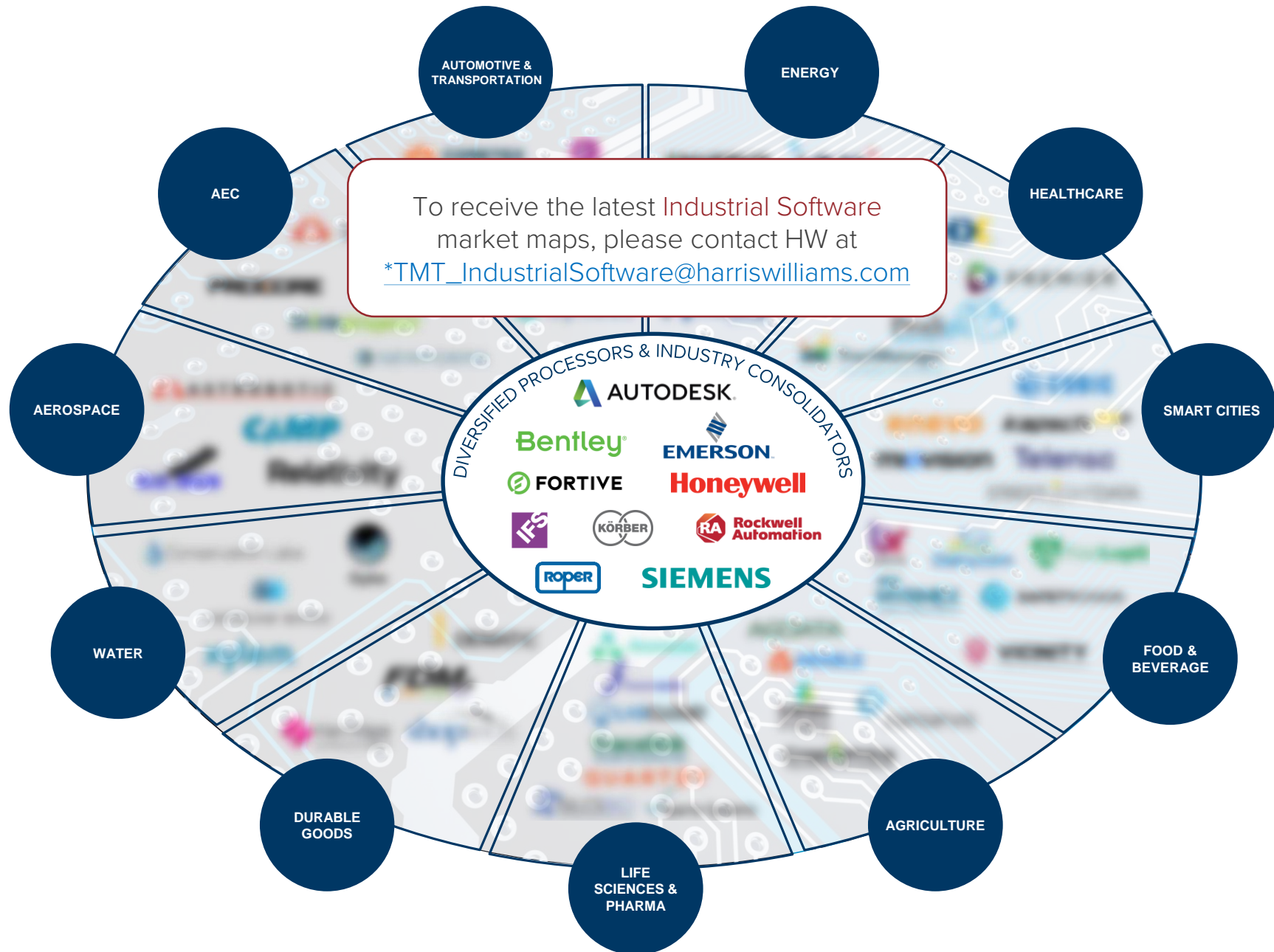
MULTI-VERTICAL APPLICATIONS		
DESIGN & ENGINEERING (PLM, CAD, CAE, CAM, SIMULATION)		
MANUFACTURING & OPERATIONS (MES, MOM, QMS)		EHS
MAINTENANCE & SERVICES (EAM, ASSET TRACKING, SLM, FACILITY MGMT.)	SUPPLY CHAIN & LOGISTICS	ERP

INDUSTRIAL 4.0 SOLUTIONS		LOCATION INTELLIGENCE	INDUSTRIAL AUTOMATION
IIOT ENABLEMENT PLATFORM	CONNECTIVITY	GEOSPATIAL	INDUSTRIAL AUTOMATION / SYSTEM INTEGRATION
IIOT SECURITY & DATA	SENSORS	DRONES	3D PRINTING
			ROBOTICS



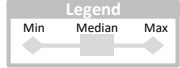
# Industrial Software Landscape - Vertical-Specific Players

REPRESENTATIVE VERTICALLY-FOCUSED INDUSTRIAL SOFTWARE PROVIDERS



# Industrial Software Public Market Observations<sup>4</sup>

As of December 31, 2019

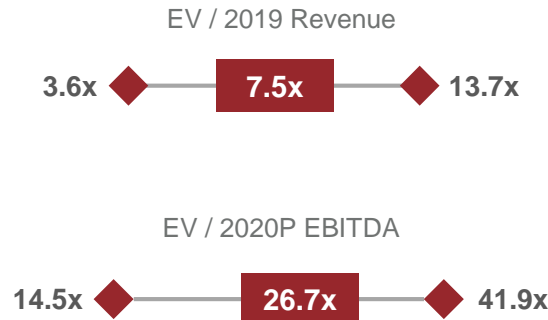


INDUSTRIAL SOFTWARE

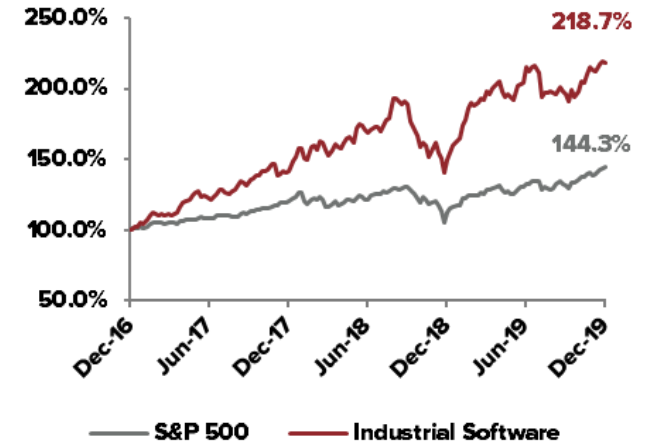
### Key Public Comps



### NTM Trading Metrics



### Indexed Stock Performance

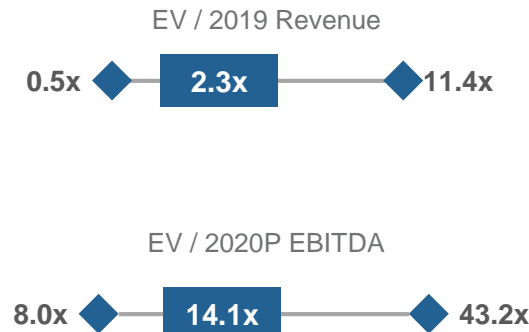


DIVERSIFIED INDUSTRIALS

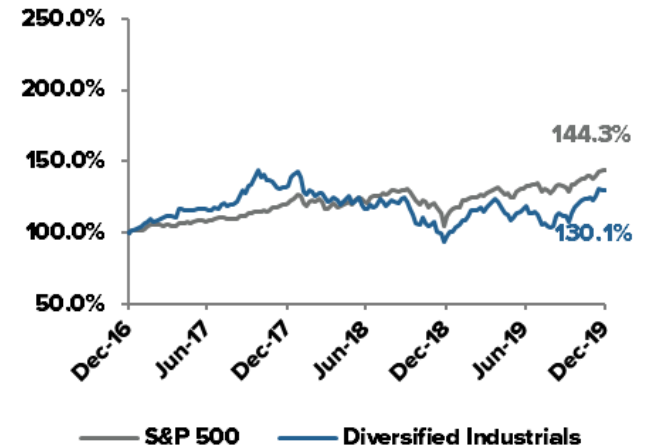
### Key Public Comps



### NTM Trading Metrics



### Indexed Stock Performance





# Industrial Software Market Valuations<sup>4</sup>

## VALUATION

(\$ in millions, as of December 31, 2019)

Company	Market Capitalization	Enterprise Value	Revenue		EBITDA Margin		Multiples Summary			
			CY2019P	CY2020P	CY2019P	CY2020P	Enterprise Value/Revenue		Enterprise Value / EBITDA	
			CY2019P	CY2020P	CY2019P	CY2020P	CY2019P	CY2020P	CY2019P	CY2020P
<b>Industrial Software</b>										
Dassault Systèmes SE	\$42,738,138	\$40,384,851	\$4,551,813	\$5,530,244	35.0%	34.3%	8.9x	7.3x	25.3x	21.3x
Autodesk, Inc.	40,367,254	41,386,254	3,266,962	3,975,553	26.8%	32.9%	12.7x	10.4x	47.2x	31.6x
Roper Technologies, Inc.	36,860,444	43,021,544	5,372,367	5,738,754	35.6%	36.8%	8.0x	7.5x	22.5x	20.3x
ANSYS, Inc.	22,029,480	21,404,410	1,505,435	1,675,096	44.6%	45.1%	14.2x	12.8x	31.9x	28.4x
Synopsys, Inc.	20,954,455	20,369,428	3,361,846	3,751,024	27.2%	30.3%	6.1x	5.4x	22.3x	17.9x
Hexagon AB (publ)	20,655,194	22,916,671	4,382,110	4,573,210	33.3%	34.6%	5.2x	5.0x	15.7x	14.5x
Cadence Design Systems, Inc.	19,461,930	19,270,770	2,332,301	2,497,692	35.9%	34.9%	8.3x	7.7x	23.0x	22.1x
Trimble Inc.	10,386,384	12,091,484	3,229,709	3,368,167	22.4%	23.1%	3.7x	3.6x	16.7x	15.6x
AVEVA Group plc	9,937,351	9,951,742	1,061,284	1,154,087	28.6%	30.5%	9.4x	8.6x	32.8x	28.3x
PTC Inc.	8,649,286	9,020,950	1,315,996	1,507,183	30.9%	35.6%	6.9x	6.0x	22.2x	16.8x
Aspen Technology, Inc.	8,248,397	8,545,681	613,735	624,242	52.7%	51.4%	13.9x	13.7x	26.4x	26.7x
Altium Limited	3,194,557	3,114,026	194,550	240,700	36.2%	38.7%	16.0x	12.9x	44.3x	33.4x
Altair Engineering Inc.	2,577,398	2,534,244	447,987	500,593	9.9%	12.1%	5.7x	5.1x	NM	41.9x
Kinaxis Inc.	2,022,474	1,830,612	189,854	210,623	28.6%	26.1%	9.6x	8.7x	33.7x	33.4x
QAD Inc.	1,036,467	933,628	310,959	337,080	3.9%	6.6%	3.0x	2.8x	NM	42.2x
<b>Median</b>	<b>\$10,386,384</b>	<b>\$12,091,484</b>	<b>\$1,505,435</b>	<b>\$1,675,096</b>	<b>30.9%</b>	<b>34.3%</b>	<b>8.3x</b>	<b>7.5x</b>	<b>25.3x</b>	<b>26.7x</b>
<b>Diversified Industrials</b>										
Honeywell International Inc.	\$126,472,430	\$133,634,430	\$36,791,378	\$38,156,030	23.7%	24.1%	3.6x	3.5x	15.3x	14.5x
Danaher Corporation	110,520,825	117,229,425	18,647,499	21,359,164	24.6%	26.9%	6.3x	5.5x	25.6x	20.4x
Siemens	106,146,923	133,314,080	98,280,689	100,825,782	12.2%	12.6%	1.4x	1.3x	11.1x	10.5x
General Electric Company	97,466,407	181,249,407	94,156,854	92,685,380	13.4%	13.9%	1.9x	2.0x	14.4x	14.1x
Schneider Electric S.E.	56,561,335	66,570,439	30,446,605	31,634,675	17.2%	17.9%	2.2x	2.1x	12.7x	11.8x
ABB Ltd	51,466,842	59,526,842	28,242,140	28,520,003	9.6%	13.6%	2.1x	2.1x	21.9x	15.4x
Emerson Electric Co.	46,588,245	50,855,245	18,372,384	18,552,798	20.7%	21.1%	2.8x	2.7x	13.4x	13.0x
Fortive Corporation	25,652,081	30,836,581	7,310,023	7,716,431	23.1%	24.6%	4.2x	4.0x	18.3x	16.2x
Sandvik AB	24,525,452	26,310,525	11,052,229	11,229,828	23.4%	23.3%	2.4x	2.3x	10.2x	10.1x
Rockwell Automation, Inc.	23,478,884	24,677,784	6,690,893	6,984,386	22.0%	22.2%	3.7x	3.5x	16.7x	15.9x
OMRON Corporation	11,675,812	11,001,745	6,670,755	6,441,924	12.0%	12.9%	1.6x	1.7x	13.8x	13.2x
Cognex Corporation	9,577,084	9,179,478	717,297	803,650	23.9%	26.5%	12.8x	11.4x	NM	43.2x
KUKA	1,629,228	2,054,045	3,658,961	3,769,498	5.2%	6.8%	0.6x	0.5x	10.8x	8.0x
<b>Median</b>	<b>\$46,588,245</b>	<b>\$50,855,245</b>	<b>\$18,372,384</b>	<b>\$18,552,798</b>	<b>20.7%</b>	<b>21.1%</b>	<b>2.4x</b>	<b>2.3x</b>	<b>14.1x</b>	<b>14.1x</b>
<b>Total Median</b>	<b>\$21,491,968</b>	<b>\$22,160,540</b>	<b>\$4,020,535</b>	<b>\$4,274,382</b>	<b>23.8%</b>	<b>25.3%</b>	<b>5.4x</b>	<b>5.0x</b>	<b>21.9x</b>	<b>17.4x</b>

Note: NM refers to negative growth rates and margins, revenue multiples over 30.0x, and EBITDA multiples over 50.0x.

# 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](http://www.harriswilliams.com/industries).



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Mumbai

# Sources and Disclosures

## Sources

1. GARTNER .
2. IDC .
3. BCG .
4. CAPIQ .
5. PITCHBOOK .

## Disclosures

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