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Life Sciences Software Market Update

January 2022

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Trusted Advisor to the Life Sciences/Healthcare Market MADISON PARK GROUP

Market Coverage Model: Symbiotic Dialogue With All Market Constituents



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Industry Trends

|.

Inside the Industry Market Trends and Notable Transactions

Key Industry Trends



Pharmaceutical sponsors and CROs have accelerated adoption of virtual trial applications in light of COVID-19, enabling increasingly agile trial responses

Significant transaction activity in the quality management software market as life sciences manufacturers continue to digitize operations and compliance functions



Interest in commercialization services is reaching fever pitch as pharma/med device aggressively expand new therapies pipelines amidst rising demand through the pandemic

Emphasis on robust data assets and insights-based decision making is driving M&A and investment activity across premarket and post-market data & analytics vendors



Clinical Data Repositories are becoming the next frontier of clinical and patient data management, providing a unified view of patient health data across multiple eClinical sources



While electronic data capture (EDC) was classically used for trial data acquisition, emerging eSource technologies (ePRO / eCOA) are driving the next wave of patient data capture

There is aggressive financial sponsor interest in life sciences software, with multiple tier-one software private equity firms recently placing bets on platforms

8

Life sciences software vendors have taken advantage of frothy public market valuations through IPOs, joining what was once a close-knit group of publicly traded providers

In Case You Missed These Transactions	Slide
Advarra acquired Bio-Optronics	11
Clinical trial management software and other eClinical solutions	
Certara acquired Pinnacle 21 CDISC submission and data management software	15
Bioclinica and ERT merged to form Clario <i>Clinical endpoint and clinical imaging solutions</i>	16
Envision Pharma Group acquired doDoc Document review and authoring software	19
Insightful Science acquired Dotmatics Scientific R&D data management platform	21
Instem acquired PDS Life Sciences SEND and laboratory information management solutions	22
IQVIA acquired the remaining 40% of Q2 Solutions Laboratory services and sample tracking software	24
Komodo Health acquired Breakaway Partners Life sciences market access and decision software	25
Model N acquired Deloitte's life sciences assets Pricing and contracting solutions business	26
Carlyle acquired Saama AI-based clinical analytics	28
Veeva acquired Veracity Logic Randomization and trial supply management software	32
WCG acquired VeraSci eCOA and trial outcome solutions	33

Quality Management & Compliance Activity

Robust Interest As Manufacturers Undergo Rapid Digitization Initiatives





"We have strong conviction in the growth opportunities in the life sciences and pharmaceuticals space and in the synergies between Sparta and Honeywell both for Honeywell Connected Enterprise and Honeywell Forge as well as for Honeywell Process Solutions." Rajeev Gautam, CEO of Honeywell PM&T

Sources: Capital IQ, Public Filings, Press Releases, PitchBook, Proprietary MPG Research, PE Hub

Honeywell Life Sciences Initiatives

- Honeywell / Sparta acquisition review
 - Honeywell will use Sparta's QMS platform as a beachhead into the life sciences software market
- In September 2021, Honeywell continued executing on its life sciences strategy through the acquisition of Performix
- Performix provides manufacturing execution system (MES) solutions for pharmaceutical manufacturing and biotech clients
- Performix, in conjunction with Sparta and Forge, will enable Honeywell to provide complete production lifecycle solutions

Other QMS Transaction Activity				
Company	Lead Investor	Date	Commentary	
g greenlight guru	JMI	May-21	Majority Recap	
Qualio	TIGERGLOBAL	May-21	\$50.0 million (Series B)	
	INSIGHT Partners	Sep-19	\$36.0 million (Series A)	

"...combined offerings will make it easier for customers to gain critical insights from manufacturing and quality data that can improve their manufacturing processes while ensuring product quality, patient safety, and supply chain continuity." Que Dallara, president and CEO of Honeywell Connected Enterprise.

High Value Tech-Enabled Commercialization Services

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Pace of M&A and Private Equity Investment Is Reaching Fever Pitch

Commercial Services Transaction Drivers

- Rising demand for new therapies amidst the pandemic is forcing pharma and medical device organizations to accelerate commercialization readiness and efforts
- Increased emphasis on outsourcing critical functions such as marketing, digital transformation, commercialization, market access and data analytics, with evidence-based solutions
- Fragmented industry provides attractive opportunity for consolidation by private equity-backed platforms
- Proprietary software and analytics offerings which enhance value of core services and drive customer stickiness
- Deep domain expertise in specific service offerings, market segments or geographies – e.g. market access / biotech

"The life sciences industry is in a period of revolution, where truly breakthrough science is being conducted at a breadth and pace like never before. As partner to the life sciences industry, our purpose is to accelerate the impact of these advancements through deep client partnerships and an evidence-first approach to strategic decision-making. The BluePrint Research Group is a highly regarded player in the life sciences space and shares our commitment to solution-oriented client partnership and a superlative client experience. We will leverage our collective history to enable our clients' success and ultimately to improve the lives of patients around the globe. We are proud to welcome their first-class team to our organization, and to continue our journey together."

-David Fitzhenry, CEO of Trinity, on the acquisition of BluePrint

Highlight Transactions – EBITDA Multiple Premiums

Buyer	Target	Enterprise Value	Est. Multiple	Date
novo holdings	medicalknowledge group.	\$1.2b	20.5x EBITDA	Jan-22
KOHLBERG <u> </u>	I <mark>I</mark> TRINITY	\$1.4b	22.0x EBITDA	Nov-21
ØARES	Lockwood	\$360.0m	21.0x EBITDA	Oct-21
EVERSANA [®]	© INTOUCH GROUP™	\$950.0m	4.32x Revenue 19.0x EBITDA	Oct-21
TPG	BGB GROUP	\$760.0m	17.0x EBITDA	Oct-21
GHO CAPITAL	CLEARVIEW Healthcare Partners	\$730.0m	17.0x EBITDA	Sep-21
I <mark>I</mark> TRINITY	BLUE PRINT Research Group	Confidential	Confidential	Dec-20

Data & Analytics at the Core of Innovation

Continued Emphasis On Insights-Based Decision Making

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Buyer	Target	Target Description	EV (Funding)	Est. Multiples	Date	Commentary
PARTNERS	🥥 inovalon'	Cloud-based data platform for healthcare and life sciences	\$7.3b	9.74x Rev. 33.2x EBITDA	Nov-21	"The importance of leveraging data and advanced analytics to drive improved healthcare outcomes and economics continues to grow. As new partners to Inovalon, we look forward to supporting the leadership team and exceptional associates across the organization as they continue to empower customer success through data-driven healthcare." - Deven Parekh, Managing Director at Insight Partners
ALTIMETER Bottman Asset Menagement FEEEX CAPITAL	H1	Medical info & healthcare professional data network	\$750.0m (Series C, \$100.0m)	n/a (250% ARR growth)	Nov-21	"H1 has amassed a treasure trove of data, seeking to help healthcare organizations make better, more informed and actionable decisions - data that we believe has become a must-have in today's fast-changing healthcare environment. We're excited to back such an innovative company that's helping fulfill a large and urgent market need." - Pauline Yang, Partner at Altimeter Capital
CERTARA	PINNÁCLE ²¹	CDISC submission and data management software	\$310.0m	13.19x Rev.	Oct-21	"With Pinnacle 21's software for high-quality clinical data standardization, we can together provide a broader portfolio of industry-leading software and technology-driven services to our customers worldwide. This transaction amplifies our capabilities to inform critical decisions that further de-risk and expedite the drug development process." - William F. Feehery, Ph.D., CEO of Certara
	komodo	Pre-market and post-market data solutions	\$3.3b (Series E, \$220.0m)	n/a	Mar-21	"It's not going to be enough to build platforms based on incomplete data sets and it's also not going to be enough to have a complete data set that doesn't plug into existing workflows. That's where we see the biggest growth coming from in the months ahead" - Dr. Arif Nathoo, Co-Founder and CEO of Komodo Health
DEFINITIVE HEALTHCARE	MQNOCL	Medical and scientific expert data platform	\$60.0m	6.32x 2020E ARR	Oct-20	"The acquisition of Monocl brings together two powerful intelligence platforms to provide best-in-class data, analytics and insight that will help biotech and pharmaceutical companies accelerate clinical research and commercialization of new drugs and therapies" - Jason Krantz, founder and CEO of Definitive Healthcare

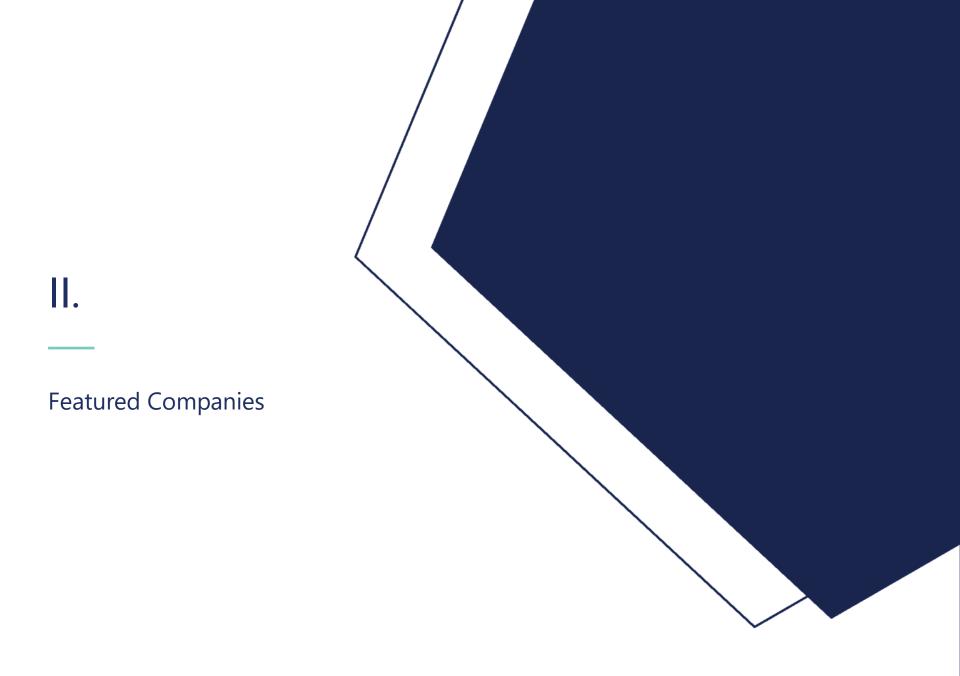
Key Participants Across Life Sciences Software Market Snapshot

Highlighted Companies		Inclusion Criteria		
	anju	Madison Park Group (MPG) actively tracks the life sciences software landscape. Consolidation of a highly fragmented market continues, with a convergence of pre and post-market functions, coupled with submission & compliance capabilities. The segments that MPG tracks include:		
ArisGlobal	BRUKER	Pre-Clinical 🔰 🖞 Clinical 🛛 🔢 Medical Affairs 🔪 🥨 Commercial		
CERTARA	CLARIO.	 Animal care information system (ACIS) Electronic clinical outcome assessment (eCOA) Adverse event reporting Channel data management 		
Superstant		 Data analysis & Clinical trial management visualization Clinical trial management system (CTMS) Aggregate spend compliance management 		
GROUP PHARMA	EVERSANA"	 ✓ Electronic lab notebook (ELN) ✓ Electronic data capture (EDC) ✓ Content management ✓ Customer relationship management (CRM) 		
Insightful Science		 Laboratory information Electronic patient reported management systems (LIMS) Electronic patient reported outcomes (ePRO) Key opinion leader (KOL) management Events management 		
🙀 komodo	Model N	 R&D budgeting Electronic trial master file (eTMF) Medical information management Master data management 		
ORACLE	() saama	 SEND submissions management Interactive response technology (IRT) Product complaints Pricing management 		
RJIFCTFA3	SIGNANT HEALTH	 Toxicology resource planning Risk-based monitoring (RBM) Publication planning Territory management 		
Thermo Fisher	Veeva	MPG Team		
WCg ⁻ With Micros		Rohan Khanna Jon Adler Managing Director Managing Director rkhanna@madisonparkgrp.com Managing Director idler@madisonparkgrp.com Senior Associate idler@madisonparkgrp.com Idler@madisonparkgrp.com		

LinkedIn

LinkedIn

<u>LinkedIn</u>





Advarra

Business Overview	
(\$ in millions)	
Headquarters:	Columbia, MI
Employees (1-Year Growth):	946 (▲17%
Website:	<u>advarra.cor</u>
Ownership Status:	PE-Backed (<u>Genstar Capita</u>
Disclosed Acquisitions:	10 (Including Entities From Merger
Pre-Clinical	Clinical

Description:

Provider of institutional review board (IRB), institutional biosafety committee (IBC) and research quality compliance consulting and solutions in North America. The company serves 3,200+ research institutions, hospital systems, and academic medical centers

Select Funding / Transaction History

Medical Affairs

Date	Lead Investor	Amount
Nov-20	BARINGS	\$133.0 million
Jul-19	GENSTAR	\$1.3 billion (buyout)
Feb-19		Undisclosed (debt)
Nov-17		Undisclosed (debt)

News & Notes

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Commercial

MD Strong M&A Appetite Leads to Growth Milestone

» A Series of Acquisitions In The First Half Of 2021

- In July 2021, Advarra announced the acquisition of Watermark Research Partners, Inc., an independent data safety monitoring board (DSMB) service provider
 - With the addition of Watermark, Advarra broadens and globally expands its independent research review solutions
 - In March 2021, Advarra announced the acquisition of Bio-Optronics, the maker of CCTrialSuite
 - The acquisition of Bio-Optronics reinforces Advarra's continued commitment to clinical research and its objective to connect the clinical trial ecosystem
- In January 2021, Advarra announced the acquisition of YourEncore, a provider of drug development and commercialization advisory and consulting services
 - Bolsters Advarra's consulting capacity, allowing it to penetrate biopharma, device manufacturers, academic medical centers, health systems, and institutions in over 50 countries
- » Site Network, "Gene Therapy Ready" Reaches Growth Milestone
- In June 2021, Advarra's Gene Therapy Ready site network became one of the largest administrators
 of institutional biosafety committees (IBCs), passing the 500+ registered research sites milestone

» New Chief Officers Appointed

- In May 2021, Advarra announced the appointment of Jeff Sidell as CTO
- Jeff previously worked at RDC (now part of Moody's Analytics), which he joined in 2019, and had most recently served as Chief Technology Officer
- In <u>December 2020</u>, Advarra announced Steven Buonaiuto as CFO
 - In his new role, Buonaiuto will manage finance, contracts, and information technology functions

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, Appliedclinicaltrials.com



Anju Software

Business Overview	
(\$ in millions)	
Headquarters:	Tempe, AZ
Employees (1-Year Growth):	+300 (▲3%)
Website:	<u>anjusoftware.com</u>
Ownership Status:	PE-Backed (<u>Abry Partners</u>)
Disclosed Acquisitions:	7
Pre-Clinical	Clinical
V= Modical Affairs	

Description:

\$ =

Horizontal life sciences enterprise software platform with a focus on eClinical, medical affairs and commercial technologies. The company's strategy is to consolidate vendors and create an integrated life sciences software platform

Select Funding / Transaction History

Date	Lead Investor	Amount
Mar-19	abry partners	Confidential
Jun-16	PROVIDENCEEQUITY	Confidential

News & Notes

New Product Releases Boost Data Quality and Efficiency

» Paradigm Shift In Scientific Publication Management Software With New Product Releases

- In June 2021, Anju launched TrialMaster 5.1 to reduce clinical study build times
 - Nick Campbell, Chief Revenue Officer at Anju Software, commented "With the development of Parameterized Edit Check in the TrialMaster 5.1 platform, we believe we have solved a major bottleneck in the inability of the industry to bring more promising therapies through the clinical development process with greater speed and efficiency."
- In <u>February 2021</u>, Anju incorporated PUBSTRAT MAX, a content management system, into its AnjuSafe platform
 - New features include online document collaboration, built-in workflow functionality, weekly updates to journal and conference data (integrated in Anju's ta-Scan 360 data technology platform), and an enhanced comprehensive reporting package
- In <u>January 2021</u>, Anju released ta-Scan 360, a data platform optimizing multiple sources for integrated views of clinical trials
 - The platform includes the enhanced ability to comprise multiple sources of data into a trusted data pool without the customer needing to construct complex data warehouses
- In <u>November 2020</u>, Anju launched RTSM Randomization Simulator, which allows statisticians at pharma sponsors and CROs to determine the best model for a clinical study's results

» Life Sciences Innovator Joins Board of Directors

- In <u>November 2021</u>, Steve Rosenberg, former executive at Oracle's clinical software business, joined Anju Software's board of directors
 - Rosenberg, commented, "Anju has a strong modern technology platform and significant experience in working with a wide range of Pharma and CROs globally. I look forward to helping Anju develop new solutions that will help optimize how and where to conduct trials using insights from data that is collected and analyzed."

ArisGlobal

ArisGlobal

Business Overview	
(\$ in millions)	
Headquarters:	Miami, F
Employees (1-Year Growth):	1,807 (▲5%
Website:	<u>arisglobal.com</u>
Ownership Status:	PE-Backed (Nordic Capita
Disclosed Acquisitions:	
Pre-Clinical	Linical

Description:

Provider of cloud-based software solutions for pharmacovigilance and drug safety, clinical development, regulatory, and medical affairs

Commercial

Select Funding / Transaction History

Date	Lead Investor	Amount
May-21	NORDIC CAPITAL	n/a
Jun-19	NORDIC CAPITAL	\$700.0 million (buyout)

News & Notes

FL Further Investment From Nordic With Innovation In Mind

» Leading Healthcare and Technology Investor Provides Further Investment

- In <u>May 2021</u>, Nordic Capital announced further investment in ArisGlobal, acquiring additional shares from the founding Abbhi family
 - With this further investment, ArisGlobal will focus on innovation and automation, as well as continued investment in its talent, technology, and customer experience

» New eTMF for Cross-Platform File Sharing

- In June 2021, ArisGlobal released LifeSphere eTMF, one of the first electronic Trial Master File systems that supports cross-platform file sharing
- » Strategic Partnership Aimed At Automation and Integration
- In December 2020, ArisGlobal announced a strategic partnership with EVERSANA
 - The partnership was initiated with the goal of safer and more effective healthcare through the digitalization of end-to-end pharmacovigilance services

» ArisGlobal Makes Key Executive Hires to Accelerate Global Growth

- In December 2020, ArisGlobal made multiple key executive hires:
 - Steve Nuckols joined ArisGlobal as Chief Revenue Officer; Nuckols brings 25 years of experience leading commercial teams, corporate growth strategy, global accounts, and general management in the Healthcare & Life Sciences sector
 - Pat Jenakanandhini, a product executive with 15+ years' experience leading large-scale B2B products in the areas of SaaS, mobile, cloud computing, platform, CAD, BIM and content management, joined as Chief Product Officer
 - Dan Cooper joined as Senior Vice President of Professional Services; Cooper brings 30+ years of experience in various operational and technical leadership roles with prominent technology and healthcare companies



Bruker

Billerica, MA
3,420 (▲7%)
<u>bruker.com</u>
Public (Nasdaq: BRKR)
46
\$2,360.0
Clinical
Commercial

Description:

Bruker develops scientific instruments based on magnetic resonance, mass spectrometry, and X-ray technologies. The company also manufactures superconducting materials primarily used in magnetic resonance imaging, nuclear magnetic resonance, and fusion energy research

TTM December 2021 Market Pricing



Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021

(1) Per company press release "Bruker Announces Acquisition of MOLECUBES NV"

(2) Per company press release "Bruker Announces Acquisition of Canopy Biosciences"

News & Notes

A Assisting In Breakthrough Discoveries With NMI Acquisition

» Key Acquisitions With Nuclear Molecular Imaging in Focus

- In <u>November 2021</u>, Bruker announced the acquisition of Molecubes, a provider of benchtop preclinical nuclear molecular imaging (NMI) systems, for \$5.6m⁽¹⁾
 - The acquisition further solidifies Bruker's position as a top NMI solutions provider in preclinical and translational imaging research
 - Bruker's preclinical imaging products and global footprint, coupled with the modular benchtop cubes systems of Molecubes, will deliver an expansive NMI offering, accelerating worldwide adoption of preclinical NMI in academic medical centers and biopharma companies
 - In September 2020, Bruker announced the acquisition of Canopy Biosciences for \$29.2m⁽²⁾
 - The acquisition enhances Bruker's footprint in targeted multi-omics and fluorescence-based imaging techniques

» A Strategic Investment in Spatial Biology

- In <u>March 2021</u>, Bruker announced the completion of its \$4.5m investment in Acuity Spatial Genomics⁽³⁾
 - The investment will allow Bruker to accelerate the pathway for enabling scientific discoveries in basic and translational research leveraging Acuity Spatial Genomics' innovative technologies

» Bruker Announces Two New Revolutionary Tools at eXceed Symposia 2021

- In <u>June 2021</u>, at Bruker's virtual 4D-Proteomics eXceed Symposium, the company announced the launch of two new *timsTOF* instruments: *timsTOF SCP* and *TimsTOF Pro 2*
 - With the launch of these two new tools, Bruker continues to develop unbiased proteomics, epiproteomics/PTM characterization, and unbiased deep multiomic biomarker discoveries

Certara

Business Overview	
(\$ in millions)	
Headquarters:	Princeton, NJ
Employees (1-Year Growth):	960 (▲10%)
Website:	<u>certara.com</u>
Ownership Status:	Public (Nasdaq: CERT)
Disclosed Acquisitions:	14
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Description:

Provider of drug development technology and consultancy services spanning the discovery, preclinical and clinical stages of drug development. The company also provides software for drug modeling and simulation

NASDAQ — CERT

TTM December 2021 Market Pricing

25.4%)

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021

- 1) Per company press release, "Certara Completes Acquisition of Pinnacle 21"
- 2) Per company press release, "Certara Announces Closing of Public Offering of Common Stock"
- 3) Per company press release "Certara Announces Launch of Initial Public Offering"

News & Notes

Certara Goes On Acquisition Spree After Successful IPO

» New Acquisitions Increase Global Footprint

- In October 2021, Certara completed its acquisition of Pinnacle 21, a provider of clinical data fitness, regulatory compliance, and submission readiness SaaS solutions, for \$310.0m⁽¹⁾
 - William F. Feehery, Ph.D., CEO of Certara, commented, "With Pinnacle 21's software for highquality clinical data standardization, we can together provide a broader portfolio of industryleading software and technology-driven services to our customers worldwide. This transaction amplifies our capabilities to inform critical decisions that further de-risk and expedite the drug development process."
- In June 2021, Certara announced the acquisition of Insight Medical Writing, a regulatory services and medical writing provider
 - The acquisition expands Certara's regulatory science capabilities in the UK and Europe
- In <u>March 2021</u>, Certara announced the acquisition of AUTHOR!, a provider of medical writing and statistical analysis of clinical trial data
- » First-Of-Its-Kind Secondary Pharmacology Intelligence Software
- In May 2021, Certara announced the launch of its Secondary Intelligence software
 - Software that quantitatively projects the risk of adverse effects and safety issues derived from secondary pharmacology that may disrupt the clinical development of a drug

» IPO & Current Performance

- In <u>December 2020</u>, Certara raised \$668.0m in its initial public offering on the Nasdaq Stock Exchange under the ticker symbol CERT⁽³⁾
 - A total of 29.1 million shares were sold at a price of \$23 per share⁽³⁾
- On December 31, 2021, Certara stock traded at \$28.42, up ~24% from its IPO price

CLARIO.

Clario

Business Overview	
(\$ in millions)	
Headquarters:	Philadelphia, PA
Employees (1-Year Growth):	6,429 (▲16%
Website:	<u>clario.com</u>
Ownership Status:	PE-Backed (<u>Cinven</u> / <u>Ares</u>
Disclosed Acquisitions:	28
Pre-Clinical	Clinical
<u>)</u> Medical Affairs	Commercial

Description:

Provider of clinical development technologies. The company's suite of eClinical solutions span patient engagement, risk-based monitoring, randomization, EDC, CTMS, medical imaging, and cardiac safety

Select Funding / Transaction History

Date	Lead Investor	Amount
Apr-21		n/a
Jan-21	Sachs Jefferies	\$905.0 million (debt)
Jan-20	astorg.	n/a (buyout)
Apr-16	novo holdings Nordic Capital	\$1.8 billion (buyout)

News & Notes

^A ERT and Bioclinica Rebrand to Become Clario

» Combination of Powerhouse Clinical Development Technologies

- In <u>April 2021</u>, Bioclinica and ERT announced the close of its merger, valued at \$6.0b with total revenues of \$800.0m⁽¹⁾
 - The merger combines ERT's experience in eCOA, cardiac safety, respiratory, and wearables with Bioclinica's imaging, eClinical software, and drug safety solutions
 - Nordic and Astorg will each maintain 40% stakes with Novo and Cinven holding 10% each
 - ERT is currently ~70% recurring revenue and 30% derived from services
- In November 2021, the combined company rebranded to Clario
 - Joe Eazor, CEO of Clario, commented, Clario is much more than the merger of two companies. We have combined decades of scientific expertise and unrivaled global scale to create the broadest endpoint technology platform poised to expedite the clinical trial process, simplify trial experiences and unlock composite endpoints. Our purpose is clear – we transform lives by unlocking better evidence."

» Two New Solutions Announced

- In <u>May 2021</u>, Bioclinica announced a specialized program for the adjudication of adverse events that could result from COVID-19 infection
 - This solution combines an experienced adjudication management team and medical expertise to help evaluate and determine if COVID-19 endpoint adjudication pathways should be added
- In <u>February 2021</u>, ERT announced a new solution for facilitating the collection, processing and analysis of photos and audio as part of clinical trial eCOA assessments
 - This solution delivers a holistic view of a patient's condition, providing a more convenient tool for site personnel to monitor any changes over time, while streamlining any patient compliance associated with data collection



Dassault Systemes / Medidata

Business Overview		
(\$ in millions)		
Headquarters:	Vélizy-Villacoublay, France	
Employees (1-Year Growth):	+17,000 (▲4%)	-
Website:	<u>3ds.com</u> , <u>medidata.com</u>	
Ownership Status:	Public (PAR: DSY)	-
Disclosed Acquisitions:	61 (Dassault + Medidata)	
LTM Revenue:	\$5,630.0	
Pre-Clinical	Clinical	
≝≣ Medical Affairs	Commercial	

Description:

Provider of 3D design and engineering software. The company's products serve multiple regulated industries, such as aerospace and defense, industrial equipment, marine and offshore, and consumer goods

TTM December 2021 Market Pricing



News & Notes

Software Additions and Partnerships Cultivate Continued Growth

» New Additions to Suite of Software

- In June 2021, Medidata announced the launch of the Medidata Decentralized Clinical Trials (DCT) Program, offering full decentralization across the clinical trial continuum through a set of unified, secure technologies
 - The Medidata DCT Program has the capability to capture participant data remotely at any time, from anywhere
 - The platform aggregates the collected data and monitors for quality assurance, mitigating risk to ensure patient safety
- In June 2021, Medidata announced the launch of myMedidata Registries, a new technology that ٠ expands and enhances the myMedidata patient portal
- In April 2021, Medidata announced Medidata Risk Management, the latest addition to its Risk-Based Quality Management (RBQM) suite

» Strategic Partnerships Build Upon Shared Mission

- In March 2021, Medidata announced its expanded partnership with Karyopharma Therapeutics (Nasdag: KPTI)
 - Glen de Vries, co-founder and co-CEO of Medidata, commented, "Medidata is pleased to play a key role in supporting Karyopharm's mission of bringing novel therapies to market, providing hope for patients. This agreement is a clear demonstration of our shared mission to advance analytics and technology to make a difference in health care."
- In February 2021, Medidata announced its expanded partnership with Horizon Therapeutics plc (NASDAQ: HZNP)
 - Tarek Sherif, co-founder and co-CEO of Medidata, commented, "Medidata's goal is to facilitate Horizon's path forward using advanced analytics and technology. We're looking forward to further supporting the company's vision, especially as it relates to improving efficiencies and speeding the completion of clinical studies."

Source: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021



Definitive Healthcare

Business Overview (\$ in millions) Headquarters: Framingham, MA Employees (1-Year Growth): 626 (▲6%) Website: definitivehc.com Ownership Status: Public (Nasdaq: DH) Disclosed Acquisitions: 5 ✓ Pre-Clinical

Medical Affairs Commercial

Description:

A commercial intelligence software solutions provider for the healthcare industry. The company's solutions transform data and analytics into comprehensive intelligence, optimizing go-to-market planning and market execution

Select Funding / Transaction History

Date	Lead Investor	Amount
Sep-21	Initial Public Offering	\$420.0 million
Aug-19	Owl Rock	\$176.4 million (debt)
Jun-19	Advent International	n/a (debt)

News & Notes

Successful IPO and Follow-On Offering to End 2021

» Successful IPO Leads to Follow-On Offering

- In <u>November 2021</u>, Definitive Healthcare raised \$396.0m in its follow-on offering on the Nasdaq Stock Exchange⁽¹⁾
 - In <u>September 2021</u>, Definitive Healthcare raised \$420.0m in its initial public offering on the Nasdaq Stock Exchange under the ticker symbol DH ⁽²⁾
 - A total of 15.5 million shares were sold at \$27 per share

» Enhanced Scientific Expert Data and Insights with Monocl Acquisition

- In October 2020, Definitive Healthcare announced the acquisition of Monocl, a cloud-based provider of medical and scientific expert data and insights
 - The acquisition expands Definitive's support of clients within its life sciences segment by adding Monocl's analytics and data assets with the goal of commercializing innovative drugs and therapies
 - Jason Krantz, founder and CEO of Definitive Healthcare, commented, "The acquisition of Monocl brings together two powerful intelligence platforms to provide best-in-class data, analytics and insight that will help biotech and pharmaceutical companies accelerate clinical research and commercialization of new drugs and therapies."

» No Time Wasted After Acquisition with New Product Announcement

- In <u>March 2021</u>, Definitive Healthcare announced the availability of Monocl Professional Claims Extension
 - This new product incorporates clinical insights from medical claims data providing enhanced analysis of patient interactions
- In <u>February 2021</u>, Definitive Healthcare announced significant enhancements to its solution suite for biopharma companies and medical device manufacturers
 - These enhancements provide new real-time insights and comprehensive market data, helping clients accelerate their go-to-market strategies

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn

(1) Per company press release "Definitive Healthcare Announces Pricing of Follow-On Offering"

(2) "Definitive Healthcare Announces Closing of Public Offering" (Businesswire, 9/20/2021)



Envision Pharma Group

Business Overview	
(\$ in millions)	
Headquarters:	England, U.K.
Employees (1-Year Growth):	766 (▲6%)
Website:	envisionpharmagroup.com
Ownership Status:	PE-Backed (<u>GHO Capital</u>)
Disclosed Acquisitions:	5
Pre-Clinical	Clinical
Medical Affairs	Commercial

Description:

Provider of technology and scientific communication solutions to the life sciences community. The company's medical affairs offerings include publication planning, project management and journal databases

Select Funding / Transaction History -



News & Notes

5

Expansion of iEnvision Platform and New Head of Technology

» New Acquisition Adds Updated Feature to iEnvision

- In March 2021, Envision announced its acquisition of doDOC, enabling document collaboration on its global medical affairs platform iEnvision
- In November 2020, Envision announced the acquisition of Two Labs, a provider of market-leading commercialization, strategic consulting, market access, and market intelligence solutions

90TEN Expands to U.S. Market With Kate Paxton as Head

- In October 2021, global healthcare communications consultancy 90TEN, a subsidiary of Envision, appointed Kate Paxton as its U.S. Head
 - David Thompson, CEO of Envision Pharma Group, commented "Kate's long history of building strategic and creative programs for healthcare clients of every size and scope - in addition to her deep understanding of how agencies grow and thrive - makes her ideally suited to lead 90TEN through this next, exciting phase."
- » Two Labs Pharma and Parent Company Envision Pharma Launch MSL Solutions
- In June 2021, Envision and its subsidiary Two Labs Pharma Services launched MSL Solutions
 - The new solution provides physicians the ability to engage in conversations with trained scientific personnel on a peer level to ensure critical patient needs are addressed

» New Global Head of Envision Technology Solutions

- In March 2021, Envision Pharma Group appointed Manish Goel as Global Head of Envision **Technology** solutions
 - David Thompson, CEO of Envision Pharma Group, commented "With his technology pedigree, healthcare experience, and impressive track record, we are delighted to have Manish join Envision. As a proven leader, we look forward to embracing his tremendous expertise in writing the next chapter for iEnvision – establishing it as the gold standard for the medical affairs function as we identify, invest, and develop capabilities that enable us to spread beyond our medical affairs client base."

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn

(1) Per company press release "Envision Pharma Group Acquires Two Labs to Advance its Position as a Global Strategic Partner to Pharma"



Eversana

Business Overview	
(\$ in millions)	
Headquarters:	Milwaukee, WI
Employees (1-Year Growth):	2,045 (▲18%)
Website:	<u>eversana.com</u>
Ownership Status:	PE-Backed (JLL & Water Street)
Disclosed Acquisitions:	15
Pre-Clinical	Clinical
~ -	

Description:

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Provider of commercialization software and services for patient engagement, market pricing and access, branding, and channel partner distribution. Eversana was formed as a platform between JLL Partners and Water Street Healthcare Partners. In October 2018, the two investment groups merged Dohmen Life Sciences Services, The Access Group, Alliance Life Sciences, Health Strategies Group, Triplefin, and Patient Experience Project

Select Funding / Transaction History

Medical Attairs

Date	Lead Investor	Amount
Oct-18	JLL Partners WATER STREET	n/a (Platform Creation)

News & Notes

Acquisitions & Partnerships Are Main Growth Contributors in 2021

» Reinventing Commercial Approaches With Patients and Clients In Mind

- In <u>October 2021</u>, Eversana completed its acquisition of Intouch Group for \$950.0m implying a 19.0x EV/EBITDA valuation⁽¹⁾
 - Jim Lang, CEO of Eversana, commented "With the added power of Intouch and millions more invested in data, analytics and digital transformation, we are reinventing commercial approaches for the benefit of our clients and their patients."
- In October 2021, Eversana announced the acquisition of Protean, a market access healthcare consulting firm delivering insights into strategic planning and implementation
 - The acquisition strengthens Eversana's integrated commercial services platform, enhancing the data and analytics used to tackle specific barriers in pricing, access, reimbursement, promotion, adherence, or delivery challenges in the global life sciences industry
- In July 2021, Eversana announced the acquisition of Accelera Canada
 - With this acquisition, Eversana continues to scale its global footprint in commercialization services, while incorporating decades of experience in patient advocacy and market access

» EVERSANA COMPLETE Leads to Increased Partnerships

- In <u>November 2021</u>, Eversana announced its partnership with Q BioMed Inc. to accelerate the rollout of Strontium89, Q BioMed's FDA-approved cancer bone palliation radiotherapy
 - The partnership allows Q BioMed to leverage the EVERSANA COMPLETE Commercialization model to underpin the product's launch
- In June 2021, Eversana announced partnership with U.K. based GENinCode
 - The partnership allows GENinCode to access the U.S. market with its portfolio of polygenic cardiovascular disease products
- In <u>May 2021</u>, Eversana announced its partnership with MedRhythms, a Portland-based digital therapeutics company
 - Together, they will launch and commercialize *MR-001*, MedRhythms' patented software-based medical device designed to treat chronic stroke walking deficits

Commercial

InsightfulScience

Insightful Science

Business Overview	
(\$ in millions)	
Headquarters:	San Diego, CA
Employees (1-Year Growth):	+100 (▲42%)
Website:	insightfulscience.com
Ownership Status:	PE-Backed (<u>Insight Partners</u>)
Disclosed Acquisitions:	8



Description:

Provider of visualization, graphics, and bioinformatics data management solutions to the scientific research community. Insightful Sciences is the parent entity of four brands across two divisions, Data Analysis & Visualization and Bioinformatics

Select Funding / Transaction History

Date	Lead Investor	Amount
Apr-21	ØARES	\$187.9 million (debt)
Jul-19	MADISON CAPITAL FUNDING A NEW YORK LIFE BIVESTMENTS COMPANY	n/a (debt)
Apr-19	BARINGS	n/a (debt)
Nov-17	PARTNERS	n/a (buyout)

News & Notes

A Acquisitions Expand Company Footprint in Laboratory Data

- » Numerous Acquisitions Advance Mission to Become Scientific Research Information Hub
- In <u>December 2021</u>, Insightful Science acquired Protein Metrics, a proteomics analysis software provider
 - The acquisition addresses the data analysis bottlenecks associated with protein studies
- In <u>November 2021</u>, Insightful Science acquired LabArchives
 - LabArchives is a cloud-based scientific research data management software application intended for organizing and sharing laboratory data and information
 - The combined company will account for more than 2 million users and 5,000 customers worldwide, making it one of the world's largest cloud-based scientific R&D solutions
 - LabArchives already integrates with the company's current products, GraphPad and SnapGene
 - In <u>September 2021</u>, Insightful Science acquired De Novo Software, the developer of the flow cytometry data analysis solution *FCS Express*
 - By Inheriting FCS Express, Insightful Science continues to add to its growing portfolio of scientific research data solutions, helping over 1 million scientists worldwide gain data-driven insights
- In <u>March 2021</u>, Insightful Science acquired Dotmatics, a developer of cloud-based unified scientific informatics software solutions
 - By integrating Dotmatics' cloud-first enterprise data management solution, Insightful Science creates an end-to-end scientific research application, accelerating scientific innovation and fostering enhanced efficiency within the laboratory



Instem

Business Overview	
(\$ in millions)	
Headquarters:	England, U.K.
Employees (1-Year Growth):	293 (▲6%)
Website:	instem.com
Ownership Status:	Public (LSE: INS)
Disclosed Acquisitions:	9
LTM Revenue:	\$47.0



Description:

Provider of drug research & development solutions for the pre-clinical and clinical markets. Products include animal care information systems, electronic lab notebooks, genetic toxicology and regulatory information management

TTM December 2021 Market Pricing -



Source: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021

(1) Per company press release "Instem Acquires PDS Life Sciences"(2) Per company press release "Instem Announces Acquisition of The Edge"

News & Notes

K. Instem Extends Its Reach Within Discovery R&D

- » Acquisitions Add to Suite of R&D Solutions and Nonclinical Data Reporting (SEND)
- In <u>September 2021</u>, Instem announced the acquisition of PDS Life Sciences, a SaaS and managed services provider for SEND reporting (Standard for Exchange of Nonclinical Data) and Laboratory information management solutions, for \$15.6m⁽¹⁾
 - Gregor Grant Executive, Vice President at Instem, commented "For decades, both Instem and PDS have been providing innovative solutions that help organizations accelerate non-clinical development, and we have always been impressed with their highly experienced team. This acquisition will enable us to concentrate our investment into a single line of products, and we are looking forward to advancing what will be a very exciting roadmap."
- In <u>March 2021</u>, Instem announced the acquisition of d-wise, a provider of clinical trial analysis and data anonymization solutions
 - Phil Reason, CEO at Instem, commented "The d-wise organization is well known for its drive to transform the life sciences through open and flexible access to data. They act as strategic advisors to many of Instem's existing clients and are one of the leading IT solution engineering and integration partners in the market today."
- In <u>March 2021</u>, Instem announced the acquisition of The Edge Software Consultancy, a provider of drug discovery R&D software, for \$11.5m⁽²⁾

» Instem Expands In Silico Technology Amid Growing Demand

- In <u>November 2021</u>, Instem announced further enhancement of its *Predict[™]* In Silico Toxicology service to meet growing demand
 - To address new regulatory guidance, Instem added four new services to its portfolio: Establishing Acceptable Limits for N-nitrosamines, Assessment for Abuse Liability, Assessing Bioactivation, SD File Generation
- In December 2020, Instem announced the launch of its Predict[™] In Silico Toxicology service
 - Predict[™] leverages Leadscope's (an Instem company) computational database solutions and incorporates them with expert scientific review, delivering unbiased, high-quality assessments of chemical safety



IntegriChain



Description:

Provider of commercial data and analytics solutions for life sciences manufacturers to derive insights from payer, patient and distribution data. The company services organizations in the pharma, biopharma, generics and medtech sectors

Select Funding / Transaction History

Date	Lead Investor	Amount
Feb-16	AKKR	n/a (buyout)
Sep-15		\$6.0 million (debt)
Apr-11		\$3.0 million (Series C)
Jul-09	MILESTONE VENTURE PARTNERS	\$2.0 million (Series B)
Oct-06	N J T C	\$2.1 million (Series A)

News & Notes

Numerous Key Hires In 2021

» Safety in Mind With Datavant Partnership

- In <u>January 2021</u>, IntegriChain entered a preferred partnership with Datavant, a developer of patient privacy software solutions
 - IntegriChain will utilize Datavant's patient de-identification and tokenization solutions to enhance the quality and security of patient-level data asset integration
 - Josh Halpern, co-founder and Executive Vice President of IntegriChain, commented, "Datavant has developed an unrivalled network of data providers that are utilizing its tokenization technology. We're excited to offer our Life Sciences customers new ways to compliantly and securely integrate their ecosystems of patient-level data assets while also gaining better control over integration quality."

» IntegriChain Makes Key Hires to Expand Services Business

- In July 2021, IntegriChain announced the appointment of seasoned industry veterans to key roles to support expansion of its Advisory and Managed Services businesses
 - Jessica Chung, Director, Advisory Services: She joins IntegriChain after nearly 15 years at Teva Pharmaceuticals in various Market Access reporting and analytics roles
 - Thomas Benton, Senior Manager, Advisory Services: He joins IntegriChain from Deloitte, where he served in the Risk & Financial Advisory life sciences practice
 - Benjamin Fanelli, Senior Manager, GP Advisory: Prior to joining IntegriChain, he served in Government Pricing for manufacturing at Lupin U.S. and previously held positions in the Highpoint and EY consulting practices
 - Samer Allabadi, Senior Director, Channel and Patient Advisory: He joins IntegriChain from Capgemini and will partner with Trade and Patient Access teams on key data mining, analytics, and visualization projects
 - Brittany Honeycutt, Director, Gross-to-Net Managed Services: She has more than nine years of industry experience in gross-to-net and six year in servicing Life Sciences customers on a managed services offering at Deloitte

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IQVIA

Business Overview	
(\$ in millions)	
Headquarters:	Durham, NC
Employees (1-Year Growth):	+64,000 (▲10%)
Website:	<u>iqvia.com</u>
Ownership Status:	Public (NYSE: IQV)
Disclosed Acquisitions:	90
LTM Revenue:	\$13,536.0



Description:

Comprehensive provider of software and CRO services to the life sciences market. The company's technology offerings horizontally span pre-market and post-market functions such as clinical, manufacturing, medical affairs and commercial

TTM December 2021 Market Pricing



Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, Argus Equity Research, market data as of 12/31/2021 (1) Valuation via Pitchbook

News & Notes

NC IQVIA Continues Acquisition Spree

» Recent Acquisitions And Investments – Many in Europe

- Although IQVIA does not typically disclose its transactions through press releases, we have identified the following transactions since the release of MPG's October 2020 market update report:
 - In September 2021, IQVIA announced the acquisition of Davaso (claims/billing services)
 - In August 2021, IQVIA announced the acquisition of DMD Marketing (multi-channel marketing)
 - In July 2021, IQVIA announced the acquisition of Evigrade (healthcare research) for \$5.4m^{(1) (}
 - In <u>April 2021</u>, IQVIA announced the acquisition of the remaining 40% stake in Q2 Solutions (laboratory services and biospecimen tracking software)
 - In March 2021, IQVIA announced the acquisition of Kairos (biomedical research portal)

» New Products Driven By Insights

- In June 2021, IQVIA introduced Clinical Data Analytics Suite (CDAS), a new SaaS-based clinical data analytics platform, standardizing the process of combining structured and unstructured data from clinical trials
 - This platform incorporates A.I. and machine learning to increase the speed of predictive analytics in clinical trials to ensure viable decision making and compliance with all regulatory requirements
- In <u>April 2021</u>, IQVIA announced the launch of Connected Intelligence[™], further integrating IQVIA's portfolio of analytical and data capabilities
 - This solution helps accelerate global clinical research studies by connecting proper insights and resources, providing a new approach for increasing innovations and scientific breakthroughs in the healthcare industry



Business Overview (\$ in millions) Headquarters: San Francisco, CA Employees (1-Year Growth): 473 (▲61%) Website: komodohealth.com **Ownership Status:** VC-Backed (Tiger Global) **Disclosed Acquisitions:** 2 Pre-Clinical Clinical Ξ Medical Affairs Commercial

Description:

Komodo is a provider of a healthcare insights platform utilizing artificial intelligence to provide data-driven tools that enable healthcare and life sciences industries to enhance patient care

Select Funding / Transaction History

Date	Lead Investor	Amount
Mar-21	TIGERGLOBAL	\$220.0 million (Series E)
Jan-21	ICONIQ	\$44.0 million (Series D)
Aug-19	andreessen. horowitz	\$50.0 million (Series C)
Jun-18	n/a	\$12.5 million (Series B)
Mar-15		\$1.0 million (Seed)

News & Notes

Executing on Acquisition and Partnership Initiatives

» Inorganic Initiatives in Play Post Series D/E

- In July 2021, Komodo announced the acquisition of Breakaway Partners, a developer of market access and decision software for the life sciences industry
 - The acquisition integrates Komodo's Healthcare MapTM with Breakaway Partners' automated software solutions for tracking formulary changes, medical and pharmacy policy criteria, and payer coverage, providing real-time insights worldwide
- In January 2021, Komodo announced the acquisition of Mavens, a developer of cloud-based medical information solutions and Salesforce consulting services to tackle commercialization challenges and streamline patient journeys
 - Arif Nathoo, MD, CEO and co-founder of Komodo Health, commented, "This acquisition disrupts the status quo, unlocking a fundamentally different opportunity for life sciences companies to gain access to differentiated insights through technology. Purchasing fragmented and costly data assets, custom solutions, and expensive consulting projects will be a thing of the past as Komodo Health delivers a seamless, data-driven platform across R&D, Commercial, Medical Affairs and Patient workflows."

» New Partnership Enhances Clinical Development

- In March 2021, Komodo announced an agreement with Janssen Research & Development, LLC to accelerate clinical development using real-world data and AI software
 - The partnership allows for optimization of site and patient selection for clinical trials

» Bride Brings 20 Years of Experience to the CFO Role

- In March 2021, Komodo announced Laurent Bride as the company's new Chief Technology Officer
 - Arif Nathoo, MD, CEO and co-founder of Komodo Health, commented, "Laurent's industryleading expertise will help grow our cloud-based enterprise platform, integrating it with Komodo's Healthcare Map[™] to transform systems of record into systems of insight that will provide faster and more efficient ways to get life-saving therapies to the patients who need them most."

Model N

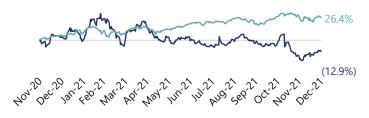
Business Overview	
(\$ in millions)	
Headquarters:	San Mateo, CA
Employees (1-Year Growth):	1,212 (▲6%)
Website:	<u>modeln.com</u>
Ownership Status:	Public (NYSE: MODN)
Disclosed Acquisitions:	5
LTM Revenue:	\$193.5



Description:

Enterprise revenue management and configure-price-quote (CPQ) solutions to the life sciences, manufacturing and high-tech industries. Pharma products include pricing management and provider / payer management

TTM December 2021 Market Pricing -



Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021 (1) Model N press release "Model N to Acquire Deloitte's Life Sciences Price and Contracting Solutions Business

News & Notes

Finding Growth Opportunities Through Collaboration

» New Deal Management Solution Increases Efficiency

- In June 2021, Model N announced the availability of *Deal Management for Life Sciences*, a new solution part of the Model N Revenue Cloud for Life Sciences
 - This solution delivers real-time intelligence data with speed and transparency among providers and distributors in the life sciences industry
 - Its capabilities enable enhanced collaboration between every aspect of commercial transactions, increased visibility into transactions and approval outcomes, reduced risk of mispricing, and fully compliant processes

» Enabling Data-Powered Insights Through Scalable Technology and Services

- In <u>April 2021</u>, Model N announced a strategic life sciences industry partnership with Global Pricing Innovations (GPI), a provider of analytics, insights, and integrated commercial strategy development solutions
 - The partnership combines Model N's experience in global price management and international reference pricing, with GPI's pricing data and analytics, creating a deeply-integrated optimal solution

» Acquisition of Deloitte's Life Sciences Pricing & Contracting Technology

- In <u>December 2020</u>, Model N announced it entered into a definitive agreement to acquire Deloitte's life sciences pricing and contracting solutions business and underlying technology for \$60.0m⁽¹⁾
 - The acquisition positions Model N's portfolio to better serve a larger segment of the market
 - Jason Blessing, President and CEO of Model N, commented, "We are very excited to welcome Deloitte's life sciences pricing and contracting solutions customers and employees to the Model N community. We believe the acquisition of this business allows us to offer revenue management to the broader life sciences market. Deloitte's cloud software and expert services solution are purpose built to help companies scale from pre-commercial to billion-dollar enterprises. Model N has not historically gone after the pre-commercial segment, so this is an exciting addition to our total addressable market."

ORACLE

Oracle

Business Overview	
(\$ in millions)	
Headquarters:	Austin, TX
Employees (1-Year Growth):	+213,000 (▲4%)
Website:	<u>oracle.com</u>
Ownership Status:	Public (Nasdaq: ORCL)
Disclosed Acquisitions:	133
LTM Revenue:	\$40,840.0



Description:

Provider of on-premise and cloud-based enterprise software applications and platform services. The company has life sciences specific offerings, including clinical trial management and pharmacovigilance

TTM December 2021 Market Pricing



Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021 (1) Per company press release "Oracle Buys Cerner"

News & Notes

Aggressive Push Into Healthcare Through Landmark Acquisition

» Big Ticket Acquisition to End the Year

- In December 2021, Oracle announced an agreement to acquire Cerner for \$28.3 billion⁽¹⁾
 - The acquisition allows Oracle to continue its goal toward lower overall healthcare costs and modernizing electric health care records on secure cloud applications

» Saama Enters into Partnership With Oracle

- In March 2021, Oracle and Saama formed a technology partnership
 - The collaboration is intended to streamline clinical trial data flow with the goal of increasing insights and reducing R&D timeline
- In <u>January 2021</u>, Oracle and Cognizant announced the integration of Cognizant's Shared Investigator Platform (SIP) with Oracle Health Science solutions
 - The integration will help standardize administrative tasks and processes into one unified system, with the goal of reduced study startup time and streamlined clinical trial management



Saama Analytics

Business Overview	
(\$ in millions)	
Headquarters:	Campbell, CA
Employees (1-Year Growth):	1,287 (▲19%)
Website:	<u>saama.com</u>
Ownership Status:	PE-Backed (<u>Carlyle</u>)
Disclosed Acquisitions:	3
Pre-Clinical	Clinical
<u> </u>	Commercial

Description:

Provider of an enterprise platform intended to assist medical companies regarding business risk decisions by offering data analytics services improving business outcomes and reducing risk

Select Funding / Transaction History

Date	Lead Investor	Amount
Oct-21	CARLYLE	\$430.0 million (buyout)
Apr-20	Western Alliance Bencorporation	\$4.6 million (debt, PPP)
Mar-19	ADVISORS	\$40.0 million (growth equity)
Nov-17		\$35.7 million (Series A)

News & Notes

A Strategic Growth Investment From Carlyle Fuels AI and R&D

» Carlyle Provides Strategic Growth Investment

- In October 2021, Saama was acquired for \$430.0m by an investor group led by The Carlyle Group⁽¹⁾
 - The acquisition will enable Saama to expand upon its Al-driven data management and analytical capabilities, and accelerate its strategic initiatives by investing further in Al research and development
 - The acquisition comes after Saama collaborated with Pfizer to accelerate its vaccine trials for COVID-19
 - Joe Brees, Managing Director at Carlyle, commented "A big part of our partnership with Saama is our belief that these types of efficiencies which were deployed to accelerate the Pfizer COVID-19 vaccine trial should be broadly deployed to all clinical trials across the industry, because the approach saves money and helps get drugs to market faster."

» Two Big Collaborations Announced in March

- In <u>March 2021</u>, Saama announced a strategic partnership with Datavant to map patient journeys across different real-world and clinical datasets through Saama's Life Science Analytics Cloud (LSAC)
 - Suresh Katta, Founder and CEO of Saama Technologies, commented "Combining Datavant's ability to join datasets with our leading Al capabilities enables a robust and deep understanding of patient behaviors, drug safety, and drug efficacy, which will help biopharma companies improve their patient services and offerings. We're excited to partner with Datavant to continue transforming the life sciences industry by providing innovative solutions that inform and accelerate drug development and delivery for improved human health."
- In March 2021, Oracle and Saama partnered on integrated clinical trial technology
 - The collaboration is intended to streamline clinical trial data flow with the goal of increasing insights and reducing R&D timeline

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn

(1) Per company press release "Carlyle and Leading Healthcare-Focused Venture Funds Announcer Strategic Growth

Investment"

SVILCTENS

Sartorius

Business Overview	
(\$ in millions) Headquarters:	Goettingen, Germany
Employees (1-Year Growth):	6,482 (▲20%)
Website:	<u>sartorius.com</u>
Ownership Status:	Public (XTRA: SRT)
Disclosed Acquisitions:	16
LTM Revenue	\$3,689.0
Pre-Clinical	Clinical
Medical Affairs	Commercial

Description:

International provider of pharmaceutical and laboratory equipment solutions. The company has two business divisions, Bioprocess Solutions and Lab Products & Services, with +60 production and sales locations globally.



News & Notes

Expanding Cell and Gene Therapy Footprint

» Strengthened Product Portfolio for Cell and Gene Therapies With Key Acquisitions

- In July 2021, Sartorius announced the acquisition of Xell AG, a global supplier of raw and ancillary materials for the cell and gene therapy market
 - The acquisition provides enhancement to the Sartorius' current cell culture media business, with newly added focus on gene therapeutics and vaccines
- In July 2021, Sartorius announced the acquisition of a majority stake in CellGenix for \$118.3m⁽¹⁾
 - Additionally, Sartorius plans to acquire the remaining shares of CellGenix at the beginning of 2023 and 2026
 - Felicia Rosenthal, CEO and co-founder of CellGenix, commented, "For us, Sartorius is an ideal partner with a highly complementary product portfolio that will accelerate our development with its global sales team, enabling us to usher in our next phase of growth."
- In <u>January 2021</u>, Sartorius announced the acquisition of Novasep's chromatography process equipment division
 - The acquisition boosts Sartorius' positioning in downstream bioprocessing, providing customers with more options for their manufacturing processes
- In <u>December 2020</u>, Sartorius announced the acquisition of WaterSep BioSeparations, a U.S.-based purification provider, for \$32.7m⁽²⁾
 - Dr. Rene Faber, Head of the Sartorius Bioprocess Solutions Division, commented, "This acquisition nicely complements our current offering for cell and gene therapy applications, cell harvesting and various solutions for intensified bioprocessing."
- » Strategic Partnership With RoosterBio Aimed to Accelerate Break-Through Developments
- In <u>January 2021</u>, Sartorius signed a strategic collaboration with RoosterBio, a supplier of human mesenchymal stem/stromal cell (hMSC) working cell banks and bioprocess systems
 - The partnership aims to reduce process development efforts by leveraging both companies' solutions with hopes to accelerate break-through developments of cell-based regenerative cures

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021

(1) Sartorius Strengthens Product Portfolio for Cell and Gene Therapies by Acquiring majority Stake in CellGenix"

(2) "Satorius Acquires Filtration Expert WaterSep BioSeparations"



Signant Health

Business Overview	
(\$ in millions)	
Headquarters:	Blue Bell, PA
Employees (1-Year Growth):	1,819 (▲11%)
Website:	<u>signanthealth.com</u>
Ownership Status:	PE-Backed (<u>Genstar Capital</u>)
Disclosed Acquisitions:	6
Pre-Clinical	Clinical

Description:

Provider of clinical research development solutions. The company's offerings include electronic clinical outcomes assessments, randomization and trial supply management, rater training & guality assurance and patient engagement

Commercial

Select Funding / Transaction History

Medical Affairs

Date	Lead Investor	Amount
Dec-2020	BDDCA Business Development Corporation of America	\$5.3 million (debt)
Nov-2020	Antares Capital	\$60 million (debt)
Mar-2020	Antares Capital	\$9.7 million (debt)
Dec-2018	OWL ROCK	\$43.2 million (debt)
Jul-2018	OWL ROCK	\$805.0 million (debt)
Oct-2017	Antares Capital	\$175.0 million (debt)
Mar-2017	GENSTAR	\$452.9 million (buyout)

News & Notes

A New Solutions Designed to Accelerate Study Set-Up Timelines

» Clinical Trial Startup Timelines Reduced With Launch of eCOA Acceleration Program

- In June 2021, Signant Health announced the launch of its eCOA acceleration program and remote assessment capabilities for Central Nervous System (CNS) studies
 - The program leverages Signant's eCOA science expertise to provide reduced study setup timelines without compromising data quality, accelerating reliable study outcomes to deliver life-improving treatments and therapies
 - Sanjiv Waghmare, Chief Product Officer at Signant, commented, "By developing a robust eCOA library up front and supporting it through a comprehensive clinical rater and data quality management program, we can improve efficiency and reduce startup timelines without compromising quality, especially for decentralized trials which are now widely accepted and normalized since the COVID-19 pandemic."
- In <u>March 2021</u>, Signant announced the launch of their pre-configured SmartSignals eCOA solution designed for oncology studies
 - The new solution aims to reduce study costs and accelerate study start-ups with consistently high-quality data collection of trial patient outcomes

» COVID-19 Accelerates Signant's Mission to Further Digitally Enhance Trial Sites

- In <u>November 2020</u>, Signant Health announced the acquisition of VirTrial, a provider of virtual care management
 - The acquisition expands Signant's software stack to further digitize trial sites and enhance support sites for sponsors looking to accelerate their trial strategies
 - Roger Smith, CEO of Signant Health, commented "COVID-19 has created a widespread and urgent need for contingency planning in clinical trial operations and has forever changed how our industry plans and executes trials. Signant and VirTrial are passionate about supporting the trial ecosystem with software, analytics, and logistics solutions to conduct studies and generate data across all modalities while improving, respecting, and honoring the role investigators and coordinators play in collaborating with patients to advance clinical research."

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn

Thermo Fisher

Thermo Fisher Scientific

Business Overview	
(\$ in millions)	
Headquarters:	Waltham, MA
Employees (1-Year Growth):	+64,000 (▲11%)
Website:	<u>thermofisher.com</u>
Ownership Status:	Public (NYSE: TMO)
Disclosed Acquisitions:	76
LTM Revenue	\$39,060.0
Pre-Clinical	Clinical

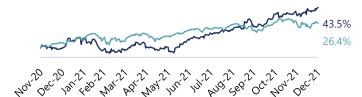
Description:

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Thermo Fisher develops scientific instruments, services, and software solutions to the life sciences and healthcare community. Thermo Fisher operates under multiple brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, and Unity Lab Services

TTM December 2021 Market Pricing

Medical Attairs



Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021

(1) Per company press release "Thermo Fisher Scientific Completes Acquisition of PPD, Inc."

(2) Per the company press release "Thermo Fisher Scientific Completes Acquisition of Mesa Biotech"

(3) Per the company press release "Thermo Fisher Scientific Acquires Viral Vector Manufacturing Business from Novasep"

Commercial

News & Notes

A Aggressive M&A Initiatives

» A Year Full of Promising Acquisitions

- In <u>December 2021</u>, Thermo Fisher closed its acquisition of Pharmaceutical Product Development (PPD) for \$20.9b⁽¹⁾
 - The transaction is expected to add \$1.50 to Thermo Fisher's adjusted earnings per share in $_{\rm 2022^{(1)}}$
- In <u>November 2021</u>, Thermo Fisher announced the acquisition of PharmaFluidics, the developer of the μPAC range of micro-chip-based chromatography columns
- In <u>February 2021</u>, Thermo Fisher acquired Mesa Biotech, a privately held point-of-care molecular diagnostic company, for \$471.0m⁽²⁾
- In <u>February 2021</u>, Thermo Fisher announced the acquisition of cell sorting technology assets from Propel Labs, a wholly owned subsidiary of SIDIS
- In January 2021, Thermo Fisher acquired Novasep's viral vector manufacturing business in Belgium for \$834.0m⁽³⁾

» In-Air SARS-CoV-2 Surveillance Solution

- In March 2021, Thermo Fisher announced the launch of the Thermo Scientific AerosolSense Sampler
- The new surveillance solution is designed to deliver fast, high-quality insight into the presence of in-air pathogens, including SARS-CoV-2
- The solutions enables organizations to comply with the continuously changing rigorous pandemic health and safety protocols for indoor facilities

Veeva

Veeva Systems

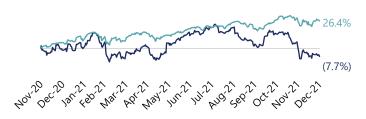
Business Overview	
(\$ in millions)	
Headquarters:	Pleasanton, CA
Employees (1-Year Growth):	5,381 (▲19%)
Website:	<u>veeva.com</u>
Ownership Status:	Public (NYSE: VEEV)
Disclosed Acquisitions:	8
LTM Revenue:	\$1,660.0



Description:

Provider of cloud-based solutions for the global life sciences industry. While the company's core product is a CRM platform, Veeva has expanded its product portfolio to encompass a suite of solutions spanning clinical, regulatory, guality, safety, medical and commercial solutions

TTM December 2021 Market Pricing



News & Notes

Various Partnerships Linked Veeva's Commercialization Expertise

» Commercialization at The Forefront of Strategic Partnerships

- In <u>May 2021</u>, Veeva announced a strategic partnership with Oncopeptides to support the launch of *PEPAXTRO*, Oncopeptides' first commercial product
 - Through the utilization of *Veeva Link*, Veeva's real-time customer intelligence solution, Oncopeptides swiftly identified top scientific and clinical experts during its pre-commercial planning
- In <u>April 2021</u>, Veeva and Parexel announced a strategic partnership to advance clinical trial technology and processes with the goal of improving study efficiency
 - Peter Gassner, Founder and CEO of Veeva, commented, "We're proud to partner with Parexel to drive customer success and speed innovations in clinical research. Together, we can accelerate how our customers bring new vaccines, diagnostics, devices, and therapies to patients in need."
- In <u>February 2021</u>, Veeva and Impel NeuroPharma announced a strategic partnership to collaborate on prelaunch preparations for Impel's migraine treatment, *TRUDHESATM*
 - Impel will leverage *Veeva Commercial Cloud* platform to meet aggressive commercial timelines and help propel the launch of *TRUDHESA™*

» Randomization / Trial Supply Management and eLearning Acquisitions

- In <u>December 2021</u>, Veeva announced the acquisition of Veracity Logic, a provider of cloud-based randomization and trial supply management solutions
- In <u>August 2021</u>, Veeva announced the acquisition of Learnaboutgmp, a GxP eLearning content and accreditation provider
 - Together, Veeva and Learnaboutgmp collectively provide an eLearning library, assisting organizations with GxP training while reducing costs and improving training outcomes
 - Kent Malmros, Senior Director of Veeva's Vault Training, commented, "Learnaboutgmp is a leading eLearning content provider that consistently delivers training excellence for its customers. By bringing together industry-leading learning technology and content, we aim to help customers drive more strategic training programs that improve job competency and compliance."

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn, market data as of 12/31/2021



WCG Clinical

Business Overview	
(\$ in millions)	
Headquarters:	Princeton, NJ
Employees (1-Year Growth):	461 (▲8%)
Website:	<u>wcgclinical.com</u>
Ownership Status:	PE-Backed (<u>Leonard Green</u>)
Disclosed Acquisitions:	30



Description:

Provider of regulatory and ethical review services for human research. The company also offers complementary software products with capabilities spanning patient consent, electronic data management and clinical outcome assessment

Select Funding / Transaction History

Date	Lead Investor	Amount
Oct-2020	BARCLAYS	\$125.0 million (debt)
Nov-2019	LGP & PARTNERS	\$3.2 billion (buyout)
Apr-2018	Churchill Asset Management	\$125.0 million (debt)
Apr-2017		\$131.0 million (debt)
Jan-2013	maranon	\$1.4 billion (debt)

News & Notes

Multiple Organic And Inorganic Initiatives Despite IPO Pullback

» M&A Events

- In July 2021, WCG announced the acquisition of VeraSci, a provider of cognition and clinical assessment software
 - The acquisition adds expertise to WCG's scientific and patient engagement capabilities, addressing the increased demand for remote data capture
- In <u>July 2021</u>, WCG announced the acquisition of Intrinsic Imaging, a medical imaging core lab software servicefor \$80.0m⁽¹⁾
 - Donald A. Deieso, Ph.D., Executive Chai rman and CEO of WCG, commented, "The growing need to visually demonstrate safety and efficacy to regulators, patients, providers, payers and other research stakeholders is driving the increasingly critical role medical imaging is playing in clinical trials."
- In May 2021, WCG announced the acquisition of The Avoca Group, a life sciences consulting firm
 - The acquisition strengthens WCG's position for accelerating clinical trial quality management, with increased focus on mitigating risk in clinical trials and enhancing process quality
- In <u>December 2020</u>, WCG announced the acquisition of Trifecta, provider of clinical qualifications management solutions including a comprehensive site communication platform InvestigatorSpace[®], virtual training programs and safety documentation services

» New Platform Released After Avoca Acquisition

 In <u>September 2021</u>, WCG announced the expansion of WCG Avoca Quality Consortium (AQC), its forum devoted to the standardization of performance measures for cross-industry collaboration

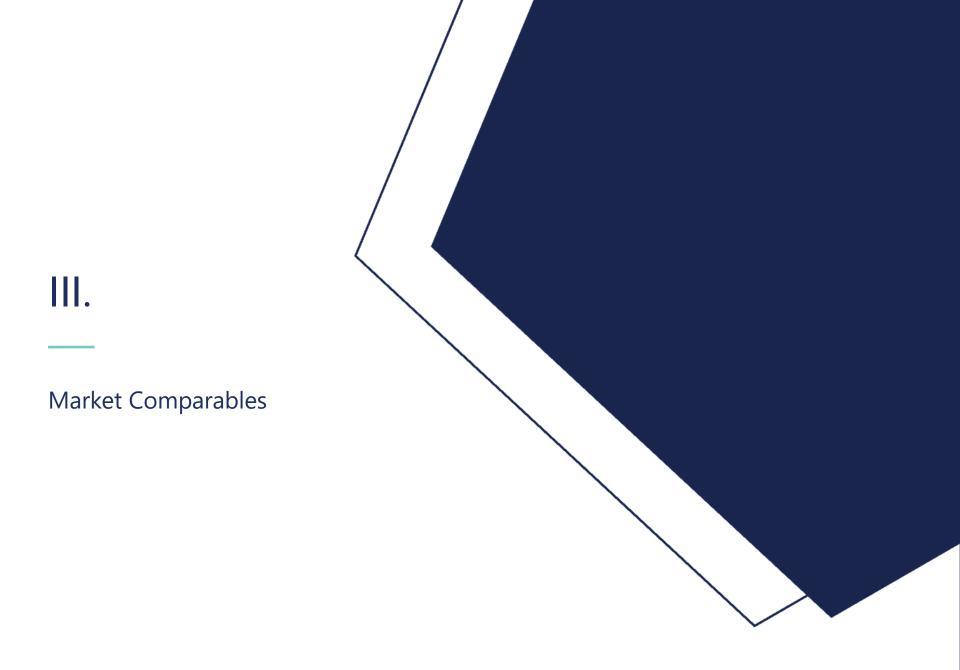
» WCG Withdraws its IPO

• In October 2021, WCG officially withdrew its \$720.0m IPO⁽²⁾

Sources: Pitchbook, Capital IQ, corporate websites, press releases, LinkedIn

(1) Per company press release "WCG Acquires Intrinsic Imaging, Leading Full-Service Medical Imaging Core Lab

(2) "Clinical Trial Solutions Provider WCG Clinical Officially Withdraws \$720 million IPO"



Precedent Life Science M&A Transactions

Public Companies & Leading Platforms

Anju Software IntegriChain Date Target Deciption Revenue EBITDA Value Revenue Anju Software IntegriChain Advarra IntegriChain	
Anju Software IntegriChain Advarra Total Disclosed M&A P ArisGlobal Jul-21 Watermark Research Partners Data safety monitoring services n/a	
ArisGlobal Jul-21 Watermark Research Partners Data safety monitoring services n/a	al Value: n/a
ArisGlobal IQVIA Mar-21 Bio-Optronics Clinical management services software n/a n/	
ArisGlobal IQVIA Nov-20 Longboat Cloud-based clinical trial platform n/a	
Bruker Nov-20 Iniggoal Cloud-based clinical rata platform in/a <	a n/a
BrukerMay-20IRB CompanyIRB servicesn/aN/aN/a	a n/a
BrukerKomodo HealthSep-19Forte Research SystemsClinical research management softwaren/an/an/an/an/aMar-19Quorum Review IRBIRB services & Kinetiq tech consulting divisionn/an/an/an/an/an/aNov-17Chesapeake IRBIRB services (merged with Schulman)n/an/an/an/an/an/aNov-17Schulman Associates IRBIRB services (merged with Chesapeake)n/an/an/an/an/aNov-17Schulman Associates IRBIRB services (merged with Chesapeake)n/an/an/an/an/aJul-17Mar-18Zephyr HealthCommercial and medical affairs intelligenceConfid.Confid.Confid.Confid.Jul-17Cli	-
Bruker Komodo Health Mar-19 Quorum Review IRB IRB services & Kinetiq tech consulting division n/a	
Certara Model N Anju Software Chesapeake IRB IRB services (merged with Chesapeake) n/a n/a n/a n/a n/a n/a n/a Clario (formerly ERT / Bioclinica) Oracle Oracle Anju Software Clinical software and services \$25.6 \$2.0 \$80.0 3.12 Model N Anju Software Commercial and medical affairs intelligence Confid. Confid.<	-
Certara Nov-17 Schulman Associates IRB IRB services (merged with Chesapeake) n/a <	-
Certara Anju Software Total Disclosed M&A Deal Valu Sep-19 OmniComm eClinical software and services \$25.6 \$2.0 \$80.0 3.12 Clario (formerly ERT / Bioclinica) Oracle Oracle More and provide and medical affairs intelligence Confid. Confi	-
Certara Model N Sep-19 OmniComm eClinical software and services \$25.6 \$2.0 \$80.0 3.13 Clario (formerly ERT / Bioclinica) Oracle Oracle Onfid. Confid. Con	
Clario (formerly ERT / Bioclinica)Oct-18Zephyr HealthCommercial and medical affairs intelligenceConfid.Confid	
Clario (formerly ERT / Bioclinica)Jun-18MDCPartnersClinical optimization and KOL intelligenceConfid. </td <td>-</td>	-
Clario (formerly ERT / Bioclinica)OracleMar-18SylogentPublication planning and clinical disclosure eClinical solutions including CTMS and EDCConfid.	
Bioclinica) Jul-17 ClinPlus eClinical solutions including CTMS and EDC Confid.	
Apr-17 OpenQ Key opinion leader (KOL) management Confid. Confid. Confid. Confid.	
Dassault / Medidata Saama Analytics ArisGlobal Total Disclosed M&A D	
Jun-15 Medsight Solutions Risk-assessment, reporting and compliance n/a n/a n/a n,	a n/a
Bruker Total Disclosed M&A Deal Valu	e: \$1.7 Billion
Definitive Healthcare Sartorius Nov-21 Molecubes Benchtop preclinical NMI systems \$6.3 n/a n/a n/a	a n/a
Feb-21Acuity Spatial Genomics3D genome-wide visualization platformn/an/a\$4.5n,	a n/a
Sep-20 Canopy Biosciences Biomarker imaging and gene editing n/a n/a n/a n/a n,	a n/a
Aug-20 Integrated Proteomics Search engine and proteomics workflow n/a n/a \$3.0 n,	
Envision Pharma Signant Health Oct-19 Magenettech Electronic measuring instruments n/a n/a \$9.3 n,	
Jul-19 PMOD Technologies LLC Research-use-only medical imaging n/a n/a \$8.9 n,	
Apr-19 RAVE LLC Developer of nanomachining techniques \$25.0 n/a \$56.6 2.26	
Mar-19 Arxspan, LLC Cloud-based scientific software n/a n/a \$16.6 n, Eversana Nov-18 Alicona Imaging GmbH Optical 3D surface metrology systems n/a n/a \$54.0 n,	
Eversana Scientific Nov-18 Alicona imaging GmbH Optical 3D surface metrology systems n/a n/a \$54.0 n, Scientific Nov-18 Aegilops Applications Technological agents for seed treatment \$5.0 \$2.0 n/a n,	
Aug-18Hain LifescienceManufacturer of in-vitro diagnosticsn/an/a\$73.2n/a	-
Jul-18 JPK Instruments AG Life science microscopy \$10.0 n/a \$20.7 2.00	
h d. 10 - Lootedaratio D.V Analytical instruments for the definements	-
Insightful Science Veeva Systems Jul-18 Lactotronic B.v. Analytical instruments for the dairy sector n/a	-
Apr-18 Anasys Instruments Corporation Nanoscale spectroscopy imaging n/a n/a \$32.3 n,	a n/a
Feb-18 IRM2 High-speed infrared (IR) imaging n/a	a n/a
Sep-17 MERLIN Diagnostika Developer of diagnostic equipment n/a n/a \$2.5 n, WCG Clinical Aug. 17 XCI ab Manufacture of alectronic instruments n/a n/a \$5.5 n	. II/u
	-
May-17 Luxendo GmbH Light-sheet fluorescence instruments n/a n/a \$21.9 n,	a n/a a n/a

Sources: Capital IQ, Public Filings, Press Releases, PitchBook, proprietary Madison Park Group research based on publicly available information Note: All EBITDA Multiples >30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability

Precedent Life Science M&A Transactions

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millic	(\$ in Millions) Target Overview						
					Estima	ated	Deal	Deal Value /	Estimated
		Date	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA
Anju Software	IntegriChain	Bruker				Total Disclo	osed M&A	Deal Value:	\$1.7 Billion
		Jan-17	Hysitron Incorporated	Nanomechanical test instruments	n/a	n/a	\$28.8	n/a	n/a
		Jan-17	SCiLS GmbH	Software for mass spectrometry data	n/a	n/a	\$3.1	n/a	n/a
ArisGlobal	IQVIA	Jan-17	InVivo BioTech Services	Monoclonal antibodies and proteins	\$5.0	n/a	\$9.1	1.82x	n/a
Alisolobal	IQVIA	Dec-16	Active Spectrum, Inc.	Electron Spin Resonance spectroscopy	n/a	n/a	\$2.8	n/a	n/a
		Nov-16	Oxford Instruments	Manufacturer of superconducting wires	\$25.8	n/a	\$17.5	0.68x	n/a
		Sep-16	Oncovision (Assets)	Preclinical PET imaging business	n/a	n/a	\$7.4	n/a	n/a
D. L.		Jun-16	Yingsheng Technology	Mineral identification software	n/a	n/a	\$1.7	n/a	n/a
Bruker	Komodo Health	Oct-15	Jordan Valley Semiconductors	Semiconductor metrology equipment	\$22.0	n/a	\$32.7	1.49x	n/a
		Jul-14	Vutara	Super-resolution microscopes	n/a	n/a	n/a	n/a	n/a
		Sep-12	Carestream	Preclinical imaging business	n/a	n/a	n/a	n/a	n/a
		Apr-12	SkyScan	Microtomography instruments	\$19.1	\$3.7	\$25.4	1.33x	6.9x
Certara	Model N	Jan-12	Hecus X-ray	X-ray systems	n/a	n/a	n/a	n/a	n/a
		Oct-11	Center for Tribology	Tribology and mechanical test equipment	n/a	n/a	\$12.5	n/a	n/a
		Apr-11	Michrom Bioresources	Microfluidic products for life sciences	n/a	n/a	\$3.8	n/a	n/a
Clario (formerly ERT /		Jan-11	PROTECT-US	Radiation detection instruments	n/a	n/a	n/a	n/a	n/a
	Oracle	Dec-10	Sigma ElectroOptics	Remote gas sensing products	\$1.3	n/a	n/a	n/a	n/a
Bioclinica)		Oct-10	Veeco Instruments	Optical industrial metrology and microscopy	\$130.0	n/a	\$230.4	1.77x	n/a
		May-10	Varian (Three Product Lines)	Lab GC, GC-QQQ-MS and ICP-MS products	n/a	n/a	\$37.5	n/a	n/a
	Apr-09	ACCEL	Therapy instruments for cancer treatment	n/a	n/a	\$0.4	n/a	n/a	
Dassault / Medidata	Saama Analytics	Feb-08	BioSpin	Life science & analytical research instruments	\$447.0	\$76.7	\$914.0	2.04x	11.9x
Dassaar / Medidata	Suama Analytics	Jun-07	Analys-Konsult AB	Scientific instruments	n/a	n/a	\$0.8	n/a	n/a
		Jun-07	Spectral Solutions	Advanced research instruments	n/a	n/a	n/a	n/a	n/a
		Jan-07	Keca Metal Products	Specialized machining services	n/a	n/a	\$0.6	n/a	n/a
Definitive Healthcare	Contonius	Jul-06	KeyMaster Technologies	Portable X-ray systems	n/a	n/a	\$10.0	n/a	n/a
Definitive HealthCare	Sartorius	Oct-05	Rontec	X-ray elemental and structural analysis	n/a	n/a	\$6.6	n/a	n/a
		Jun-03	VAC	Magnetic materials	n/a	n/a	n/a	n/a	n/a
		May-02	MAC Science	X-ray instrument products	n/a	n/a	n/a	n/a	n/a
Envision Pharma	Signant Health	Certara			Tc	tal Disclose	d M&A De	al Value: \$46	4.3 Million
		Aug-21	Pinnacle 21	Pharmaceutical data standardization software	\$23.5	n/a	\$310.0	13.19x	n/a
		Jun-21	Insight Medical Writing	Regulatory services and medical writing	n/a	n/a	n/a	n/a	n/a
	Thermo Fisher	Mar-21	AUTHOR!	Medical writing and biostatistics services	n/a	n/a	n/a	n/a	n/a
Eversana		Sep-18	Pirana	Pharmacometrics modeling workbench	n/a	n/a	\$40.0	n/a	n/a
	Scientific	Apr-18	Analytica Laser	Tech-enabled drug value assessment	n/a	n/a	n/a	n/a	n/a
		Feb-18	BaseCase	Data visualization software	n/a	n/a	\$25.3	n/a	n/a
		Mar-17	GlobalSubmit (Synchrogenix)	Regulatory submissions software	n/a	n/a	n/a	n/a	n/a
Insightful Science	Veeva Systems	Sep-16	d3 Medicine	Drug development program planning	n/a	n/a	n/a	n/a	n/a
insignitial science veeva systems	veeva systems	Dec-15	Xenologiq	Quantitative systems consulting	n/a	n/a	n/a	n/a	n/a
		Dec-14	ClinGenuity (Synchrogenix)	AI-powered clinical trial reporting	n/a	n/a	n/a	n/a	n/a
		Apr-14	Synchrogenix	Strategic regulatory services	n/a	n/a	n/a	n/a	n/a
WCG Clinical	Tipical	Aug-13	Great Lakes Drug Develop.	Support services for drug development	n/a	n/a	n/a	n/a	n/a
VVCG (Feb-12	Simcyp	Drug modeling and simulation platform	n/a	n/a	\$32.0	n/a	n/a
		Nov-08	Pharsight	Drug development software and services	\$28.8	\$1.9	\$57.0	1.98x	n/m

Sources: Capital IQ, Public Filings, Press Releases, PitchBook, proprietary Madison Park Group research based on publicly available information Note: All EBITDA Multiples >30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millio	ns)		Target Overview				
					Estima		Deal	Deal Value /	
		Date	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA
Anju Software	IntegriChain	Clario (fo	ormerly ERT / Bioclinoca)		То	tal Disclose	d M&A Dea	al Value: \$35	9.3 Million
		Apr-21	Bioclinica (E)	Imaging and other eClinical solutions	n/a	n/a	n/a	n/a	n/a
		Jan-21	Saliency (B)	Al-based research image technology	n/a	n/a	n/a	n/a	n/a
ArisGlobal	IQVIA	Sep-20	Clinical Trials Imaging (B)	Consulting services for medical imaging	n/a	n/a	n/a	n/a	n/a
Alisolobal	IQVIA	Jun-20	APDM Wearable Technologies (E)	Movement monitoring technologies	n/a	n/a	\$6.3	n/a	n/a
		Dec-17	iCardiac (E)	Cardiac safety solutions	\$20.5	n/a	n/a	n/a	n/a
		Nov-17) Medical research image management	n/a	n/a	n/a	n/a	n/a
Bruker	Komodo Health	Sep-17	Biomedical Systems (E)	Imaging solutions	n/a	n/a	\$185.0	n/a	n/a
DIUKEI	KOIIIOUO Healtii	May-17	ImagelQ (E)	Cloud-based imaging technology	n/a	n/a	n/a	n/a	n/a
		Dec-16	Exco inTouch (E)	Patient engagement and data capture	\$17.7	(\$1.6)	n/a	n/a	n/a
		Jul-16	Compass Research(B)	Clinical research services	n/a	n/a	n/a	n/a	n/a
Carlana	Maria I. N.	Jan-16	Clinverse (B)	Online platform for clinical payments	n/a	n/a	n/a	n/a	n/a
Certara	Model N	Sep-15	Synowledge (B)	Drug safety and regulatory affairs	n/a	n/a	n/a	n/a	n/a
		Jul-15	MediciGlobal (B)	Patient recruitment and retention services	n/a	n/a	n/a	n/a	n/a
		May-15	PHT (E)	Electronic patient reported outcomes	n/a	n/a	n/a	n/a	n/a
Clario (formerly ERT /		Nov-14	eClinical Insights (E)	Clinical trials management software	n/a	n/a	n/a	n/a	n/a
Bioclinica)	Oracle	Jun-14	Blueprint Clinical (B)	Risk based monitoring technology	n/a	n/a	n/a	n/a	n/a
Biochnica)		Mar-14	SYNARC (B)	Medical image analysis	n/a	n/a	n/a	n/a	n/a
		Mar-13	CoreLab Partners (B)	Cardiac safety monitoring and imaging	n/a	n/a	n/a	n/a	n/a
		Jul-12	Invivodata E	Electronic patient reported outcomes	n/a	n/a	n/a	n/a	n/a
Dassault / Medidata	Saama Analytics	Jun-10	CareFusion E	Research services division	n/a	n/a	\$80.8	n/a	n/a
		Mar-10	TranSenda International (B)	Clinical management software	\$1.0	(\$0.5)	\$2.5	2.50x	n/m
		Sep-09	Tourtellotte Solutions (B)	Interactive voice response technology	\$5.0	n/a	\$6.6	1.32x	n/a
		Sep-09	CardioNow (B)	Medical image transmission	n/a	n/a	\$1.0	n/a	n/a
Definitive Healthcare	Sartorius	Mar-08	Phoenix Data Systems (B)	Electronic data capture	\$12.1	\$1.4	\$24.0	1.98x	17.1x
	00.00100	Nov-07	Covance Cardiac Safety Serv.	Cardiac safety services	n/a	n/a	\$49.2	n/a	n/a
		Feb-07	Theralys (B)	Imaging CRO services	n/a	n/a	\$3.9	n/a	n/a
		Dec-04	Heart Core (B)	Quantitative image analysis services	n/a	n/a	n/a	n/a	n/a
Envision Pharma	Signant Health	May-99	Bona Fide (B)	Quality assurance and quality control	n/a	n/a	n/a	n/a	n/a
Envision marina	Signatic Health	Dassault	/ Medidata			Total Disclos	ed M&A D	eal Value: \$	11.6 Billion
		Jul-21	Iterop	Low-code business process management solution	n/a	n/a	n/a	n/a	n/a
	Thermo Fisher	Nov-20	NuoDB	Cloud-native distributed SQL database	n/a	n/a	\$114.0	n/a	n/a
Eversana		Oct-20	MC10 (Assets) (Medidata)	Remote digital biomarker business	n/a	n/a	\$2.5	n/a	n/a
	Scientific	Jul-20	Proxem	AI-based semantic processing software	n/a	n/a	n/a	n/a	n/a
		Dec-19	COSMOlogic	Fluid phase computational chemistry software	\$2.2	n/a	n/a	n/a	n/a
		Jun-19	Medidata	eClinical solutions	\$661.0	\$85.4	\$5,763.8	8.72x	n/m
Insightful Science	Veeva Systems	Feb-19	Trace Software (Assets)	Electrical design, product line & IP assets	n/a	n/a	n/a	n/a	n/a
insignation science	veera systems	Jan-19	IQMS	Manufacturing ERP software & SaaS	\$65.0	n/a	\$425.0	6.54x	n/a
		Jul-18	Centric Software	PLM software for operations management	\$61.0	n/a	\$228.1	3.74x	n/a
		Jun-18	No Magic	BPM software & SaaS	\$13.4	n/a	n/a	n/a	n/a
MCG	Clinical	Jun-18	SHYFT Analytics (Medidata)	Commercial and clinical analytics solutions	\$20.0	n/a	\$195.0	9.75x	n/a
VCG	Cirrical	Nov-17	Exa Corporation	Simulation & engineering software & SaaS	\$73.0	\$1.5	\$400.0	5.48x	n/m
		Jun-17	Outscale	Provider of IaaS	n/a	n/a	n/a	n/a	n/a

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millio	ns)		Target Overview				
					Estima	ited	Deal	Deal Value /	Ectimated
		Date	Target	Description	Revenue	EBITDA	Value	<u>Revenue</u>	EBITDA
Anju Software	IntegriChain	Dassault	/ Medidata			Fotal Disclos	sed M&A D	Deal Value: \$	11.6 Billion
		Jun-17	AITAC	Marine and offshore engineering software	n/a	n/a	n/a	n/a	n/a
		Apr-17	Mytrus (Medidata)	Patient consent solutions	n/a	n/a	n/a	n/a	n/a
		Feb-17	Chita (Medidata)	Content management and collaboration	n/a	n/a	\$14.7	n/a	n/a
ArisGlobal	IQVIA	Dec-16	Next Limit Dynamics	Graphics simulation software asset	n/a	n/a	n/a	n/a	n/a
		Jul-16	CST	Electromagnetic field simulation software	\$47.0	n/a	\$243.7	5.18x	n/a
		Jun-16	Ortems	Manufacturing planning software & SaaS	n/a	n/a	n/a	n/a	n/a
		Apr-16	Intelemage (Medidata)	Clinical trial image file sharing	n/a	n/a	\$17.1	n/a	n/a
Bruker	Komodo Health	Apr-16	3DPLM Software Solutions	Software development & implementation	n/a	n/a	n/a	n/a	n/a
		Apr-15	Modelon	German engineering CAD & simulation software	n/a	n/a	n/a	n/a	n/a
		Oct-14	Patient Profiles (Medidata)	Patient report software	n/a	n/a	n/a	n/a	n/a
		Jul-14	Quitiq	Supply planning & optimization software	\$96.0	n/a	\$337.0	3.51x	n/a
Certara	Model N	Jul-14	SIMPACK	Multi-body simulation software provide	n/a	n/a	n/a	n/a	n/a
		Jan-14	Accelrys	Scientific PLM software	\$174.0	n/a	\$750.0	4.31x	n/a
		Jan-14	Real time Technology	3D visualization technology	\$95.1	n/a	\$245.4	2.58x	n/a
		Oct-13	Inceptra	Horizontal PLM software	n/a	n/a	n/a	n/a	n/a
Clario (formerly ERT /	Oracle	Sep-13	Safety Technology	Supplier of safety training and equipment	n/a	n/a	\$1.0	n/a	n/a
Bioclinica)	Oracle	Jul-13	SFE	CAE-driven development software	n/a	n/a	n/a	n/a	n/a
		Jul-13	Apriso	Manufacturing execution system	\$50.0	n/a	\$205.0	4.10x	n/a
		Apr-13	Archividéo	Production of 3D images for construction	\$1.3	n/a	n/a	n/a	n/a
Dassault / Medidata	Saama Analytics	Apr-13	Fe-Design	Simulation and automation software	n/a	n/a	n/a	n/a	n/a
Dassault / Medidata	Saama Analytics	Apr-13	Simpoe	Plastic injection-molding simulation software	n/a	n/a	n/a	n/a	n/a
		Jan-13	SquareClock	Provides 3D space planning solutions	\$2.7	n/a	n/a	n/a	n/a
		Dec-12	Tuscany Design Automation	Engineering software for circuit design	n/a	n/a	n/a	n/a	n/a
		Jul-12	Gemcom	Supplier of mining productivity solutions	\$90.0	n/a	\$354.9	3.94x	n/a
Definitive Healthcare	Sartorius	Feb-12	Netvibes	Personalized dashboard publishing platform	\$2.8	(\$2.5)	n/a	n/a	n/a
		Oct-11	Elsys International	Collaborative management software	\$0.7	(\$0.2)	n/a	n/a	n/a
		Oct-11	Simulayt	Draping simulation technology services	\$1.1	\$3.0	n/a	n/a	n/a
		Jun-11	Clinical Force (Medidata)	SaaS-based CTMS	n/a	n/a	\$7.8	n/a	n/a
Envision Pharma	Signant Health	Apr-11	Enginuity PLM	R&D software for chemical companies	n/a	n/a	n/a	n/a	n/a
		Mar-11	Intercim	Provider of operations management software	n/a	n/a	\$36.5	n/a	n/a
		Jun-10	Geensoft	Design tools and services for software systems	n/a	n/a	\$6.7	n/a	n/a
	Thermo Fisher	Jun-10	Exalead	Unified search technology platform	n/a	n/a	\$164.9	n/a	n/a
Eversana		Apr-10	IBM (Assets)	Support services for PLM software	n/a	n/a	\$600.0	n/a	n/a
	Scientific	Jul-08	Engineous Software	Process integration and design optimization	n/a	n/a	\$40.0	n/a	n/a
		Mar-08	Fast Track Systems (Medidata)	Clinical trial document solutions	n/a	n/a	\$18.1	n/a	n/a
		Jan-08	Deneb Robotics	Digital manufacturing software	n/a	n/a	\$105.0	n/a	n/a
Insightful Science	Veeva Systems	Sep-07	Seemage	Software for 3D CAD models	\$2.6	(\$2.4)	n/a	n/a	n/a
insightar science	teeva systems	Jun-07	ICEM	Modeling, analysis, and design software	n/a	n/a	\$108.2	n/a	n/a
		May-06	MatrixOne	Collaborative PLM software	\$135.5	(\$11.3)	\$410.0	3.03x	n/m
		Oct-05	Dassault Systèmes Simulia	Software for advanced finite element analysis	n/a	n/a	\$413.0	n/a	n/a
WCG C	linical	Jul-05	Virtools	Real-time 3D and multi-user applications	\$3.9	(\$1.2)	\$14.5	3.72x	n/m
WCG C	iiiicai	Jan-05	Transcat PLM	PLM software	n/a	n/a	n/a	n/a	n/a
		Jul-04	Inceptra	PLM software	n/a	n/a	n/a	n/a	n/a

Sources: Capital IQ, Public Filings, Press Releases, PitchBook, proprietary Madison Park Group research based on publicly available information

Note: All EBITDA Multiples > 30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millic	ns)	T	arget Overview				
		Date	Target	Description	Estima <u>Revenue</u>	ted EBITDA	Deal Value	Deal Value / <u>Revenue</u>	Estimated EBITDA
Anju Software	IntegriChain	Dassault	/ Medidata		Τ	otal Disclos	ed M&A D	eal Value: \$	11.6 Billion
		May-03	Athys	Workcell control software	n/a	n/a	\$3.8	n/a	n/a
		Apr-02	Ortems	Supply-chain advanced planning software	n/a	n/a	\$8.9	n/a	n/a
ArisGlobal	IOVIA	Nov-00	Spatial (3D Modeling)	3D modeling for application development	n/a	n/a	n/a	n/a	n/a
Ansolobal	IQVIA	Jan-00	Structural Research & Analysis	Analysis for computer aided design (CAD)	n/a	n/a	\$22.0	n/a	n/a
		Jul-97	Solidworks	Mechanical design software for Windows	n/a	n/a	\$325.0	n/a	n/a
		Definitive	e Healthcare		Тс	otal Disclos	ed M&A De	eal Value: \$8	9.8 Million
Bruker	Komodo Health	Oct-20	Monocl	Medical and scientific expert data	\$9.5	n/a	\$60.0	6.32x	n/a
		Dec-19	PatientFinder	Life sciences software analytics provider	n/a	n/a	n/a	n/a	n/a
		Jan-19	HIMSS Analytics	Healthcare research and advisory firm	n/a	n/a	\$29.8	n/a	n/a
C		Jun-16	Billian's HealthDATA	Healthcare data and analytics	n/a	n/a	n/a	n/a	n/a
Certara	Model N	Oct-15	US Lifeline	Supply-chain information database	n/a	n/a	n/a	n/a	n/a
		Envision	Pharma		T	otal Disclos	ed M&A D	eal Value: \$2	280 Million
		Mar-21	doDOC	Cloud-based document review software	n/a	n/a	n/a	n/a	n/a
Clario (formerly ERT /	Oracle	Nov-20	Two Labs	Pharmaceutical consultancy services	n/a	\$19.0	\$280.0	n/a	14.7x
Bioclinica)	0.000	Apr-20	90ten	Healthcare communication consultancy	n/a	n/a	n/a	n/a	n/a
		Sep-15	Alligent Biopharm Consulting	Medical affair agency services	n/a	n/a	n/a	n/a	n/a
		Jan-14	ProScribe	Medical writing services	n/a	n/a	n/a	n/a	n/a
Dassault / Medidata	Saama Analytics	Eversana			T	otal Disclos	ed M&A D	eal Value: \$9	950 Million
		Oct-21	Protean	Healthcare consulting firm	n/a	n/a	n/a	n/a	n/a
		Oct-21	Intouch Group	Pharma marketing and advertising services	\$220.0	\$50.0	\$950.0	4.32x	19.0x
D.C.S.C. Hardeland		Jul-21	Accelera Canada	Full-service field learning and development	n/a	n/a	n/a	n/a	n/a
Definitive Healthcare	Sartorius	Sep-20	Alkemy Partners	Market access, and clinical engagement solutions	n/a	n/a	n/a	n/a	n/a
		Jul-20	HVH Precision Analytics	Al-based predictive analytics platform	n/a	n/a	n/a	n/a	n/a
		Nov-19	Cornerstone Research Group	Health economics and market research	n/a	n/a	n/a	n/a	n/a
Envision Pharma	Signant Health	May-19	Alamo Pharma Services	Sales, marketing and clinical services	\$144.0	n/a	n/a	n/a	n/a
Envision Phanna	Signant Health	May-19 Oct-18	BexR Logistix Seeker Health	Logistical support and management services Patient identification technology platform	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
		Oct-18 Oct-18	Dohmen Life Science Services	Medical communication services	n/a	n/a	n/a	n/a	n/a
		Oct-18	The Access Group	Communications and consulting	n/a	n/a	n/a	n/a	n/a
Eversana	Thermo Fisher	May-18	The Patient Experience Project	Patient-centric communication services	\$16.9	n/a	n/a	n/a	n/a
Lversana	Scientific	May-18	Triplefin	Reimbursement and patient assistance	n/a	n/a	n/a	n/a	n/a
		Dec-17	Alliance Life Sciences	Pricing software and services	n/a	n/a	n/a	n/a	n/a
		Dec-17	Health Strategies Group	Market research solutions	n/a	n/a	n/a	n/a	n/a
Insightful Science Veeva Systems		Insightfu	l Science		T	otal Disclos	ed M&A D	eal Value: \$6	580 Million
		Dec-21	Protein Metrics	Protein analysis and biotherapeutics software	n/a	n/a	n/a	n/a	n/a
		Oct-21	LabArchives	Cloud-based lab data organizing software	n/a	n/a	n/a	n/a	n/a
WCG C	linical	Sep-21	De Novo Software	Flow cytometry software	n/a	n/a	n/a	n/a	n/a
VVCG C	IIIICal	Apr-21	Dotmatics	Informatics platform facilitating scientific data	\$41.8	n/a	\$680.0	16.26x	n/a
		Jun-20	Statsols (nQuery)	Sample size software	\$1.6	n/a	n/a	n/a	n/a

Public Companies & Leading Platforms

Advarra	lns	tem	(\$ in Millio	ns)		Target Overview				
						Estima	ated	Deal	Deal Value /	Estimated
			Date	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA
Anju Software	Integ	riChain	Insightful	Science			Total Disclos	ed M&A D	eal Value: \$6	580 Million
			May-20	Cytapex Bioinformatics	Bioinformatics CRO	n/a	n/a	n/a	n/a	n/a
			Aug-19	SnapGene	Bioinformatics technology	n/a	n/a	n/a	n/a	n/a
ArisGlobal	10	VIA	Apr-19	Biomatters	Geneious DNA data analysis solutions	n/a	n/a	n/a	n/a	n/a
			Nov-17	GraphPad	Data analysis, statistics and graphing software	n/a	n/a	n/a	n/a	n/a
			Instem			Т	otal Disclos	ed M&A De	eal Value: \$8	0.3 Million
D. L.	K	. I.I Ith	Sep-21	PDS Pathology Data Systems	Non-clinical study management software	\$6.8	\$0.8	\$15.6	2.29x	19.5x
Bruker	Komod	o Health	Mar-21	d-Wise	Life science solutions and technology consulting	\$24.1	\$3.6	\$31.0	1.29x	8.6x
			Mar-21	The Edge Software Consultancy	Pharmaceutical R&D software	\$3.6	\$2.3	\$11.8	3.27x	5.2x
			Nov-19	Leadscope	Advanced informatics and prediction technology	\$1.9	\$0.4	\$3.4	1.76x	8.4x
Carlana	N.4	J. L.N.	Sep-16	Notocord	New drug development data analysis	\$2.4	\$0.5	\$4.9	2.04x	9.2x
Certara	IVIO	del N	May-16	Samarind RMS	Regulatory information management	\$1.2	n/a	\$3.3	2.73x	n/a
			Nov-13	Perceptive Instruments	Image analysis for toxicology assays	\$1.1	\$0.4	\$1.8	1.57x	4.6x
			May-13 May-11	Logos Technologies Biowisdom	Electronic data capture software	\$1.9 \$1.8	\$0.4 \$0.4	\$6.7 \$1.9	3.53x 1.06x	16.8x 5.3x
Clario (formerly ERT /	0.		,		Healthcare intelligence solutions	\$1.0				
Bioclinica)	Or	acle	IntegriCh	ain			Tot	al Disclose	d M&A Deal	Value: n/a
			May-20	Cumberland	Revenue management services	n/a	n/a	n/a	n/a	n/a
			Mar-19	daVIZta	G2N automation and government pricing	n/a	n/a	n/a	n/a	n/a
Dassault / Medidata	Saama	Analytics	Feb-18	Medical Communication Tech.	Government pricing and contracting solutions	n/a	n/a	n/a	n/a	n/a
Dussuar, meanada	Saama	, and y cres	Apr-17	PharmaMetrics	Contract operations outsourcing solutions	n/a	n/a	n/a	n/a	n/a
			IQVIA				Total Disclo	sed M&A D	eal Value: \$	13.6 Billion
Definition Uneltheese	Cont		Oct-21	Davaso	Integrated management systems for healthcare	n/a	n/a	n/a	n/a	n/a
Definitive Healthcare	Sart	orius	Aug-21	DMD Marketing	Medical and healthcare marketing solutions	n/a	n/a	n/a	n/a	n/a
			Jul-21	Evigrade	Healthcare research and consulting services	n/a	n/a	\$5.4	n/a	n/a
			Apr-21	Q2 Solutions	Clinical trial laboratory services	\$500.0	\$35.0	\$1,895.0	3.79x	n/m
Envision Dharms	Ciaraa	t lloolth	Mar-21	Kairos	Holistic biomedical research platform	n/a	n/a	n/a	n/a	n/a
Envision Pharma	Signan	t Health	Oct-20	Quality Health (UK)	Specialist health & social care survey organization	n/a	n/a	n/a	n/a	n/a
			Sep-20	Allcare Plus Pharmacy	Healthcare patient support services	n/a	n/a	n/a	n/a	n/a
			Sep-19	GCE Solutions CoreZetta	Bio-metrics clinical research organization Healthcare technology provider	n/a n/a	n/a n/a	\$200.0 n/a	n/a n/a	n/a n/a
Fuercono	Therm	o Fisher	Aug-19 Aug-19	Jäger Health Group	OTC healthcare marketing agency	n/a	n/a	n/a n/a	n/a n/a	n/a n/a
Eversana	Scie	entific	Aug-19 Aug-19	Aposphäre	Educational training for pharmacists	n/a	n/a	n/a	n/a	n/a
			Feb-19	Linguamatics	NLP solutions for patient insights	n/a	n/a	n/a	n/a	n/a
			Nov-18	ValueCentric	BI for pharma manufacturers	n/a	n/a	n/a	n/a	n/a
Insightful Science	Vacua	Sustance	Jul-18	Acuta	Regulatory information management	n/a	n/a	n/a	n/a	n/a
Insigntial Science	veeva	Systems	May-18	Statfinn	Clinical trial data management services	n/a	n/a	n/a	n/a	n/a
			May-18	Advanced Health Media	HCP engagement software	n/a	n/a	\$127.5	n/a	n/a
			Apr-18	159 Solutions	Commercial analytics	n/a	n/a	\$13.0	n/a	n/a
			Mar-18	Optimum Contact	Audit compliance SaaS system	n/a	n/a	n/a	n/a	n/a
WCG (Linical		Nov-17	Chemical Information Serv.	Chemical & pharmaceutical marketplace	n/a	n/a	n/a	n/a	n/a
			Oct-17	Pilgrim Quality Solutions	Quality & compliance management	n/a	n/a	n/a	n/a	n/a

Public Companies & Leading Platforms

Estimated	Deal	Deal Value /	'Estimated
DateTargetDescriptionRevenueEBITDA	Value	Revenue	EBITDA
Anju Software IntegriChain Total Disclo	osed M&A [Deal Value: \$	13.6 Billion
Oct-17 HighPoint Solutions Life sciences IT systems integration n/a n/a	n/a	n/a	n/a
Jul-17 DrugDev Clinical site data sharing platform n/a n/a	n/a	+5.00x	n/a
ArisGlobal IQVIA Jul-17 Cote Orphan Orphan drug regulatory services n/a n/a	n/a	n/a	n/a
Ansciolation IQVIA May-17 Polaris Management Spend compliance software and consulting Confid. Confid.	Confid.	Confid.	Confid.
Apr-17 Themis Analytics Pharma data management n/a n/a	n/a	n/a	n/a
Mar-17 Wingspan eTMF software n/a n/a	n/a	n/a	n/a
Patient support program technology n/a n/a	\$200.0	n/a	n/a
Bruker Komodo Health Dec-16 TKL Research Clinical research services n/a n/a n/a	n/a	n/a	n/a
Nov-16 Kadridge eDetailing & multi-channel promotions n/a n/a	n/a	n/a	n/a
Sep-16 Healthcost Healthcare costing consulting n/a n/a	n/a	n/a	n/a
May-16 Privacy Analytics Health data anonymization software n/a n/a	n/a	n/a	n/a
Certara Model N May-16 IMS Health Clinical data management & trial services \$5,737.6 \$774.4	\$10,425.0	1.82x	13.5x
Feb-16 Dimensions Healthcare Healthcare informatics & consulting n/a n/a	n/a	n/a	n/a
Feb-16 AlphalmpactRx Primary biopharma research & analysis n/a n/a	n/a	n/a	n/a
Claric (formarly EDT / Dec-15 lasist Clinical & economic information n/a n/a	n/a	n/a	n/a
Clario (formerly ERT / Oracle Sep-15 R-Squared Spend management & compliance Confid. Confid.	Confid.	Confid.	Confid.
Bioclinica) Aug-15 Boston Biomedical In Vitro Diagnostics consulting n/a n/a	n/a	n/a	n/a
Aug-15 MediMedia Health Solutions Multi-channel marketing services n/a n/a	n/a	n/a	n/a
Jul-15 Healthcare Data Solutions Healthcare data services n/a n/a	n/a	n/a	n/a
Dassault / Medidata Saama Analytics Jul-15 Effektor SQL software n/a n/a n/a	n/a	n/a	n/a
Jul-15 Rehfeld Partners Data maintenance software n/a n/a	n/a	n/a	n/a
Jun-15 VIS Research Online feasibility platform n/a n/a	n/a	n/a	n/a
Jun-15 Mercurial Sales & marketing consulting n/a n/a	n/a	n/a	n/a
Definitive Healthcare Sartorius May-15 Dataline Software Big data healthcare analytics n/a n/a	n/a	n/a	n/a
Apr-15 Cegedim (Assets) Customer relationship management \$465.0 \$72.0	\$415.5	0.89x	5.8x
Aug-14 GCMS Multi-channel marketing services n/a n/a	n/a	n/a	n/a
Jul-14 Aileron Solutions Healthcare data analytics n/a n/a	n/a	n/a	n/a
May-14 Forcea Hospital business intelligence n/a n/a	n/a	n/a	n/a
Envision Pharma Signant Health Apr-14 Semantelli Healthcare social media analytics n/a n/a	n/a	n/a	n/a
Dec-13 Pygargus Pharma market research consulting n/a n/a	n/a	n/a	n/a
Dec-13 HGS Europe Pharma market access services n/a n/a	n/a	n/a	n/a
_ Thermo Fisher Dec-13 The Amundsen Group Pharma strategic consulting n/a n/a	n/a	n/a	n/a
Eversana Oct-13 HCM BIOS Pharma business intelligence n/a n/a	n/a	n/a	n/a
Scientific Sep-13 BroadReach Healthcare Pharma / biotech program management n/a n/a	n/a	n/a	n/a
Sep-13 Diversinet Mobile care coordination platform n/a n/a	n/a	n/a	n/a
Jun-13 Incential Software Medical sales performance management n/a n/a	n/a	n/a	n/a
Insightful Science Veeva Systems May-13 360 Vantage Life sciences sales & marketing technology n/a n/a	n/a	n/a	n/a
Mar-13 Appature Enterprise healthcare marketing technology n/a n/a	n/a	n/a	n/a
Jan-13 Nielsen (Assets) European consumer health services n/a n/a	n/a	n/a	n/a
Dec-12 Vedere Group Sales & marketing performance tools n/a n/a	n/a	n/a	n/a
WCG Clinical Nov-12 Pharmexpert Group Pharma market intelligence n/a n/a	n/a	n/a	n/a
Aug-12 Life Science Partners Healthcare / biotech services n/a n/a	n/a	n/a	n/a
Aug-12 TTC Clinical grant database & benchmarking n/a n/a	n/a	n/a	n/a

Public Companies & Leading Platforms

Advarra	In	(\$ in Mi	llions)		Target Overview				
		Dat	e Target	Description	Estim Revenue	ated EBITDA	Deal Value	Deal Value / Revenue	Estimated EBITDA
Anju Softwa	aro Intoc	ariChain							
Aliju Soltwa		IQVIA				Total Disclo	ised M&A D	Deal Value: \$	13.6 Billion
		Aug-1	2 Pharmadeals	Pharma / biotech industry research	n/a	n/a	n/a	n/a	n/a
		Apr-12	DecisionView	Clinical optimization solutions	n/a	n/a	n/a	n/a	n/a
ArisGloba		QVIA Jan-12	PharmARC Analytics	Life sciences commercial analytics	n/a	n/a	n/a	n/a	n/a
/ 11501050		Jan-12	Marina Consulting	Pharma / biotech consulting services	n/a	n/a	n/a	n/a	n/a
		Jan-12	Pharmadata	Pharma data solutions	n/a	n/a	n/a	n/a	n/a
		Jan-12	SLD	Pharma market data	n/a	n/a	n/a	n/a	n/a
Bruker	Komor	do Health	SDI Health	Healthcare data & market research	n/a	n/a	n/a	n/a	n/a
DIUKEI	KOIHOC	Aug-1	I Ardentia	Healthcare data management platform	n/a	n/a	n/a	n/a	n/a
		Jun-11	Med-Vantage	Consumer health transparency analytics	n/a	n/a	n/a	n/a	n/a
		Jul-10	Brogan	Healthcare IT research & consulting	n/a	n/a	n/a	n/a	n/a
		Jun-10		Proprietary healthcare research apps	n/a	n/a	n/a	n/a	n/a
Certara	Мо	odel N Oct-08		Life sciences services & consulting	n/a	n/a	n/a	n/a	n/a
		Apr-08		Healthcare data research services	n/a	n/a	n/a	n/a	n/a
		Mar-08		Medical research center	n/a	n/a	n/a	n/a	n/a
Clario (formerly	FRT /	Jan-08	RMBC Pharma	Pharma market intelligence	n/a	n/a	\$7.8	n/a	n/a
		racle Dec-07		Health economic consulting services	n/a	n/a	n/a	n/a	n/a
Bioclinica)	Nov-0	7 MIHS Holdings	Healthcare analytics holding company	n/a	n/a	\$80.0	n/a	n/a
		Mar-0	ValueMedics Research	Life sciences research & communications	n/a	n/a	n/a	n/a	n/a
		Jan-07	Brynlake	Data research & consulting services	n/a	n/a	n/a	n/a	n/a
Dassault / Med	didata Saama	Analytics Jan-07	Datasurf	Japanese healthcare services	n/a	n/a	n/a	n/a	n/a
20000000,		Jan-07	GCE Servicos	Healthcare device manufacturer	n/a	n/a	n/a	n/a	n/a
		Jan-07	Merg Forschungsgruppe	Medical research services	n/a	n/a	n/a	n/a	n/a
		Dec-06	Strategic Decisions Group	Life sciences strategic consulting	n/a	n/a	n/a	n/a	n/a
Definitive Heal	theoro Sor	torius Aug-0	5 PharMetrics	Pharma market & managed care insights	n/a	n/a	n/a	n/a	n/a
Definitive Hear	uncare Sar	Dec-03	ORG IMS Research	Healthcare research services	n/a	n/a	n/a	n/a	n/a
		Jun-03	AzyX Geopharma	Europeans pharma marketing information	n/a	n/a	\$18.1	n/a	n/a
		Jun-98	Walsh International	Pharma information management system	n/a	n/a	\$177.0	n/a	n/a
		Jan-73	Cambridge Computer	Drug distribution data	n/a	n/a	n/a	n/a	n/a
Envision Pha	rma Signar	nt Health Komo	do Health			To	tal Disclose	d M&A Deal	Value: n/a
		Jul-21	Breakaway Partners	Life sciences market access and decision software	n/a	n/a	n/a	n/a	n/a
		1 24	Mavens Consulting Services	Post-market software and services	n/a	n/a	n/a	n/a	n/a
Eversana		10 Fisher	5	Post-market software and services					
Eversaria	Scie	entific Mode	l N		Tc	otal Disclose	ed M&A Dea	al Value: \$12	8.4 Million
		Dec-20	Deloitte (LS Solutions Business)	Life sciences pricing and contracting solutions	n/a	n/a	\$60.0	n/a	n/a
		Jan-17	Revitas	Revenue and compliance management	\$30.0	n/a	\$52.8	1.76x	n/a
Insightful Scie	ence Veeva	Systems Oct-15		Channel sales CRM	n/a	n/a	\$12.6	n/a	n/a
		Feb-12		Marketing analytics and Bl	n/a	n/a	\$3.0	n/a	n/a
		Mar-0	6 Azerity	Pricing and quoting software	n/a	n/a	n/a	n/a	n/a
		Oracle				Total Disclo	sed M&A D	Deal Value: \$	90.3 Billion
	WCG Clinical	Dec-2	Federos	Al-optimized assurance solutions	n/a	n/a	n/a	n/a	n/a
		Dec-2		Healthcare information technology solutions	\$5,707.0	\$1,462.0	\$28,055.0	4.92x	19.2x
		Dec 2	00000	real real and mornation technology solutions	45,101.0	\$1,-10L.U	<i>4</i> 20,033.0	-1. JLA	10.24

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millic	ons)		Target Overview				
		Date	Target	Description	Estima Revenue	ited EBITDA	Deal Value	Deal Value / Revenue	'Estimated EBITDA
Anju Software	IntegriChain	Oracle						Deal Value: \$	
ArisGlobal	IQVIA	Jun-21 Apr-21 Dec-20 Apr-20 Apr-20	GloriaFood FarApp Nor1 Sauce Video LiveData Utilities	Online food ordering platform eCommerce, logistics, retail, hospitality services Hospitality management solution Video content creation solutions Real time data solution provider	n/a n/a n/a n/a	n/a n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a
Bruker	Komodo Health	Nov-19 Jun-19 Jun-19 Dec-18	CrowdTwist Oxygen Systems (Brazil) Takeda PRA goBalto	Cloud based customer loyalty platform Provider of localization solutions in Brazil JV buyout of Takeda Pharmaceutical Clinical feasibility solutions	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a
Certara	Model N	Nov-18 Nov-18 Oct-18 Jun-18	Talari Networks DataFox Iridize Datascience.com	Wide area network technology Company research platform Customer training and on-boarding Data science platform	n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a
Clario (formerly ERT / Bioclinica)	Oracle	May-18 Apr-18 Apr-18 Dec-17	Grapeshot Vocado Sparkline Data Aconex	Content placement optimization Financial aid management platform Provider of data warehouse platform Construction document management	\$30.6 n/a n/a \$122.3	\$4.2 n/a n/a \$5.7	\$400.0 \$139.0 n/a \$1,198.7	13.07x n/a 9.80x	n/m n/a n/a n/m
Dassault / Medidata	Saama Analytics	Sep-17 May-17 Apr-17 Apr-17 Apr-17	Symphony Health Parallel 6 Moat Wercker Webtrends (Infinity)	Pharmaceutical market intelligence Patient engagement software Marketing analytics platform Code deployment platform Big data analytics	\$200.0 n/a n/a n/a n/a	n/a n/a n/a n/a n/a	\$530.0 \$39.4 \$850.0 n/a n/a	2.65x n/a n/a n/a n/a	n/a n/a n/a n/a n/a
Definitive Healthcare	Sartorius	Jan-17 Nov-16 Nov-16 Sep-16	apiary Dyn NetSuite Palerra	API documentation development Internet performance management ERP solutions for SMB Cloud security automation	n/a \$100.0 \$897.5 n/a	n/a n/a (\$55.6) n/a	n/a \$650.0 \$8,838.9 n/a	n/a 6.50x 9.85x n/a	n/a n/a n/m n/a
Envision Pharma	Signant Health	Sep-16 May-16 Apr-16 Apr-16	LogFire Opower Textura Crosswise (Assets)	Warehousing & in-store inventory platform Utilities customer engagement Commercial construction collaboration Cross device data services	n/a \$152.0 \$92.2 n/a	n/a (\$32.8) (\$5.4) n/a	\$36.0 \$471.2 \$698.3 \$50.0	n/a 3.10x 7.57x n/a	n/a n/m n/m n/a
Eversana	Thermo Fisher Scientific	Mar-16 Feb-16 Jan-16 Dec-15	Nextrials Ravello Systems AddThis StackEngine	Clinical trial management solutions Nested virtualization software Social infrastructure and data platform Docker management platform	n/a n/a n/a n/a	n/a n/a n/a n/a	\$7.7 \$500.0 \$200.0 n/a	n/a n/a n/a n/a	n/a n/a n/a n/a
Insightful Science	Veeva Systems	Sep-15 Aug-15 Jul-15 Jan-15	Maxymiser CloudMonkey Mobile Value Health Solutions Datalogix	Multivariate testing & personalization Mobile software application testing Clinical development software Online advertising data & technology	n/a n/a \$125.0	n/a n/a n/a n/a	n/a n/a \$2.5 \$1,200.0	n/a n/a 9.60x	n/a n/a n/a n/a
WCG C	Clinical	Oct-14 Sep-14 Jul-14 Jul-14 Jun-14	Front Porch Digital MICROS Systems TOA Technologies BlueKai LiveLOOK	Content storage management Hospitality & retail management solutions Mobile workforce software Enterprise marketing data activation Customer collaboration tools	n/a \$1,405.4 n/a n/a n/a	n/a \$291.3 n/a n/a n/a	n/a \$5,701.2 n/a \$425.0 n/a	n/a 4.06x n/a n/a n/a	n/a 19.6x n/a n/a

Public Companies & Leading Platforms

Anju SoftwareIntegriChainDateTargetDescriptionEstimatedDealDealValueDealValueRevenueOracleUn-14GreenBytesDesktop virtualizationn/an/an/an/an/an/aMar-14CorenteDesktop virtualizationn/an/an/an/an/an/aDec-13ResponsysEmail marketing\$194.3\$13.8\$1,500.07.72xDec-13NirvanixInternet storage servicesn/an/an/an/a	EBITDA
Anju SoftwareIntegriChainOracleTotal Disclosed M&A Deal Value:Jun-14GreenBytesDesktop virtualizationn/an/an/an/an/aArisGlobalIQVIAIQVIADec-13ResponsysEmail marketing\$194.3\$13.8\$1,500.07.72xDec-13NirvanixInternet storage servicesn/an/an/an/an/a	90.3 Billion n/a n/a n/m n/a
ArisGlobal IQVIA GreenBytes Desktop virtualization n/a n/a	n/a n/a n/m n/a
ArisGlobalIQVIAMar-14CorenteEnterprise network securityn/an/an/an/an/aDec-13ResponsysEmail marketing\$194.3\$13.8\$1,500.07.72xDec-13NirvanixInternet storage servicesn/an/an/an/a	n/a n/m n/a
ArisGlobalMar-14CorenteEnterprise network securityn/an/an/an/aDec-13ResponsysEmail marketing\$194.3\$13.8\$1,500.07.72xDec-13NirvanixInternet storage servicesn/an/an/an/a	n/m n/a
ArisGiobal IQVIA Dec-13 Nirvanix Internet storage services n/a n/a n/a n/a n/a	n/a
Dec-13 Nirvanix Internet storage services n/a n/a n/a n/a n/a	-
	n/a
Nov-13 BigMachines Product configuration & quoting \$58.0 n/a \$400.0 6.90x	
Nov-13Bitzer MobileEnterprise mobility managementn/an/an/a	n/a
Bruker Komodo Health Oct. 13 CRI Worldwide Clinical research service n/a	n/a
Oct-15 Compendium Content marketing stat-up 1/a 1/a 1/a 1/a	n/a
Sep-13 ReSearch Pharm. Services Clinical development services n/a n/a \$350.0 n/a	n/a
Jun-13 Tekelec Network signaling applications n/a n/a n/a n/a n/a	n/a
Mar-13 Acme Packet Session delivery network \$274.4 \$8.4 \$1,741.5 6.35x Certara Model N Mar-13 Eloqua Marketing automation software \$95.8 \$\$8.0 \$871.0 9.10x	n/m n/m
Certara Model N Mar-13 Eloqua Marketing automation software \$95.8 \$871.0 9.10x Mar-13 Nimbula Cloud infrastructure software n/a n/a \$100.0 n/a	n/m n/a
Mar-13 Clinstar Cloud Infastructule software n/a n/a n/a n/a n/a n/a n/a n/a	n/a
Dec 12 DataBaker Utilities hig data analytics n/a n/a n/a n/a	n/a
Clario (formerly ERT / Oracle Nov-12 Instantis Project portfolio management n/a n/a n/a n/a n/a	n/a
Bioclinica) Sep-12 SelectMinds Social talent sourcing n/a n/a n/a n/a n/a	n/a
Aug-12InvolverVideo campaign marketingn/an/an/a	n/a
Jul-12 Xsigo Systems Virtualized infrastructure services n/a n/a n/a n/a	n/a
Dassault / Medidata Saama Analytics Jul-12 Skire Facility management solutions n/a n/a n/a n/a n/a	n/a
Dassault / Medidata Saalifa Analytics Jul-12 Collective Intent Social media analytics n/a n/a n/a n/a n/a	n/a
May-12 Vitrue Social media marketing services n/a n/a \$30.0 n/a	n/a
Apr-12 ClearTrial Clinical trials operations n/a n/a n/a n/a n/a	n/a
Definitive Healthcare Sartorius Apr-12 Taleo Talent management software \$308.9 \$16.2 \$608.1 1.97x	n/m
Definitive HealthcareSartoriusJan-12RightNow Tech.CRM and customer service software\$216.2\$22.3\$1,500.06.94x	n/m
Dec-11 Endeca Technologies Information management software n/a n/a \$1,080.0 n/a	n/a
Oct-11 GoAhead Integrated middleware for manufacturers n/a n/a n/a n/a	n/a
Jul-11 InQuira Natural language search n/a n/a n/a n/a n/a	n/a
Envision Pharma Signant Health Jul-11 Ksplice Linux update software n/a n/a n/a n/a n/a	n/a
Jul-11 Pillar Data Systems Network storage systems n/a n/a n/a n/a n/a	n/a
Jun-11 FatWire Software Web experience management n/a n/a n/a n/a n/a n/a	n/a
Thermo Fisher Jun-11 Datanomic Compliance screening software n/a n/a n/a n/a n/a	n/a
EversanaMay-11Kinship TechnologiesClinical data managementn/an/an/an/an/aScientificJan-11Art Technology GroupCross-channel commerce\$193.9\$25.5\$848.04.37x	n/a
San Tri Alt recimiology Gloup Cross channel commerce \$155.5 \$25.5 \$000 4.57x	n/m
	n/a
	n/m n/a
Insightful ScienceVeeva SystemsAug-10eServGlobalTelecom software\$55.5n/a\$96.41.74xMay-10Market2LeadMarketing automation softwaren/an/an/an/an/an/a	n/a
May-10 Secerno Database security and compliance n/a n/a n/a n/a n/a n/a	n/a
Feb-10ConverginNetwork service mediationn/an/an/an/a	n/a
	n/a
WCG ClinicalFeb- 10AmberPointSUA visibility and managementn/an/an/an/an/aJan-10Sun MicrosystemsNetwork infrastructure services\$10,702.0\$50.0\$5,019.00.47x	n/m
Jan-10 Silver Creek Systems Data usability solutions n/a n/a n/a n/a n/a	n/a

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millio	ons)		Target Overview				
		Date	Target	Description	Estima Revenue	ated EBITDA	Deal Value	Deal Value / Revenue	'Estimated EBITDA
Anju Software	IntegriChain	Oracle						Deal Value: \$	
ArisGlobal	IQVIA	Oct-09 Sep-09 Jul-09 Jul-09 Jun-09	Sophoi HyperRoll GoldenGate Software Relsys International mValent	IP rights & royalty management Data warehouse performance management Transactional data management Drug safety solutions Application configuration management	n/a n/a n/a n/a	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a n/a
Bruker	Komodo Health	Jun-09 May-09 Nov-08 Oct-08	Conformia Software Virtual Iron Software Tacit Software Ruleburst Holdings	Life sciences PLM Server virtualization Email analysis and information sharing Policy automation software	n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a \$103.2	n/a n/a n/a n/a	n/a n/a n/a n/a
Certara	Model N	Oct-08 Oct-08 Sep-08 Sep-08 Jun-08	Primavera Visual Technology GKS ClearApp Skywire Software	Project portfolio management 3D space planning Self-service training automation Advertising measurement Policy lifecycle support	n/a n/a n/a \$95.2	n/a n/a n/a n/a n/a	n/a n/a n/a \$240.0	n/a n/a n/a 2.52x	n/a n/a n/a n/a n/a
Clario (formerly ERT / Bioclinica)	Oracle	Apr-08 Mar-08 Oct-07 Oct-07	BEA Systems Empririx (Assets) Interlace Systems LogicalApps	Application server software Software testing Business planning software Enterprise GRC	\$93.2 \$1,535.8 n/a n/a n/a	n/a \$347.4 n/a n/a n/a	\$240.0 \$6,998.3 n/a n/a n/a	2.32x 4.56x n/a n/a n/a	1/a 20.1x n/a n/a n/a
Dassault / Medidata	Saama Analytics	Sep-07 Sep-07 Sep-07 Jul-07	Bridgestream Netsure Telecom Active Reasoning Agile Software	Business roles automation Network intelligence IT controls automation PLM software	n/a n/a n/a \$130.1	n/a n/a n/a (\$22.0)	n/a n/a n/a \$330.6	n/a n/a n/a 2.54x	n/a n/a n/a n/m
Definitive Healthcare	Sartorius	Jun-07 Apr-07 Apr-07 Apr-07	Revenue Tech. AppForge Lodestar Hyperion Solutions	Business management software Software development platform Energy management software Business performance management	n/a n/a \$830.9	n/a n/a \$142.3	n/a n/a \$2,813.6	n/a n/a n/a 3.39x	n/a n/a n/a 19.8x
Envision Pharma	Signant Health	Dec-06 Nov-06 Jul-06 Jul-06	MetaSolv SPL WorldGroup Pharma Bio-Research Portal Software	CRM & order management Utilities asset management CRO services Revenue management	\$95.6 n/a n/a \$93.7	\$1.9 n/a n/a (\$77.2)	\$157.6 n/a \$108.0 \$178.5	1.65x n/a n/a 1.91x	n/m n/a n/a n/m
Eversana	Thermo Fisher Scientific	Jun-06 Apr-06 Feb-06 Jan-06 Jan-06	Demantra Net4Call HotSip Siebel Systems 360Commerce	POS platform Telecom data communication eCommerce internet protocol Front office business applications Retail workforce & store management	n/a n/a \$1,429.1 n/a	n/a n/a \$58.6 n/a	\$41.0 n/a n/a \$5,600.0 n/a	n/a n/a 3.92x n/a	n/a n/a n/m n/m
Insightful Science	Veeva Systems	Nov-05 Nov-05 Aug-05 Jul-05	Thor Technologies G-Log Context Media ProfitLogic	Access rights management Logistics management Enterprise content integration Retail profit optimization	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a \$90.0 n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a
WCG	Clinical	Jun-05 Mar-05 Jan-05 Jan-03	TimesTen Oblix PeopleSoft UpShot	Infrastructure management Security infrastructure CRM & HR management Hosted CRM service	n/a n/a \$2,674.4 n/a	n/a n/a \$311.1 n/a	n/a n/a \$8,329.3 \$56.0	n/a n/a 3.11x n/a	n/a n/a 26.8x n/a

Public Companies & Leading Platforms

Anju Software IntegriChain Taget Conception Result Out of Result Description Anju Software IntegriChain Integri	Advarra	Instem	(\$ in Millio	ns)		Target Overview				
Anju Software IntegriChain Total Docksdord Make Dock Make			Data	Target	Description					
Internal (Control (Contro) (Contro) (Control (Control (Control (Control (Control (Contr	Apiu Softwara	IntegriChain								
ArisGlobal Nor 00 Filematistic com Foreign profess commerce No. 0 No. 0 No. 0 No. 0 Bruker Komodo Health Aday 19 Comprehend Cloud-based cinical intelligence platform No. 0 No. 0 No. 0 No. 0 Bruker Komodo Health Aday 19 Comprehend Cloud-based cinical intelligence platform No. 0 No. 0 No. 0 No. 0 Certara Model N Aday 19 Comprehend Cloud-based cinical intelligence platform No. 0 No. 0 No. 0 No. 0 Certara Model N Sphelinka information transperents of the cinica explications No. 0 No. 0 No. 0 Clario (formerly ERT / Bioclinica) Oracle Sama Analytics Liaborator solutions for fife cinica explications No. 0 No. 0 No. 0 Dassault / Medidata Saama Analytics No. 0 Sama Analytics Sama Analytics Sama Analytics No. 0 No. 0<	Aliju Soltware	integricinalit	Oracle			Т	otal Disclo	sed M&A D	eal Value: \$	90.3 Billion
ArisGlobal IQVIA Aug-98 Veraility Datagogie Cutation inducation software n/a n			Feb-02	NetForce	Drug safety monitoring	n/a	n/a	n/a	n/a	n/a
Alisolobal Jacoba Jacoba Anda Jacoba Anda Same Bruker Komodo Health Jacoba Courd-based linkaligence platform n/a					•		-	-		
Bruker Komodo Health Aug.19 Comprehend Information technology counsuing services n/a n/a </td <td>ArisGlobal</td> <td>IOVIA</td> <td>5</td> <td>,</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td>	ArisGlobal	IOVIA	5	,		-				-
Bruker Komodo Health Aug-19 Aug-19 Aug-10		-	Jan-97	Datalogix	Mobile asset tracking	n/a	n/a	\$94.0	n/a	n/a
Bruker Komodo Health Jan-11 InfoSTEP India Information tachnology consulting services r/a r/a<			Saama A	nalytics			Total Disc	losed M&A	Deal Value:	\$3 Million
Link Model N Jan - 10 Introduct Profile Introduct Profile N/a	Prukor	Kamada Haalth	Aug-19	Comprehend	Cloud-based clinical intelligence platform	n/a	n/a	n/a	n/a	n/a
Certara Model N Satorius Total Declosed MAXA Deal Value \$18 Billion Clario (formerly ERT / Bioclinica) Oracle De-21 ALS Automated Lab Solutions Jul-21 Automated Lab Solutions Jul-21 Novasp Satorius Novasp Satorius Satorius<	bruker	Komodo Health	Jan-11	InfoSTEP India	Information technology consulting services	n/a	n/a	\$3.0	n/a	n/a
Certara Model N Dec-21 ALS Automated Lab Solutions Laboratory solutions for life science applications n/a			Mar-10	Sypherlink	Information management software	n/a	n/a	n/a	n/a	n/a
Link No. No.<			Sartorius				Total Discl	osed M&A	Deal Value: S	\$1.8 Billion
Image: Image	Certara	Model N	Dec-21	ALS Automated Lab Solutions	Laboratory solutions for life science applications	n/a	n/a	n/a	n/a	n/a
Clario (formerly ERT / Bioclinica) Data Clario (formerly ERT / Bioclinica) Solution Bare & anclinagy materials for cell/gene therapy \$20.0 n/a \$118.3 \$59.x n/a Lario (formerly ERT / Bioclinica) Oracle Dec.30 WateSep BioSeperations Complex life sciences molecule production \$41.6 n/a \$17.3 0.00 n/a n			Jul-21	Xell AG		-		-		
Clain (contributing PRT / Bioclinica) Oracle Dec-20 Navaspan Complex life sciences molecule production \$11.6 n/a n/a <td></td> <td></td> <td>Jul-21</td> <td>CellGenix</td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td>n/a</td>			Jul-21	CellGenix	,					n/a
Bioclinica) Uracle Dec: 30 Novasep Complex life sciences molecule production \$41.6 n/a	Clario (formerly FRT /		Dec-20	WaterSep BioSeperations	Hollow-fiber membrane devices	\$2.5	n/a	\$32.7	13.08x	n/a
Octobe Decision Production Statu Production Statu </td <td></td> <td>Oracle</td> <td>Dec-20</td> <td>Novasep</td> <td>Complex life sciences molecule production</td> <td>\$41.6</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>n/a</td>		Oracle	Dec-20	Novasep	Complex life sciences molecule production	\$41.6	n/a	n/a	n/a	n/a
Dassault / Medidata Saama Analytics Dec-19 Biological Industries Developer of cell culture media n/a n/a S300 n/a n/a Dassault / Medidata Saama Analytics Data analytics	BIOCIIIICa)		Oct-20	BIA Separations	Purification technology for biomolecules	\$29.4	n/a	\$424.0	14.40x	n/a
Dassault / MedidataSaama AnalyticsMay-17 MKS Data AnalyticsMay-17 Essen BioScienceData analytics software for modeling uve-cell imaging platform\$15.0 \$0.0n/a\$72.5 A83.x A83.x A83.x A83.x A1/aDefinitive HealthcareSartoriusSartoriusSito VirCyt, LLC Intellicyt CorportionSartoriusSito VirCyt, LLC Bapid quantification technologyn/aSito VirCyt, NA A 7/aN/aSito VirCyt, NA A 7/aDefinitive HealthcareSartoriusSignant HealthVirCyt, LLC Low Power InstrumentRapid quantification technologyn/an/aSito VirCyt, NA A 7/an/aEnvision PharmaSignant HealthSignant HealthSignant HealthVirtual care management platformn/an/an/an/an/aEversanaThermo Fisher ScientificVirtualVirtual care management platformn/an/an/an/an/an/aMu-15KSgestClinical supplies softwaren/an/an/an/an/an/an/aInsightful ScienceVeeva SystemsVeeva SystemsClinical rater training services and technologyn/an/an/an/an/an/aMu-20VirtualVirtual Care management platformn/an/an/an/an/an/an/aMu-20VirtualCare management platformn/an/an/an/an/an/an/aLuo 15Cinical supplies softwaren/an/an/an/an/an				· · · ·		\$100.0	n/a		2.75x	n/a
Mar. 17 Essen BioScience Live-cell imaging platform \$60.0 n/a \$22.00 5.33.k n/a Definitive Healthcare Sartorius Jul-16 K5ep Systems, LLC Single-use, scalable bio-processing \$7.0 n/a \$22.00 \$.33.k n/a Jul-16 ViroCyt, LLC Rapid quantification technology n/a n/a \$90.0 6.72.k n/a Jul-16 ViroCyt, LLC Rapid quantification technology \$13.4 n/a \$90.0 6.72.k n/a Definitive Healthcare Signant Health Lice intellingt Corporation Cell and baad-based screening \$13.4 n/a \$90.0 6.72.k n/a Jul-07 SSB Biopharma fermentation tools \$368.1 \$39.9 \$301.6 0.82.k 7.6.k Jul-07 SSB Biopharma fermentation tools \$368.1 \$39.9 \$301.6 0.82.k 7.6.k Jul-07 SSB Dever Instrument Laboratory instruments n/a n/a n/a n/a n/a n/a n/a <				5						
Definitive Healthcare Jul-16 Ksep Systems, LLC Single-use, scalable bio-processing \$7.0 n/a \$28.0 4.00x n/a Definitive Healthcare Sartorius Jul-16 Intellicyt Corporation Rapid quantification technology n/a n/a \$13.4 n/a \$10.0 6.7.2 n/a Definitive Healthcare Sartorius Jul-16 Intellicyt Corporation Liquid handling business \$40.3 n/a \$50.0 6.7.2 n/a Dec.11 Biohit (Assets) Liquid handling business \$40.3 n/a \$50.9 2.26x n/a Jan-07 SSB Biopharma fermentation tools \$368.1 \$39.9 \$30.1.6 0.82x 7.6x Jan-07 toha-plast Plastic components n/a	Dassault / Medidata	Saama Analytics		-	,					
Definitive Healthcare Sartorius Jul-16 VinCyt, LLC Rapid quantification technology n/a n/a S16.0 n/a n/a Definitive Healthcare Sartorius Jun-16 Intellicyt Corporation Cell and bead-based screening \$13.4 n/a \$90.9 2.26x n/a Liquid handling business \$40.3 n/a \$90.9 2.26x n/a Liquid handling business \$40.3 n/a \$90.9 2.26x n/a Jun-70 toha-plast Plastic components n/a					5 51					
Definitive HealthcareSartoriusJun-16Intellicyt CorporationCell and bead-based screening\$13.4n/a\$90.0 $6.72x$ n/aDefinitive HealthcareJul-07Biolo SBBiopharma fermentation tools\$40.3n/a\$90.9 $2.26x$ n/aJul-07toha-plastPlastic components\$36.8\$39.9\$30.6 $0.82x$ $76x$ Jul-07toha-plastPlastic componentsn/an/an/an/an/an/aAug-99Denver InstrumentLaboratory instrumentsn/an/an/an/an/an/aMug-99Denver InstrumentLaboratory instrumentsn/an/an/an/an/an/aNov-20Virtual care management platformn/an/an/an/an/an/aNov-20Virtual care management solutionsn/an/an/an/an/aNov-20Virtual care management solutionsn/an/an/an/an/aNov-20Virtual care management solutionsn/an/an/an/an/aNov-16CLINappsClinical supplies softwaren/an/an/an/an/aJul-11Arrowhead ElectronicElectronic Electronic getter training services and technologyn/an/an/an/aJul-11Arrowhead ElectronicElectronic Electronic patient reported outcomes (PRO)n/an/an/an/an/aJul-15ClinicalMicro-chip-based chromato										-
Dec-11Biohit (Assets)Liquid handling business\$40.3n/asignal<						-				-
LineJul-07SSBBiopharma fermentation tools\$368.1\$39.9\$301.60.82x7.6xJan-07toha-plastPlastic componentsn/an/an/an/an/an/an/aAug-99Denver InstrumentLaboratory instrumentsn/an/an/an/an/an/an/aEversanaThermo Fisher ScientificNov-20Virtual Care management platformn/an/an/an/an/an/aNov-20Virtual Care management platformn/an/an/an/an/an/an/an/aMov-20Virtual Care management platformn/an/an/an/an/an/an/aNov-20CirtualClinical supplies softwaren/an/an/an/an/an/aJun-15ClinitaraClinical rater training services and technologyn/an/an/an/an/aJun-15ClinitaraClinical rater training services and technologyn/an/an/an/an/aJul-11Arrowhead ElectronicElectronic patient reported outcomes (ePRO)n/an/an/an/an/aMVCG ClinicalVereva SystemsDec-21SystemLinkTransplant information system softwaren/an/an/an/an/aMVCG ClinicalVerevaNo-21PharmaFluidissMicro-chi-pbased chromatography columnsn/an/an/an/an/an/aMVCG ClinicalVerev	Definitive Healthcare	Sartorius		• •	-					
Insightful Science Veeva Systems Jan-07 toha-plast Plastic components n/a n/a n/a n/a n/a n/a n/a WCG Clinical Signant Health Signant Health Signant Health Signant Health Signant Health Nov-20 Virtual care management platform n/a n/a n/a n/a n/a n/a n/a Reversana Thermo Fisher Scientific Nov-20 Virtual Virtual CRF Health eCOA and eConsent solutions n/a										
Envision PharmaSignant HealthAug-99Denver InstrumentLaboratory instrumentsn/an/an/an/an/an/aEversanaThermo Fisher ScientificSignant HealthSignant HealthSignant HealthNov-20VirtrialVirtual care management platformn/an/an/an/an/aNov-20VirtrialClinical supplies softwaren/an/an/an/an/aNov-10CLINappsClinical supplies softwaren/an/an/an/an/aNov-11Arrowbead ElectronicElectronic patient reported outcomes (ePRO)n/an/an/an/aJu-11Arrowbead ElectronicElectronic patient reported outcomes (ePRO)n/an/an/an/an/aWCG ClinicalDec-21SystemLinkTransplant information system softwaren/an/an/an/an/aNov-21PharmaFluidicsMicro-chip-based chromatography columnsn/an/an/an/an/an/aMay-21CombinatiPrecision molecular detection platformn/an/an/an/an/an/aMay-21PPDClinical trial and laboratory services\$5,878.9\$968.7\$20,900.03.56x21.6x										
Signant Health Total Disclosed M&A Deal Value: \$1 Billion Eversana Thermo Fisher Scientific Nov-20 Virtial Virtual care management platform n/a n/a n/a n/a n/a n/a Moscientific Sep-18 CRF Health eCOA and eConsent solutions n/a n/a <t< td=""><td>Envision Dharman</td><td>Cignant Llasth</td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td></td><td>, -</td></t<>	Envision Dharman	Cignant Llasth				-	-			, -
Eversana Thermo Fisher Scientific Nov-20 Virtial Virtual care management platform n/a	Envision Pharma	Signant Health		lealth				rlosed M&	A Deal Value	• \$1 Billion
EversanaThermo Fisher ScientificSep-18CRF HealtheCOA and eConsent solutionsn/an/as(1,000.0)n/an/aInsightful ScienceVeeva SystemsSep-18CRF HealthClinical supplies softwaren/an/an/an/an/an/aInsightful ScienceVeeva SystemsClinical aupplies softwaren/an/an/an/an/an/an/aInsightful ScienceVeeva SystemsClinicalElectronicElectronic patient reported outcomes (ePRO)n/an/an/an/an/aInsightful ScienceVeeva SystemsDec-21SystemLinkTransplant information system softwaren/an/an/an/an/aInsightful ScienceVeeva SystemsDec-21SystemLinkTransplant information system softwaren/an/an/an/an/aInsightful ScienceVeeva SystemsDec-21SystemLinkTransplant information system softwaren/an/an/an/an/aInsightful ScienceVeeva SystemsSystemLinkTransplant information system s			_		Vistual care management platform	n/n				
EversanaScientificOct-17 mProve Health Nov-16Mobile patient engagement softwaren/an/an/a4.40x n/an/aInsightful ScienceVeeva SystemsClinical supplies softwaren/an/an/an/an/an/an/aUn-15Clinical aupplies softwaren/an/an/an/an/an/an/an/aJul-11Arrowhead ElectronicElectronic patient reported outcomes (ePRO)n/an/an/an/an/aDec-21SystemLinkTransplant information system softwaren/an/an/an/an/aWCG ClinicalNov-21PharmaFluidicsMicro-chip-based chromatography columnsn/an/an/an/an/aMay-21CombinatiPrecision molecular detection platformn/an/an/an/an/an/aApr-21PPDClinical trial and laboratory services\$5,878.9\$968.7\$20,900.03.56x21.6x		Thormo Fichor			5 1					
Nov-16 CLINapps Clinical supplies software n/a	Eversana									
Insightful Science Jun-15 Clintara Clinical rater training services and technology n/a		Scientific								
Insightful Science Veeva Systems Jul-11 Arrowhead Electronic Electronic patient reported outcomes (ePRO) n/a							-	-		
WCG Clinical Dec-21 SystemLink Transplant information system software n/a n/a<				Arrowhead Electronic	5 57					
WCG ClinicalNov-21PharmaFluidicsMicro-chip-based chromatography columnsn/an/an/an/an/aMay-21CombinatiPrecision molecular detection platformn/an/an/an/an/an/aApr-21PPDClinical trial and laboratory services\$5,878.9\$968.7\$20,900.03.56x21.6x	Insightful Science	Veeva Systems	Thermo	- isher Scientific		Т	otal Disclo	sed M&A D	eal Value: \$	77.2 Billion
WCG ClinicalNov-21PharmaFluidicsMicro-chip-based chromatography columnsn/an/an/an/an/aMay-21CombinatiPrecision molecular detection platformn/an/an/an/an/an/aApr-21PPDClinical trial and laboratory services\$5,878.9\$968.7\$20,900.03.56x21.6x					Transplant information system software					
WCG ClinicalMay-21Combinati Apr-21Precision molecular detection platformn/an/an/an/an/aApr-21PPDClinical trial and laboratory services\$5,878.9\$968.7\$20,900.03.56x21.6x						-	-		-	-
Apr-21 PPD Clinical trial and laboratory services \$5,878.9 \$968.7 \$20,900.0 3.56x 21.6x	WCG (Clinical						-	-	-
					•					
				Mesa Biotech	Molecular diagnostic tests	\$45.0	n/a	\$471.0	10.47x	n/a

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millic	ns)		Target Overview				
		Date	Target	Description	Estim: Revenue	ated EBITDA	Deal Value	Deal Value / Revenue	' Estimated EBITDA
Anju Software	IntegriChain		Fisher Scientific			Total Disclo	sed M&A [Deal Value: \$	77.2 Billion
		Feb-21	Propel Labs (Assets)	Cell sorting technology	n/a	n/a	n/a	n/a	n/a
ArisGlobal	IQVIA	Jan-21 Dec-20 Sep-19	Novasep Belgium Phitonex GSK (Assets)	Molecule production and purification Molecular-scale optical devices Irish API manufacturing site	\$441.3 n/a n/a	\$70.6 n/a n/a	\$834.0 n/a \$99.2	1.89x n/a n/a	11.8x n/a n/a
Bruker	Komodo Health	Jun-19 Apr-19 Oct-18 Mar-18 Dec-17	HighChem Brammer Bio Becton Dickinson (Assets) IntegenX Phenom-World	Mass spectrometry software Viral vector for gene and cell therapies Advanced bioprocessing business Rapid DNA technology for human identification	n/a \$140.0 \$100.0 n/a n/a	n/a n/a n/a \$4.1	n/a \$1,674.0 \$477.0 \$65.0 n/a	n/a 11.96x 4.77x n/a n/a	n/a n/a n/a n/a n/a
Certara	Model N	Dec-17 Dec-17 Aug-17 Jul-17 Mar-17	EPTEK Technology (Assets) Patheon Linkage Biosciences Core Informatics	Nanotechnology equipment Air quality monitoring assets Pharma development & mfg. services Molecular diagnostics products Laboratory data management software	n/a n/a \$1,870.0 n/a \$10.0	54.1 n/a \$316.4 n/a n/a	n/a \$7,358.0 n/a \$94.0	n/a n/a 3.93x n/a 9.40x	n/a n/a 23.3x n/a n/a
Clario (formerly ERT / Bioclinica)	Oracle	Feb-17 Nov-16 Sep-16 Mar-16	Finesse Solutions MTI-GlobalStem FEI Affymetrix	Bio-process mgmt. software & systems Human and mouse stem cell research products Nanoscale imaging, analysis and prototyping Life science tools and diagnostic products	\$50.0 n/a \$930.0 \$360.0	n/a n/a \$167.6 \$39.3	\$221.0 n/a \$4,082.1 \$1,341.8	4.42x n/a 4.39x 3.73x	n/a n/a 24.4x n/m
Dassault / Medidata	Saama Analytics	Feb-16 Sep-15 Feb-15 Mar-14 Feb-14	Inel Alfa Aesar Advanced Scientifics Prionics Invitrogen	Real-time X-ray diffraction systems Research chemicals Bio-processing technology services Diagnostic services for farm animal diseases Genetic testing equipment	\$1.4 \$33.4 \$80.0 n/a \$3,870.0	n/a \$9.0 n/a \$1,097.4	n/a \$389.1 \$288.8 n/a \$15,303.8	n/a 11.65x 3.61x n/a 3.95x	n/a n/m n/a n/a 13.9x
Definitive Healthcare	Sartorius	Jan-13 Sep-12 Jul-12 May-12	picoSpin One Lambda Princeton Security Doe & Ingalls Management	Nuclear magnetic resonance spectrometers Transplant diagnostics products Detector products Specialty chemicals	\$,010.0 n/a \$182.0 \$4.8 \$110.0	n/a n/a \$0.4 n/a	n/a \$898.1 \$12.8 \$176.4	n/a 4.93x 2.66x 1.60x	n/a n/a n/m n/a
Envision Pharma	Signant Health	Sep-11 Aug-11 Jul-11 May-11	Intrinsic Bioprobes ImmunoDiagnostics Trek Diagnostic Systems Sterilin	Clinical and diagnostic assays Blood testing systems Microbiology-based diagnostic testing Plastic ware for clinical and laboratory use	n/a \$0.3 n/a n/a	n/a n/a n/a	n/a \$2,470.0 n/a n/a	n/a n/m n/a n/a	n/a n/a n/a n/a
Eversana	Thermo Fisher Scientific	May-11 Dec-10 Dec-10 Jul-10	Dionex Lomb Scientific TKA Fermentas International	Chromatography equipment Lab chemicals, consumables and instruments Laboratory water purification systems Molecular biological products	\$420.0 n/a n/a \$55.0	\$103.1 n/a n/a n/a	\$2,029.1 n/a n/a \$260.4	4.83x n/a n/a 4.73x	19.7x n/a n/a n/a
Insightful Science	Veeva Systems	May-10 Apr-10 Mar-10 Feb-10	Polychromix Proxeon Biosystems Finnzymes Ahura Scientific	Material analysis & chemical sensing products Medical devices for sample purification Instruments for molecular biology analysis Handheld optical systems	n/a n/a \$20.0 \$45.0	n/a (\$0.8) n/a n/a	n/a n/a \$58.3 \$166.4	n/a n/a 2.92x 3.70x	n/a n/a n/a
WCG C	Clinical	Feb-10 Nov-09 Oct-09 Apr-09 Apr-09	NovaWave Technologies C2V BRAHMS Biolab (Assets) Bonsai Technologies Group	Chemical sensors for environmental monitoring Analytical instruments and detectors In-vitro diagnostics tests Medical instruments Medical, dental & hospital equipment	\$4.0 n/a \$109.2 \$130.5 n/a	n/a n/a n/a n/a	n/a n/a \$481.6 \$131.6 n/a	n/a n/a 4.41x 1.01x n/a	n/a n/a n/a n/a

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millio	ns)	Tar	get Overview							
					Estima	ated	Deal	Deal Value /	'Estimated			
		Date	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA			
Anju Software	IntegriChain	Thermo	Fisher Scientific			Total Disclo	sed M&A [Deal Value: \$	77.2 Billion			
ArisGlobal	IQVIA	Nov-08 Aug-08 Aug-08 Jul-08 Jul-08	Raymond A. Lamb Afora AquaSensors FIBERLite Centrifuge ABRAffinity BioReagents	Histology and anatomical pathology products Laboratory glassware Water measurement systems Centrifuge rotors Monoclonal and polyclonal antibodies	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a \$17.0 n/a	n/a n/a n/a n/a	n/a n/a n/a n/a			
Bruker	Komodo Health	Jul-08 Jun-08 Jan-08 Dec-07	Open Biosystems Chemito Technologies (Assets) Nascent BioSciences La-Pha-Pack	Chemito Technologies (Assets) Nascent BioSciences	Chemito Technologies (Assets) Nascent BioSciences La-Pha-Pack	Chemito Technologies (Assets) Nascent BioSciences La-Pha-Pack	RNA interference and gene expression Analytical tools & environment instrumentation Liquid handling consumables Laboratory products	\$14.0 n/a n/a \$21.0	n/a n/a n/a n/a	n/a n/a \$10.0 \$46.0	n/a n/a 2.19x	n/a n/a n/a n/a
Certara	Model N	Oct-07 Oct-07 Sep-07 Sep-07	NanoDrop Technologies Priority Solutions International Davis Inotek (Assets) Qualigens Fine Chemicals	Micro volume equipment Pharma supply chain management services Technical instruments and industrial equipment Laboratory chemicals and products	\$27.0 \$96.0 n/a \$24.0	n/a n/a n/a n/a	\$155.8 \$163.7 n/a \$59.0	5.77x 1.71x n/a 2.46x	n/a n/a n/a n/a			
Clario (formerly ERT / Bioclinica)	Oracle	Mar-07 Jan-07 Dec-06 Jun-06 May: 06	Oryx Instruments SwissAnalytic Group Cohesive Technologies EGS Gauging Fisher Scientific	Semiconductor testing systems Mass spectrometry and HPLC pumps Advanced sample extraction products Measurement & instruments for process control Analytical equipment and technology	n/a \$22.0 \$13.5 \$25.0 \$5,400.0	n/a n/a n/a n/a	n/a n/a \$70.9 \$28.4 \$12,560.0	n/a n/a 5.25x 1.14x 2.33x	n/a n/a n/a n/a n/a			
Dassault / Medidata	Saama Analytics	May-06 Apr-06 Mar-06 Aug-05 Jul-05	Biolmage Athena Diagnostics Eurofins Lancaster McKesson Bioservices	Protein visualization tools Molecular diagnostic & immunodiagnostic tests Commercial testing laboratory services Clinical supply and biological specimen mgmt.	\$5,400.0 n/a \$55.0 \$60.0 n/a	n/a n/a n/a n/a	\$12,560.0 n/a \$283.0 \$150.0 \$60.0	2.35x n/a 5.15x 2.50x n/a	n/a n/a n/a n/a			
Definitive Healthcare	Sartorius	Jan-05 Aug-04 Apr-04 Feb-04	Cellomics Apogent Technologies GE Healthcare Dharmacon Oxoid	High content screening systems Diagnostic products Research tools for biotechnology research Microbiological products	\$13.0 \$1,168.9 n/a n/a	n/a \$199.8 n/a n/a	\$49.0 \$2,612.0 \$80.0 \$325.3	3.77x 2.23x n/a n/a	n/a 13.1x n/a n/a			
Envision Pharma	Signant Health	Sep-01 May-01 Jul-96	Cole-Parmer Medical Analysis Systems SensorMedics	Laboratory equipment, instruments & supplies Diagnostic products for clinical laboratories Cardio pulmonary & other medical instruments	\$170.0 \$30.0 \$69.2	n/a n/a n/a	\$205.0 n/a \$70.0	1.21x n/a 1.01x	n/a n/a n/a			
Eversana	Thermo Fisher Scientific	Veeva Sy Dec-21 Aug-21 Nov-19	Veracity Logic learnaboutgmp Physicians World	Randomization and trial supply management software Life sciences online training & education Speakers bureau services	n/a n/a \$20.0	n/a n/a n/a	n/a n/a \$41.0	al Value: \$61 n/a 2.05x	n/a n/a n/a			
Insightful Science	Veeva Systems	Sep-19 Sep-15 Jul-15 Jul-15 Mar-15	Crossix Zinc Ahead Merqurio Selligy Qforma (Assets)	US patient data analytics platform Promotional compliance solutions HCP database solutions Life sciences CRM software KOL data solutions	\$80.0 \$25.4 \$16.7 n/a n/a	n/a \$1.7 n/a n/a n/a	\$428.0 \$119.6 n/a \$0.3 \$9.8	5.35x 4.71x n/a n/a n/a	n/a n/m n/a n/a n/a			
WCG		Jun-13	AdvantageMS	Healthcare data provider	n/a	n/a	\$12.4	n/a	n/a			

WCG Clinical

Public Companies & Leading Platforms

Advarra	Instem	(\$ in Millic	(\$ in Millions)Target Overview								
					Estima	ated	Deal	Deal Value /	/ Estimated		
		Date	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA		
Anju Software	IntegriChain	WCG Cli	nical		Total Disclosed M&A Deal Value: \$703 Million						
ArisGlobal	IQVIA	Jun-21 Jun-21 May-21 Dec-20 Jan-20	VeraSci Intrinsic Imaging The Avoca Group Trifecta Clinical Statistics Collaborative	eCOA and trial outcome solutions Medical imaging services to clinical trial vendors Life sciences consulting firm Training, safety, and communications platform Biostatistical consulting service	n/a n/a n/a n/a	n/a n/a n/a n/a n/a	\$330.0 \$80.0 \$36.0 n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a n/a		
Bruker	Komodo Health	Sep-19 Aug-19 Apr-19 Jan-19	Waife & Associates PharmaSeek Analgesic Solutions First Clinical Research	Biopharmaceutical clinical consulting service Administrative, consulting and training solutions Risk mitigation services for clinical trials Clinical best practice information services	n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a		
Certara	Model N	Dec-18 Jul-18 Jul-18 Mar-18 Nov-17	Velos KMR Group Metrics Champion ACI Clinical Vigilare International	Clinical research administration software Clinical research benchmarking and analytics Clinical research benchmarking and analytics Clinical trial advisory services Pharmacovigilance services	\$12.0 n/a n/a n/a	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a		
Clario (formerly ERT / Bioclinica)	Oracle	Aug-17 Jul-17 Mar-17 Mar-17	ConsentNow FDAnews MedAvante ThreeWire	Pharmacoviginance services Informed consent process software Regulatory, legislative and business news eCOA solutions Patient recruitment services	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a n/a \$140.0 \$87.0	n/a n/a 3.70x 4.50x	n/a n/a n/a 14.0x		
Dassault / Medidata	Saama Analytics	Dec-16 Jun-16 Jun-16 Mar-16	ProPhase CenterWatch karmadata Acorn Applications	eSource and clinical data management Proprietary clinical trial data Clinical database and decision support Analytical research solutions	n/a n/a n/a n/a	n/a n/a n/a n/a	\$30.0 n/a n/a n/a	2.60x n/a n/a n/a	12.9x n/a n/a n/a		
Definitive Healthcare	Sartorius	Mar-16 Sep-14 Sep-14 Jul-14	Clintrax Global ePharmaSolutions New England IRB Alliance Biosciences	Contract negotiation & grant management eClinical solutions and tech-enabled services Independent institutional review board Biosafety and biosecurity consulting	\$7.0 n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a	n/a 4.00x n/a n/a	n/a n/a n/a n/a		
Envision Pharma	Signant Health	Jun-14 Jun-14 Jan-13 May-12	Aspire IRB Midlands IRB Research Dataware Copernicus Group	Review services Ethical review services for clinical research Software for IRBs IRB services	n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a	n/a n/a n/a n/a	n/a n/a n/a n/a		
Eversana	Thermo Fisher Scientific	Average Median			\$418.2 \$45.0	\$103.2 \$4.1	\$888.0 \$90.9	4.34x 3.70x	14.5x 14.0x		
Insightful Science	Veeva Systems										

WCG Clinical

Other Life Sciences Software Acquisitions: 2018-Present

MADISON PARK GROUP

(\$ in Millio	ons)							
			Target Overview				action Summ	
				Estima		Deal	Deal Value /	
Date	Acquiror	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA
Jan-22	Novo Holdings	Medical Knowledge Group	Network mapping & patient-finding analytics	n/a	\$58.5	\$1,200.0	n/a	20.5x
Dec-21	Flatiron	Protocol First	Purpose-built clinical trial execution software	n/a	n/a	n/a	n/a	n/a
Dec-21	Kohlberg	Trinity Life Sciences	Life science consultancy	n/a	\$63.6	\$1,400.0	n/a	22.0x
Dec-21	Gener8	The RND Group	Medical device software development	n/a	n/a	n/a	n/a	n/a
Dec-21	PharmaLex	Pharmasol	Drug safety software and services	n/a	n/a	n/a	n/a	n/a
Nov-21	Nordic Capital	Inovalon	Cloud-based analytics platform for healthcare	\$749.6	\$219.6	\$7,300.0	9.74x	n/m
Nov-21	Clinical Link	Digital Artefacts	3D modeling and time visualization software	n/a	n/a	n/a	n/a	n/a
Nov-21	Thread Research	Modus Outcomes	Research consultancy supporting eCOA	n/a	n/a	n/a	n/a	n/a
Oct-21	Carlyle Group	Saama Analytics	Clinical analytics cloud software	n/a	n/a	\$430.0	n/a	n/a
Oct-21	Ares Management	Lockwood	Scientific medical communications	n/a	\$17.1	\$360.0	n/a	21.0x
Oct-21	GHO Capital	ClearView Healthcare Partners	Life science global strategy advisor	n/a	\$42.9	\$730.0	n/a	17.0x
Sep-21	Honeywell	Performix	Life sciences manufacturing execution software	n/a	n/a	n/a	n/a	n/a
Sep-21	Verily (Alphabet)	SignalPath	Clinical trial management system	n/a	n/a	n/a	n/a	n/a
Aug-21	H1	Carevoyance	Medical device sales enablement	n/a	n/a	n/a	n/a	n/a
Aug-21	Nanox	Zebra Medical Vision	Medical imaging analytics	n/a	n/a	\$200.0	n/a	n/a
Jul-21	lcon	PRA Health Sciences	Drug development and clinical trial services	\$3183.4	\$433.8	\$11,274.3	3.54x	26.0x
Jul-21	Bain Capital Private Equity	PartsSource	B2B marketplace for medtech services	\$200.0	n/a	\$1,250.0	6.25x	n/a
Jul-21	EQT	Parexel International	Technological biopharmaceutical services	n/a	\$450.0	\$8,500.0	n/a	18.9x
Jun-21	Goldman Sachs Group	4G Clinical	Randomization and trial supply management	n/a	n/a	\$280.0	n/a	n/a
Jun-21	Banyan Software	HealthRx Corporation	Occupational health management software	n/a	n/a	n/a	n/a	n/a
Jun-21	Within3	Voxx Analytics	Analytics research and influence mapping	n/a	n/a	n/a	n/a	n/a
May-21	Tencent Investment	ForceClouds	Clinical trial management software	n/a	n/a	n/a	n/a	n/a
May-21	Alten	Cmed	CRO services and clinical data suite	\$20.0	n/a	n/a	n/a	n/a
Apr-21	Within3	rMark Bio	Business intelligence software for life sciences	n/a	n/a	n/a	n/a	n/a
Feb-21	Nordic Capital Astorg	Cytel	Statistical medical data management software	\$200.0	\$40.0	\$1,000.0	5.00x	25.0x
Feb-21	Honeywell	Sparta Systems	Enterprise quality management software	\$155.0	n/a	\$1,303.0	8.41x	n/a
Feb-21	LGC	Technopath Clinical	Total quality control products for clinical labs	n/a	n/a	n/a	n/a	n/a
Jan-21	EvidentlQ (formerly Xclincial)	Carenity	Social healthcare platform for patients and caregivers	n/a	n/a	n/a	n/a	n/a
Jan-21	EvidentlQ (formerly Xclincial)	Fortress Medical Systems	Integrated clinical trial software	n/a	n/a	n/a	n/a	n/a
Dec-20	Charles River	Distributed Bio	Antibody discovery tools	\$15.1	n/a	\$104.0	6.90x	n/a
Dec-20	Trinity Life Sciences	BluePrint Research Group	Global life sciences commerical strategy consultancy	Confid.	Confid.	Confid.	Confid.	Confid.
Dec-20	ZEISS International	arivis	Biomedical big image data and compliance software	n/a	n/a	n/a	n/a	n/a
Sep-20	Carlyle Group	TriNetx	Research network and clinical optimization platform	n/a	n/a	n/a	n/a	n/a
Aug-20	GI Partners	Clinical Ink	eSource technology	n/a	n/a	n/a	n/a	n/a

Source: Public Filings, Press Releases, PitchBook

Note: All EBITDA Multiples > 30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability.

Other Life Sciences Software Acquisitions: 2018-Present

MADISON PARK GROUP

\$ in Millic	Ulisj		Target Overview			Trans	saction Summ	ary
				Estima	ated	Deal	Deal Value /	
Date	Acquiror	Target	Description	Revenue	EBITDA	Value	Revenue	EBITDA
Jul-20	Recursion Pharmaceuticals	Vium	Digital biomarkers for preclinical research	n/a	n/a	n/a	n/a	n/a
Jul-20	Excelya	Koehler eClinical	CRO services and proprietary EDC / CTMS software	n/a	n/a	n/a	n/a	n/a
Apr-20	Simulations Plus	Lixoft	Modeling and simulation platform	\$3.4	\$1.7	\$16.5	4.85x	9.7x
Mar-20	Pivotal	Akcelis	Patient engagement and retention software	n/a	n/a	n/a	n/a	n/a
Feb-20	Parexel	Model Answers	Clinical pharmacology modeling and simulation	n/a	n/a	n/a	n/a	n/a
Feb-20	Brooks Life Sciences	RURO	Lab informatics software	\$5.0	n/a	\$15.0	3.00x	n/a
Jan-20	Clarivate Analytics	DRG	Healthcare data, analytics and insights	\$207.0	\$47.0	\$950.0	4.59x	20.2x
Jan-20	Brainlab	VisionTree	Cloud-based ePRO	n/a	n/a	n/a	n/a	n/a
Jan-20	Summit Partners	eClinical Solutions	Cloud-based SaaS for clinical data services	n/a	n/a	n/a	n/a	n/a
Jan-20	Phlexglobal	Cunesoft	Regulatory information management	n/a	n/a	n/a	n/a	n/a
Dec-19	VirTrial	SnapMD	Virtual care management platform	n/a	n/a	n/a	n/a	n/a
Nov-19	Leonard Green	WCG	Clinical trial services and software	n/a	\$175.0	\$3,100.0	n/a	17.7x
Nov-19	Monterro	PCG Solutions	Clinical trial software	n/a	n/a	n/a	n/a	n/a
Nov-19	Cytel	MTEK Sciences	Biopharma consulting analytics software	n/a	n/a	n/a	n/a	n/a
Nov-19	Monterro	Viedoc	Electronic data capture system for clinical trials	n/a	n/a	n/a	n/a	n/a
Oct-19	TrialScope	Clinical Trial Connect	Trial matching and patient management	n/a	n/a	n/a	n/a	n/a
Oct-19	Astorg	ERT	Clinical safety, endpoint collection & analysis	n/a	\$210.0	\$3,800.0	n/a	18.0x
Sep-19	Bid Equity	XClinical	SaaS-based eClinical solutions	n/a	n/a	n/a	n/a	n/a
Sep-19	OptimizeRx	RMDY Health	Trial matching and patient management	\$3.0	n/a	\$16.0	5.33x	n/a
Sep-19	PPD	Bioclinica (Assets)	Global Site business unit	n/a	n/a	n/a	n/a	n/a
Aug-19	SARORAS Private Capital	InCrowd	Mobile first, market research platform	\$15.0	n/a	n/a	n/a	n/a
Aug-19	Merck (MilliporeSigma)	BSSN Software	Data management and integration software	n/a	n/a	n/a	n/a	n/a
Jul-19	Genstar Capital	Advarra	Compliance solutions to the R&D process	n/a	\$72.0	\$1,300.0	n/a	18.0x
Jun-19	dMed	Target Health	CRO services and eClinical software	n/a	n/a	n/a	n/a	n/a
Jun-19	Nordic Capital	ArisGlobal	Clinical and medical affairs software solutions	\$100.0	n/a	\$700.0	7.00x	n/a
Jun-19	Danaher / Beckman Coulter	Cytobank	Single cell data analysis software	n/a	n/a	n/a	n/a	n/a
May-19	Evidera	Medimix International	Provider of real-world evidence (RWE) insights	n/a	n/a	n/a	n/a	n/a
May-19	RLDatix	iContracts	Contract management	n/a	n/a	\$200.0	n/a	n/a
Apr-19	Emerson	Bioproduction Group	Simulation, modeling and scheduling software	n/a	n/a	n/a	n/a	n/a
Mar-19	Abry Partners	Anju	Life sciences software and data	Confid.	Confid.	Confid.	Confid.	Confid.
Feb-19	Cayuse	NTM Consulting Services	Research management	n/a	n/a	n/a	n/a	n/a
Oct-18	Varian Medical	Noona	Oncology platform for mobile devices	n/a	n/a	n/a	n/a	n/a
Oct-18	NNIT	Valiance Partners	Data migration software	\$13.2	n/a	\$35.7	2.70x	n/a
Aug-18	Deloitte	Qspace	Validation lifecycle management	n/a	n/a	n/a	n/a	n/a
Jun-18	Genpact	Commonwealth Informatics	Cloud-based pharmacovigilance analytics	n/a	n/a	n/a	n/a	n/a

Source: Public Filings, Press Releases, PitchBook

Note: All EBITDA Multiples > 30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability.

MADISON PARK GROUP

Other Life Sciences Software Acquisitions: 2018-Present

(\$ in Millio	ons)		Target Overview			Trans	action Summ	any
			lagerovernew	Estima	ated	Deal	Deal Value /	
Date	Acquiror	Target	Description	RevenueEBIT		Value	Revenue	EBITDA
May-18	Agilent	Genohm	Laboratory information management	n/a	n/a	n/a	n/a	n/a
May-18	Elligo Health Research	ePatientFinder	Clinical trial solutions and practice network	n/a	n/a	n/a	n/a	n/a
May-18	Q ² Solutions	BioFortis	Trial sample, consent tracking and biobanking	n/a	n/a	n/a	n/a	n/a
May-18	NovaQuest	Clinical Ink	eSource technology	n/a	n/a	n/a	n/a	n/a
Apr-18	Roche	Flatiron	Oncology-focused electronic health records (EHR)	\$47.5	n/a	\$1,900.0	n/m	n/a
Jan-18	Wilmington	Interactive Media	Life sciences sales & marketing solutions	n/a	n/a	\$5.3	n/a	n/a
Jan-18	Inspirata	AIM	AI and NLP for clinical documents	n/a	n/a	n/a	n/a	n/a
Average							5.61x	19.5x
Median							5.17x	19.6x

Life Sciences Software: 2018-Present

			Company Overview	Fundraise Summary							
Date	Company	Employees 01/3/22	Description	Lead Investor	Туре	Amount Raised	Pre-Money Valuation	Last <u>Post-Money</u>	Raised To-Date		
Nov-21	Benchling	635	Lab collaboration platform for life science research	Altimeter Capital	Venture	\$100.0	\$6,000.0	\$4,000.0	\$411.		
Nov-21	H1 Insights	336	Healthcare data analytics software	Altimeter Capital	Venture	\$100.0	\$750.0	\$258.0	\$179		
Nov-21	Shanhu Health	5	Computerized systems designed for clinical research	Sherpa Healthcare Partners	Venture	n/a	n/a	n/a	n,		
Nov-21	Zageno	77	Life science marketplace	General Catalyst	Venture	\$60.0	\$240.0	\$65.0	\$87		
lov-21	Synthace	77	Laboratory automation platform	Sofinnova Partners	Venture	\$35.0	\$86.5	n/a	\$89		
)ct-21	Medable	481	End-to-end cloud-based clinical research platform	Blackstone Group	Venture	\$304.0	\$1,800.0	\$728.0	\$499		
ep-21	Elligo Health	192	Clinical research infrastructure services & technology	Ally Bridge Group	Venture	\$135.5	\$260.0	\$160.0	\$213		
ep-21	Overwatch Research	12	Workflow software for medical research	Frontline Ventures	Venture	\$3.5	\$11.0	n/a	\$4		
ep-21	Seqera Labs	16	Open source workflow orchestration software	Talis Capital	Seed	\$5.5	n/a	n/a	\$5		
ug-21	Reify Health	298	Clinical optimization	Coatue Management	Venture	\$220.0	\$1,980.0	\$160.0	\$259		
I-21	SimBioSys	23	Computational oncology	Genoa Ventures	Venture	\$15.0	\$24.0	n/a	\$1		
ul-21	Castor	149	EDC, eConsent, ePRO and study management	Eight Roads	Venture	\$45.0	n/a	n/a	\$63		
I-21	Inova Software	114	SaaS-based partnering platform	The Carlyle Group	Growth / Recap	\$72.2	n/a	n/a	\$8		
I-21	ObvioHealth	70	Digital recruitment and siteless / hybrid trials	Dedalus	Venture	\$31.0	n/a	n/a	\$5		
n-21	Tendo Systems	64	Enterprise cloud software solutions for life sciences	Lux Capital Management	Venture	\$49.4	\$500.7	\$56.0	\$6		
n-21	AlayaCare	412	Cloud-based home care agency	Generation Investment	Venture	\$184.9	n/a	n/a	\$29		
n-21	DrChrono	162	Electronic health record platform	ORIX Growth Capital	Venture	\$12.0	n/a	n/a	\$5		
ın-21	Antidote	62	Patient recruitment services and software	LBO France	Growth / Recap	\$23.2	n/a	n/a	\$56		
ın-21	Insilico Medicine	123	Innovative AI solutions for drug discovery and aging research	Warburg Pincus	Growth / Recap	\$255.0	n/a	n/a	\$310		
ay-21	MediSpend	61	HCP engagement compliance software	Susquehanna	Growth / Recap	n/a	n/a	n/a	r		
ay-21	Esco Lifesciences	575	Academic research and scientific discoveries technology	Vivo Capital	Venture	\$200.0	n/a	n/a	\$20		
1ay-21	Qualio	191	Quality management platform for life-saving products	Tiger Global	Venture	\$50.0	\$250.0	\$44.0	\$6		
lay-21	Greenlight Guru	158	Quality management software for medical devices	JMI Equity	Growth / Recap	n/a	n/a	n/a	r		
lay-21	Artificial	37	Automation software platform	M12	Venture	\$21.5	\$55.0	n/a	\$2 ⁻		
ay-21	ArisGlobal	1,795	Drug development platform	Nordic Capital	Growth / Recap	n/a	n/a	n/a	\$		
lay-21	Axtria	2,039	Cloud software and data analytics for life sciences industry	Bain Capital	Growth / Recap	\$150.0	n/a	n/a	\$36		
ay-21	Labforward	47	Electronic lab notebook and IoT platform	Tecan Group	Venture	\$10.4	\$48.4	\$3.0	\$1		
or-21	Florence Healthcare	133	Clinical trial document management	Insight Partners	Venture	\$80.0	n/a	\$22.1	\$9		
or-21	Datacubed Health	54	eCOA and other patient engagement solutions	Sterling Partners	Venture	\$8.8	n/a	n/a	\$3		
or-21	Medable	357	Decentralized trial platform	Sapphire Ventures	Venture	\$78.0	\$650.0	\$286.0	\$21		
or-21	Benchling	536	Cloud-based informatics platform	Sequoia Capital	Venture	\$200.0	\$3,800.0	\$900.0	\$31		
ar-21	DNAnexus	188	Genome informatics and data management	Perceptive Advisors	Venture	\$132.0	n/a	\$182.0	\$29		
c-20	Elligo Health	192	Clinical research infrastructure services & technology	Cerner	Venture	\$36.9	\$115.0	\$59.0	\$7		
-		-	· · · · · · · · · · · · · · · · · · ·				,				

Sources: Capital IQ, Public Filings, Press Releases, PitchBook, proprietary Madison Park Group research based on publicly available information

Note: All EBITDA Multiples >30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability

Life Sciences Software: 2018-Present

			Company Overview		Fundr	aise Summary	/		
Date	Company	Employees 01/3/22	Description	Lead Investor	Туре	Amount Raised	Pre-Money Valuation	Last <u>Post-Money</u>	Raised To-Date
ec-20	doDoc	26	Content authoring	Cactus Sky Communications	Seed	\$1.5	\$5.5	n/a	\$3.
ec-20	Clinical Ink	242	Purpose-built data capture platform	McKesson Ventures	Venture	n/a	n/a	n/a	n,
ec-20	Kayentis	150	eCOA technology accelerating clinical trials	Extens	Growth / Recap	\$8.3	\$32.1	\$12.5	\$25
lov-20	ScienceMedia	33	Learning content for clinical and medical affairs	Decathlon Capital	Venture	n/a	n/a	n/a	\$2
lov-20	COTA	82	Healthcare informatics and precision analytics	Baptist Health	Growth / Recap	\$34.0	n/a	n/a	\$115
Oct-20	Aktana	341	Decision support for commercial teams	Norwest Venture	Venture	\$30.0	\$120.0	\$154.6	\$113
Oct-20	Ovation Life Sciences	74	Cloud-based laboratory information management	Madrona Venture	Venture	\$21.3	\$50.0	\$28.1	\$35
ep-20	Blue Mountain	77	Life sciences focused enterprise asset management	Accel-KKR	Growth / Recap	n/a	n/a	n/a	r
ep-20	Datacubed Health	54	eCOA and other patient engagement solutions	Sterling Partners	Venture	\$5.2	n/a	n/a	\$30
ep-20	CluePoints	106	Risk-based quality management software	Summit Partners	Growth / Recap	\$22.6	n/a	n/a	\$2
ug-20	Castor	149	EDC, eConsent, ePRO and study management	Two Sigma Ventures	Venture	\$12.0	n/a	n/a	\$1
un-20	Qualio	131	Quality management platform	Storm Ventures	Venture	\$11.0	\$33.0	\$7.6	\$1
ın-20	Antidote	62	Patient recruitment services and software	Octopus Ventures	Venture	n/a	n/a	n/a	\$5
ay-20	Benchling	536	Cloud-based informatics platform	Alkeon Capital	Venture	\$50.0	\$850.0	\$415.0	\$11
lay-20	ObvioHealth	70	Digital recruitment and siteless / hybrid trials	IQVIA	Venture	\$16.8	n/a	n/a	\$2
1ay-20	Medable	357	Decentralized trial platform	GSR Ventures	Venture	\$25.0	\$75.0	\$78.5	\$11
pr-20	TrialBee	50	Patient recruitment and retention solutions	MTIP	Venture	\$12.0	n/a	n/a	\$2
eb-20	Verana Health	152	De-identified clinical data sets	Google Ventures	Venture	\$100.0	\$150.0	\$45.0	\$13
an-20	HelpAround	20	Patient concierge platform	IQVIA	Venture	\$6.0	\$13.5	n/a	\$
in-20	eClinical Solutions	259	Cloud-based clinical data services	Summit Partners	Growth / Recap	\$19.3	n/a	n/a	\$1
ec-19	BC Platforms	77	Genome data management	IQVIA	Venture	\$15.0	n/a	\$25.6	\$2
ec-19	Suvoda	558	Randomization and trial supply management	LLR Partners	Growth / Recap	\$40.0	n/a	n/a	\$4
ov-19	4G Clinical	209	Randomization and trial supply management	Schooner Capital	Venture	\$14.6	n/a	n/a	\$3
ov-19	Deep 6 Al	51	Al-enabled patient trial matching platform	Point72 Ventures	Venture	\$17.0	\$51.0	\$18.0	\$2
ct-19	Sensely	19	Remote assessment/virtual clinical assistant hub	Aflac Ventures	Venture	\$15.0	\$35.0	\$30.0	\$2
ct-19	Trials.ai	6	Protocol technology platform	Teal Ventures	Seed	\$1.3	n/a	n/a	\$
ep-19	Longboat Clinical	76	Clinical trial conduct management	Enterprise Ireland	Venture	n/a	n/a	n/a	
ep-19	Ovation Life Sciences	74	Cloud-based laboratory information management	Madrona Venture	Venture	\$3.1	\$25.0	\$16.0	\$1
p-19	ComplianceQuest	144	Clinical, quality, health and safety management solutions	Insight Partners	Growth / Recap	\$36.0	n/a	n/a	\$3
ep-19	Florence Healthcare	133	Clinical trial document management	Fulcrum Equity	Venture	\$7.1	\$15.0	\$6.6	\$
ul-19	Benchling	536	Cloud-based informatics platform	Menlo Ventures	Venture	\$34.5	\$380.5	\$74.5	\$6
ul-19	Qualio	131	Quality management platform	MHS Capital	Seed	\$2.6	n/a	n/a	\$
ul-19	Monocl	74	Medical and scientific expert data	GP Bullhound	Venture	\$3.4	n/a	n/a	\$

Sources: Capital IQ, Public Filings, Press Releases, PitchBook, proprietary Madison Park Group research based on publicly available information

Note: All EBITDA Multiples >30x are considered not to be meaningful as valuation of business clearly influenced by factors other than profitability

Life Sciences Software: 2018-Present

\$ in Millic			Company Overview		Fundi	raise Summar	у		
		Employees				Amount	, Pre-Money	Last	Raised
Date	Company	01/3/22	Description	Lead Investor	Туре	Raised	Valuation	Post-Money	To-Date
Jul-19	Datica	22	Cloud-based clinical data exchange platform	LRVHealth	Venture	n/a	n/a	n/a	\$12
Jul-19	Clinithink	41	Clinical data solutions	TripleTree Capital Partners	Venture	\$2.6	\$15.5	\$16.5	\$25
May-19	ScienceMedia	33	Learning content for clinical and medical affairs	Undisclosed	Venture	\$1.6	\$6.0	\$4.3	\$2
May-19	Riffyn	47	Scientific development environment platform	M Ventures	Venture	\$15.1	\$37.5	\$25.0	\$2
May-19	Axiom Metrics	177	eClinical software suite	Great Point Partners	Growth / Recap	n/a	n/a	n/a	r
May-19	Elligo Health Research	192	Clinical research infrastructure services & technology	Piper Sandler	Venture	\$20.0	\$39.0	\$31.0	\$4
May-19	Zageno	144	Life science marketplace	General Catalyst	Venture	\$20.0	n/a	n/a	\$2
/lar-19	Ovation Life Sciences	74	Cloud-based laboratory information management	Madrona Venture	Venture	\$5.0	\$11.0	\$6.9	\$1
Mar-19	Comprehend Systems	10	Cloud-based clinical intelligence platform	Undisclosed	Venture	\$5.0	\$28.0	\$71.8	\$6
eb-19	TriNetx	166	Research network and clinical optimization platform	Merck Innovation Fund	Venture	\$40.0	\$120.0	\$97.2	\$10
eb-19	4G Clinical	209	Randomization and trial supply management	Migration Capital	Venture	\$7.2	n/a	\$25.0	\$1
eb-19	Complion	39	eRegulatory for research sites	Beringea	Venture	\$7.0	\$15.0	\$7.4	\$1
eb-19	DNAnexus	188	Genome informatics and data management	Google Ventures	Venture	\$68.0	\$165.0	\$110.0	\$19
an-19	Clinithink	41	Clinical data solutions	Merck Innovation Fund	Venture	\$15.6	\$30.6	\$15.5	\$4
an-19	Trials.ai	6	Protocol technology platform	Sway Ventures	Seed	n/a	n/a	n/a	1
an-19	Invio	29	Clinical trial document management	Elevate Capital	Seed	\$0.1	\$6.4	n/a	\$
an-19	Teckro	140	Clinical trials processing platform	Northpond Ventures	Venture	\$25.0	n/a	n/a	\$4
Oct-18	Comprehend Systems	10	Cloud-based clinical intelligence platform	Eminence Capital	Venture	\$29.7	\$45.7	\$92.5	\$6
Oct-18	Triumph Research (TRI)	33	Risk-based quality management software	Octopus	Growth / Recap	n/a	n/a	n/a	r
Oct-18	Aktana	341	Decision support for commercial teams	Leerink Transformation	Growth / Recap	\$21.1	\$93.6	\$47.4	\$6
Sep-18	Inova Software	114	SaaS-based partnering platform	NextStage AM	Growth / Recap	\$8.1	n/a	n/a	\$
Sep-18	TrialScope	35	Clinical disclosure and patient engagement software	Undisclosed	Venture	\$4.0	\$20.0	\$16.6	\$2
ul-18	Verana Health	152	De-identified clinical data sets	Google Ventures	Venture	\$30.0	\$15.0	\$15.8	\$3
ul-18	Castor	149	EDC, eConsent, ePRO and study management	INKEF Capital	Seed	\$6.3	n/a	n/a	\$
un-18	Vium	11	Digital biomarkers for preclinical research	Lux Capital Management	Venture	\$24.0	n/a	\$139.8	\$5
un-18	Benchling	536	Cloud-based informatics platform	Benchmark	Venture	\$14.5	\$60.0	\$40.4	\$2
un-18	nPhase / RedCap	27	Clinical data management	Undisclosed	Seed	\$1.5	n/a	n/a	\$
/lay-18	TrialBee	50	Patient recruitment and retention solutions	Industrifonden	Venture	\$8.5	n/a	n/a	\$1
pr-18	Benchling	635	Lab collaboration platform for life science research	Benchmark	Venture	\$14.5	\$60.5	\$37.0	\$2
/Iar-18	ClinCapture / Clinovo	23	EDC software and clinical services	Rock Health	Seed	\$1.9	\$9.1	\$7.5	\$
/lar-18	ObvioHealth	70	Digital recruitment and siteless / hybrid trials	SPRIM Ventures	Venture	\$3.0	n/a	n/a	\$
1ar-18	Elligo Health Research	192	Clinical research infrastructure services & technology	Nor-Moseley Partners	Venture	\$16.0	\$15.0	\$11.0	\$2
eb-18	PatientWing	11	Patient engagement	Ben Franklin Technology	Seed	\$0.6	n/a	n/a	9
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Life Sciences Software: 2018-Present

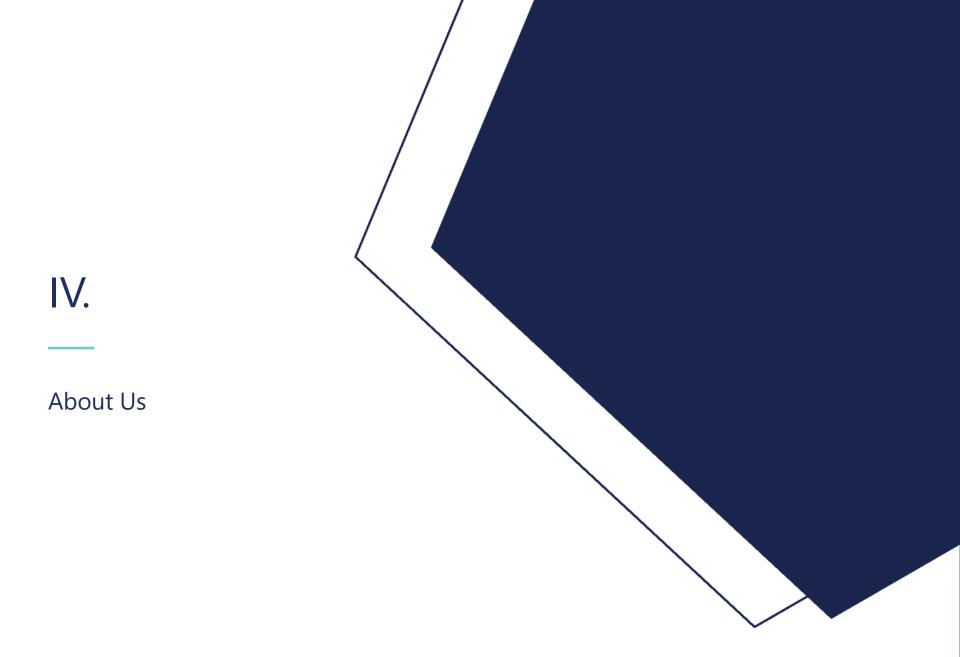
(\$ in Millio	ons)													
			Company Overview	Fundraise Summary										
Date	Company	Employees 01/3/22	Description	Lead Investor	Туре	Amount Raised	Pre-Money Valuation	Last <u>Post-Money</u>	Raised To-Date					
Feb-18	COTA	82	Healthcare informatics and precision analytics	IQVIA	Growth / Recap	\$40.0	n/a	n/a	\$61.7					
Jan-18	Ovation Life Sciences	74	Cloud-based laboratory information management	Longfellow Venture	Venture	\$1.9	\$5.0	\$4.5	\$5.7					
Jan-18	DNAnexus	188	Genome informatics and data management	Foresite Capital	Venture	\$58.0	\$52.0	\$90.0	\$127.7					
Jan-18	doDoc	26	Content authoring	Right Side Capital	Seed	\$1.4	n/a	n/a	\$2.0					
Seed M	edian	26				\$1.5	\$6.4	\$7.5	\$3.4					
Venture	Median	77				\$20.0	\$51.5	\$42.2	\$36.9					
Growth	/ Recap Median	123				\$34.0	\$62.9	\$29.9	\$48.3					
Overall	Median	82				\$18.1	\$50.0	\$40.4	\$30.0					

Public Comparables

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Life Sciences Software Vendors

(\$ in Millions)															
	Market Data					Оре	erating Met	rics			Valuation Metrics				
	Price \$ Enterprise	CY Rev	enue	Revenue	Growth	La	Last Fiscal Year		CY EBITDA Margin		EV / CY Revenue		EV / CY I	EBITDA	
Company	1/6/2022 Value	2021A	2022E	'20-'21	'21-'22	Rec. %	GM (\$)	GM %	2021E	2022E	2021E	2022E	2021E	2022E	
Certara	\$25.81 \$4,001	\$293	\$363	20.5%	23.7%	38.5%	\$158	57.4%	36.4%	36.6%	13.64x	11.03x	n/m	n/m	
Dassault Systemes	\$55.02 \$74,715	\$5,513	\$6,094	1.2%	10.5%	90.1%	\$4,571	83.7%	38.0%	36.2%	13.55x	12.26x	n/m	n/m	
Definitive Healthcare	\$25.48 \$3,202	\$165	\$208	39.1%	26.5%	38.5%	\$136	88.9%	33.1%	31.1%	19.46x	15.39x	n/m	n/m	
Instem	\$12.05 \$261	\$63	\$83	63.5%	32.3%	59.9%	\$19	41.2%	17.3%	19.9%	4.14x	3.13x	23.9x	15.7x	
IQVIA Holdings	\$262.51 \$61,990	\$13,830	\$14,936	21.8%	8.0%	38.5%	\$4,495	33.2%	21.6%	22.3%	4.48x	4.15x	20.7x	18.6x	
Model N	\$28.62 \$1,013	\$199	\$219	17.4%	10.2%	74.0%	\$107	55.2%	11.9%	11.9%	5.09x	4.62x	n/m	n/m	
Veeva Systems	\$241.67 \$38,141	\$1,813	\$2,142	27.7%	18.2%	80.5%	\$1,280	72.7%	42.0%	39.4%	21.04x	17.81x	n/m	n/m	
Median				21.8%	18.2%	59.9%		57.4%	33.1%	31.1%	13.55x	11.03x	22.3x	17.2x	



Madison Park Group

Advisors to the Technology Economy

MADISON PARK GROUP

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200+

~30%

\$30+

40%+

SPONSOR-BACKED CLIENTS

DEDICATED ADVISORS

30%+



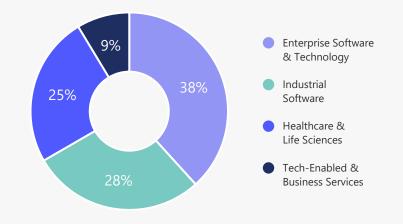
FOCUS

We partner with global technology clients across North America and Europe

EXPERTISE

We specialize in impacting growth strategies to optimize shareholder value creation

Our Deep Sector Expertise Drives Better Outcomes ⁽²⁾



 Calculated as total clients divided by clients completing more than one transaction with MPG over client relationship, inclusive of investor relationships
 Calculated deplete relation to the better that better the sector.

(2) Select deals completed in the last ten years





STRATEGY

We marry thoughtful corporate strategy planning with stalwart transactional execution

RESOURCES

Domain experts with active relationships across +1,500 investors

Senior Leadership Team

MADISON PARK GROUP

20+ Years Average Investment Banking & Technology Advisory Experience



Jon Adler Managing Director Email LinkedIn

Highlight Areas of Expertise

- **EHSO** Tech \checkmark
- Healthcare & Life Sciences Tech \checkmark
- Non-Profit & Member Management \checkmark Software



Jeff Herriman Managing Director Email LinkedIn

Highlight Areas of Expertise

Construct Tech



Rohan Khanna Managing Director Email LinkedIn

Highlight Areas of Expertise

- Healthcare & Life Sciences Tech \checkmark
- Managed IT Services ~
- Supply Chain Tech \checkmark



Michael Magruder Managing Director Email LinkedIn

Highlight Areas of Expertise

- Manufacturing Software \checkmark
- Supply Chain Tech
- \checkmark Sponsor Coverage



R. Drew Ogden Managing Director Email LinkedIn

Highlight Areas of Expertise

- \checkmark



Construct Tech \checkmark

Robotics



Christian Vansant Managing Director Email | LinkedIn

Highlight Areas of Expertise

- Cybersecurity \checkmark
- Managed IT Services \checkmark
- Marketing Tech \checkmark



Ralph Verrilli Managing Director Email | LinkedIn

Highlight Areas of Expertise

- **Engineering Software** \checkmark
- \checkmark Manufacturing Software
- √ lloT

Select Recent Transactions

MADISON PARK GROUP

Right People, Right Narrative, Right Time



Denotes \$100M+ EV Transaction

See our Full List of Transactions Here! --- MPG

Sources & Disclosures Madison Park Group LLC

Sources & Notes

Data Sources

- 1. Pitchbook
- 2. S&P Capital IQ
- 3. Tracxn
- 4. Public company releases, filings, and earnings transcripts

Disclosures

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