AUDIT \& ASSURANCE | TAX \& LEGAL| ADVISORY
M\&A - SOFTWARE SECTOR UPDATE Q4-2021

January 2022

IBDO

# Key observations - Software sector Q4-2021 <br> Jan-2022 stock market sell-off cuts back SaaS valuation premium, M\&A sentiment remains robust 

## January 2022 stock market sell-off

- Global stock markets experience a massive sell-off in January 2022 due to a toxic cocktail that includes (i) FED expected to pursue four interest rate hikes in 2022 on the back of steeply raising US inflation rates, (ii) the Russia Ukraine conflict, and (iii) Corona pandemic still ongoing
- By YTD $19^{\text {th }}$ Jan-22, NASDAQ-100 is down by $8.8 \%$, Dow Jones decreased by $4.3 \%$, while DAX-40 fell by $1.3 \%$
- Fast growing SaaS stocks have sky-rocketed after the first Covid wave in Mar-2020. Stock markets translated high sales growth rates into a steep SaaS valuation premium compared to (non-SaaS) software companies with lower sales growth but high operating margins. Most of the SaaS valuation premium has been erased in Jan-2022
- SaaS stocks fell by $16.5 \%$ since $1^{\text {st }}$ Jan 2022 while large platform incumbents (with much lower sales growth but strong operating margins) decreased by $3.8 \%$ only


## M\&A sentiment

- Software has been and still is one of the most active sectors in M\&A terms
- 2021 saw a 5 years high in transaction numbers with over 3,800 deals globally (+55\% y/y)
- In Germany, a strong increase in transaction activity has been observed as well: 179 transactions happened in 2021 which is an increase of $50 \%$ over 2021
- Key driver of raising sector M\&A activity are Private Equity funds which contributed $47 \%$ ( 85 deals) to domestic software deal flow compared to 37 deals in 2020
- While transaction activity may cool down short-term, the software sector remains a "structural winner" given its combination of resilient business models with promising growth rates and high operating margins


## M\&A sentiment \& KPIs Q4-2021

M\&A sentiment software sector - the "big picture"

| \# Global |  |  |
| :---: | :---: | :---: |
| $\sqrt{000_{0,5}}$ | No. of deals | $\begin{aligned} & 722 \text { in Q4-2021 } \\ & 816 \text { in Q4-2020 } \end{aligned}$ |
| 吅管 | Transaction Volume | €177bn in Q4-2021 <br> €92bn in Q4-2020 |
| $\stackrel{\text { ® }}{\substack{\text { ® }}}$ | EV/Sales (x) <br> (median-based) | $\begin{aligned} & 4.2 x \text { in } 2021 \\ & 3.3 x \text { in } 2020 \end{aligned}$ |
| - Germany |  |  |
| $2$ | No. of deals with German targets | $\begin{aligned} & 37 \text { in Q4-2021 } \\ & 33 \text { in Q4-2020 } \end{aligned}$ |
| Gisq | Private Equity involvement | 47\% in 2021 <br> 40\% global in 2021 |
| $\stackrel{\ominus}{\text { € }}$ | EV/Sales (x) <br> (median-based) | $4.0 x$ in $2021^{*}$ <br> 4.0x in 2020 |

Implied software sector trading multiples** \& KPIs (median-based)

| Subsector | EV/Sales 22E | EV/EBITDA 22E | Sales growth 22E | EBITDA-margin 22E |
| :---: | :---: | :---: | :---: | :---: |
| SaaS | 12.3x | $36.5 x$ | 27.5\% | 13.8\% |
| SCM | 11.4x | $34.3 x$ | 13.5\% | 28.5\% |
|  <br> Engineering | 11.4x | 30.1x | 10.4\% | 37.1\% |
| HCM | 10.1x | 29.3x | 17.2\% | 26.2\% |
| ERP | 9.8 x | 25.4x | 20.0\% | 24.7\% |
| Cybersecurity | 7.9x | 19.3x | 14.6\% | 25.6\% |
| Large platforms | 5.8x | 14.0x | 4.8\% | 42.0\% |

## Sources: Mergermarket, CapitalIQ, BDO analysis

Note: M\&A sentiment transaction volume based on deals with disclosed figures. EV = Enterprise value (median-based) per 19 th January 2022
*) Adjusted Germany EV/Sales(x) 2021: 2.5x
**) Implied multiples in excess of $25 x$ (EV/Sales) or $50 x$ (EV/EBITDA) have been excluded

## M\&A activity over time

2021 has seen an unprecedented level of deal activity in the software sector which rose both globally and domestic to new highs Global M\&A activity (based on announced deals)

No. of deals and deal volume per year Median EV/Sales (x) Median EV/EBITDA (x)


No. of deals and total volume per quarter

German M\&A activity (based on announced deals, German targets)

No. of deals and deal volume per year


No. of deals by type of buyer


No. of deals per quarter


## Recent software sector share price performance January 2022 stock market sell-off has led to a significant re-rating



|  | Change (\%) |  |  |
| :--- | :---: | :---: | :---: |
| Software subsector | 3-year | 1-Year | 4-weeks |
| SaaS | $226.9 \%$ | $1.7 \%$ | $-16.5 \%$ |
| Cybersecurity | $199.9 \%$ | $0.5 \%$ | $-14.4 \%$ |
| ERP \& General Business | $152.3 \%$ | $-5.0 \%$ | $-15.9 \%$ |
| Supply Chain Management | $137.4 \%$ | $4.8 \%$ | $-10.7 \%$ |
| NASDAQ-100 Index | $124.0 \%$ | $15.8 \%$ | $-3.7 \%$ |
| PLM \& Engineering | $111.2 \%$ | $4.0 \%$ | $-13.0 \%$ |
| Human Capital Management | $82.1 \%$ | $-0.5 \%$ | $-11.5 \%$ |
| Large Platforms | $74.8 \%$ | $27.0 \%$ | $-3.8 \%$ |

[^0]Note: Market data as of $19^{\text {th }}$ January 2022. Subsector constituents limited to top 10 companies by market capitalization.
5 Full peer group constituents are listed on pages 11-26

## Appendix

Selected M\＆A transactions $\&$ implied trading multip

## Selected M\&A transactions Q4-2021 (1/4)

| Date | Buyer | Target | Target activity | EV (€m) | EV/Sales(x) | EV/EBITDA(x) | TX-Vol. <br> (€m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dec 2021 |  | PARADOX <br> (13,3\% stake) | Conversational Al assistant platform for HR and talent acquisition | 1,325 | na | na | 177 |
| Dec 2021 |  | (5) ZEROFOX | Cyber security intelligence company aiming to disrupt phishing, impersonations, malicious domains and data leakage | 1,037 | 23.8x | na | 1,037 |
| Dec 2021 | - THOMABRAVO | $\bigcirc$ Bottomline | Global payment automation software | 2,315 | 5.6x | 55.9 x | 2,315 |
| Dec 2021 | * Five Arrows \#nstoalmicencer | kidskonnect | Library of high-quality, printable worksheets for teachers and homeschoolers | na | na | na | na |
| Dec 2021 | NORTH MOUNTAIN werber corp. | corcentric | Cloud-based financial process automation solutions | 835 | na | na | 835 |
| Dec 2021 | PERMI'/RA | mimecast | Cloud-based email management solutions | 5,029 | 11.3x | 81.7x | 5,131 |
| Dec 2021 | () FORTIVE | provation | Software solutions that streamline procedural documentation in hospitals | 1,261 | na | na | 1,261 |
| Dec 2021 | The Blackstone Group | CirthSolutions | Enterprise cloud solutions in the utility, energy and telecom industries | na | na | na | na |
| Nov 2021 | Clearlake Capital | C.uest | Enterprise IT infrastructure software solutions | 4,788 | na | na | 4,788 |
| Nov 2021 | MARLIN (द) EQUITY | Technology Partners (undisclosed stake) | Billing automation software and revenue cycle management applications | na | na | na | na |

## Selected M\&A transactions Q4-2021 (2/4)

| Date | Buyer | Target | Target activity | EV (€m) | EV/Sales(x) | EV/EBITDA(x) | TX-Vol. <br> (€m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nov 2021 |  | isah | ERP (Enterprise Resource Planning) software | na | na | na | na |
| Nov 2021 |  | Lacework ( $15,66 \%$ stake) | Cloud security platform | 7,317 | na | na | 1,146 |
| Nov 2021 | workday. |  | Cloud-based work management systems | 450 | na | na | 450 |
| Nov 2021 | The Carlyle Group | जAUTOFORM Forming Reality | Automotive industry software solutions | 1,768 | na | na | 1,768 |
| Nov 2021 | 5 Bentley <br> Advancing infrastructure | $\frac{\text { PqUNEREME }}{} \frac{1}{S S T E M S}$ | Software for the design of overhead electric power transmission, distribution, and communication lines and their structures | 617 | na | na | 617 |
| Nov 2021 | materialise | $>$ LINK3D | Manufacturing execution systems (MES) workflow software | 29 | na | na | 29 |
| Nov 2021 | SPECTRUM EQUITY | ZENW-RK | Digital tax compliance and regulatory reporting software | na | na | na | 141 |
| Nov 2021 |  <br>  | VMcAfee | Computer security solutions | 20,752 | 5.3x | 23.9x | 20,752 |
| Nov 2021 | opentext" | zix | E-mail protection and transaction services | na | na | na | 723 |
| Nov 2021 | MAIN |  | Software solutions for housing corporations, student accommodation and commercial property management | na | na | na | na |

## Selected M\&A transactions Q4-2021 (3/4)

| Date | Buyer | Target | Target activity | EV (€m) | EV/Sales(x) | EV/EBITDA(x) | $\begin{gathered} \text { TX-Vol. } \\ (€ \mathrm{~m}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nov 2021 | LEA | basenet. <br> (majority stake) | Credit and mortgage management software | na | na | na | na |
| Nov 2021 |  | © When I Work (undisclosed stake) | SaaS employee scheduling, time-tracking and team messaging platform | na | na | na | 173 |
| Oct 2021 | Investment Partners | P. <br> (minority stake) | Cyber security software solutions | na | na | na | 15 |
| Oct 2021 | Balderton. LミFT L $\wedge$ N | yokoy <br> (undisclosed stake) | Al platform for travel expenses management | na | na | na | 22 |
| Oct 2021 | Gilde <br> Buy Out Advisory | ©-tasgroup <br> (73,2\% stake) | Software for electronic money, payment systems, capital markets and ERP | 185 | 2.9x | 23.9x | 185 |
| Oct 2021 |  | 360Learning (undisclosed stake) | E-learning and MOOC (Massive Open Online Courses) platform | na | na | na | 172 |
| Oct 2021 | *STAR | '\% ideagen | Solutions, products and services in the areas of compliance, risk management, information security and financial crime prevention | 18 | na | na | 18 |
| Oct 2021 | EMERSON | (6) aspentech | Enterprise asset performance management, monitoring and asset optimization solutions | 9,499 | 15.5x | 29.5x | 9,526 |
| Oct 2021 | TPG | (majority stake) | Process management and automation software solutions | na | na | na | 1,724 |
| Oct 2021 | PRovidenceEQUity | tenstreet | Web-based provider of driver recruiting software and workflow solutions for the trucking and transportation industry | na | na | na | na |

## Selected M\&A transactions Q4-2021 (4/4)



## Implied multiples <br> Saas players (1/2)

| Companies | Market cap | EV | EV / Sales |  |  | EV / EBITDA |  |  | EV / EBIT |  |  | P/E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ( $€ \mathrm{~m}$ ) | (€m) | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E |
| SaaS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adobe | 216,564 | 215,573 | 13.6x | 11.9x | 10.7x | 27.8x | 24.2x | 21.1x | 30.4 x | 26.2x | 22.7x | $37.2 x$ | $31.8 x$ | 28.0x |
| Salesforce | 196,376 | 200,735 | $7.3 x$ | $6.2 x$ | $5.2 x$ | 23.7x | 20.0x | na | 36.4 x | 29.5 x | 23.1x | 46.1x | 37.3 x | 30.1 x |
| Shopify | 114,092 | 108,436 | 20.2x | 15.0x | 10.5x | nm | nm | nm | nm | nm | 68.6x | nm | nm | $30.5 x$ |
| ServiceNow | 91,400 | 90,692 | 13.9x | 11.2x | 9.1 x | 43.7x | 34.7 x | 29.1x | 56.5x | 43.6x | $34.7 x$ | 70.4x | 53.5x | 37.6x |
| Snowflake | 76,258 | 73,009 | nm | nm | 19.3x | nm | nm | na | nm | nm | nm | nm | nm | nm |
| Atlassian | 65,353 | 65,050 | nm | 20.2x | 15.1x | nm | nm | na | nm | nm | 51.7x | nm | nm | 75.2x |
| Workday | 54,950 | 53,698 | 10.1x | $8.4 x$ | 7.3x | 40.8 x | $32.7 x$ | 21.7x | 54.3x | 42.1x | 29.8x | 65.7x | 51.4x | 37.9x |
| Datadog | 35,989 | 35,408 | nm | 21.1x | 14.6x | nm | nm | na | nm | nm | 68.1x | nm | nm | na |
| Twilio | 32,005 | 28,388 | 8.8 x | $6.8 x$ | $4.7 x$ | nm | nm | na | nm | nm | na | nm | nm | 43.3x |
| Zscaler | 31,240 | 30,706 | nm | $22.8 x$ | 15.2x | nm | nm | na | nm | nm | na | nm | nm | nm |
| Veeva Systems | 29,824 | 27,801 | 14.7x | 12.6x | na | 37.4 x | 31.8 x | na | 38.4 x | $32.7 \times$ | na | 51.7x | 43.8x | $31.7 x$ |
| Unity Software | 29,115 | 28,094 | 21.9x | 16.8x | 11.9x | nm | nm | 47.9x | nm | nm | 60.8 x | nm | nm | na |
| Okta | 27,056 | 26,647 | 17.6x | 13.1x | 9.5 x | nm | nm | na | nm | nm | nm | nm | nm | nm |
| Cloudflare | 26,739 | 26,240 | nm | nm | 16.1x | nm | nm | na | nm | nm | nm | nm | nm | nm |
| Palantir | 25,719 | 23,719 | 13.5x | 10.5x | na | 48.7x | 35.6 x | na | 50.8 x | 36.7x | na | 60.8 x | 41.8x | na |
| DocuSign | 22,141 | 22,214 | 9.8 x | 7.9x | 6.6x | $46.7 x$ | 37.4x | 28.8x | 53.2x | 40.0x | na | 55.6x | 42.8x | 37.9x |
| HubSpot | 18,858 | 18,456 | 12.6x | 10.0x | na | nm | nm | na | nm | nm | na | nm | nm | na |
| NetApp | 17,511 | 16,058 | $2.8 x$ | $2.6 x$ | 2.6x | 10.5x | 9.7x | na | 11.6x | 10.7x | na | 16.2x | 14.3x | 11.3x |
| Zoominfo | 17,398 | 18,389 | 21.3x | 16.3x | 11.7x | 49.1x | $36.4 x$ | na | 51.5x | $38.5 x$ | 26.6x | 70.4 x | 50.9x | 36.1x |
| Splunk | 16,618 | 18,110 | $6.9 x$ | $5.7 x$ | $4.6 x$ | nm | nm | na | nm | nm | nm | nm | nm | 76.7x |

## Implied multiples

Saas players (2/2)

| Companies | Market cap | EV | EV / Sales |  |  | EV / EBITDA |  |  | EV / EBIT |  |  | P/E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (€m) | (€m) | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E |
| SaaS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Paycom | 16,851 | 16,737 | 14.6x | 11.8x | 9.8x | $36.5 x$ | 28.9x | $23.7 x$ | 43.0x | 33.9x | $27.7 \times$ | 58.3 x | 46.0x | $35.7 x$ |
| UiPath | 16,318 | 14,710 | 14.5x | 11.0x | $8.3 x$ | nm | nm | nm | nm | nm | nm | nm | nm | nm |
| Bill.com | 15,175 | 14,322 | nm | 18.5x | 14.1x | nm | nm | na | nm | nm | na | nm | nm | na |
| Confluent | 14,289 | 13,419 | nm | 21.8x | 15.5x | nm | nm | nm | nm | nm | nm | nm | nm | nm |
| RingCentral | 13,895 | 14,854 | 8.5 x | 6.8 x | $5.3 x$ | nm | 46.9 x | na | nm | 60.1 x | 46.7x | 97.5x | 71.2x | 35.8 x |
| Qualtrics | 13,365 | 13,499 | 11.3x | 9.3 x | na | nm | nm | na | nm | nm | na | nm | nm | na |
| Dynatrace | 12,697 | 12,722 | 13.2x | 10.6x | 8.3 x | nm | 38.8 x | na | 53.1x | 40.6x | 30.3x | 62.8 x | 48.7x | na |
| Bentley Systems | 10,546 | 11,601 | 12.1x | 11.0x | 10.3x | 36.0x | 30.9 x | 29.1x | 39.0x | 33.2 x | na | 45.2x | $38.5 x$ | na |
| Zendesk | 10,393 | 10,603 | 7.1x | 5.7 x | $4.5 x$ | nm | 49.2x | na | nm | 59.6x | 36.1x | nm | 67.6x | 44.8x |
| SentinelOne | 9,732 | 8,290 | nm | 17.1x | 11.8x | nm | nm | na | nm | nm | na | nm | nm | na |
| Paylocity | 9,448 | 9,453 | 11.9x | 9.9x | 8.0x | $43.7 x$ | 34.6 x | 26.7x | 54.0x | 42.2x | na | 71.5x | 61.2x | 48.1x |
| Asana | 8,719 | 8,641 | 19.8x | 14.9x | 11.1x | nm | nm | na | nm | nm | na | nm | nm | na |
| Coupa | 8,757 | 9,610 | 12.6x | 10.1x | 7.8x | nm | 48.5 x | na | nm | nm | 64.8x | nm | nm | 86.7x |
| Dropbox | 8,200 | 8,705 | $4.2 x$ | 3.9x | 3.5 x | 11.8x | 10.8x | 9.3 x | 14.4 x | 13.2x | 12.0x | 15.1x | 13.8x | 11.7x |
| monday.com | 8,184 | 7,412 | 19.0x | 14.0x | 9.4 x | nm | nm | nm | nm | nm | nm | nm | nm | na |
| Upstart | 7,655 | 7,373 | 7.1x | 5.5 x | $3.6 x$ | 31.9x | 25.0x | 21.8x | 71.5 x | 42.9x | 32.9x | 37.3x | 32.1 x | na |
| Procore | 7,711 | 6,845 | 10.5x | na | na | nm | na | na | nm | na | na | nm | na | na |
| Five9 | 7,670 | 8,033 | 12.2x | 9.8x | 7.9x | nm | nm | na | nm | 73.6x | 61.8x | nm | 72.5x | 61.2x |
| Pure Storage | 6,673 | 6,276 | 2.9 x | 2.5 x | na | 21.9x | 16.3 x | na | 29.6 x | $21.5 x$ | na | 35.0x | 26.0x | na |
| Smartsheet | 6,584 | 6,266 | 9.9 x | 7.5x | 5.6 x | nm | nm | nm | nm | nm | nm | nm | nm | na |
|  |  | Median <br> Average | $12.3 x$ | $\begin{aligned} & 10.6 x \\ & 11.3 x \end{aligned}$ | $\begin{aligned} & 9.3 x \\ & 9.4 x \end{aligned}$ | $\begin{array}{r} 36.5 x \\ 34.0 x \end{array}$ | $\begin{gathered} 32.7 x \\ 31.2 x \end{gathered}$ | $25.2 x$ | $\begin{aligned} & 46.9 x \\ & 43.0 x \end{aligned}$ | $38.5 x$ | $34.7 x$ | $\begin{array}{r} 55.6 x \\ 52.7 x \end{array}$ | $43.8 x$ <br> $44.5 x$ | $37.6 x$ |
|  |  | Average |  |  |  |  |  |  |  |  |  | 52.7x |  | $42.1 \times$ |

## Sales growth rates $\mathbb{\&}$ operating margins

## SaaS players (1/2)

|  | Sales growth |  |  | EBITDA margin |  |  | EBIT margin |  |  | Net income margin |  |  | CAGR 22E-24E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | Sales | EBITDA | EBIT | N.I. |
| SaaS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Adobe | 13.8\% | 14.8\% | 11.4\% | 49.0\% | 49.1\% | 50.4\% | 44.8\% | 45.3\% | 46.9\% | 36.8\% | 37.4\% | 38.2\% | 13.1\% | 14.7\% | 15.6\% | 15.3\% |
| Salesforce | 20.7\% | 18.0\% | 17.9\% | 30.7\% | 30.8\% | na | 19.9\% | 20.9\% | 22.6\% | 15.4\% | 16.2\% | 17.0\% | 17.9\% | na | 25.5\% | 23.8\% |
| Shopify | 33.4\% | 34.7\% | 42.6\% | 13.7\% | 13.8\% | 14.7\% | 12.3\% | 13.5\% | 15.3\% | 14.7\% | 15.3\% | 36.2\% | 38.6\% | 43.6\% | 54.6\% | 117.3\% |
| ServiceNow | 25.6\% | 24.4\% | 22.5\% | 31.9\% | 32.3\% | 31.4\% | 24.7\% | 25.7\% | 26.3\% | 19.9\% | 21.1\% | 24.5\% | 23.5\% | 22.4\% | 27.5\% | 36.8\% |
| Snowflake | 67.8\% | 56.5\% | 41.7\% | 3.0\% | 7.3\% | na | (0.1\%) | 3.6\% | 5.7\% | 0.7\% | 4.1\% | 1.0\% | 48.9\% | na | na | 79.4\% |
| Atlassian | 24.2\% | 25.8\% | 33.6\% | 25.5\% | 26.9\% | na | 23.9\% | 25.8\% | 29.2\% | 16.6\% | 18.0\% | 20.2\% | 29.7\% | na | 43.2\% | 42.9\% |
| Workday | 19.3\% | 19.8\% | 16.1\% | 24.7\% | 25.8\% | 33.5\% | 18.6\% | 20.0\% | 24.4\% | 15.7\% | 16.8\% | 19.6\% | 17.9\% | 37.1\% | 35.1\% | 31.7\% |
| Datadog | 41.5\% | 35.4\% | 44.9\% | 15.3\% | 16.3\% | na | 13.9\% | 15.3\% | 21.4\% | 13.6\% | 14.8\% | na | 40.1\% | na | 73.8\% | na |
| Twilio | 32.3\% | 30.2\% | 43.1\% | 8.7\% | 9.6\% | na | 0.5\% | 2.1\% | na | (0.2\%) | 1.4\% | 12.3\% | 36.5\% | na | na | na |
| Zscaler | 41.7\% | 33.2\% | 49.3\% | 13.9\% | 15.4\% | na | 10.4\% | 12.5\% | na | 9.2\% | 11.7\% | 11.6\% | 41.0\% | na | na | 58.4\% |
| Veeva Systems | 18.1\% | 17.2\% | na | 39.4\% | 39.5\% | na | 38.3\% | 38.4\% | na | 30.6\% | 30.8\% | na | na | na | na | 27.7\% |
| Unity Software | 33.3\% | 30.8\% | 40.7\% | 2.0\% | 7.9\% | 24.9\% | (1.8\%) | 4.4\% | 19.6\% | (2.1\%) | 3.3\% | na | 35.7\% | 374.2\% | na | na |
| Okta | 38.2\% | 34.7\% | 38.2\% | (1.6\%) | 4.3\% | na | (4.7\%) | 1.4\% | 8.7\% | (4.5\%) | 1.3\% | 6.7\% | 36.5\% | na | na | na |
| Cloudflare | 37.0\% | 33.1\% | 56.5\% | 10.7\% | 11.8\% | na | 0.9\% | 2.9\% | 4.8\% | 0.6\% | 2.6\% | 4.6\% | 44.3\% | na | 226.5\% | 292.1\% |
| Palantir | 30.1\% | 28.4\% | na | 27.8\% | 29.6\% | na | 26.7\% | 28.7\% | na | 24.2\% | 27.4\% | na | na | na | na | na |
| DocuSign | 26.4\% | 24.1\% | 19.7\% | 21.0\% | 21.1\% | 22.9\% | 18.4\% | 19.7\% | na | 17.6\% | 18.4\% | 17.3\% | 21.9\% | 27.4\% | na | 21.0\% |
| HubSpot | 29.1\% | 25.3\% | na | 12.8\% | 13.4\% | na | 9.2\% | 10.5\% | na | 7.5\% | 8.7\% | na | na | na | na | na |
| NetApp | 7.1\% | 5.3\% | 0.3\% | 26.4\% | 27.4\% | na | 24.0\% | 24.6\% | na | 18.7\% | 20.1\% | 25.4\% | 2.8\% | na | na | 19.8\% |
| Zoominfo | 33.5\% | 30.8\% | 38.7\% | 43.3\% | 44.7\% | na | 41.3\% | 42.2\% | 44.1\% | 28.6\% | 30.2\% | 30.7\% | 34.7\% | na | 39.2\% | 39.6\% |
| Splunk | 18.0\% | 21.6\% | 23.0\% | (4.6\%) | 5.3\% | na | (9.6\%) | (2.8\%) | 2.5\% | (8.4\%) | (2.3\%) | 5.5\% | 22.3\% | na | na | na |

## Sales growth rates \& operating margins

## SaaS players (2/2)



## Implied multiples

## Supply chain management

| Companies | Market cap (€m) | $\begin{aligned} & \text { EV } \\ & (€ \mathrm{~m}) \end{aligned}$ | EV / Sales |  |  | EV / EBITDA |  |  | EV / EBIT |  |  | P/E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E |
| Supply chain management |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dassault Systémes | 60,259 | 61,462 | 11.4x | 10.4x | 9.1x | 31.4 x | 28.3x | na | 35.1 x | 31.4x | 30.4 x | 45.5 x | 40.7x | 34.3 x |
| WiseTech Global | 49,298 | 50,406 | 24.0x | 20.1x | 17.2x | nm | 42.7x | 31.1x | 67.6x | 52.0x | 43.6x | 91.1x | 71.0x | 48.9x |
| Aspen | 37,402 | 36,815 | 13.5x | 12.2x | 10.9x | 25.1x | 21.3x | 18.2x | 25.6x | 22.9x | 20.4 x | 28.9x | 26.0x | 23.2x |
| Manhatten Associates | 32,902 | 34,948 | 11.5x | 10.4x | 9.2 x | 46.7x | 40.4x | 30.9x | 49.0x | 42.3x | na | 63.7x | 54.8x | 33.1x |
| Descartes | 25,916 | 25,738 | 11.8x | 10.3x | 8.8 x | 27.1x | 23.2x | 20.0x | 44.5x | 34.4x | 28.6x | 36.9 x | $33.3 x$ | $28.5 x$ |
| SPS Commerce | 16,353 | 17,179 | 9.0x | 7.7x | na | 31.6x | 26.0x | na | 36.6x | 29.9x | na | 54.9x | 45.3 x | na |
| Kinaxis | 12,189 | 13,285 | 10.1x | $8.7 x$ | 7.2x | 48.7x | 39.8x | na | nm | nm | 51.9x | 87.2 x | 68.7 x | na |
| American Software | 10,546 | 11,601 | $5.2 x$ | 4.9x | na | 37.0x | 29.2x | na | 52.9x | na | na | 56.3x | 43.8 x | na |
| Tecsys | 9,679 | 9,654 | $3.7 x$ | 3.4 x | na | $37.4 x$ | 24.6x | na | 58.1x | na | na | 78.3x | na | na |
|  |  | Median | 11.4x | 10.3x | 9.1 x | 34.3 x | 28.3x | 25.4x | 46.7x | 32.9x | 30.4x | 56.3x | 44.6x | 33.1x |
|  |  | Average | 11.1x | 9.8 x | 10.4x | 35.6x | 30.6x | 25.0x | $46.2 x$ | 35.5 x | 35.0x | 60.3 x | 48.0x | 33.6x |

## Sales growth rates $\mathbb{\&}$ operating margins Supply chain management

|  | Sales growth |  |  | EBITDA margin |  |  | EBIT margin |  |  | Net income margin |  |  | CAGR 22E-24E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | Sales | EBITDA | EBIT | N.I. |
| Supply chain management |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dassault Systémes | 10.8\% | 10.0\% | 14.3\% | 36.4\% | 36.7\% | na | 32.6\% | 33.1\% | 30.0\% | 24.6\% | 25.1\% | 26.0\% | 12.1\% | na | 7.5\% | 15.2\% |
| WiseTech Global | 22.2\% | 19.3\% | 16.9\% | 44.9\% | 47.1\% | 55.4\% | 35.5\% | 38.7\% | 39.4\% | 26.8\% | 28.8\% | 35.8\% | 18.1\% | 31.2\% | 24.5\% | 36.5\% |
| Aspen | 4.6\% | 10.7\% | 11.2\% | 53.5\% | 57.1\% | 60.1\% | 52.5\% | 53.1\% | 53.4\% | 46.2\% | 46.3\% | 46.8\% | 11.0\% | 17.5\% | 11.9\% | 11.7\% |
| Manhatten Associates | 8.1\% | 10.7\% | 13.2\% | 24.7\% | 25.8\% | 29.8\% | 23.5\% | 24.6\% | na | 18.5\% | 19.5\% | 28.5\% | 11.9\% | 23.0\% | na | 38.8\% |
| Descartes | 13.5\% | 14.6\% | 16.9\% | 43.5\% | 44.3\% | 44.0\% | 26.5\% | 29.9\% | 30.7\% | 32.8\% | 31.7\% | 31.7\% | 15.8\% | 16.4\% | 24.7\% | 13.8\% |
| SPS Commerce | 15.4\% | 16.3\% | na | 28.5\% | 29.8\% | na | 24.6\% | 25.9\% | na | 17.4\% | 18.1\% | na | na | na | na | na |
| Kinaxis | 24.8\% | 16.4\% | 21.6\% | 20.8\% | 21.9\% | na | 4.7\% | 6.1\% | 13.8\% | 12.3\% | 13.4\% | na | 18.9\% | na | 103.6\% | na |
| American Software | 8.5\% | 7.3\% | na | 14.1\% | 16.6\% | na | 9.9\% | na | na | 10.8\% | 12.9\% | na | na | na | na | na |
| Tecsys | 13.7\% | 10.9\% | na | 10.0\% | 13.6\% | na | 6.4\% | na | na | 4.9\% | na | na | na | na | na | na |
| Median | 13.5\% | 10.9\% | 15.6\% | 28.5\% | 29.8\% | 49.7\% | 24.6\% | 29.9\% | 30.7\% | 18.5\% | 22.3\% | 31.7\% | 13.9\% | 20.3\% | 24.5\% | 15.2\% |
| Average | 13.5\% | 12.9\% | 15.7\% | 30.7\% | 32.5\% | 47.3\% | 24.0\% | 30.2\% | 33.5\% | 21.6\% | 24.5\% | 33.8\% | 14.6\% | 22.0\% | 34.4\% | 23.2\% |

# Implied multiples <br> PLM \& Engineering 

|  | Market cap | EV | EV / Sales |  |  | EV / EBITDA |  |  | EV / EBIT |  |  | P / E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | (€m) | (€m) | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E |
| PLM \& Engineering |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dassault Systémes | 60,259 | 61,462 | 11.4x | 10.4x | 9.1 x | 31.4 x | 28.3x | na | 35.1 x | 31.4x | 30.4x | 45.5 x | 40.7x | 34.3 x |
| Autodesk | 49,298 | 50,406 | 11.3x | 9.8 x | 8.6x | 28.9x | 23.7x | 19.1x | 30.9x | $25.0 x$ | 20.0x | $37.7 x$ | 30.0x | 27.0x |
| Cadence Design | 37,402 | 36,815 | 12.0x | 11.4x | 10.1x | 28.5x | na | na | 31.2 x | na | na | $38.4 x$ | $36.5 x$ | $32.6 x$ |
| Hexagon | 32,902 | 34,948 | 7.2x | $6.7 x$ | 5.8 x | 19.0x | 17.3x | 14.0x | 25.3x | 22.9x | 18.5x | 29.4x | 26.4x | 20.1 x |
| ANSYS | 25,916 | 25,738 | 13.9x | 12.8x | 11.6x | 31.4 x | 28.8x | na | 33.0x | 29.8x | na | 41.9x | 37.5x | 34.8 x |
| Trimble | 16,353 | 17,179 | 4.5 x | na | na | 17.7x | na | na | 18.5x | na | na | 22.1x | na | na |
| PTC | 12,189 | 13,285 | 7.6x | 6.9x | na | 20.0x | 18.6x | na | 21.0x | 18.8x | na | 25.6x | 22.6x | na |
| Bentley Systems | 10,546 | 11,601 | 12.1x | 11.0x | 10.3x | 36.0x | 30.9x | 29.1x | 39.0x | 33.2x | na | 45.2x | $38.5 x$ | na |
| Nemetschek | 9,679 | 9,654 | 12.8x | 11.5x | 10.1x | $42.7 x$ | 37.3x | 32.6x | 53.1x | 44.9x | 37.0x | 65.8 x | 56.3x | 48.9x |
| Altair Engineering | 4,166 | 3,979 | 7.9x | 7.2x | 7.9x | 49.8x | 39.2x | na | 60.9 x | 42.5 x | nm | 79.0x | 59.8 x | na |
|  |  | Median | 11.4x | 10.4x | 9.6x | 30.1x | 28.6x | 24.1x | 32.1x | 30.6x | 25.2x | 40.2x | 37.5x | 33.4x |
|  |  | Average | 10.1x | 9.7 x | 9.2 x | $30.5 x$ | 28.0x | 23.7x |  | 31.1 x | 26.5x | 43.1x | 38.7x | 33.0x |

# Sales growth rates $\mathbb{\&}$ operating margins PLM \& Engineering 

|  | Sales growth |  |  | EBITDA margin |  |  | EBIT margin |  |  | Net income margin |  |  | CAGR 22E-24E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | Sales | EBITDA | EBIT | N.I. |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PLM \& Engineering |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dassault Systémes | 10.8\% | 10.0\% | 14.3\% | 36.4\% | 36.7\% | na | 32.6\% | 33.1\% | 30.0\% | 24.6\% | 25.1\% | 26.0\% | 12.1\% | na | 7.5\% | 15.2\% |
| Autodesk | 17.4\% | 15.4\% | 14.0\% | 39.1\% | 41.3\% | 44.9\% | 36.5\% | 39.1\% | 42.9\% | 29.3\% | 31.8\% | 31.0\% | 14.7\% | 23.0\% | 24.4\% | 18.1\% |
| Cadence Design | 8.5\% | 5.2\% | 13.3\% | 42.1\% | na | na | 38.5\% | na | na | 31.8\% | 31.7\% | 31.4\% | 9.2\% | na | na | 8.5\% |
| Hexagon | 12.6\% | 7.7\% | 14.1\% | 37.8\% | 38.5\% | 41.7\% | 28.5\% | 29.2\% | 31.5\% | 23.0\% | 23.8\% | 27.4\% | 10.9\% | 16.4\% | 16.7\% | 21.0\% |
| ANSYS | 9.8\% | 8.6\% | 10.4\% | 44.3\% | 44.5\% | na | 42.1\% | 43.0\% | na | 33.4\% | 34.4\% | 33.5\% | 9.5\% | na | na | 9.7\% |
| Trimble | 8.9\% | na | na | 25.7\% | na | na | 24.5\% | na | na | 19.6\% | na | na | na | na | na | na |
| PTC | 8.2\% | 10.2\% | na | 37.9\% | 37.0\% | na | 36.0\% | 36.5\% | na | 27.2\% | 27.9\% | na | na | na | na | na |
| Bentley Systems | 13.8\% | 10.0\% | 6.3\% | 33.5\% | 35.5\% | 35.4\% | 30.9\% | 33.0\% | na | 24.3\% | 25.9\% | na | 8.1\% | 11.1\% | na | na |
| Nemetschek | 11.0\% | 11.8\% | 13.6\% | 30.1\% | 30.8\% | 31.0\% | 24.2\% | 25.6\% | 27.3\% | 19.6\% | 20.4\% | 20.7\% | 12.7\% | 14.4\% | 19.7\% | 16.0\% |
| Altair Engineering | 10.1\% | 10.2\% | (8.9\%) | 15.9\% | 18.3\% | na | 13.0\% | 16.9\% | 7.2\% | 10.5\% | 12.6\% | na | 0.2\% | na | (25.3\%) | na |
| Median | 10.4\% | 10.0\% | 13.5\% | 37.1\% | 36.9\% | 38.6\% | 31.8\% | 33.0\% | 30.0\% | 24.5\% | 25.9\% | 29.2\% | 10.2\% | 15.4\% | 16.7\% | 15.6\% |
| Average | 11.1\% | 9.9\% | 9.6\% | 34.3\% | 35.3\% | 38.3\% | 30.7\% | 32.0\% | 27.8\% | 24.3\% | 26.0\% | 28.3\% | 9.7\% | 16.2\% | 8.6\% | 14.8\% |

## Implied multiples

Human Capital Management

| Companies | Market cap (€m) | $\begin{aligned} & \mathrm{EV} \\ & (€ \mathrm{~m}) \end{aligned}$ | EV / Sales |  |  | EV / EBITDA |  |  | EV / EBIT |  |  | P/E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E |
| Human Capital Management |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Automatic Data Processing | 83,475 | 85,103 | 5.8 x | $5.4 x$ | 5.1x | 22.1 x | $20.3 x$ | 19.0x | 24.8x | $22.7 x$ | 21.4 x | $31.7 x$ | 28.9x | 27.0x |
| Workday | 54,950 | 53,698 | 10.1x | 8.4 x | 7.3x | 40.8x | 32.7x | 21.7x | 54.3x | 42.1x | 29.8x | $65.7 x$ | 51.4x | 37.9x |
| Paychex | 38,552 | 38,447 | 9.3 x | $8.8 x$ | 8.2 x | 21.3 x | 19.9x | na | 23.6x | 21.9x | $20.4 x$ | $31.7 x$ | $29.4 x$ | 26.8x |
| Paycom | 16,851 | 16,737 | 14.6x | 11.8x | 9.8 x | $36.5 x$ | 28.9x | 23.7x | 43.0x | 33.9x | 27.7x | 58.3x | 46.0x | 35.7 x |
| Ceridian | 10,587 | 11,309 | $10.8 x$ | 9.1x | na | nm | 49.8x | na | nm | nm | na | nm | nm | na |
| Paylocity | 9,448 | 9,453 | 11.9x | 9.9x | 8.0x | 43.7x | 34.6x | 26.7x | 54.0x | 42.2x | na | 71.5x | $61.2 x$ | 48.1x |
| Benefitfocus | 309 | 463 | 2.1 x | $2.0 x$ | na | $12.4 x$ | 11.6x | na | 33.1 x | 26.8 x | na | nm | nm | na |
|  |  | Median <br> Average | $\begin{array}{r} 10.1 x \\ 9.2 x \end{array}$ | $\begin{aligned} & 8.8 x \\ & 7.9 x \end{aligned}$ | $\begin{aligned} & 8.0 x \\ & 7.7 x \end{aligned}$ | $29.3 x$ $29.5 x$ | $28.9 x$ $28.3 x$ | $22.7 x$ $22.8 x$ | $38.0 x$ $38.8 x$ | $30.4 x$ $31.6 x$ | $24.5 x$ $24.8 x$ | $\begin{array}{r} \hline 58.3 x \\ 51.8 x \end{array}$ | $\begin{aligned} & 46.0 x \\ & 43.4 x \end{aligned}$ | $\begin{gathered} 35.7 x \\ 35.1 x \end{gathered}$ |

# Sales growth rates $\mathbb{\&}$ operating margins <br> Human Capital Management 

|  | Sales growth |  |  | EBITDA margin |  |  | EBIT margin |  |  | Net income margin |  |  | CAGR 22E-24E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | Sales | EBITDA | EBIT | N.I. |
| Human Capital Management |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Automatic Data Processing | 7.2\% | 6.9\% | 5.5\% | 26.2\% | 26.6\% | 27.0\% | 23.3\% | 23.8\% | 24.0\% | 17.9\% | 18.4\% | 18.6\% | 6.2\% | 7.9\% | 7.6\% | 8.3\% |
| Workday | 19.3\% | 19.8\% | 16.1\% | 24.7\% | 25.8\% | 33.5\% | 18.6\% | 20.0\% | 24.4\% | 15.7\% | 16.8\% | 19.6\% | 17.9\% | 37.1\% | 35.1\% | 31.7\% |
| Paychex | 8.3\% | 6.5\% | 6.4\% | 43.7\% | 44.0\% | na | 39.6\% | 40.0\% | 40.4\% | 29.5\% | 29.9\% | 30.9\% | 6.5\% | na | 7.5\% | 8.8\% |
| Paycom | 24.1\% | 23.5\% | 20.9\% | 40.1\% | 41.0\% | 41.4\% | 34.0\% | 34.9\% | 35.4\% | 25.2\% | 25.9\% | 27.6\% | 22.2\% | 24.1\% | 24.6\% | 27.8\% |
| Ceridian | 17.2\% | 18.7\% | na | 15.9\% | 18.2\% | na | 9.2\% | 11.8\% | na | 4.9\% | 7.3\% | na | na | na | na | na |
| Paylocity | 24.6\% | 20.7\% | 23.8\% | 27.2\% | 28.4\% | 29.8\% | 22.0\% | 23.3\% | na | 16.6\% | 16.1\% | 16.5\% | 22.3\% | 27.9\% | na | 21.9\% |
| Benefitfocus | (1.6\%) | 2.9\% | na | 16.7\% | 17.3\% | na | 6.2\% | 7.5\% | na | (4.3\%) | 0.4\% | na | na | na | na | na |
| Median <br> Average | $\begin{gathered} 17.2 \% \\ 14.2 \% \end{gathered}$ | $\begin{array}{r} 18.7 \% \\ 14.1 \% \end{array}$ | $\begin{array}{r} 16.1 \% \\ 14.6 \% \end{array}$ | $\begin{gathered} 26.2 \% \\ 27.8 \% \end{gathered}$ | $\begin{gathered} 26.6 \% \\ 28.8 \% \end{gathered}$ | $\begin{gathered} 31.6 \% \\ 32.9 \% \end{gathered}$ | 22.0\% 21.9\% | $23.3 \%$ $23.0 \%$ | $29.9 \%$ $31.0 \%$ | $16.6 \%$ $15.1 \%$ | $16.8 \%$ $16.4 \%$ | $19.6 \%$ $22.7 \%$ | 17.9\% 15.0\% | 26.0\% 24.3\% | $16.1 \%$ $18.7 \%$ | $\begin{array}{r} \text { 21.9\% } \\ \text { 19.7\% } \end{array}$ |

# Implied multiples <br> ERP \& General Business 

| Companies | Market cap (€m) | $\begin{aligned} & \text { EV } \\ & (€ \mathrm{~m}) \end{aligned}$ | EV / Sales |  |  | EV / EBITDA |  |  | EV / EBIT |  |  | P / E |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E |
| ERP \& General Business |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Salesforce | 196,376 | 200,735 | 7.3x | 6.2 x | $5.2 x$ | $23.7 x$ | 20.0x | na | 36.4 x | $29.5 x$ | 23.1 x | 46.1x | $37.3 x$ | 30.1 x |
| Shopify | 114,092 | 108,436 | 20.2x | 15.0x | 10.5x | nm | nm | nm | nm | nm | $68.6 x$ | nm | nm | $30.5 x$ |
| Workday | 54,950 | 53,698 | 10.1x | $8.4 x$ | 7.3x | 40.8 x | 32.7 x | 21.7x | 54.3 x | 42.1x | 29.8 x | $65.7 x$ | 51.4x | 37.9x |
| Constellation | 30,849 | 31,554 | $6.0 x$ | 5.0x | na | 20.8x | 17.3x | na | 34.8x | 30.1x | na | 31.3 x | 25.9x | na |
| Paycom | 16,851 | 16,737 | 14.6x | 11.8x | 9.8 x | $36.5 x$ | 28.9x | 23.7x | 43.0x | 33.9 x | 27.7x | 58.3x | 46.0x | 35.7x |
| Ceridian | 10,587 | 11,309 | 10.8x | 9.1x | na | nm | 49.8x | na | nm | nm | na | nm | nm | na |
| Zendesk | 10,393 | 10,603 | 7.1 x | $5.7 x$ | 4.5 x | nm | 49.2x | na | nm | 59.6x | 36.1 x | nm | 67.6x | 44.8x |
| Sage Group | 9,791 | 10,130 | $4.3 x$ | 4.0x | $3.7 x$ | 18.5x | 16.9x | 15.6x | 21.3x | 19.1x | 17.4x | 28.5x | 25.4x | $23.5 x$ |
| Paylocity | 9,448 | 9,453 | 11.9x | 9.9x | $8.0 x$ | 43.7x | 34.6x | 26.7x | 54.0x | 42.2x | na | 71.5x | 61.2x | 48.1x |
| Monday.com | 8,184 | 7,412 | 19.0x | 14.0x | $9.4 x$ | nm | nm | nm | nm | nm | nm | nm | nm | na |
| Manhattan Associates | 7,373 | 7,183 | 11.5x | 10.4x | $9.2 x$ | $46.7 x$ | 40.4 x | 30.9x | 49.0x | 42.3 x | na | $63.7 x$ | 54.8 x | 33.1 x |
| Smartsheet | 6,584 | 6,266 | 9.9 x | 7.5x | 5.6x | nm | nm | nm | nm | nm | nm | nm | nm | na |
| Anaplan | 6,062 | 5,831 | $9.2 x$ | 7.3x | na | nm | nm | na | nm | nm | na | nm | nm | na |
| Descartes Systems | 5,047 | 4,908 | 11.8 x | 10.3x | 8.8x | 27.1x | $23.2 x$ | 20.0x | 44.5 x | 34.4x | 28.6x | 36.9x | 33.3 x | 28.5x |
| Workiva | 5,097 | 4,930 | 10.5x | $8.9 x$ | na | nm | nm | na | nm | nm | na | nm | nm | na |
| Ziff Davis | 4,550 | 5,650 | 4.2 x | 3.8 x | na | 11.9x | 10.8x | na | 12.8x | 11.5x | na | 14.4x | 12.7x | na |
| SPS Commerce | 3,715 | 3,512 | $9.0 x$ | 7.7x | na | $31.6 x$ | 26.0x | na | $36.6 x$ | 29.9x | na | 54.9x | 45.3x | na |
| Datto | 3,466 | 3,319 | $5.2 x$ | $4.4 x$ | 3.7 x | 20.9x | 16.8x | 14.4x | 26.5x | 21.1x | 15.6x | 37.1 x | 29.5x | 24.7x |
| C3.ai | 2,480 | 1,629 | 6.1 x | 4.6x | $2.7 x$ | nm | nm | na | nm | nm | na | nm | nm | na |
| Technology One | 2,266 | 2,194 | $9.7 x$ | $8.7 x$ | 7.9x | 23.1 x | 20.0x | 17.2x | 29.9x | $26.4 x$ | 23.0x | 40.8 x | 35.8 x | $31.5 x$ |
|  |  | Median Average | $\begin{aligned} & 9.8 x \\ & 9.9 x \end{aligned}$ | $\begin{gathered} \hline 8.1 x \\ 8.1 x \\ \hline \end{gathered}$ | $\begin{gathered} 7.6 x \\ 6.9 x \\ \hline \end{gathered}$ | $\begin{aligned} & 25.4 x \\ & 28.8 x \end{aligned}$ | $\begin{aligned} & 24.6 x \\ & 27.6 x \end{aligned}$ | $\begin{aligned} & 20.8 x \\ & 21.3 x \end{aligned}$ | $\begin{array}{r} \hline 36.5 x \\ 36.9 x \\ \hline \end{array}$ | $\begin{array}{r} \hline 30.1 \mathrm{x} \\ 32.5 \mathrm{x} \\ \hline \end{array}$ | $\begin{array}{r} \hline 27.7 x \\ 30.0 x \end{array}$ | $\begin{array}{r} 43.5 x \\ 45.8 x \end{array}$ | $\begin{array}{r} \hline 37.3 x \\ 40.5 x \end{array}$ | $\begin{array}{r} 31.5 x \\ 33.5 x \end{array}$ |

## Sales growth rates $\mathbb{\&}$ operating margins ERP \& General Business



# Implied multiples <br> Cybersecurity 



| Cybersecurity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vmware | 46,005 | 45,298 | 3.7x | 3.4 x | 3.1 x | 10.3x | 9.6x | na | 13.0x | 11.8x | na | 17.0x | 15.3x | 14.1x |
| Fortinet | 44,249 | 42,459 | 12.1x | 10.3x | 8.6 x | 43.7x | 36.2x | na | 46.7x | $38.5 x$ | na | 64.1x | 52.3x | 42.3x |
| Palo Alto Networks | 45,172 | 45,622 | 8.8x | 7.3x | 5.9x | 37.8x | 31.7x | na | 46.1x | $36.4 x$ | $27.5 x$ | 59.5x | 46.2x | 33.0x |
| CrowdStrike Holdings | 35,506 | 34,520 | 20.0x | 15.0x | 11.5x | nm | nm | na | nm | nm | 57.8x | nm | nm | 57.6x |
| Zscaler | 31,240 | 30,706 | nm | 22.8 x | 15.2x | nm | nm | na | nm | nm | na | nm | nm | nm |
| Cloudflare | 26,739 | 26,240 | nm | nm | 16.1x | nm | nm | na | nm | nm | nm | nm | nm | nm |
| DocuSign | 22,141 | 22,214 | 9.8 x | 7.9x | 6.6x | $46.7 x$ | 37.4 x | 28.8 x | 53.2x | 40.0x | na | 55.6x | 42.8x | 37.9x |
| Splunk | 16,618 | 18,110 | $6.9 x$ | $5.7 x$ | 4.6x | nm | nm | na | nm | nm | nm | nm | nm | 76.7x |
| Check Point | 14,612 | 13,107 | $6.7 x$ | $6.5 x$ | 6.3 x | 13.8x | 13.8x | na | 14.0x | 13.7x | na | 17.5x | 17.2x | 16.4x |
| Nice | 14,308 | 13,655 | 7.4x | $6.6 x$ | 5.8 x | 22.3 x | 20.3x | 18.4x | 25.5x | 22.1x | na | $33.4 x$ | 29.1x | $26.4 x$ |
| NortonLifeLock | 13,514 | 15,646 | 5.9x | $5.5 x$ | na | 11.6x | 10.9x | na | 11.7x | 10.8x | na | 14.2x | 13.1x | na |
| Citrix Systems | 11,506 | 14,202 | 4.8 x | $4.5 x$ | na | 15.5x | 14.0x | na | 18.4x | 16.4x | na | 19.8x | 17.5x | na |
| Avast | 7,505 | 7,958 | 9.0x | $8.4 x$ | 8.0x | 16.3x | 15.3x | 14.7x | 17.1x | 16.0x | 15.5x | 21.0x | 19.3x | 18.4x |
| Trend Micro | 6,148 | 4,358 | $2.8 x$ | 2.7x | $2.5 x$ | 8.9 x | $8.5 x$ | $8.5 x$ | 12.1x | 11.4x | 10.9x | na | na | na |
| CyberArk | 4,967 | 4,559 | 9.2x | 7.7x | $6.2 x$ | nm | nm | na | nm | nm | nm | nm | nm | nm |
| Mimecast | 4,698 | 4,561 | 7.9x | $6.8 x$ | na | 28.0x | 23.5x | na | 35.6 x | 29.7x | na | 50.2x | 41.9x | na |
| Rapid7 | 4,619 | 5,174 | 9.0x | 7.4x | na | nm | nm | na | nm | nm | na | nm | nm | na |
| Tenable | 4,635 | 4,437 | 7.9x | 6.6x | 5.6x | nm | 48.4x | 33.1 x | nm | 59.3 x | 40.0x | nm | 83.6x | 50.9x |
| BlackBerry | 4,510 | 4,566 | $6.5 x$ | 5.6x | na | nm | nm | na | nm | nm | na | nm | nm | na |
| Qualys | 4,275 | 4,014 | 9.8 x | 8.7 x | na | 22.7 x | 20.4 x | na | 27.0x | 23.9x | na | 36.2 x | 32.4 x | na |
|  |  | Median <br> Average | $\begin{gathered} 7.9 x \\ 8.2 x \end{gathered}$ | $\begin{aligned} & 6.8 x \\ & 7.9 x \end{aligned}$ | $\begin{aligned} & 6.2 x \\ & 7.6 x \end{aligned}$ | $\begin{aligned} & 19.3 x \\ & 23.1 x \end{aligned}$ | $\begin{aligned} & 20.3 x \\ & 22.3 x \end{aligned}$ | $\begin{aligned} & 18.4 x \\ & 20.7 x \end{aligned}$ | $\begin{gathered} 22.0 x \\ 26.7 x \end{gathered}$ | $\begin{gathered} 22.1 x \\ 25.4 x \end{gathered}$ | $\begin{array}{r} 27.5 x \\ 30.3 x \end{array}$ | $\begin{gathered} 33.4 x \\ 35.3 x \end{gathered}$ | $\begin{gathered} 30.8 x \\ 34.2 x \end{gathered}$ | $\begin{array}{r} 35.5 x \\ 37.4 x \end{array}$ |

## Sales growth rates $\mathbb{\&}$ operating margins Cybersecurity

|  | Sales growth |  |  | EBITDA margin |  |  | EBIT margin |  |  | Net income margin |  |  | CAGR 22E-24E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | Sales | EBITDA | EBIT | N.I. |
| Cybersecurity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vmware | 8.0\% | 8.3\% | 12.3\% | 36.3\% | 35.9\% | na | 28.7\% | 29.2\% | na | 22.3\% | 22.9\% | 22.1\% | 10.3\% | na | na | 9.9\% |
| Fortinet | 18.8\% | 17.7\% | 19.6\% | 27.8\% | 28.5\% | na | 26.0\% | 26.8\% | na | 19.7\% | 20.6\% | 21.3\% | 18.7\% | na | na | 23.1\% |
| Palo Alto Networks | 24.1\% | 21.5\% | 23.3\% | 23.3\% | 22.9\% | na | 19.1\% | 20.0\% | 21.4\% | 14.7\% | 15.6\% | 17.7\% | 22.4\% | na | 29.5\% | 34.3\% |
| CrowdStrike Holdings | 41.5\% | 33.3\% | 30.1\% | 16.7\% | 18.9\% | na | 13.2\% | 15.5\% | 19.9\% | 11.3\% | 13.9\% | 20.6\% | 31.7\% | na | 62.0\% | 78.0\% |
| Zscaler | 41.7\% | 33.2\% | 49.3\% | 13.9\% | 15.4\% | na | 10.4\% | 12.5\% | na | 9.2\% | 11.7\% | 11.6\% | 41.0\% | na | na | 58.4\% |
| Cloudflare | 34.2\% | 32.7\% | 57.0\% | 10.7\% | 11.8\% | na | 1.0\% | 3.0\% | 4.8\% | 0.7\% | 2.8\% | 4.6\% | 44.3\% | na | 220.2\% | 278.8\% |
| DocuSign | 26.4\% | 24.1\% | 19.7\% | 21.0\% | 21.1\% | 22.9\% | 18.4\% | 19.7\% | na | 17.6\% | 18.4\% | 17.3\% | 21.9\% | 27.4\% | na | 21.0\% |
| Splunk | 18.0\% | 21.6\% | 23.0\% | (4.6\%) | 5.3\% | na | (9.6\%) | (2.8\%) | 2.5\% | (8.4\%) | (2.3\%) | 5.5\% | 22.3\% | na | na | na |
| Check Point | 3.6\% | 3.2\% | 2.1\% | 48.2\% | 46.9\% | na | 47.7\% | 47.2\% | na | 42.4\% | 41.9\% | 43.0\% | 2.6\% | na | na | 3.4\% |
| Nice | 10.8\% | 12.0\% | 13.7\% | 33.3\% | 32.6\% | 31.6\% | 29.0\% | 29.9\% | na | 23.3\% | 23.8\% | 23.1\% | 12.9\% | 9.9\% | na | 12.5\% |
| NortonLifeLock | 11.5\% | 5.9\% | na | 50.3\% | 50.8\% | na | 50.1\% | 51.0\% | na | 35.7\% | 36.6\% | na | na | na | na | na |
| Citrix Systems | 4.5\% | 7.1\% | na | 31.2\% | 32.1\% | na | 26.3\% | 27.4\% | na | 19.8\% | 20.8\% | na | na | na | na | na |
| Avast | 5.2\% | 7.0\% | 5.4\% | 55.0\% | 54.8\% | 54.1\% | 52.4\% | 52.6\% | 51.4\% | 40.3\% | 41.0\% | 40.8\% | 6.2\% | 5.3\% | 5.1\% | 6.8\% |
| Trend Micro | 6.4\% | 5.4\% | 6.0\% | 31.6\% | 31.3\% | 29.6\% | 23.4\% | 23.6\% | 23.1\% | na | na | na | 5.7\% | 2.4\% | 5.2\% | na |
| CyberArk | 13.5\% | 19.9\% | 24.2\% | 0.6\% | 5.9\% | na | (1.4\%) | 2.2\% | 6.2\% | (1.2\%) | 1.8\% | 5.4\% | 22.0\% | na | na | na |
| Mimecast | 15.7\% | 15.4\% | na | 28.1\% | 28.9\% | na | 22.0\% | 22.9\% | na | 16.1\% | 16.7\% | na | na | na | na | na |
| Rapid7 | 23.1\% | 21.2\% | na | 7.9\% | 8.8\% | na | 3.5\% | 6.2\% | na | 1.6\% | 4.3\% | na | na | na | na | na |
| Tenable | 19.1\% | 19.3\% | 17.1\% | 11.7\% | 13.6\% | 17.0\% | 9.5\% | 11.1\% | 14.1\% | 6.6\% | 8.2\% | 11.6\% | 18.2\% | 42.6\% | 44.3\% | 56.6\% |
| BlackBerry | 7.3\% | 15.2\% | na | (0.0\%) | 1.3\% | na | (13.9\%) | (10.8\%) | na | (6.9\%) | (3.8\%) | na | na | na | na | na |
| Qualys | 13.4\% | 12.4\% | na | 43.2\% | 42.7\% | na | 36.3\% | 36.5\% | na | 28.8\% | 28.6\% | na | na | na | na | na |
| Median | 14.6\% | 16.5\% | 19.7\% | 25.6\% | 25.7\% | 29.6\% | 20.6\% | 21.4\% | 17.0\% | 16.1\% | 16.7\% | 17.7\% | 20.3\% | 9.9\% | 36.9\% | 23.1\% |
| Average | 17.3\% | 16.8\% | 21.6\% | 24.3\% | 25.5\% | 31.0\% | 19.6\% | 21.2\% | 17.9\% | 15.5\% | 17.0\% | 18.8\% | 20.0\% | 17.5\% | 61.0\% | 53.0\% |

[^1]Source: CapitalIQ
24 "na" = not available

# Implied multiples <br> Large Platforms 



## Sales growth rates \& operating margins <br> Large Platforms

|  | Sales growth |  |  | EBITDA margin |  |  | EBIT margin |  |  | Net income margin |  |  | CAGR 22E-24E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Companies | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | 2022E | 2023E | 2024E | Sales | EBITDA | EBIT | N.I. |
| Large Platforms |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Microsoft | 15.3\% | 13.8\% | 13.9\% | 49.8\% | 50.9\% | na | 42.1\% | 42.7\% | 42.3\% | 35.6\% | 35.9\% | na | 13.9\% | na | 14.1\% | na |
| Oracle | 4.4\% | 4.7\% | 5.2\% | 50.6\% | 50.6\% | na | 45.1\% | 45.2\% | na | 31.4\% | 31.7\% | 32.5\% | 5.0\% | na | na | 6.9\% |
| SAP | 5.2\% | 6.4\% | 7.8\% | 34.1\% | 34.5\% | 38.0\% | 29.0\% | 29.9\% | 31.8\% | 22.2\% | 22.9\% | 25.1\% | 7.1\% | 13.0\% | 12.2\% | 13.8\% |
| IBM | (14.6\%) | 4.3\% | na | 30.1\% | 30.6\% | na | 19.6\% | 18.6\% | na | 15.4\% | 16.1\% | na | na | na | na | na |
| Median | 4.8\% | 5.5\% | 7.8\% | 42.0\% | 42.6\% | 38.0\% | 35.5\% | 36.3\% | 37.0\% | 26.8\% | 27.3\% | 28.8\% | 7.1\% | 13.0\% | 13.2\% | 10.3\% |
| Average | 2.6\% | 7.3\% | 9.0\% | 41.2\% | 41.7\% | 38.0\% | 33.9\% | 34.1\% | 37.0\% | 26.2\% | 26.6\% | 28.8\% | 8.6\% | 13.0\% | 13.2\% | 10.3\% |

## Contact details



## OLIVER

 BACHSenior Manager, Corporate Finance - M\&A BDO AG Wirtschaftsprüfungsgesellschaft Hanauer Landstraße 115 60314 Frankfurt am Main
Phone: +49 69 95941-127 oliver.bach@bdo.de

## Jane

## Evans

Senior Manager, Corporate Finance - M\&A BDO AG Wirtschaftsprüfungsgesellschaft Georg-Glock-Str. 8 40474 Düsseldorf Phone: +49 211 1371-192 jane.evans@bdo.de


## HANS-JÜRGEN RONDORFF

Partner, Corporate Finance - M\&A BDO AG Wirtschaftsprüfungsgesellschaft Hanauer Landstraße 115 60314 Frankfurt am Main
Phone: +49 69 95941-118 hans-juergen.rondorff@bdo.de

## Dietmar Flügel

Partner, Head of Corporate Finance BDO AG Wirtschaftsprüfungsgesellschaft Georg-Glock-Str. 8 40474 Düsseldorf
Phone: +49 211 1371-162 dietmar.fluegel@bdo.de

## IMPORTANT NOTICE

This document and its content are solely for client use. Neither the whole nor any part of the information in this document may be disclosed to, relied upon, or used by any other person or used for any purpose without the prior written consent of BDO. The Information contained herein may include unpublished sensitive information, the misuse of which may result in civil and/or criminal proceedings.

The information in this document, and the information upon which this document relies on, is derived from publicly available sources or has been disclosed otherwise. None of it has been independently verified by BDO or any of its Affiliates. Accordingly, neither BDO nor any of its Affiliates make any representation or warranty, expressively or implied, with regard to the accuracy or completeness of the information nor do BDO or its Affiliates accept any liability related thereto, if and to the extent legally possible.

All Information in this document has been prepared on the bases and assumptions described herein and is preliminary and can be read cautiously only. Nothing in this document is, or should be relied on as a promise or prediction of/as to future developments or should be considered as legal, economic or tax advice or recommendation. Each recipient of this document is recommended to make his or her own legal, economic or tax assessment of the matters contained through internal and external counsel. This document should not be used as a basis of any investment or disinvestment decision. No person has been authorised by BDO or its Affiliates to give any information not already contained in this document.
This document is a marketing document and not a financial analysis for the purpose of the German Securities Trading Act. It neither fulfils all requirements on financial analyses.
In this notice, "BDO" means BDO AG Wirtschaftsprüfungsgesellschaft. "Affiliates" means affiliated companies (within the meaning of section 15 German Stock Corporation Act, Aktiengesetz) and the directors, employees, agents of BDO AG Wirtschaftsprüfungsgesellschaft.
By accepting this document you agree to be bound by the above conditions and limitations.


11
4

BDO AG Wirtschaftsprüfungsgesellschaft, a German company limited by shares, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.
BDO is the brand name for the BDO network and for each of the BDO Member Firms


[^0]:    Sources: CapitalIO, Equity Research, BDO analysis

[^1]:    Note: Financials calendarised to $31^{\text {st }}$ December, market data as of $19^{\text {th }}$ January 2022

