

Q1/24 Technology Sector Report Software

IMAP

```
mirror_mod = modifier_ob.modifiers.new("mirror")
# Add mirror object to mirror_ob
mirror_mod.mirror_object = mirror_ob

# Mirror Y
mirror_mod.use_y = False
mirror_mod.use_z = False
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False
# Mirror Z
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True

# Selection at the end -add back the deselected
mirror_ob.select= 1
mirror_ob.select=1
# context.scene.objects.active = modifier_ob
# context.selected + str(modifier_ob)) # modifier ob
mirror_ob.select = 0
# context.scene.objects[one.name].select = 1

print("please select exactly two objects,")

OPERATOR CLASSES -----

class MirrorOperator(bpy.types.Operator):
    """Add a mirror to the selected object"""
    bl_idname = "object.mirror_mirror_x"
    bl_label = "Mirror X"

    def execute(self, context):
        if context.active_object is not None
```



Agenda

1.	Introduction	PAGE 3
2.	PE-backed Software Platforms	PAGE 5
3.	Software Market	
–	Overview	PAGE 10
–	Stock Performance and Valuation	PAGE 14
4.	Introduction to IMAP and Relevant Expertise	PAGE 26



Introduction

Digital Technology Senior-Team



Dr. Carsten Lehmann
Managing Partner



Nils Keller
Partner



Mathias Heymann
Partner



Andreas Widholz
Partner

IMAP Technology Deal Statistics

250 deals in the technology sector
since 2015

Ø **28 deals p.a.**

>30% cross-border

>60% European targets

IMAP's Software Report

We are pleased to release the IMAP Software Sector Report for the period until December 2023. This sector report provides insights into the investment activities of private equity investors as well as the valuation and share price development of listed companies as well as sector specific M&A dynamics

- Our assessment of **private equity investments in software companies** in the DACH region indicates a sustained high level of M&A activity with **26 deals in 2023** across various **horizontal, vertical and infrastructure software subsectors**. The report analyzes **178 investments in software companies** since 2013. In general, **software companies have experienced strong demand** in recent years. In particular, **specialized investors are pursuing buy-and-build strategies** for their platforms and have realized a **large number of transactions** in the **lower mid-market**
- Sub-segments of listed companies in the software sector showed a **homogeneous LTM December 2023 stock performance** with all analyzed companies recording share price increases. Nevertheless, **valuation levels of listed companies continue to be high** due to **improved growth and profitability estimates as of Q4 23 compared to Q3 23**
- **Transaction-based valuations** in the software market in 2023 are in line with previous years, with transaction volumes as well as the number of transactions returning to 2020 levels

Agenda

- | | | |
|----|---|---------------|
| 1. | Introduction | PAGE 3 |
| 2. | PE-backed Software Platforms | PAGE 5 |
| 3. | Software Market | |
| | – Overview | PAGE 10 |
| | – Stock Performance and Valuation | PAGE 14 |
| 4. | Introduction to IMAP and Relevant Expertise | PAGE 26 |



Introduction to the PE Software Market in German speaking Europe

Very strong investment activity in recent years across all company sizes and sub-sectors

Introduction

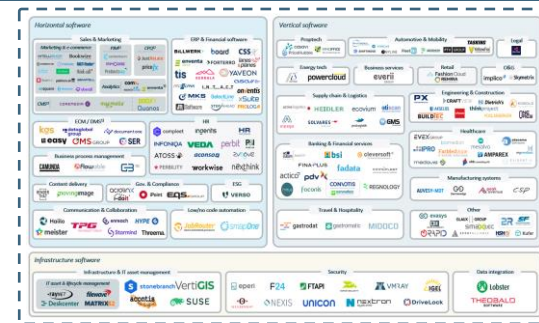
- Our analysis comprises **74 financial investors** with current investments in **178 software companies** across Germany, Austria and Switzerland
- Software companies have experienced **high demand** since 2020 and we observed **140 transactions**, with a peak in terms of deal activity in 2021 with 47 transactions
- Between 2020 and 2023, **106 deals** were of **primary nature** (Entrepreneur to PE) and only **34 deals** of **secondary nature** (PE to PE)
- More and more funds tend to focus on technology assets and **18% of investors** have acquired **more than 3 software companies**
- Specialized funds in the lower mid-market** such as Bid Equity, Elvaston, LEA Partners, Main Capital and Maguar have built **substantial portfolios**
- Around **24% (13%)** of the analyzed platforms generate **annual revenues of more than € 50m (€ 100m)**
- Around **25%** of the analyzed platforms **employ more than 250 people** and roughly 5% employ more than 1,000 people

Platforms by Shareholder



- Investors have developed dedicated focuses, seeking opportunities in all kinds of software companies
- While a large number of investors focus on developing only a couple of investments, others continuously enhance their portfolios
- Some of the most active consolidators are investors such as Elvaston, LEA Partners, MAIN Capital, and Bregal Unternehmerkapital

Platforms by Type of Software



- Horizontal, vertical and infrastructure software are of high interest to investors
- For horizontal software, high M&A activity can be observed in the ERP / SCM space and the HR Tech sub-sector
- Similarly, Healthcare and Financial are types of vertical software that see great interest by PE investors
- Security software is dominating the infrastructure market

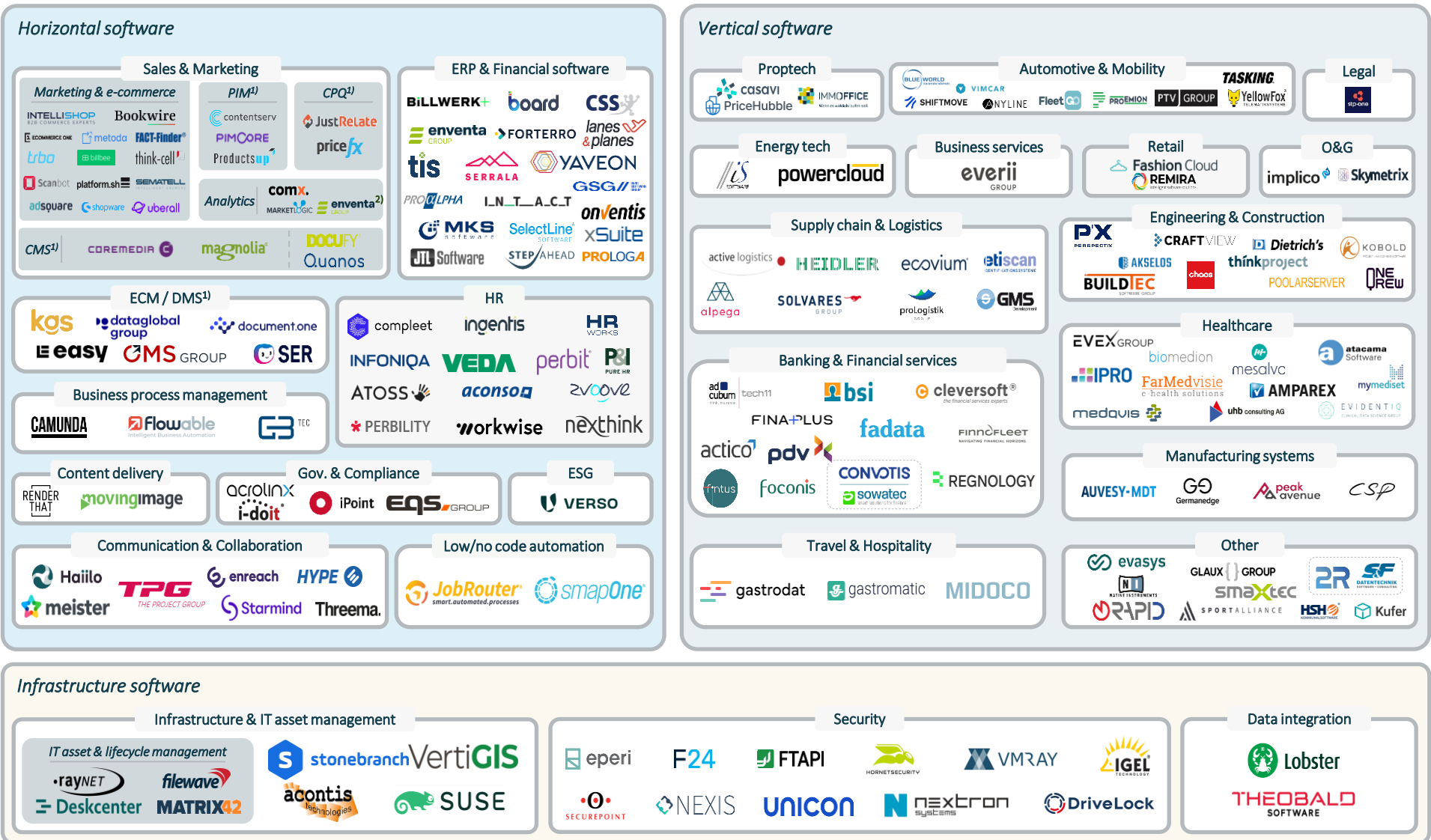
Selection of Financial Investors with DACH-based Software Portfolio Companies

Activity of Private Equity investors remains high in the software space, developing leading buy-and-build platforms



Ecosystem of Private Equity Software Portfolio Companies by Sub-Sector

Our analysis covers 79 horizontal, 77 vertical, and 21 infrastructure software companies^{3),4)}

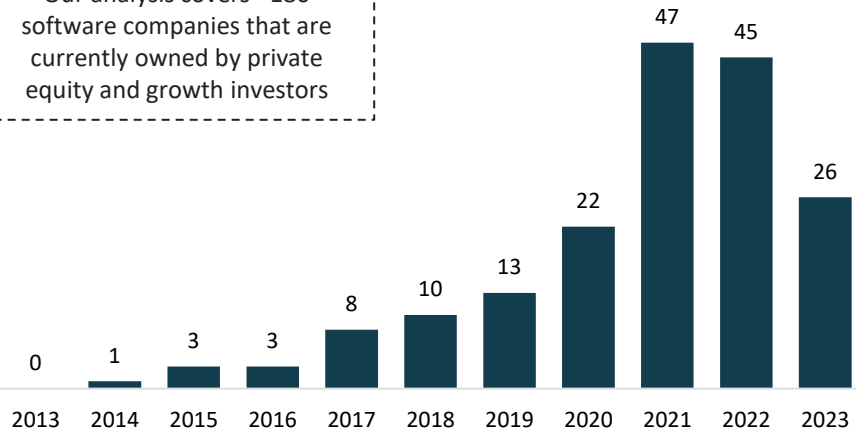


Analysis of the Investment Dynamics in the Software Landscape in DACH

Strong acquisition activity accelerated since the COVID-19 pandemic with a peak in 2021

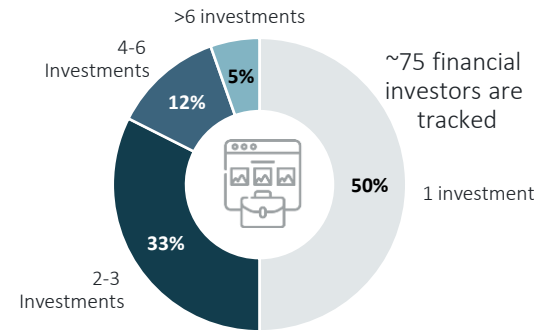
Number of Current Investments by Year¹⁾

Our analysis covers ~180 software companies that are currently owned by private equity and growth investors

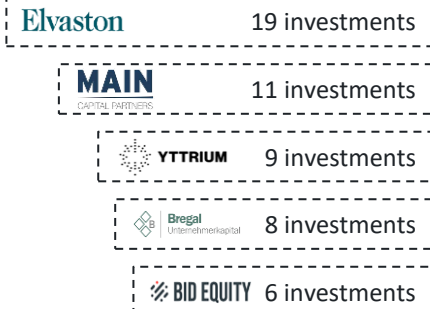


Investors

Split of financial investors according to # of software portfolio companies in DACH

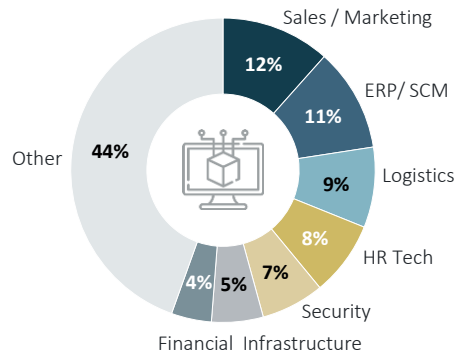


Top 5 investors by number of platform investments currently held

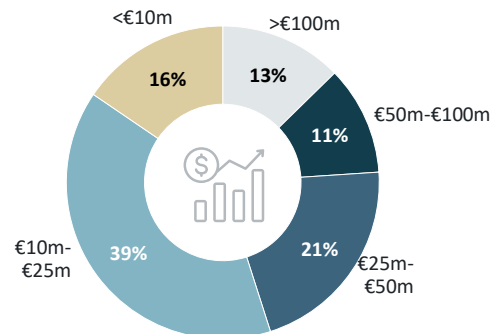


Software Platforms

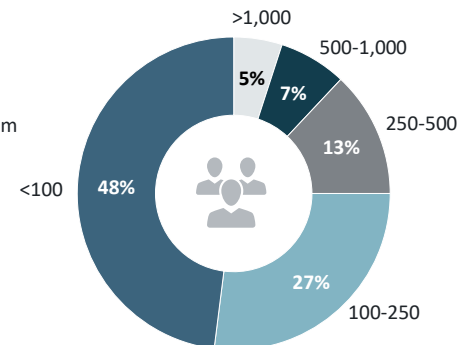
Subsectors



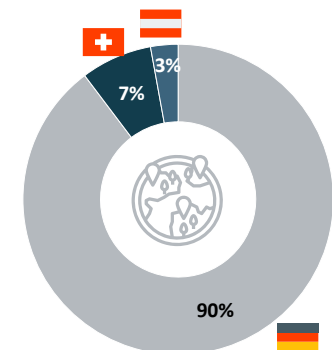
Revenue



Employees



Headquarters



Agenda

- | | | |
|----|---|----------------|
| 1. | Introduction | PAGE 3 |
| 2. | PE-backed Software Platforms | PAGE 5 |
| 3. | Software Market | |
| | – Overview | PAGE 10 |
| | – Stock Performance and Valuation | PAGE 14 |
| 4. | Introduction to IMAP and Relevant Expertise | PAGE 26 |



Introduction and Executive Summary on the Software Market

Overview of the software market

Executive Summary

Analysis on M&A activity in 2023 compared to the historic development in Germany and Europe:

- Following a substantial surge in M&A activity between H1 21 and H2 22, the 2023 level, both in terms of deal count and deal value, has reverted to levels observed before 2020 in Germany and Europe
- In Germany, 153 transactions with a deal value of EUR 5.7bn were closed in 2023 with both deal value and deal count decreasing by almost 50% compared to 2022
- In Europe (excl. Germany), 732 transactions with a deal value of EUR 21.8 bn were closed in 2023, with deal value and deal count decreasing by 75% and 62%, respectively, compared to 2022 levels
- In comparison to H1 23, transaction-based valuations in H2 23 have slightly changed with EV/EBITDA increasing to 14.3x (13.0x in H1 23) and EV/Revenue declining to 2.2x (3.2x in H1 23)

Stock performance and valuation analyses of selected segments of publicly listed software companies (segmentation details on the right)

- While the stock performance of Sales & Marketing declined by 7% in Q3 23, it turned positive and exhibited strong growth of 27% in Q4 23, ultimately leading to an LTM stock performance of +82%, the highest among the segments analyzed
- Compared to Q3 23, Engineering & Construction continues to trade at the highest EV/Revenue multiple (9.7x) in Q4 23 while Sales & Marketing continues to exhibit the highest expected revenue growth in 2024E with 14% followed by HR (13%) and Security (13%)
- Realizing one of the highest sector EBITDA-margins (27%), ERP & SCM reports the highest EV/EBITDA multiple (33.6x), followed by Data Analytics & BI (31.9x)
- Between 2023A and 2025E, the Rule of 40 analyses of SaaS companies indicate a clear shift in focus from “pure” growth to profitable growth

Segmentation of Publicly Listed Software Companies

This industry report categorizes the software landscape of listed companies into the following sub-segments:



Sales & Marketing: Companies providing application software for managing relationships with existing and potential customers as well as marketing solutions



ERP & SCM: Companies offering application software that supports all processes such as procurement, production, sales or plant management within organizations



Communication & Collaboration: Companies providing application software that enables the exchange of messages in text, audio and / or video formats as well as digital collaboration



HR: Companies providing application software that supports HR functions of organizations, such as recruitment, payroll, and workforce management



Security: Companies offering application software for digital security, backup and recovery as well as solutions for critical situations



Vertical: Companies providing application software addressing the needs of business within a specific vertical industry or market



Data Analytics & BI: Companies providing application software that allows for the analysis and understanding of historical and current data



Engineering & Construction: Companies offering application software that empowers its users to design, analyze, and simulate complex systems while being more productive

Deal Dashboard

Software M&A Market

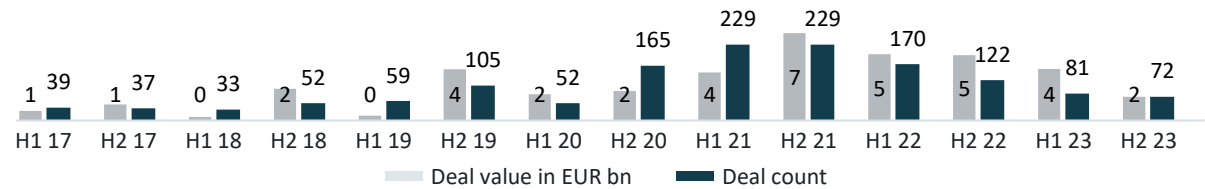
Top 3 German Transactions in 2023



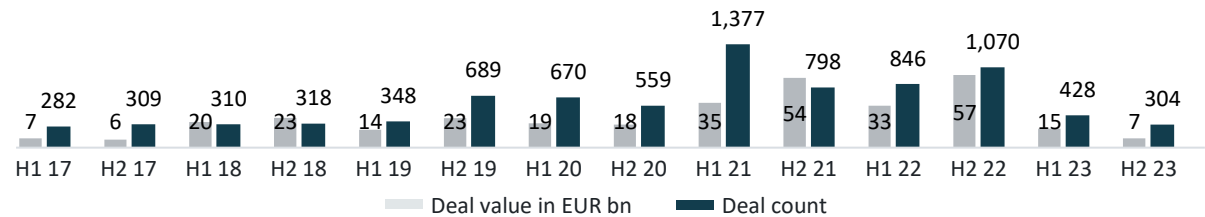
Top 3 European Transactions in 2023⁴⁾



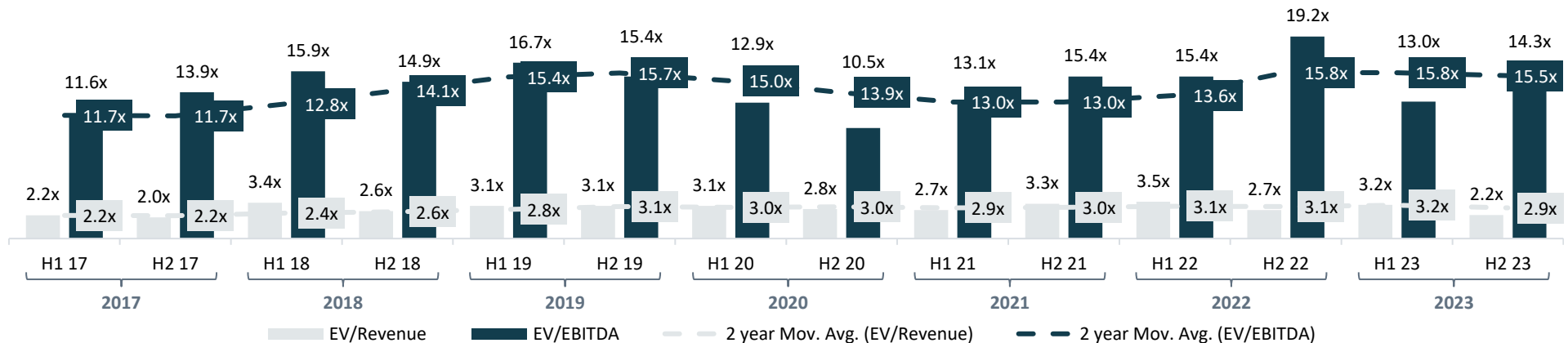
Development of Published German M&A Deal Value & Count



Development of Published European M&A Deal Count & Value^{1), 2), 3)}



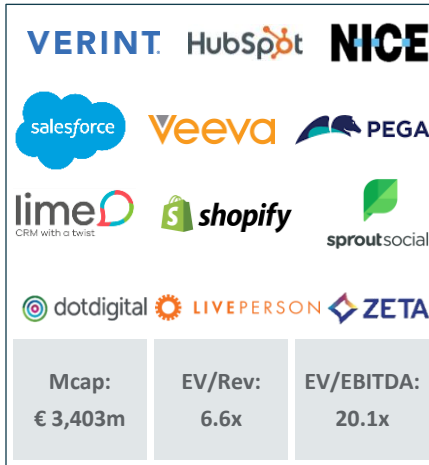
Median of Published EV Multiples in Europe between 2017 and 2023^{2), 3)}



Software Universe

Overview of selected public software players by segment

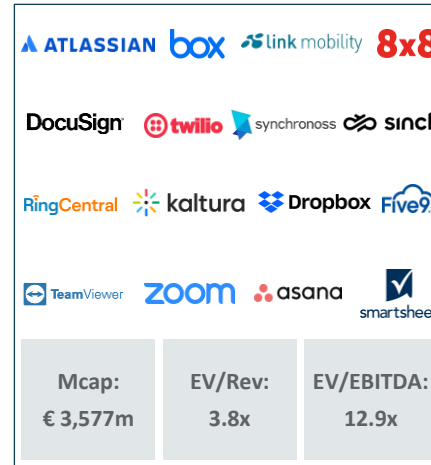
Sales & Marketing



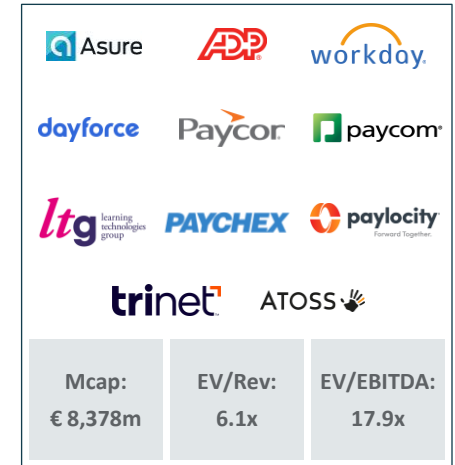
ERP & SCM



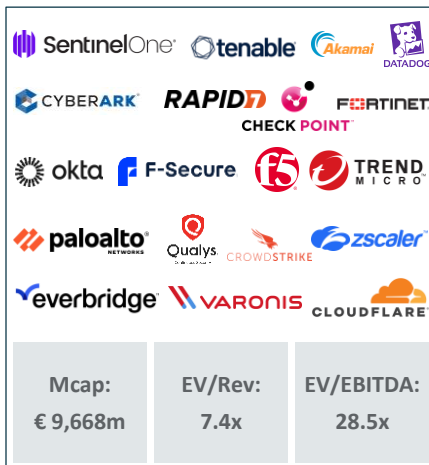
Communication & Collaboration



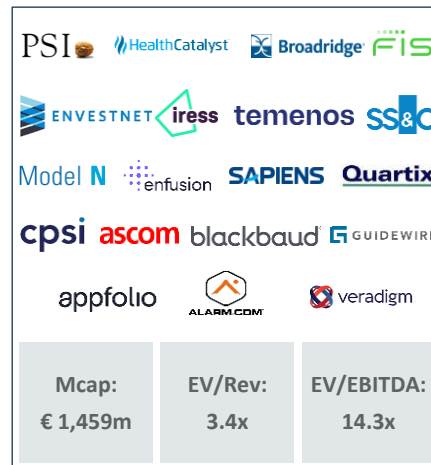
HR



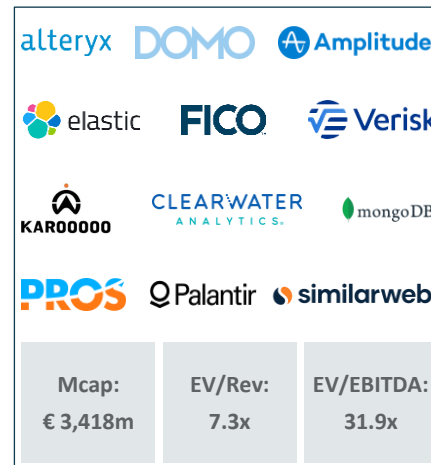
Security



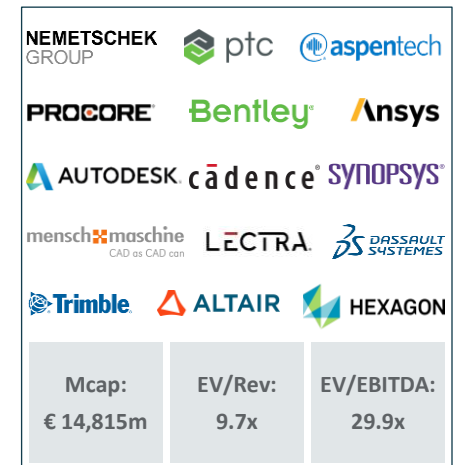
Vertical



Data Analytics & BI



Engineering & Construction



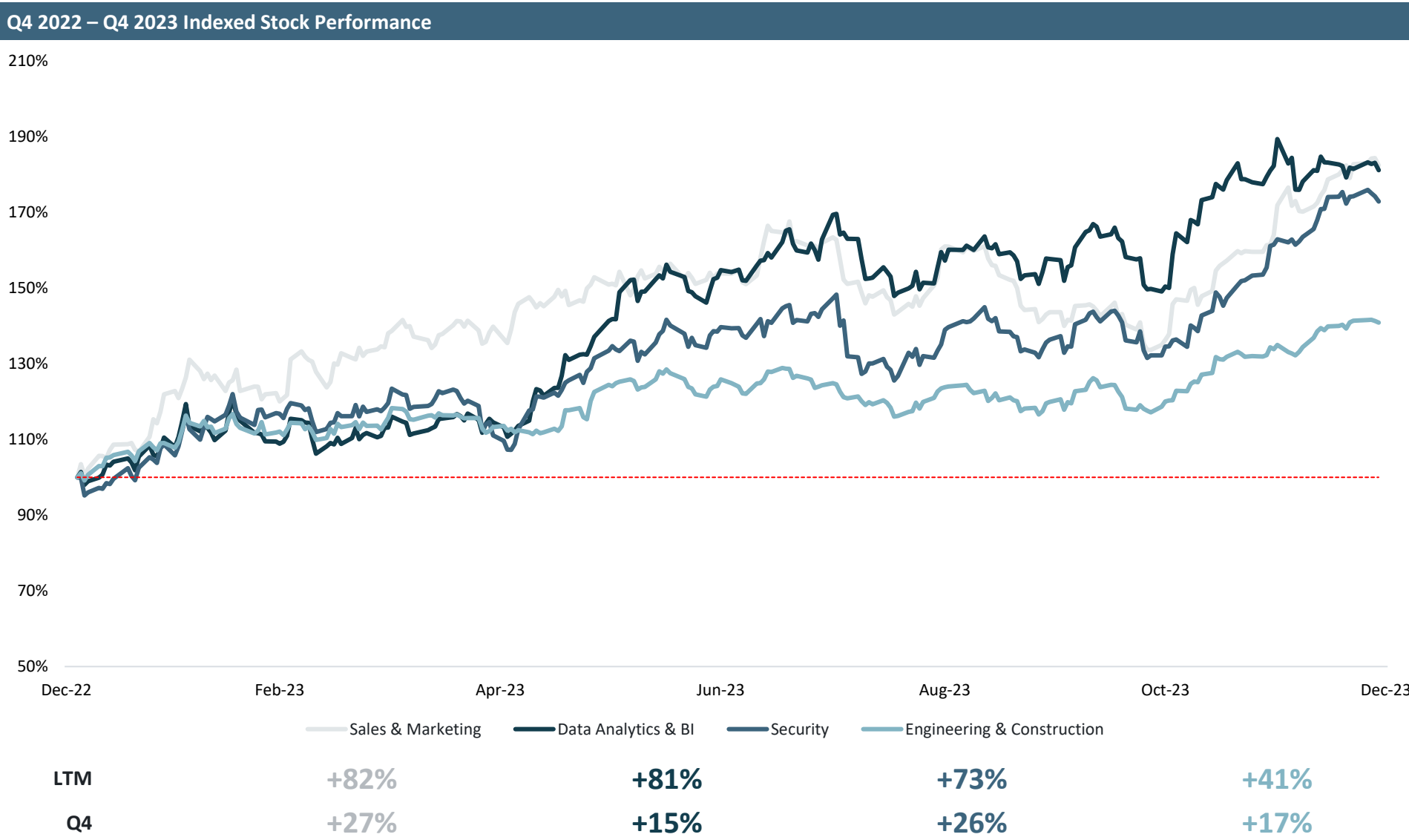
Agenda

- | | | |
|----|---|----------------|
| 1. | Introduction | PAGE 3 |
| 2. | PE-backed Software Platforms | PAGE 5 |
| 3. | Software Market | |
| | – Overview | PAGE 10 |
| | – Stock Performance and Valuation | PAGE 14 |
| 4. | Introduction to IMAP and Relevant Expertise | PAGE 26 |



Stock Performance – Top 4 Segments

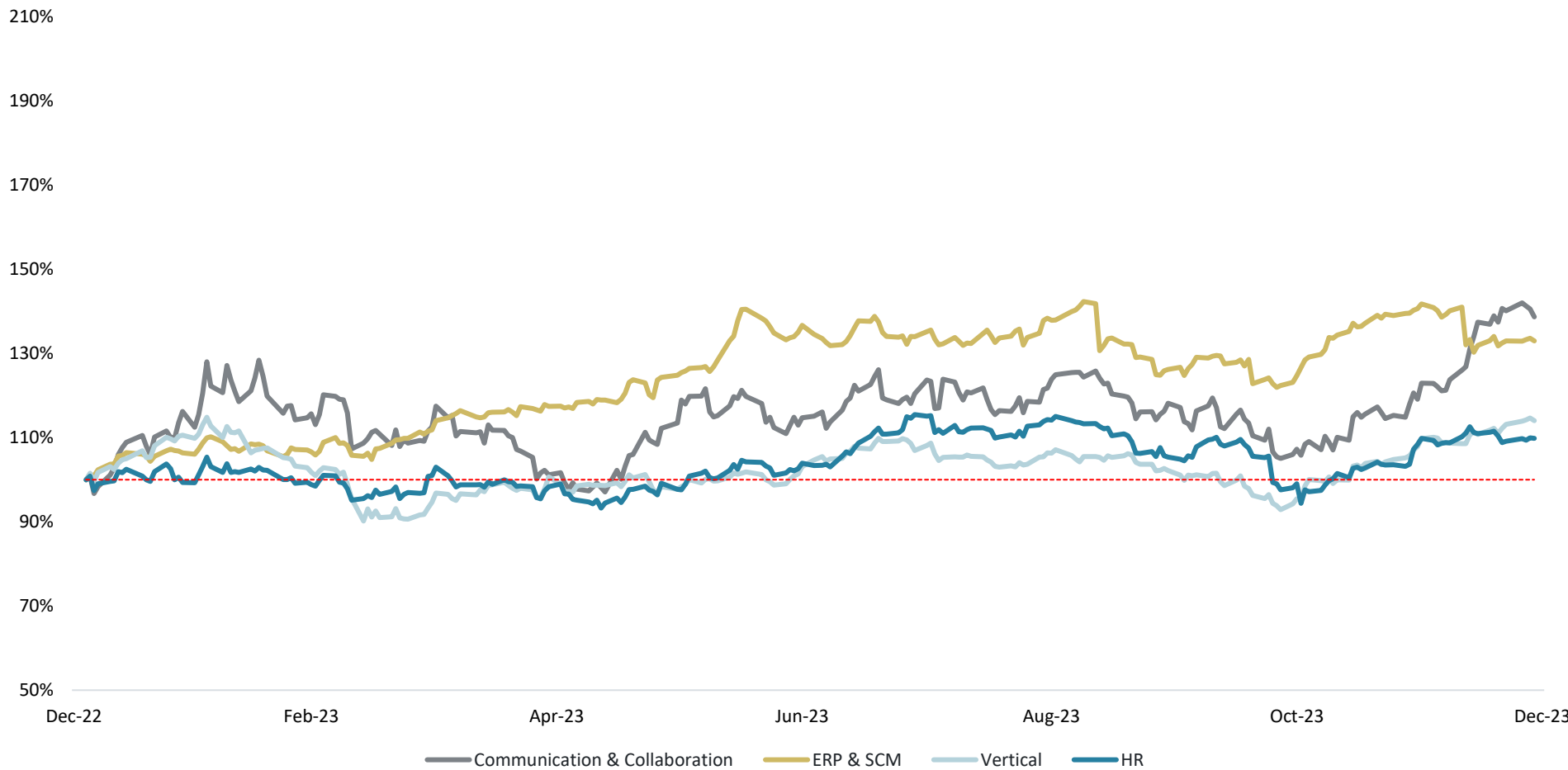
Segmented, indexed stock performance¹⁾



Stock Performance – Bottom 4 Segments

Segmented, indexed stock performance¹⁾

Q4 2022 – Q4 2023 Indexed Stock Performance

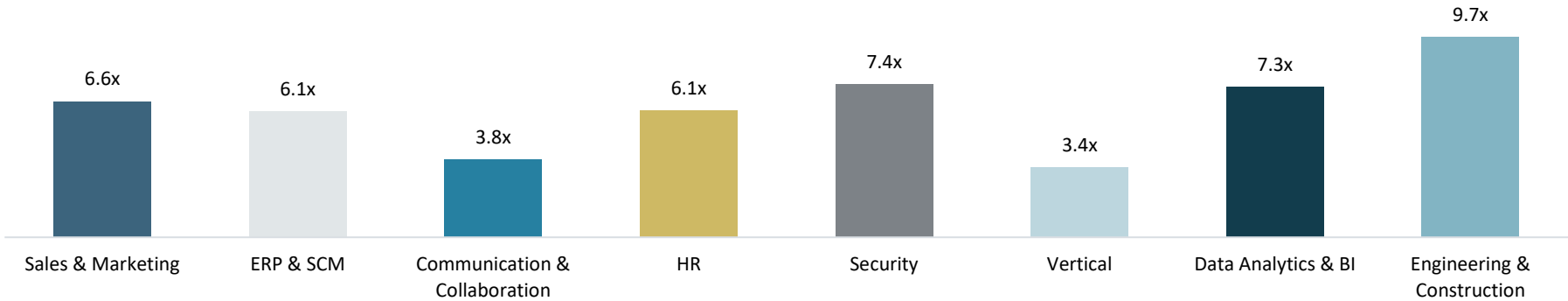


LTM	+39%	+33%	+14%	+10%
Q4	+18%	+5%	+13%	+5%

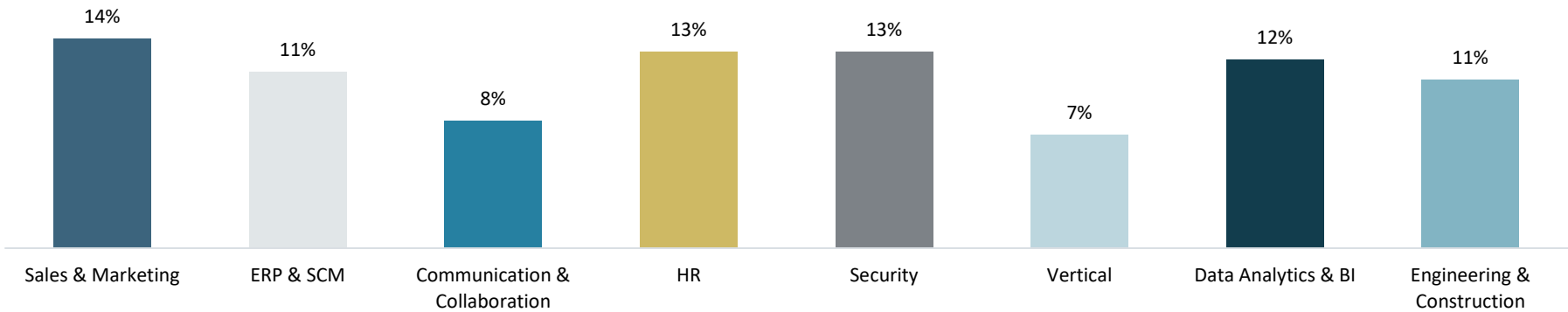
Software Valuation (I/IV)

Median segment valuation metrics in 2024E

EV/Revenue 2024E



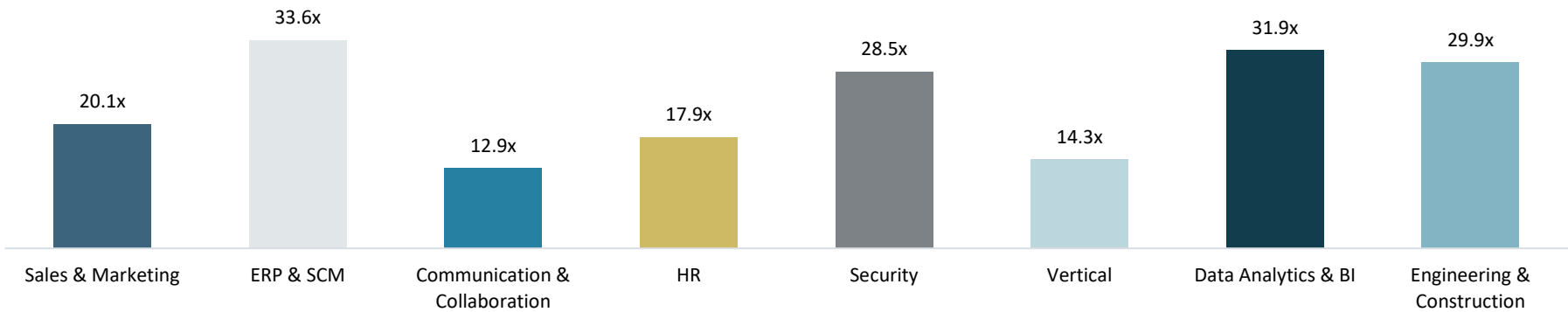
Revenue Growth 2024E



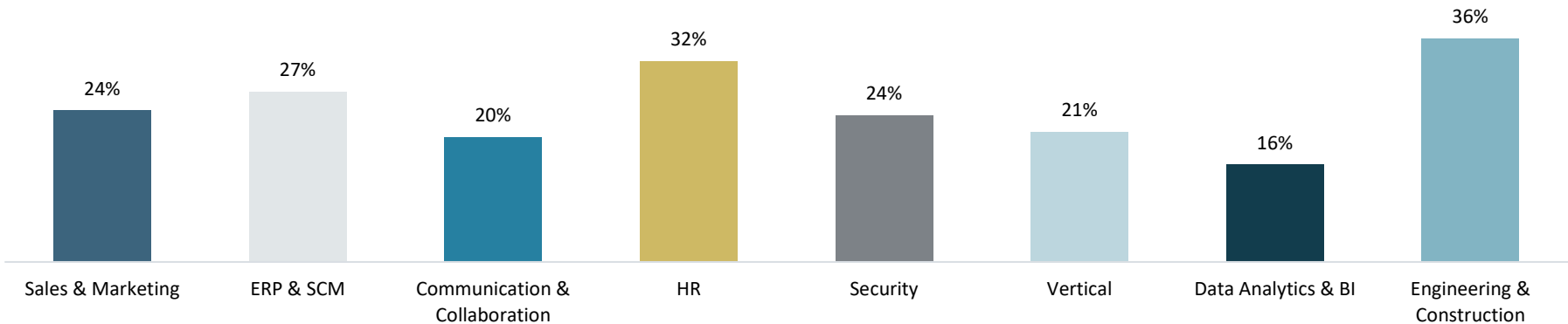
Software Valuation (II/IV)

Median segment valuation metrics in 2024E

EV/EBITDA 2024E



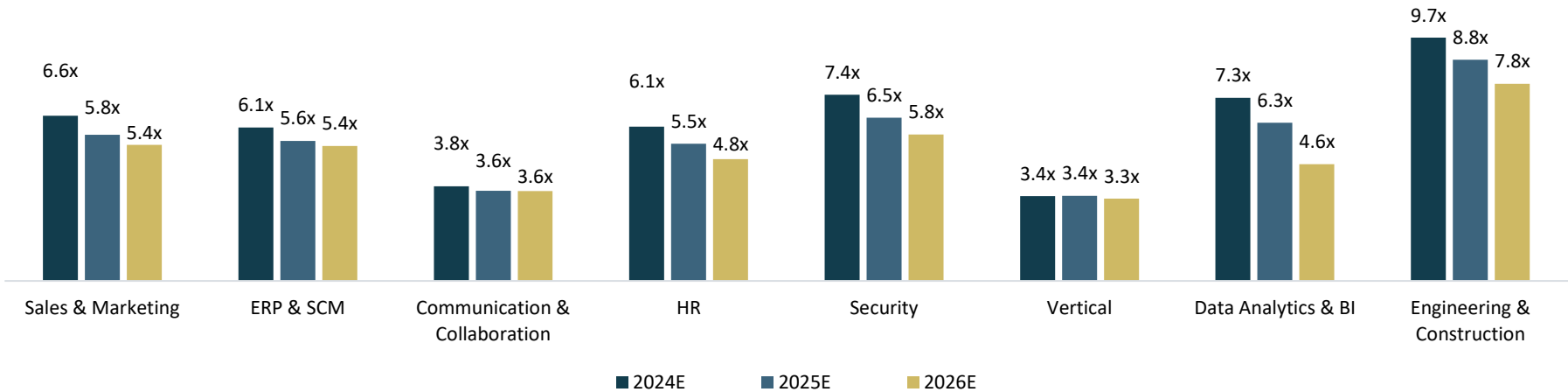
EBITDA-margin 2024E



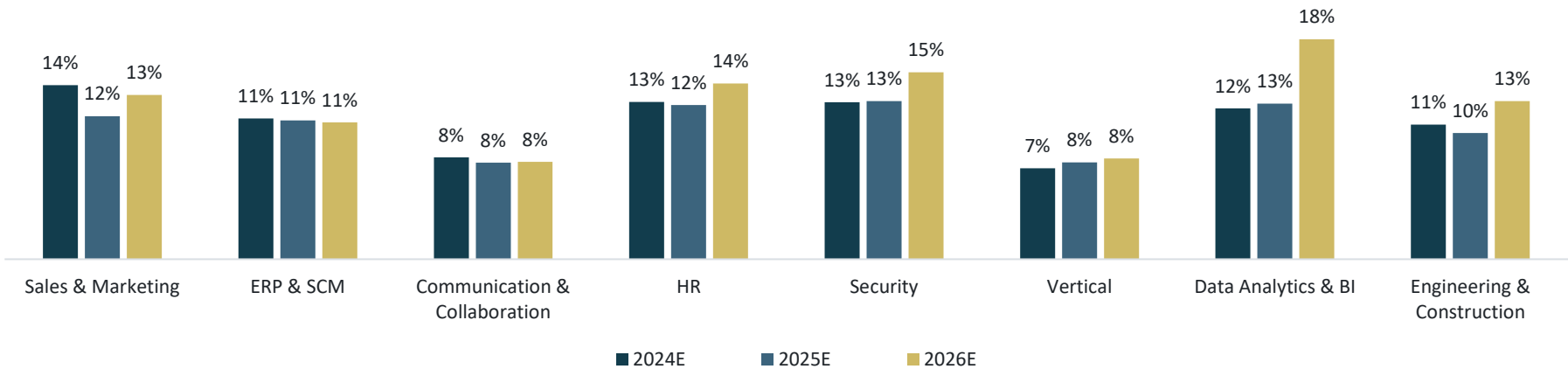
Software Valuation (III/IV)

Development of the median segment valuation metrics between 2024E and 2026E

EV/Revenue 2024E-2026E



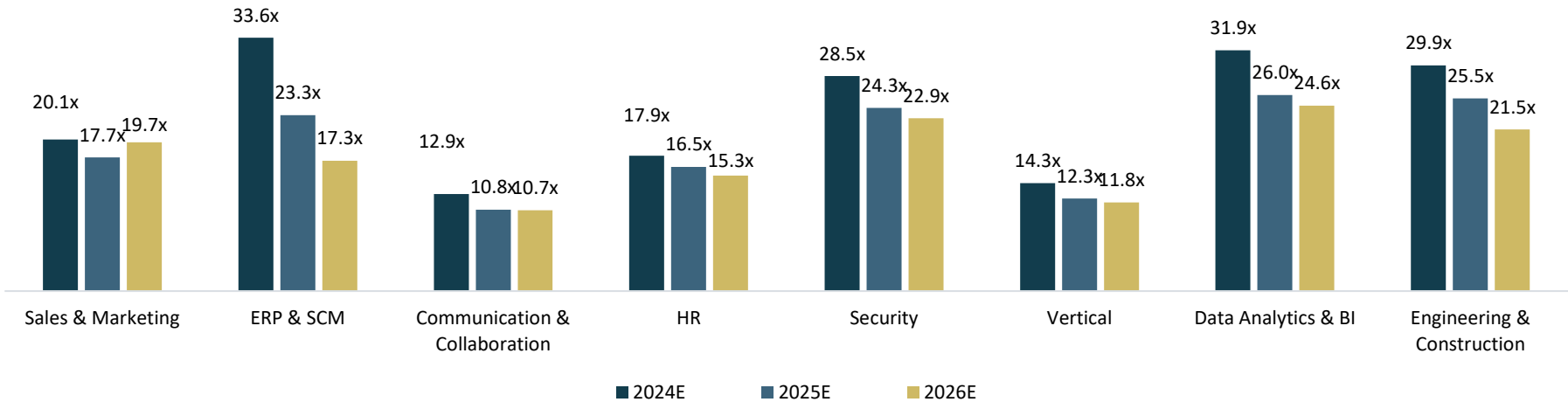
Revenue Growth 2024E-2026E



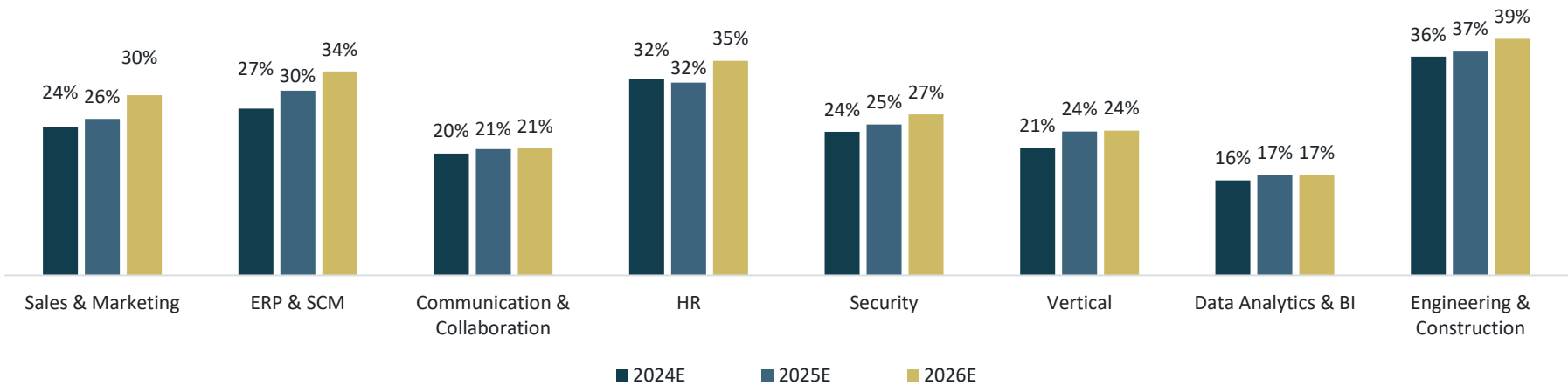
Software Valuation (IV/IV)

Development of the median segment valuation metrics between 2024E and 2026E

EV/EBITDA 2024E-2026E



EBITDA-margin 2024E-2026E

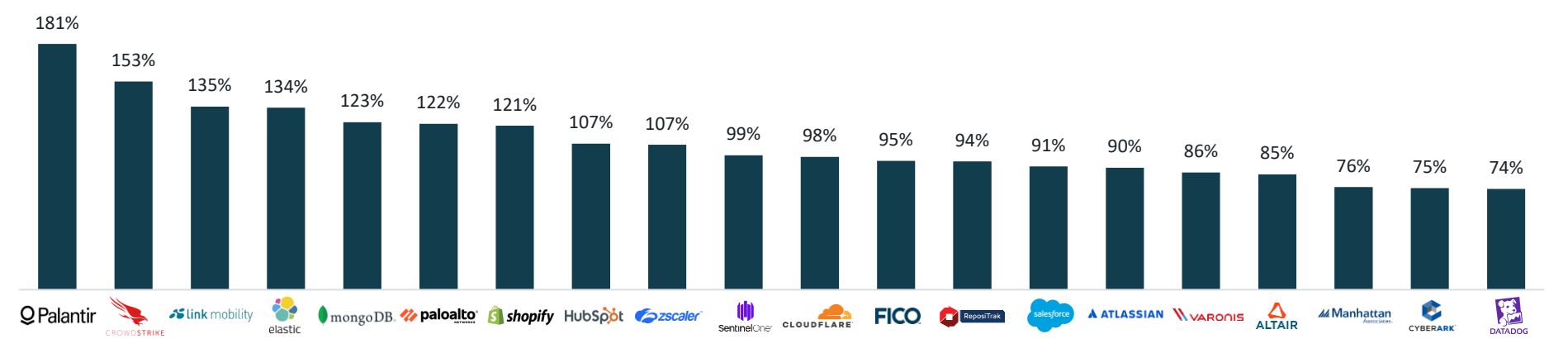


Top and Bottom Performers

Top and bottom public companies by LTM share price performance

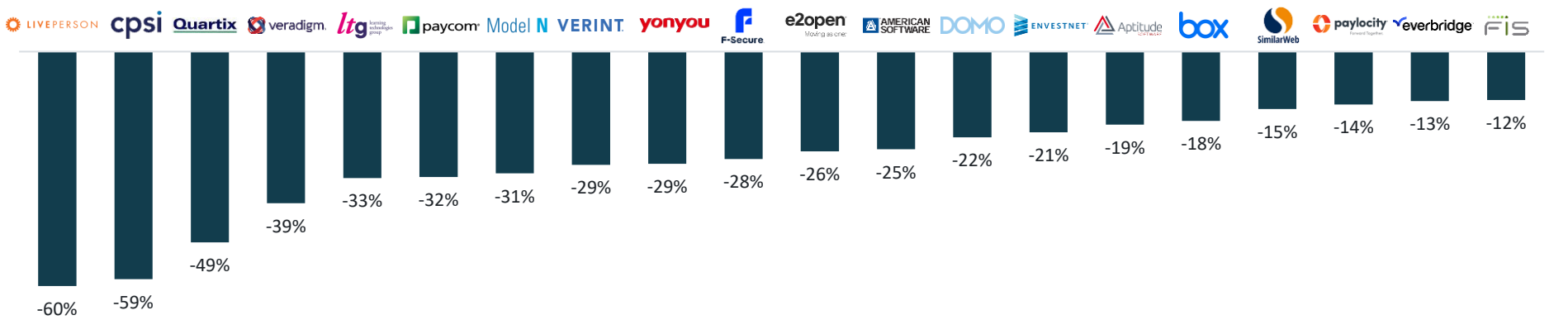
Top 20 Performers

Share price development LTM



Bottom 20 Performers

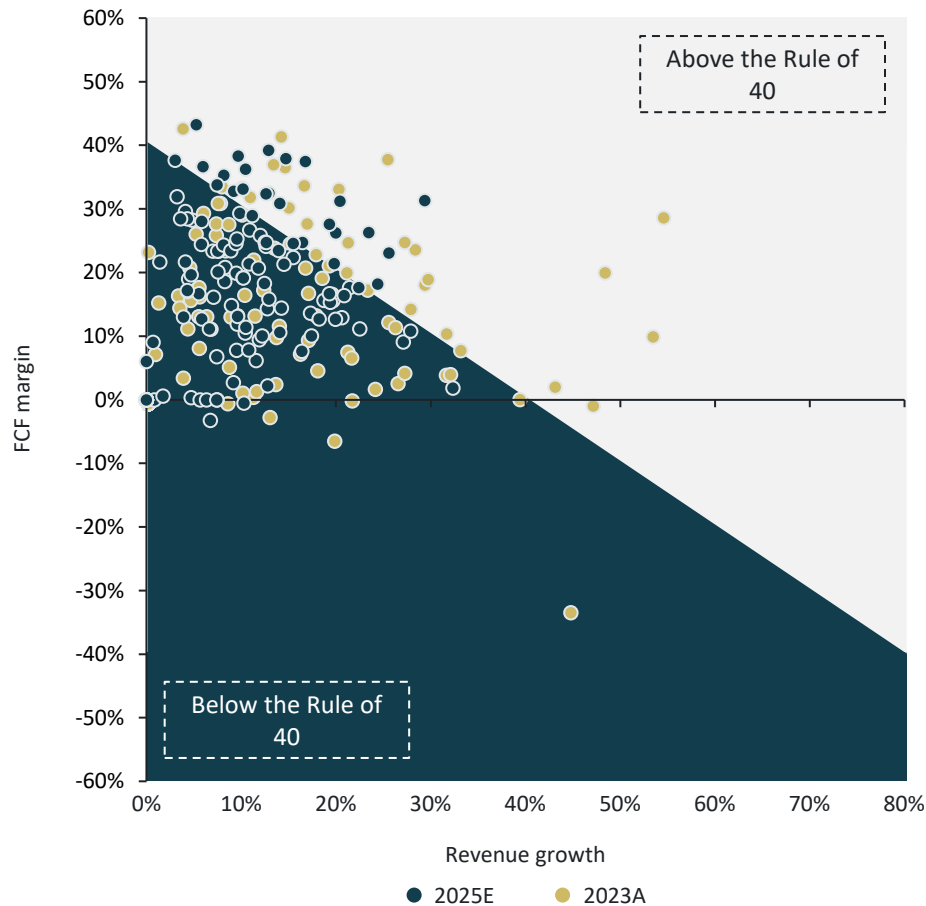
Share price development LTM



The Rule of 40: Introduction

Companies above the Rule of 40 achieve significantly higher valuations

Overview “Rule of 40”^{1),4)}



Trade-off between Growth and Profit

- The Rule of 40 is a method for valuing software companies (i.e., SaaS companies), measuring the trade-off between growth and profitability
- Companies with a combined sales growth and free cash-flow margin of over 40% are considered as being efficient in its growth and profitability development (efficiency score)
- Companies exceeding the Rule of 40 are likely to achieve higher valuations, as they are in a favorable position to attain long-term growth and profitability
- 95 (79) SaaS companies were analyzed for 2025E (2023A), respectively⁴⁾

Results

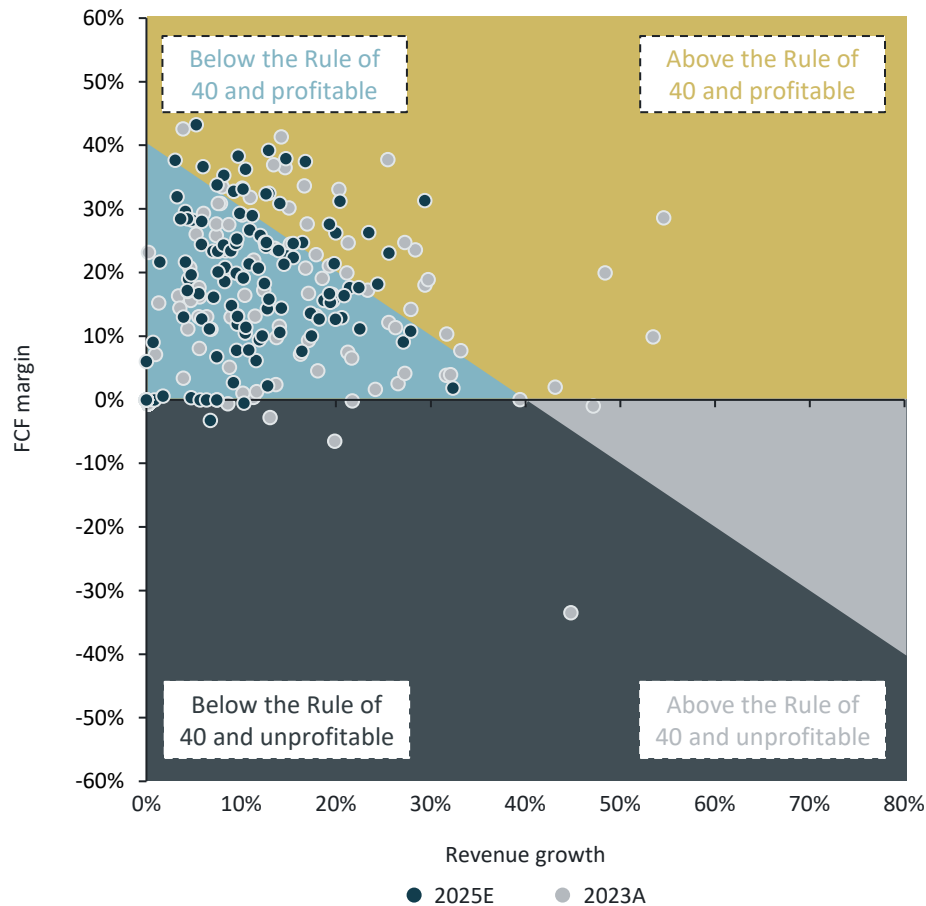
- The development from 2023A to 2025E shows a substantial shift in focus from growth to profitability
- While a lot of companies managed to achieve or maintain profitability, the majority lost substantial growth momentum on the way
- Out of the analyzed SaaS companies, 24% are forecasted to satisfy the rule of 40 for 2025E compared to 33% for 2023A. 76% of the companies (2025E) will lie below the rule of 40 compared to 67% (2023A)

Category	Share of companies ²⁾	Market Cap (€bn) ³⁾	Rev. Growth 24E-25E ³⁾	FCF Margin 25E ³⁾	EV/Rev. 25E ³⁾
Above the rule of 40	24% (33%)	18.9	14.1%	32.4%	9.9x
Below the rule of 40	76% (67%)	4.8	10.4%	17.3%	4.4x

The Rule of 40

Companies face a tense financing market and increase efforts to reach or maintain profitability

Rule of 40^{1),4)}



Selected Constituents and Results

- 95 (79) SaaS companies were analyzed on their satisfaction of the Rule of 40 for 2025E and 2023A
- Reflecting the shift of focus towards profitability, from 2023A to 2025E the number of companies positioned in the golden, black, and grey zones decreased and in turn the number of companies in the blue zone increased substantially

Blue zone

ADP, DASSAULT SYSTEMES, zoom, FIS, ORACLE, salesforce, SAP

Large and mature software companies maintaining profitability

Golden zone

Veeva, cadence, FORTINET, Palantir, paloalto, Dropbox, TeamViewer, workday

Top companies with efficient growth while maintaining strong profitability

Black zone

LIVEPERSON

Struggling companies without efficient growth and negative profitability

Grey zone

Facing slowed revenue growth, companies fall into the black zone or move to the blue zone reaching profitability

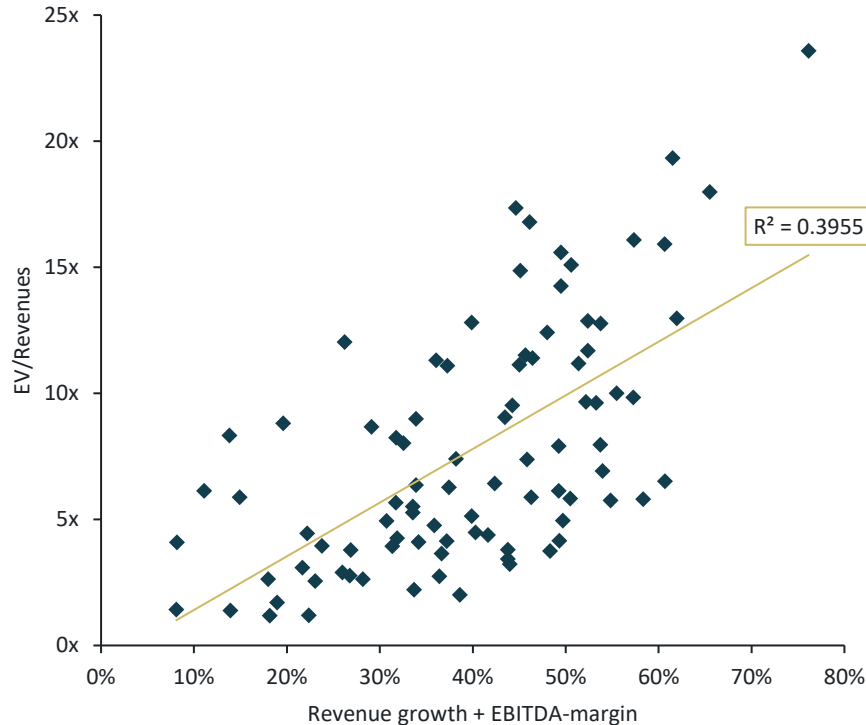
Fast growing (young) companies with negative profitability

Category	Share of companies ²⁾	Market Cap (€bn) ³⁾	Rev. Growth 24E-25E ³⁾	FCF Margin 25E ³⁾	EV/Rev. 25E ³⁾
Golden zone	24% (30%)	18.9	14.1%	32.4%	9.9x
Blue zone	75% (62%)	4.9	10.4%	17.6%	4.4x
Black zone	1% (5%)	0.3	6.8%	-3.2%	1.6x
Grey zone	0% (3%)	-	-	-	-

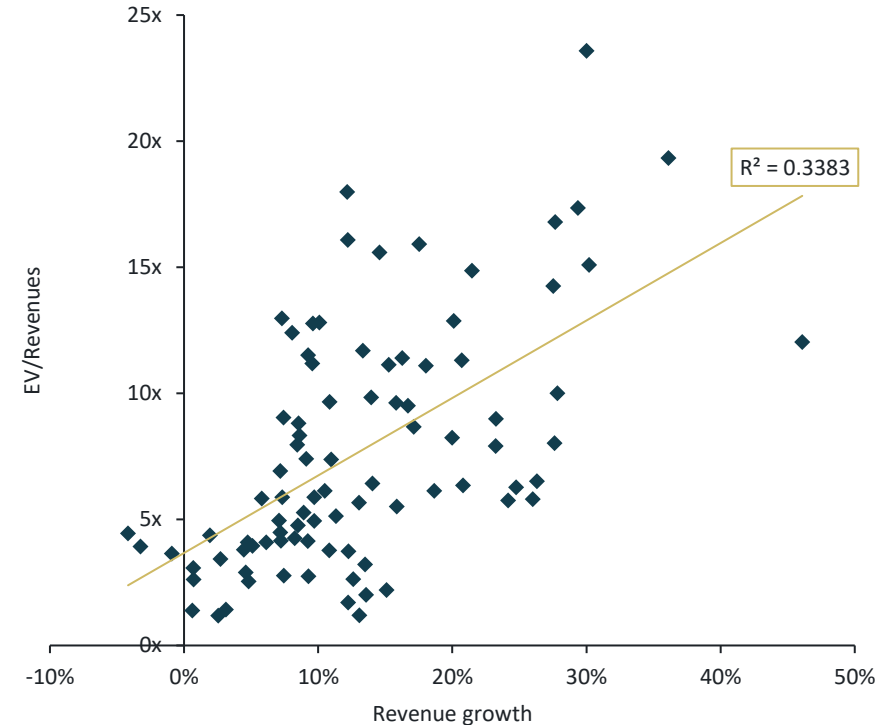
Regression Analysis (I/II)

Importance of profitability vs. „growth at all costs“

Regression on Revenue Growth and EBITDA-Margin in 2024E



Regression on Revenue Growth in 2024E



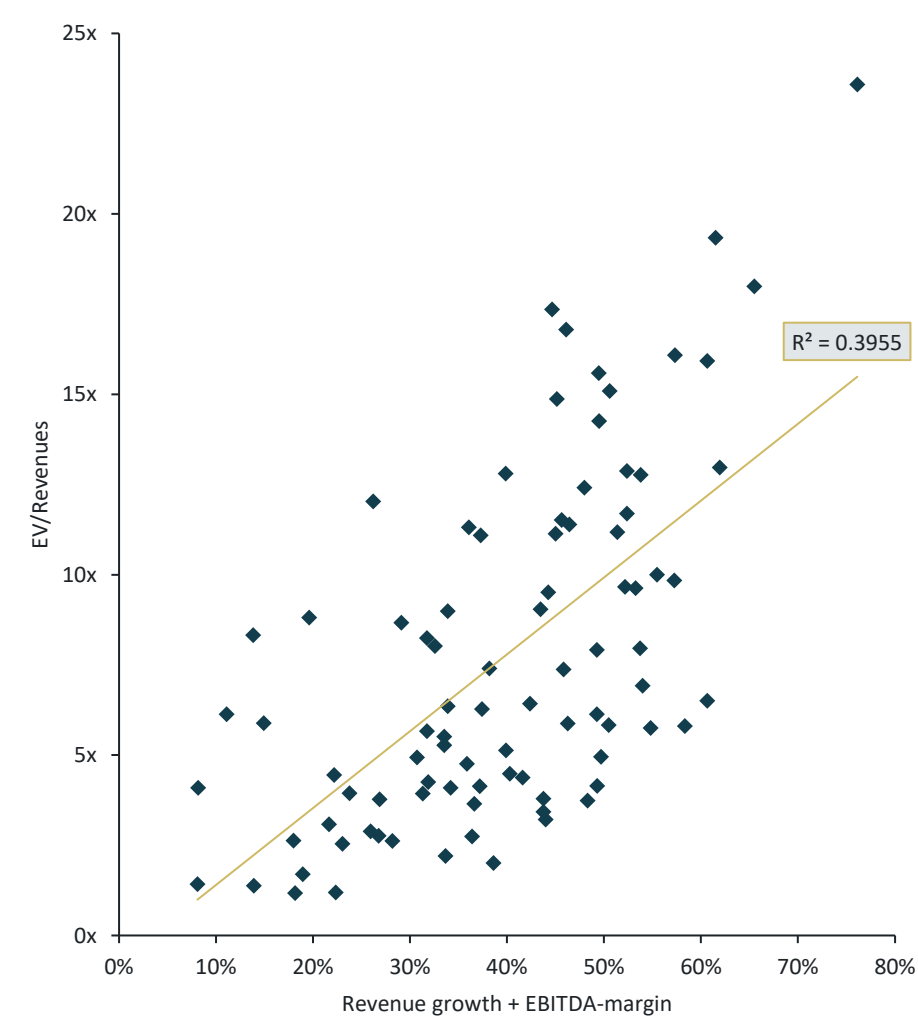
Comments

- Conducting a **regression analysis** to check for **correlation** between the **revenue multiples** and the **revenue growth (+ EBITDA-margin)** within a **broad peer group of publicly listed SaaS companies**
- Both graphs show that the **correlation** between the multiple and the independent variables is **positive**, meaning that **higher revenue growth (+ EBITDA-margin)** leads to **higher valuation**
- However, investors focus again on **growth efficiency** (defined as **growth + profitability**) compared to **growth “at all costs”**, as indicated by the **higher correlation of the respective regression analysis**

Regression Analysis (II/II)

Results of the one factor vs two factor regression analysis

One Factor Regression on Revenue Growth and EBITDA-Margin in 2024E



Two factor regression analysis results

Results	Revenue growth (coefficient X_1)	38.1
	EBITDA-margin (coefficient X_2)	16.4
	Relative importance of revenue growth	2.3x
	R^2 (2 factor)	54.3%

Comments

- As shown by the **54.3% R^2 for the two factor analysis**, the **goodness of fit for the analysis is higher**, compared to the 39.6% R^2 of the one factor regression analysis
- In order to gain an understanding of the importance for the respective independent variables**, namely revenue growth (X_1) and EBITDA-margin (X_2), **on the company valuation a two factor regression analysis is performed**
- With the coefficient for X_1 being 38.1 and the coefficient for X_2 being 16.4, it can be **concluded that the revenue growth of a company is significantly more important for its valuation than the profitability** in the form of the EBITDA-margin (see relative importance of revenue growth with 2.3x)

Agenda

- | | | |
|----|--|----------------|
| 1. | Introduction | PAGE 3 |
| 2. | PE-backed Software Platforms | PAGE 5 |
| 3. | Software Market | |
| | – Overview | PAGE 10 |
| | – Stock Performance and Valuation | PAGE 14 |
| 4. | Introduction to IMAP and Relevant Expertise | PAGE 26 |



IMAP is a Leading Mid-Cap M&A Firm Specialized in Privately Owned Companies

Strong track record of c. 220 transactions p.a. with transaction values ranging from c. € 20m – 300m



Leading global M&A organization with more than **60 Offices in 49 Countries**, thereof 4 in Germany



500+ Advisors, **50 thereof in Germany**



Ø 250 Transactions p.a., **25 thereof in Germany**

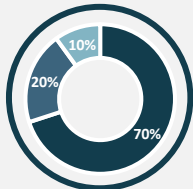
c. 80% Sell-side advisory



Transaction-volume p.a. **> € 15bn**
Value per Transaction between **€ 20m-300m**



Successful in the German market since **1997 - managed by partners** with long-term experience, who are responsible only to the client



Primarily active for entrepreneurs and founders

- Family-owned SMEs
- Private Equity
- Corporate groups

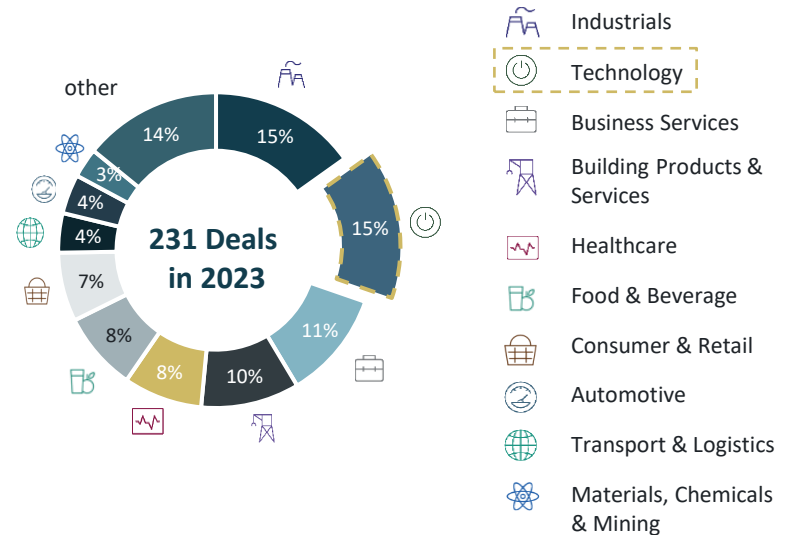


International sector-focused teams connected via **global IT platform**



Consistently among the **Top 10 M&A advisory firms** in various industry rankings

Transactions per Industrial-sector



Our Corporate Values:

Execution



Dedication



Informality



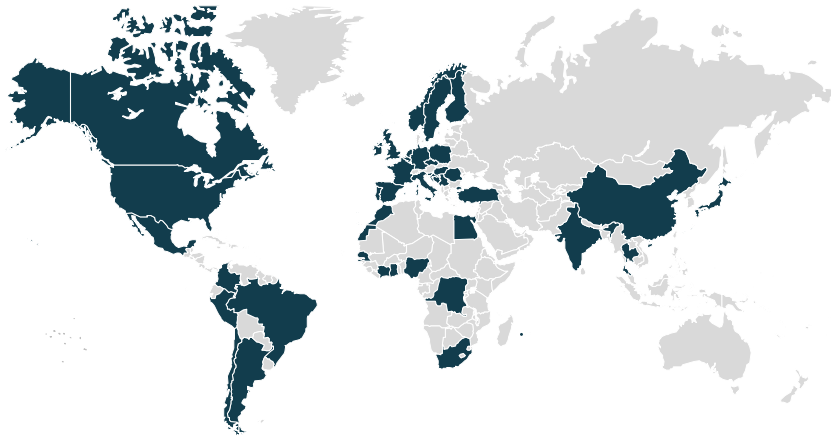
Talent



IMAP Global

IMAP combines global sector-expertise with direct access to main players in all relevant regional markets

IMAP global



„IMAP means internationality“

- **International sector- and project teams**
- **Resources and knowledge pool** for all sector specific projects and access to all relevant databases
- **Access to all relevant** national and international investor groups by **combining local knowledge with international reach**
- Standardized, **IMAP-wide working routines** for market development and project execution
- Globally rotating IMAP conferences & symposia – close and regular exchange among IMAP experts

231

M&A
Transactions
(in 2023)

500+

M&A
Professionals

€9bn+

Transaction-
volume
(in 2023)

49

Countries

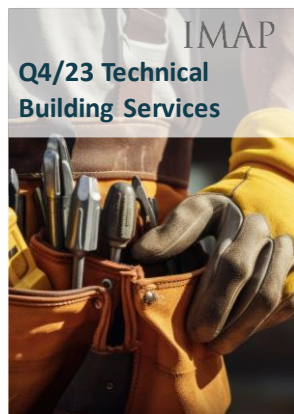
31%

Cross-Border
Transactions

60+

Offices around
the globe

Insights



IMAP Deal Statistics

IMAP technology deal statistics and German digital technology deals

German Digital Technology Deals since 2018 (selection)



IMAP Technology Deal Statistics

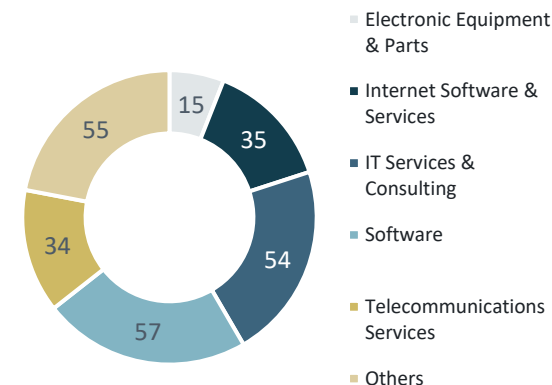
250 deals in the technology sector
since 2015

Ø 28 deals p.a.

>30% cross-border


































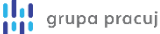





























>60% European targets

Deal Split by Technology Subsector since '15



IMAP Digital Technology Deals

Selected IMAP international deals since 2020

 acquired Focus4Result B.V. Advisor to Focus4Result	 acquired majority of  Advisor to Cloud En.	 acquired  Advisor to SpinSys	 acquired  Advisor to Vitec	 acquired  Advisor to Many More	 acquired  Advisor to iVISION	 acquired  Advisor to WIN	 acquired  Advisor to Orange Logic
 acquired  Advisor to IMPROMAT	 acquired majority of  Advisor to S&F	 acquired majority of  Advisor to Tobania	 acquired  Advisor to GenoData	 acquired  Advisor to Adams	 acquired  Advisor to Gamepires	 acquired  Advisor to Vitec	 acquired  Advisor to Scalian
 acquired  Advisor to Web4U	 acquired  Advisor to Grupa Pracuj	 acquired  Advisor to the Sellers	 acquired assets of  Advisor to InHouse	 acquired majority of  Advisor to ConcealFab	 acquired  Advisor to pdv financial software	 acquired  Advisor to Vigil	 acquired  Advisor to Geniem
 acquired majority of  Advisor to Dietrich's	 acquired  Advisor to Geniem	 acquired  Advisor to SwedishNet	 acquired assets of  Advisor to q.beyond	 acquired  Advisor to GDI Software	 acquired  Advisor to tesa scribos	 acquired  Advisor to datac	 acquired  Advisor to CEMA

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A hand is shown interacting with a tablet. The tablet screen displays a grid of hexagonal icons representing various concepts like Wi-Fi, lightbulb, brain, IoT, and a bar chart. Overlaid on the screen is a block of Java code for an Android application, including methods for ViewPager, onPageChangeListener, onPageSelected, and ViewPager.OnPageChangeListener. The word 'IMAP' is written in large, white, serif font across the center of the image.

IMAP