



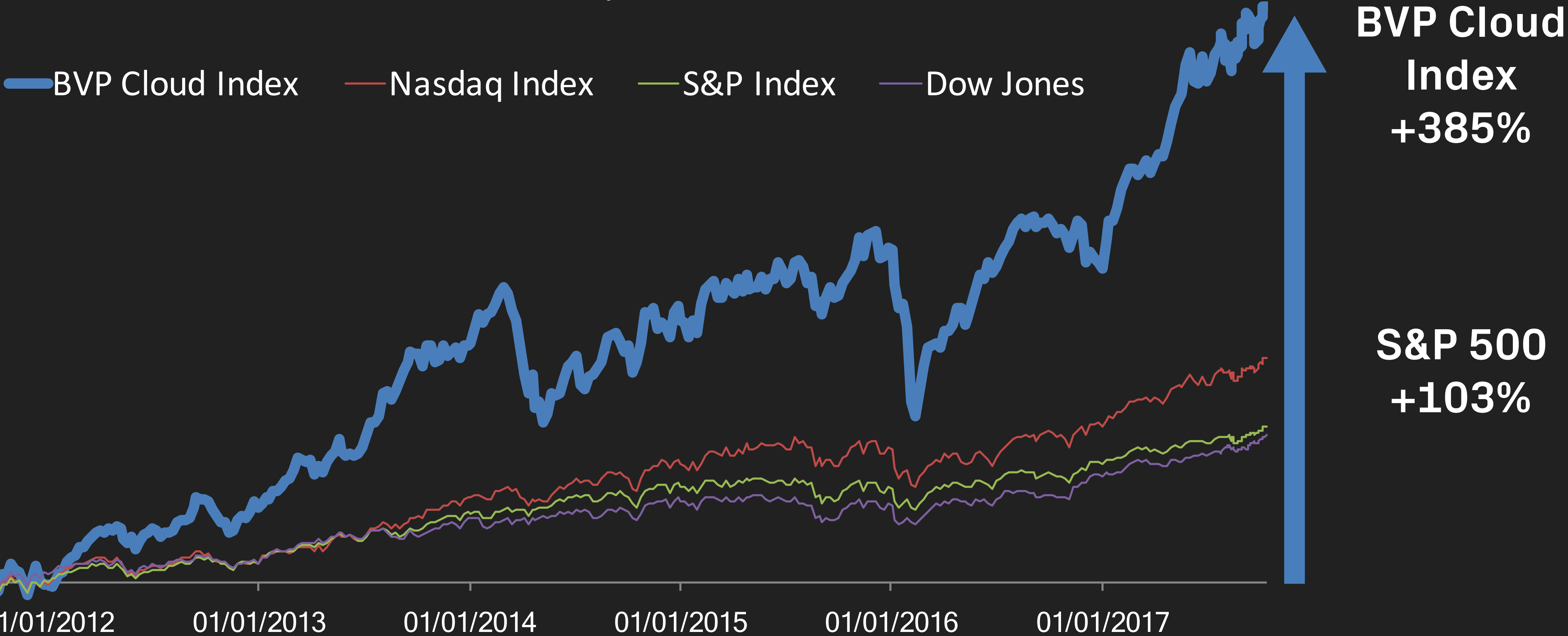
BEST IN CLASS

Lessons from Publicly Traded
Enterprise SaaS Companies

Frontline

Enterprise software stocks have been one of the best performing segments of the stock market

BVP Cloud Index
56 Publically Traded Companies
Indexed as of Jan. 2011 | @ 10/13/2017



01/01/2011 01/01/2012 01/01/2013 01/01/2014 01/01/2015 01/01/2016 01/01/2017

56 public companies represent half the value of the top 200 enterprise SaaS companies



15 are “best in class” as measured by growth, margin and capital efficiency

Large Cap
\$10b+



servicenow

Mid Cap
\$1-10b+



WIX.com

INSTRUCTURE



proofpoint



Small cap
<\$1b

workiva

“Best in Class”
criteria



YoY Revenue
Growth (17-18')



Gross margin



Growth efficiency
(growth - burn)

Our best in class companies operate in many market segments

MarTech



SMB



HR



Finance



Security



Customer Service



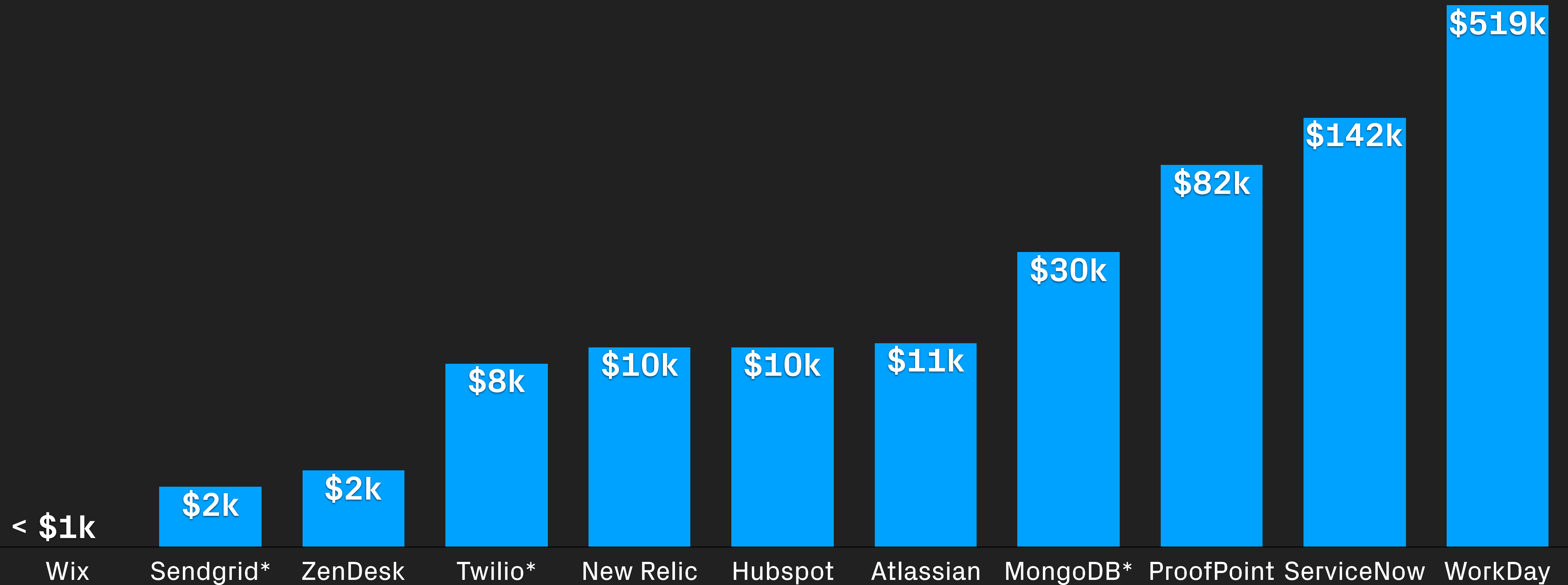
IT



Education



And sell products at a wide range of average contract values (ACV)



This presentation will explore what makes these companies successful

Company	Ticker	MarketCap	EV/Revenue		Revenue	Gross		Rev. Growth	FCF Margin	Efficiency
			2017	2018	2018	Margin	Retention	17-18	2018	Number
Atlassian	TEAM	\$9,085	11.8x	9.0x	\$946	85%	104%	32%	26%	58%
ServiceNow	NOW	\$21,980	11.2x	8.6x	\$2,488	77%	97%	31%	24%	55%
Wix	WIX	\$3,659	8.2x	6.2x	\$559	85%	-	33%	18%	51%
Proofpoint	PFPT	\$4,367	8.5x	6.7x	\$649	77%	85%	29%	19%	48%
Workday	WDAY	\$28,136	12.6x	10.1x	\$2,641	73%	99%	26%	11%	37%
Zendesk	ZEN	\$2,949	6.4x	4.9x	\$548	74%	123%	30%	5%	35%
2U	TWOU	\$2,839	9.5x	6.9x	\$391	82%	114%	38%	-3%	35%
HubSpot	HUBS	\$3,231	8.5x	6.7x	\$464	80%	83%	27%	6%	33%
New Relic	NEWR	\$2,607	7.4x	5.8x	\$414	83%	93%	28%	3%	31%
Workiva	WK	\$917	5.7x	4.4x	\$188	77%	97%	29%	2%	31%
Instructure	INST	\$872	5.4x	4.2x	\$201	73%	100%	31%	-1%	30%
Xero	XRO	\$3,506	12.5x	9.2x	\$372	78%	99%	36%	-6%	30%

Margins








Gross Margin: $\text{revenue} - \text{cost of delivering service (hosting costs, customer on-boarding costs, customer service costs, payment related fees and software licenses or data fees)} / \text{revenue}$

FCF Margin: $\text{cash flow from operating actives} / \text{net sales}$

Efficiency number: $\% \text{ YoY growth} + \% \text{ FCF margin (burn)}$

Source: [Gross Margin and SaaS](#)

Are big margins are required to build big companies? These “lower margin” SaaS companies below didn’t make our best in class list

Gross Margin	53%	55%	57%	62%	64%	65%	65%
							
Market Cap	\$9.6b	\$2.8b	\$1.6b	\$3.4b	\$5.7b	\$1.9b	\$2b

Case study: Ultimate Software. 62% Gross margin, 16% of revenue from services, 11% FCF margin, \$5.7b market cap

For the Years Ended December 31,

	2016	2015	2014
(in thousands, except per share data)			
Revenues:			
Recurring.....	\$ 654,199	\$ 516,400	\$ 419,771
Services	127,092	101,681	86,165
Total revenues	781,291	618,081	505,936
Cost of revenues:			
Recurring.....	172,676	138,587	117,700
Services	127,433	99,948	85,939
Total cost of revenues	300,109	238,535	203,639
Gross profit	481,182	379,546	302,297
Operating expenses:			
Sales and marketing	224,416	169,664	117,033
Research and development.....	120,650	93,671	83,542
General and administrative	94,432	72,893	47,379
Total operating expenses.....	439,498	336,228	247,954
Operating income	41,684	43,318	54,343
Other (expense) income:			
Interest expense and other, net	(717)	(491)	(353)
Other income, net.....	451	256	339
Total other expense, net	(266)	(235)	(14)
Income before income taxes	41,418	43,083	54,329
Provision for income taxes.....	(11,165)	(20,384)	(9,592)
Net income	\$ 30,253	\$ 22,699	\$ 44,737

GM = 62%

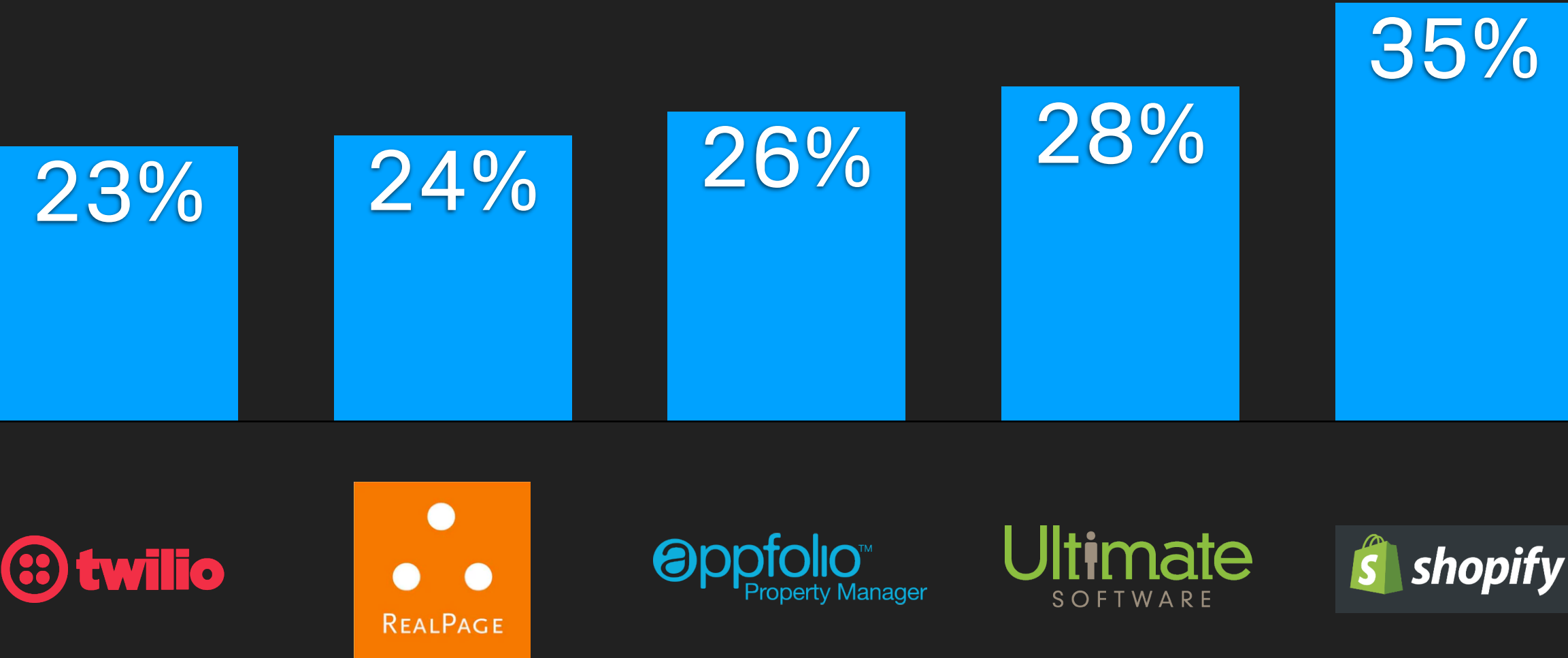
**Services = 16%
of revenues**

**28% S&M as a
% of Revenue**

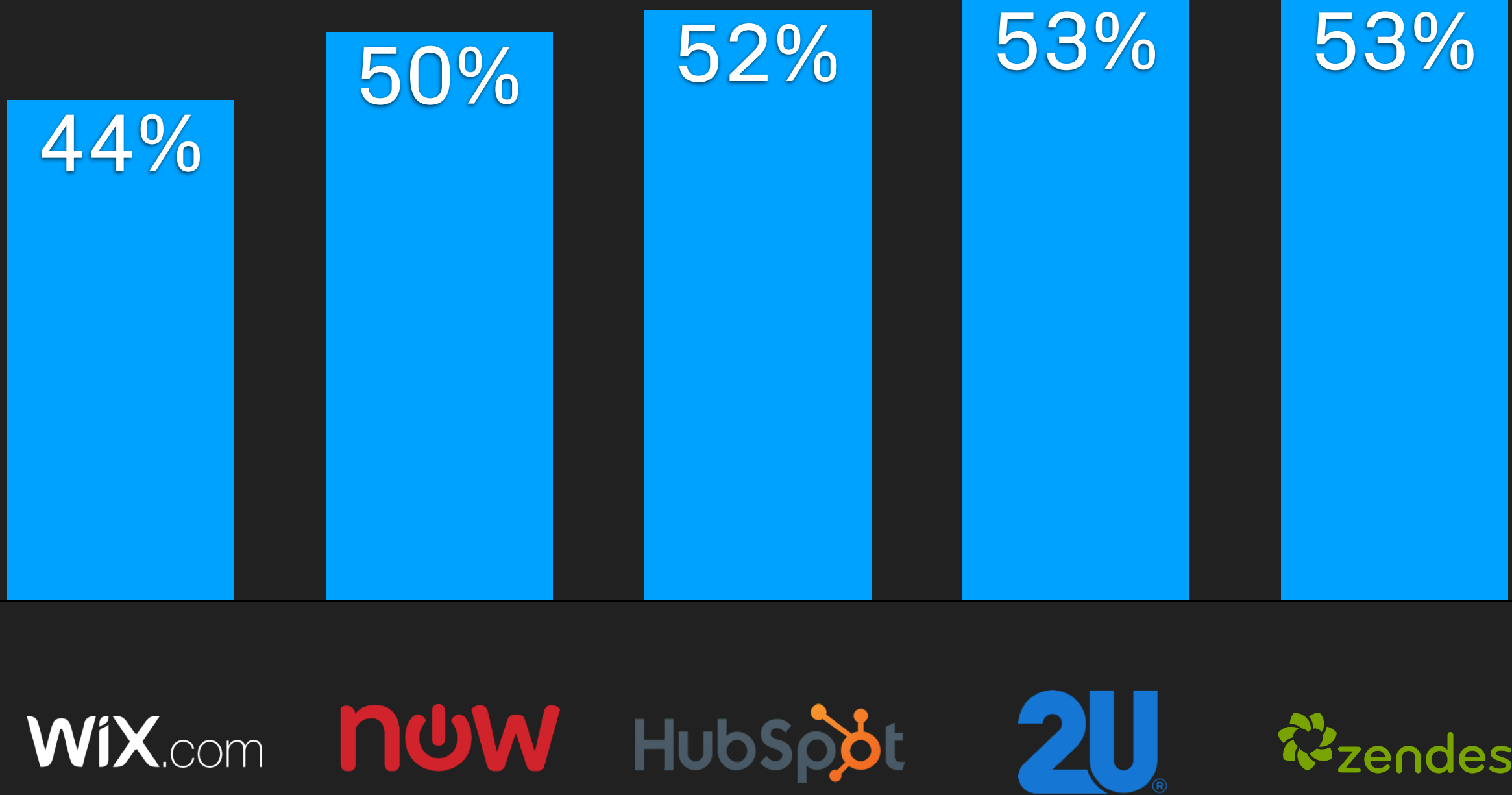
**15% R&D as a
% of Revenue**

Our “lower margin” group sales and marketing costs compare favourably to our “best in class group”, with a few exceptions

Sales and marketing costs as a % of revenue, companies with <65% gross margin



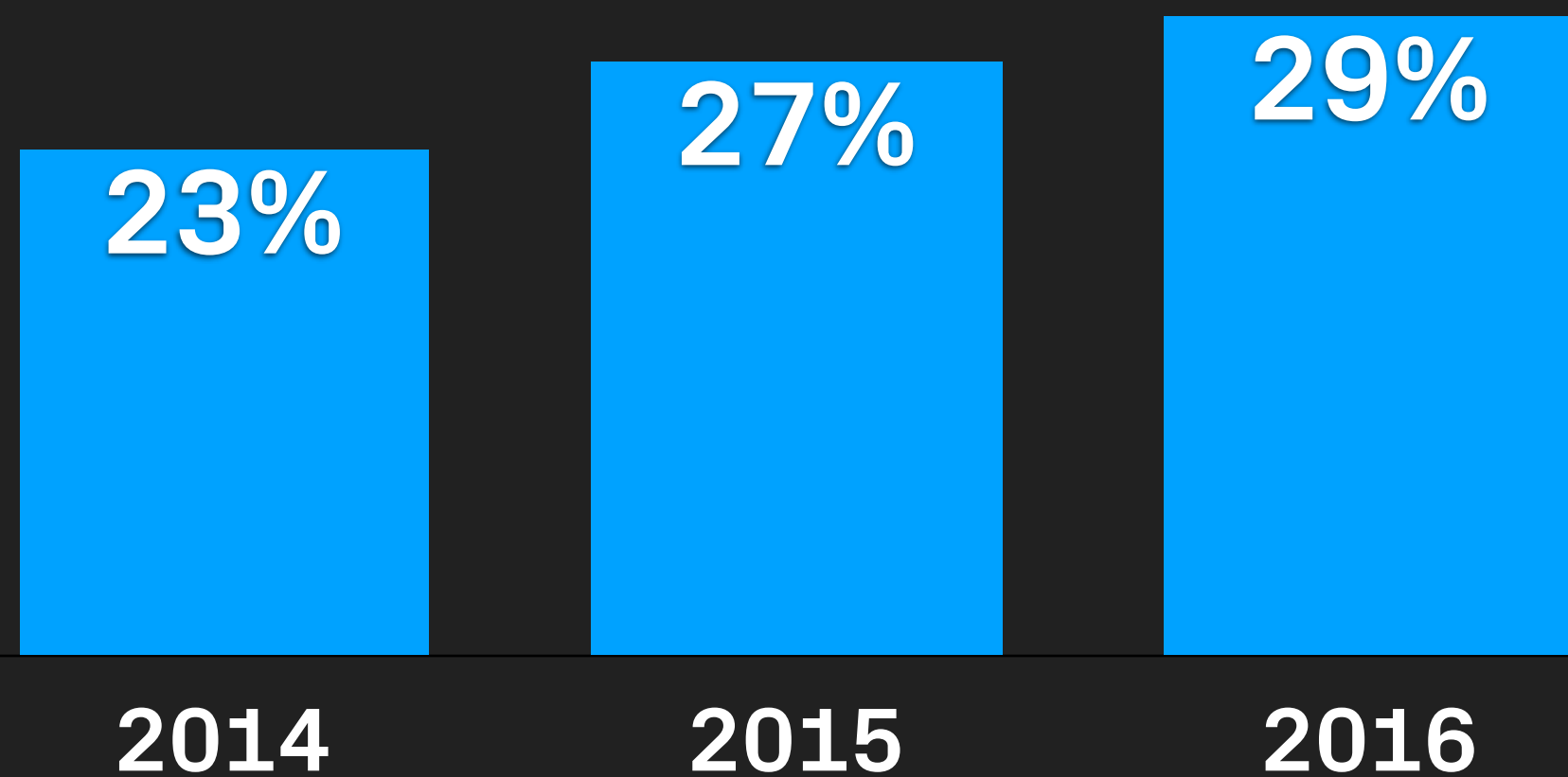
Sales and marketing costs as a % of revenue, companies with 70%+ gross margin



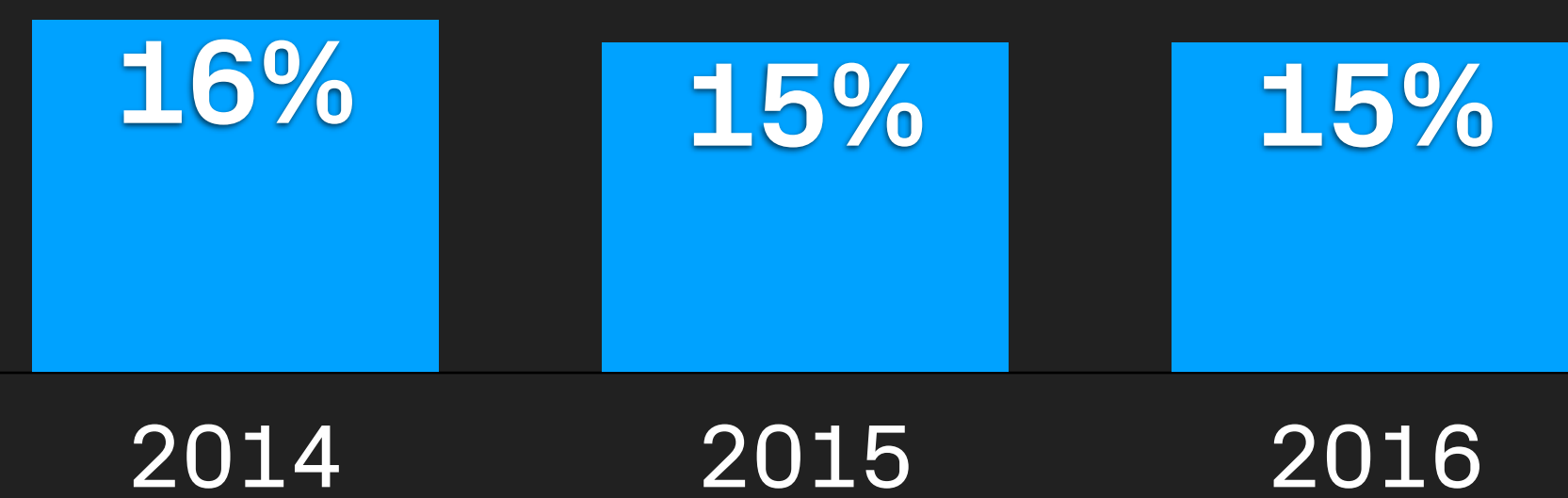
Ultimate software has a low sales cost relative to our best in class group, but is becoming less efficient in recent years

Ultimate is showing a reduction in sales efficiency

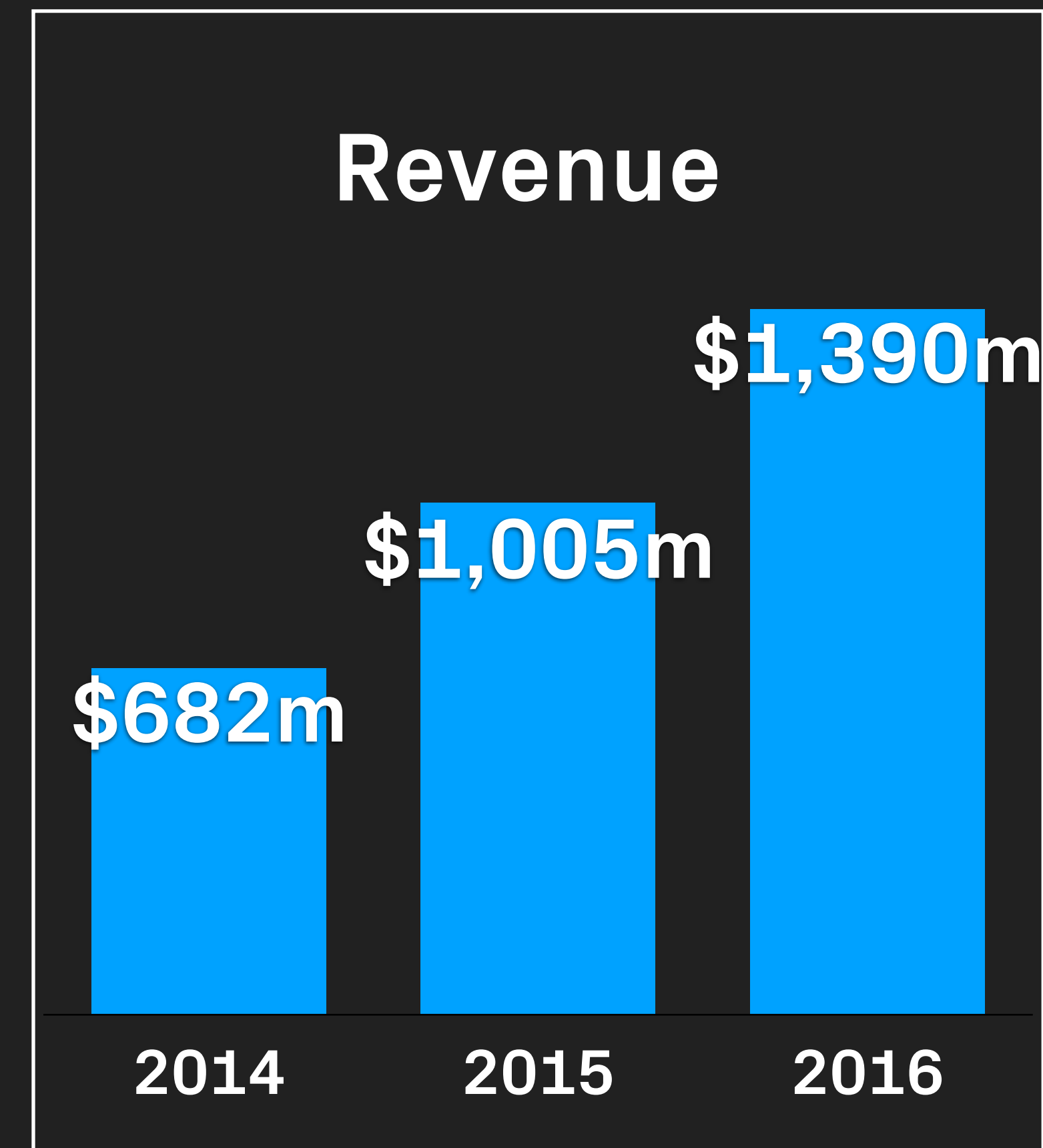
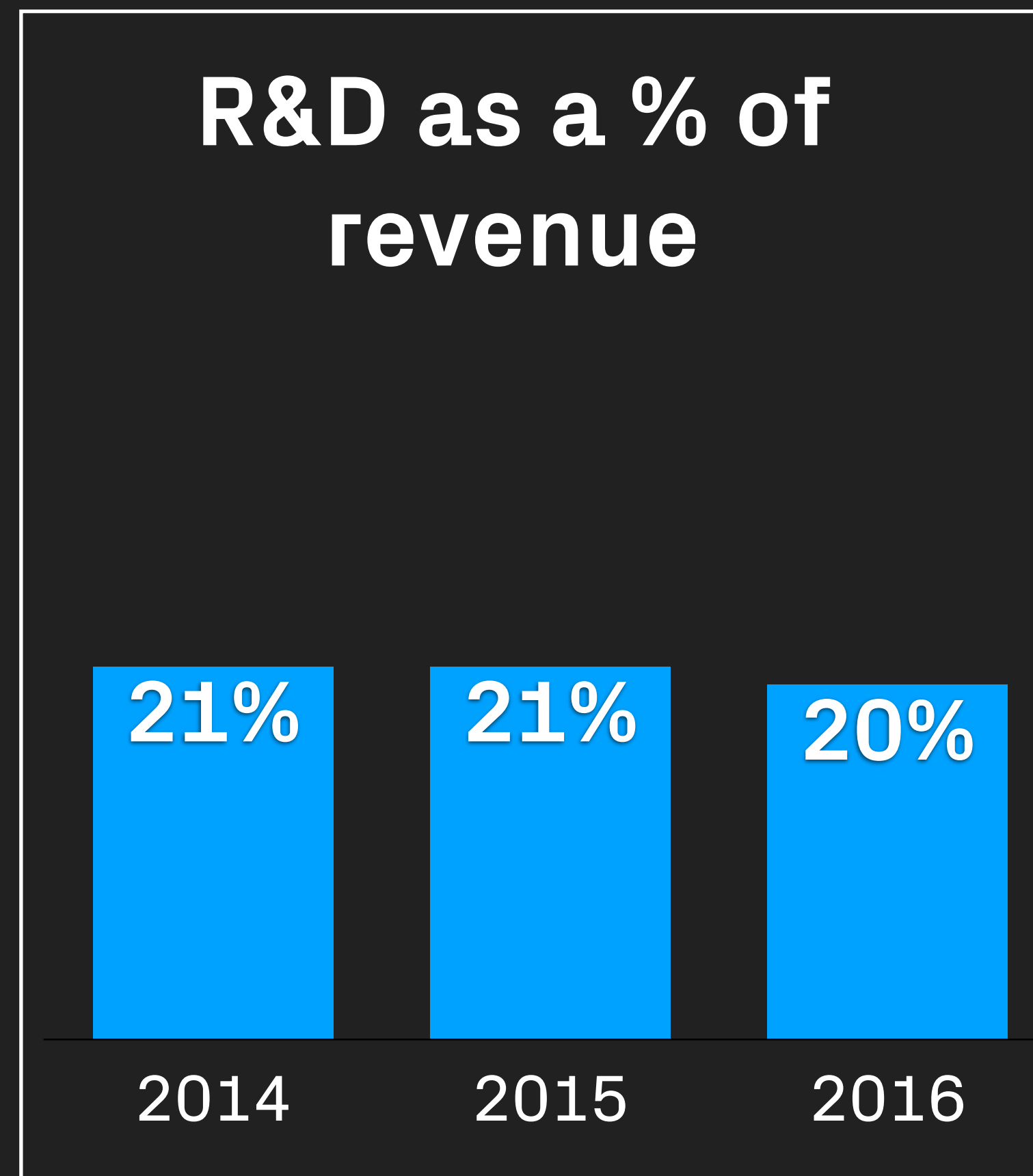
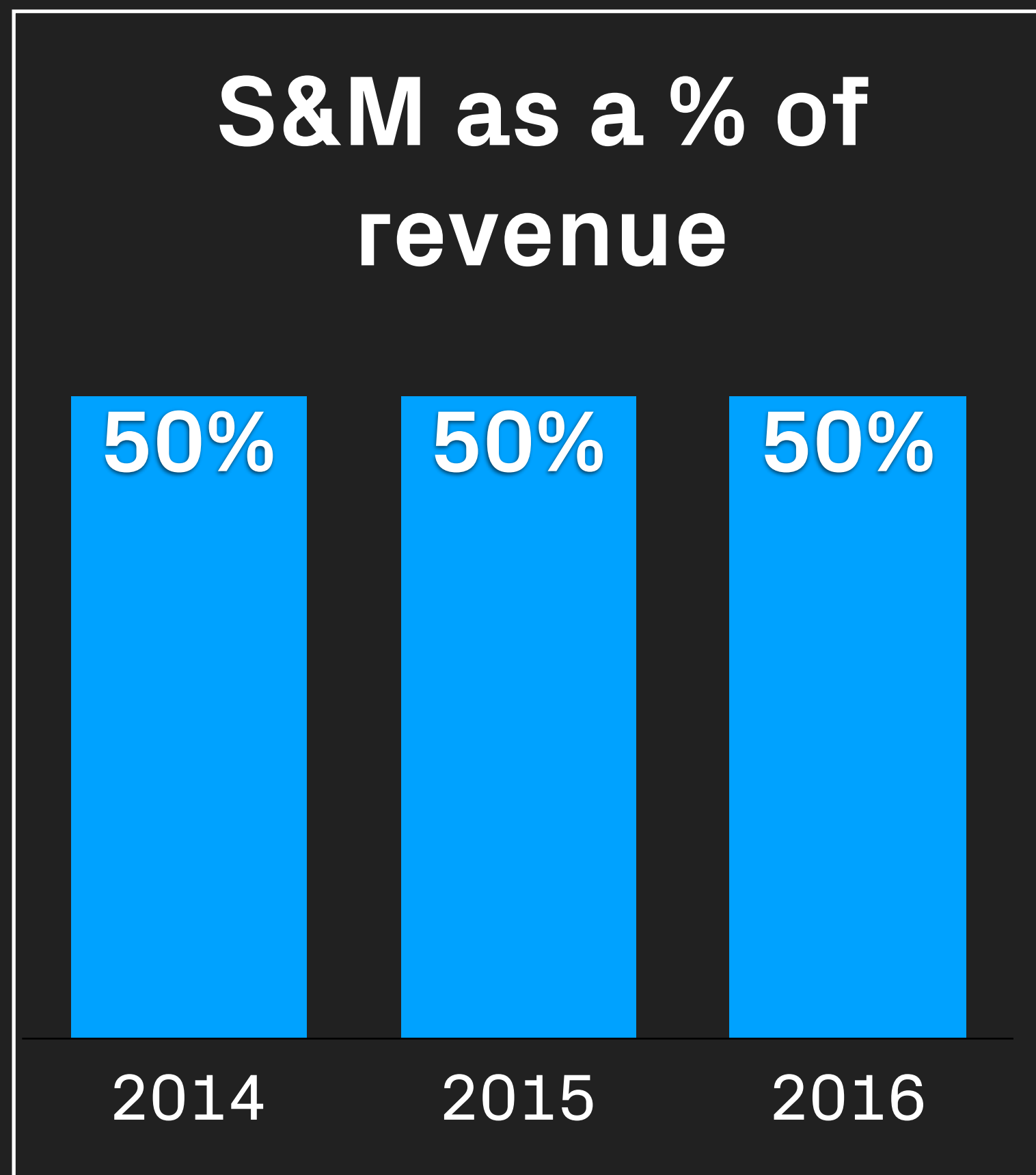
S&M as a % of revenue



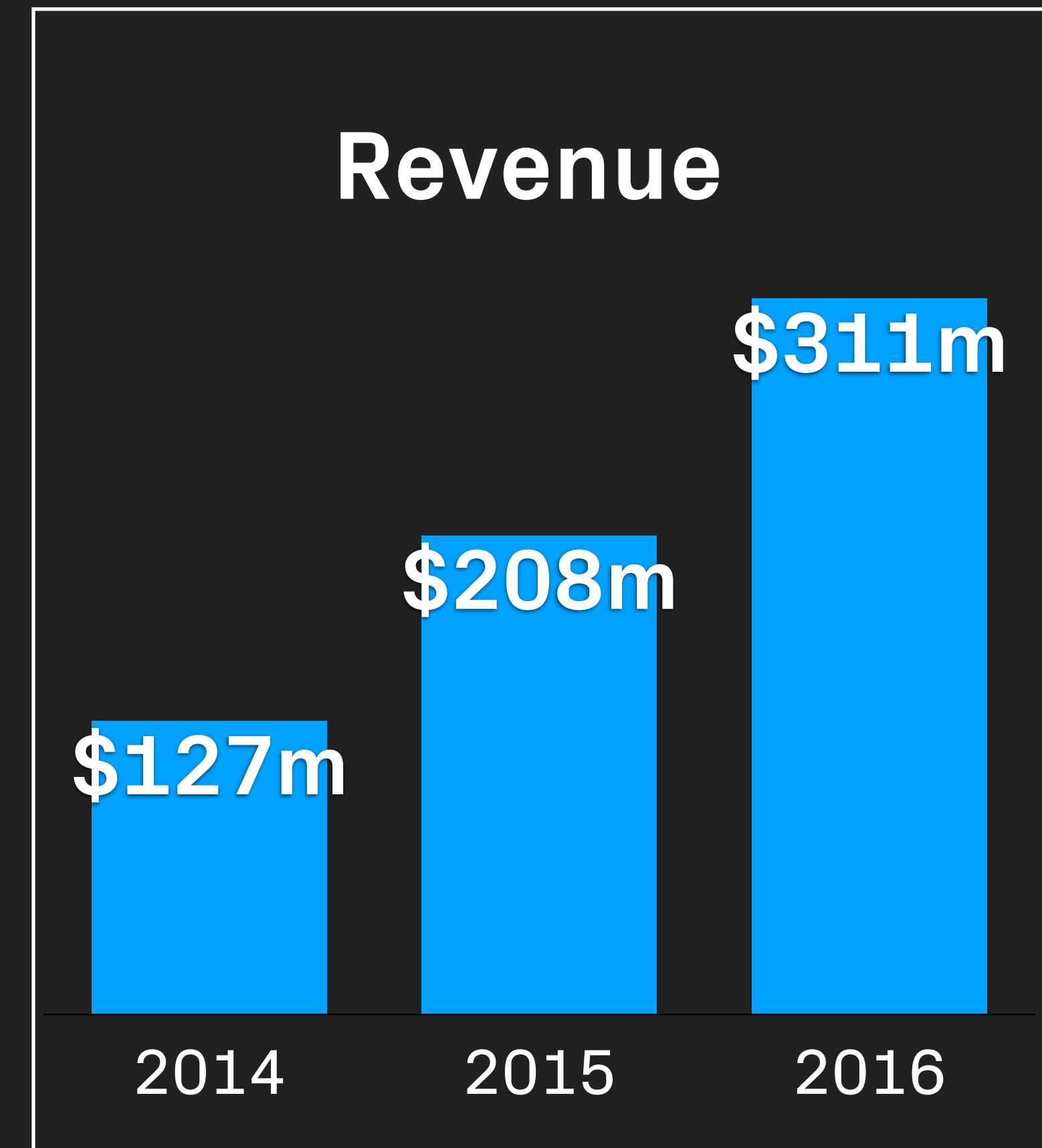
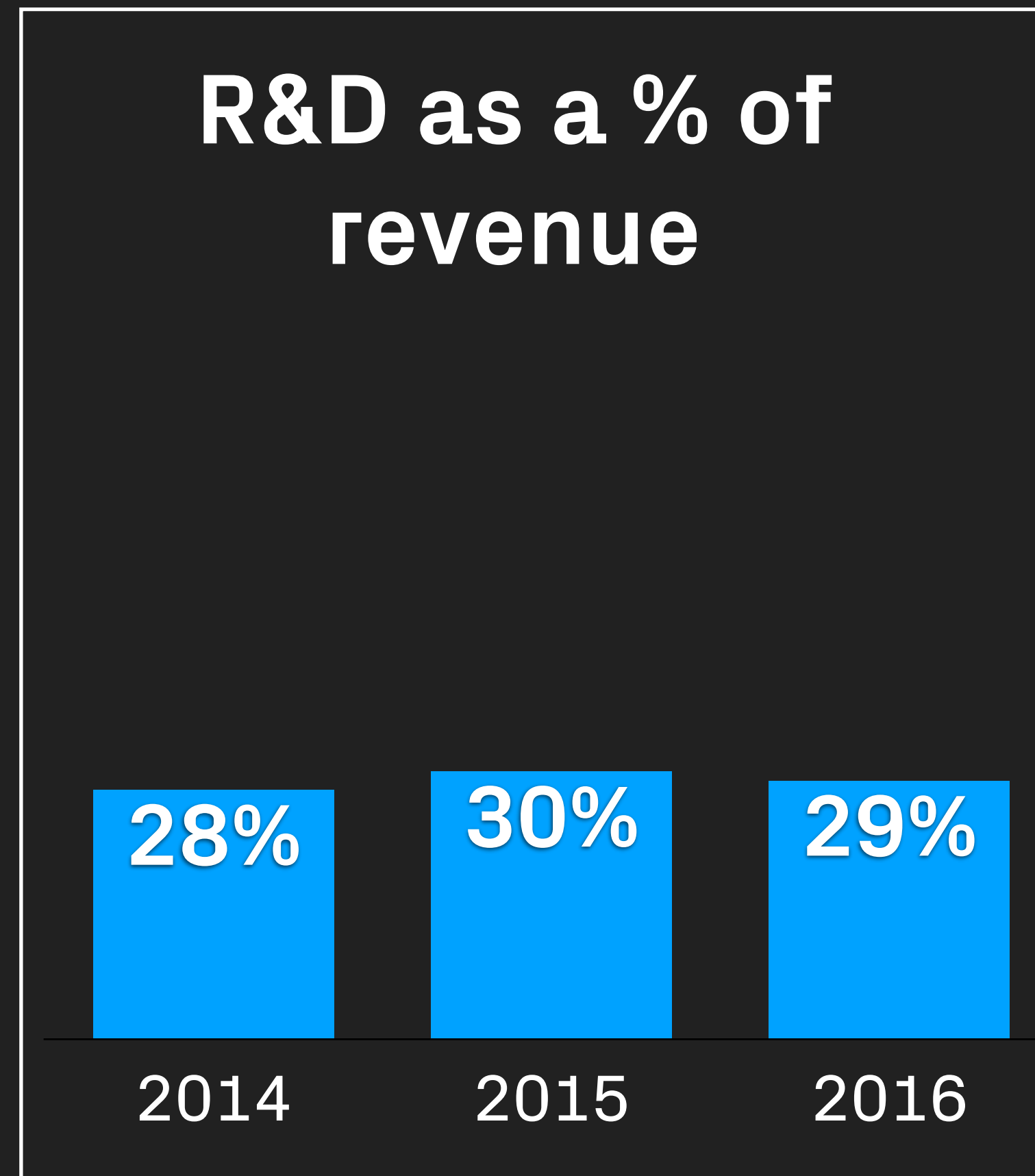
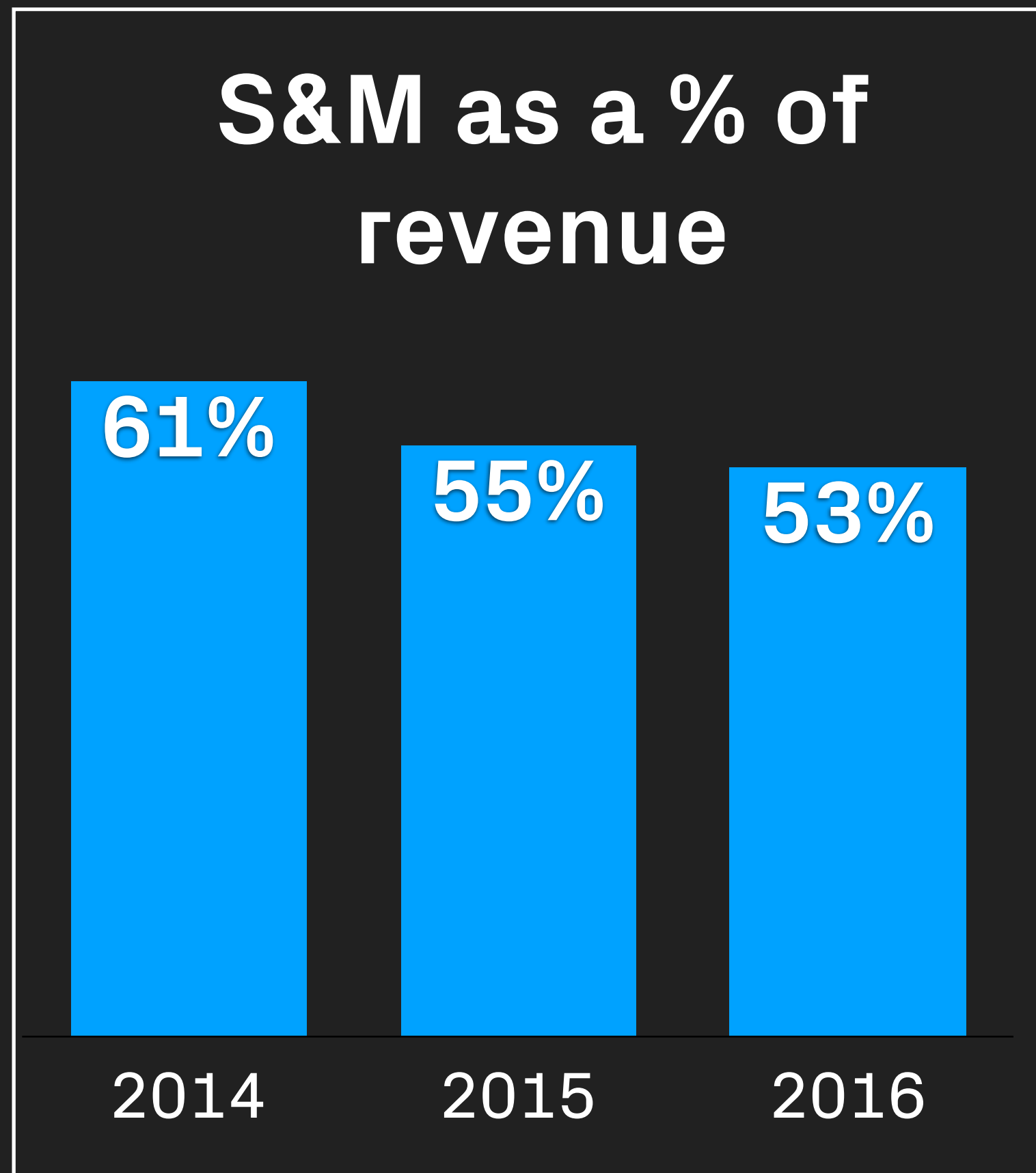
R&D as a % of revenue



ServiceNow manages sales cost during period of tremendous revenue growth

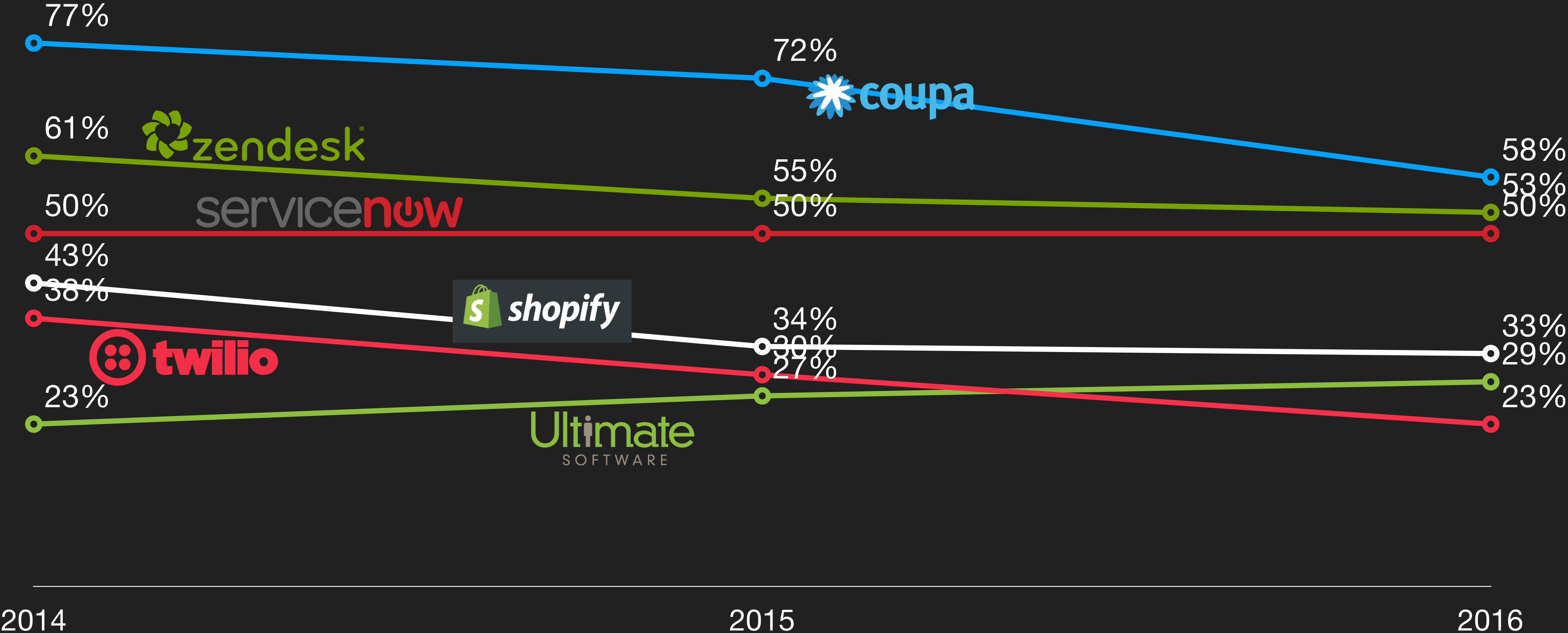


Zendesk showing increasing sales efficiency as the business grows

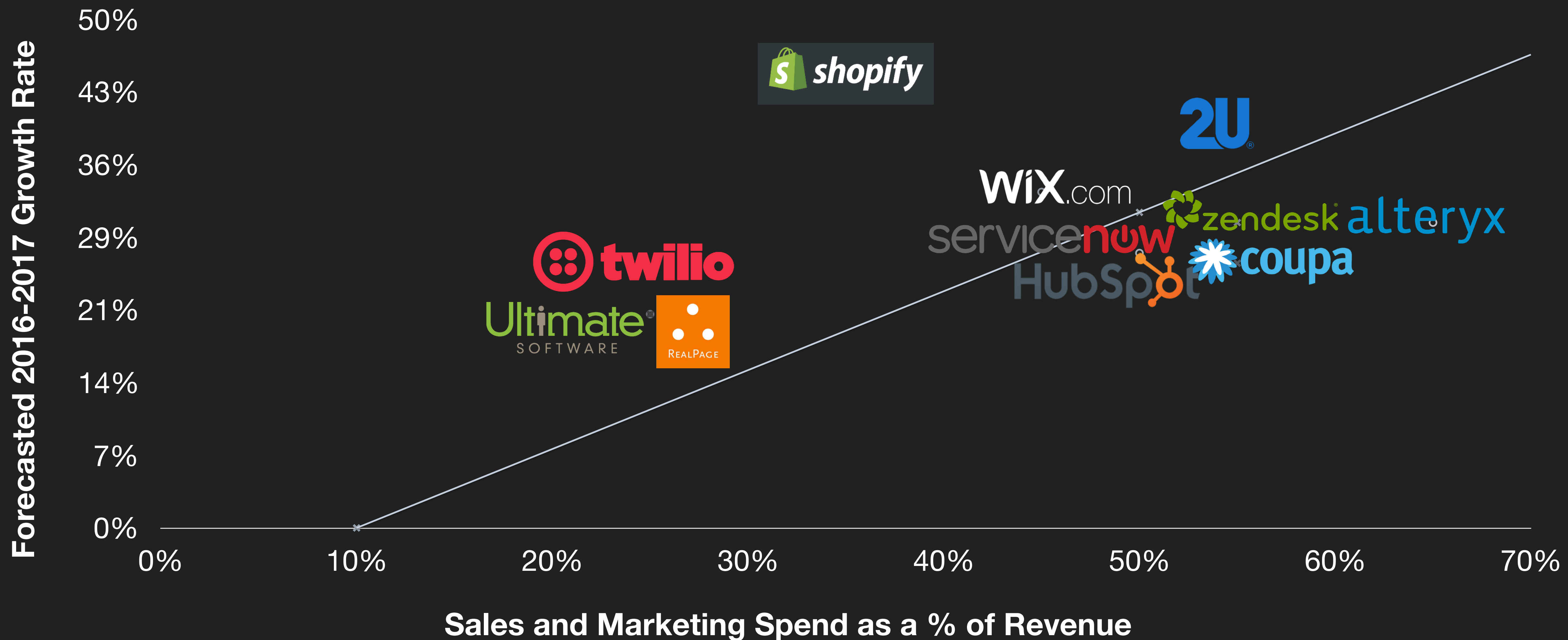


Sales efficiency over time may be a leading indicator of performance

S&M as a % of revenue

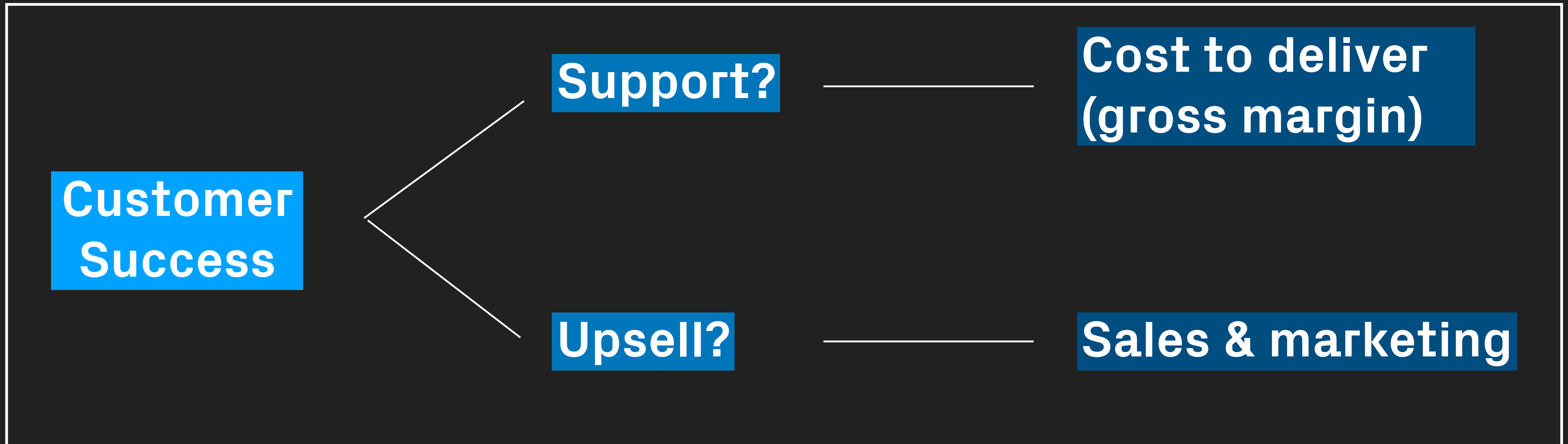


Sales and marketing spend vs 2016-17 forecasted revenue growth rate



There is debate in the accounting community on how customer success should be accounted for

And may also be impacted by legacy accounting



How can this be tracked accurately?

Should high gross margin (80%+) be an investment criteria for venture investing?

A companies high sales and marketing costs should be viewed in context of growth rate

Are high cogs interfering with the ability to scale the busienss?

How does growth compare to other business with similar S&M spend ratios?

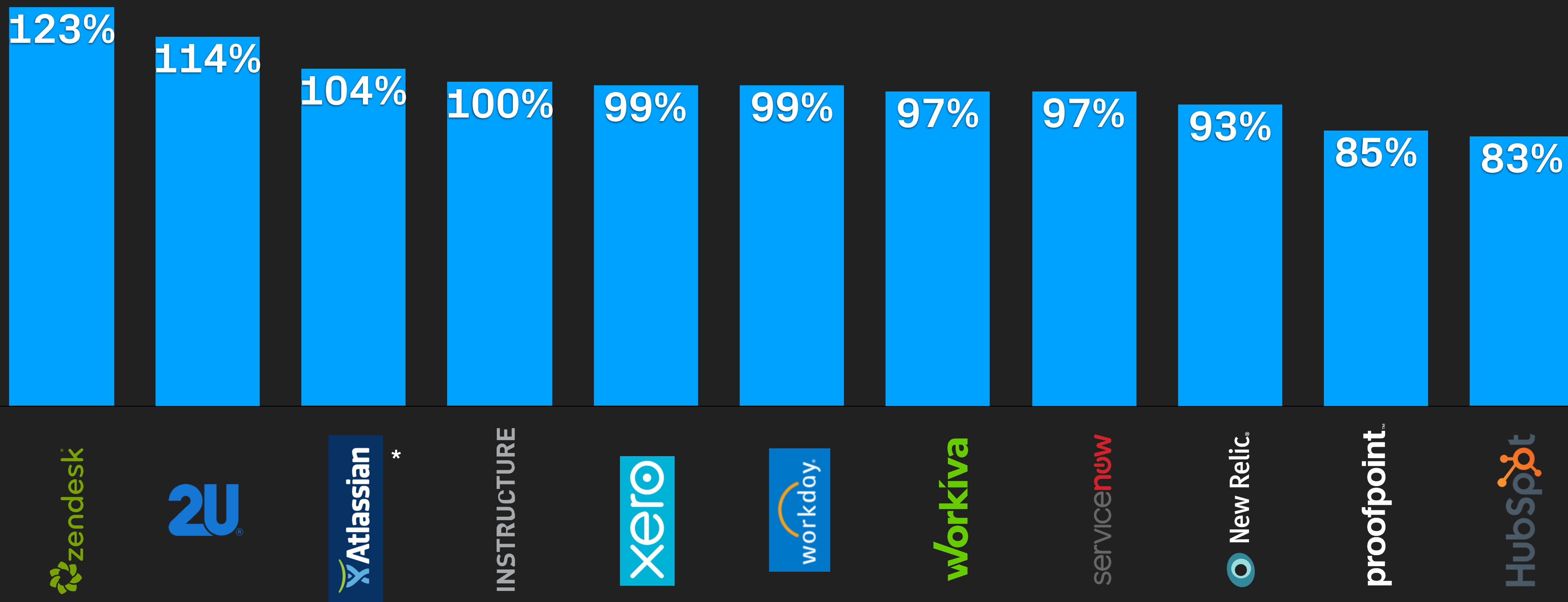
Low gross margin, high sales and marketing costs = low capital efficiency

What does S&M spend tell us about CAC payback time?

Retention

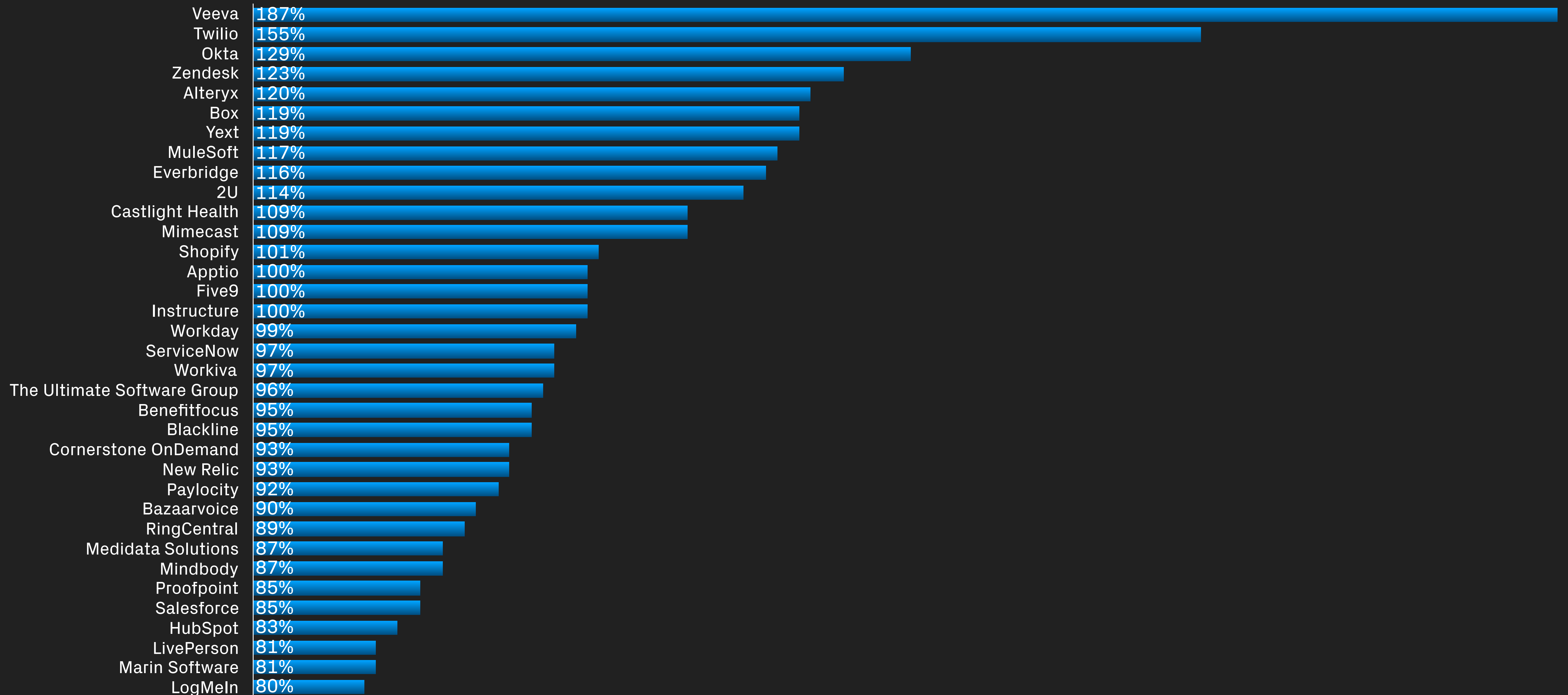
How important is retention for building big companies? Our average best in class company has 99% net revenue retention

Net revenue retention



*Atlassian is an estimate based on IPO data and churn in enterprise sales

As a matter of fact, no public enterprise SaaS company reports retention lower than 80%*



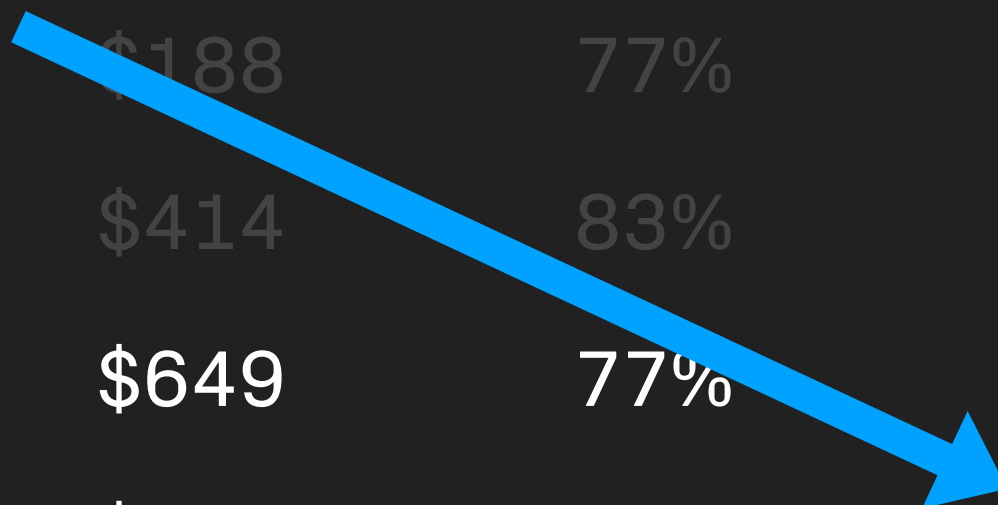
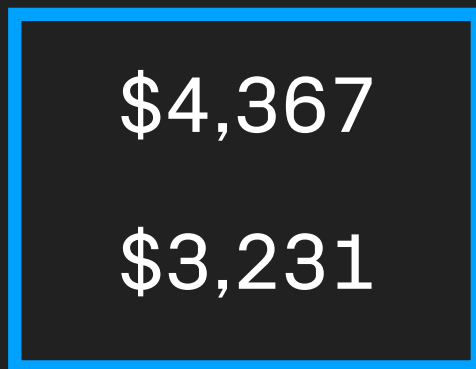
Will high churn from ProofPoint and Hubspot prevent them from becoming \$10b+ busienssese?

Company	Ticker	MarketCap	EV/Revenue		Revenue	Gross		Rev. Growth	FCF Margin	Efficiency
			2017	2018	2018	Margin	Retention	17-18	2018	Number
Zendesk	ZEN	\$2,949	6.4x	4.9x	\$548	74%	123%	30%	5%	35%
2U	TWOU	\$2,839	9.5x	6.9x	\$391	82%	114%	38%	-3%	35%
Wix	WIX	\$3,659	8.2x	6.2x	\$559	85%	110%*	33%	18%	51%
Atlassian	TEAM	\$9,085	11.8x	9.0x	\$946	85%	104%	32%	26%	58%
Instructure	INST	\$872	5.4x	4.2x	\$201	73%	100%	31%	-1%	30%
Xero	XRO	\$3,506	12.5x	9.5x	\$282	78%	99%	30%	11%	39%
Workday	WDAY	\$28,136	12.6x	10.1x	\$2,641	73%	99%	26%	11%	37%
ServiceNow	NOW	\$21,980	11.2x	9.8x	\$2,488	77%	97%	31%	24%	55%
Workiva	WK	\$917	5.7x	4.4x	\$188	77%	97%	29%	2%	31%
New Relic	NEWR	\$1,607	7.4x	5.8x	\$414	83%	93%	28%	3%	31%
Proofpoint	PFPT	\$4,367	8.5x	6.7x	\$649	77%	85%	29%	19%	48%
HubSpot	HUBS	\$3,231	8.5x	6.7x	\$464	80%	83%	27%	6%	33%

Can these mid cap companies grow to \$10b+ with this level of churn?

Hubspots product becomes more expensive based on # of contacts added to the system (which is always increasing.) Are customers leaving as it becomes to expensive?

Why is ProofPoints enterprise e-mail security systems experiencing high churn?



Team

A surprising number (85%) of our best in class companies are founder lead

Company	Founder Lead?	MarketCap	EV/Revenue		Revenue	Gross	Rev. Growth	FCF Margin	Efficiency	
			2017	2018	2018	Margin	Retention	17-18	2018	Number
Atlassian	Yes	\$9,085	11.8x	9.0x	\$946	85%	NA	32%	26%	58%
ServiceNow	Yes*	\$21,980	11.2x	8.8x	\$1,099	77%	97%	31%	24%	55%
Wix	Yes	\$3,659	8.2x	6.2x	\$559	85%	NA	33%	18%	51%
Proofpoint	No	\$4,367	8.5x	6.7x	\$649	77%	85%	29%	19%	48%
Workday	Yes	\$28,136	12.6x	10.1x	\$2,641	73%	99%	26%	11%	37%
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Workiva	Yes	\$917	5.7x	4.4x	\$188	77%	97%	29%	2%	31%
Instructure	No	\$872	5.4x	4.2x	\$201	73%	100%	31%	-1%	30%
Xero	Yes	\$3,506	12.5x	9.2x	\$372	78%	NA	36%	-6%	30%

← **Founder was CEO up until this year where moved into CPO position**

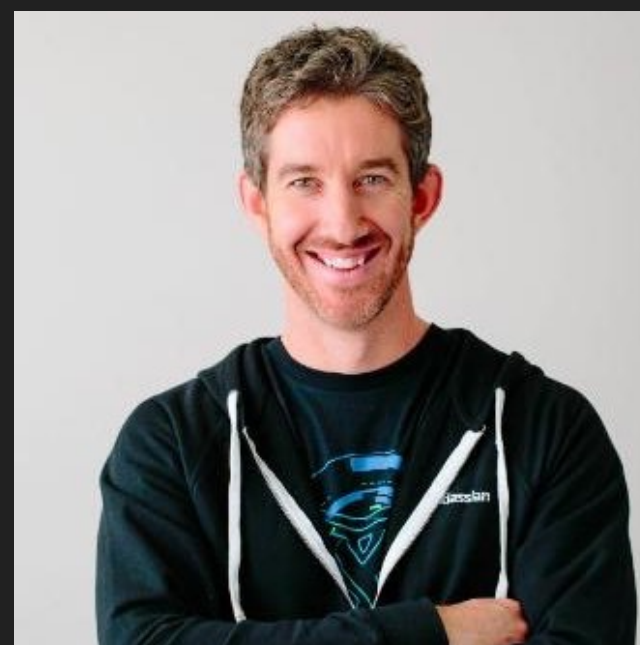
Product lead companies are founded by people with a background in startups/product, vs traditional enterprise



**CEO co-founder
Atlassian (2002 - current)**

**Tech Director, Asia Pacific
Juniper Media (2 years)**

University New South Wales



**CEO co-founder
Atlassian (2002 - current)**

**RedBallon, Director
(1 year 4 months)**

University New South Wales

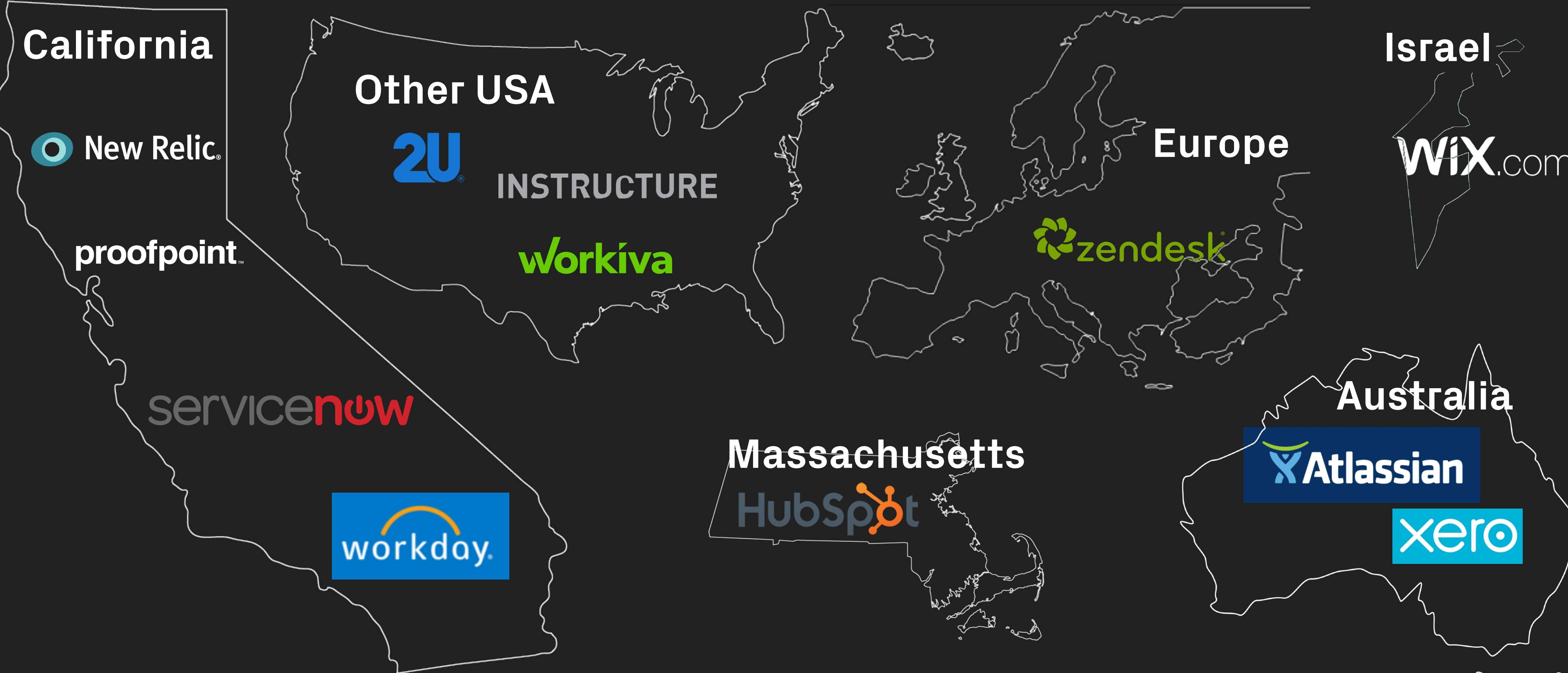


**CEO co-founder
Wix (2006 current)**

**Co-Founder, Product marketing
Sphera Corp**

**Co-Founder, CTO
AIT**

Of our best in class group, 33% are in California, 66% are in the USA. All non-USA companies are self-serve products.



Distribution models

In our group of best in class companies 7/13 offer freemium or self service options

			Revenue	Gross		Rev. Growth	FCF Margin	Efficiency
Company	MarketCap	EV	2018	Margin	Retention	17-18	2018	Number
Atlassian	\$9,085	\$8,535	\$946	85%	NA	32%	26%	58%
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Proofpoint	\$4,367	\$4,315	\$649	77%	85%	29%	19%	48%
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Xero	\$3,506	\$3,420	\$372	78%	NA	36%	-6%	30%

As do a number of recent IPOs



cloudera



Case Study: Atlassian

High capital efficiency

Founder lead

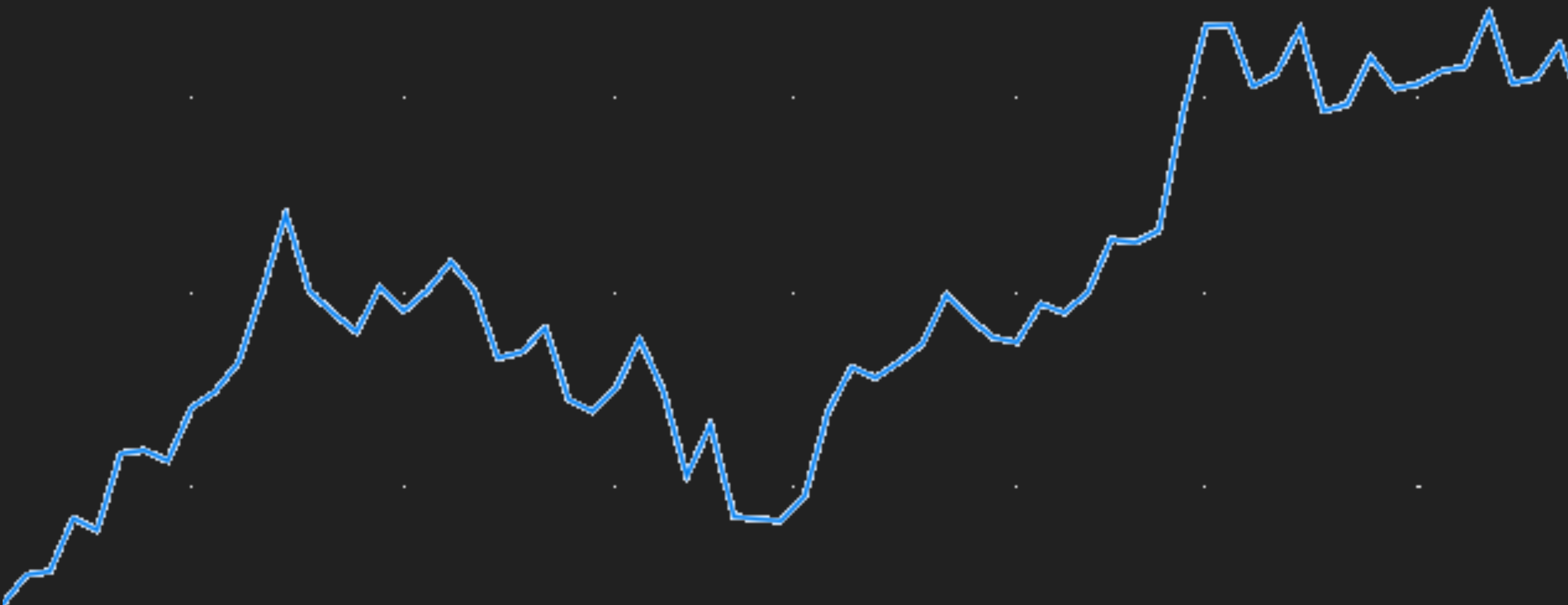
High gross margin

\$10,500 average ACV

97% self serve

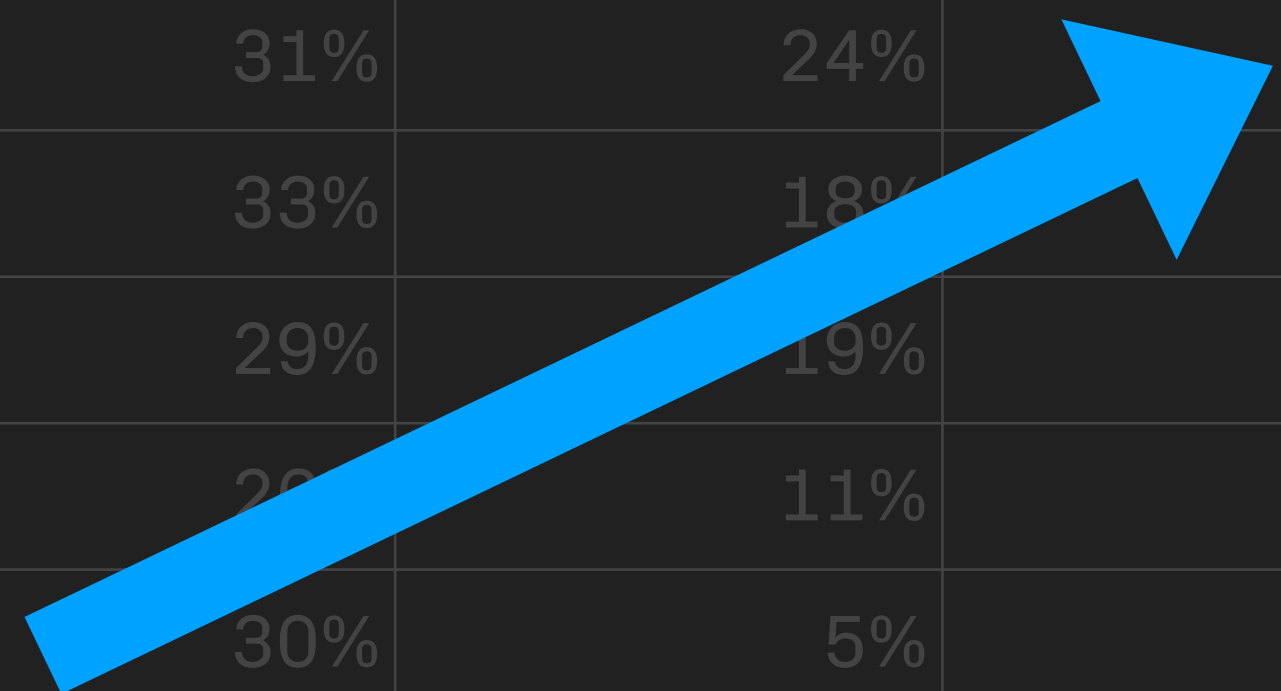
Selling globally

Low S&M, high R&D



In our study of best in class enterprise SaaS companies, Atlassian ranks the highest in capital efficiency (YoY growth + FCF margin)

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Five9	\$1,342	\$1,302	\$128	72%	100%	26%	6%	32%
New Relic	\$2,607	\$2,401	\$414	83%	93%	28%	3%	31%
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Xero	\$3,506	\$3,420	\$372	78%	NA	36%	-6%	30%



They do it by offering a products that are 97% self serve

WE OPTIMIZE FOR CUSTOMER SELF-SERVICE

- All pricing online
- All products free to try
- No forms or gates
- No custom contracts
- No hidden pricing
- All purchasing is simple



Product Advocates

3% OPT-IN



"How can I help you?"

WEBINARS

CONTACT US FORM

EMAIL DRIP

IN-PRODUCT CHAT

97% SELF SERVICE

LEARN

TRY

BUY

Just 2% of Atlassian's customers are \$50k+ accounts

90,000 customers

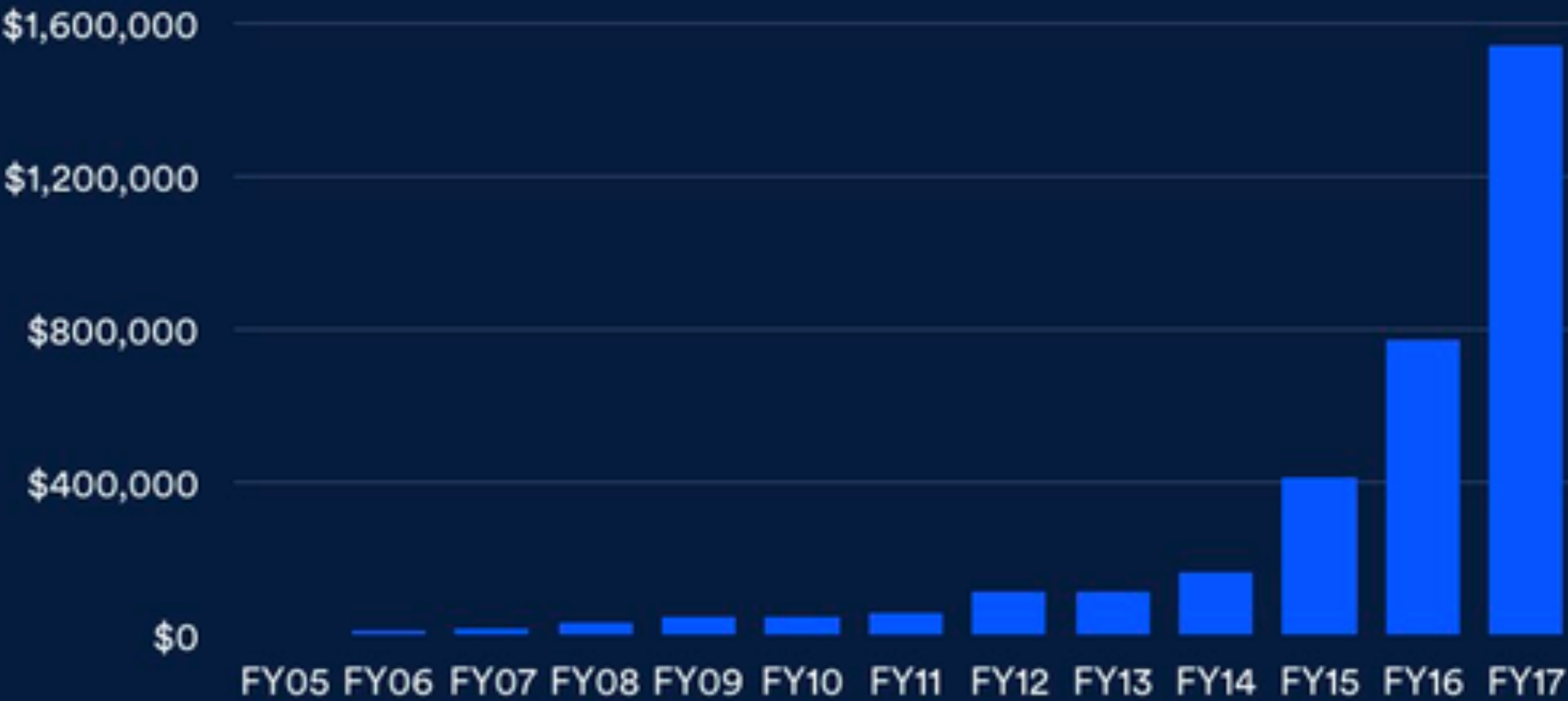
average basket size \$10,500

2% of total customers are \$50k+ ACV

FISCAL YEAR	\$50K+	\$500K+
FY2015	864	14
FY2016	1,245	37
FY2017	1,817	75

Atlassian lands and expands. The average revenue churn is $\pm 109\%$ across Atlassian (at IPO), 98% for enterprise clients

GLOBAL CONSULTING FIRM



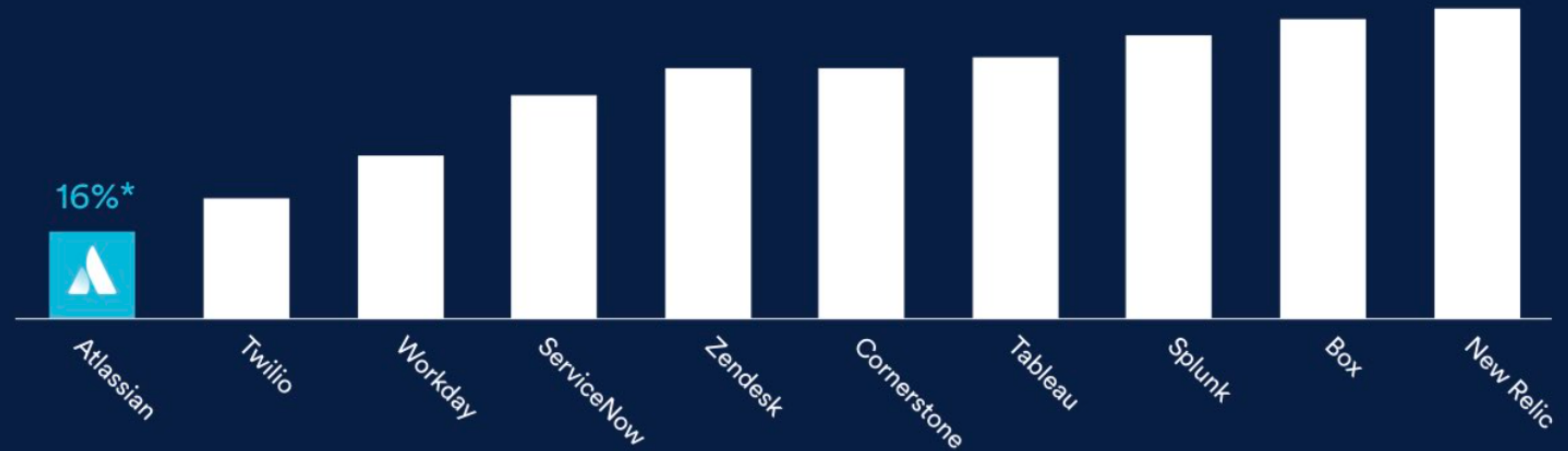
LARGE TECHNOLOGY COMPANY



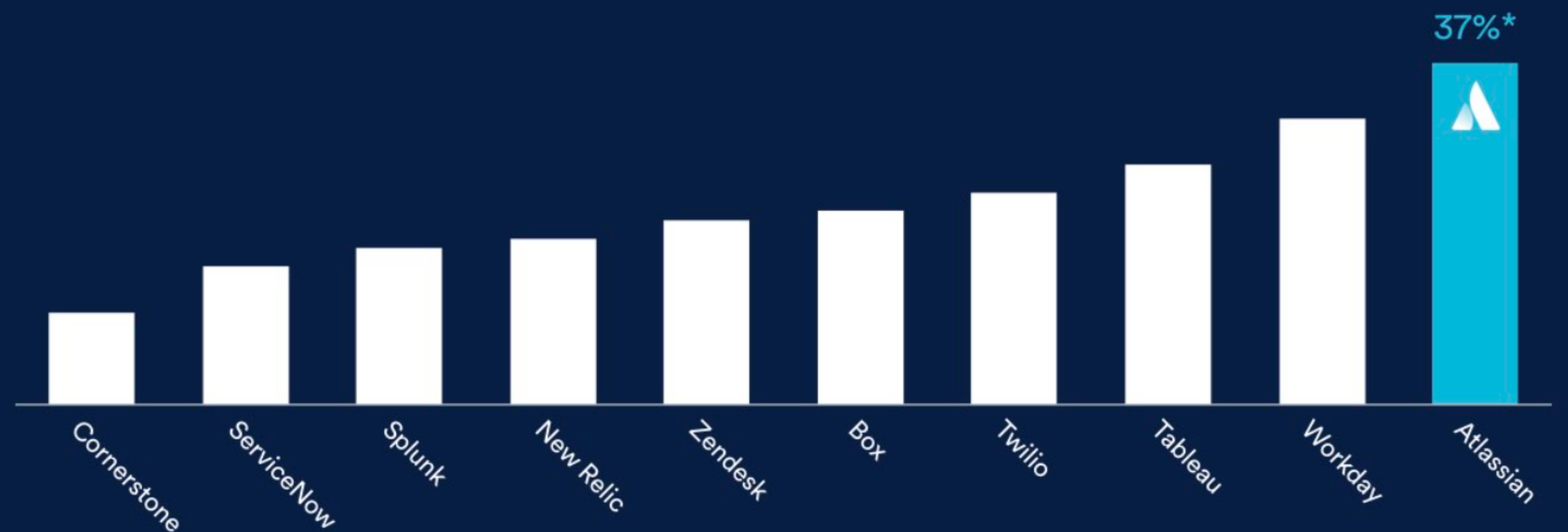
While others invest in sales and marketing, Atlassian invests in research and development

UNIQUE MODEL DRIVES COMPETITIVE ADVANTAGE

S&M
as % of revenue



R&D
as % of revenue



Acquiring customers mostly via organic direct sales, and partner sales in non-english speaking countries

CHANNEL MIX



DIRECT / INDIRECT (FY17)

● Direct Revenue ● Channel Revenue

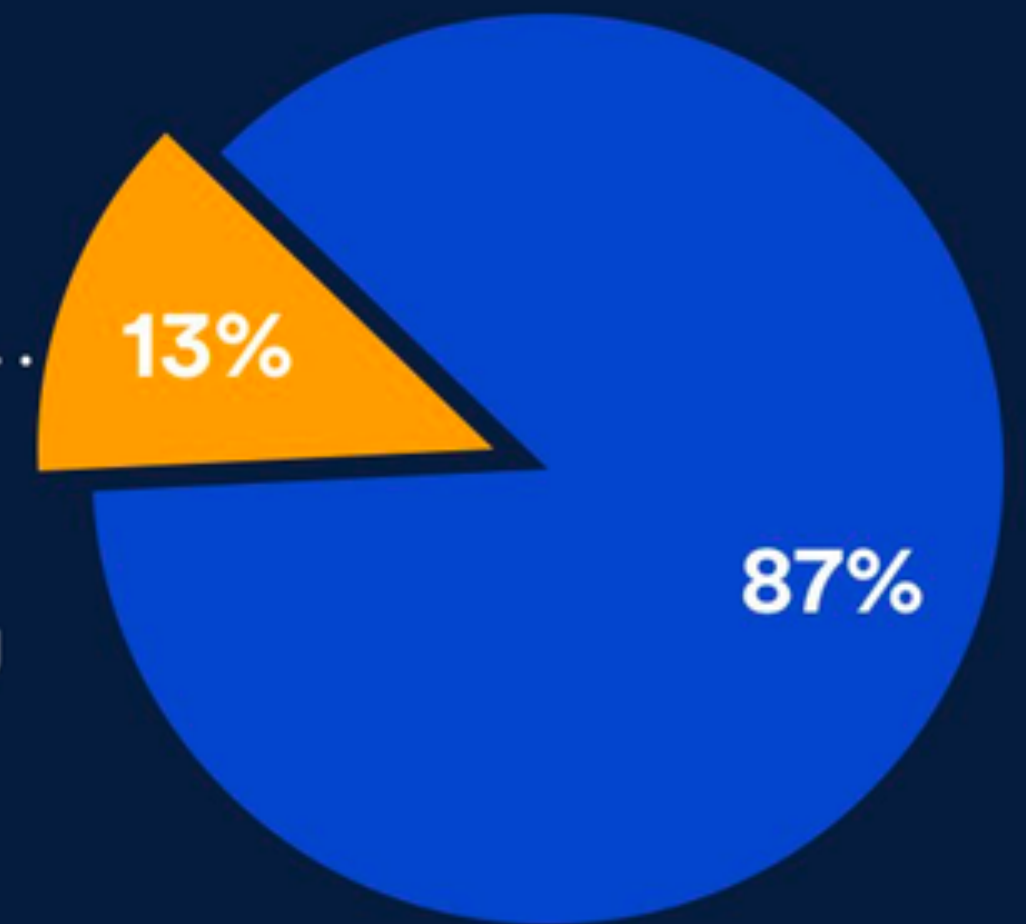
America's account for 1/3 of sales



CHANNEL SALES BY GEO (FY17)

● Americas ● APAC ● EMEA

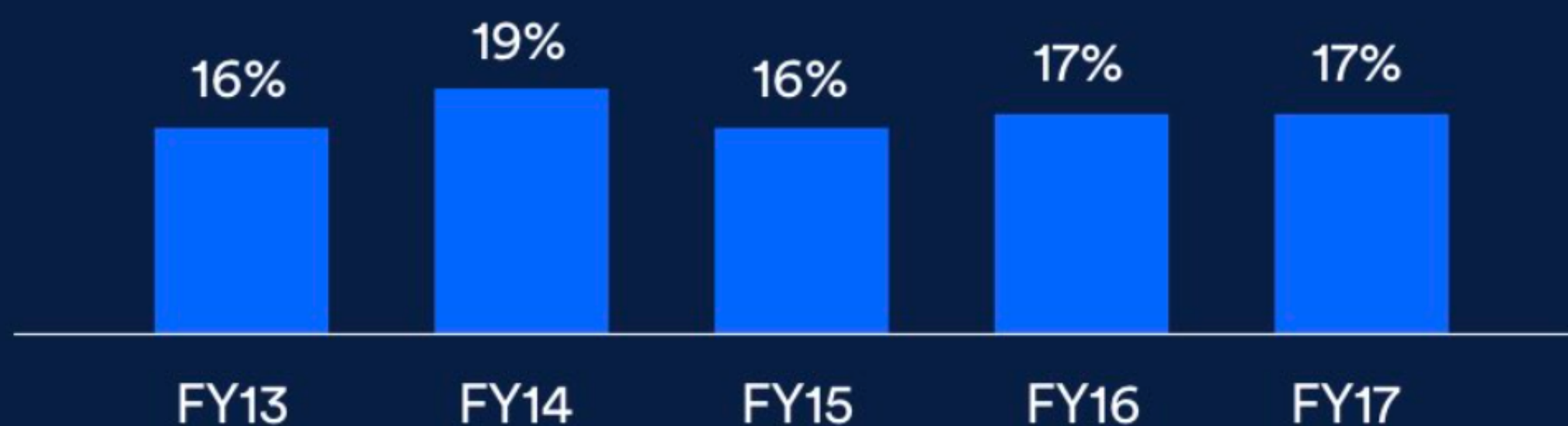
PAID
SEM
Display
Retargeting
Social



ORGANIC
Branded Search
Word-of-mouth
Community
Customer comms

Real magic is a highly cost efficient model allows for free cash flow generation and acquisitions

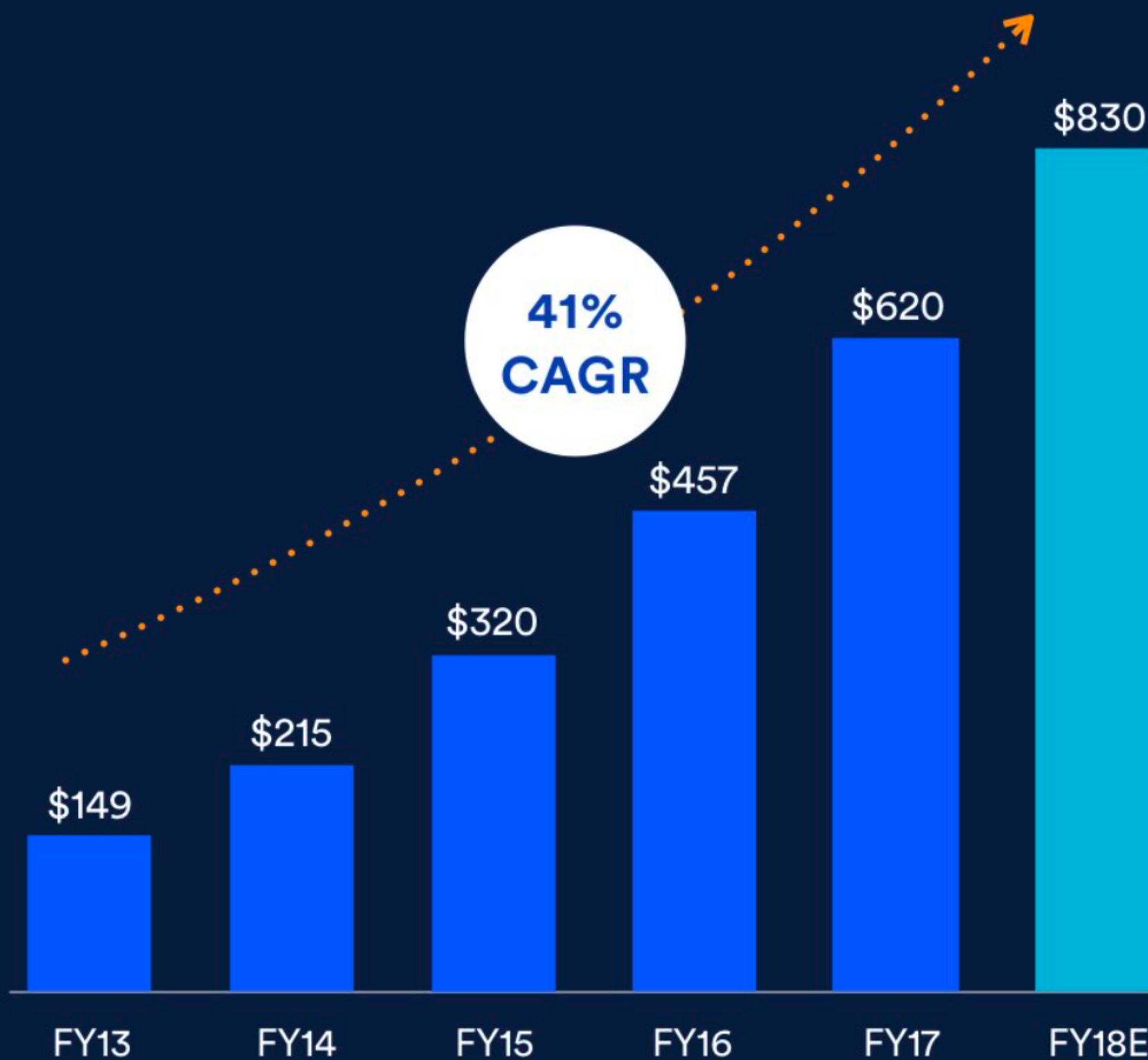
Non-IFRS operating margin



Free cash flow margin



REVENUE IN MILLIONS



That has enabled Atlassian to build a product portfolio that continues grow at 40% YoY growth, even at \$1b ARR

PLAN, TRACK & SUPPORT

Jira Software

Project and issue tracking

Jira Service Desk

IT service desk and customer service

Jira Core

Essential business management

Statuspage

Incident communication

COLLABORATE & CHAT

Confluence

Document collaboration

Trello

Collaborate visually on any project

Stride

Team communication

Hipchat

Self-hosted group chat and video

CODE, BUILD & SHIP

Bitbucket

Git code management

Sourcetree

Git and Mercurial desktop client

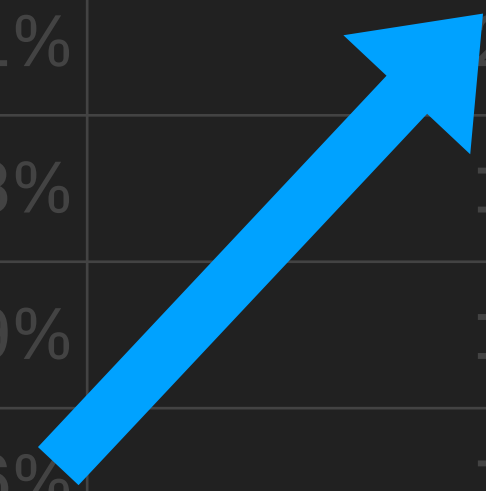
Bamboo

Integration and release management

Atlassian also has the highest margin and free cash flow margin in our group

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Xero	\$3,506	\$3,420	\$372	78%	NA	36%	-6%	30%

Up to \$11b since this presentation was assembled!



Conclusions

Lessons from best in class companies

**65%+ gross
margin is
enough**



**increasingly viable
route to market**

**Aim for 100%+
net revenue
retention**

(or 99% on average!)

Lessons from best in class companies

**Average
company
raising \$125m
prior to IPO**

CAC

PAYBACK TIME

**determines
pace of
growth**

(15 months on average)

**Any market
segment,
geography or
price point!**



Thomas
Frontline

Twitter Medium Quora

Disclosure - author of this presentation is invested in:

proofpoint™

HubSpot









REDFIN

zendesk

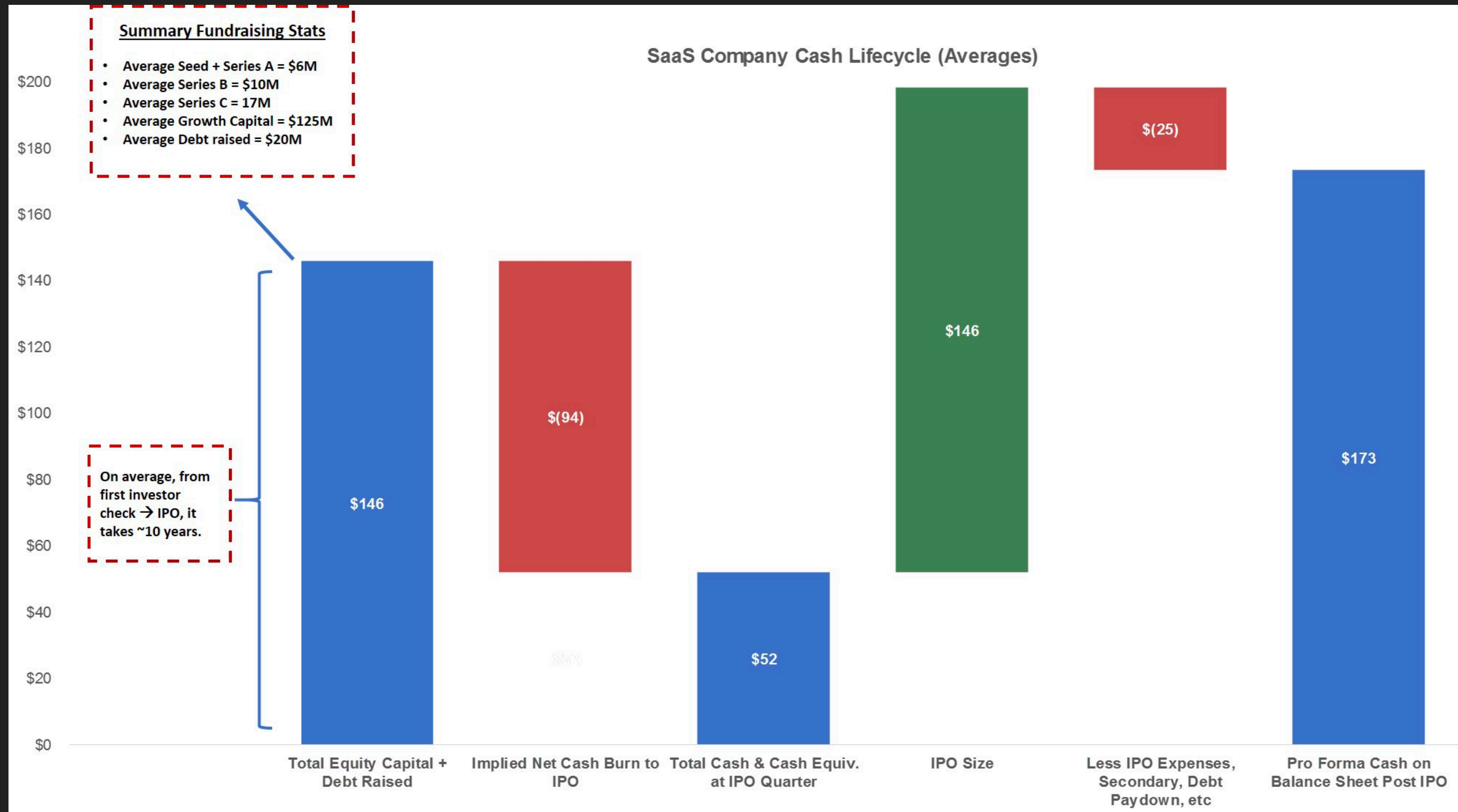
twilio

Appendix

Are big margins are required to build big companies? The “low margin” companies below didn’t make our best in class list

Gross Margin	52%	53%	55%	57%	62%	64%	65%	65%
FCF Margin	4%	1%	-3%	8%	14%	11%	-2%	8%
Market Cap	 \$750m	 \$9.6b	 \$2.8b	 \$1.6b	 \$3.4b	 \$5.7b	 \$1.9b	 \$2b

On average companies raise \$125m of equity capital prior to IPO. On average taking 10 years ,



Implied months to recover CAC averages 16 months

Paylocity, Shoifpy, Atlassian, and Paycom rank high for CAC payback time

