



Q3 2023 Market Report

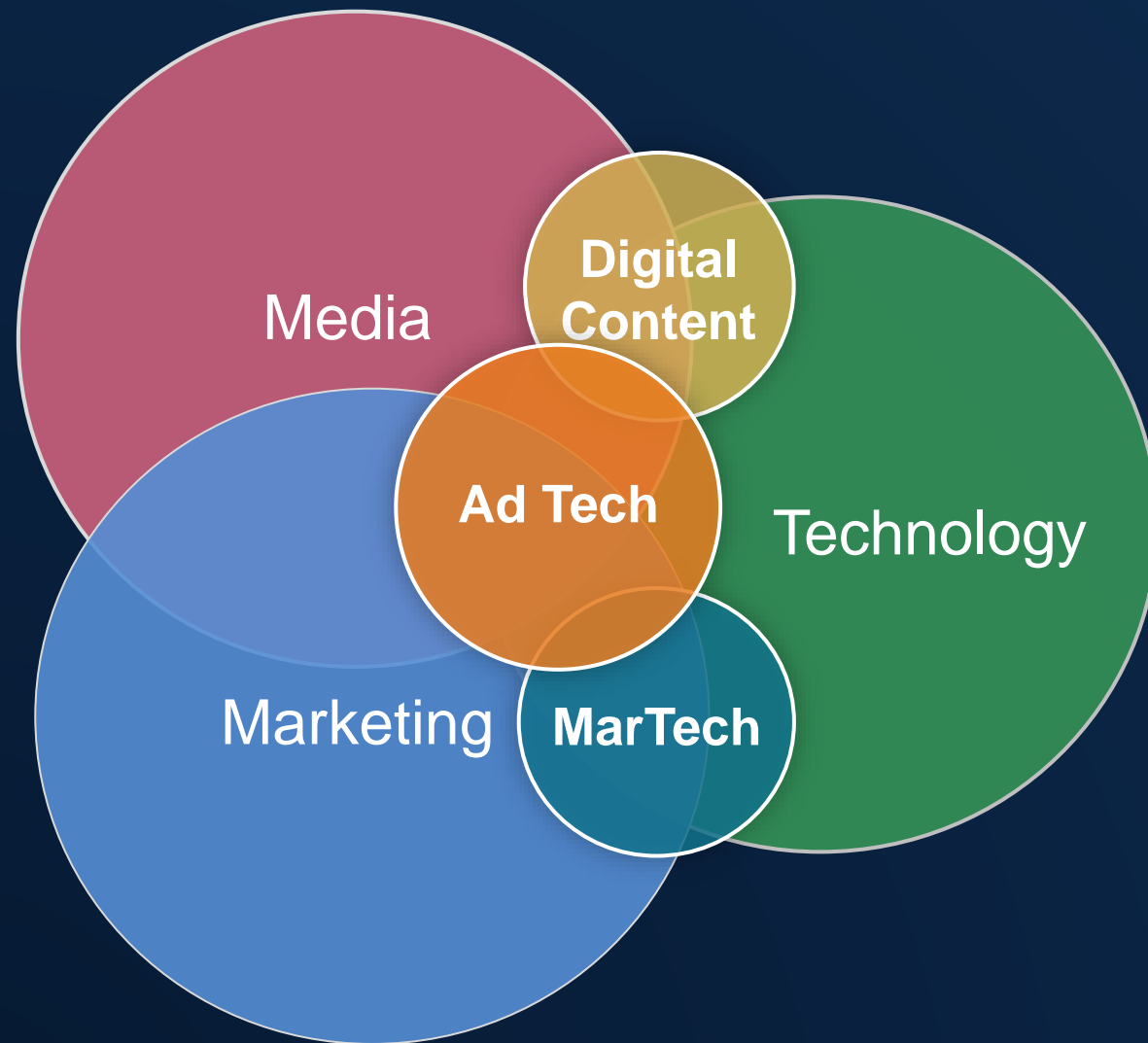
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LUMA's Focus on Digital Media & Marketing



- LUMA's expertise is at the intersection of Media, Marketing and Technology.
- At this intersection exists:
 - **Ad Tech**
 - **MarTech**
 - **Digital Content**
- These companies employ a variety of business models including services, media, data, commerce and software.

LUMA's Recent Deals



August 2023

Scibids

has been acquired by

DoubleVerify

The undersigned acted as exclusive financial advisor to Scibids Technology SAS

December 2022

BC PARTNERS

has acquired

MADISON LOGIC.

The undersigned acted as exclusive financial advisor to BC Partners LLP

November 2022

yahoo!

has agreed to a partnership with

Taboola

The undersigned acted as financial advisor to Yahoo!

September 2022

martin

has agreed to be acquired by

PubMatic

The undersigned acted as exclusive financial advisor to Martin

July 2022

VERVE GROUP
A subsidiary of

Media and Games Invest Group

has acquired

DATASEAT

The undersigned acted as exclusive financial advisor to Media and Games Invest SE

June 2022

DREAMSCAPE
a GTCR portfolio company

has made a strategic investment in

Standard Media index

The undersigned acted as exclusive financial advisor to Dreamscape and GTCR

April 2022

iSpot.tv

has received a \$325 million investment from

Goldman Sachs

The undersigned acted as co-exclusive financial advisor to iSpot.tv, Inc.

April 2022

DREAMSCAPE
a GTCR portfolio company

has made a strategic investment in

SQAD.

The undersigned acted as exclusive financial advisor to Dreamscape and GTCR

March 2022

tvssquared

has agreed to be acquired by

INNOVLD

The undersigned acted as exclusive financial advisor to TV Squared Limited

January 2022

APPLOVIN

has agreed to acquire

mopub

a wholly owned subsidiary of

The undersigned acted as exclusive financial advisor to AppLovin Corporation

Executive Summary

Overview

- The Digital Media & Marketing ecosystem has experienced ~12 months of a muted M&A environment with lower volumes and fewer scaled deals compared to the highs that followed the pandemic and lasted through 3Q 2022.
- Even as public markets have generally bounced back YTD in 2023 and valuations continue to stabilize in the broader technology industry, buyers and sellers continue to seek value alignment in the wake of pandemic market highs and subsequent historic interest rate hikes, which drove a gap between perspectives of normalized performance.
 - Buyers: Market turbulence has created opportunities for buyers with access to capital, but an increased focus on discipline and tighter capital markets has slowed volume
 - Sellers: Underlying business results remain strong and are well positioned for capital efficient growth, leading to strong optionality in evaluating inbound interest
- Both sides remain eager to do deals as market clarity materializes – Q3 was the sixth straight quarter of stabilized valuations in the **LUMA.A** & **LUMA.M** cohorts.
- The first three technology IPOs occurred in Q3 since the IPO slowdown 18+ months ago, with launches of ARM, Instacart and Klaviyo (the newest member of the **LUMA.M** cohort) entering the public markets and testing the waters in what has been an uncertain equity market in the sector.

M&A Activity

- Deal volume in Q3 2023 was slightly down **(3%)** from Q2; despite the drop in volume there was a **+75%** increase in scaled deal activity across the ecosystem, driven predominantly by digital-content related acquisitions.
- By sub-sector, Ad Tech Q3 M&A activity was in line with Q2 and was highlighted by two scaled (>\$100mm) transactions; MarTech M&A volume remained robust, up **+2%** from a strong Q2 and **+21%** on a YoY basis despite scaled transactions staying relatively muted for a second straight quarter; Digital Content M&A volume declined **(10%)** sequentially but saw an uptick in scaled transactions (8 vs 4 in Q2).

Public Markets Activity

- In line with the broader market, the **LUMA.A** and **LUMA.M** cohorts were challenged from a trading perspective in Q3, falling **(4%)** and **(11%)**, respectively, as a surge in bond yields in September led to a market-wide slowdown.
- From an earnings perspective, Q2 2023 saw most Ad Tech and MarTech names beat revenue and EBITDA consensus estimates; although trading performance following earnings appeared to be heavily influenced by upwards or downwards revisions for full year guidance.

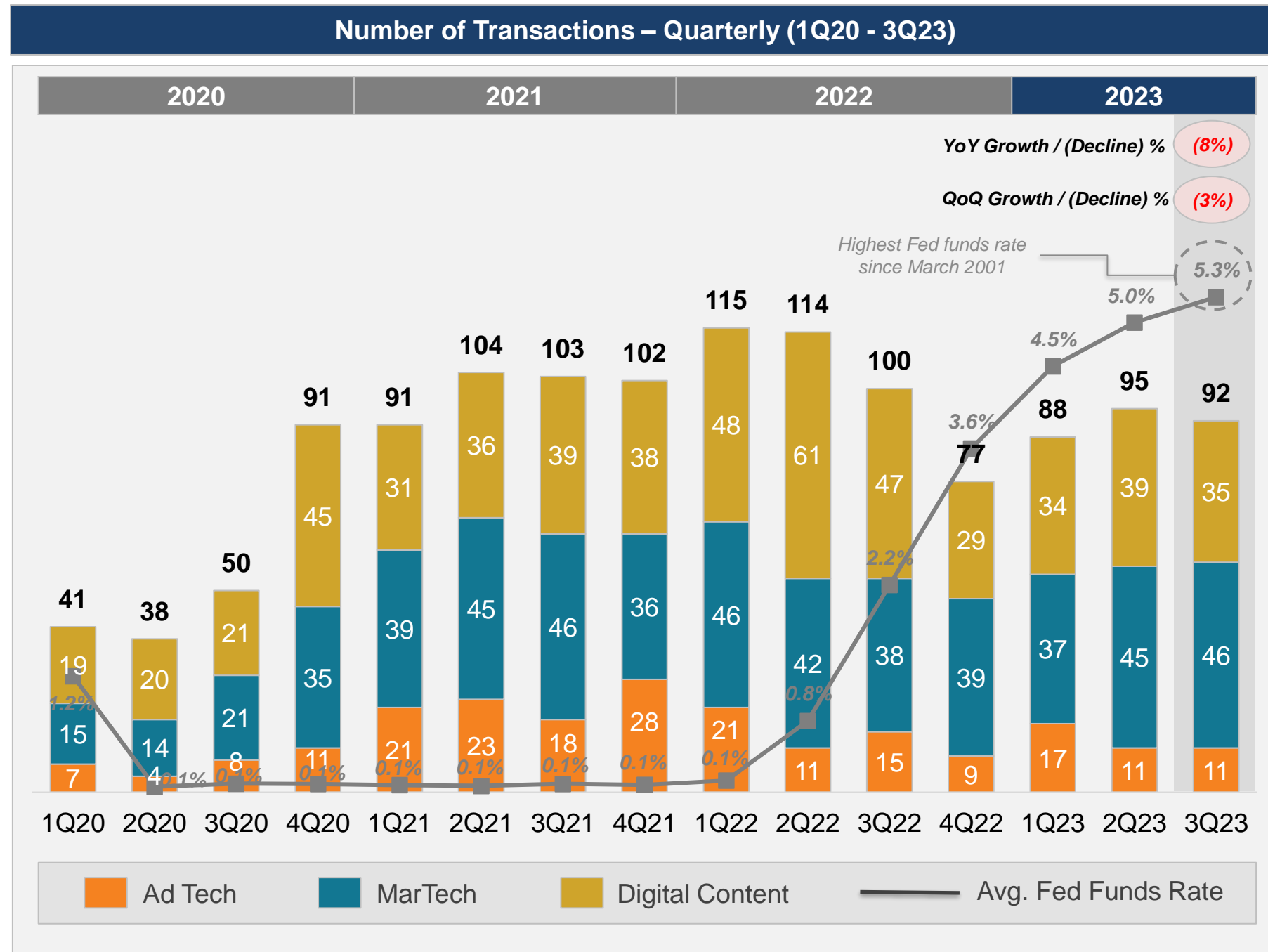
Private Financing Activity

- The slowdown in private financing activity persisted in Q3, driven by a confluence of on-going changes: (1) Decrease in non-traditional investor capital (down 50% YoY through the first half of 2023) as a stagnant exit environment has reduced attractiveness (2) VC investors are facing less competition, allowing them to focus on the highest quality assets (3) VC-backed businesses have largely shifted to efficient growth, in turn reducing their need for capital and willingness to raise at lower valuations.

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Digital Media & Marketing M&A Activity by Sector – Quarterly View



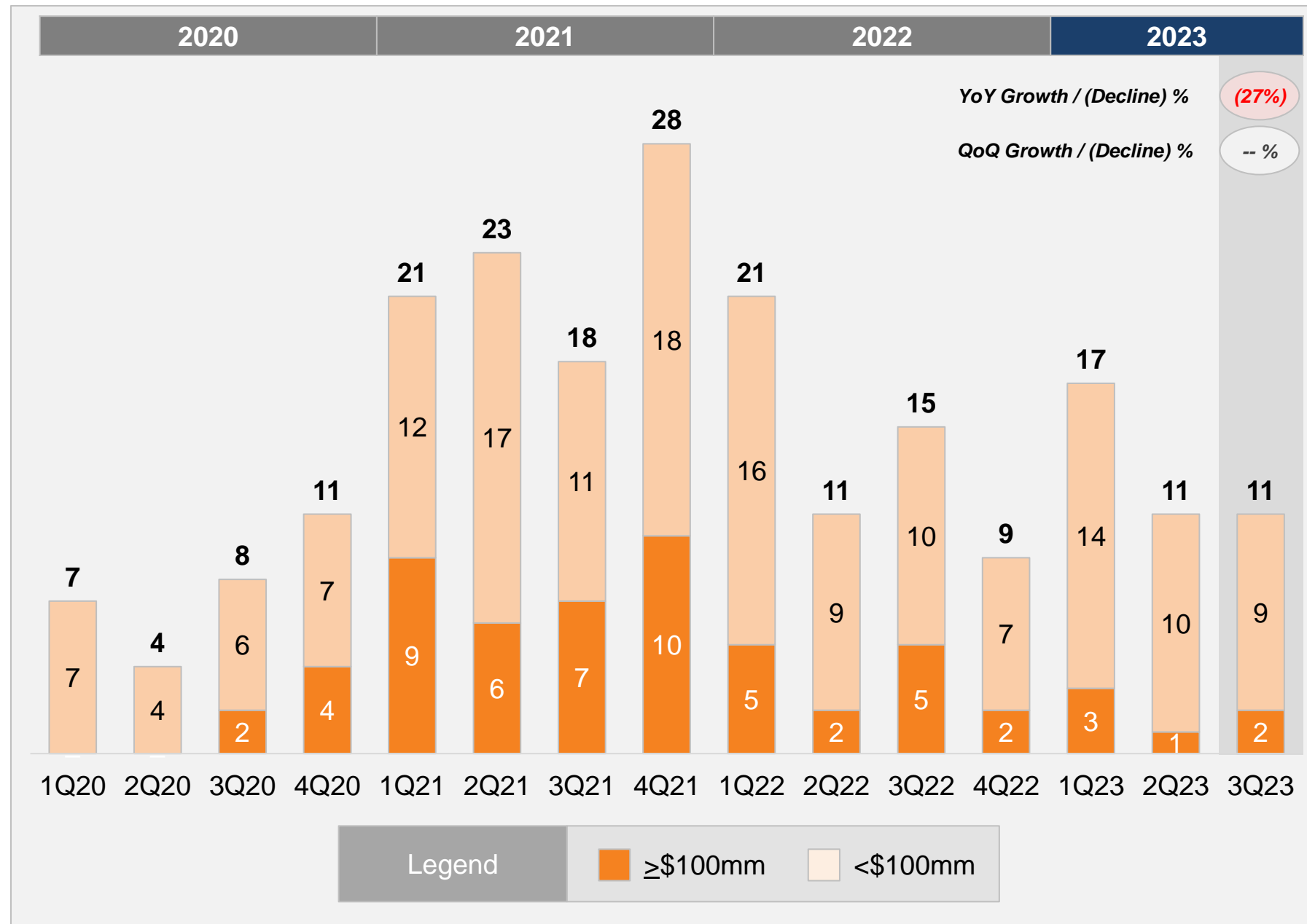
Commentary

- While the dealmaking environment continues to feel the effects of the highest fed funds rates since 2001, Q3 2023 volume was slightly down **(3%)** sequentially as the market has now experienced a full 12 months of muted deal activity relative to the highs from 2021-1H 2022; despite the muted volume, there was a pickup in scaled M&A activity **+75%** across the ecosystem, driven largely by digital content related acquisitions.
- Ad Tech** M&A activity was in line with last quarter and was highlighted by two scaled deals - DoubleVerify's \$125mm acquisition of Scibids and Novacap's \$600mm acquisition of Cadent.
- MarTech** M&A remained robust, up **+2%** from a strong Q2 and **+21%** on a YoY-basis; as 2023 year-to-date deal volume is now roughly in line with 2022.
- Digital Content** M&A volume fell **(10%)** from Q2; however, scaled activity in the sector doubled (8 vs 4 in Q2), driven primarily by strategic gaming buyers.
- We anticipate that buyers and sellers will continue to seek value alignment, as strategics who have normalized costs and driven capital efficient growth look for new capabilities (catalysts such as AI) and financial buyers in the sector see opportunities for portfolio add-ons and take-private investments.

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Number of Transactions – Quarterly (1Q20 - 3Q23)



Commentary

- Ad Tech deal volumes were in line with Q2, highlighted by two scaled deals - DoubleVerify acquired AI-powered Scibids for \$125mm and Lee Equity Partners exited Cadent for \$600mm in a sale to Novacap.
- Strategic acquisitions in the sector were focused on increasing capabilities across multiple categories: CTV (Cadent, Brid.TV, Vidgyor), DOOH (Nickelytics), Measurement (605) Programmatic (MediaMath, Scibids) and Retail Media (Adrenalads).
- In the programmatic ecosystem, Infillion acquired MediaMath's DMP & DSP assets out of bankruptcy for ~\$22mm, adding to its portfolio of products for media buyers - MediaMath is expected to be relaunched in early 2024.













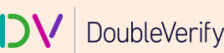





Looking Ahead

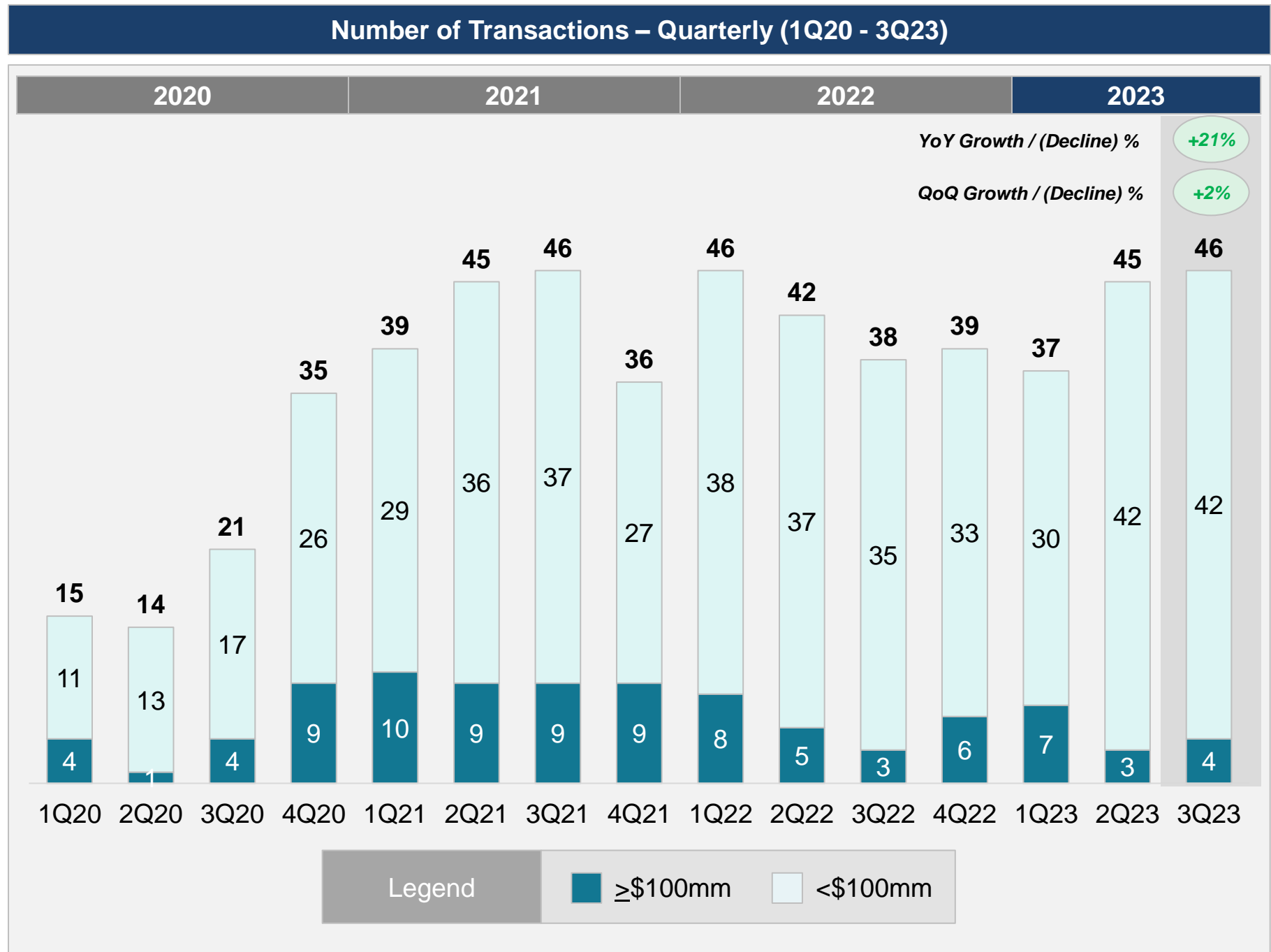
- We anticipate continued focus by advertisers on efficacy and optimization (with AI as a catalyst). Further, the evolving data landscape necessitates horizontal strategies & contributes to the rise of retail media & 1st party data networks, pushing the ecosystem to connect supply & demand.
- Strong operational performance in a tepid deal environment presents value opportunities for well-capitalized buyers looking to enter the CTV, Commerce Media, and 1st party data landscape.

Ad Tech – Q3 2023 Notable Deals

Highlight denotes LUMA Transactions

Ad Tech
MarTech
Digital Content

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
9/28/2023		Management Team Buyout	\$76	ND	<ul style="list-style-type: none"> SuperAwesome, an in-game brand safety platform is being spun out of Epic Games and will operate as a standalone Company headed by current CEO Kate O'Loughlin. Epic Games announced the spinout in parallel with reducing its workforce by 16%.
9/26/2023			< \$1	ND	<ul style="list-style-type: none"> Beehiiv, a tool suite for digital newsletters, acquired Swapstack, a newsletter monetization platform. Beehiiv launched an ad network earlier this month and Swapstack has facilitated \$2mm+ through its ad network.
9/13/2023		iSpot.tv	ND	ND	<ul style="list-style-type: none"> iSpot.tv, a TV measurement currency contender, acquired 605, a measurement & attribution competitor. This is reportedly iSpot's largest acquisition and expands its TV measurement market share.
9/1/2023			ND	\$2	<ul style="list-style-type: none"> Team Internet (f.k.a CentralNic), a software HoldCo, acquired Adrenalads, a navigation network for advertisers. Adrenalads will be integrated with Zeropark, Team Internet's commerce media offering.
8/23/2023	MediaMath		\$448	\$22	<ul style="list-style-type: none"> Infillion acquired MediaMath's DMP & DSP assets in a bankruptcy-related deal for ~\$22mm. Infillion intends to restore technology and recruit back former MediaMath clients.
8/9/2023			NA	ND	<ul style="list-style-type: none"> T72 Club, a software investment fund, acquired Nickelytics, a digital attribution platform for OOH ads on vehicles. Nickelytics joins the T72 portfolio and will leverage T72's expertise as it continues to grow.
8/9/2023		NOVACAP 	NA	\$600	<ul style="list-style-type: none"> Novacap acquired Cadent, a provider of platform-based CTV ad solutions, from Lee Equity Partners for \$600mm. Cadent has seen revenue growth between 15-20%, and will continue to invest in future growth and M&A.
7/31/2023			\$7	\$125	<ul style="list-style-type: none"> DoubleVerify, a media measurement company, acquired Scibids, an AI-powered campaign optimization company. The acquisition allows DV to maximize business outcomes and ROI leveraging Scibids proprietary AI bidding algorithms as well as ensure continuous optimization and reduce manual efforts.
7/23/2023			\$5	ND	<ul style="list-style-type: none"> Affinity, a branding and performance advertising company, acquired Opinary, a user engagement company. The acquisition expands Affinity's global presence into Europe and gives Opinary access to Asia and the U.S.
7/18/2023		targetvideo	ND	ND	<ul style="list-style-type: none"> TargetVideo, a video content monetization company, acquired Brid.TV, its commercial partner. The acquisition gives TargetVideo a more holistic suite and expands its international presence.
7/11/2023			\$1	ND	<ul style="list-style-type: none"> Silverpush, a contextual advertising company, acquired Vidgyor, a CTV advertising platform. The acquisition strengthens Silverpush's tech offerings for publishers and expands its contextual capabilities into CTV for brands.




























Commentary

- **MarTech** M&A volume remained robust, up **+2%** from a strong Q2 and **+21%** YoY. There was one more scaled deal in Q3 vs prior quarter; however, scaled activity remained relatively muted for the second straight quarter.
- Private consolidation of MarTech companies that previously raised significant funding rounds played a large role in Q3 dealmaking, highlighted by Heap’s (~\$231mm raised) acquisition by Contentsquare, Signpost’s (~\$110mm raised) acquisition by H.I.G. Capital-backed Hibu, Groove’s (\$61mm raised) acquisition by Clari and PowerReviews (\$64mm raised) acquisition by Battery Ventures-backed 1WorldSync.
- Private Equity and sponsor-backed strategic acquisitions continued in Q3, as evidenced by Gainsight’s acquisition of Northpass (Vista), Canto’s acquisition of MerlinOne (JMI, Atrium), Commentsold’s acquisition of Popshop Live (Dragoneer, Permira) and AppHub’s acquisition of Boost (PSG), among others.

























Looking Ahead

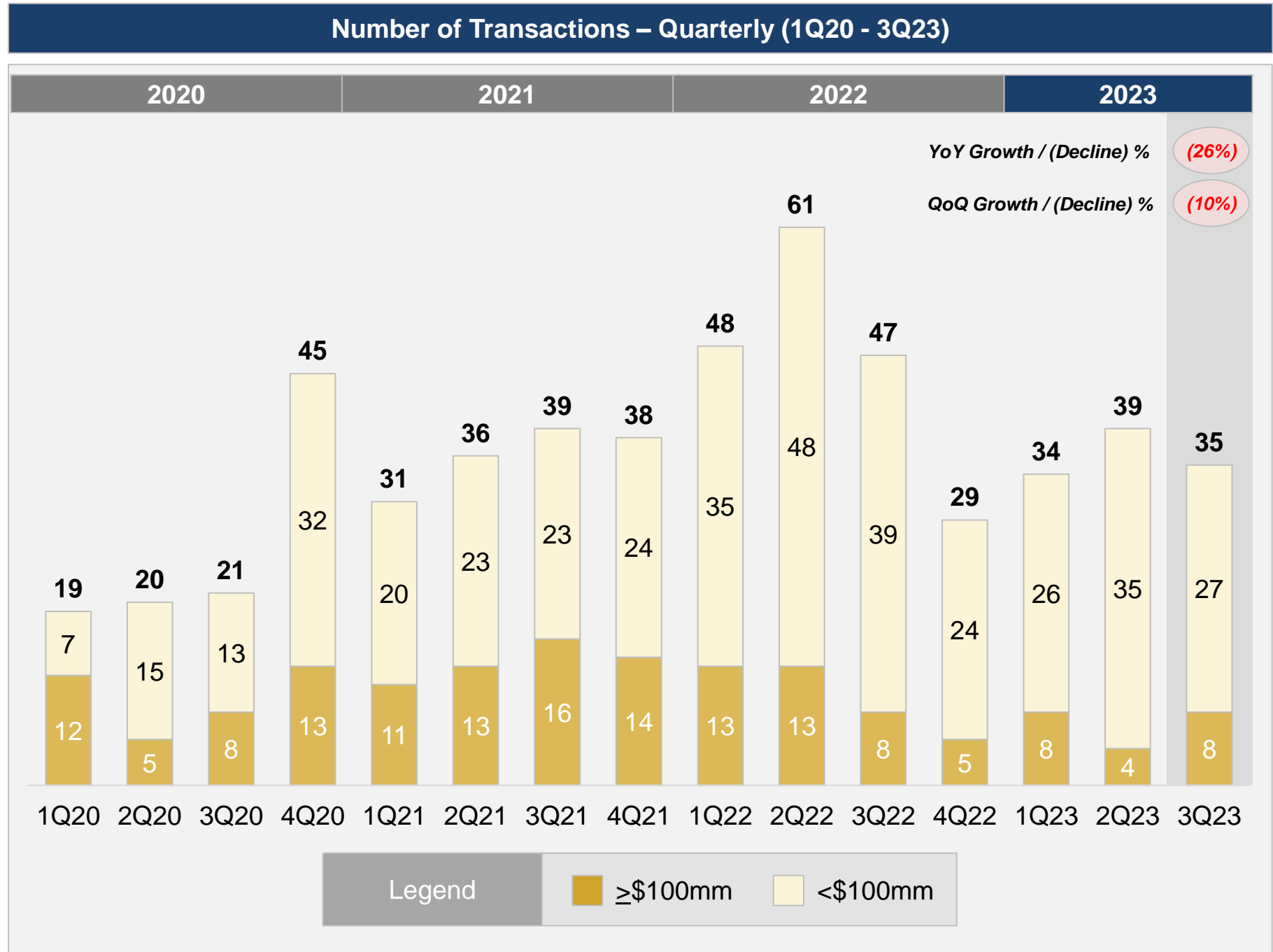
- We expect increased investment in data / analytics capabilities that arm marketers with superior tools surrounding ID resolution, data management / activation, and measurement / attribution.

MarTech – Q3 2023 Notable Deals (1 / 2)

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
9/28/2023	 Heap	 Contentsquare	\$231	ND	<ul style="list-style-type: none"> ■ Contentsquare, a digital experience analytics company, will acquire product analytics platform Heap. ■ The acquisition is Contentsquare's largest and will accelerate its product vision, enabling the delivery of an all-in-one analytics platform.
9/22/2023	 airkit.ai	 Salesforce	\$69	ND	<ul style="list-style-type: none"> ■ Salesforce will acquire Airkit, a low-code platform for building AI-powered customer service agents. ■ Airkit will be merged into Salesforce's customer service platform, Service Cloud.
9/11/2023	 signpost	 hibu	\$110	ND	<ul style="list-style-type: none"> ■ Hibu, a provider of digital marketing solutions to SMBs, acquired Signpost, a customer communication platform. ■ Signpost raised ~\$110mm to date following its Series D round in July 2019.
9/6/2023	 freshrelevance	 dotdigital	\$3	\$32	<ul style="list-style-type: none"> ■ Dotdigital, an "all-in-one marketing platform", acquired Fresh relevance, a cross-channel personalization company. ■ The acquisition was noted as part of Dotdigital's mission to strengthen its all-in-one CXDP.
8/30/2023	 denim social  LumenVox	 capacity®	\$11	ND	<ul style="list-style-type: none"> ■ Capacity, an AI-powered support automation platform, acquired both Denim Social and Lumen Vox. ■ Denim Social is a social media management platform and Lumen Vox is an AI-powered speech recognition platform.
8/24/2023	 aivo	 Engageware	\$0	ND	<ul style="list-style-type: none"> ■ Engageware, a customer engagement software company, acquired Aivo, a GenAI-powered conversational platform. ■ Aivo operates in the Americas & Europe serving 200+ clients and leveraging 150mm+ user conversations.
8/23/2023	 Patron Point	 springshare	ND	ND	<ul style="list-style-type: none"> ■ Springshare, a library-centric SaaS vendor, acquired Patron Point, a marketing automation solution for libraries. ■ Springshare will invest in enhancing the Patron Point platform and headcount.
8/22/2023	 POPSHOP LIVE	 comment sold	\$25	ND	<ul style="list-style-type: none"> ■ CommentSold, a livestreaming social shopping platform acquired its competitor Popshop Live. ■ Popshop Live's FTEs will be rolled into CommentSold's team and will still operate under the Popshop brand.
8/22/2023	 POWER REVIEWS	 1WORLD SYNC	\$64	ND	<ul style="list-style-type: none"> ■ 1WorldSync, a product content orchestration company, acquired PowerReviews, a review management platform. ■ PowerReviews services 1,000+ global brands and now expands its reach to 1WorldSync's 17,000+ customers.
8/16/2023	 Quantcast (Consent Management Assets)	 Inmobi	NA	ND	<ul style="list-style-type: none"> ■ Inmobi, a mobile app monetization platform, carved out Quantcast's consent management business. ■ Quantcast Choice customers will transition to Inmobi and will see a new publisher offering in early Fall.
8/14/2023	 groove	 Clari	\$61	ND	<ul style="list-style-type: none"> ■ Clari, an AI-powered revenue enablement platform, acquired Groove, a sales engagement platform. ■ The combined platform will provide increased visibility, predictability and control across the revenue process.
8/14/2023	 PHONE READY LEADS®	 APEX REVENUE	ND	ND	<ul style="list-style-type: none"> ■ Apex Revenue, a RevOps solutions provider, acquired PRL, a sales intelligence and data scoring platform. ■ The strategic fit and combined expertise in the B2B sales space were cited as key to the acquisition thesis.

MarTech – Q3 2023 Notable Deals (2 / 2)

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
8/8/2023	 MerlinOne	 Canto	ND	ND	<ul style="list-style-type: none"> ■ Canto, a Digital Asset Management (DAM) software provider, acquired MerlinOne, another DAM software provider. ■ MerlinOne's AI features with Canto's DAM platform enable advanced AI and visual search capabilities.
8/8/2023	 aceyus	 Five9	ND	\$82	<ul style="list-style-type: none"> ■ Five9, a CX platform provider, acquired Aceyus, a CX reporting and analytics platform. ■ Five9 gains access to contextual data to optimize, predict and deliver personalized customer journeys.
8/3/2023	 tagger	 sproutsocial	\$24	\$140	<ul style="list-style-type: none"> ■ Sprout Social acquired Tagger Media, an influencer marketing and social intelligence platform for \$140mm. ■ Tagger was founded in 2015 and maintains a global presence across the Americas, EMEA, and APAC.
8/3/2023	 byside SMARKIO	 COREMEDIA	ND	ND	<ul style="list-style-type: none"> ■ Core Media, a DXP and CMS platform and PortCo of OpenGate Capital, acquired BySide and Smarkio. ■ BySide is a customer journey and personalization platform and Smarkio is a SaaS chatbot for B2C brands.
8/2/2023	 hopin (Select Assets)	 RingCentral	NA	\$50	<ul style="list-style-type: none"> ■ RingCentral, an AI-powered cloud communication company, acquired select assets from Hopin. ■ Hopin's event management platform and personalized engagement solution join RingCentral's suite.
8/2/2023	 BONZO!	 MMI MOBILITY MARKET INTELLIGENCE	ND	ND	<ul style="list-style-type: none"> ■ MMI, a data intelligence and market insight tool provider for the real estate sector, acquired Bonzo, a CRM platform. ■ Bonzo will continue to operate as an independent relationship management and mortgage marketing platform.
7/27/2023	 indaHash	 ArabyAds	ND	ND	<ul style="list-style-type: none"> ■ ArabyAds a diversified Ad Tech platform, acquired IndaHash, an influencer marketing platform. ■ ArabyAds expands its global footprint and accelerates its product roadmap.
7/25/2023	 boost	 AppHub	ND	ND	<ul style="list-style-type: none"> ■ AppHub, an eCommerce enablement platform, acquired Boost, an AI-powered product search and discovery tool. ■ Boost is the 9th founder-led eCommerce application to join the AppHub suite since its founding in 2021.
7/21/2023	 seva	 Bloomfire	\$3	ND	<ul style="list-style-type: none"> ■ Bloomfire, a knowledge management platform, acquired Seva, a GenAI-powered customer support SaaS company. ■ The combination brings together Bloomfire's expertise in knowledge management, and Seva's conversational AI.
7/13/2023	 Full Circle INSIGHTS	 scaleworks	\$14	ND	<ul style="list-style-type: none"> ■ Scaleworks acquired Full Circle Insights, a marketing attribution and campaign measurement platform. ■ Scalework's investment will accelerate FCI's strategic roadmap, enable product innovation and enhance its GtM.
7/13/2023	 WHOKNOWS Unlock who knows what and who knows who	 leadGenius	\$6	ND	<ul style="list-style-type: none"> ■ LeadGenius, a B2B sales lead-gen platform, acquired WhoKnows, a predictive analytics platform, ■ The acquisition builds out a more holistic AI-powered omni-channel B2B lead-gen suite.
7/11/2023	 northpass	 Gainsight	\$11	ND	<ul style="list-style-type: none"> ■ Gainsight, a customer success platform backed by Vista, acquired Northpass, a customer education platform. ■ The acquisition strengthens Gainsight's customer success and retention capabilities.



Commentary

- While **Digital Content** M&A volume declined **(10%)** from a strong Q2 2023, scaled deal activity in the sector doubled, with strategic buyers accounting for 5 of the 8 scaled deals in the quarter.
- Private equity deals in the quarter were highlighted by STG’s \$1.4bn acquisition of Avid and Francisco Partners’ acquisition of The Weather Company.
- Gaming transactions continue to drive activity in the sector, highlighted by Playtika’s \$300mm⁽¹⁾ acquisition of Innplay Labs and \$165mm⁽¹⁾ acquisition of Youda Games, as well as Tencent’s acquisition of Techland.

Looking Ahead

- Market dynamics such as effective UA will continue to be a top priority for mobile digital content names, along with increased focus on expanding audience through scaled M&A or individual game acquisitions.
- The advent of advanced generative AI has captured the attention of the broader tech ecosystem and will play an important role in digital content creation.
- Despite the challenging macro-environment, we expect to see continued consolidation in the content ecosystem as platforms look to expand their scale of consumers and data.

Digital Content – Q3 2023 Notable Deals

















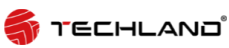







Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
9/19/2023			\$29	ND	<ul style="list-style-type: none"> ■ Babbel, a language learning app, acquired Toucan, a language learning browser extension. ■ In Q3 2022 Toucan raised \$20mm in a Series A1 round at \$120mm post-money valuation.
9/15/2023			\$6	\$300 ⁽¹⁾	<ul style="list-style-type: none"> ■ Playtika acquired Innplay Labs, a mobile game studio for an upfront fee of \$80mm and up to \$300mm total consideration based on performance metrics. ■ The acquisition helps Playtika make inroads into the "luck battle" gaming genre.
8/22/2023			NA	ND	<ul style="list-style-type: none"> ■ IBM will sell The Weather Company assets to Francisco Partners. ■ The deal includes consumer facing apps and websites, the enterprise offering, ad tech, and data solutions.
8/22/2023			\$31	ND	<ul style="list-style-type: none"> ■ Redbrick, a portfolio of digital companies, acquired Animoto, a video creation software. ■ The acquisition helps Redbrick expand to 200 global FTEs and \$100mm in annualized revenue.
8/16/2023			\$14	ND	<ul style="list-style-type: none"> ■ OpenAI acquires Global Illumination, a developer of AI tools, infrastructure and digital experiences. ■ This is OpenAI's first acquisition in its 7-year history; the entire Global Illumination team will join OpenAI.
8/10/2023			\$5	ND	<ul style="list-style-type: none"> ■ Telltale, a narrative game studio and publisher, acquired Flavourworks an interactive video technology company. ■ Both companies are backed by HIRO capital, which noted the two's strategic alignment as key to the deal thesis.
8/9/2023			NA	\$1,400	<ul style="list-style-type: none"> ■ Avid, a tech provider for the music and audio creators, will be taken private by STG. ■ Per its latest filing, the company generates subscription ARR of \$154mm and total ARR of \$248mm.
7/31/2023			NA	\$165 ⁽¹⁾	<ul style="list-style-type: none"> ■ Playtika acquired Azerion's Youda Games portfolio for an upfront fee of \$89mm and up to \$165mm total. ■ Playtika grows its card game portfolio and IP as part of its "strategic incremental growth approach".
7/24/2023			ND	ND	<ul style="list-style-type: none"> ■ Tencent has taken a majority stake in Dying Light, a AAA game studio. ■ Techland is known for its "Dying Light" franchise, which sold 30mm+ copies.
7/11/2023			ND	ND	<ul style="list-style-type: none"> ■ Greenfly, a digital media orchestration software provider, acquired Miro an AI-powered CaaS platform. ■ Greenfly expands its solutions in streamlining, categorizing, organizing and deploying content at scale.
7/10/2023			\$14	ND	<ul style="list-style-type: none"> ■ Cenareo, a CMS platform, acquired EasyMovie, an all-in-one video suite. ■ The combined entity has 75+ FTEs across North America and EMEA.
7/3/2023			ND	\$54	<ul style="list-style-type: none"> ■ Better Collective, a digital sports media group acquired Playmaker, a sports and entertainment media platform. ■ The acquisition comes with a \$15mm upfront fee and will add 20mm+ followers across social media sites.

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Despite a Tepid Q3, Equity Markets Have Rebounded in the Last 12M

Last 12 Months Trading Performance: LUMA Indices (LUMA.A, LUMA.M) vs. Market Indices (S&P 500, NASDAQ 100)

In the last 12 months, key equity market indices such as the S&P500 and Nasdaq 100 have performed well, while the LUMA.A and LUMA.M indices have lagged the broader market. That said, intra-cohort performance within LUMA.A and LUMA.M has widely varied, with companies like AppLovin, Taboola and Shopify trading up over 100% in the last 12 months. Q3 also marked the first public exits for VC-backed technology companies in the midst of an 18+ month liquidity event drought⁽¹⁾. The performance of recent technology IPOs for Arm Holdings, Instacart and Klaviyo will be monitored as bellwethers for market appetite.

Last 12 Months Trading Performance

Q4 2022	Q1 2023	Q2 2023	Q3 2023
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Q4 2022 Performance

S&P 500	+7%
NASDAQ 100	(1%)
LUMA.A	(3%)
LUMA.M	(1%)

Q1 2023 Performance

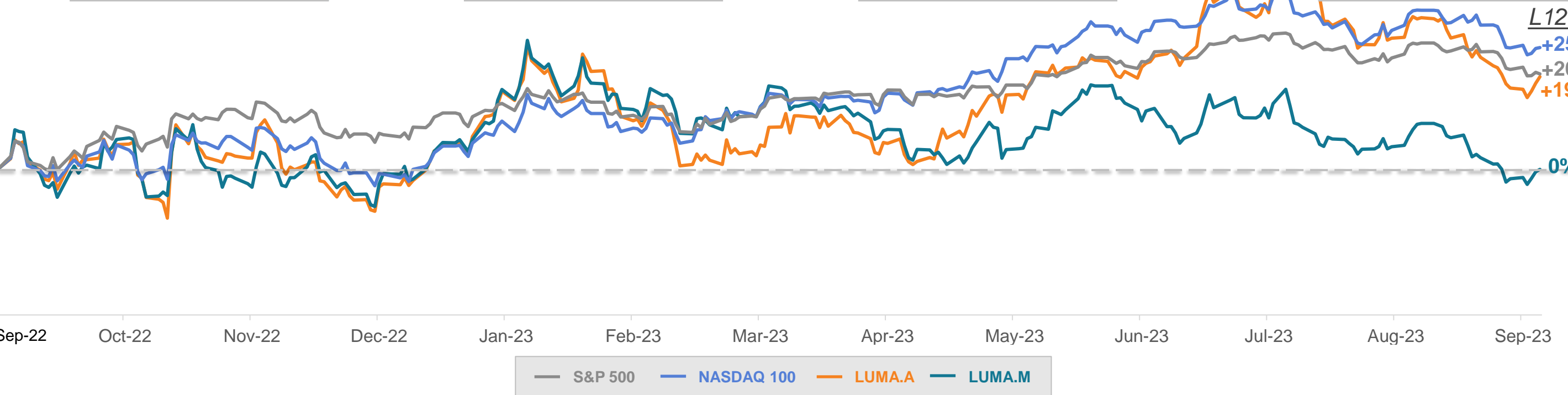
S&P 500	+8%
NASDAQ 100	+18%
LUMA.A	+12%
LUMA.M	+18%

Q2 2023 Performance

S&P 500	+11%
NASDAQ 100	+16%
LUMA.A	+16%
LUMA.M	(0%)

Q3 2023 Performance

S&P 500	(4%)
NASDAQ 100	(4%)
LUMA.A	(4%)
LUMA.M	(11%)






An Inflection Point in the Technology IPO Window?

Factors Driving Recent Technology IPOs

- ✓ **Profitability:** All three technology IPOs were operating profitably; this compares to only 22% of technology companies that went public in the market peak of 2021.⁽¹⁾
- ✓ **IPO Readiness:** 18+ months of adverse market conditions offered ample time for companies to prepare for the governance, reporting and regulatory processes needed for a successful IPO launch.
- ✓ **Stabilizing Valuations:** Q3 2023 marks six straight quarters of stabilized valuations in the Ad Tech and MarTech sectors; as valuations continue to stabilize across the broader technology ecosystem, companies will expect more certainty in the equity markets.

At a Glance: Q3 2023 Technology IPOs

Company	Ticker	At IPO			Current			Valuation	
		IPO Price	First Day Close	First Day Performance	Price	Market Cap (\$bn)	EV (\$bn)	EV / LTM Revenue	EV / LTM EBITDA
	ARM	\$51.00	\$63.60	+25%	\$53.52	\$54.9	\$52.2	19.6x	61.6x ⁽²⁾
	CART	\$30.00	\$33.70	+12%	\$29.69	\$9.8	\$7.7	2.7x	15.9x
	KVYO	\$30.00	\$32.80	+9%	\$34.50	\$10.5	\$10.1	17.2x	NM

Case Study: Klaviyo IPO – First MarTech IPO Since ‘21



Klaviyo rose 9% in IPO debut after pricing at the high end of its range as public market investors showed strong demand for the first SaaS IPO in over 18 months

Klaviyo IPO at a Glance

At IPO:	
IPO Pricing	\$30.00
Implied Valuation at IPO	~\$9.2bn
Day 1 Closing Price	\$32.76
% vs. IPO price	+ 9%
Current:	
Price	\$34.50
Enterprise Value	\$10.1bn
EV / LTM Revenue	17.2x
EV / LTM EBITDA	NM



Investors like Klaviyo’s equity story:

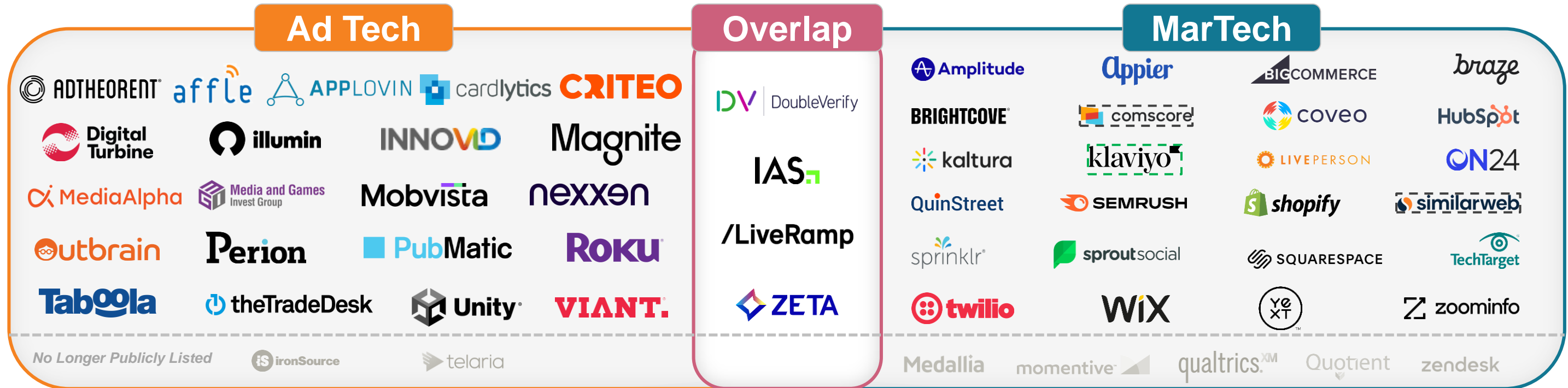
- ✓ Retail & eCommerce marketing automation for SMB has expansive TAM and is well positioned with Shopify customer ecosystem
- ✓ Strong PLG go-to-market strategy that has led to strong efficiency and growing revenue scale
- ✓ Profitable on both a GAAP and non-GAAP basis

Klaviyo vs. Median “Enterprise Five” Benchmark

	\$100- \$200M	\$200M - IPO	Post- IPO	klaviyo [■] “at IPO”	
YoY ARR Growth	50%	40%	45%	51%	↑
Net \$ Retention	110%	110%	120%	119%	—
Rule of 40	15%	30%	45%	75%	↑
Net Magic Number	0.8x	0.6x	0.8x	1.0x ⁽¹⁾	↑
ARR per FTE	\$200K	\$220K	\$270K	\$425K	↑

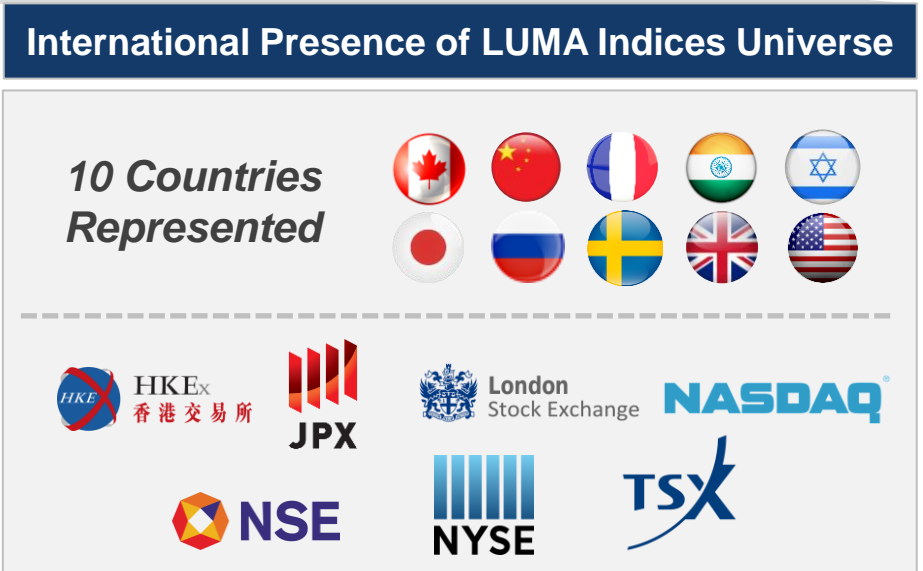
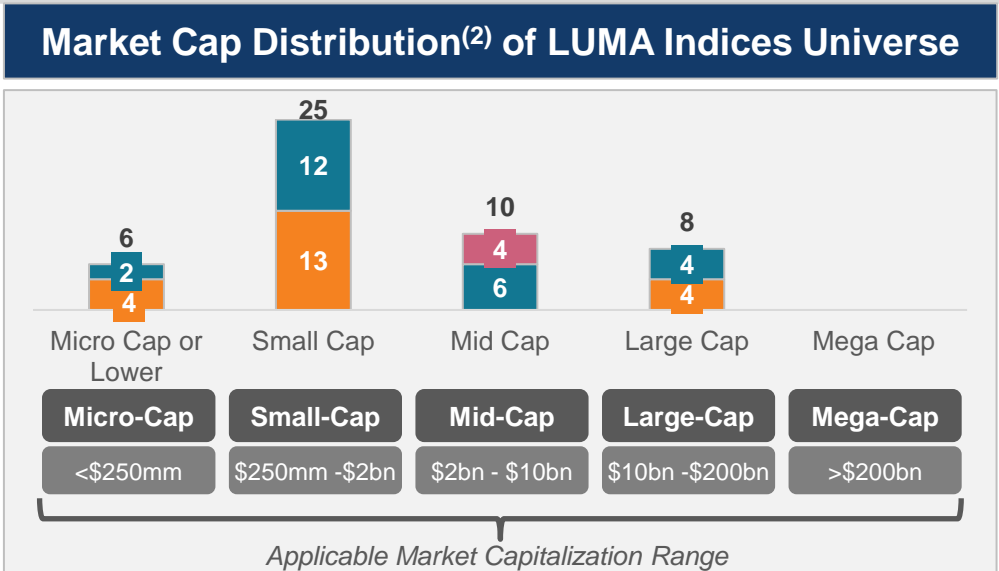
The LUMA Indices Universe at a Glance (1 / 2)

 Denotes new PubCo
 Denotes retroactive addition





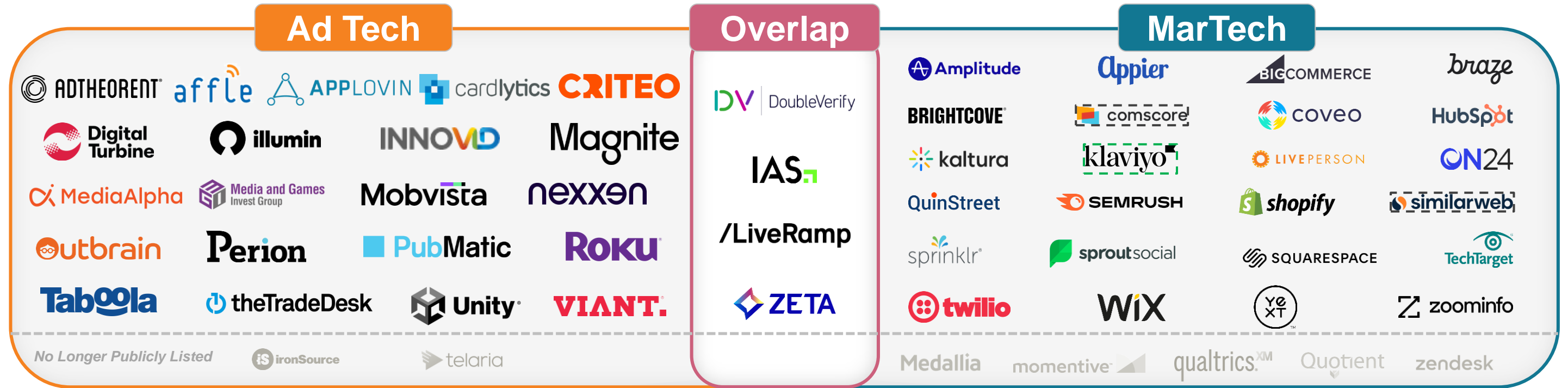
49 Actively Traded

Aggregate Mkt Cap as of 09/30/23	~\$261bn
Aggregate CY23E Revenue ⁽¹⁾	~\$40bn
Avg. CY23E Growth Rate	8.0%



The LUMA Indices Universe at a Glance (2 / 2)

 Denotes new PubCo
 Denotes retroactive addition



Metric	Ad Tech ex-Overlap		Overlap		MarTech ex-Overlap	
Aggregate Mkt Cap (\$bn)	\$92		\$11		\$157	
	Ad Tech ex-Overlap ⁽¹⁾		Overlap		MarTech ex-Overlap	
	2022A	2023E	2022A	2023E	2022A	2023E
Avg. Revenue ⁽²⁾ (\$mm)	\$675	\$762	\$510	\$591	\$840	\$970
Avg. EBITDA Margin ⁽³⁾⁽⁴⁾ (%)	21.4%	22.7%	21.8%	23.8%	0.8%	7.8%
Avg. EV / Revenue ⁽²⁾ (x)	4.4x	4.0x	5.5x	4.7x	5.6x	4.2x
Avg. EV / EBITDA ⁽⁴⁾⁽⁵⁾ (x)	12.4x	15.1x	26.1x	19.4x	21.1x	24.3x

Ad Tech Earnings Reaction

Generally met net revenue and EBITDA targets; market reaction heavily influenced by change in 2023 FY guidance

Overview		Metric	Most Recent Quarter			Trading Performance			Change in FY Guidance ⁽²⁾						
Company	Date		Net Revenue			Profitability / EBITDA ⁽¹⁾			T+1 Comp	T+1 S&P	YTD Comp	Net Revenue		EBITDA	
		Defined	Actual	Cons.	Beat/Miss	Actual	Cons.	Beat/Miss				Change	%	Change	%
ADTHEORENT	8 / 03*	Adj. GP	\$24	\$25	(3%)	\$3	\$3	1%	1%	(1%)	(22%)		N/a		N/a
APPLOVIN	8 / 09*	Revenue	\$750	\$721	4%	\$334	\$290	15%	26%	0%	279%	N/a	N/a	N/a	N/a
cardlytics	8 / 01*	GP	\$31	\$26	17%	(\$4)	(\$8)	NM	20%	(1%)	185%	N/a	N/a	N/a	N/a
CRITEO	8 / 02	Contribution ex-TAC	\$240	\$231	4%	\$56	\$48	16%	(5%)	(1%)	12%		N/a		N/a
Digital Turbine	8 / 08*	Adj. GP	\$69	\$66	4%	\$27	\$24	13%	(8%)	(1%)	(60%)	N/a	N/a	N/a	N/a
DV DoubleVerify	7 / 31*	Revenue	\$134	\$133	0%	\$40	\$38	5%	(15%)	(0%)	27%		-- %		-- %
INNOVD	8 / 08	Revenue	\$35	\$32	8%	\$5	\$1	NM	(3%)	(0%)	(25%)	N/a	N/a		+ 5% margin
IAS	8 / 03*	Revenue	\$114	\$112	1%	\$37	\$36	4%	(19%)	(1%)	35%		< +1 %		+ 1%
/LiveRamp	8 / 09*	Revenue	\$154	\$147	5%	\$22	\$16	33%	18%	0%	23%		+ 2%		-- %
Magnite	8 / 09*	Contribution ex-TAC	\$135	\$134	0%	\$37	\$39	(4%)	(35%)	0%	(29%)		N/a		N/a
MediaAlpha	8 / 02*	Adj. GP	\$14	\$12	16%	\$4	\$2	139%	6%	(0%)	(17%)	N/a	N/a	N/a	N/a
nexxen	8 / 17	Contribution ex-TAC	\$80	\$90	(11%)	\$21	\$28	(25%)	(31%)	(1%)	(45%)		(19%)		(39%)
outbrain	8 / 08	GP ex-TAC	\$55	\$54	2%	\$4	\$1	NM	6%	(0%)	35%		-- %		+ 7%
Perion	8 / 02	Revenue	\$179	\$176	1%	\$41	\$40	3%	(1%)	(1%)	21%		1 % ⁽³⁾		+ 8%
PubMatic	8 / 08*	Revenue	\$63	\$60	6%	\$12	\$14	(14%)	(34%)	(1%)	(6%)	N/a	N/a		Withdrew Outlook
ROKU	7 / 27*	Revenue	\$847	\$771	10%	(\$18)	(\$75)	NM	31%	1%	73%	N/a	N/a	N/a	N/a
Taboola	8 / 09	GP ex-TAC	\$123	\$114	8%	\$16	\$1	NM	12%	(1%)	23%		< +1 %		+ 6%
theTradeDesk	8 / 09*	Revenue	\$464	\$453	3%	\$180	\$161	12%	(5%)	0%	74%	N/a	N/a	N/a	N/a
Unity	8 / 02*	Revenue	\$533	\$515	4%	\$99	\$57	73%	(1%)	(0%)	10%		+ 1%		+ 20%
VIANT	8 / 07*	Contribution ex-TAC	\$34	\$33	2%	\$7	\$3	173%	29%	(0%)	39%	N/a	N/a	N/a	N/a
ZETA	8 / 02*	Revenue	\$172	\$162	6%	\$27	\$24	10%	14%	(0%)	2%		+ 2%		+ 4%

Source: FactSet (Market data as of 09/30/2023) Note: \$ in millions, unless otherwise noted. Broker consensus represents median broker estimates. T+1 trading performance is defined as the close of the first trading day following earnings announcement. *Represents earnings release after market close. (1) Represents Adj. EBITDA; RAMP defined as Non-GAAP operating income. (2) Represents the mid-point of guidance range. (3) Perion guidance represents gross revenue.

MarTech Earnings Reaction

Cohort largely exceeded Q2 2023 revenues and EBITDA expectations; nuanced intra-cohort market reaction

Overview	Most Recent Quarter						Change in FY Guidance ⁽²⁾										
	Company	Date	Actual	Cons.	Beat/Miss	Profitability / EBITDA ⁽¹⁾	Actual	Cons.	Beat/Miss	Trading Performance	Revenue	Profitability					
										T+1 Comp	T+1 S&P	YTD Comp	Change	%	Defined	Change	%
Amplitude	08/08*	\$68	\$67	1%	\$0	(\$0)	NM	7%	(1%)	(4%)	↑	+ 3 %	Non-GAAP Operating Inc	↑	+ 11%		
BigCommerce	08/03*	\$75	\$73	3%	(\$3)	(\$5)	49%	27%	(1%)	13%	→	-- %	Non-GAAP Operating Inc	↑	+ 25%		
Braze	09/07*	\$115	\$109	6%	(\$14)	(\$13)	(10%)	3%	0%	71%	↑	+ 2 %	Non-GAAP Operating Inc	↑	+ 14%		
Brightcove	08/02*	\$51	\$51	1%	\$4	\$2	59%	(1%)	(0%)	(37%)	↓	(2%)	Adj. EBITDA	↓	(31%)		
Comscore	08/08*	\$94	\$90	4%	\$9	\$8	9%	10%	(1%)	(47%)	↓	n/a	Adj. EBITDA	→	n/a		
Coveo	08/08*	\$31	\$30	1%	(\$3)	(\$3)	6%	5%	(1%)	13%	→	-- %	Adj. Operating Gain / Loss	↑	+ 11%		
DoubleVerify	07/31*	\$134	\$134	(0%)	\$40	\$38	5%	(15%)	(0%)	27%	→	-- %	Adj. EBITDA	→	-- %		
HubSpot	08/02*	\$529	\$504	5%	\$90	\$73	23%	(11%)	(0%)	70%	↑	+ 2%	Non-GAAP Operating Inc.	↑	+ 6%		
IAS	08/03*	\$114	\$112	1%	\$37	\$36	4%	(19%)	(1%)	35%	↑	+ < 1%	Adj. EBITDA	↑	+ 1%		
Kaltura	08/02	\$44	\$43	2%	(\$1)	(\$2)	28%	8%	(1%)	1%	↑	+ 1%	Adj. EBITDA	↑	+ 23%		
LivePerson	08/08*	\$98	\$97	0%	\$13	\$5	NM	19%	(1%)	(62%)	→	-- %	Adj. EBITDA	↑	+ 9%		
LiveRamp	08/09*	\$154	\$147	5%	\$22	\$16	33%	18%	0%	23%	↑	+ 2%	Non-GAAP Operating Inc.	→	-- %		
ON24	08/08*	\$42	\$42	1%	(\$1)	(\$1)	21%	(13%)	(1%)	(27%)	↓	(3%)	Non-GAAP Operating Inc.	↑	+ 8%		
QuinStreet	08/09*	\$130	\$128	2%	\$2	\$1	28%	17%	0%	(37%)	n/a	n/a	Adj. EBITDA	n/a	n/a		
SEMRush	08/04	\$75	\$74	0%	\$3	(\$2)	NM	3%	(1%)	4%	↑	+ < 1%	Non-GAAP Net Income	↑	NM		
Shopify	08/02*	\$1,694	\$1,623	4%	\$163	\$81	NM	(5%)	(0%)	57%	n/a	n/a	Adj. Net Income	n/a	n/a		
Similarweb	08/08*	\$54	\$54	(0%)	(\$2)	(\$6)	66%	(12%)	(1%)	1%	↓	(2%)	Non-GAAP Operating Inc	↑	+ 23%		
Sprinklr	09/06*	\$178	\$174	3%	\$25	\$16	55%	0%	(0%)	69%	↑	+ 1%	Non-GAAP Operating Inc	↑	+ 25%		
Sprout Social	08/03*	\$79	\$79	1%	\$3	(\$1)	NM	(12%)	(1%)	(12%)	↓	(1%)	Non-GAAP Operating Inc	↓	(36%)		
SquareSpace	08/08	\$248	\$243	2%	\$73	\$58	27%	(4%)	(0%)	31%	↑	+ 2%	Non-GAAP Unlevered FCF	↑	+ 11%		
TechTarget	08/08*	\$58	\$57	3%	\$19	\$17	8%	7%	(1%)	(31%)	→	n/a	Adj. EBITDA	→	-- %		
Twilio	08/08*	\$1,038	\$986	5%	\$195	\$143	37%	2%	(1%)	20%	n/a	n/a	Non-GAAP Operating Inc.	↑	+ 20%		
Wix	08/03	\$390	\$383	2%	\$73	\$43	71%	13%	(0%)	19%	↑	+ 1%	Free Cash Flow	↑	+ 16%		
Xfinity	09/06*	\$103	\$102	1%	\$12	\$12	2%	(28%)	(0%)	(3%)	→	n/a	Adj. EBITDA	↑	+ 2%		
Zeta	08/02*	\$172	\$162	6%	\$27	\$24	10%	14%	(0%)	2%	↑	+ 2%	Adj. EBITDA	↑	+ 4%		
ZoomInfo	07/31*	\$309	\$311	(1%)	\$130	\$131	(0%)	(27%)	(0%)	(46%)	↓	(4%)	Non-GAAP Adj. Op Income	↓	(6%)		

Ad Tech – Q3 2023 Market Performance

Ranking – Highest to Lowest Share Price Increase / (Decrease) in %

	Company	Share Price (\$)		QoQ % Change	Market Cap (\$mm)	EV / LTM Net Revenue ⁽¹⁾	
		Beginning of Q3 2023	End of Q3 2023	% Increase / (Decrease)	End of Q3 2023	Beginning of Q3 2023	End of Q3 2023
1	Cardlytics	\$6.32	\$16.50	+161.1%	\$744	5.8x	7.7x
2	AppLovin	\$25.73	\$39.96	+55.3%	\$15,817	4.1x	6.3x
3	Taboola	\$3.11	\$3.79	+21.9%	\$1,268	1.8x	2.3x
4	Viant	\$4.61	\$5.60	+21.5%	\$374	2.5x	2.9x
5	Innovid	\$1.09	\$1.28	+17.4%	\$199	1.0x	1.3x
6	Media and Games Invest	\$1.00	\$1.14	+13.8%	\$193	1.0x	1.5x
7	Roku	\$63.96	\$70.59	+10.4%	\$10,557	2.2x	2.7x
8	theTradeDesk	\$77.22	\$78.15	+1.2%	\$39,968	23.0x	22.2x
9	LiveRamp	\$28.56	\$28.84	+1.0%	\$2,084	2.6x	2.6x
10	Perion Network	\$30.67	\$30.63	(0.1%)	\$1,528	4.1x	3.5x
11	Affle	\$13.33	\$13.31	(0.1%)	\$1,774	24.9x	23.9x
12	Outbrain	\$4.92	\$4.87	(1.0%)	\$269	1.1x	1.0x
13	Zeta	\$8.54	\$8.35	(2.2%)	\$2,270	3.8x	3.6x
14	S&P 500	\$4,450.38	\$4,288.05	(3.6%)	NA	NA	NA
15	AdTheorent	\$1.40	\$1.29	(7.9%)	\$128	0.5x	0.5x
16	Mobvista	\$0.44	\$0.40	(8.4%)	\$622	NA	NA
17	Criteo	\$33.74	\$29.20	(13.5%)	\$1,895	2.1x	1.8x
18	Illumin	\$1.68	\$1.35	(19.8%)	\$84	1.2x	0.8x
19	MediaAlpha	\$10.31	\$8.26	(19.9%)	\$574	11.1x	10.1x
20	Unity Software	\$43.42	\$31.39	(27.7%)	\$13,463	12.7x	8.2x
21	Double Verify	\$38.92	\$27.95	(28.2%)	\$4,973	13.9x	9.3x
22	PubMatic	\$18.28	\$12.10	(33.8%)	\$691	3.6x	2.0x
23	Integral Ad Science	\$17.98	\$11.89	(33.9%)	\$2,027	7.3x	4.8x
24	Digital Turbine	\$9.28	\$6.05	(34.8%)	\$631	4.4x	3.2x
25	Magnite	\$13.65	\$7.54	(44.8%)	\$1,132	4.8x	2.8x
26	Nexxen	\$3.60	\$1.76	(51.1%)	\$264	1.5x	0.6x
Average						5.0x	4.4x

MarTech – Q3 2023 Market Performance

Ranking – Highest to Lowest Share Price Increase / (Decrease) in %

	Company	Share Price (\$)		QoQ % Change	Market Cap (\$mm)	EV / LTM Net Revenue	
		Beginning of Q3 2023	End of Q3 2023	% Increase / (Decrease)	End of Q3 2023	Beginning of Q3 2023	End of Q3 2023
1	Coveo	\$6.24	\$7.55	+21.0%	\$844	4.6x	5.5x
2	Wix	\$78.24	\$91.80	+17.3%	\$5,581	3.2x	3.6x
3	Klaviyo	\$30.00 ⁽¹⁾	\$34.50	+15.0%	\$10,497	NA	17.2x
4	Sprout Social	\$46.16	\$49.88	+8.1%	\$2,921	9.2x	9.5x
5	Braze	\$43.79	\$46.73	+6.7%	\$5,195	11.4x	11.6x
6	Amplitude	\$11.00	\$11.57	+5.2%	\$1,608	5.0x	5.0x
7	QuinStreet	\$8.83	\$8.97	+1.6%	\$517	0.7x	0.8x
8	LiveRamp	\$28.56	\$28.84	+1.0%	\$2,084	2.6x	2.6x
9	Sprinklr	\$13.83	\$13.84	+0.1%	\$4,123	5.4x	5.2x
10	BigCommerce	\$9.95	\$9.87	(0.8%)	\$819	3.1x	2.9x
11	Similarweb	\$6.56	\$6.48	(1.2%)	\$566	2.4x	2.3x
12	Zeta Global	\$8.54	\$8.35	(2.2%)	\$2,270	3.8x	3.6x
13	TechTarget	\$31.13	\$30.36	(2.5%)	\$898	3.6x	3.8x
14	S&P 500	\$4,450.38	\$4,288.05	(3.6%)	NA	NA	NA
15	HubSpot	\$532.09	\$492.50	(7.4%)	\$25,905	14.4x	12.8x
16	Twillio	\$63.62	\$58.53	(8.0%)	\$11,894	2.3x	2.3x
17	Squarespace	\$31.54	\$28.97	(8.1%)	\$4,193	5.3x	4.7x
18	SEMrush	\$9.57	\$8.50	(11.2%)	\$1,264	3.6x	3.7x
19	Appier	\$12.10	\$10.72	(11.4%)	\$1,090	7.7x	6.1x
20	LivePerson	\$4.52	\$3.89	(13.9%)	\$318	1.4x	1.5x
21	Shopify	\$64.60	\$54.57	(15.5%)	\$70,652	13.4x	10.6x
22	BrightCove	\$4.01	\$3.29	(18.0%)	\$161	0.9x	0.7x
23	Kaltura	\$2.12	\$1.73	(18.4%)	\$264	1.6x	1.3x
24	ON24	\$8.12	\$6.33	(22.0%)	\$321	0.6x	0.5x
25	comScore	\$0.81	\$0.61	(24.2%)	\$61	0.7x	0.6x
26	DoubleVerify	\$38.92	\$27.95	(28.2%)	\$4,973	13.9x	9.3x
27	Integral Ad Science	\$17.98	\$11.89	(33.9%)	\$2,027	7.3x	4.8x
28	ZoomInfo	\$25.39	\$16.40	(35.4%)	\$6,822	9.7x	6.2x
	Average					5.3x	5.1x

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LUMA.A – Benchmarking at a Glance

Summary Observations

- The **LUMA.A** index cohort has 25 companies, including 4 that overlap with the **LUMA.M** index cohort.
- The average Enterprise Value of **LUMA.A** constituents is \$4.1bn, with theTradeDesk (\$38.5bn) at the high end of the range and Illumin (\$39mm) at the lower end of the EV range.
- **Net Revenue:**
 - **LUMA.A** companies have an average 2023E Net Revenue of \$734mm and trade at an average EV / 2023E Net Revenue of 4.1x. From a scale perspective, Roku is expected to have the highest Net Revenue (\$3.4bn) followed by AppLovin (\$3.1bn).
 - theTradeDesk is trading at the highest EV / 2023E Net Revenue at 19.1x, while AdTheorent is trading at the lowest EV / 2023E Net Revenue multiple at 0.5x. Growth forecasts have come down throughout the year, as the average Net Revenue growth rate for '23E is 7.7%, down YoY from a 2022 growth rate of 14.8%.
- **Profitability:**
 - **LUMA.A** companies have an average 2023E EBITDA⁽²⁾ margin of 22.9%. EBITDA margins have largely held throughout the year and are slightly up from 2022 EBITDA margins of 22.7%. Perion leads the cohort with 54% 2023E EBITDA margins, followed by AppLovin at 43%. From a pure dollar perspective, AppLovin leads the cohort with expected 2023E EBITDA of \$1.3bn.

Number of Companies

25

4 overlap with LUMA.M

Avg. Enterprise Value

\$4.1bn

Avg. 2023E Net Revenue⁽¹⁾

\$734mm

Avg. EV / 2023E Net Revenue⁽¹⁾

4.1x

Avg. 2023E Net Rev. Growth⁽¹⁾

+7.7%

Down from +14.8% in 2022

Avg. 2023E EBITDA Margin^{(1) (2)}

+22.9%

Up from +22.7% in 2022

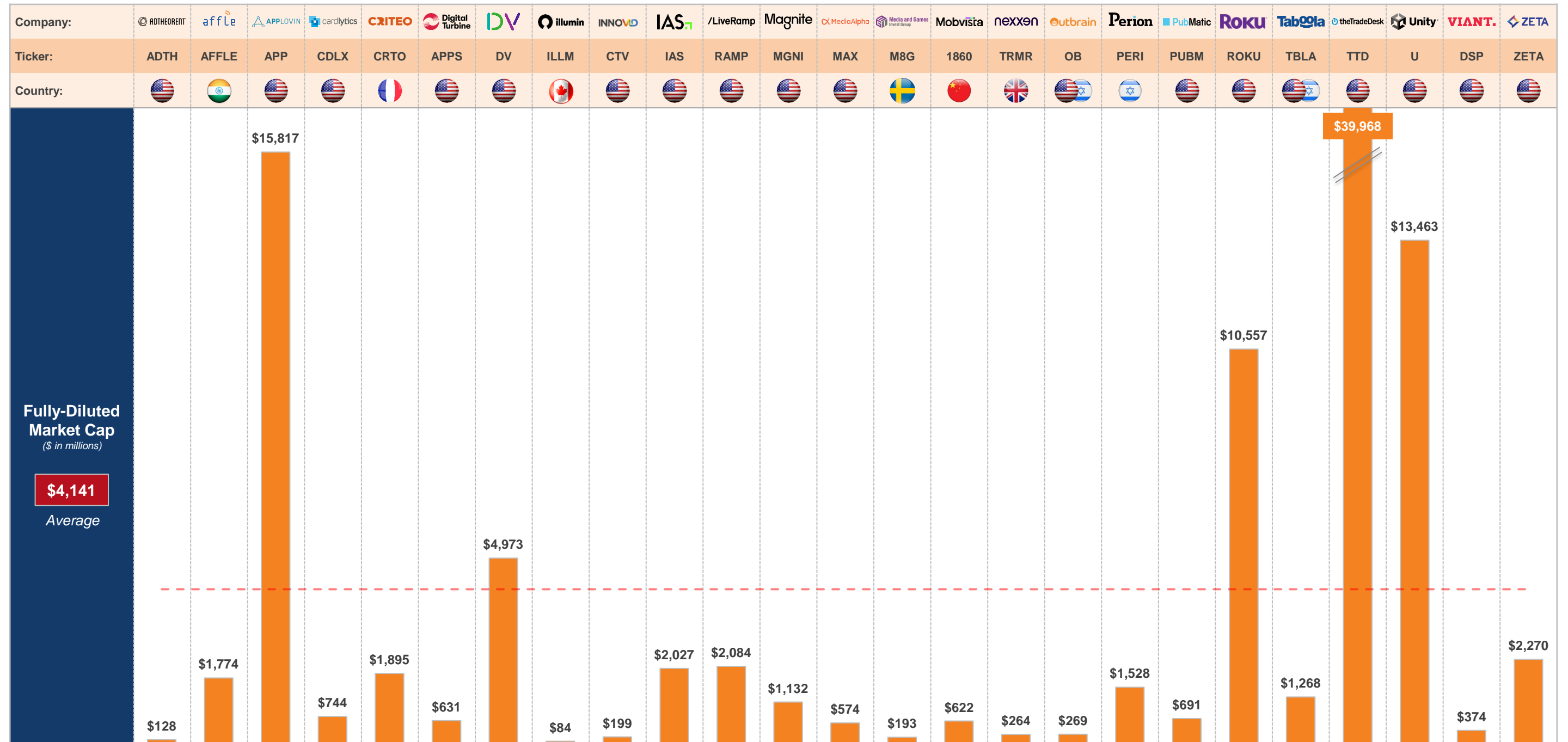
LUMA.A – Summary Valuation Statistics

NOTE: FIGURES REFLECT DEFINITIONAL ADJUSTMENTS TO CONFORM TO CUSTOMARY FINANCIAL DEFINITIONS UTILIZED IN THE ADVERTISING TECHNOLOGY SUB-SECTOR. SEE APPENDIX A FOR DETAIL ON METHODOLOGY & DEFINITIONS.

(\$mm, excl. price)						EV / Net Revenue ⁽¹⁾			EV / Adj. EBITDA		
Company	Ticker	Exchange	Share Price	FD Market Cap	Enterprise Value	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
Affle ⁽¹⁾	AFFLE	BSE	\$13.31	\$1,774	\$1,700	25.5x	NA	NA	49.1x	40.1x	30.4x
AdTheorent	ADTH	NASDAQ	\$1.29	\$128	\$55	0.5x	0.5x	0.5x	2.5x	2.9x	2.5x
AppLovin	APP	NASDAQ	\$39.96	\$15,817	\$18,141	6.4x	5.9x	5.2x	17.1x	13.7x	11.7x
Cardlytics	CDLX	NASDAQ	\$16.50	\$744	\$879	7.8x	7.0x	6.1x	NM	NM	73.7x
Criteo	CRTO	NASDAQ	\$29.20	\$1,895	\$1,682	1.8x	1.6x	1.5x	6.3x	5.9x	5.3x
Digital Turbine	APPS	NASDAQ	\$6.05	\$631	\$978	2.8x	3.5x	NA	5.1x	9.2x	6.6x
DoubleVerify	DV	NYSE	\$27.95	\$4,973	\$4,685	10.4x	8.3x	6.7x	33.1x	26.7x	21.3x
Illumin	ILLM	NASDAQ	\$1.35	\$84	\$39	0.8x	0.8x	0.7x	8.0x	17.3x	6.5x
Innovid	CTV	NYSE	\$1.28	\$199	\$175	1.4x	1.3x	1.1x	NM	13.4x	9.7x
Integral Ad Science	IAS	NASDAQ	\$11.89	\$2,027	\$2,122	5.2x	4.6x	3.9x	16.8x	14.0x	11.8x
LiveRamp	RAMP	NYSE	\$28.84	\$2,084	\$1,580	2.7x	2.6x	2.4x	29.3x	17.9x	12.5x
Magnite	MGNI	NASDAQ	\$7.54	\$1,132	\$1,505	2.9x	2.8x	2.5x	8.4x	8.8x	7.5x
MediaAlpha	MAX	NYSE	\$8.26	\$574	\$655	9.3x	10.3x	8.3x	28.6x	31.1x	18.9x
Media and Games Invest	M8G	NASDAQ	\$1.14	\$193	\$526	1.5x	1.6x	1.5x	5.3x	5.4x	4.9x
Mobvista	1860	HKG	\$0.40	\$622	\$605	2.7x	2.7x	2.3x	16.8x	NA	NA
Nexxen	TRMR	LSE	\$1.76	\$264	\$180	0.6x	0.6x	0.5x	1.2x	2.1x	1.7x
Outbrain	OB	NASDAQ	\$4.87	\$269	\$214	0.9x	0.9x	0.8x	8.1x	7.1x	5.0x
Perion Network	PERI	NASDAQ	\$30.63	\$1,528	\$1,045	3.9x	3.3x	3.0x	7.9x	6.2x	5.8x
PubMatic	PUBM	NASDAQ	\$12.10	\$691	\$520	2.0x	2.1x	1.9x	5.3x	8.4x	6.6x
Roku	ROKU	NASDAQ	\$70.59	\$10,557	\$8,802	2.8x	2.6x	2.3x	NM	NM	NM
Taboola	TBLA	NASDAQ	\$3.79	\$1,268	\$1,216	2.1x	2.2x	1.4x	7.8x	15.8x	6.0x
theTradeDesk	TTD	NASDAQ	\$78.15	\$39,968	\$38,537	24.4x	19.8x	16.1x	57.7x	50.4x	40.3x
Unity Software	U	NYSE	\$31.39	\$13,463	\$14,754	10.6x	6.8x	5.6x	NM	44.2x	22.7x
Viant	DSP	NASDAQ	\$5.60	\$374	\$374	3.0x	2.7x	2.4x	NM	15.2x	13.5x
Zeta Global	ZETA	NYSE	\$8.35	\$2,270	\$2,337	4.0x	3.3x	2.8x	25.3x	18.8x	15.0x
Average						4.6x	4.1x	3.5x	15.3x	15.9x	14.1x
Median						2.8x	2.7x	2.4x	8.1x	13.7x	8.6x
25th Percentile						1.7x	1.6x	1.4x	5.8x	7.1x	5.9x
75th Percentile						5.5x	4.9x	4.6x	21.2x	17.9x	14.6x

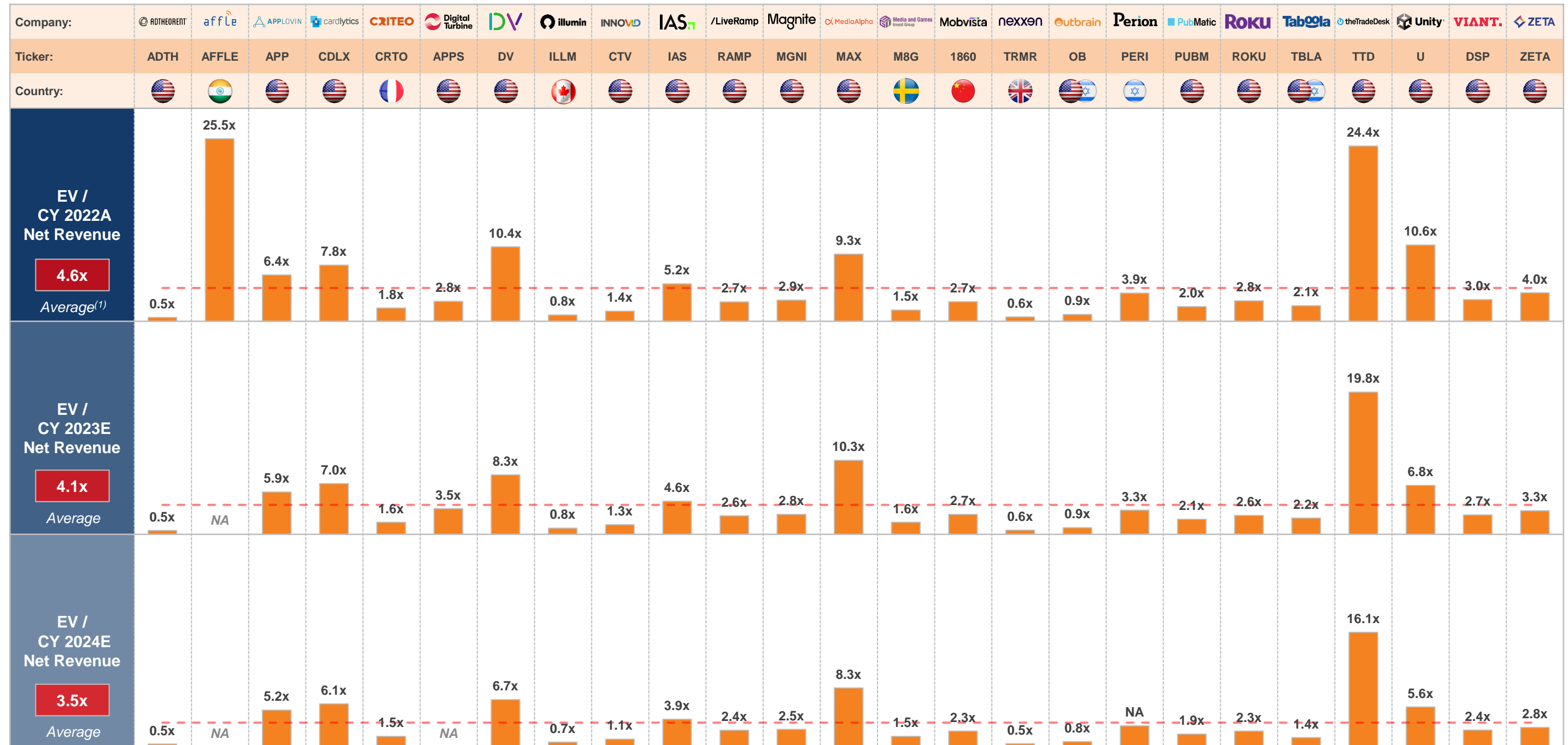
Source: LUMA Analysis, FactSet (Market data as of 09/30/2023), Company Filings. Note: Figures correspond to calendar years, or closest equivalent period, See Appendix C for detail. Forward estimates excluded for companies whose relevant metrics are not available on a forward basis (i.e., excluded if brokers do not forecast the specific metric such as "Ex-TAC Gross Profit" or similar such top-line metric). EBITDA multiples less than zero or greater than 75.0x are considered not meaningful ("NM"). Please refer to Appendices A & B for detail on methodology and definitions. (1) Affle excluded from summary statistics.

LUMA.A – Market Cap Distribution



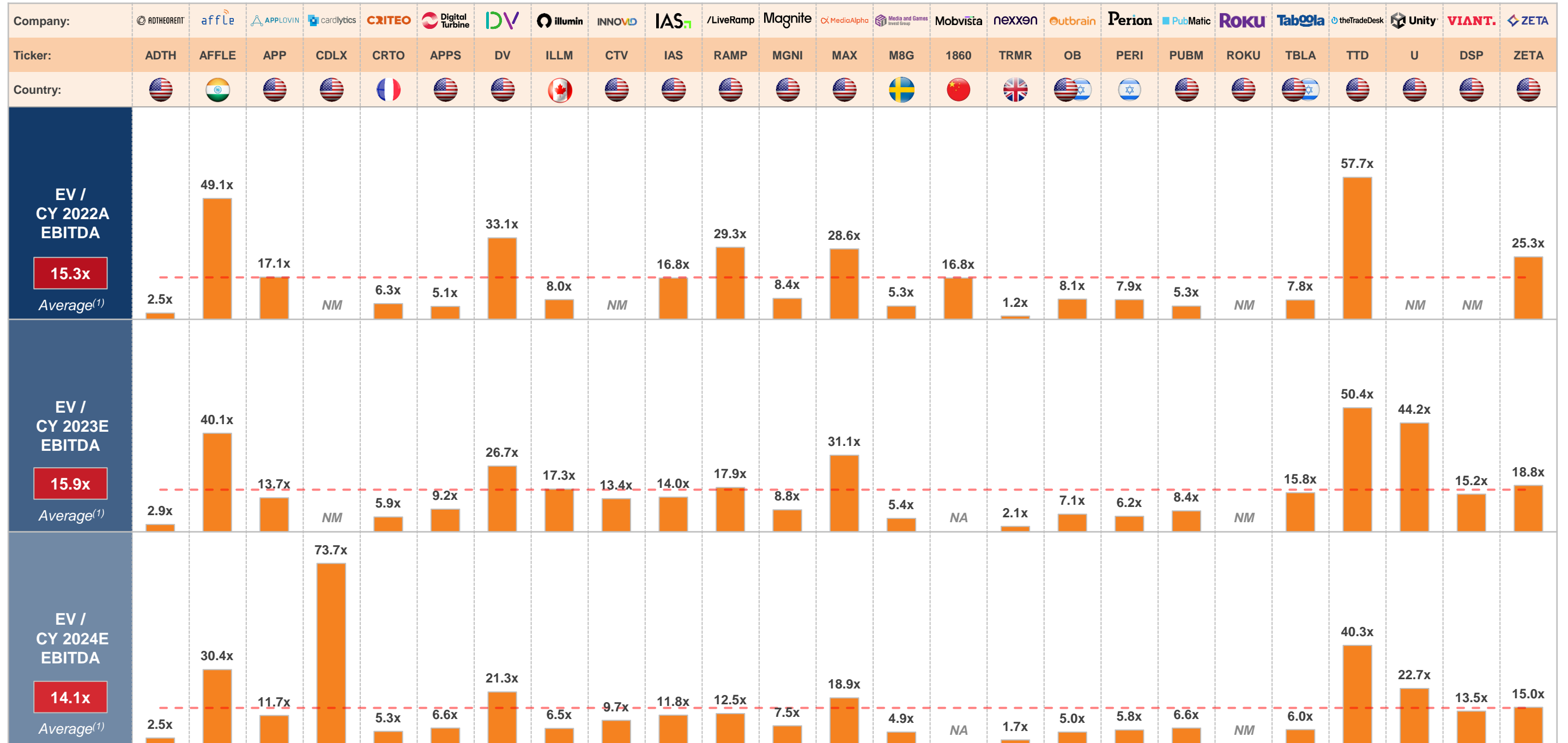
LUMA.A – EV / Net Revenue

NOTE: FIGURES REFLECT DEFINITIONAL ADJUSTMENTS TO CONFORM TO CUSTOMARY FINANCIAL DEFINITIONS UTILIZED IN THE ADVERTISING TECHNOLOGY SUB-SECTOR. SEE APPENDIX A FOR DETAIL ON METHODOLOGY & DEFINITIONS.



LUMA.A – EV / EBITDA

NOTE: FIGURES REFLECT DEFINITIONAL ADJUSTMENTS TO CONFORM TO CUSTOMARY FINANCIAL DEFINITIONS UTILIZED IN THE ADVERTISING TECHNOLOGY SUB-SECTOR. SEE APPENDIX A FOR DETAIL ON METHODOLOGY & DEFINITIONS.



LUMA.A – Summary Financial Statistics

NOTE: FIGURES REFLECT DEFINITIONAL ADJUSTMENTS TO CONFORM TO CUSTOMARY FINANCIAL DEFINITIONS UTILIZED IN THE ADVERTISING TECHNOLOGY SUB-SECTOR. SEE APPENDIX A FOR DETAIL ON METHODOLOGY & DEFINITIONS.

(\$mm, excl. price)		Net Revenue			Net Revenue Growth %			EBITDA			EBITDA Margin %		
Company	Ticker	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
Affle ⁽¹⁾	AFFLE	\$67	NA	NA	42%	NA	NA	\$35	\$42	\$56	52%	NA	NA
AdTheorent	ADTH	\$110	\$108	\$120	0%	(1%)	10%	\$22	\$19	\$22	20%	17%	18%
AppLovin	APP	\$2,817	\$3,084	\$3,486	1%	9%	13%	\$1,063	\$1,323	\$1,545	38%	43%	44%
Cardlytics	CDLX	\$113	\$125	\$145	10%	11%	16%	(\$45)	(\$4)	\$12	(40%)	(3%)	8%
Criteo	CRTO	\$928	\$1,021	\$1,102	1%	10%	8%	\$267	\$284	\$319	29%	28%	29%
Digital Turbine	APPS	\$356	\$276	NA	14%	(22%)	NA	\$191	\$107	\$147	54%	39%	NA
DoubleVerify	DV	\$452	\$567	\$704	36%	25%	24%	\$142	\$176	\$220	31%	31%	31%
Illumin	ILLM	\$45	\$47	\$53	(11%)	3%	13%	\$5	\$2	\$6	11%	5%	11%
Innovid	CTV	\$127	\$135	\$153	41%	6%	13%	\$1	\$13	\$18	1%	10%	12%
Integral Ad Science	IAS	\$408	\$463	\$539	26%	13%	16%	\$127	\$151	\$179	31%	33%	33%
LiveRamp	RAMP	\$590	\$619	\$663	17%	5%	7%	\$54	\$88	\$126	9%	14%	19%
Magnite	MGNI	\$515	\$546	\$600	12%	6%	10%	\$179	\$170	\$200	35%	31%	33%
MediaAlpha	MAX	\$70	\$64	\$79	(31%)	(9%)	24%	\$23	\$21	\$35	33%	33%	44%
Media and Games Invest	M8G	\$344	\$321	\$344	21%	(7%)	7%	\$99	\$98	\$107	29%	31%	31%
Mobvista	1860	\$225	\$221	\$268	51%	(2%)	21%	\$36	NA	NA	16%	NA	NA
Nexxen	TRMR	\$310	\$324	\$354	3%	5%	9%	\$145	\$86	\$103	47%	27%	29%
Outbrain	OB	\$235	\$237	\$265	(14%)	1%	12%	\$26	\$30	\$43	11%	13%	16%
Perion Network	PERI	\$268	\$314	\$349	41%	17%	11%	\$132	\$168	\$180	49%	54%	52%
PubMatic	PUBM	\$256	\$253	\$281	13%	(1%)	11%	\$98	\$62	\$79	38%	24%	28%
Roku	ROKU	\$3,127	\$3,373	\$3,877	13%	8%	15%	(\$84)	(\$196)	\$50	(3%)	(6%)	1%
Taboola	TBLA	\$570	\$545	\$896	10%	(4%)	64%	\$157	\$77	\$203	28%	14%	23%
theTradeDesk	TTD	\$1,578	\$1,944	\$2,398	32%	23%	23%	\$668	\$765	\$956	42%	39%	40%
Unity Software	U	\$1,391	\$2,171	\$2,617	25%	56%	21%	(\$51)	\$334	\$650	(4%)	15%	25%
Viant	DSP	\$125	\$140	\$154	(12%)	12%	10%	(\$6)	\$25	\$28	(5%)	18%	18%
Zeta Global	ZETA	\$591	\$715	\$839	29%	21%	17%	\$92	\$125	\$155	16%	17%	19%
Average					14%	8%	16%				21%	23%	26%
Median					13%	6%	13%				28%	24%	26%
25th Percentile					1%	(1%)	10%				10%	14%	18%
75th Percentile					27%	12%	19%				35%	32%	33%

LUMA.A – Net Revenue Growth

NOTE: FIGURES REFLECT DEFINITIONAL ADJUSTMENTS TO CONFORM TO CUSTOMARY FINANCIAL DEFINITIONS UTILIZED IN THE ADVERTISING TECHNOLOGY SUB-SECTOR. SEE APPENDIX A FOR DETAIL ON METHODOLOGY & DEFINITIONS.

Company:	ADTHEORENT	afble	APPROVIN	cardlytics	CRITEO	Digital Turbine	DV	illumin	INNOVD	IAS	/LiveRamp	Magnite	MediaAlpha	Media and Games Invest Group	Mobvista	nexxen	Outbrain	Perion	PubMatic	ROKU	Taboola	theTradeDesk	Unity	VIAINT.	ZETA	
Ticker:	ADTH	AFFLE	APP	CDLX	CRTO	APPS	DV	ILLM	CTV	IAS	RAMP	MGNI	MAX	M8G	1860	TRMR	OB	PERI	PUBM	ROKU	TBLA	TTD	U	DSP	ZETA	
Country:	USA	IND	USA	USA	FRA	USA	USA	CAN	USA	USA	USA	USA	USA	SWE	CHN	GBR	ISR	ISR	USA	USA	ISR	USA	USA	USA	USA	USA
Scale (\$mm)	\$110	\$67	\$2,817	\$113	\$928	\$356	\$452	\$45	\$127	\$408	\$590	\$515	\$70	\$344	\$225	\$310	\$235	\$268	\$256	\$3,127	\$570	\$1,578	\$1,391	\$125	\$591	
CY 2022A Net Revenue Growth	0%	42%	1%	10%	1%	14%	36%	(11%)	41%	26%	17%	12%	(31%)	21%	51%	3%	(14%)	41%	13%	13%	10%	32%	25%	(12%)	29%	
14% Average ⁽¹⁾																										
Scale (\$mm)	\$108	NA	\$3,084	\$125	\$1,021	\$276	\$567	\$47	\$135	\$463	\$619	\$546	\$64	\$321	\$221	\$324	\$237	\$314	\$253	\$3,373	\$545	\$1,944	\$2,171	\$140	\$715	
CY 2023E Net Revenue Growth	(1%)	NA	9%	11%	10%	(22%)	25%	3%	6%	13%	5%	6%	(9%)	(7%)	(2%)	5%	1%	17%	(1%)	8%	(4%)	23%	56%	12%	21%	
8% Average																										
Scale (\$mm)	\$120	NA	\$3,486	\$145	\$1,102	NA	\$704	\$53	\$153	\$539	\$663	\$600	\$79	\$344	\$268	\$354	\$265	\$349	\$281	\$3,877	\$896	\$2,398	\$2,617	\$154	\$839	
CY 2024E Net Revenue Growth	10%	NA	13%	16%	8%	NA	24%	13%	13%	16%	7%	10%	24%	7%	21%	9%	12%	11%	11%	15%	64%	23%	21%	10%	17%	
16% Average																										

LUMA.A – EBITDA Margin

NOTE: FIGURES REFLECT DEFINITIONAL ADJUSTMENTS TO CONFORM TO CUSTOMARY FINANCIAL DEFINITIONS UTILIZED IN THE ADVERTISING TECHNOLOGY SUB-SECTOR. SEE APPENDIX A FOR DETAIL ON METHODOLOGY & DEFINITIONS.

Company:																									
Ticker:	ADTH	AFFLE	APP	CDLX	CRTO	APPS	DV	ILLM	CTV	IAS	RAMP	MGNI	MAX	M8G	1860	TRMR	OB	PERI	PUBM	ROKU	TBLA	TTD	U	DSP	ZETA
Country:																									
Average⁽¹⁾																									
21%																									
CY 2022A EBITDA Margin %	20%	52%	38%		29%	54%	31%	11%	1%	31%	9%	35%	33%	29%	16%	47%	11%	49%	38%		28%	42%			16%
YoY bps Δ	(190)	(27)	+117	(282)	(63)	+69	(17)	(205)	(51)	(09)	+00	+15	(246)	+05	+104	(66)	(215)	+129	(42)	(195)	(71)	+03	(19)	(310)	+18
Average																									
23%																									
CY 2023E EBITDA Margin %	17%	NA	43%		28%	39%	31%	5%	10%	33%	14%	31%	33%	31%	NA	27%	13%	54%	24%		14%	39%	15%	18%	17%
YoY bps Δ	(28)	NA	+51	+369	(10)	(149)	(03)	(59)	+87	+16	+51	(36)	+04	+19	NA	(202)	+15	+41	(138)	(31)	(134)	(30)	+191	+225	+18
Average																									
26%																									
CY 2024E EBITDA Margin %	18%	NA	44%	8%	29%	NA	31%	11%	12%	33%	19%	33%	44%	31%	NA	29%	16%	52%	28%	1%	23%	40%	25%	18%	19%
YoY bps Δ	+07	NA	+14	+114	+11	NA	+03	+64	+20	+07	+48	+21	+109	+03	NA	+26	+35	(20)	+37	+71	+85	+06	+95	+04	+11

LUMA.M – Benchmarking at a Glance

Summary Observations

- The **LUMA.M** index cohort has 28 companies, including 4 that overlap with the **LUMA.A** index cohort.
- Since the Q2 2023 Market Report, the **LUMA.M** index cohort has evolved:
 - The acquisition of Quotient Technologies (NYSE: QUOT) closed; the company has been removed from the index.
 - Comscore (NASDAQ: SCOR) and Similarweb (NYSE: SMWB) have been retroactively added to the index.
 - Klaviyo (NYSE: KVYO) went public on September 20th and has been added to the index.
- The average Enterprise Value of **LUMA.M** constituents is \$5.7bn with Shopify at the top of the range (\$67bn) and ON24 (\$81mm) on the low end of the range.
- **Revenue:**
 - From a scale perspective, **LUMA.M** companies have average 2023E revenue of \$914mm. Shopify leads the cohort with ~\$6.9bn of expected revenue.
 - The cohort is trading at an average EV / 2023E revenue of 4.3x. HubSpot is trading at the highest EV / 2023E revenue at 11.7x, followed by Braze at 10.4x. ON24 is trading at the lowest EV / 2023E revenue multiple at 0.5x. The average revenue growth rate for 2023E is 9.5% down from the 2022 average of 22.8%.
- **Profitability:**
 - **LUMA.M** companies have an average 2023E EBITDA margin of 10.3%, up from 3.8% in 2022 as profitability remains a major focus of the sector. By scale, Twilio's 2023E EBITDA of \$686mm leads the cohort, while ZoomInfo has the highest 2023E EBITDA margin (+42%).

Number of Companies

28

4 overlap with LUMA.M

Avg. Enterprise Value

\$5.7bn

Avg. 2023E Revenue

\$914mm

Avg. EV / 2023E Revenue

4.3x

Avg. 2023E Rev. Growth %

+9.5%

Down from +22.8% in 2022A

Avg. 2023E EBITDA Margin %

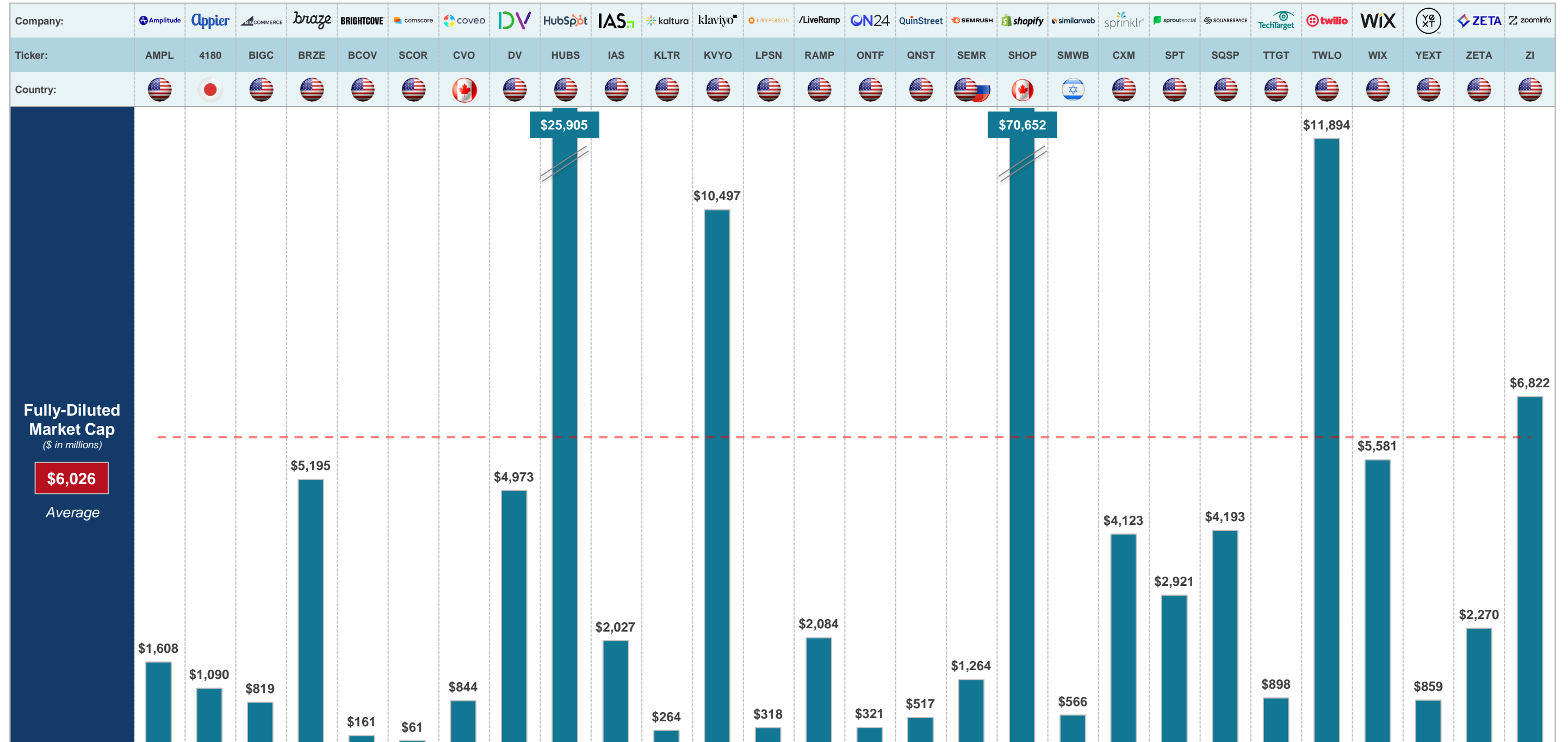
+10.3%

Up from +3.8% in 2022A

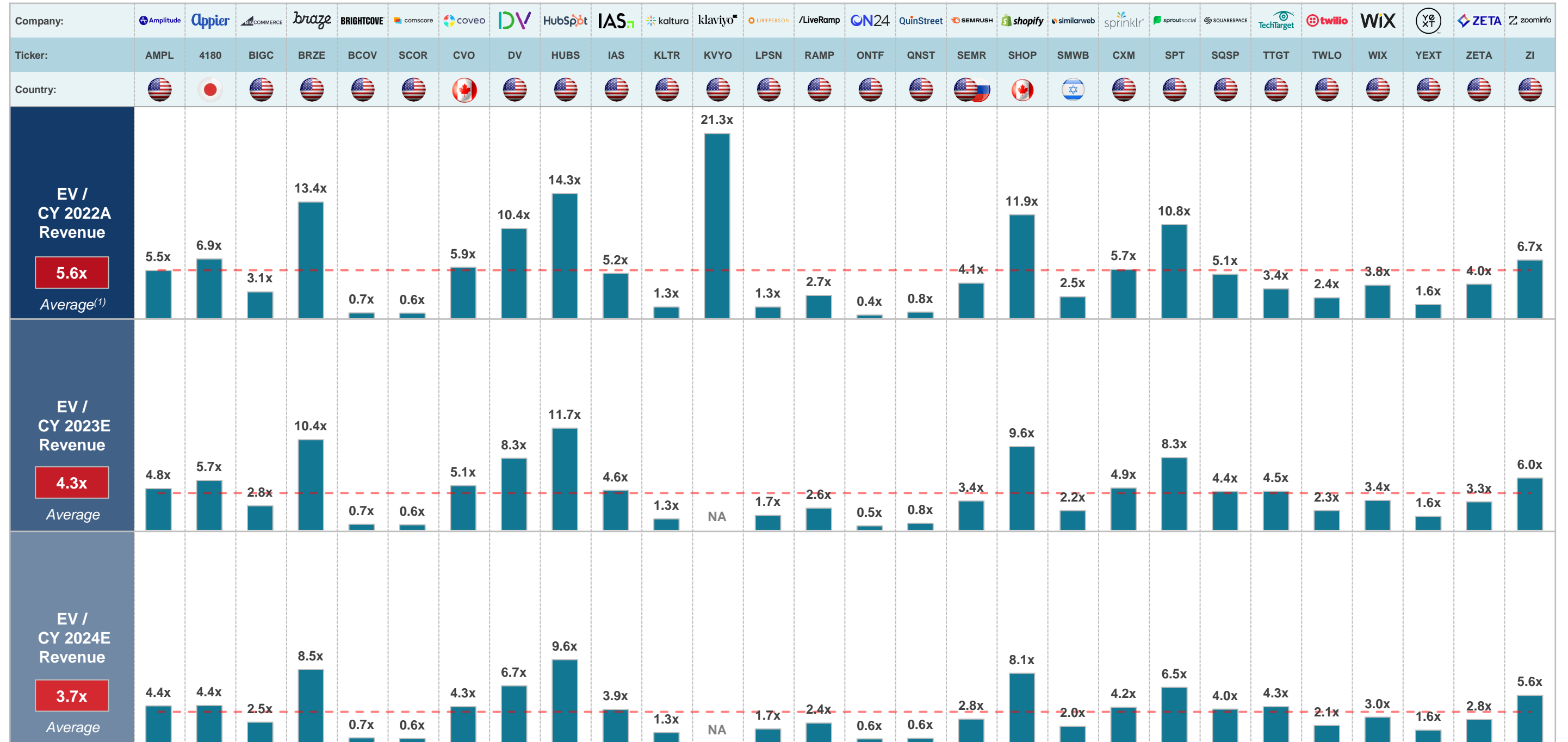
LUMA.M – Summary Valuation Statistics

(\$mm, excl. price)						EV / Revenue			EV / Adj. EBITDA		
Company	Ticker	Exchange	Share Price	FD Market Cap	Enterprise Value	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
Amplitude	AMPL	NASDAQ	\$11.57	\$1,608	\$1,318	5.5x	4.8x	4.4x	NM	NM	NM
Appier	4180	TYO	\$10.72	\$1,090	\$1,002	6.9x	5.7x	4.4x	NM	NA	NA
BigCommerce	BIGC	NASDAQ	\$9.87	\$819	\$861	3.1x	2.8x	2.5x	NM	NM	59.8x
Braze	BRZE	NASDAQ	\$46.73	\$5,195	\$4,724	13.4x	10.4x	8.5x	NM	NM	NM
Brightcove	BCOV	NASDAQ	\$3.29	\$161	\$142	0.7x	0.7x	0.7x	7.9x	12.0x	6.9x
ComScore	SCOR	NASDAQ	\$0.61	\$61	\$242	0.6x	0.6x	0.6x	6.6x	5.8x	4.5x
Coveo	CVO	TSE	\$7.55	\$844	\$653	5.9x	5.1x	4.3x	NM	NM	NM
Double Verify	DV	NYSE	\$27.95	\$4,973	\$4,685	10.4x	8.3x	6.7x	33.1x	26.7x	21.3x
Hubspot	HUBS	NYSE	\$492.50	\$25,905	\$24,831	14.3x	11.7x	9.6x	NM	67.4x	53.3x
Integral Ad Science	IAS	NASDAQ	\$11.89	\$2,027	\$2,122	5.2x	4.6x	3.9x	16.8x	14.0x	11.8x
Kaltura	KLTR	NASDAQ	\$1.73	\$264	\$227	1.3x	1.3x	1.3x	NM	NM	NM
Klaviyo	KVYO	NYSE	\$34.50	\$10,497	\$10,057	21.3x	NA	NA	NM	NA	NA
LivePerson	LPSN	NASDAQ	\$3.89	\$318	\$687	1.3x	1.7x	1.7x	NM	25.8x	16.4x
LiveRamp	RAMP	NYSE	\$28.84	\$2,084	\$1,580	2.7x	2.6x	2.4x	29.3x	17.9x	12.5x
ON24	ONTF	NYSE	\$6.33	\$321	\$81	0.4x	0.5x	0.6x	NM	NM	NM
QuinStreet	QNST	NASDAQ	\$8.97	\$517	\$443	0.8x	0.8x	0.6x	24.9x	38.4x	NA
SEMrush	SEMR	NYSE	\$8.50	\$1,264	\$1,040	4.1x	3.4x	2.8x	NM	NM	59.9x
Shopify	SHOP	TSE	\$54.57	\$70,652	\$66,786	11.9x	9.6x	8.1x	NM	NM	69.0x
SimilarWeb	SMWB	NYSE	\$6.48	\$566	\$488	2.5x	2.2x	2.0x	NM	NM	NM
Sprinklr	CXM	NYSE	\$13.84	\$4,123	\$3,495	5.7x	4.9x	4.2x	NM	42.3x	33.5x
SproutSocial	SPT	NASDAQ	\$49.88	\$2,921	\$2,741	10.8x	8.3x	6.5x	NM	NM	NM
Squarespace	SQSP	NYSE	\$28.97	\$4,193	\$4,413	5.1x	4.4x	4.0x	29.9x	18.5x	15.7x
TechTarget	TTGT	NASDAQ	\$30.36	\$898	\$1,021	3.4x	4.5x	4.3x	8.3x	15.1x	12.9x
Twilio	TWLO	NYSE	\$58.53	\$11,894	\$9,212	2.4x	2.3x	2.1x	33.5x	13.4x	12.1x
Wix	WIX	NASDAQ	\$91.80	\$5,581	\$5,320	3.8x	3.4x	3.0x	NM	26.0x	18.8x
Yext	YEXT	NYSE	\$6.33	\$859	\$658	1.6x	1.6x	1.6x	41.5x	12.9x	11.9x
Zeta Global	ZETA	NYSE	\$8.35	\$2,270	\$2,337	4.0x	3.3x	2.8x	25.3x	18.8x	15.0x
ZoomInfo	ZI	NASDAQ	\$16.40	\$6,822	\$7,396	6.7x	6.0x	5.6x	15.9x	14.3x	13.1x
Average						5.6x	4.3x	3.7x	22.7x	23.1x	24.9x
Median						4.0x	3.4x	3.0x	25.1x	18.2x	15.4x
25th Percentile						2.2x	2.0x	1.9x	14.0x	13.9x	12.2x
75th Percentile						6.8x	5.4x	4.4x	30.7x	26.2x	30.5x

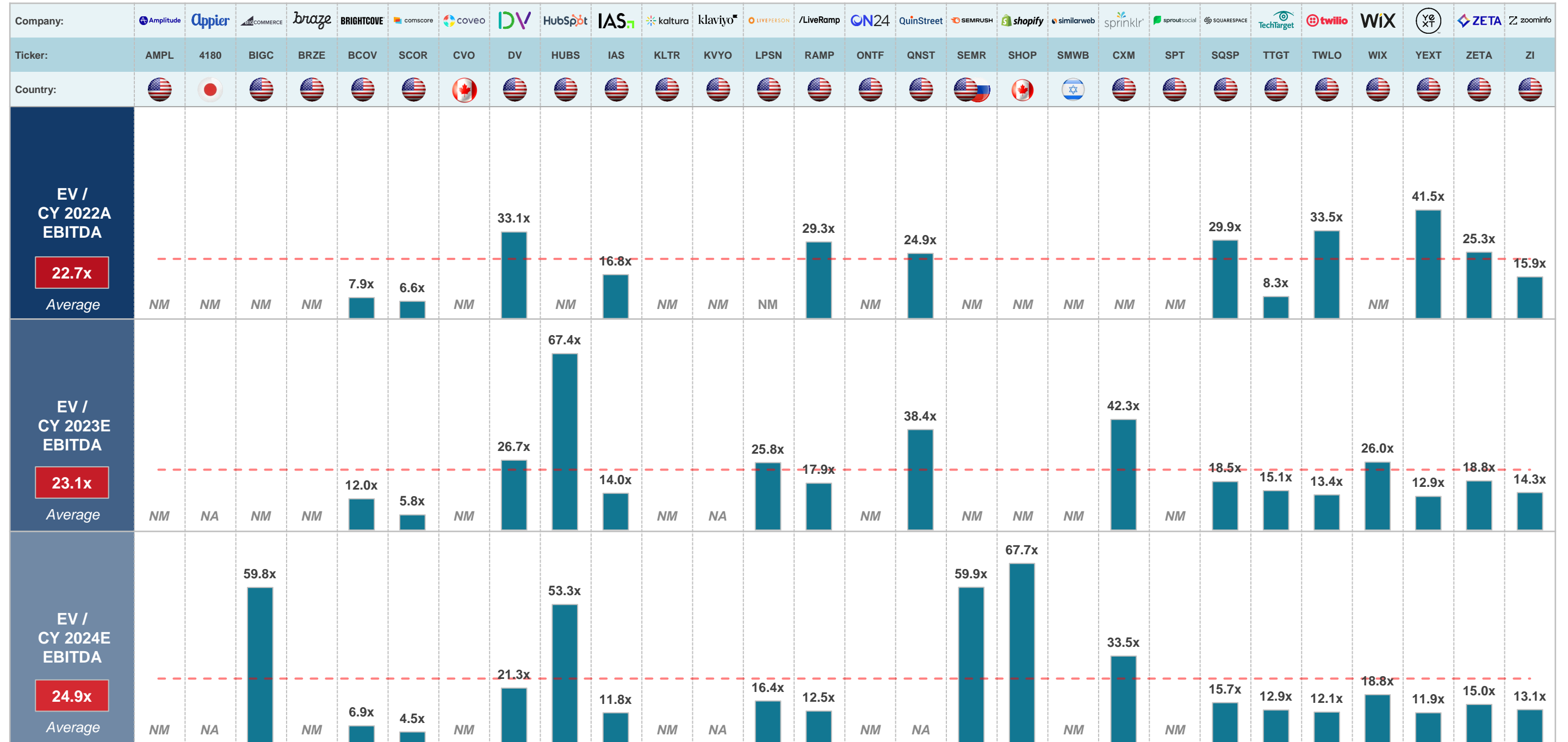
LUMA.M – Market Cap Distribution



LUMA.M – EV / Revenue



LUMA.M – EV / EBITDA



LUMA.M – Summary Financial Statistics

(\$mm, excl. price)		Revenue			Revenue Growth %			EBITDA			EBITDA Margin %		
Company	Ticker	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
Amplitude	AMPL	\$238	\$275	\$302	42%	15%	10%	(\$24)	(\$2)	\$13	(10%)	(1%)	4%
Appier	4180	\$146	\$175	\$228	34%	19%	30%	\$10	NA	NA	7%	NA	NA
BigCommerce	BIGC	\$279	\$307	\$348	27%	10%	13%	(\$44)	(\$7)	\$14	(16%)	(2%)	4%
Braze	BRZE	\$353	\$454	\$555	NA	29%	22%	(\$66)	(\$47)	(\$17)	(19%)	(10%)	(3%)
Brightcove	BCOV	\$211	\$202	\$211	(0%)	(4%)	5%	\$18	\$12	\$21	8%	6%	10%
ComScore	SCOR	\$376	\$383	\$400	3%	2%	4%	\$37	\$42	\$54	10%	11%	13%
Coveo	CVO	\$111	\$128	\$153	28%	15%	20%	(\$19)	(\$10)	\$3	(17%)	(8%)	2%
Double Verify	DV	\$452	\$567	\$704	36%	25%	24%	\$142	\$176	\$220	31%	31%	31%
Hubspot	HUBS	\$1,731	\$2,119	\$2,575	33%	22%	22%	\$227	\$368	\$466	13%	17%	18%
Integral Ad Science	IAS	\$408	\$463	\$539	26%	13%	16%	\$127	\$151	\$179	31%	33%	33%
Kaltura	KLTR	\$169	\$172	\$179	2%	2%	4%	(\$28)	(\$5)	\$3	(17%)	(3%)	2%
Klaviyo	KVYO	\$473	NA	NA	63%	NA	NA	(\$31)	NA	NA	(6%)	NA	NA
LivePerson	LPSN	\$515	\$400	\$402	10%	(22%)	1%	(\$16)	\$27	\$42	(3%)	7%	10%
LiveRamp	RAMP	\$590	\$619	\$663	17%	5%	7%	\$54	\$88	\$126	9%	14%	19%
ON24	ONTF	\$191	\$159	\$147	(6%)	(17%)	(7%)	(\$16)	(\$7)	\$1	(8%)	(4%)	1%
QuinStreet	QNST	\$575	\$548	\$697	(2%)	(5%)	27%	\$18	\$12	NA	3%	2%	NA
SEMrush	SEMR	\$254	\$308	\$367	35%	21%	19%	(\$22)	\$4	\$17	(9%)	1%	5%
Shopify	SHOP	\$5,600	\$6,949	\$8,247	21%	24%	19%	\$97	\$624	\$968	2%	9%	12%
SimilarWeb	SMWB	\$193	\$217	\$243	40%	12%	12%	(\$56)	(\$11)	(\$0)	(29%)	(5%)	(0%)
Sprinklr	CXM	\$618	\$720	\$833	26%	17%	16%	\$0	\$83	\$104	0%	11%	13%
SproutSocial	SPT	\$254	\$329	\$424	35%	29%	29%	(\$1)	\$6	\$15	(0%)	2%	4%
Squarespace	SQSP	\$867	\$993	\$1,111	11%	15%	12%	\$147	\$238	\$280	17%	24%	25%
TechTarget	TTGT	\$297	\$228	\$240	13%	(23%)	5%	\$122	\$68	\$79	41%	30%	33%
Twilio	TWLO	\$3,826	\$4,062	\$4,380	35%	6%	8%	\$275	\$686	\$760	7%	17%	17%
Wix	WIX	\$1,388	\$1,553	\$1,745	9%	12%	12%	(\$20)	\$205	\$283	(1%)	13%	16%
Yext	YEXT	\$407	\$406	\$423	4%	(0%)	4%	\$16	\$51	\$55	4%	13%	13%
Zeta Global	ZETA	\$591	\$715	\$839	29%	21%	17%	\$92	\$125	\$155	16%	17%	19%
ZoomInfo	ZI	\$1,098	\$1,230	\$1,330	47%	12%	8%	\$465	\$517	\$566	42%	42%	43%
Average					23%	9%	13%				4%	10%	14%
Median					26%	12%	12%				2%	10%	13%
25th Percentile					9%	2%	6%				(8%)	(0%)	4%
75th Percentile					35%	20%	20%				11%	17%	19%

LUMA.M – Revenue Growth

Company:																												
Ticker:	AMPL	4180	BIGC	BRZE	BCOV	SCOR	CVO	DV	HUBS	IAS	KLTR	KVYO	LPSN	RAMP	ONTF	QNST	SEMR	SHOP	SMWB	CXM	SPT	SQSP	TTGT	TWLO	WIX	YEXT	ZETA	ZI
Country:																												
Scale (\$mm)	\$238	\$146	\$279	\$353	\$211	\$376	\$111	\$452	\$1,731	\$408	\$169	\$473	\$515	\$590	\$191	\$575	\$254	\$5,600	\$193	\$618	\$254	\$867	\$297	\$3,826	\$1,388	\$407	\$591	\$1,098
CY 2022A Revenue Growth	42%	34%	27%	NA	(0%)	3%	28%	36%	33%	26%	2%	63%	10%	17%	(6%)	(2%)	35%	21%	40%	26%	35%	11%	13%	35%	9%	4%	29%	47%
Average	23%																											
Scale (\$mm)	\$275	\$175	\$307	\$454	\$202	\$383	\$128	\$567	\$2,119	\$463	\$172	NA	\$400	\$619	\$159	\$548	\$308	\$6,949	\$217	\$720	\$329	\$993	\$228	\$4,062	\$1,553	\$406	\$715	\$1,230
CY 2023A Revenue Growth	15%	19%	10%	29%	(4%)	2%	15%	25%	22%	13%	2%	NA	(22%)	5%	(17%)	(5%)	21%	24%	12%	17%	29%	15%	(23%)	6%	12%	(0%)	21%	12%
Average	9%																											
Scale (\$mm)	\$302	\$228	\$348	\$555	\$211	\$400	\$153	\$704	\$2,575	\$539	\$179	NA	\$402	\$663	\$147	\$697	\$367	\$8,247	\$243	\$833	\$424	\$1,111	\$240	\$4,380	\$1,745	\$423	\$839	\$1,330
CY 2024A Revenue Growth	10%	30%	13%	22%	5%	4%	20%	24%	22%	16%	4%	NA	1%	7%	(7%)	27%	19%	19%	12%	16%	29%	12%	5%	8%	12%	4%	17%	8%
Average	16%																											

LUMA.M – EBITDA Margin

























Company:																													
Ticker:	AMPL	4180	BIGC	BRZE	BCOV	SCOR	CVO	DV	HUBS	IAS	KLTR	KVYO	LPSN	RAMP	ONTF	QNST	SEMR	SHOP	SMWB	CXM	SPT	SQSP	TTGT	TWLO	WIX	YE XT	ZETA	ZI	
Country:																													
Average 3.8%																													
CY 2022A EBITDA Margin %	(9.9%)	7.1%	(15.6%)	(18.7%)	8.5%	9.8%	(16.8%)	31.3%	13.1%	31.0%	(16.7%)	(6.5%)	(3.1%)	9.2%	(8.2%)	3.1%	(8.8%)	1.7%	(28.8%)	0.0%	(0.3%)	17.0%	41.1%	7.2%	(1.4%)	3.9%	15.6%	42.4%	
YoY bps Δ	(20)	+68	(65)	NA	(30)	+11	+94	(17)	+06	(09)	(93)	+29	(93)	+00	(115)	(52)	(108)	(148)	+68	+82	+08	+11	+11	(20)	(68)	+38	+18	(03)	
Average 10.3%																													
CY 2023E EBITDA Margin %	(0.8%)	NA	(2.1%)	(10.3%)	5.9%	10.9%	(7.7%)	31.0%	17.4%	32.6%	(2.9%)	NA	6.7%	14.2%	(4.4%)	2.1%	1.3%	9.0%	(5.3%)	11.5%	1.7%	24.0%	29.8%	16.9%	13.2%	12.6%	17.4%	42.0%	
YoY bps Δ	+91	NA	+135	+84	(26)	+11	+91	(03)	+42	+16	+138	NA	+98	+51	+38	(10)	+101	+72	+235	+115	+21	+70	(114)	+97	+146	+87	+18	(04)	
Average 13.7%																													
CY 2024E EBITDA Margin %	4.2%	NA	4.1%	(3.1%)	9.8%	13.4%	1.8%	31.2%	18.1%	33.3%	1.6%	NA	10.4%	19.1%	0.7%	0.0%	4.7%	11.7%	(0.1%)	12.5%	3.6%	25.2%	33.0%	17.4%	16.2%	13.1%	18.5%	42.6%	
YoY bps Δ	+50	NA	+63	+72	+39	+25	+95	+03	+07	+07	+45	NA	+38	+48	+51	NA	+34	+28	+51	+10	+19	+13	+33	+05	+30	+05	+11	+06	

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Ad Tech & MarTech – Q3 2023 Key Financings (1 / 2)

Ad Tech
MarTech
Digital Content

Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
9/18/2023	 brainlabs	 FALFURRIAS CAPITAL	ND	\$320	<ul style="list-style-type: none"> Falfurrias Capital Partners made a minority investment in Brainlabs, a data-driven tech-enabled media agency. Brainlabs will open offices in markets across Europe, Asia Pacific, and Latin America.
9/14/2023	 Pixis	 touring capital	\$85	ND	<ul style="list-style-type: none"> Pixis, an AI-powered full-stack marketing platform raised \$85mm in a Series C1 round led by Touring Capital. The Company has grown 140% YoY in 2023 and has a customer base of 200+ global brands.
9/13/2023	 videoamp	 VISTA	\$150	\$1,550	<ul style="list-style-type: none"> VideoAmp, a media measurement and optimization company, raised \$150mm Series G round led by Vista. The funding will further accelerate growth and drive adoption of its advanced media currency solution.
9/12/2023	 DRUID	 TQ VENTURES	\$30	ND	<ul style="list-style-type: none"> DRUID, a conversational AI platform, raised \$30mm in a Series B round led by TQ Ventures. The Company plans to double down on its U.S. growth, which it says makes up most of its revenue.
9/11/2023	 AMP	 JUNGLE OPENSOURCE	\$19	ND	<ul style="list-style-type: none"> Amp, an eCommerce marketing platform, raised \$18.5mm in a Series A round led by Jungle and Openspace. The investment will be used to expand AMP's team and accelerate product development.
9/6/2023	 Shop Circle	 3VC 645 VENTURES	\$120	ND	<ul style="list-style-type: none"> Shop Circle, a software provider for eCommerce brands, raised \$120mm in a Series A round led by 645 & 3VC. The Company was founded in 2021 and services more than 100,000 eCommerce brands worldwide.
9/6/2023	 Harmonya	 BrightPixel	\$20	ND	<ul style="list-style-type: none"> Harmonya, an AI-powered product data enrichment, categorization and insights platform for retailers and brands, raised \$20mm in a Series A round. The funding will help develop Harmonya's proprietary AI technology, enhance its tools and scale GTM operations.
8/29/2023	 mediafly	 BIP VENTURES	\$80	ND	<ul style="list-style-type: none"> Mediafly, a B2B revenue enablement and intelligence platform, raised \$80mm in a round led by BIP Ventures. Over the past 18 months Mediafly grew its customer base 164% and acquired five revenue technology vendors.
8/29/2023	 Apollo.io	 BCV	\$100	\$1,600	<ul style="list-style-type: none"> Apollo.io, a GTM solution for sales and marketing teams, raised \$100mm in a Series D round led by Bain. The Company has grown revenue 9x over the last two years and currently serves over 500,000 companies.
8/17/2023	 beamer.	 Camber	\$20	ND	<ul style="list-style-type: none"> Beamer, a no-code product engagement platform, raised \$20mm from Camber Partners. The funds will support the development of new product lines targeted at product managers and marketers.
8/16/2023	 Voiceflow	 OPENVIEW	\$15	\$105	<ul style="list-style-type: none"> Voiceflow, a platform for building conversational AI experiences, raised \$15mm in a round led by OpenView. The Company was founded in 2019 and currently has more than 130,000 global business users.
8/16/2023	 caden	 nava	\$15	ND	<ul style="list-style-type: none"> Caden, a data intelligence platform, raised \$15mm in a Series A round led by Nava Ventures. The Company will use the funds to expand its NYC team, accelerate its GTM strategy, and add new partnerships.

Ad Tech & MarTech – Q3 2023 Key Financings (2 / 2)

Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
8/11/2023	 TRACER	 BDMI <small>Bertelmann Digital Media Investments</small>  NewRoad <small>CAPITAL PARTNERS</small>  PROGRESS VENTURES	\$18	ND	<ul style="list-style-type: none"> ■ Tracer, a data intelligence platform, raised \$18mm in a Series A round led by NewRoad, Progress, and BDMI. ■ The funds will support headcount expansion, technology scaling and client success resource enhancement.
8/9/2023	 Simon	 MACQUARIE	\$54	ND	<ul style="list-style-type: none"> ■ Simon Data, a CDP, raised \$54mm in a Series D round led by Macquarie Capital. ■ The funding will reportedly support product development to address the rapidly changing CDP landscape.
8/3/2023	 Haus	 INSIGHT PARTNERS	\$17	ND	<ul style="list-style-type: none"> ■ Haus, a 'growth command center combining causal inference with experimentation & AI, raised \$17mm in a Series A round led by Insight Partners. ■ The funding will support headcount growth and product development.
7/25/2023	 AppHub	 PSG	\$95	ND	<ul style="list-style-type: none"> ■ AppHub, an eCommerce enablement platform, raised \$95mm from PSG. ■ The funds support AppHub's growth strategy to expand its product offering, enter new regions and undertake M&A.
7/19/2023	 hightouch	 BCV	\$38	\$615	<ul style="list-style-type: none"> ■ Hightouch, a data activation company, raised \$38mm in a round led by Bain Capital Ventures. ■ The funds were used to create its new "Customer 360 Toolkit" product line.

Digital Content – Q3 2023 Key Financings



























Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
9/14/2023	 SERIES AI	 alóZ Games  BITKRAFT	\$8	\$22	<ul style="list-style-type: none"> Series AI, a suite of AI-powered game authoring tools, raised \$8mm in a Seed round. The funds will go towards the "Rho Engine" flagship product.
9/11/2023	 Nazara™	 SBI MUTUAL FUND A PARTNER FOR LIFE	\$49	\$660	<ul style="list-style-type: none"> Nazara, a mobile gaming and sports media company, raised \$49mm from SBI Mutual Fund at \$660mm post-money. The new funds will be used to acquire games and sports media companies.
9/11/2023	 Pahdo Labs	 andreessen.horowitz	\$15	ND	<ul style="list-style-type: none"> Pahdo Labs, a developer of UGC-based RPG games, raised \$15mm in a round led by Andreessen Horowitz. The studio is working on their first project, "Halcyon Zero", an anime RPG game.
9/6/2023	 Story Protocol	 andreessen.horowitz	\$54	ND	<ul style="list-style-type: none"> Story Protocol, a narrative / IP infrastructure platform, raised \$54mm in a round led by Andreessen Horowitz. The Project aims to democratize IP creation through a global and extensible IP repository.
8/14/2023	 CHAI	 10X CAPITAL  kubevc	ND	\$205	<ul style="list-style-type: none"> Chai, a chat AI entertainment platform, announced a \$205mm post-money valuation. The Company will use the funds on developing its AI, which in 2020 and boasts 5mm users.
8/10/2023	 FIZZ	 Owl Ventures	\$25	ND	<ul style="list-style-type: none"> Fizz, a social app for university campus communities, raised \$25mm in a Series B round led by Owl Ventures. Fizz is accessible at 80+ campuses nationwide and it aims to expand to 250 schools by year's end.
8/9/2023	 tome	Undisclosed Investors	\$60	\$600	<ul style="list-style-type: none"> Tome, an AI-powered storytelling tool for slide creation, raised \$60mm at \$600mm post-money. The Company is reportedly barely break even, and just raised a \$43mm Series B led by Lightspeed 5 months ago.
8/8/2023	 ANGEL STUDIOS	Undisclosed Investors	\$17	ND	<ul style="list-style-type: none"> Angel Studios, a free streaming TV platform, supported by ads and contributions, raised \$17mm. The Company previously raised \$47mm in Jan '23 when they announced \$100mm in annual revenues.
8/2/2023	 inworld	 Lightspeed	\$50	\$500	<ul style="list-style-type: none"> Inworld AI, a character engine for AI NPCs, raised \$50mm at \$500mm+ post-money. The funds will support R&D efforts, FTE expansion, and the launch of an open-source version of the engine.
7/18/2023	 ggwp	 SAMSUNG VENTURE INVESTMENT  SK telecom Ventures	\$10	ND	<ul style="list-style-type: none"> GGWP, an AI-powered game moderation platform, raised \$10mm in a round led by Samsung and SK Telecom. The Company previously raised \$12mm in March 2022 for the development of its AI tech.
7/13/2023	 embrace	 NEA	\$20	ND	<ul style="list-style-type: none"> Embrace, a suite of mobile app and game dev tools, raised \$20mm in a round led by NEA. The Company was founded by Eric Futoran, who previously founded Scopely, which was acquired by \$4.9bn.
7/11/2023	 GARDENS	 KRAFTON  Lightspeed	\$31	ND	<ul style="list-style-type: none"> Gardens, an independent game studio, raised \$31mm in a Series A round led by Lightspeed and Krafton. The Company has 12 FTEs and will use the funds to develop a fantasy action RPG.

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Appendix A: Net Revenue Methodology & Definitions

LUMA Defined Net Revenue by Company Filing Metric

Reporting "Revenue / Contribution Ex-TAC"				Reporting "Adjusted Gross Profit"				Reporting "Gross Profit Ex-TAC"			
\$ in mm	2021A	2022A	LTM 6/30	\$ in mm	2021A	2022A	LTM 6/30	\$ in mm	2021A	2022A	LTM 6/30
Criteo				AdTheorent				Outbrain			
Gross Revenue	\$2,254	\$2,017	\$1,925	Gross Revenue	\$165	\$166	\$160	Gross Revenue	\$1,016	\$992	\$945
(-) TAC	(\$1,334)	(\$1,089)	(\$968)	(+) Platform Ops	(\$78)	(\$83)	(\$84)	(-) TAC	(\$744)	(\$757)	(\$726)
(=) Contribution ex-TAC	\$921	\$928	\$958	(=) Gross Profit (as reported)	\$88	\$83	\$76	(-) Other cost of revenues ⁽³⁾	(\$32)	(\$42)	(\$44)
Magnite				(+) Other Platform Ops ⁽¹⁾	\$22	\$27	\$28	(=) Gross Profit	\$240	\$193	\$175
Gross Revenue	\$468	\$577	\$604	(=) Adj. Gross Profit	\$109	\$110	\$103	(+) Other cost of revenues ⁽³⁾	\$32	\$42	\$44
(-) Cost of Revenue	(\$202)	(\$307)	(\$438)	Cardlytics				(=) Gross Profit ex-TAC	\$272	\$235	\$219
(=) Gross Profit (as reported)	\$267	\$270	\$166	Gross Revenue	\$267	\$299	\$296	Taboola			
(+) Cost of Revenue, excluding TAC	\$151	\$245	\$369	(-) Adj. Partner Share & Other 3P	(\$140)	(\$156)	(\$153)	Gross Revenue	\$1,379	\$1,401	\$1,363
(=) Revenue ex-TAC	\$417	\$515	\$535	(-) Delivery Costs	(\$23)	(\$30)	(\$29)	(-) TAC	(\$860)	(\$832)	(\$836)
Nexxen				(=) Gross Profit	\$105	\$113	\$114	(-) Other cost of revenues ⁽⁴⁾	(\$78)	(\$105)	(\$105)
Revenue	\$342	\$335	\$335	Digital Turbine				(=) Gross Profit (as reported)	\$441	\$464	\$423
(-) Performance Media Cost	(\$40)	(\$26)	(\$20)	Gross Revenue	\$748	\$710	\$624	(+) Other cost of revenues ⁽⁴⁾	\$78	\$105	\$105
(=) Contribution ex-TAC	\$302	\$310	\$354	(-) License fees and rev-share ⁽²⁾	(\$371)	(\$324)	(\$291)	(=) Gross Profit ex-TAC	\$519	\$570	\$527
Perion Networks				(-) Other direct costs of revenue ⁽²⁾	(\$30)	(\$36)	(\$37)				
Gross Revenue	\$478	\$640	\$692	(=) Gross Profit (as reported)	\$347	\$350	\$295				
(-) TAC	(\$288)	(\$373)	(\$397)	(+) S/W depr. & other direct CoR	\$3	\$5	\$7				
(=) Revenue ex-TAC	\$190	\$268	\$295	(=) Adj. Gross Profit	\$350	\$356	\$302				
Viant				Illumin							
Gross Revenue	\$224	\$197	\$202	Gross Revenue	\$98	\$92	\$96				
(-) Platform Ops	(\$130)	(\$117)	(\$116)	(-) Media Costs	(\$47)	(\$46)	(\$49)				
(=) Gross Profit (as reported)	\$95	\$80	\$86	(=) Gross Profit	\$51	\$46	\$46				
(+) Other platform ops	\$48	\$44	\$41	MediaAlpha							
(=) Contribution ex-TAC	\$142	\$125	\$127	Gross Revenue	\$645	\$459	\$409				
				(-) Platform Ops	(\$544)	(\$389)	(\$344)				
				(=) Gross Profit	\$102	\$70	\$65				






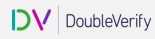






Sources & Notes

Source: Company Filings **Note:** (1) AdTheorent other platform operations consist of amortization expense related to capitalized software, depreciation expense, allocated costs of personnel which set up and monitor campaign performance and platform hosting, license and maintenance costs. (2) Digital Turbine license fees & revenue share are reflective of amounts paid to carrier and OEM partners, as well as app publishers and developers (recorded as a cost of revenue). Other direct cost of revenue are comprised primarily of hosting expenses directly related to the generation of revenue and depreciation expense. (3) Outbrain other cost of revenue includes the amortization of capitalized software that is developed or obtained for internal use associated with revenue-generating technologies. (4) Taboola other cost of revenue includes data center and related costs, depreciation expense related to hardware supporting the platform, amortization expense related to capitalized internal-use software and acquired technology, personnel costs and allocated facilities costs.

Appendix B: Ad Tech EBITDA Detail (1 / 5)

Ad Tech

MarTech

	Most Recent Quarter EBITDA											
(\$ millions)	 ADTHEORENT	 APPLOVIN	 cardlytics	 CRITEO	 Digital Turbine	 DV DoubleVerify	 illumin	 INNOVVD	 IAS	 /LiveRamp	 Magnite	 Media and Games Invest Group
Net Income	\$8	\$80	(\$24)	(\$2)	(\$8)	\$13	(\$6)	(\$19)	\$8	(\$2)	(\$74)	\$2
(+) Interest (income) expense, net	(\$0)	\$51	\$1	\$2	\$7	(\$2)	(\$0)	(\$0)	\$3	—	\$9	\$14
(+) Provision for (benefit from) income tax	(\$8)	\$15	—	\$1	(\$2)	\$4	\$0	\$1	(\$29)	\$9	\$1	(\$2)
(+) D&A (excl. amortized intangibles)	\$2	\$120	\$7	\$27	\$21	\$10	\$1	\$2	\$14	\$4	\$89	\$8
EBITDA	\$2	\$267	(\$16)	\$28	\$19	\$24	(\$4)	(\$16)	(\$5)	\$11	\$24	\$22
(+/-) SBC (excl. assoc. payroll tax)	\$2	\$81	\$12	\$28	\$10	\$15	\$2	\$5	\$40	\$13	\$19	—
(+/-) Transaction costs	—	—	—	—	\$0	—	—	—	—	\$2	—	—
(+/-) Restructuring costs / Acquisition costs	—	\$1	(\$10)	\$22	—	\$1	—	—	\$1	\$0	—	—
(+/-) FX (gains) losses	—	\$0	(\$1)	—	(\$2)	—	\$2	—	(\$1)	—	(\$0)	—
(+/-) Other expense (income), net	—	(\$16)	—	—	(\$0)	—	—	—	—	(\$5)	\$0	—
(+/-) Other adjustments	(\$1)	—	\$11	(\$21)	\$0	(\$0)	\$0	\$15	\$1	—	(\$5)	\$1
Adjusted EBITDA	\$3	\$334	(\$4)	\$56	\$27	\$40	\$0	\$5	\$37	\$22	\$37	\$23
Broker Estimates (Median)	\$3	\$290	(\$8)	\$48	\$24	\$38	(\$1)	\$1	\$36	\$16	\$18	\$24

“Other Adjustments” Notes

- **AdTheorent:** includes ~(\$0.7mm) of change in FV items
- **Cardlytics:** includes ~\$11mm of change in FV contingent consideration items
- **Criteo:** includes (\$21.6mm) of net loss contingency on regulatory matters
- **Digital Turbine:** includes ~\$0.4mm of severance costs
- **Illumin:** includes ~\$0.2mm of severance expenses
- **Innovvid:** includes ~\$15mm of goodwill impairment charge
- **IAS:** includes ~\$1mm related to the impairment of a right-of-use asset
- **Magnite:** includes (\$5.4mm) gain on extinguishment of debt
- **Media & Games Invest:** includes ~\$0.7mm of employee costs, ~\$0.3mm of legal and advisory costs and ~\$0.4mm of other expenses / income

Appendix B: Ad Tech EBITDA Detail (2 / 5)

Ad Tech

MarTech

	Most Recent Quarter EBITDA										
(\$ millions)	MediaAlpha	nexxen	Outbrain	Perion	PubMatic	Roku	Taboola	theTradeDesk	Unity	VIANT.	ZETA
Net Income	(\$20)	(\$4)	\$11	\$21	(\$6)	(\$108)	(\$31)	\$33	(\$193)	(\$3)	(\$52)
(+) Interest (income) expense, net	\$4	\$2	(\$0)	(\$5)	(\$2)	–	\$4	(\$18)	(\$3)	(\$2)	\$3
(+) Provision for (benefit from) income tax	\$0	(\$5)	\$4	\$4	\$1	\$2	\$2	\$27	\$5	–	\$0
(+) D&A (excl. amortized intangibles)	\$2	\$20	\$5	\$3	\$11	\$19	\$23	\$20	\$111	\$4	\$13
EBITDA	(\$14)	\$14	\$20	\$23	\$4	(\$87)	(\$2)	\$62	(\$81)	(\$2)	(\$36)
(+/-) SBC (excl. assoc. payroll tax)	\$15	\$6	\$3	\$3	\$7	\$90	\$14	\$117	\$158	\$9	\$58
(+/-) Transaction costs	\$0	–	–	–	–	–	–	–	–	–	–
(+/-) Restructuring costs / Acquisition costs	–	\$1	–	\$0	\$1	\$0	\$1	–	\$25	–	\$3
(+/-) FX (gains) losses	–	(\$2)	–	–	–	–	–	–	–	–	–
(+/-) Other expense (income), net	–	\$2	–	–	–	(\$20)	–	–	–	–	\$3
(+/-) Other adjustments	\$2	–	(\$20)	\$15	–	–	\$3	–	(\$3)	–	–
Adjusted EBITDA	\$4	\$21	\$4	\$41	\$12	(\$18)	\$16	\$180	\$99	\$7	\$27
Broker Estimates (Median)	\$2	\$28	\$1	\$40	\$14	(\$75)	\$1	\$161	\$57	\$3	\$24

“Other Adjustments” Notes

- **MediaAlpha:** includes \$1mm of employee costs and \$1mm related to litigation matters
- **Outbrain:** includes (\$22.6mm) gain on repurchase of convertible debt and \$2.3mm of severance costs
- **Perion:** includes ~\$15mm of FV items related to contingent considerations
- **Unity :** includes (\$3.3mm) of legal settlement costs

Appendix B: MarTech EBITDA Detail (3 / 5)

	Most Recent Quarter EBITDA											
(\$ millions)	Amplitude	Clippier	BIGCOMMERCE	braze	BRIGHTCOVE	comscore	COVEO	DoubleVerify	HubSpot	IAS	kaltura	LIVEPERSON
Net Income	(\$28)	\$1	(\$19)	(\$32)	(\$6)	(\$45)	(\$7)	\$13	(\$119)	\$8	(\$11)	\$11
(+) Interest (income) expense, net	\$3	(\$0)	(\$2)	(\$4)	–	\$0	\$1	(\$2)	(\$13)	\$3	(\$1)	(\$0)
(+) Provision for (benefit from) income tax	\$0	\$0	\$0	\$1	\$0	(\$1)	\$0	\$4	\$13	(\$29)	\$2	(\$0)
(+) D&A (excl. amortized intangibles)	\$1	\$3	\$3	\$1	\$4	\$6	\$2	\$10	\$17	\$14	\$1	\$15
EBITDA	(\$23)	\$4	(\$18)	(\$34)	(\$2)	(\$40)	(\$4)	\$24	(\$101)	(\$5)	(\$8)	\$26
(+/-) SBC (excl. assoc. payroll tax)	\$22	–	\$11	\$25	\$3	\$2	\$3	\$15	\$128	\$40	\$7	(\$18)
(+/-) Transaction costs	–	–	–	–	–	–	–	–	–	–	–	–
(+/-) Restructuring costs / Acquisition costs	\$1	–	\$4	\$1	\$2	\$4	–	\$1	\$63	\$1	\$0	\$3
(+/-) FX (gains) losses	–	–	–	–	–	–	(\$1)	–	–	(\$1)	–	–
(+/-) Other expense (income), net	\$1	–	\$0	–	(\$0)	(\$2)	–	–	–	–	–	(\$2)
(+/-) Other adjustments	–	–	\$0	\$2	–	\$45	–	(\$0)	(\$0)	\$1	–	\$4
Adjusted EBITDA	\$0	\$4	(\$2)	(\$7)	\$4	\$9	(\$2)	\$40	\$90	\$37	(\$1)	\$13
Broker Estimates (Median)	(\$0)	\$4	(\$5)	(\$13)	\$2	\$8	(\$3)	\$38	\$73	\$36	(\$2)	\$5

“Other Adjustments” Notes

- **BigCommerce:** includes \$0.1mm payroll tax related to SBC
- **Braze:** includes \$0.6mm payroll tax related to SBC and ~\$1mm related to charitable contributions
- **Comscore:** includes a ~\$44mm impairment of goodwill charge
- **IAS:** includes ~\$1mm related to the impairment of a right-of-use asset
- **LivePerson:** includes ~\$7mm related to litigation, consulting and other employee costs and ~(\$3mm) related to contingent earn-out adjustments.

Appendix B: MarTech EBITDA Detail (4 / 5)

Ad Tech




MarTech

	Most Recent Quarter EBITDA											
(\$ millions)	/LiveRamp	ON24	QuinStreet	SEMRUSH	shopify	similarweb	sprinklr	sproutsocial	SQUARESPACE	TechTarget	twilio	WIX
Net Income	(\$2)	(\$13)	(\$56)	(\$0)	(\$1,311)	(\$9)	\$10	(\$13)	\$4	\$3	(\$166)	\$34
(+) Interest (income) expense, net	–	\$0	(\$0)	(\$3)	(\$58)	(\$1)	(\$7)	(\$2)	\$9	(\$3)	(\$9)	(\$20)
(+) Provision for (benefit from) income tax	\$9	\$0	\$51	\$1	\$10	\$0	\$2	\$0	\$26	\$1	\$1	(\$0)
(+) D&A (excl. amortized intangibles)	\$4	\$0	\$5	\$2	\$17	\$1	\$4	\$1	\$7	\$5	\$75	\$6
EBITDA	\$11	(\$12)	(\$0)	(\$1)	(\$1,342)	(\$8)	\$9	(\$14)	\$46	\$6	(\$99)	\$19
(+/-) SBC (excl. assoc. payroll tax)	\$13	\$12	\$3	\$4	\$280	\$5	\$16	\$16	\$29	\$13	\$153	\$54
(+/-) Transaction costs	–	–	–	–	–	–	–	–	–	–	–	–
(+/-) Restructuring costs / Acquisition costs	\$2	\$2	\$0	–	\$1,340	–	–	\$0	–	–	\$18	\$1
(+/-) FX (gains) losses	–	–	–	–	(\$1)	–	–	–	–	–	–	(\$2)
(+/-) Other expense (income), net	(\$5)	(\$3)	–	–	–	–	–	–	(\$2)	\$0	–	\$4
(+/-) Other adjustments	–	\$1	(\$1)	–	(\$118)	\$2	–	–	–	–	\$122	(\$3)
Adjusted EBITDA	\$22	(\$1)	\$2	\$3	\$159	(\$2)	\$25	\$3	\$73	\$19	\$194	\$73
Broker Estimates (Median)	\$16	(\$1)	\$1	(\$2)	\$81	(\$6)	\$16	(\$1)	\$58	\$17	\$143	\$51

“Other Adjustments” Notes

- **ON24:** includes ~\$1mm related to an impairment charge
- **QuinStreet:** includes ~(\$1mm) related to a tax settlement expense
- **Shopify:** includes ~\$148mm related to employee costs, (\$281mm) from net gain on equity investments and ~\$15mm related to a provision for transaction and loan losses
- **Similarweb:** includes ~0.4mm related to retention payments related to a business combination
- **Twilio:** includes ~\$32mm share of losses of equity method investee, ~\$28mm from loss on net assets held for sale, ~\$18mm for change in FV of deferred CAC, ~\$9mm for impairment of long-lived assets, ~\$8mm for impairment of right-of-use assets, ~\$2mm for SBC payroll taxes and ~\$1mm for charitable contributions partially offset by ~(\$27mm) related to tax impacts of non-GAAP adjustments
- **Wix:** includes ~(\$9mm) related to gain on strategic investments, (~\$2mm) for tax impacts of adjustments, ~\$5mm related to impairments of assets and ~\$2mm for other expenses

Appendix B: MarTech EBITDA Detail (5 / 5)

(\$ millions)	Most Recent Quarter EBITDA		
			
Net Income	(\$3)	(\$52)	\$38
(+) Interest (income) expense, net	(\$2)	\$3	\$12
(+) Provision for (benefit from) income tax	\$1	\$0	\$17
(+) D&A (excl. amortized intangibles)	\$4	\$13	\$20
EBITDA	(\$0)	(\$36)	\$86
(+/-) SBC (excl. assoc. payroll tax)	\$12	\$58	\$46
(+/-) Transaction costs	—	—	—
(+/-) Restructuring costs / Acquisition costs	—	\$3	\$5
(+/-) FX (gains) losses	—	—	—
(+/-) Other expense (income), net	\$0	\$3	(\$7)
(+/-) Other adjustments	—	—	\$0
Adjusted EBITDA	\$12	\$27	\$130
Broker Estimates (Median)	\$12	\$24	\$131

“Other Adjustments” Notes

- **ZoomInfo:** includes ~\$0.1mm related to the impact of FV adjustment to acquire unearned revenue

Appendix C: Select Other Notes and Calendarization

Select Other Notes – Ad Tech & MarTech

Company	Ticker	Exchange	Notes
Affle	AFFLE	NSE	Market Capitalization contemplates ordinary shares outstanding. Figures from latest available disclosure.
Appier	4180	TYO	Market Capitalization contemplates ordinary shares outstanding; inputs for net diluted shares outstanding could not be located in public disclosures.
Mobvista	1860	HKG	Market Capitalization represents ordinary shares outstanding and restricted stock units in public disclosures. Latest financial interim report as of 06/30/2023.
Nexxen	TRMR	LSE; NASDAQ	Market Capitalization contemplates the product of (i) FDSO and (ii) Nexxen's local U.K. share price denominated in GBP. Market Capitalization is converted to USD at the daily spot rate.
Perion	PERI	NASDAQ	2023E and 2024E Forward Revenue ex-TAC projections from Oppenheimer Equity research as of August 3, 2023.

Fiscal Year – to – Calendar Year Reconciliation

Company	Ticker	Fiscal Year End	Applicable Fiscal Quarters			
			CY 2021	CY 2022	CY 2023	CY 2024
FYE January 31st						
Braze	BRZE	January 31 st	Q1 FY'22 – Q4 FY'22	Q1 FY'23 – Q4 FY'23	Q1 FY'24 – 4Q FY'24	Q1 FY'22 – 4Q FY'22
Sprinklr	CXM	January 31 st				
Yext	YEXT	January 31 st				
FYE March 31st						
Affle	AFFLE	March 31 st	Q4 FY'20 – Q3 FY'21	Q4 FY'21 – Q3 FY'22	Q4 FY'22 – Q3 FY'23	Q4 FY'23 – Q3 FY'24
Digital Turbine	APPS	March 31 st				
Coveo	CVO	March 31 st				
LiveRamp	RAMP	March 31 st				
FYE June 31st						
QuinStreet	QNST	June 31 st	Q3 FY'21 – Q2 FY'22	Q3 FY'22 – Q2 FY'23	Q3 FY'23 – Q2 FY'24	Q3 FY'24 – Q2 FY'25

LUMA's Recent Deals



August 2023

Scibids

has been acquired by

DoubleVerify

The undersigned acted as exclusive financial advisor to Scibids Technology SAS

December 2022

BC PARTNERS

has acquired

MADISON LOGIC.

The undersigned acted as exclusive financial advisor to BC Partners LLP

November 2022

yahoo!

has agreed to a partnership with

Taboola

The undersigned acted as financial advisor to Yahoo!

September 2022

martin

has agreed to be acquired by

PubMatic

The undersigned acted as exclusive financial advisor to Martin

July 2022

VERVE GROUP
A subsidiary of

Media and Games Invest Group

has acquired

DATASEAT

The undersigned acted as exclusive financial advisor to Media and Games Invest SE

June 2022

DREAMSCAPE
a GTCR portfolio company

has made a strategic investment in

Standard Media index

The undersigned acted as exclusive financial advisor to Dreamscape and GTCR

April 2022

iSpot.tv

has received a \$325 million investment from

Goldman Sachs

The undersigned acted as co-exclusive financial advisor to iSpot.tv, Inc.

April 2022

DREAMSCAPE
a GTCR portfolio company

has made a strategic investment in

SQAD.

The undersigned acted as exclusive financial advisor to Dreamscape and GTCR

March 2022

tvssquared

has agreed to be acquired by

INNOVLD

The undersigned acted as exclusive financial advisor to TV Squared Limited

January 2022

APPLOVIN

has agreed to acquire

mopub

a wholly owned subsidiary of

The undersigned acted as exclusive financial advisor to AppLovin Corporation



Strategic Advisory for the Digital Age