



**Q2 2023**

**Market Report**

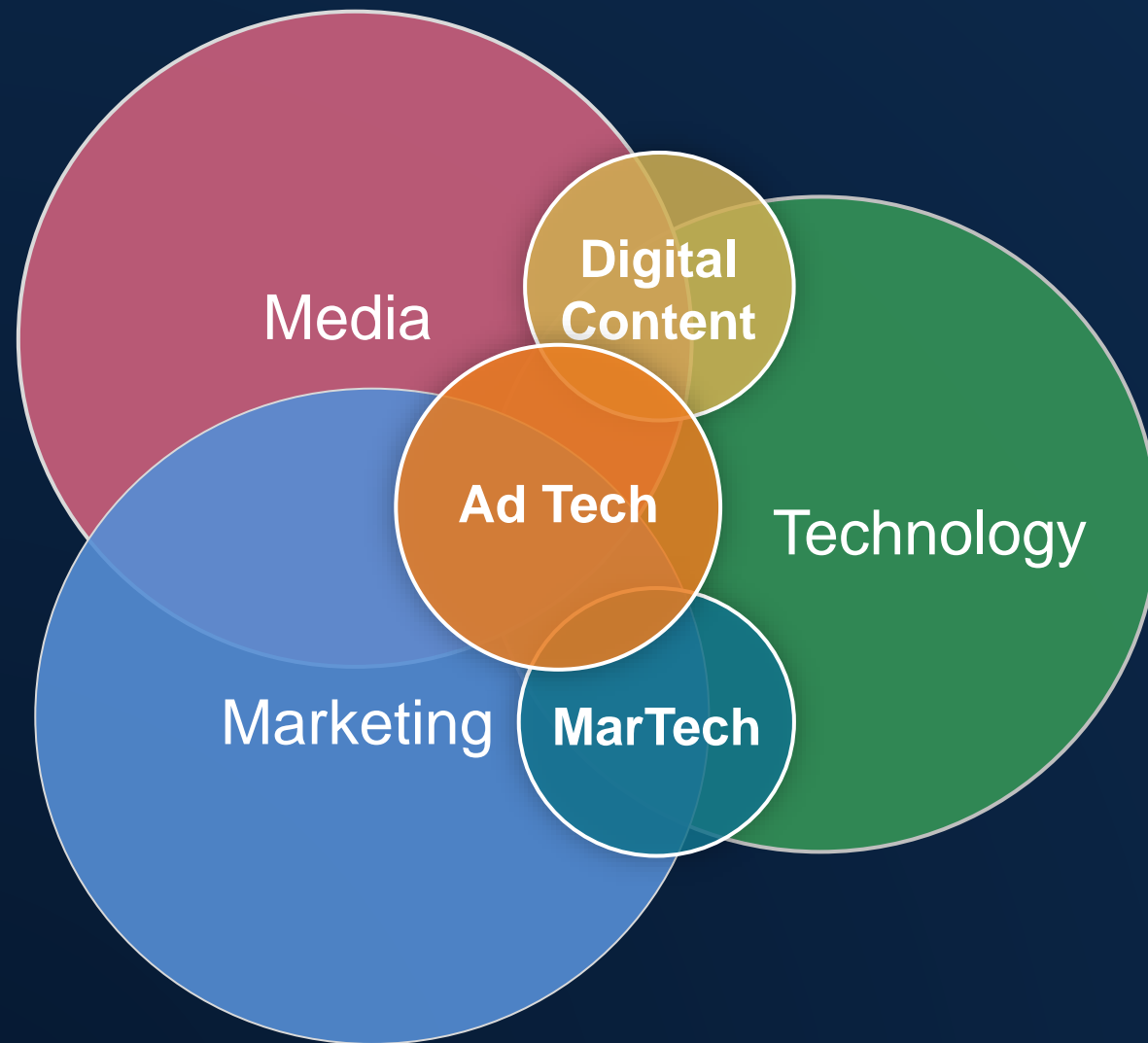
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# LUMA's Focus on Digital Media & Marketing



- 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



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

**tvSquared**

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 continued to see a divergence in the first half of 2023 between a slow M&A environment and a strong public market relative to the technology sell off in 2022, as companies continue to manage through contradictory signals of broader macro headwinds and technology driven tailwinds.
- Financing remains expensive and less readily available to buyers as the Fed funds rate in Q2 2023 hit the highest level since August 2007 and regional banks recover from deposit risks in the wake of SVB's collapse; both impacting funding for M&A deals as strategic and financial buyers continue to stay selective about how they deploy capital.
- Despite these challenges, relative benchmarks like the Nasdaq 100 index had one of its best first halves of the year ever, driven by several factors - explosive growth in AI capabilities, investor optimism for a pause in the Fed's tightening policy, and easing concerns over inflation.
- Regardless of these factors, companies in the Digital Media & Marketing ecosystem remain focused on operational efficiencies and navigating a path to profitability and predictability. Q2 2023 was a continuation of many companies in the **LUMA.A** and **LUMA.M** cohorts showing maturity in their ability to drive profitability while moderating growth, plus continued sectoral tailwinds related to streaming, commerce media, and AI create significant growth opportunities for the future.

## M&A Activity

- While the first half of 2023 remains sluggish from an M&A perspective, 2Q 2023 was the third straight quarter of increased deal activity, slightly up **6%** from Q1 2023 despite a slow down in scaled deal activity down **~(56%)** from the prior quarter. While deal volume in **Ad Tech** came down **(35%)** from a strong first quarter, sector deal activity in **MarTech 19%** and **Digital Content 12%** were both up relative to Q1 2023.
- Private Equity buyers remain active across all sectors and are taking on smaller scale transactions; the average sized PE deal in 2023 is ~\$66mm, down significantly from a \$132mm average deal size in 2022<sup>(1)</sup>.
- While M&A volatility is expected to persist in the short-term, as interest rate changes begin to settle and companies continue to execute with profitability, strategic consolidation opportunities will increase as those with access to cash seek to expand their scale and capabilities.

## Public Markets Activity

- Halfway through the year, both the **LUMA.A** and **LUMA.M** cohorts are off to an exceptionally strong 2023 with **27%** and **15%** year-to-date returns, respectively; far outpacing the ~50% declines at this time last year.
- Declining valuations have not necessarily been an indicator of declining quality among **LUMA.A** and **LUMA.M** companies; various value drivers within these organizations such as revenue growth, profitability, and predictability have not been negatively affected as market valuations suggest.

## Private Financing Activity

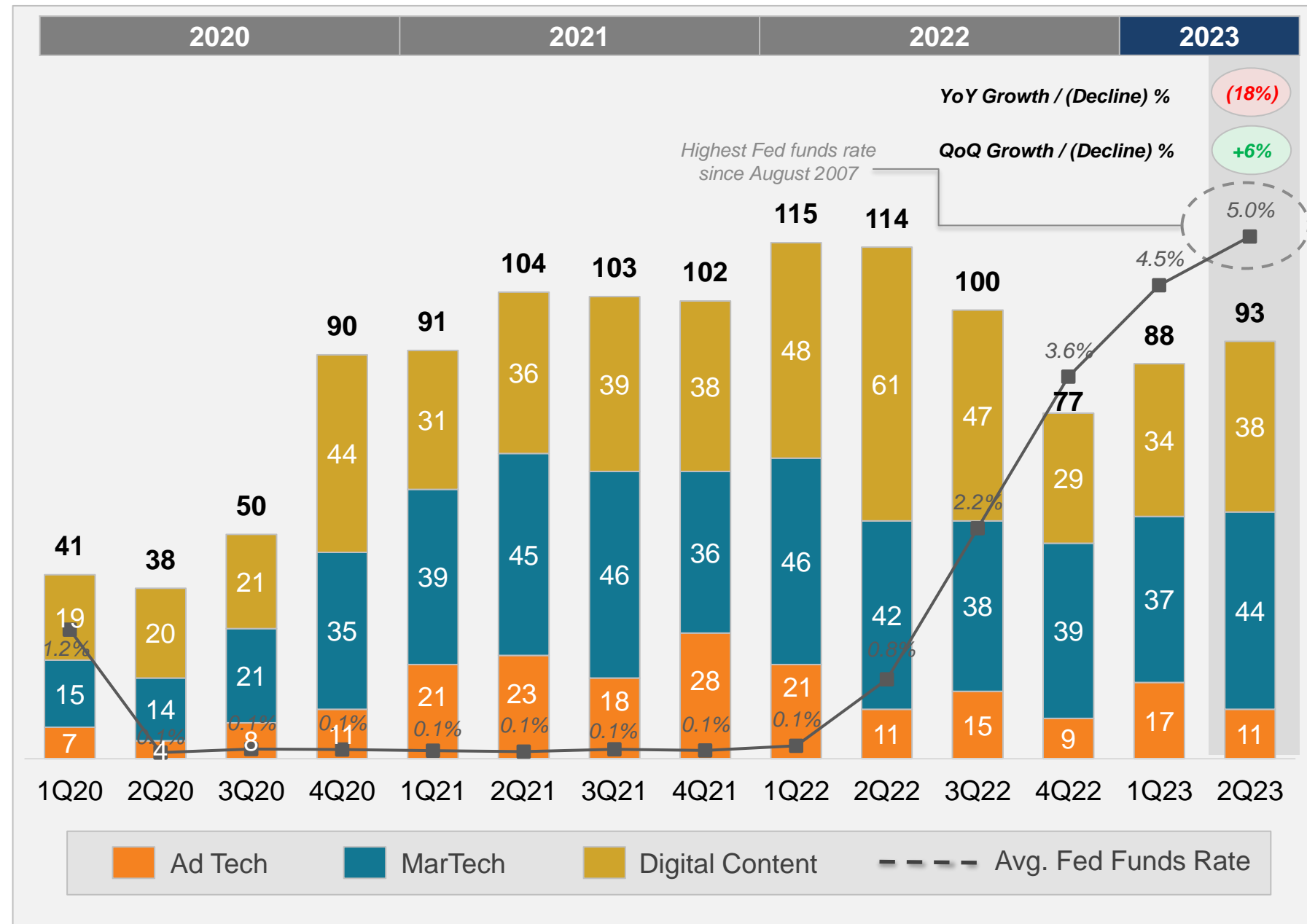
- Companies are navigating a challenging liquidity environment and muted IPO environment but have continued to draw strategic and opportunistic investments throughout all sub-sectors, largely fueled by Generative AI.

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4	Appendix

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

Number of Transactions – Quarterly (1Q20-2Q23)



## Commentary

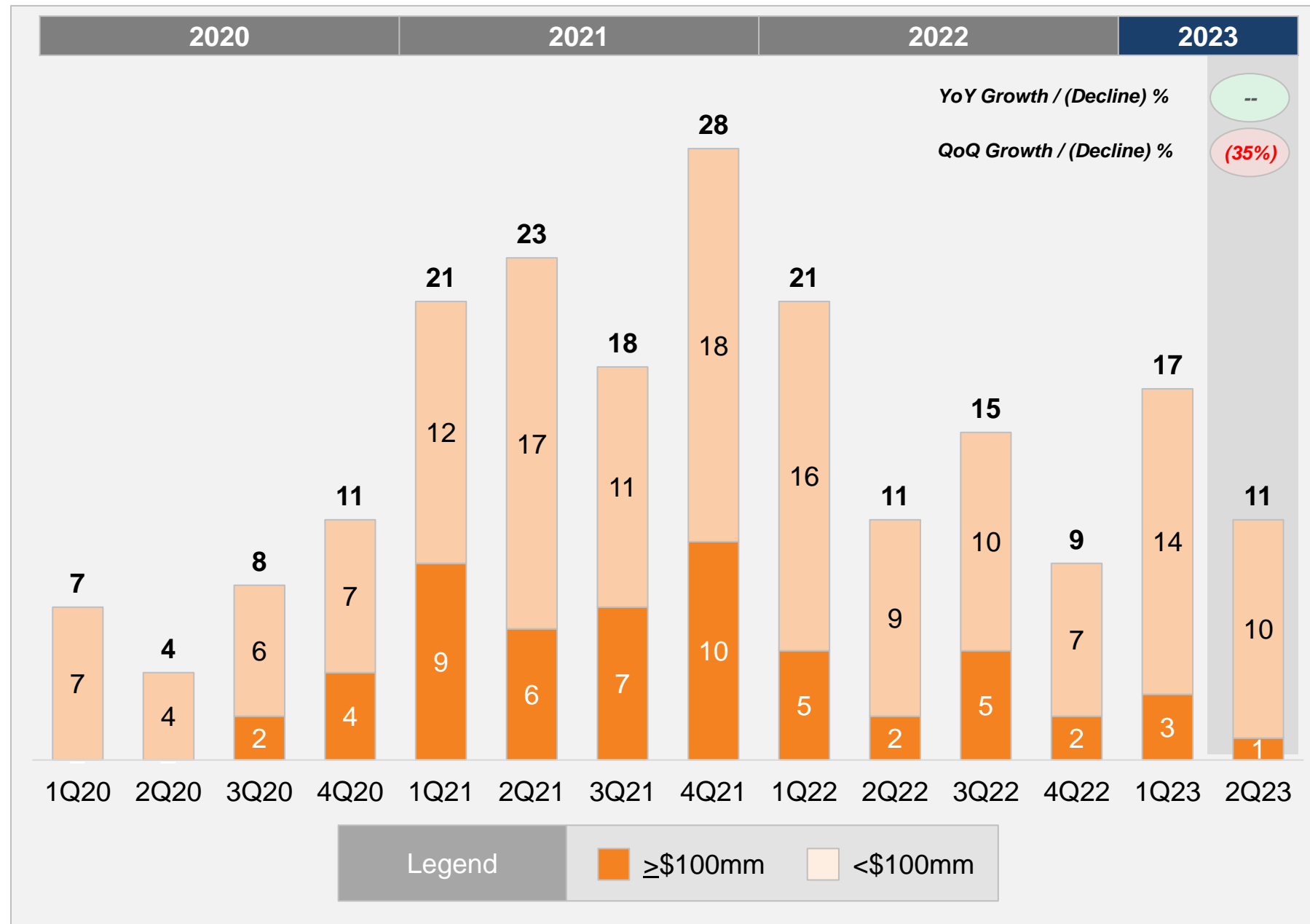
- Despite the strong public markets, M&A activity remains challenged throughout the first six months of 2023. Q2 2023 slightly increased **6%** sequentially from a muted first quarter, while deal activity remains hampered by the lagging impact of sustained rapid rate hikes - the highest since August 2007.
- Ad Tech** M&A activity remained choppy, declining **(35%)** from the prior quarter. Despite the drop, Ad Tech sub-sectors such as DOOH (Boxi) and Mobile (YouAppi) continued to see activity.
- MarTech** M&A remained robust and was up **19%** vs Q1 2023 despite fewer take-privates and scaled deals than the prior quarter.
- Digital Content** M&A activity remains strong and was up **12%** over the prior quarter, including Endeavors \$21bn+ mega-acquisition of the WWE.
- Scaled ( $\geq$ \$100mm) deal activity was down sharply **~(56%)** from the prior quarter, with 8 scaled deals versus 18 in Q1 2023.
- While M&A volatility is expected to persist in the short-term, companies that remain agile with a focus on profitability will be in a strong position when macro headwinds subside; leading to longer term strategic consolidation opportunities as valuations “season” and those with access to funds seek to expand scale and capabilities.

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## Number of Transactions – Quarterly (1Q20-2Q23)



## Commentary























- Coming off a strong first quarter, **Ad Tech** saw the sharpest quarterly decline (**35%**), of any of the LUMA sub-sectors. This slowdown was highlighted by the announcement at quarter-end that MediaMath, which had been trying to find a buyer, has filed for bankruptcy as a result of stalled acquisitions talks.
- The largest deal of the quarter was IQVIA's \$800mm acquisition of Propel Media, though the transaction has come under scrutiny from regulators.
- By sub-sector, DOOH remained strong with AllOver Media's acquisition of Boxi and Wrapmates acquisition of Wrapify. The mobile app sector also saw activity with Affle's acquisition of YouAppi.
- Private Equity remains active in the space, as evidenced by the merger of Gamut Media and Locality, two portfolio companies of One Equity Partners.

## Looking Ahead

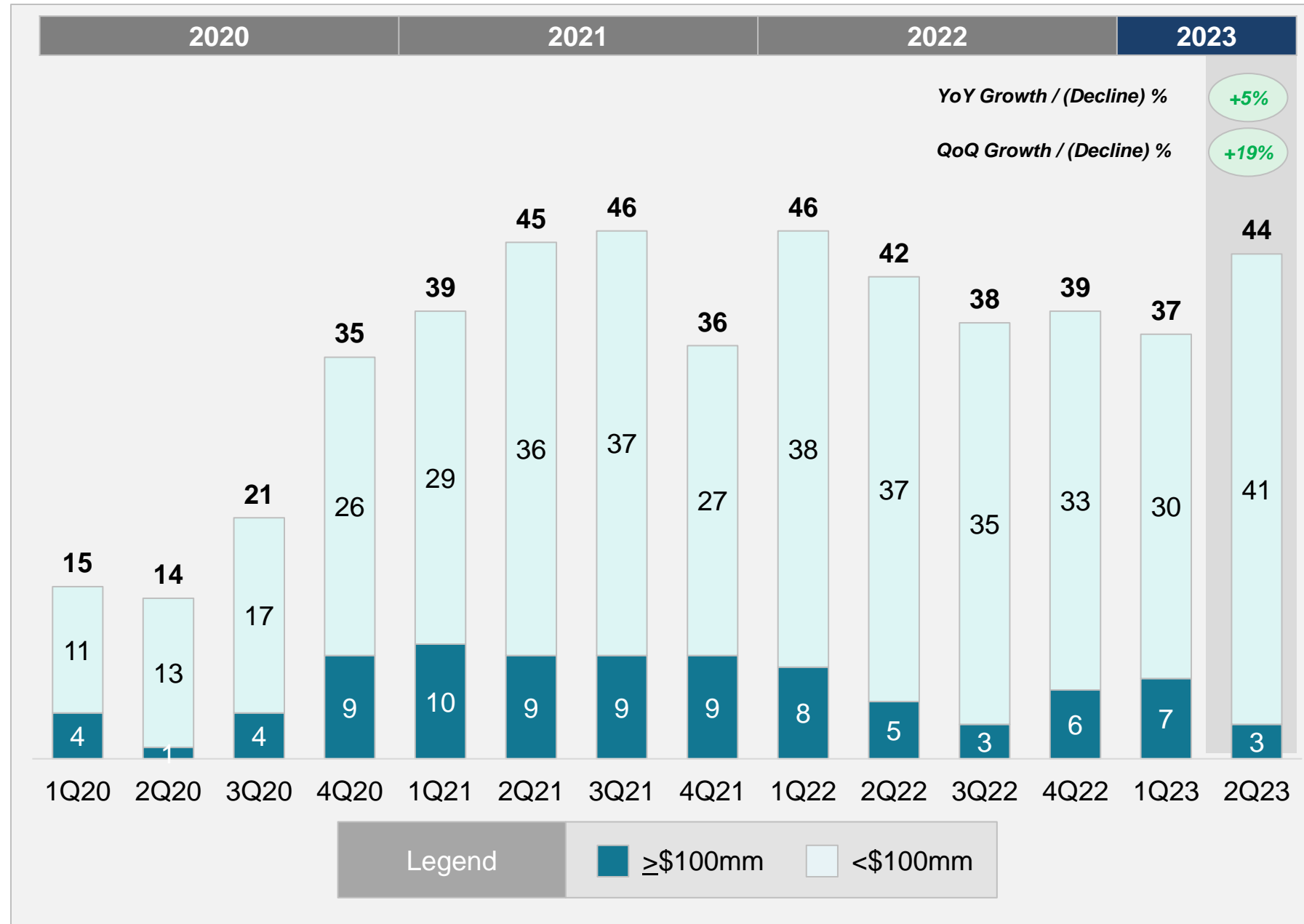
- Further pick-up in "horizontal" strategies as the evolving data landscape and rise of retail media / 1<sup>st</sup> party data networks push the ecosystem to further connect advertising supply and demand.
- Challenged valuations without declining quality of earnings for Ad Tech names presents major opportunities for strategic and financial buyers looking to capitalize on continued consolidation, in addition to tailwinds in related to CTV, Commerce Media and the evolving data landscape.

# Ad Tech – Q2 2023 Notable Deals

Ad Tech
MarTech
Digital Content

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
6/20/2023	 Boxi	 ALLOVER MEDIA	ND	ND	<ul style="list-style-type: none"> <li>AlloVer media, a multiplatform OOH media company, will acquire Boxi, a tech enabled OOH ad platform.</li> <li>Boxi's platform allows campaign and inventory management and measurement for OOH ads on trucks.</li> </ul>
6/19/2023	 balihoo	 Insticator	\$24	ND	<ul style="list-style-type: none"> <li>Insticator, a publisher monetization platform, acquired Balihoo, a multi-location marketing platform.</li> <li>The integration combines audience insights, interactive content and targeted advertising capabilities.</li> </ul>
6/14/2023	 COXREPS gamut	 Locality	NA	ND	<ul style="list-style-type: none"> <li>Cox Reps and Gamut (both portfolio companies of One Equity Partners) will combine to form Locality.</li> <li>Locality will combine the Gamut's streaming tech capabilities with CoxRep's local broadcast expertise.</li> </ul>
6/8/2023	 tributemedia A WEB MARKETING AGENCY	 hawkemedia YOUR OUTSOURCED CMO	ND	ND	<ul style="list-style-type: none"> <li>Hawke Media, a marketing consultancy agency will acquire web marketing agency Tribute Media</li> <li>The transaction will bring Tribute's web expertise to Hawkes portfolio and create an enhanced customer experience.</li> </ul>
5/24/2023	 [K]ubient	 ADOMNI	\$11	ND	<ul style="list-style-type: none"> <li>Kubient, an omnichannel audience marketplace, will merge with Adomni, a DOOH ad planning and buying platform.</li> <li>The combined omnichannel entity will leverage Adomni's DOOH and Kubient's OV &amp; CTV capabilities.</li> </ul>
5/24/2023	 YOU APPI	 affle	\$18	\$45	<ul style="list-style-type: none"> <li>Affle will acquire YouAppi, a gaming focused programmatic mobile app marketing platform.</li> <li>YouAppi's positioning in gaming and its alignment with the CPCU business model were cited as key deal drivers.</li> </ul>
5/9/2023	 propel MEDIA	 IQVIA™	\$7	\$800	<ul style="list-style-type: none"> <li>Health data company IQVIA will acquire Propel Media, a programmatic buying platform for web &amp; OV.</li> <li>The \$800mm deal is currently under regulator scrutiny related to the digital market for pharma ads.</li> </ul>
4/10/2023	 Wrapify	 wrapmate	\$15	ND	<ul style="list-style-type: none"> <li>Vehicle advertising wrap company Wrapmate acquired Wrapify, a digital attribution platform for OOH.</li> <li>Wrapify's omnichannel ad platform allows attribution and retargeting of customers exposed to non-digital car ads.</li> </ul>
4/6/2023	 Source™ (Video Technology Assets)	 PadSquad™	NA	ND	<ul style="list-style-type: none"> <li>PadSquad, a mobile engagement platform, will acquire assets from Source Digital, a video monetization platform.</li> <li>Padsquad breaks into CTV with video content recognition and real-time delivery of interactive instream video ads.</li> </ul>
4/6/2023	 torcai	 infomo	ND	ND	<ul style="list-style-type: none"> <li>Infomo, a media marketplace for TelCos, acquired TorcAI, an AI-powered advertising infrastructure company.</li> <li>The acquisition expands its India footprint and establishes the group's R&amp;D HQ for Ad Tech IT delivery.</li> </ul>
4/1/2023	 sourceknowledge	 mrge commerce advertising	\$2	ND	<ul style="list-style-type: none"> <li>Mrge, a self-described "commerce advertising platform", acquired SourceKnowledge, an ad network.</li> <li>Acquisition drives expansion into America and adds SourceKnowledge's programmatic technology to its platform.</li> </ul>

## Number of Transactions – Quarterly (1Q20-2Q23)



























## Commentary

- **MarTech** M&A volume was up **19%** vs Q1 2023 and up **5%** from a strong second quarter a year ago; despite the strong activity there was a notable decline from Q1 2023 in scaled deal activity.
- Recent quarters has seen several scaled take-privates in the MarTech sector, however in Q2 2023 scaled activity was muted despite Neptune Retail Solutions ~\$430mm acquisition of Quotient and Informa's \$380mm strategic acquisition of Winsight.
- As in previous quarters, Private Equity buyers remain engaged in MarTech platforms as evidenced by JMI Equity's acquisition of Apptegy, and Marlin Equity Partners' acquisition of LineLeader in Q2 2023.









## Looking Ahead

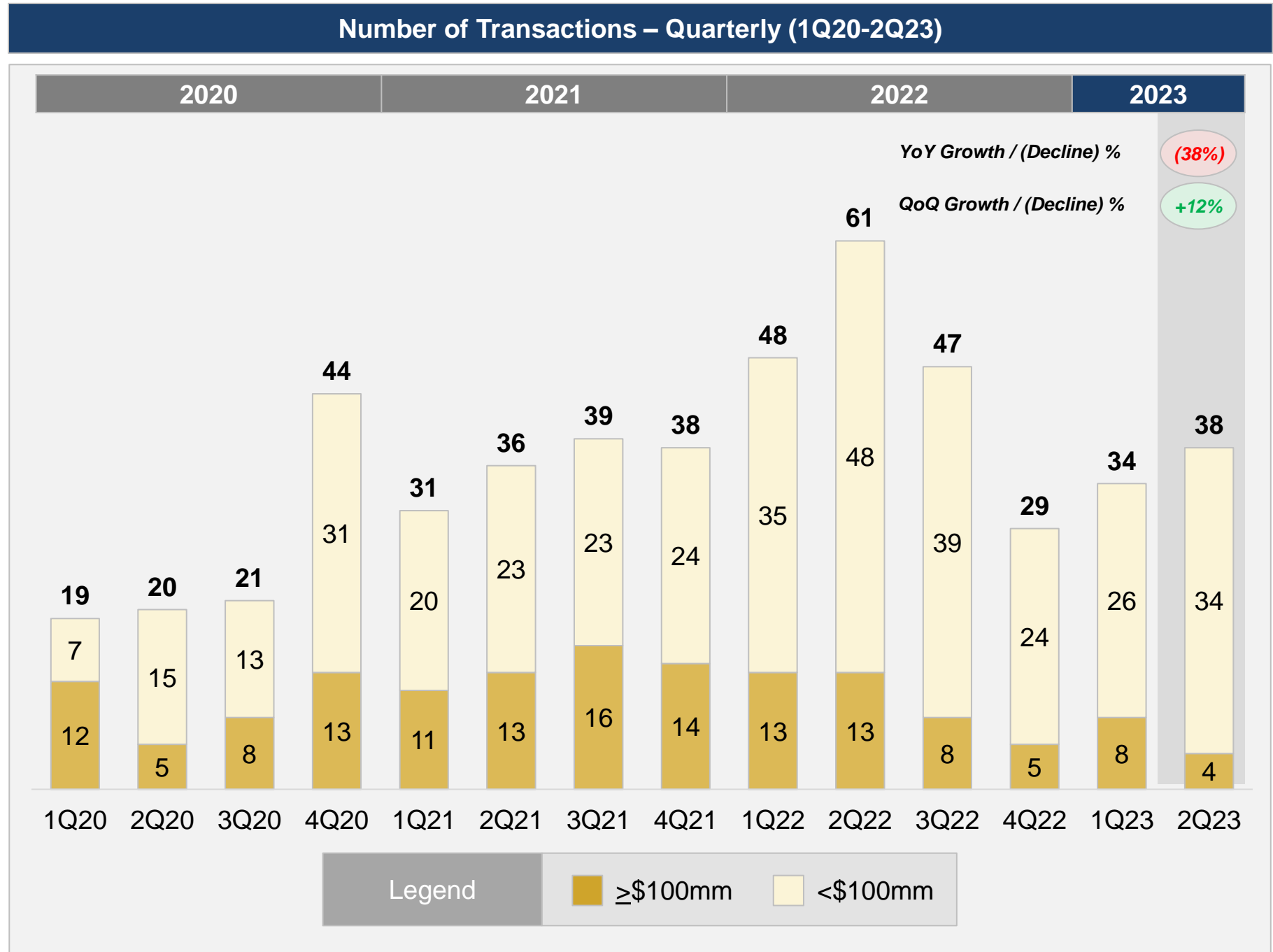
- Strong operating performance despite declining valuations present opportunity for continued scaled Private Equity investment and consolidation in MarTech businesses throughout 2023.
- Profitability remains a major focus across the board and will play an important role in software M&A evaluations.
- We expect increased investment in data / analytics capabilities that arm marketers with superior tools surrounding ID resolution, data management /activation, and measurement / attribution.

# MarTech – Q2 2023 Notable Deals (1 / 2)

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
6/20/2023	 Quotient THE RESULT OF KNOWING	 NEPTUNE RETAIL SOLUTIONS™	NA	\$430	<ul style="list-style-type: none"> <li>Neptune, an omnichannel retail marketing company, will acquire Quotient Technologies.</li> <li>Neptune's existing instore retail media capabilities will benefit from Quotient's digital promotions retail network.</li> </ul>
6/19/2023	 Accelitec it pays to be connected	 BRdata SOFTWARE SOLUTIONS	\$5	ND	<ul style="list-style-type: none"> <li>BRdata, a back-office tech provider for grocers, acquired Accelitec, a loyalty management suite for retailers.</li> <li>The combined platform will provide grocers with a holistic digital comms &amp; promo suite.</li> </ul>
6/15/2023	 netra	 claravine+	\$5	ND	<ul style="list-style-type: none"> <li>Campaign automation platform provider Claravine acquired Netra, an AI-powered content classification business.</li> <li>Claravine accelerates the automation of data standards for S&amp;M, Ops, and creative teams with Netra's engine.</li> </ul>
6/15/2023	 clearlyrated	 SGP SOFTWARE GROWTH PARTNERS	\$1	ND	<ul style="list-style-type: none"> <li>SGP acquired ClearlyRated, a CX &amp; reputation management platform for professional services firms.</li> <li>The Company will reportedly lean on SGP's industry expertise as it develops a more comprehensive platform.</li> </ul>
6/12/2023	 Return Rabbit	 AUCTANE	\$1	ND	<ul style="list-style-type: none"> <li>Delivery experience Company Auctane acquired Return Rabbit, a returns management platform.</li> <li>Strong capabilities such as customer analytics, retention, and upsell functionality were cited as key deal drivers.</li> </ul>
6/12/2023	 LineLeader By ChildcareCRM	 MARLIN EQUITY PARTNERS	ND	ND	<ul style="list-style-type: none"> <li>Marlin Equity Partners has taken a majority stake in LineLeader, a CRM platform for childcare centers.</li> <li>LineLeader services 5,000+ early childhood education centers globally.</li> </ul>
6/1/2023	 North Star	 braze	ND	ND	<ul style="list-style-type: none"> <li>Customer engagement platform Braze has acquired North Star, it's Australia &amp; New Zealand reseller.</li> <li>North Star has been a Braze reseller since 2016 and will now provide a direct presence as "Braze Australia".</li> </ul>
5/31/2023	 apptegy	 JMI EQUITY	\$13	ND	<ul style="list-style-type: none"> <li>JMI Equity has taken a majority stake in Apptegy, an omnichannel marketing management platform for schools.</li> <li>Apptegy's sustainable growth profile was a core part of the investment thesis.</li> </ul>
5/24/2023	 neeva	 snowflake	\$78	ND	<ul style="list-style-type: none"> <li>Data cloud platform Snowflake acquired AI Search Engine, Neev.</li> <li>The acquisition will accelerate search in the Data Cloud through generative AI.</li> </ul>
5/18/2023	 Winsight	 informa	ND	\$380	<ul style="list-style-type: none"> <li>Informa, a business intel platform, acquired Winsight, a market intel platform for the food &amp; retail sectors.</li> <li>The acquisition gives Informa access to Winsight's 1P data and expand into the B2B food service category.</li> </ul>
5/17/2023	 mobilize	 FORJ	\$5	ND	<ul style="list-style-type: none"> <li>Forj a member experience platform, acquired Mobilize, a community management platform.</li> <li>The acquisition allows Forj to expand its member experience platform.</li> </ul>
4/26/2023	 UNSTACK	 elasticpath	\$4	ND	<ul style="list-style-type: none"> <li>Elastic Path, a composable commerce platform, acquired Unstack, a no-code headless commerce platform.</li> <li>Merchandiser clients will be able to deploy performant no-code composable solutions more efficiently.</li> </ul>

# MarTech – Q2 2023 Notable Deals (2 / 2)

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
4/18/2023			\$16	ND	<ul style="list-style-type: none"> <li>■ Giosg, an eCommerce live customer experience platform, acquired Whisbi, a personalized live commerce platform.</li> <li>■ The acquisition diversifies Scandinavia-based Giosg geographic reach into Spain and the U.S.</li> </ul>
4/14/2023			\$25	ND	<ul style="list-style-type: none"> <li>■ XFactor, an AI-powered go-to-market platform, acquired DecisionLink, a customer value management platform.</li> <li>■ The acquisition follows XFactor's \$10mm financing round led by Lightspeed.</li> </ul>
4/11/2023			ND	ND	<ul style="list-style-type: none"> <li>■ Xalles, a FinTech holding company, acquired Appy Perks, a SaaS-based rewards &amp; incentives platform for mobile.</li> <li>■ The synergies with Xalles other subsidiaries was reportedly central to the acquisition thesis.</li> </ul>
4/4/2023			\$8	ND	<ul style="list-style-type: none"> <li>■ OneOf, an NFT-centric consumer engagement platform, acquired TAP Network, a blockchain rewards company.</li> <li>■ The acquisition will add loyalty points for real life cryptocurrency functionality to OneOf's platform.</li> </ul>


























## Commentary

- **Digital Content** M&A increased for the second straight quarter, up **12%** from Q1 2023.
- Scaled deals in the quarter were highlighted by Endeavor’s \$21bn + merger with the WWE, Savvy Games \$4.9bn acquisition of Scopely, Aristocrat’s \$1.2bn acquisition of NeoGames, and SEGA’s \$776mm acquisition of Rovio.
- While gaming transactions continue to drive activity in the sector, there has been no shortfall in non-gaming / social deals like Shutterstock’s acquisition of GIPHY, Bumble’s acquisition of Official, Starboard’s acquisition of Parler and audio/podcasting deals like Rumble’s acquisition of CallIn.

























## 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 – Q2 2023 Notable Deals (1 / 2)

Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
6/15/2023	 network media	 JELLYSMACK	ND	ND	<ul style="list-style-type: none"> <li>■ Creator growth company Jellysmack acquired Network Media LLC, a multi-platform creator development company.</li> <li>■ The acquisition will leverage Jellysmack's data-driven creator expertise to accelerate Network Media's strong creator development program and community culture into new genres and across platforms.</li> </ul>
6/15/2023	 Wargraphs	 M.O.B.A. NETWORK	\$0	\$55	<ul style="list-style-type: none"> <li>■ M.O.B.A. Network, a gaming HoldCo, acquired Wargraphs, the developer of a LoL companion app.</li> <li>■ The company reportedly generated ~\$12.5mm in revenue last fiscal year.</li> </ul>
6/13/2023	 timehop	 Sincere <small>punchbowl timehop memento</small>	\$14	ND	<ul style="list-style-type: none"> <li>■ Sincere Corp. (f.k.a. Punchbowl), a party planning platform, acquired Timehop, a personal memory capsule app.</li> <li>■ Timehop had ~140k downloads last year and peaked at 13.5mm downloads in 2014.</li> </ul>
6/12/2023	 goodjob games (Hypercasual Portfolio)	 AZUR GAMES	NA	ND	<ul style="list-style-type: none"> <li>■ AI Games FZ, a subsidiary of Azur Games, acquired Good Job Games' hypercasual portfolio.</li> <li>■ GJG has also recently divested Zen Match, another hypercasual asset, in response to challenges posed by ATT.</li> </ul>
6/2/2023	 Tacit	 Cent	\$4	ND	<ul style="list-style-type: none"> <li>■ Cent a platform for creators to create and monetize NFTs, acquired Tacit, a "web3 rewards" platform.</li> <li>■ Cent accelerates development of their plug-and-play tool for creating and embedding collectible NFTs anywhere.</li> </ul>
5/23/2023	 GIPHY	 shutterstock	NA	\$53	<ul style="list-style-type: none"> <li>■ Shutterstock, the world's largest stock photo library, acquired GIPHY, the world's largest GIF library &amp; search engine.</li> <li>■ Meta acquired GIPHY in 2020 for \$400mm, but a sale was forced by the UK's antitrust regulator.</li> </ul>
5/18/2023	 official	 bumble	ND	ND	<ul style="list-style-type: none"> <li>■ Bumble, a dating app, acquired Official, an app for couples to strengthen their relationships.</li> <li>■ This is part of Bumble's strategic effort to build the entire relationship journey, from discovery to retention.</li> </ul>
5/17/2023	 neogames	 ARISTOCRAT	NA	\$1,200	<ul style="list-style-type: none"> <li>■ Aristocrat Leisure, a mobile game conglomerate, will acquire NeoGames, an online gambling operator.</li> <li>■ NeoGames will join Pixel United, a subsidiary of Aristocrat which also operates in the mobile gambling space.</li> </ul>
5/15/2023	 rumble	 rumble	\$12	ND	<ul style="list-style-type: none"> <li>■ Rumble, a free-speech oriented video-sharing platform, acquired Callin, a social podcasting platform.</li> <li>■ Rumble's platform gains new user-friendly digital audio and podcasting functionality for creators,</li> </ul>
5/11/2023	 PURE FLIX	Great American Media	ND	ND	<ul style="list-style-type: none"> <li>■ Pure Flix, Sony's faith and family-based streaming platform, will merge with Great American Media.</li> <li>■ PF joins GAC Media's family friendly programming portfolio, in a bid to rival the Hallmark Channel.</li> </ul>
5/11/2023	 Classcraft	 Houghton Mifflin Harcourt	\$17	ND	<ul style="list-style-type: none"> <li>■ HMH, an edtech platform for educators, acquired Classcraft, a collaborative gamified student engagement platform.</li> <li>■ Teachers can lesson plans to its competitive and collaborative RPG-style platform.</li> </ul>
5/11/2023	 HARDSUIT LABS	 Keywords STUDIOS	ND	\$15	<ul style="list-style-type: none"> <li>■ Keywords Studios, a video gaming technical &amp; creative services provider, acquired Hardsuit, a game developer.</li> <li>■ Keywords Studios extends its US presence and adds further AAA expertise in the form of 70 new FTEs.</li> </ul>

# Digital Content – Q2 2023 Notable Deals (2 / 2)

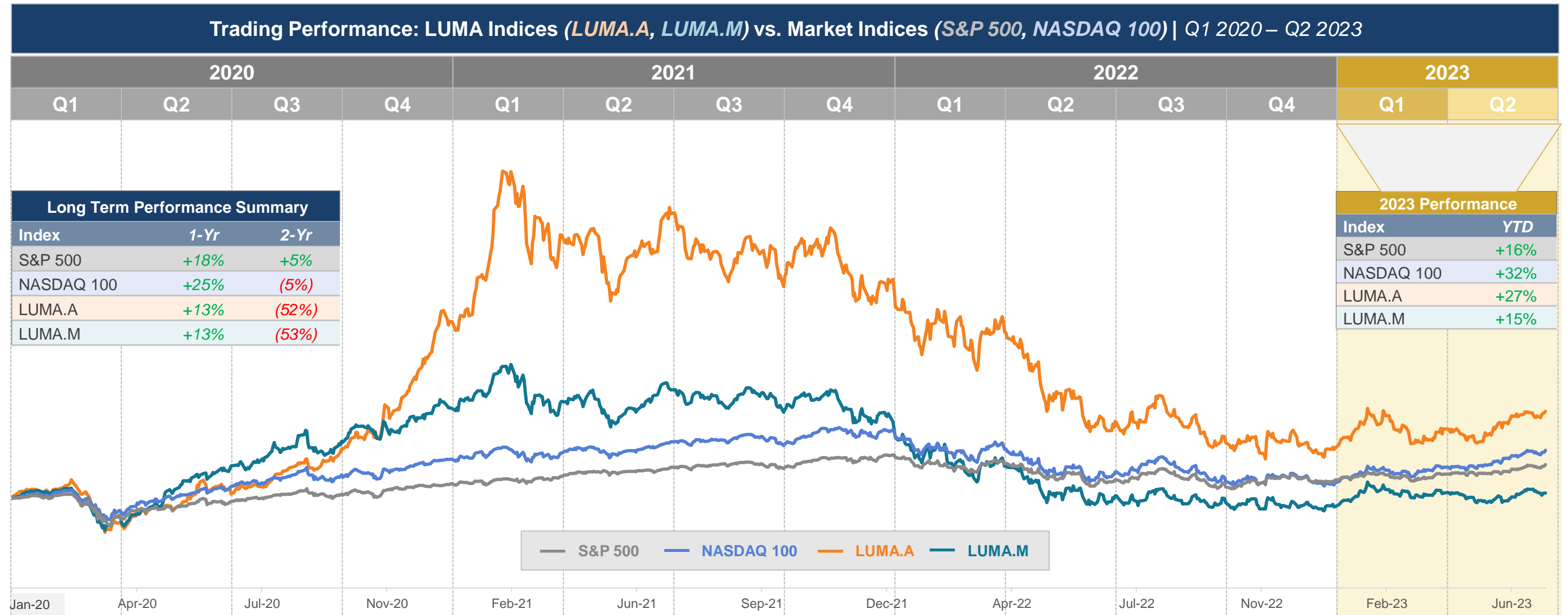
Announcement Date	Target	Acquirer	Capital Raised (\$mm)	Enterprise Value (\$mm)	Commentary
5/9/2023			ND	ND	<ul style="list-style-type: none"> <li>Super League, a publisher of metaverse games, acquired MELON, a developer of metaverse content in Roblox.</li> <li>Super League strengthens its position as a one-stop solutions provider to activate communities via the metaverse.</li> </ul>
5/2/2023			\$14	ND	<ul style="list-style-type: none"> <li>EvokAI, an AI-powered MedTech company, acquired Rehaboo!, a body motion-capture fitness game.</li> <li>EvokAI's back-end capabilities and expertise will support Rehaboo! and reportedly accelerate its growth trajectory.</li> </ul>
4/25/2023			\$14	ND	<ul style="list-style-type: none"> <li>Yahoo acquired Wagr, a peer-to-peer social sports betting app.</li> <li>This reportedly accelerates Yahoo! Sports' development of a holistic fantasy and gaming suite.</li> </ul>
4/20/2023			\$250	ND	<ul style="list-style-type: none"> <li>Playstation Studios will acquire Fire Walk Studios from ProbablyMonsters, a AAA game company.</li> <li>The 150 FTEs from Fire Walk will reportedly join the PS Studios roster to further push into live service games.</li> </ul>
4/19/2023			\$5	ND	<ul style="list-style-type: none"> <li>Epic Games, the developer of "Fortnite", acquired Aquiris, a mobile game developer.</li> <li>Aquiris is the first LatAm subsidiary to join Epic, and will do business as Epic Games Brazil.</li> </ul>
4/17/2023			NA	\$776	<ul style="list-style-type: none"> <li>SEGA, the creator of the "Sonic the Hedgehog" games, is acquiring Rovio, the developer of the "Angry Birds" app.</li> <li>Rovio's strong positioning in the fast-growing mobile games market was cited as a key driver of the \$776mm deal.</li> </ul>
4/14/2023			\$76	ND	<ul style="list-style-type: none"> <li>Starboard (f.k.a. Olympic Media), a digital media conglomerate, acquired Parler, a free-speech oriented social app.</li> <li>The announcement comes months after the deal with Ye fell through; the deal is expected to be accretive by H2'23.</li> </ul>
4/12/2023			ND	ND	<ul style="list-style-type: none"> <li>Aonic, a collective of gaming collective, acquired Milky Tea, the developer of "HyperBrawl Tournament".</li> <li>Milky Tea will reportedly double down on IP development and grow its team.</li> </ul>
4/7/2023			\$7	ND	<ul style="list-style-type: none"> <li>RP3, a creative marketing services agency, acquired SportsGrid, a streaming sports betting network.</li> <li>RP3 simultaneously announced its first campaign for SportsGrid as a recently acquired client.</li> </ul>
4/6/2023			ND	ND	<ul style="list-style-type: none"> <li>NRG, an eSports and entertainment company, acquired CLG, another eSports and entertainment company.</li> <li>CLG is reportedly in the process of laying off all its staff.</li> </ul>
4/6/2023			\$1,500	\$4,900	<ul style="list-style-type: none"> <li>Savvy, an eSports and gaming company will acquire Scopely, a mobile games studio for \$4.9bn.</li> <li>Scopely raised at \$3.3bn post-money in 2020 and acquired GSN Games for \$1bn in 2021.</li> </ul>
4/3/2023			NA	\$21,400	<ul style="list-style-type: none"> <li>Endeavour, the parent company of UFC, will merge with WWE in a deal valuing the combined company at \$21.4bn.</li> <li>The WWE is valued at \$9.4bn, and the combined live-sports &amp; entertainment company will have 1bn+ fans globally.</li> </ul>



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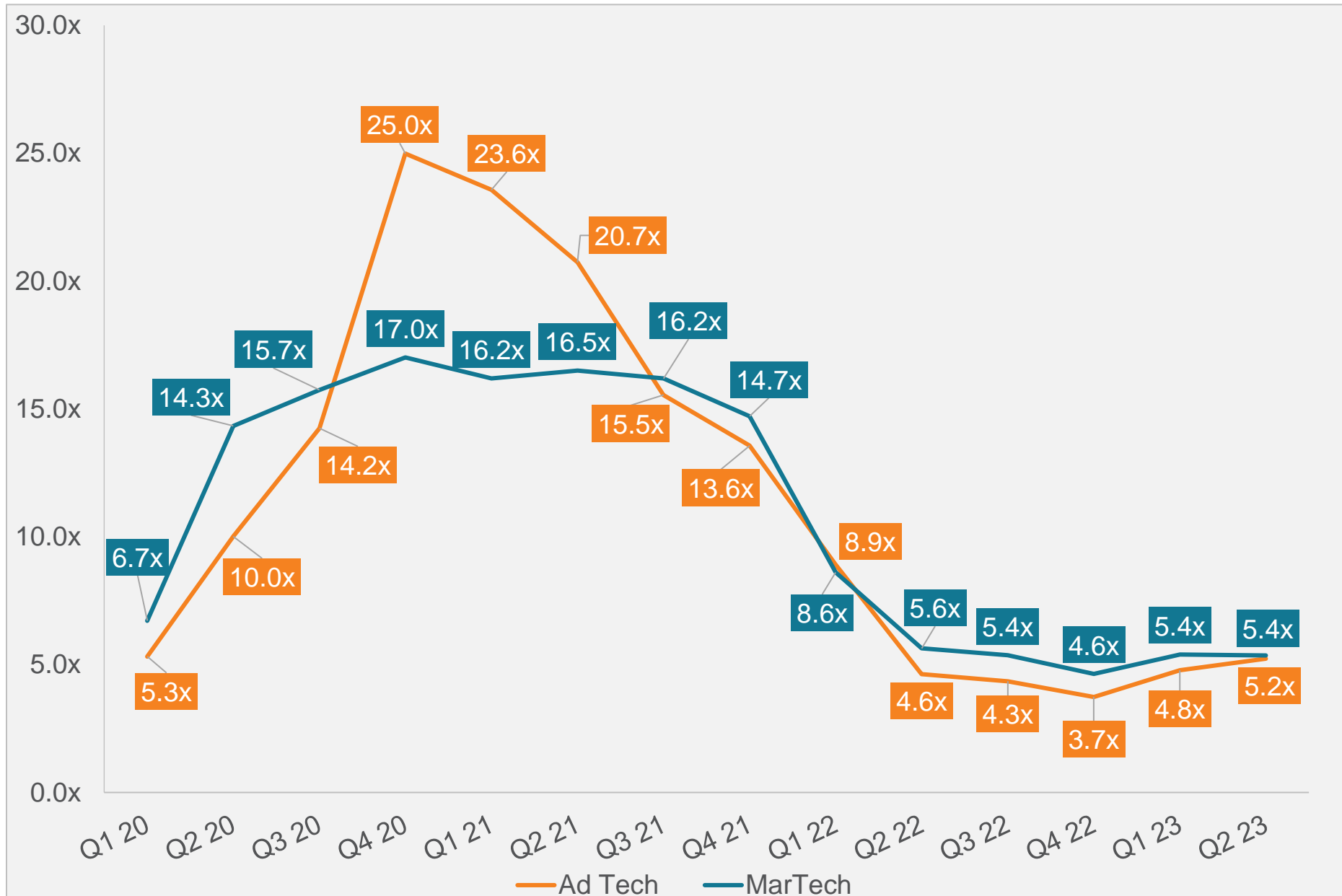
# Ad Tech & MarTech: Strong 2023 YTD Trading Performance



While still down from the elevated trading levels in 2021, both the **LUMA.A** and **LUMA.M** cohorts have fully recovered from the 2022 tech sell-off and are off to an exceptionally strong 2023. The indices have returned **+27%** and **+15%** year-to-date, as public market investors are noticing resilient underlying business results despite sustained market volatility.

# Ad Tech & MarTech Valuations Continue Stabilization

EV / LTM Revenue<sup>(1)</sup> Multiples at Quarter End (Q1 2020 – Q2 2023)



## Observations & Expectations

### Looking back (2020 – 2022):

- Coming off an unprecedented back half of 2020 and 2021, public market valuations slowed momentum and eventually halted into a rapid decline in the first half of 2022 largely driven by challenges impacting the broader economy.


### 2023 YTD:

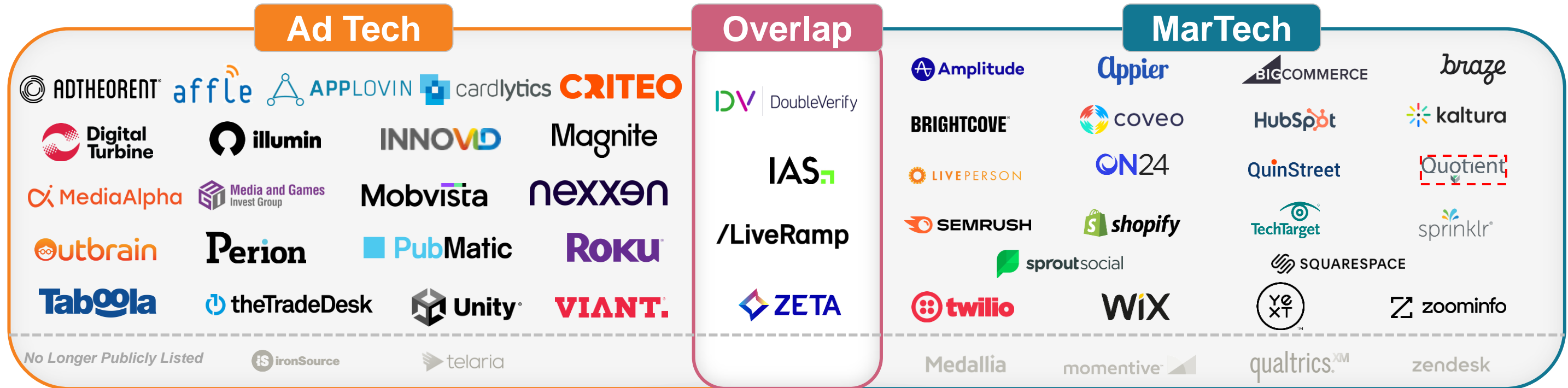
- On an LTM basis at quarter end, Q2 2023 marks the fifth consecutive quarter of stabilized valuations despite turbulence in the broader public markets.
- Despite guiding towards lower growth compared to 2021 and 2022, most public companies in both cohorts continue to be rewarded by public market investors with a continued focus on profitability.

### Looking Ahead:

- Stabilizing valuations help reset expectations and paves the way for value creation opportunities from both large-scale take-privates, and for strategics with the structural capability to leverage balance sheets for inorganic growth.

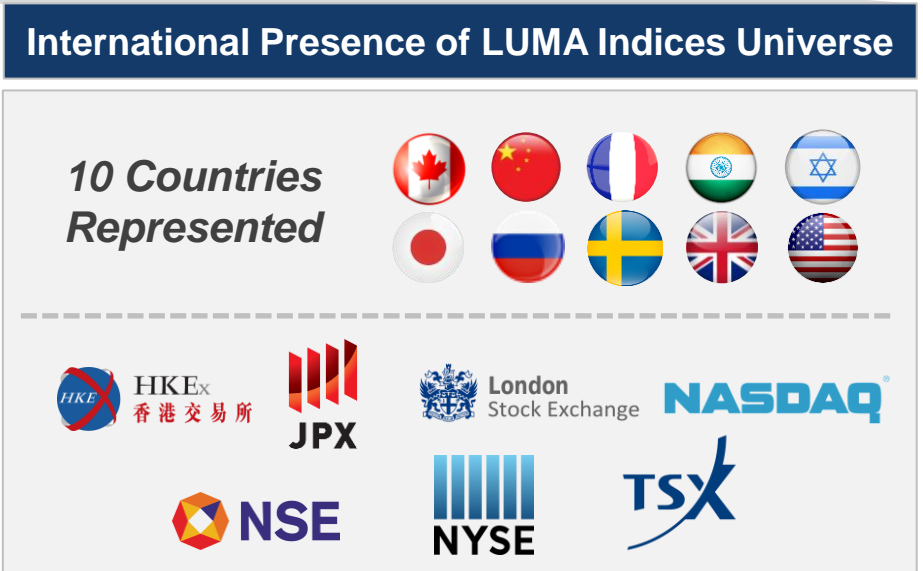
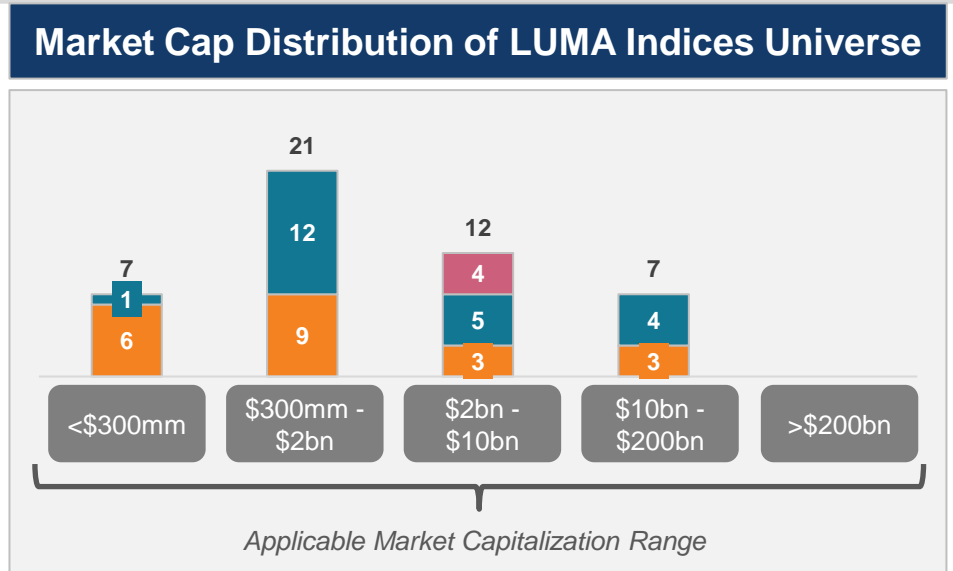
# The LUMA Indices Universe at a Glance (1 / 2)

 Denotes Active PubCos that have definitively agreed to be acquired




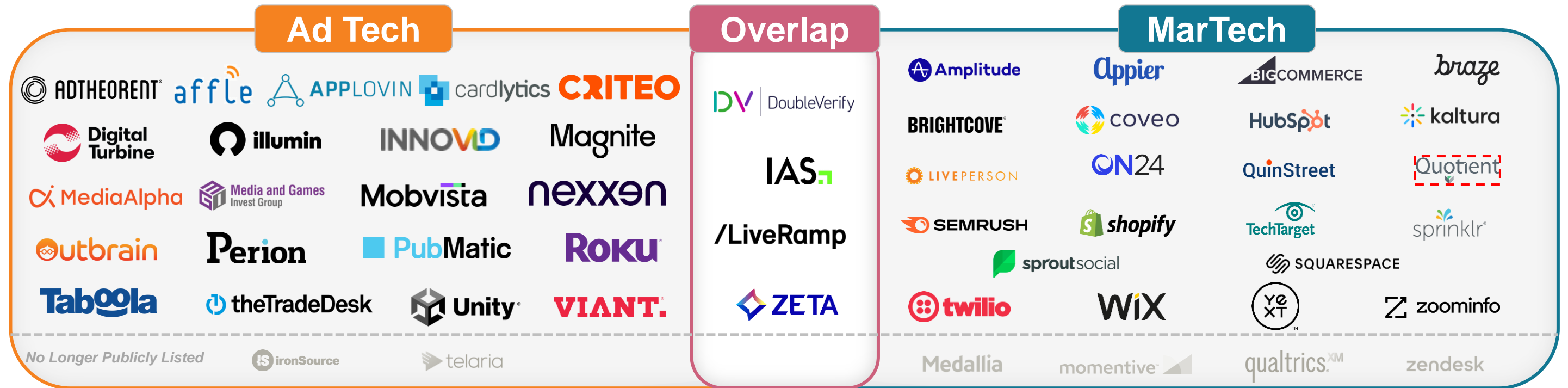
Total: 53 Companies<sup>(1)</sup>

Aggregate Mkt Cap as of 06/30/23	~\$269bn
Aggregate CY23E Revenue <sup>(2)</sup>	~\$39bn
Avg. CY23E Growth Rate	8.2%



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

 Denotes Active PubCos that have definitively agreed to be acquired



Metric	Ad Tech ex-Overlap		Overlap		MarTech ex-Overlap	
Aggregate Mkt Cap (\$bn)	\$90		\$14		\$164	
	Ad Tech ex-Overlap		Overlap		MarTech ex-Overlap	
	2022A	2023E	2022A	2023E	2022A	2023E
Avg. Revenue <sup>(1)</sup> (\$mm)	\$675	\$754	\$510	\$584	\$883	\$992
Avg. EBITDA Margin <sup>(2)(3)</sup> (%)	22.9%	22.0%	21.8%	23.7%	3.1%	6.8%
Avg. EV / Revenue <sup>(1)</sup> (x)	4.7x	4.2x	7.2x	6.1x	5.3x	4.6x
Avg. EV / EBITDA <sup>(3)(4)</sup> (x)	15.8x	19.9x	31.4x	24.1x	28.6x	24.1x

Source: FactSet (Market data as of 06/30/2023). Note: (1) Revenue refers to "GAAP Revenue" for MarTech cohort, and "Net Revenue" for Ad Tech cohort. See Appendix A for Net Revenue methodology & detail. Multiple excludes Affle from Ad Tech cohort. (2) EBITDA Margin shown on a "Net Revenue – basis" for Ad Tech cohort. (3) EBITDA refers to "Adj. EBITDA". See Appendix B for quarterly EBITDA detail. (4) EBITDA multiples less than 0 and greater than 75 are considered not meaningful ("NM").

# Ad Tech Earnings Reaction

Generally met revenue guidance and exceeded EBITDA expectations; market reaction appears heavily influenced by updated guidance

Overview		Reported Metric		TTM					Most Recent Quarter					Trading Performance				
				Net Revenue			Consensus EBITDA		Net Revenue			Consensus EBITDA		T+1 Comp	T+1 S&P	YTD Comp		
Company	Date	NR	EBITDA	Actual	Cons.	Beat/Miss	Actual	Cons.	Beat/Miss	Actual	Cons.	Beat/Miss	Actual	Cons.	Beat/Miss			
ADTHEORENT	5 / 09*	Adj. GP	EBITDA	\$108	\$101	7%	\$21	\$16	31%	\$21	\$21	(1%)	\$0	\$0	43%	(3%)	0%	(16%)
APPROVIN	5 / 10*	Revenue	EBITDA	\$2,907	\$2,947	(1%)	\$1,061	\$1,060	0%	\$715	\$695	3%	\$274	\$259	6%	24%	(0%)	144%
cardlytics	5 / 04*	GP	EBITDA	\$111	\$114	(3%)	(\$41)	(\$31)	NM	\$25	\$24	2%	(\$6)	(\$7)	NM	(27%)	2%	9%
CRITEO	5 / 03	Contribution ex-TAC	EBITDA	\$932	\$937	(1%)	\$243	\$225	8%	\$221	\$214	3%	\$39	\$31	24%	5%	(1%)	29%
Digital Turbine	5 / 24*	Adj. GP	EBITDA	\$327	\$343	(5%)	\$163	\$180	(9%)	\$61	\$69	(12%)	\$23	\$28	(18%)	(43%)	1%	(39%)
DV	5 / 10*	Revenue	EBITDA	\$478	\$462	4%	\$153	\$136	12%	\$123	\$118	4%	\$36	\$29	23%	7%	(0%)	77%
INNOVD	5 / 09	Revenue	EBITDA	\$132	\$134	(2%)	\$4	(\$3)	NM	\$30	\$30	2%	\$0	(\$1)	NM	2%	(0%)	(36%)
IAS	5 / 04	Revenue	EBITDA	\$425	\$413	3%	\$136	\$126	8%	\$106	\$103	3%	\$34	\$30	14%	4%	2%	105%
/LiveRamp	5 / 24*	Revenue	EBITDA	\$597	\$591	1%	\$65	\$52	24%	\$149	\$150	(1%)	\$15	\$17	(10%)	(12%)	1%	22%
Magnite	5 / 10*	Revenue ex-TAC	EBITDA	\$524	\$514	2%	\$173	\$162	7%	\$116	\$111	5%	\$23	\$18	30%	26%	(0%)	29%
MediaAlpha	5 / 04*	GP	EBITDA	\$67	\$62	8%	\$23	\$17	33%	\$18	N/a	NA	\$7	\$7	10%	2%	2%	4%
nexxen	5 / 30	Contribution ex-TAC	EBITDA	\$306	\$319	(1%)	\$115	\$116	(1%)	\$67	\$68	(2%)	\$9	\$6	45%	9%	0%	12%
Outbrain	5 / 09	GP ex-TAC	EBITDA	\$223	\$220	2%	\$15	\$8	103%	\$52	\$52	1%	\$1	(\$0)	NM	(2%)	(0%)	36%
Perion	5 / 03	Revenue ex-TAC	EBITDA	\$279	N/a	N/a	\$141	\$130	8%	\$66	N/a	NA	\$31	\$28	10%	(3%)	(1%)	21%
PubMatic	5 / 09*	Revenue	EBITDA	\$257	\$255	1%	\$89	\$82	9%	\$55	\$51	9%	\$8	\$5	68%	13%	0%	43%
ROKU	4 / 26*	Revenue	EBITDA	\$3,134	\$3,009	4%	(\$211)	(\$314)	NM	\$741	\$703	5%	(\$69)	(\$107)	NM	1%	2%	57%
Taboola	5 / 10	GP ex-TAC	EBITDA	\$547	\$532	3%	\$132	\$103	28%	\$116	\$109	6%	\$10	\$1	1457%	25%	0%	1%
theTradeDesk	5 / 10*	Revenue	EBITDA	\$1,645	\$1,604	3%	\$655	\$569	15%	\$383	\$363	5%	\$109	\$78	39%	(1%)	(0%)	72%
Unity	5 / 10*	Revenue	EBITDA	\$1,571	\$1,536	2%	(\$16)	(\$39)	NM	\$500	\$478	5%	\$32	\$11	193%	13%	(0%)	52%
VIANT.	5 / 08*	Contribution ex-TAC	EBITDA	\$125	\$125	0%	(\$3)	(\$9)	NM	\$28	\$27	6%	(\$0)	(\$3)	NM	6%	(0%)	15%
ZETA	5 / 04*	Revenue	EBITDA	\$622	\$581	7%	\$97	\$89	9%	\$158	\$150	5%	\$24	\$23	7%	(9%)	2%	5%

# MarTech Earnings Reaction

Cohort largely exceeded Q1 2023 revenues and EBITDA expectations; market reaction appears heavily influenced by updated guidance

Overview		Guided Metric		LTM			Most Recent Quarter			Trading Performance								
Company	Date	Revenue	Profit	Actual	Cons.	Beat/Miss	Actual	Cons.	Beat/Miss	Actual	Cons.	Beat/Miss	T+1 Comp	T+1 S&P	YTD Comp			
Amplitude	5 / 09*	Revenue	EBITDA	\$252	\$244	3%	(\$23)	(\$30)	23%	\$67	\$65	2%	(\$7)	(\$7)	(2%)	(8%)	0%	(9%)
Appier	5 / 16*	Revenue	EBITDA	\$154	\$152	1%	\$11	\$8	45%	\$41	\$41	(1%)	\$3	\$3	12%	(3%)	(1%)	18%
eCommerce	5 / 04*	Revenue	EBITDA	\$285	\$281	2%	(\$38)	(\$50)	24%	\$72	\$71	1%	(\$6)	(\$7)	26%	0%	2%	14%
Braze	6 / 08*	Revenue	EBITDA	\$380	\$366	4%	(\$45)	(\$73)	38%	\$102	\$99	3%	(\$9)	(\$17)	45%	16%	0%	61%
Brightcove	5 / 03*	Revenue	EBITDA	\$207	\$204	2%	\$10	\$10	(3%)	\$49	\$49	(1%)	(\$3)	\$1	n/m	(13%)	(1%)	(23%)
Coveo	5 / 30*	Revenue	EBITDA	\$112	\$109	3%	(\$16)	(\$22)	25%	\$29	\$29	1%	(\$3)	(\$5)	27%	10%	(1%)	(7%)
DV DoubleVerify	5 / 10*	Revenue	EBITDA	\$478	\$462	4%	\$153	\$136	12%	\$123	\$118	4%	\$36	\$29	23%	7%	(0%)	77%
HubSpot	5 / 03*	Revenue	EBITDA	\$1,837	\$1,754	5%	\$262	\$218	20%	\$502	\$474	6%	\$84	\$63	33%	7%	(1%)	84%
IAS	5 / 04*	Revenue	EBITDA	\$425	\$413	3%	\$136	\$126	7%	\$106	\$103	3%	\$34	\$30	13%	4%	2%	105%
Kaltura	5 / 09	Revenue	EBITDA	\$171	\$169	1%	(\$23)	(\$27)	17%	\$43	\$43	1%	(\$3)	(\$3)	19%	6%	(0%)	23%
LivePerson	5 / 09*	Revenue	EBITDA	\$492	\$491	0%	(\$3)	\$8	(136%)	\$108	\$108	0%	(\$1)	(\$7)	81%	26%	0%	(55%)
LiveRamp	5 / 24*	Revenue	EBITDA	\$597	\$591	1%	\$65	\$52	24%	\$149	\$150	(1%)	\$15	\$17	(10%)	(12%)	1%	22%
ON24	5 / 09*	Revenue	EBITDA	\$186	\$183	1%	(\$14)	(\$21)	30%	\$43	\$43	1%	(\$4)	(\$4)	12%	(1%)	0%	(6%)
QuinStreet	5 / 03*	Revenue	EBITDA	\$597	\$567	5%	\$20	\$16	25%	\$173	\$164	5%	\$9	\$7	22%	(11%)	(1%)	(38%)
Quotient	5 / 09*	Revenue	EBITDA	\$270	\$288	(6%)	\$24	\$28	(14%)	\$59	\$60	(1%)	\$2	\$4	(56%)	3%	0%	12%
SEMRUSH	5 / 08*	Revenue	EBITDA	\$268	\$262	2%	(\$33)	(\$36)	9%	\$71	\$70	1%	(\$7)	(\$6)	(20%)	(16%)	(0%)	18%
Shopify	5 / 04	Revenue	EBITDA	\$5,904	\$5,755	3%	\$46	(\$147)	131%	\$1,508	\$1,430	5%	(\$2)	(\$58)	97%	24%	(1%)	86%
Sprinklr	6 / 05*	Revenue	EBITDA	\$647	\$635	2%	\$30	\$11	175%	\$173	\$169	3%	\$14	\$7	108%	9%	0%	69%
SproutSocial	5 / 02*	Revenue	EBITDA	\$272	\$270	1%	\$3	(\$3)	175%	\$75	\$75	0%	\$3	(\$0)	n/m	(12%)	(1%)	(18%)
Squarespace	5 / 09	Revenue	EBITDA	\$896	\$883	1%	\$181	\$156	16%	\$237	\$233	2%	\$31	\$18	75%	(0%)	(0%)	42%
TechTarget	5 / 09	Revenue	EBITDA	\$286	\$285	0%	\$113	\$109	4%	\$57	\$57	0%	\$18	\$17	4%	(7%)	0%	(29%)
Twilio	5 / 09*	Revenue	EBITDA	\$3,958	\$3,889	2%	\$377	\$228	65%	\$1,007	\$1,001	1%	\$175	\$123	43%	(13%)	0%	30%
Wix	5 / 17	Revenue	EBITDA	\$1,420	\$1,408	1%	\$103	\$60	72%	\$374	\$369	1%	\$53	\$18	199%	1%	1%	2%
Yext	6 / 06*	Revenue	EBITDA	\$408	\$398	2%	\$33	\$20	64%	\$100	\$99	1%	\$14	\$11	32%	38%	(0%)	73%
Zeta	5 / 04	Revenue	EBITDA	\$622	\$581	7%	\$97	\$89	9%	\$158	\$150	5%	\$24	\$23	6%	(1%)	(1%)	5%
ZoomInfo	5 / 01*	Revenue	EBITDA	\$1,158	\$1,132	2%	\$491	\$473	4%	\$301	\$300	0%	\$125	\$125	0%	1%	(1%)	(16%)

Source: FactSet (Market data as of 06/30/2023) 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. EBITDA actuals and estimates represent broker consensus median figures. \*Represents earnings release after market close. Fiscal years end Dec'31, with the following exceptions: Jan 31 (BRZE, CZM, YEXT), Mar 31 (CVO, RAMP) and Jun 30 (QNST).

# Ad Tech – Q2 2023 Market Performance

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

	Company	Share Price (\$USD)		QoQ % Change	Market Cap (US\$mm)	EV / LTM Net Revenue	
		Beginning of Q2 2023	End of Q2 2023	% Increase / (Decrease)	End of Q2 2023	Beginning of Q2 2023	End of Q2 2023
1	Cardlytics	\$3.40	\$6.32	+86.2%	\$252	1.9x	5.8x
2	AppLovin	\$15.75	\$25.73	+63.4%	\$10,085	3.0x	4.1x
3	Magnite	\$9.26	\$13.65	+47.4%	\$2,065	3.4x	4.8x
4	Nexxen	\$2.59	\$3.60	+39.2%	\$546	0.9x	1.5x
5	Unity Software	\$32.44	\$43.42	+33.8%	\$18,881	11.8x	12.7x
6	PubMatic	\$13.82	\$18.28	+32.3%	\$1,087	2.4x	3.6x
7	LiveRamp	\$21.93	\$28.56	+30.2%	\$2,037	1.9x	2.6x
8	Double Verify	\$30.15	\$38.92	+29.1%	\$6,955	11.1x	13.9x
9	theTradeDesk	\$60.91	\$77.22	+26.8%	\$39,125	18.8x	23.0x
10	Integral Ad Science	\$14.27	\$17.98	+26.0%	\$2,987	6.1x	7.3x
11	Outbrain	\$4.13	\$4.92	+19.1%	\$264	0.9x	1.1x
12	Taboola	\$2.72	\$3.11	+14.3%	\$1,016	1.5x	1.8x
13	Affle	\$12.00	\$13.33	+11.1%	\$1,777	23.5x	24.9x
14	S&P 500	\$4,109.31	\$4,450.38	+8.3%	NA	NA	NA
15	Criteo	\$31.51	\$33.74	+7.1%	\$2,214	1.9x	2.1x
16	Illumin	\$1.58	\$1.68	+6.1%	\$106	0.9x	1.2x
17	Viant	\$4.35	\$4.61	+6.0%	\$307	2.0x	2.5x
18	Roku	\$65.82	\$63.96	(2.8%)	\$8,457	2.6x	2.2x
19	AdTheorent	\$1.69	\$1.40	(17.2%)	\$131	0.8x	0.5x
20	Mobvista	\$0.53	\$0.44	(17.4%)	\$727	NA	NA
21	Zeta Global	\$10.83	\$8.54	(21.1%)	\$2,285	5.1x	3.8x
22	Perion Network	\$39.58	\$30.67	(22.5%)	\$1,530	5.8x	4.1x
23	Innovid	\$1.41	\$1.09	(22.7%)	\$155	1.4x	1.0x
24	Digital Turbine	\$12.36	\$9.28	(24.9%)	\$943	4.5x	4.4x
25	Media and Games Invest	\$1.37	\$1.00	(26.5%)	\$160	1.5x	1.0x
26	MediaAlpha	\$14.98	\$10.31	(31.2%)	\$504	16.4x	11.1x
<b>Average</b>						<b>5.4x</b>	<b>5.9x</b>



# MarTech – Q2 2023 Market Performance

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

	Company	Share Price (\$USD)		% Increase % Increase / (Decrease)	Market Cap (US\$mm) End of Q2 2023	EV / LTM Revenue	
		Beginning of Q2 2023	End of Q2 2023			Beginning of Q2 2023	End of Q2 2023
1	Shopify	\$47.94	\$64.60	+34.8%	\$83,347	10.2x	13.4x
2	LiveRamp	\$21.93	\$28.56	+30.2%	\$2,037	1.9x	2.6x
3	DoubleVerify	\$30.15	\$38.92	+29.1%	\$6,955	11.1x	13.9x
4	Braze	\$34.57	\$43.79	+26.7%	\$4,816	9.0x	11.4x
5	Integral Ad Science	\$14.27	\$17.98	+26.0%	\$2,987	6.1x	7.3x
6	HubSpot	\$428.75	\$532.09	+24.1%	\$27,498	12.1x	14.4x
7	Yext	\$9.61	\$11.31	+17.7%	\$1,533	2.8x	3.2x
8	Quotient	\$3.28	\$3.84	+17.1%	\$409	0.9x	1.5x
9	BigCommerce	\$8.94	\$9.95	+11.3%	\$819	2.7x	3.1x
10	Kaltura	\$1.92	\$2.12	+10.4%	\$319	1.3x	1.6x
11	Coveo	\$5.76	\$6.24	+8.3%	\$716	7.8x	4.6x
12	S&P 500	\$4,109.31	\$4,450.38	+8.3%	NA	NA	NA
13	Sprinklr	\$12.96	\$13.83	+6.7%	\$4,127	5.3x	5.4x
14	ZoomInfo	\$24.71	\$25.39	+2.8%	\$10,569	10.8x	9.7x
15	LivePerson	\$4.41	\$4.52	+2.5%	\$377	1.4x	1.4x
16	Squarespace	\$31.77	\$31.54	(0.7%)	\$4,520	5.7x	5.3x
17	Appier	\$12.61	\$12.10	(4.0%)	\$1,229	8.2x	7.7x
18	Twilio	\$66.63	\$63.62	(4.5%)	\$11,948	2.5x	2.3x
19	SEMrush	\$10.05	\$9.57	(4.8%)	\$1,191	3.9x	3.6x
20	ON24	\$8.76	\$8.12	(7.3%)	\$421	0.8x	0.6x
21	BrightCove	\$4.45	\$4.01	(9.9%)	\$198	0.9x	0.9x
22	Amplitude	\$12.44	\$11.00	(11.6%)	\$1,517	6.0x	5.0x
23	TechTarget	\$36.12	\$31.13	(13.8%)	\$929	4.0x	3.6x
24	Zeta Global	\$10.83	\$8.54	(21.1%)	\$2,285	5.1x	3.8x
25	Wix	\$99.80	\$78.24	(21.6%)	\$4,756	4.2x	3.2x
26	Sprout Social	\$60.88	\$46.16	(24.2%)	\$2,688	13.2x	9.2x
27	QuinStreet	\$15.87	\$8.83	(44.4%)	\$500	1.4x	0.7x
	<b>Average</b>					<b>5.4x</b>	<b>5.4x</b>

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# LUMA.A – Financial Benchmarking Overview

## 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 \$4.2bn, with theTradeDesk (\$37.8bn) at the high end of the range and Illumin (\$53mm) at the lower end of the EV range.
- **LUMA.A** companies have an average '23E Net Revenue<sup>(1)</sup> of \$726mm and trade at an average EV / '23E Net Revenue of 4.5x. From a scale perspective, Roku is expected to have the highest Net Revenue in '23E (\$3.3bn) followed by AppLovin (\$2.9bn).
- theTradeDesk is trading at the highest EV / '23E Net Revenue at 19.6x. AdTheorent is trading at the lowest EV / '23E Net Revenue multiple at 0.5x. The average Net Revenue Growth Rate for '23E is 8.2%, down from the average '22A Net Revenue Growth Rate of 14.8%.
- **LUMA.A** companies have an average expected '23E EBITDA<sup>(2)</sup> Margin of 22.3%. EBITDA margins have largely held in the past year and are expected to remain relatively in line with the average '22A EBITDA Margin at 22.7%. From a pure dollar perspective, AppLovin leads the cohort with the highest '23E EBITDA at \$1.2bn.

## Number of Companies

25

4 overlap with LUMA.M

## Average Enterprise Value

\$4.2bn

## Average '23E Net Revenue<sup>(1)</sup>

\$726mm

## Average EV / '23E Net Revenue<sup>(1)</sup>

4.5x

## Average '23E Net Rev<sup>(1)</sup>. Growth %

+8.2%

Down from +14.8% in 2022A

## Average '23E EBITDA Margin<sup>(2)</sup> %

+22.3%

Down from +22.7% in 2022A

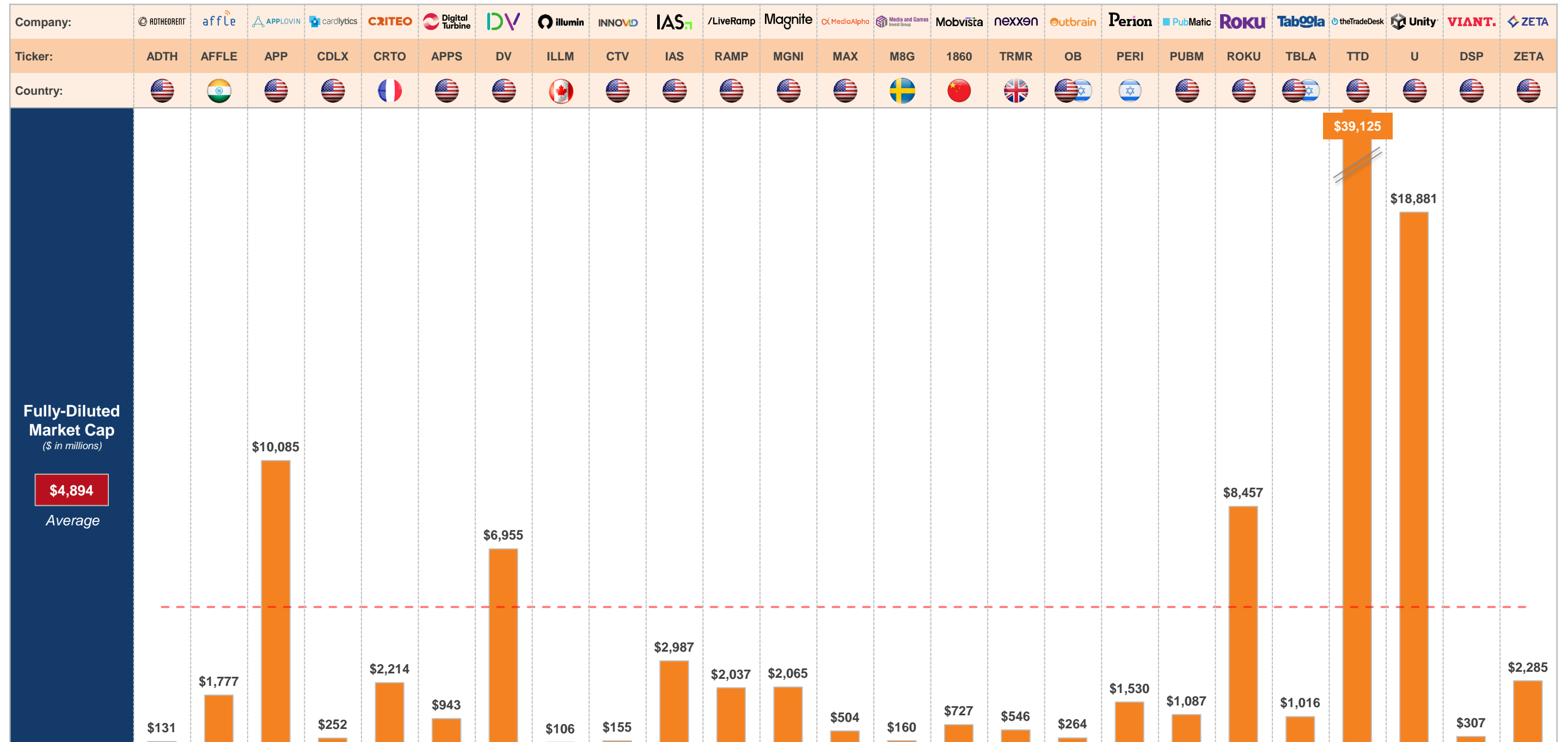
# LUMA.A – Summary Valuation Statistics

**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			EV / Adj. EBITDA		
Company	Ticker	Exchange	Share Price	FD Market Cap	Enterprise Value	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
Affle <sup>(1)</sup>	AFFLE	BSE	\$13.33	\$1,777	\$1,702	25.5x	NA	NA	49.2x	39.9x	NA
AdTheorent	ADTH	NASDAQ	\$1.40	\$131	\$56	0.5x	0.5x	0.5x	2.5x	2.9x	2.2x
AppLovin	APP	NASDAQ	\$25.73	\$10,085	\$12,045	4.3x	4.1x	3.8x	11.3x	10.3x	9.4x
Cardlytics	CDLX	NASDAQ	\$6.32	\$252	\$647	5.7x	5.3x	4.4x	NM	NM	NM
Criteo	CRTO	NASDAQ	\$33.74	\$2,214	\$1,924	2.1x	1.9x	1.7x	7.2x	6.8x	6.0x
Digital Turbine	APPS	NASDAQ	\$9.28	\$943	\$1,431	4.0x	5.1x	NA	7.5x	12.4x	NA
DoubleVerify	DV	NYSE	\$38.92	\$6,955	\$6,671	14.7x	11.8x	9.7x	47.1x	38.1x	30.4x
Illumin	ILLM	NASDAQ	\$1.68	\$106	\$53	1.2x	1.1x	1.0x	11.0x	15.0x	8.1x
Innovid	CTV	NYSE	\$1.09	\$155	\$130	1.0x	1.0x	0.9x	NM	20.2x	10.6x
Integral Ad Science	IAS	NASDAQ	\$17.98	\$2,987	\$3,106	7.6x	6.7x	5.7x	24.5x	20.7x	17.5x
LiveRamp	RAMP	NYSE	\$28.56	\$2,037	\$1,539	2.6x	2.5x	2.4x	28.5x	17.6x	12.2x
Magnite	MGNI	NASDAQ	\$13.65	\$2,065	\$2,506	4.9x	4.5x	4.0x	14.0x	13.8x	11.5x
MediaAlpha	MAX	NYSE	\$10.31	\$504	\$741	10.6x	11.9x	9.5x	32.4x	36.8x	19.2x
Media and Games Invest	M8G	NASDAQ	\$1.00	\$160	\$331	1.0x	0.9x	0.8x	3.3x	3.2x	2.7x
Mobvista	1860	HKG	\$0.44	\$727	\$722	3.2x	3.3x	2.7x	20.0x	NA	NA
Nexxen	TRMR	LSE	\$3.60	\$546	\$490	1.6x	1.2x	1.1x	3.4x	3.5x	3.1x
Outbrain	OB	NASDAQ	\$4.92	\$264	\$248	1.1x	1.0x	0.9x	9.4x	8.9x	6.1x
Perion Network	PERI	NASDAQ	\$30.67	\$1,530	\$1,145	4.3x	3.8x	NA	8.7x	7.4x	6.6x
PubMatic	PUBM	NASDAQ	\$18.28	\$1,087	\$913	3.6x	3.5x	3.0x	9.3x	11.4x	9.5x
Roku	ROKU	NASDAQ	\$63.96	\$8,457	\$6,827	2.2x	2.1x	1.8x	NM	NM	NM
Taboola	TBLA	NASDAQ	\$3.11	\$1,016	\$968	1.7x	1.8x	1.3x	6.2x	13.3x	4.9x
theTradeDesk	TTD	NASDAQ	\$77.22	\$39,125	\$37,795	24.0x	19.6x	15.9x	56.6x	51.0x	40.4x
Unity Software	U	NYSE	\$43.42	\$18,881	\$20,002	14.4x	9.3x	7.8x	NM	73.3x	30.6x
Viant	DSP	NASDAQ	\$4.61	\$307	\$307	2.5x	2.3x	2.0x	NM	28.0x	18.3x
Zeta Global	ZETA	NYSE	\$8.54	\$2,285	\$2,361	4.0x	3.4x	2.9x	25.6x	19.8x	15.5x
<b>Average</b>						<b>5.1x</b>	<b>4.5x</b>	<b>3.8x</b>	<b>18.9x</b>	<b>20.6x</b>	<b>13.2x</b>
<b>Median</b>						<b>3.4x</b>	<b>3.3x</b>	<b>2.5x</b>	<b>11.2x</b>	<b>14.4x</b>	<b>10.0x</b>
<b>25<sup>th</sup> Percentile</b>						<b>1.7x</b>	<b>1.7x</b>	<b>1.2x</b>	<b>7.4x</b>	<b>9.2x</b>	<b>6.1x</b>
<b>75<sup>th</sup> Percentile</b>						<b>5.1x</b>	<b>5.2x</b>	<b>4.3x</b>	<b>26.3x</b>	<b>26.2x</b>	<b>17.7x</b>

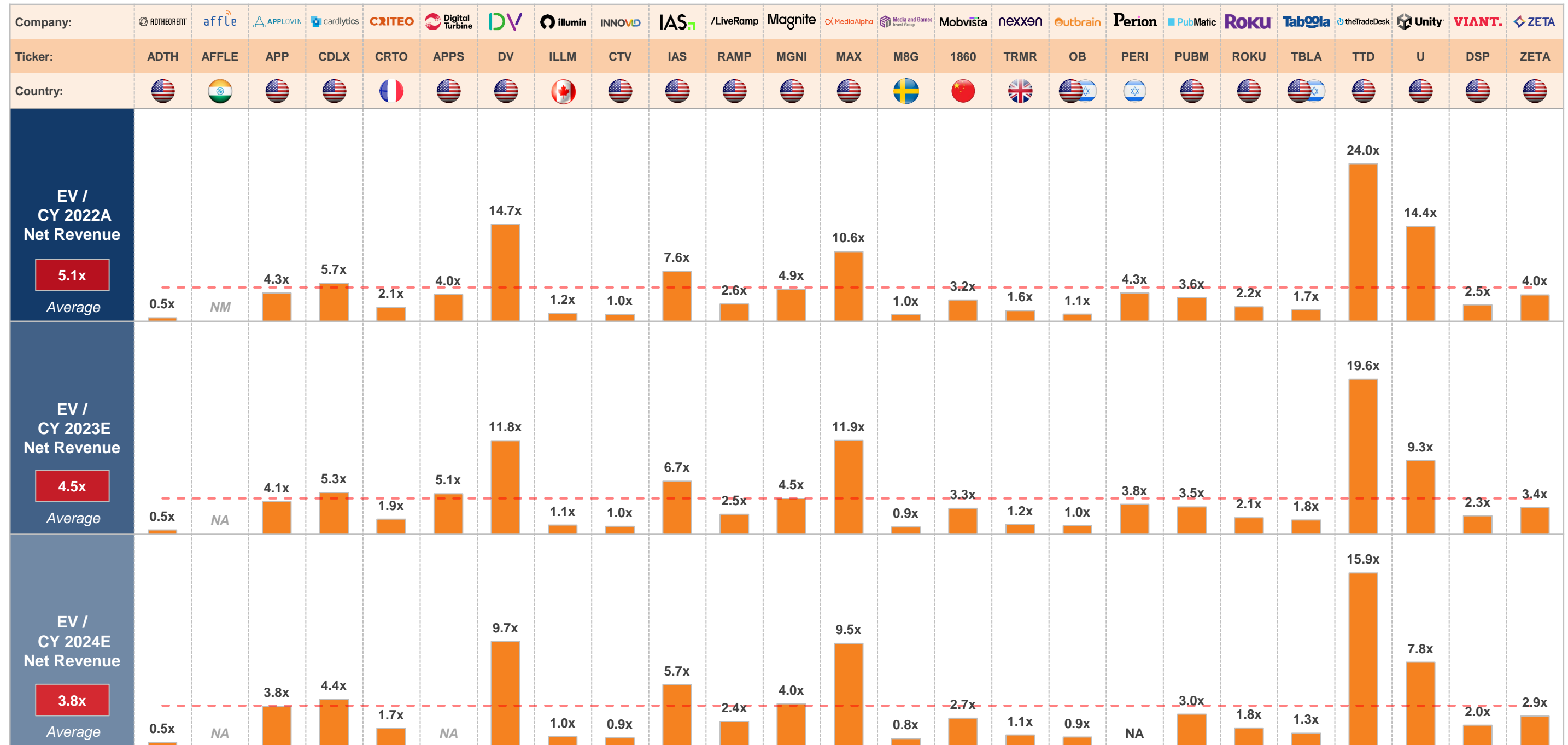
Source: LUMA Analysis, FactSet (Market data as of 06/30/2023), Company Filings. Note: Figures correspond to calendar years, or closest equivalent period, See Appendix C for detail. Forward estimates excluded for companies whose relevant metrics are not available on a forward basis (i.e., excluded if 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 Net revenue multiples.

# LUMA.A – Valuation Statistics



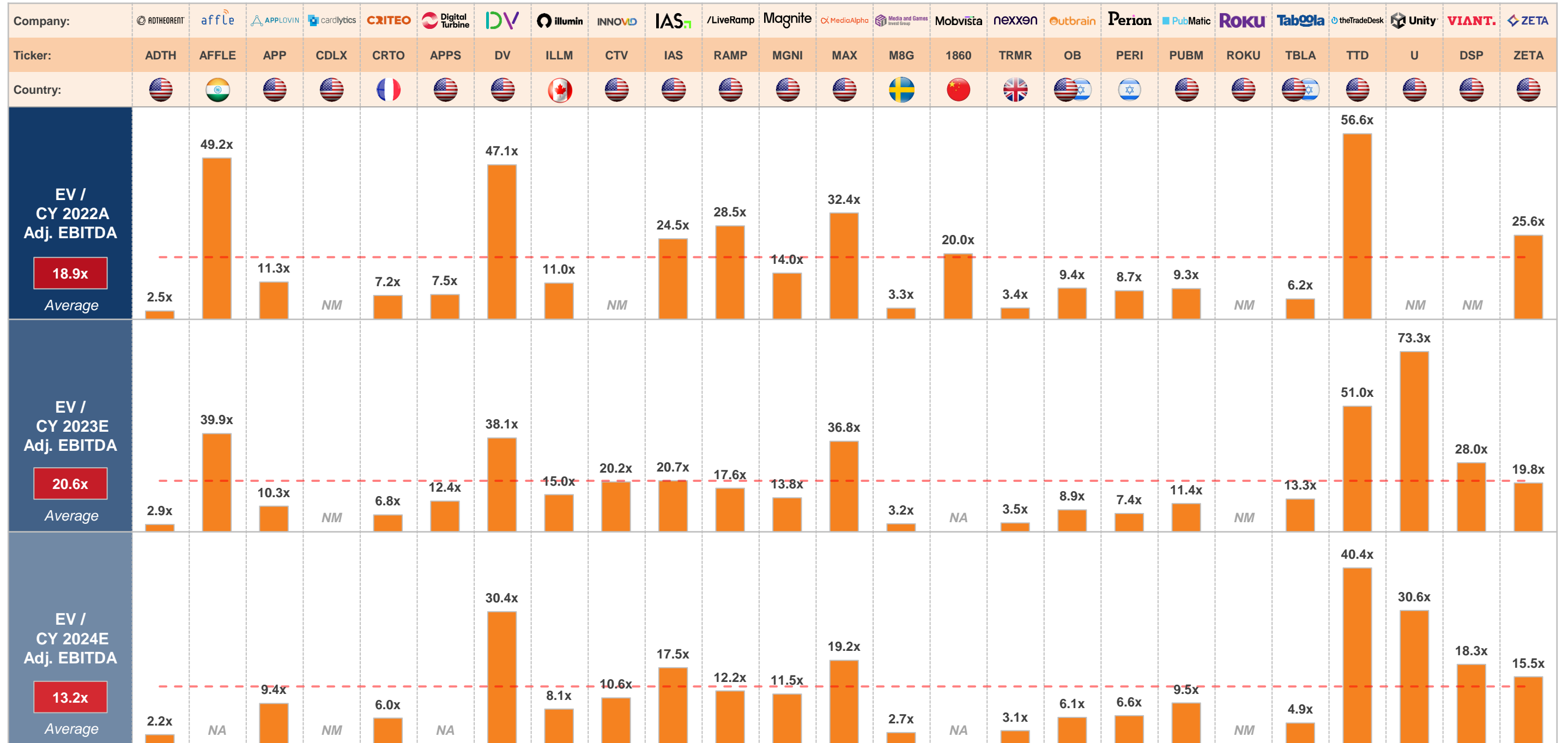
# LUMA.A – EV / Net Revenue

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 / Adj. 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.**

Company	Ticker	Net Revenue (\$mm)			Net Revenue Growth %			Adj. EBITDA (\$mm)			Adj. EBITDA Margin %		
		CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
AdTheorent	ADTH	\$110	\$108	\$122	0%	(1%)	13%	\$22	\$19	\$26	20%	18%	21%
Affle	AFFLE	\$67	NA	NA	42%	NA	NA	\$35	\$43	NA	52%	NA	NA
AppLovin	APP	\$2,817	\$2,930	\$3,204	1%	4%	9%	\$1,063	\$1,166	\$1,286	38%	40%	40%
Cardlytics	CDLX	\$113	\$123	\$147	10%	9%	20%	(\$45)	(\$9)	\$5	(40%)	(7%)	4%
Criteo	CRTO	\$928	\$1,009	\$1,103	1%	9%	9%	\$267	\$282	\$321	29%	28%	29%
Digital Turbine	APPS	\$356	\$279	NA	14%	(21%)	NA	\$191	\$115	NA	54%	41%	NA
DoubleVerify	DV	\$452	\$563	\$691	36%	24%	23%	\$142	\$175	\$220	31%	31%	32%
Illumin	ILLM	\$45	\$47	\$54	(11%)	3%	14%	\$5	\$4	\$7	11%	8%	12%
Innovid	CTV	\$127	\$131	\$151	41%	3%	15%	\$1	\$6	\$12	1%	5%	8%
Integral Ad Science	IAS	\$408	\$462	\$542	26%	13%	17%	\$127	\$150	\$177	31%	32%	33%
LiveRamp	RAMP	\$590	\$609	\$652	17%	3%	7%	\$54	\$87	\$126	9%	14%	19%
Magnite	MGNI	\$515	\$556	\$629	12%	8%	13%	\$179	\$182	\$218	35%	33%	35%
MediaAlpha	MAX	\$70	\$62	\$78	(31%)	(11%)	25%	\$23	\$20	\$39	33%	32%	49%
Media and Games Invest	M8G	\$344	\$370	\$412	21%	8%	11%	\$99	\$104	\$123	29%	28%	30%
Mobvista	1860	\$225	\$221	\$271	51%	(2%)	22%	\$36	-	-	16%	NA	NA
Nexxen	TRMR	\$310	\$400	\$430	3%	29%	8%	\$145	\$140	\$158	47%	35%	37%
Outbrain	OB	\$235	\$237	\$265	(14%)	1%	12%	\$26	\$28	\$40	11%	12%	15%
Perion Network	PERI	\$268	\$303	NA	41%	13%	NA	\$132	\$156	\$175	49%	51%	NA
PubMatic	PUBM	\$256	\$264	\$301	13%	3%	14%	\$98	\$80	\$97	38%	30%	32%
Roku	ROKU	\$3,127	\$3,291	\$3,847	13%	5%	17%	(\$84)	(\$283)	\$19	(3%)	(9%)	0%
Taboola	TBLA	\$570	\$539	\$744	10%	(5%)	38%	\$157	\$73	\$198	28%	14%	27%
theTradeDesk	TTD	\$1,578	\$1,924	\$2,373	32%	22%	23%	\$668	\$741	\$936	42%	38%	39%
Unity Software	U	\$1,391	\$2,148	\$2,573	25%	54%	20%	(\$51)	\$273	\$653	(4%)	13%	25%
Viant	DSP	\$125	\$133	\$151	(12%)	7%	14%	(\$6)	\$11	\$17	(5%)	8%	11%
Zeta Global	ZETA	\$591	\$701	\$826	29%	19%	18%	\$92	\$120	\$153	16%	17%	18%
<b>Average</b>					<b>15%</b>	<b>8%</b>	<b>16%</b>				<b>23%</b>	<b>22%</b>	<b>25%</b>
<b>Median</b>					<b>13%</b>	<b>6%</b>	<b>15%</b>				<b>29%</b>	<b>28%</b>	<b>27%</b>
<b>25<sup>th</sup> Percentile</b>					<b>1%</b>	<b>2%</b>	<b>12%</b>				<b>11%</b>	<b>12%</b>	<b>15%</b>
<b>75<sup>th</sup> Percentile</b>					<b>29%</b>	<b>13%</b>	<b>20%</b>				<b>38%</b>	<b>33%</b>	<b>33%</b>

**Source:** LUMA Analysis, FactSet (Market data as of 06/30/2023), Company Filings. **Note:** Figures correspond to calendar years, or closest equivalent period, See Appendix C for detail. EBITDA margins calculated with "Net Revenue" as denominator, and therefore may not correspond to a given company's reported EBITDA margin. "NC" denotes not calculated for instances where EBITDA detail is available, but not Net Revenue detail. Please refer to Appendices A & B for detail on methodology and definitions.



# LUMA.A – 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.

Company:	ADTHEORENT	afble	APPROVIN	cardlytics	CRITEO	Digital Turbine	DV	illumin	INNOVOD	IAS	/LiveRamp	Magnite	MediaAlpha	Media and Games Invest Group	Mobvista	nexxen	Outbrain	Perion	PubMatic	ROKU	Taboola	theTradeDesk	Unity	VIANT.	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
YoY 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%	
CY 2022A Net Revenue (\$ in millions)	\$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	
Average	\$625																									
YoY Growth %	(1%)	NA	4%	9%	9%	(21%)	24%	3%	3%	13%	3%	8%	(11%)	8%	(2%)	29%	1%	13%	3%	5%	(5%)	22%	54%	7%	19%	
EV / CY 2023E Net Revenue	\$108	NA	\$2,930	\$123	\$1,009	\$279	\$563	\$47	\$131	\$462	\$609	\$556	\$62	\$370	\$221	\$400	\$237	\$303	\$264	\$3,291	\$539	\$1,924	\$2,148	\$133	\$701	
Average	\$726																									
YoY Growth %	13%	NA	9%	20%	9%	NA	23%	14%	15%	17%	7%	13%	25%	11%	22%	8%	12%	NA	14%	17%	38%	23%	20%	14%	18%	
EV / CY 2024E Net Revenue	\$122	NA	\$3,204	\$147	\$1,103	NA	\$691	\$54	\$151	\$542	\$652	\$629	\$78	\$412	NA	\$430	\$265	NA	\$301	\$3,847	\$744	\$2,373	\$2,573	\$151	\$826	
Average	\$889																									

# LUMA.A – Adj. EBITDA Margin<sup>(1)</sup>

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	INNOVAD	IAS	/LiveRamp	Magnite	MediaAlpha	Media and Games Invest Group	Mobvista	nexxen	Outbrain	Perion	PubMatic	ROKUU	Taboola	theTradeDesk	Unity	VIAANT	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:																										
<b>Average</b> <b>22.7%</b>	20.3%	51.8%	37.7%	(40.1%)	28.8%	53.6%	31.3%	10.7%	1.0%	31.0%	9.2%	34.7%	32.6%	28.7%	16.1%	46.8%	11.2%	49.5%	38.2%	(2.7%)	27.5%	42.3%	(3.7%)	(4.9%)	15.6%	
<b>CY 2022A EBITDA Margin % (NR – Basis)</b>																										
<b>YoY bps Δ</b>	(190)	(27)	+117	(282)	(62)	+69	(17)	(205)	(51)	(09)	+00	+15	(247)	+05	+03	(66)	(215)	+129	(42)	(195)	(71)	+03	(19)	(310)	+18	
<b>Average</b> <b>22.3%</b>	17.7%	NC	39.8%	(7.4%)	28.0%	41.3%	31.1%	7.6%	4.9%	32.5%	14.3%	32.7%	32.3%	28.1%	NA	35.1%	11.8%	51.3%	30.3%	(8.6%)	13.5%	38.5%	12.7%	8.3%	17.0%	
<b>CY 2023E EBITDA Margin % (NR – Basis)</b>																										
<b>YoY bps Δ</b>	(26)	NA	+21	+327	(08)	(123)	(02)	(31)	+39	+15	+51	(20)	(03)	(06)	NA	(117)	+06	+19	(79)	(59)	(140)	(38)	+164	+132	+14	
<b>Average</b> <b>24.6%</b>	20.9%	NC	40.1%	3.5%	29.1%	NC	31.8%	12.3%	8.1%	32.7%	19.3%	34.7%	49.4%	29.8%	NA	36.7%	15.2%	NC	32.1%	0.5%	26.7%	39.4%	25.4%	11.1%	18.5%	
<b>CY 2024E EBITDA Margin % (NR – Basis)</b>																										
<b>YoY bps Δ</b>	+32	NA	+03	+110	+12	NA	+08	+47	+32	+02	+50	+20	+171	+17	NA	+17	+34	NA	+18	+91	+131	+10	+127	+29	+14	

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4	Appendix

# LUMA.M – Financial Benchmarking Overview

## Summary Observations

- The **LUMA.M** index cohort has 26 companies, including 4 that overlap with the **LUMA.A** index cohort.
- The average Enterprise Value of **LUMA.M** constituents is \$6.5bn with Shopify the largest (\$79.4bn) and ON24 (\$107mm) the smallest by EV.
- **LUMA.M** companies have an average '23E Revenue of \$929mm and trade at average EV / '23E Revenue of 4.9x. Of the **LUMA.M** companies, Shopify is expected to have the highest Revenue in '23E (\$6.7bn).
- [HubSpot] is trading at the highest EV / '23E Revenue at 12.7x, followed by Shopify and DoubleVerify at 11.8x. ON24 is trading at the lowest EV / '23E Revenue multiple at 0.7x. The average Revenue Growth Rate for '23E is 9.3% down from the average '22A Revenue Growth Rate of 18.7%.
- **LUMA.M** companies have an average '23E EBITDA Margin of 9.5%, up from 6.0% for '22A. By scale, Twilio has the highest '23E EBITDA (\$617mm) of the cohort, while ZoomInfo has the highest '23E EBITDA Margin (+42.0%).

## Number of Companies

26

4 overlap with LUMA.M

## Average Enterprise Value

\$6.5bn

## Average '23E Revenue

\$929mm

## Average EV / '23E Revenue

4.9x

## Average '23E Rev. Growth %

+9.3%

Down from +18.7% in 2022A

## Average '23E EBITDA Margin %<sup>(1)</sup>

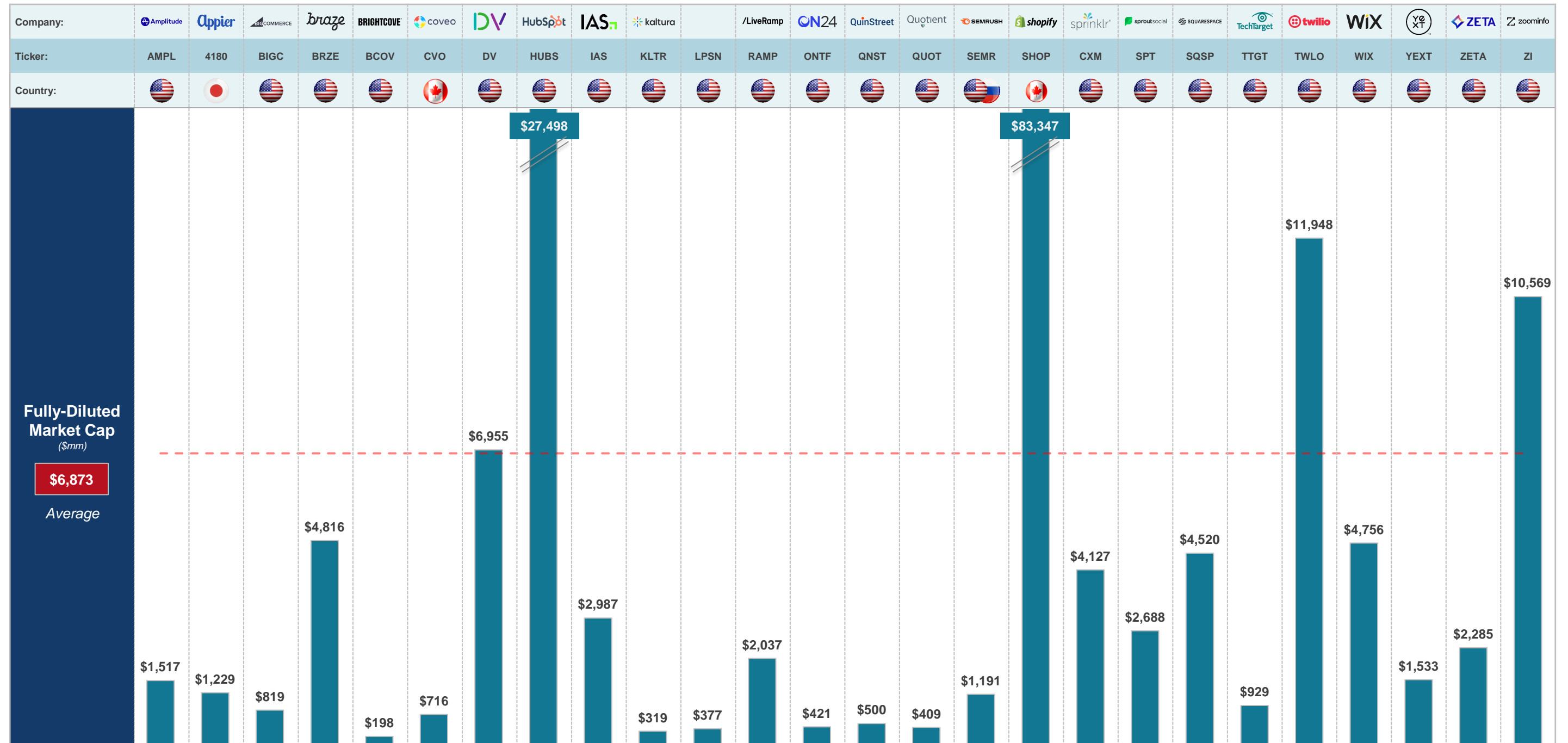
+9.5%

Up from +6.0% in 2022A

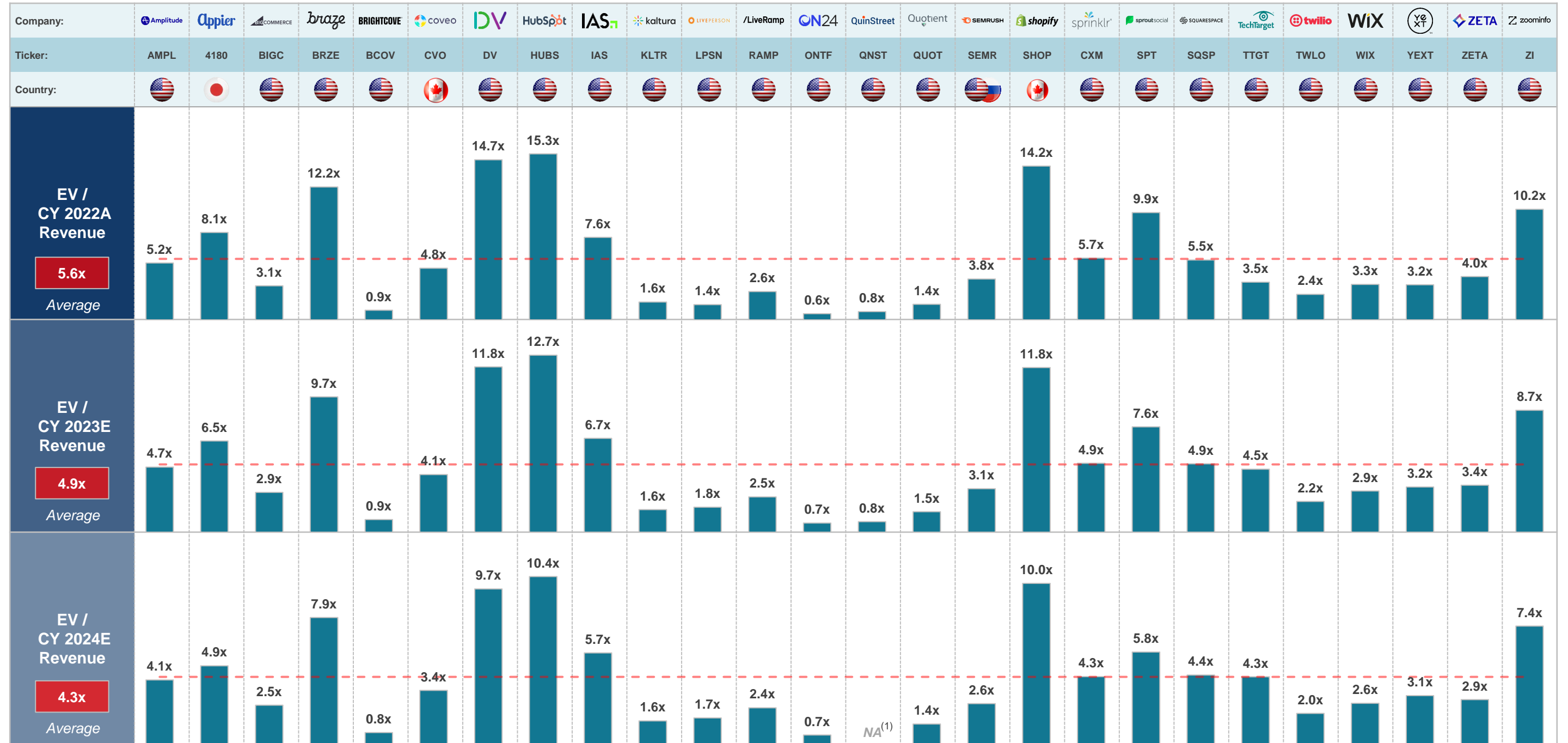
# LUMA.M – Summary Valuation Statistics

(\$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	\$11.00	\$1,517	\$1,249	5.2x	4.7x	4.1x	68.7x	NM	NM
Appier	4180	TYO	\$12.10	\$1,229	\$1,179	8.1x	6.5x	4.9x	NM	NA	NA
BigCommerce	BIGC	NASDAQ	\$9.95	\$819	\$874	3.1x	2.9x	2.5x	NM	NM	NM
Braze	BRZE	NASDAQ	\$43.79	\$4,816	\$4,314	12.2x	9.7x	7.9x	NM	NM	NM
Brightcove	BCOV	NASDAQ	\$4.01	\$198	\$186	0.9x	0.9x	0.8x	10.4x	10.7x	7.7x
Coveo	CVO	TSE	\$6.24	\$716	\$528	4.8x	4.1x	3.4x	NM	NM	NM
Double Verify	DV	NYSE	\$38.92	\$6,955	\$6,671	14.7x	11.8x	9.7x	47.1x	38.1x	30.4x
Hubspot	HUBS	NYSE	\$532.09	\$27,498	\$26,468	15.3x	12.7x	10.4x	NM	NM	60.0x
Integral Ad Science	IAS	NASDAQ	\$17.98	\$2,987	\$3,106	7.6x	6.7x	5.7x	24.5x	20.7x	17.5x
Kaltura	KLTR	NASDAQ	\$2.12	\$319	\$277	1.6x	1.6x	1.6x	NM	NM	NM
LivePerson	LPSN	NASDAQ	\$4.52	\$377	\$719	1.4x	1.8x	1.7x	NM	30.6x	15.5x
LiveRamp	RAMP	NYSE	\$28.56	\$2,037	\$1,539	2.6x	2.5x	2.4x	28.5x	17.6x	12.2x
ON24	ONTF	NYSE	\$8.12	\$421	\$107	0.6x	0.7x	0.7x	NM	NM	62.5x
QuinStreet	QNST	NASDAQ	\$8.83	\$500	\$437	0.8x	0.8x	NA	24.5x	22.3x	NA
Quotient	QUOT	NYSE	\$3.84	\$409	\$415	1.4x	1.5x	1.4x	27.9x	12.1x	8.3x
SEMrush	SEMR	NYSE	\$9.57	\$1,191	\$958	3.8x	3.1x	2.6x	NM	NM	46.1x
Shopify	SHOP	TSE	\$64.60	\$83,347	\$79,398	14.2x	11.8x	10.0x	NM	NM	NM
Sprinklr	CXM	NYSE	\$13.83	\$4,127	\$3,523	5.7x	4.9x	4.3x	NM	51.2x	39.5x
SproutSocial	SPT	NASDAQ	\$46.16	\$2,688	\$2,511	9.9x	7.6x	5.8x	NM	NM	NM
Squarespace	SQSP	NYSE	\$31.54	\$4,520	\$4,785	5.5x	4.9x	4.4x	32.4x	23.5x	20.0x
TechTarget	TTGT	NASDAQ	\$31.13	\$929	\$1,032	3.5x	4.5x	4.3x	8.4x	NM	NM
Twilio	TWLO	NYSE	\$63.62	\$11,948	\$9,008	2.4x	2.2x	2.0x	32.8x	14.6x	13.0x
Wix	WIX	NASDAQ	\$78.24	\$4,756	\$4,525	3.3x	2.9x	2.6x	NM	28.5x	18.4x
Yext	YEXT	NYSE	\$11.31	\$1,533	\$1,317	3.2x	3.2x	3.1x	NM	26.3x	21.9x
Zeta Global	ZETA	NYSE	\$8.54	\$2,285	\$2,361	4.0x	3.4x	2.9x	25.6x	19.8x	15.5x
ZoomInfo	ZI	NASDAQ	\$25.39	\$10,569	\$11,188	10.2x	8.7x	7.4x	24.0x	20.8x	17.4x
<b>Average</b>						<b>5.6x</b>	<b>4.9x</b>	<b>4.3x</b>	<b>29.6x</b>	<b>24.1x</b>	<b>25.4x</b>
<b>Median</b>						<b>3.9x</b>	<b>3.7x</b>	<b>3.4x</b>	<b>26.8x</b>	<b>21.5x</b>	<b>18.0x</b>
<b>25<sup>th</sup> Percentile</b>						<b>2.4x</b>	<b>2.3x</b>	<b>2.4x</b>	<b>24.4x</b>	<b>18.2x</b>	<b>14.8x</b>
<b>75<sup>th</sup> Percentile</b>						<b>7.9x</b>	<b>6.7x</b>	<b>5.7x</b>	<b>32.5x</b>	<b>27.9x</b>	<b>32.6x</b>

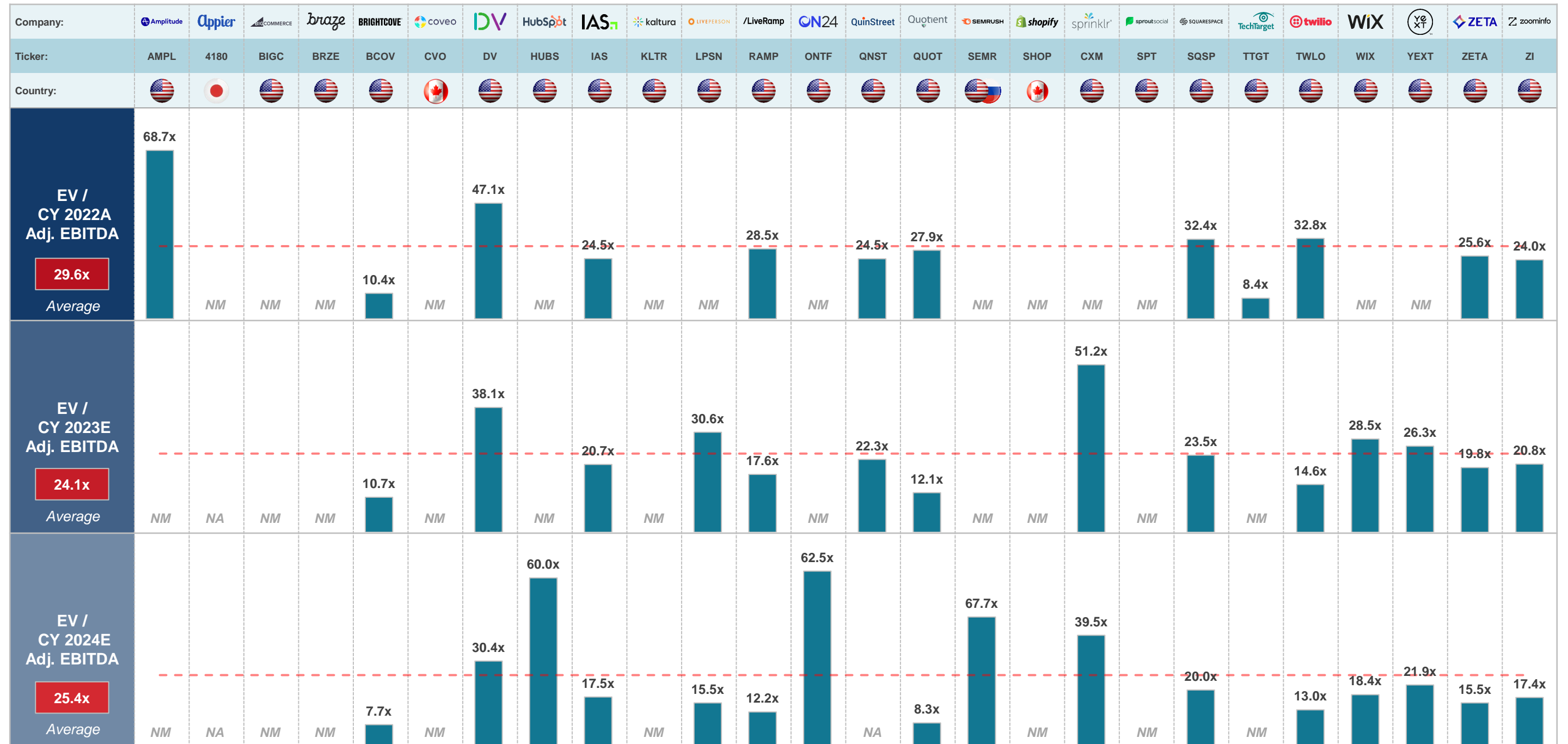
# LUMA.M – Valuation Statistics



# LUMA.M – EV / Revenue



# LUMA.M – EV / Adj. EBITDA

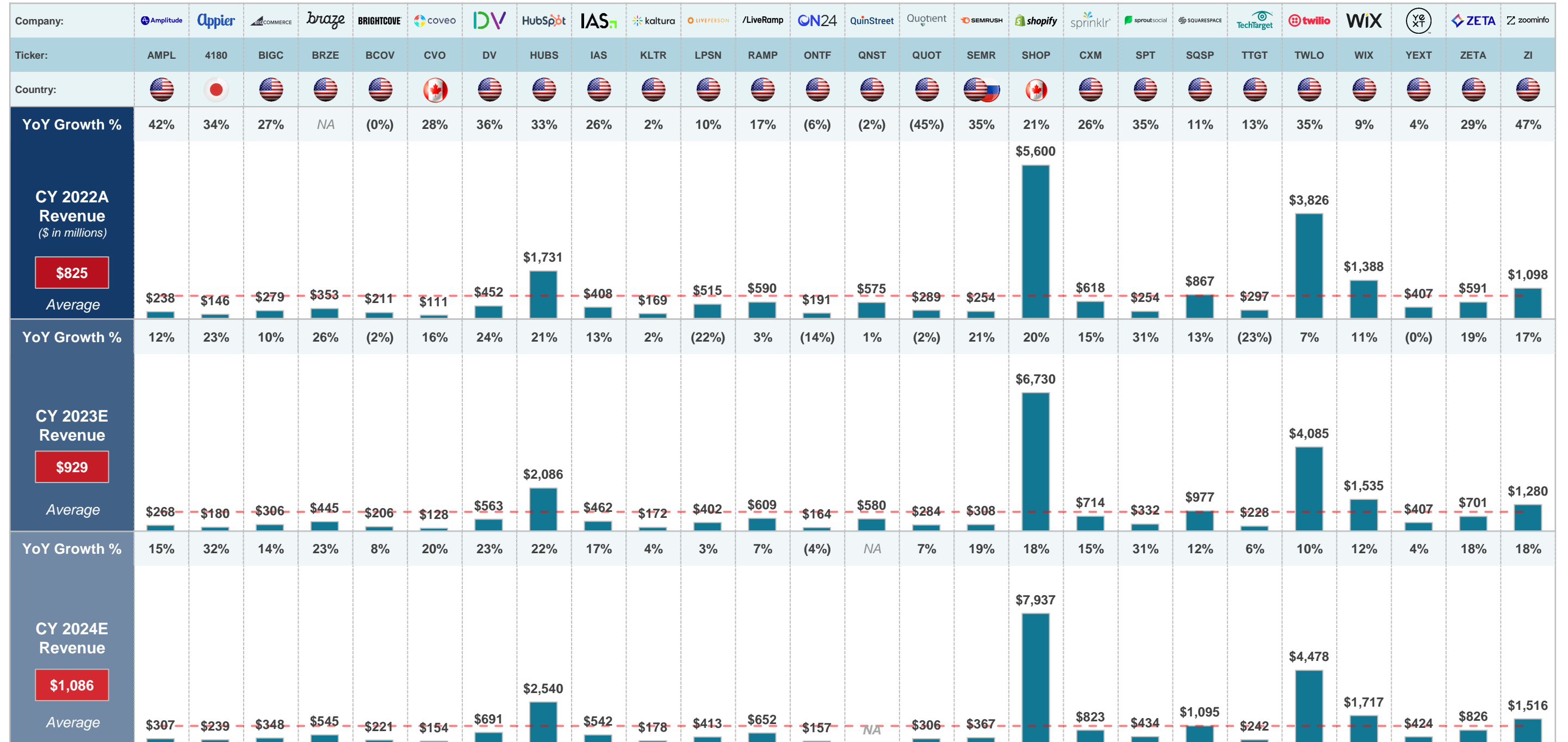




# LUMA.M – Summary Financial Statistics

Company	Ticker	Revenue (\$mm)			Revenue Growth %			EBITDA (\$mm)			EBITDA Margin %		
		CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E	CY2022A	CY2023E	CY2024E
Amplitude	AMPL	\$238	\$268	\$307	42%	12%	15%	\$18	(\$4)	\$12	8%	(1%)	4%
Appier	4180	\$146	\$180	\$239	34%	23%	32%	\$10	NA	NA	7%	NA	NA
BigCommerce	BIGC	\$279	\$306	\$348	27%	10%	14%	(\$44)	(\$9)	\$11	(16%)	(3%)	3%
Braze	BRZE	\$353	\$445	\$545	NA	26%	23%	(\$66)	(\$43)	(\$22)	(19%)	(10%)	(4%)
Brightcove	BCOV	\$211	\$206	\$221	(0%)	(2%)	8%	\$18	\$17	\$24	8%	8%	11%
Coveo	CVO	\$111	\$128	\$154	28%	16%	20%	(\$19)	(\$10)	\$3	(17%)	(8%)	2%
Double Verify	DV	\$452	\$563	\$691	36%	24%	23%	\$142	\$175	\$220	31%	31%	32%
Hubspot	HUBS	\$1,731	\$2,086	\$2,540	33%	21%	22%	\$227	\$350	\$441	13%	17%	17%
Integral Ad Science	IAS	\$408	\$462	\$542	26%	13%	17%	\$127	\$150	\$177	31%	32%	33%
Kaltura	KLTR	\$169	\$172	\$178	2%	2%	4%	(\$28)	(\$6)	\$1	(17%)	(4%)	1%
LivePerson	LPSN	\$515	\$402	\$413	10%	(22%)	3%	(\$16)	\$24	\$46	(3%)	6%	11%
LiveRamp	RAMP	\$590	\$609	\$652	17%	3%	7%	\$54	\$87	\$126	9%	14%	19%
ON24	ONTF	\$191	\$164	\$157	(6%)	(14%)	(4%)	(\$16)	(\$7)	\$2	(8%)	(4%)	1%
QuinStreet	QNST	\$575	\$580	NA	(2%)	1%	NA	\$18	\$20	NA	3%	3%	NA
Quotient	QUOT	\$289	\$284	\$306	(45%)	(2%)	7%	\$15	\$34	\$50	5%	12%	16%
SEMrush	SEMR	\$254	\$308	\$367	35%	21%	19%	(\$22)	\$4	\$21	(9%)	1%	6%
Shopify	SHOP	\$5,600	\$6,730	\$7,937	21%	20%	18%	\$97	\$468	\$803	2%	7%	10%
Sprinklr	CXM	\$618	\$714	\$823	26%	15%	15%	\$0	\$69	\$89	0%	10%	11%
SproutSocial	SPT	\$254	\$332	\$434	35%	31%	31%	(\$1)	\$7	\$16	(0%)	2%	4%
Squarespace	SQSP	\$867	\$977	\$1,095	11%	13%	12%	\$147	\$204	\$239	17%	21%	22%
TechTarget	TTGT	\$297	\$228	\$242	13%	(23%)	6%	\$122	\$10	\$11	41%	4%	5%
Twilio	TWLO	\$3,826	\$4,085	\$4,478	35%	7%	10%	\$275	\$617	\$695	7%	15%	16%
Wix	WIX	\$1,388	\$1,535	\$1,717	9%	11%	12%	(\$20)	\$159	\$246	(1%)	10%	14%
Yext	YEXT	\$407	\$407	\$424	4%	(0%)	4%	\$16	\$50	\$60	4%	12%	14%
Zeta Global	ZETA	\$591	\$701	\$826	29%	19%	18%	\$92	\$120	\$153	16%	17%	18%
ZoomInfo	ZI	\$1,098	\$1,280	\$1,516	47%	17%	18%	\$465	\$537	\$645	42%	42%	43%
<b>Average</b>					<b>19%</b>	<b>9%</b>	<b>14%</b>				<b>6%</b>	<b>9%</b>	<b>13%</b>
<b>Median</b>					<b>26%</b>	<b>13%</b>	<b>15%</b>				<b>5%</b>	<b>8%</b>	<b>11%</b>
<b>25<sup>th</sup> Percentile</b>					<b>9%</b>	<b>1%</b>	<b>7%</b>				<b>(3%)</b>	<b>1%</b>	<b>4%</b>
<b>75<sup>th</sup> Percentile</b>					<b>34%</b>	<b>20%</b>	<b>19%</b>				<b>12%</b>	<b>15%</b>	<b>18%</b>

# LUMA.M – Revenue



























# LUMA.M – Adj. EBITDA Margin

Company:																											
Ticker:	AMPL	4180	BIGC	BRZE	BCOV	CVO	DV	HUBS	IAS	KLTR	LPSN	RAMP	ONTF	QNST	QUOT	SEMR	SHOP	CXM	SPT	SQSP	TTGT	TWLO	WIX	YEXT	ZETA	ZI	
Country:																											
<b>Average</b>	<b>6.0%</b>																										
<b>CY 2022A EBITDA Margin %</b>	7.6%	7.1%	(15.6%)	(18.7%)	8.5%	(16.8%)	31.3%	13.1%	31.0%	(16.7%)	(3.1%)	9.2%	(8.2%)	3.1%	5.1%	(8.8%)	1.7%	0.0%	(0.3%)	17.0%	41.1%	7.2%	(1.4%)	3.9%	15.6%	42.4%	
<b>YoY bps Δ</b>	+381	+68	(65)	NA	(30)	+94	(17)	+06	(09)	(93)	(93)	+00	(115)	(52)	(26)	(108)	(148)	+82	+08	+11	+11	(20)	(68)	+38	+18	(03)	
<b>Average</b>	<b>9.5%</b>																										
<b>CY 2023E EBITDA Margin %</b>	(1.3%)	NA	(2.9%)	(9.7%)	8.4%	(7.6%)	31.1%	16.8%	32.5%	(3.7%)	5.8%	14.3%	(4.1%)	3.4%	12.1%	1.2%	7.0%	9.6%	2.0%	20.8%	4.2%	15.1%	10.3%	12.3%	17.0%	42.0%	
<b>YoY bps Δ</b>	(89)	NA	+127	+90	(00)	+92	(02)	+37	+15	+131	+90	+51	+41	+03	+69	+100	+52	+96	+23	+38	(369)	+79	+118	+84	+14	(04)	
<b>Average</b>	<b>12.9%</b>																										
<b>CY 2024E EBITDA Margin %</b>	4.0%	NA	3.1%	(4.0%)	10.9%	1.8%	31.8%	17.4%	32.7%	0.7%	11.3%	19.3%	1.1%	NA	16.3%	5.7%	10.1%	10.8%	3.7%	21.8%	4.7%	15.5%	14.3%	14.2%	18.5%	42.5%	
<b>YoY bps Δ</b>	+53	NA	+60	+57	+25	+94	+08	+06	+02	+44	+54	+50	+52	NA	+42	+44	+32	+12	+17	+10	+05	+04	+40	+19	+14	+06	

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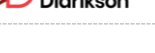









1	Q2 2023 M&A Activity
2	Q2 2023 Public Markets Activity
<b>3</b>	<b>Q2 2023 Private Financing Activity</b>
4	Appendix

# Ad Tech & MarTech – Q2 2023 Key Financings (1 / 2)

Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
6/27/2023	 <b>anzu</b>		\$48	ND	<ul style="list-style-type: none"> <li>Anzu, a programmatic in-game advertising platform, raised \$48mm in a Series B round led by Emmis Corporation.</li> <li>Anzu will make key exec hires in sales &amp; partnerships, grow engineering headcount, and expand in the US &amp; Japan.</li> </ul>
6/12/2023	 <b>Madhive</b>		\$300	\$1,000	<ul style="list-style-type: none"> <li>MadHive, a CTV ad-buying platform for local buyers, received a \$300mm minority investment from Goldman Sachs.</li> <li>The Company has reportedly seen revenue grow 75% since 2020 and manages 20k daily campaigns.</li> </ul>
6/1/2023	 <b>8Flow</b>		\$7	\$32	<ul style="list-style-type: none"> <li>AI-powered customer support workflow engine, 8Flow, raised \$6.6mm in a Seed round led by Caffeinated.</li> <li>8Flow integrates with Salesforce, ServiceNow, and Zendesk.</li> </ul>
5/31/2023	 <b>hyro</b>		\$20	\$68	<ul style="list-style-type: none"> <li>Hyro, a conversational AI and customer support platform for the healthcare sector, raised \$20mm.</li> <li>The new funds will reportedly support expansions of Hyro's GtM and R&amp;D teams.</li> </ul>
5/31/2023	 <b>capillary</b>		\$45	ND	<ul style="list-style-type: none"> <li>Capillary, a loyalty mgmt. &amp; customer engagement platform, raised \$45mm in a Series D round led by Avataar.</li> <li>The Company plans to continue its global expansion through M&amp;A.</li> </ul>
5/31/2023	 <b>sellerX</b>		\$64	ND	<ul style="list-style-type: none"> <li>SellerX, an eCommerce aggregator, raised \$64mm+ from existing investors in a round led by Sofina.</li> <li>The proceeds will support the acquisition of Elevate, another eCommerce aggregator.</li> </ul>
5/30/2023	 <b>vectara</b>		\$29	\$129	<ul style="list-style-type: none"> <li>Vectara, an AI-powered conversational search platform, raised \$29mm in Seed round led by Race Capital.</li> <li>The new funds will reportedly support the Company's growth trajectory and investments into R&amp;D.</li> </ul>
5/25/2023	 <b>checkmate.</b>		\$15	ND	<ul style="list-style-type: none"> <li>Checkmate, an eCommerce rewards app, raised \$15mm in a Series A round led by GV.</li> <li>The app hit #1 on the App Store last year and surpassed 400k users, including 60k DAUs.</li> </ul>
5/24/2023	 <b>Insider</b>		\$105	\$2,105	<ul style="list-style-type: none"> <li>Insider, AI-powered CXP and CDP, raised \$105mm in a round led by the QIA and Esas Private Equity.</li> <li>The Company has raised \$240mm to date and will reportedly use the new funds to fuel its M&amp;A strategy.</li> </ul>
5/23/2023	 <b>logik.io</b>		\$16	\$76	<ul style="list-style-type: none"> <li>Logik.io, a B2B commerce logic engine, raised \$16mm in a Series A round led by Emergence Capital.</li> <li>The new funds will reportedly support operational expansion and development efforts.</li> </ul>
5/23/2023	 <b>Kustomer</b>		NA	\$250	<ul style="list-style-type: none"> <li>Conversational CRM platform, Kustomer, raised \$60mm in a round led by previous investors Battery and Redpoint.</li> <li>Kustomer was acquired last year by Meta for \$1bn and was spun out in May 2023 at a \$250mm valuation.</li> </ul>
5/12/2023	 <b>Highlight.</b>		\$19	\$69	<ul style="list-style-type: none"> <li>Product intelligence platform, Highlight, raised \$19mm in a Series A round led by Kaya Ventures.</li> <li>The Company announced an ongoing beta testing program with platform improvements earlier this year.</li> </ul>

# Ad Tech & MarTech – Q2 2023 Key Financings (2 / 2)




Ad Tech
MarTech
Digital Content

Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
4/25/2023	 <b>rinsed</b>		\$20	ND	<ul style="list-style-type: none"> <li>■ Rinsed, a car wash CRM platform, raised \$20mm in a Series B round led by VMG.</li> <li>■ Rinsed plans to use the funds to further invest in development with a focus to include retail wash customers.</li> </ul>
4/22/2023	 <b>Community</b>	  	\$25	ND	<ul style="list-style-type: none"> <li>■ Community, an SMS engagement platform raised \$25mm in a round led by Salesforce Ventures.</li> <li>■ The company will reportedly use the new funds to expand operations and business reach.</li> </ul>
4/18/2023	 <b>rally</b>		\$12	ND	<ul style="list-style-type: none"> <li>■ Rally, a composable eCommerce checkout platform, raised \$12mm in a Series A round led by March Capital.</li> <li>■ The new funds will reportedly support integration development, headcount expansion and enrichment.</li> </ul>
4/18/2023	 <b>optable</b>	    	\$20	ND	<ul style="list-style-type: none"> <li>■ Optable, a data clean room, raised \$20mm in a Series A round.</li> <li>■ Optable has a privacy-centric approach to help advertisers navigate the evolving digital advertising landscape.</li> </ul>
4/16/2023	 <b>paligo</b>	 	\$29	ND	<ul style="list-style-type: none"> <li>■ Paligo, a component content management system, raised \$29mm from GRO and A&amp;D.</li> <li>■ The new funds will reportedly accelerate the product vision, expand headcount and support international growth.</li> </ul>
4/12/2023	 <b>cybersyn</b>		\$63	ND	<ul style="list-style-type: none"> <li>■ Cybersyn, a DMP and DaaS market intelligence company, raised \$63mm in a Series A round led by Snowflake.</li> <li>■ Snowflake expands its marketplace with the Cybersyn data suite.</li> </ul>
4/12/2023	 <b>TEAMWORKS</b>		\$65	ND	<ul style="list-style-type: none"> <li>■ Teamworks, a CRM, NIL, and athlete retention tool, raised \$65mm in a Series E round led by Dragoneer.</li> <li>■ The Company simultaneously announced the acquisition of ARMS, a tool for athletic department ops.</li> </ul>
4/6/2023	 <b>Staytuned</b>	 	\$34	ND	<ul style="list-style-type: none"> <li>■ StayTuned, an eCommerce accelerator for D2C brands selling on Shopify, raised \$34mm in debt and equity.</li> <li>■ The company has 29k+ merchant clients, and will reportedly use the new funds to fuel M&amp;A.</li> </ul>
4/4/2023	 <b>Hootsuite</b>		\$45	ND	<ul style="list-style-type: none"> <li>■ Hootsuite, a social media management platform, raised \$45mm via an option deal led by Lionfish Capital.</li> <li>■ The Company has raised \$303mm to date and was valued at \$1bn+ the last time a post-valuation was disclosed.</li> </ul>

# Digital Content – Q2 2023 Key Financings (1 / 2)

Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
6/20/2023	<b>ElevenLabs</b>	andreesen. horowitz	\$19	\$100	<ul style="list-style-type: none"> <li>ElevenLabs, an AI-powered voice cloning platform, raised a \$19mm in a Series A round led by a16z.</li> <li>The Company reportedly has over 1 million users and has generated 10+ years of audio content.</li> </ul>
6/15/2023	<b>TrustLab</b>	USVP / U.S. VENTURE PARTNERS foundation capital	\$15	\$70	<ul style="list-style-type: none"> <li>Trust Lab, an AI-powered content moderation platform, raised \$15mm in a Series A round.</li> <li>Customers reportedly include the European Commission, In-Q-Tel and many leading social media companies.</li> </ul>
6/15/2023	<b>FZ Sports</b>	777 PARTNERS	\$74	ND	<ul style="list-style-type: none"> <li>FZ Sports, a soccer livestreaming platform, received a \$74mm growth investment in a round led by 777 Partners.</li> <li>The new funds will reportedly help the Company secure media rights in various LatAm markets.</li> </ul>
6/14/2023	<b>soundtrack your brand</b>	MUSIC	\$15	ND	<ul style="list-style-type: none"> <li>Soundtrack, a B2B music streaming service, raised \$15mm in a round led by MUSIC.</li> <li>Soundtrack's ARPU is \$33 vs. the \$5 B2C music industry average and will reportedly reach \$25mm ARR in Q2'23.</li> </ul>
6/14/2023	<b>tomorrow.io</b>	Activate capital	\$87	\$437	<ul style="list-style-type: none"> <li>Tomorrow, a hyper-local weather intelligence platform, raised \$87mm in a Series E round led by Activate Capital.</li> <li>The Company will reportedly use the new funds on the completion of its satellite network.</li> </ul>
6/14/2023	<b>synthesia</b>	Accel	\$90	\$1,000	<ul style="list-style-type: none"> <li>Synthesia, a GenAI synthetic video creation platform, raised \$90mm in a Series C round led by Accel.</li> <li>Synthesia reportedly has over 50k+ customers, 15mm+ videos generated, and a YoY user growth rate of 456%.</li> </ul>
6/8/2023	<b>HyperPlay</b>	BITKRAFT GRIFFIN GAMING PARTNERS	\$12	\$110	<ul style="list-style-type: none"> <li>HyperPlay, a cross-chain Web3 game launcher, raised \$12mm in a Series A round led by GGP and BITKRAFT.</li> <li>The new funds will reportedly support platform improvements and global expansion.</li> </ul>
5/18/2023	<b>Hallow</b>	GOODWATER CAPITAL	\$50	\$380	<ul style="list-style-type: none"> <li>Hallow, an audio-guided catholic prayer app, raised \$50mm in a Series C round led by Goodwater Capital.</li> <li>Hallow is reportedly the #1 prayer app worldwide, with 10million+ downloads.</li> </ul>
5/9/2023	<b>Rewind</b>	NEA	\$16	\$354	<ul style="list-style-type: none"> <li>Rewind, an AI-powered searchable computer recording platform, raised \$16mm in a round led by NEA.</li> <li>Rewind recently unveiled a feature where users can interact with their activity history via ChatGPT.</li> </ul>
4/25/2023	<b>katmai</b>	STARR INSURANCE COMPANIES	\$22	ND	<ul style="list-style-type: none"> <li>Katmai, a browser-based 3D virtual office platform, raised \$22mm in a Series A round led by Starr Insurance.</li> <li>The company is remote-first and has 40 FTEs who all use the Katmai platform for internal meetings.</li> </ul>
4/19/2023	<b>KARATE COMBAT</b>	BITKRAFT	\$18	ND	<ul style="list-style-type: none"> <li>Karate Combat, a combat league structured as a DAO, raised \$18mm in a round led by BITKRAFT Ventures.</li> <li>The funds will reportedly support the KC App launch and \$KARATE token, which gamifies the viewing experience.</li> </ul>
4/19/2023	<b>Goals</b>	Seven. Seven. Six.	\$20	ND	<ul style="list-style-type: none"> <li>Goals, a developer of social soccer games, raised \$20mm in Series A round led by Seven Seven Six.</li> <li>The new funding will be used to accelerate hiring and production of its debut f2p soccer video game.</li> </ul>

# Digital Content – Q2 2023 Key Financings (2 / 2)

Announcement Date	Company	Lead / Key Investor(s)	Round Size (\$mm)	Post-Valuation (\$mm)	Commentary
4/17/2023			\$15	\$90	<ul style="list-style-type: none"> <li>■ Rock The Bells, a hip hop focused content, commerce and experience company, raised \$15mm in a Series B round.</li> <li>■ The deal includes marketing support from Paramount and some Paramount IP rights.</li> </ul>
4/6/2023		Multiple Individuals	\$43	ND	<ul style="list-style-type: none"> <li>■ Brut Media, a digital news and entertainment publisher, raised \$43mm in its fourth funding round.</li> <li>■ Brut has now raised ~\$140mm to date.</li> </ul>



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1	Q1 2023 M&A Activity
2	Q1 2023 Public Markets Activity
3	Q1 2023 Private Financing Activity
<b>4</b>	<b>Appendix</b>

# 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 3/31	\$ in mm	2021A	2022A	LTM 3/31	\$ in mm	2021A	2022A	LTM 3/31
<b>Criteo</b>				<b>AdTheorent</b>				<b>Outbrain</b>			
Gross Revenue	\$2,254	\$2,017	\$1,951	Gross Revenue	\$165	\$166	\$165	Gross Revenue	\$1,016	\$992	\$970
(-) TAC	(\$1,334)	(\$1,089)	(\$1,020)	(+) Platform Ops	(\$78)	(\$83)	(\$84)	(-) TAC	(\$744)	(\$757)	(\$746)
<b>(=) Contribution ex-TAC</b>	<b>\$921</b>	<b>\$928</b>	<b>\$932</b>	<b>(=) Gross Profit (as reported)</b>	<b>\$88</b>	<b>\$83</b>	<b>\$80</b>	(-) Other cost of revenues <sup>(3)</sup>	(\$32)	(\$42)	(\$44)
<b>Magnite</b>				(+) Other Platform Ops <sup>(1)</sup>	\$22	\$27	\$27	<b>(=) Gross Profit</b>	<b>\$240</b>	<b>\$193</b>	<b>\$180</b>
Gross Revenue	\$468	\$577	\$589	<b>(=) Adj. Gross Profit</b>	<b>\$109</b>	<b>\$110</b>	<b>\$108</b>	(+) Other cost of revenues <sup>(3)</sup>	\$32	\$42	\$44
(-) Cost of Revenue	(\$202)	(\$307)	(\$373)	<b>Cardlytics</b>				<b>(=) Gross Profit ex-TAC</b>	<b>\$272</b>	<b>\$235</b>	<b>\$223</b>
<b>(=) Gross Profit (as reported)</b>	<b>\$267</b>	<b>\$270</b>	<b>\$217</b>	Gross Revenue	\$267	\$299	\$295	<b>Taboola</b>			
(+) Cost of Revenue, excluding TAC	\$151	\$245	\$307	(-) Adj. Partner Share & Other 3P	(\$140)	(\$156)	(\$154)	Gross Revenue	\$1,379	\$1,401	\$1,374
<b>(=) Revenue ex-TAC</b>	<b>\$417</b>	<b>\$515</b>	<b>\$524</b>	(-) Delivery Costs	(\$23)	(\$24)	(\$30)	(-) TAC	(\$860)	(\$832)	(\$827)
<b>Nexxen</b>				<b>(=) Gross Profit</b>	<b>\$105</b>	<b>\$119</b>	<b>\$111</b>	(-) Other cost of revenues <sup>(4)</sup>	(\$78)	(\$105)	(\$105)
Revenue	\$342	\$335	\$326	<b>Digital Turbine</b>				<b>(=) Gross Profit (as reported)</b>	<b>\$441</b>	<b>\$464</b>	<b>\$442</b>
(-) Performance Media Cost	(\$40)	(\$26)	(\$21)	Gross Revenue	\$748	\$710	\$666	(+) Other cost of revenues <sup>(4)</sup>	\$78	\$105	\$105
<b>(=) Contribution ex-TAC</b>	<b>\$302</b>	<b>\$310</b>	<b>\$306</b>	(-) License fees and rev-share <sup>(2)</sup>	(\$371)	(\$324)	(\$309)	<b>(=) Gross Profit ex-TAC</b>	<b>\$519</b>	<b>\$570</b>	<b>\$547</b>
<b>Perion Networks</b>				(-) Other direct costs of revenue <sup>(2)</sup>	(\$30)	(\$36)	(\$36)				
Gross Revenue	\$478	\$640	\$600	<b>(=) Gross Profit (as reported)</b>	<b>\$347</b>	<b>\$350</b>	<b>\$320</b>				
(-) TAC	(\$288)	(\$373)	(\$382)	(+) S/W depr. & other direct CoR	\$3	\$5	\$6				
<b>(=) Revenue ex-TAC</b>	<b>\$190</b>	<b>\$268</b>	<b>\$279</b>	<b>(=) Adj. Gross Profit</b>	<b>\$350</b>	<b>\$356</b>	<b>\$327</b>				
<b>Viant</b>				<b>Illumin</b>							
Gross Revenue	\$224	\$197	\$196	Gross Revenue	\$98	\$92	\$93				
(-) Platform Ops	(\$130)	(\$117)	(\$114)	(-) Media Costs	(\$47)	(\$46)	(\$47)				
<b>(=) Gross Profit (as reported)</b>	<b>\$95</b>	<b>\$80</b>	<b>\$82</b>	<b>(=) Gross Profit</b>	<b>\$51</b>	<b>\$46</b>	<b>\$46</b>				
(+) Other platform ops	\$48	\$44	\$43	<b>MediaAlpha</b>							
<b>(=) Contribution ex-TAC</b>	<b>\$142</b>	<b>\$125</b>	<b>\$125</b>	Gross Revenue	\$645	\$459	\$428				
				(-) Platform Ops	(\$544)	(\$389)	(\$361)				
				<b>(=) Gross Profit</b>	<b>\$102</b>	<b>\$70</b>	<b>\$67</b>				

### 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	affle	APPROVIN	cardlytics	CRITEO	Digital Turbine	DV DoubleVerify	illumina	INNOVD	IAS	/LiveRamp	Magnite
<b>Net Income</b>	(\$5)	\$6	(\$5)	\$14	(\$12)	(\$14)	\$12	(\$3)	(\$9)	\$3	(\$36)	(\$99)
(+) Interest (income) expense, net	(\$1)	\$0	\$65	\$0	(\$7)	\$7	\$0	(\$1)	(\$2)	\$3	\$5	\$8
(+) Provision for (benefit from) income tax	\$2	\$1	\$1	—	(\$5)	(\$3)	\$6	\$0	\$3	\$3	(\$6)	(\$0)
(+) D&A (excl. amortized intangibles)	\$2	\$2	\$128	\$7	\$25	\$21	\$9	\$1	\$2	\$13	\$4	\$9
<b>EBITDA</b>	<b>(\$1)</b>	<b>\$9</b>	<b>\$190</b>	<b>\$20</b>	<b>\$2</b>	<b>\$11</b>	<b>\$27</b>	<b>(\$2)</b>	<b>(\$6)</b>	<b>\$22</b>	<b>(\$33)</b>	<b>(\$82)</b>
(+/-) SBC (excl. assoc. payroll tax)	\$1	—	\$83	\$8	\$26	\$11	\$12	\$1	\$5	\$11	\$45	\$19
(+/-) Transaction costs	\$0	—	\$1	—	—	\$1	\$0	—	—	—	—	—
(+/-) Restructuring costs / Acquisition costs	—	—	\$1	\$2	\$10	(\$1)	—	—	—	\$1	\$13	\$7
(+/-) FX (gains) losses	—	—	(\$1)	(\$1)	—	\$0	—	\$0	—	(\$1)	—	\$0
(+/-) Other expense (income), net	—	—	—	—	—	\$0	(\$3)	—	—	—	(\$10)	—
(+/-) Other adjustments	\$0	—	—	(\$35)	\$0	\$1	—	\$0	\$1	\$0	—	\$78
<b>Adjusted EBITDA</b>	<b>\$0</b>	<b>\$9</b>	<b>\$274</b>	<b>(\$6)</b>	<b>\$39</b>	<b>\$23</b>	<b>\$36</b>	<b>(\$1)</b>	<b>\$0</b>	<b>\$34</b>	<b>\$15</b>	<b>\$23</b>
<b>Broker Estimates (Median)</b>	<b>\$0</b>	<b>\$8</b>	<b>\$258</b>	<b>(\$7)</b>	<b>\$31</b>	<b>\$28</b>	<b>\$29</b>	<b>(\$0)</b>	<b>(\$1)</b>	<b>\$30</b>	<b>\$17</b>	<b>\$18</b>













## “Other Adjustments” Notes

- **AdTheorent:** incl. (\$0.1mm) of change in FV items
- **Cardlytics:** incl. (\$34.6mm) of change in FV items
- **Criteo:** incl. \$0.2mm of pension service costs
- **Digital Turbine:** incl. \$1.1mm of severance costs and (\$1.3mm) adjustment to acquisition-related liabilities
- **Illumin:** incl. \$0.0mm of severance expenses
- **Innovid:** incl. (\$0.3mm) of retention bonuses \$0.3mm of legal claims, and \$0.8mm of severance costs
- **Magnite:** incl. \$86.4mm of amortized acquired intangibles, \$0.1mm of non-operational real estate expenses, and (\$8.5mm) gain on extinguishment of debt

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

Ad Tech

MarTech

	Most Recent Quarter EBITDA											
(\$ millions)												
<b>Net Income</b>	\$1	(\$15)	(\$17)	(\$6)	\$24	(\$6)	(\$194)	(\$31)	\$9	(\$254)	(\$9)	(\$57)
(+) Interest (income) expense, net	\$11	\$4	(\$1)	(\$2)	(\$3)	(\$2)	-	\$3	(\$14)	(\$7)	(\$2)	\$2
(+) Provision for (benefit from) income tax	\$0	\$0	\$3	(\$2)	\$4	(\$3)	\$4	(\$1)	(\$19)	\$6	-	\$0
(+) D&A (excl. amortized intangibles)	\$4	\$2	\$17	\$6	\$0	\$11	\$16	\$23	\$19	\$110	\$3	\$12
<b>EBITDA</b>	<b>\$16</b>	<b>(\$9)</b>	<b>\$2</b>	<b>(\$3)</b>	<b>\$25</b>	<b>\$0</b>	<b>(\$174)</b>	<b>(\$6)</b>	<b>(\$5)</b>	<b>(\$145)</b>	<b>(\$8)</b>	<b>(\$42)</b>
(+/-) SBC (excl. assoc. payroll tax)	-	\$14	\$7	\$3	\$3	\$7	\$96	\$14	\$113	\$163	\$7	\$64
(+/-) Transaction costs	-	\$0	-	-	-	-	-	-	-	-	-	-
(+/-) Restructuring costs / Acquisition costs	-	-	-	-	\$0	\$1	\$31	\$0	-	\$15	(\$0)	\$0
(+/-) FX (gains) losses	-	-	(\$1)	-	(\$0)	-	-	-	-	-	-	-
(+/-) Other expense (income), net	-	-	-	-	-	-	(\$22)	-	-	-	-	\$2
(+/-) Other adjustments	\$4	\$2	-	\$1	\$3	-	-	\$3	-	-	-	-
<b>Adjusted EBITDA</b>	<b>\$20</b>	<b>\$7</b>	<b>\$9</b>	<b>\$1</b>	<b>\$31</b>	<b>\$8</b>	<b>(\$69)</b>	<b>\$10</b>	<b>\$109</b>	<b>\$32</b>	<b>(\$0)</b>	<b>\$24</b>
<b>Broker Estimates (Median)</b>	<b>\$19</b>	<b>\$7</b>	<b>\$6</b>	<b>(\$0)</b>	<b>\$28</b>	<b>\$5</b>	<b>(\$107)</b>	<b>\$1</b>	<b>\$78</b>	<b>\$11</b>	<b>(\$3)</b>	<b>\$23</b>

## “Other Adjustments” Notes

- **Media & Games Invest:** incl. (\$0.3mm) net attributable to NCI, \$0.9mm attributable to shareholders of parent, \$2.7mm of PPA amortization, and \$1.2mm of other items
- **MediaAlpha:** incl. \$1.4mm impairment of cost method investment, \$0.0mm changes in TRA related liability, (\$0.0mm) changes in tax indemnification receivable, \$0.0mm settlement of federal and state income tax refunds, and \$0.3mm legal expenses
- **Outbrain:** incl. \$0.6mm of regulatory matter costs and \$0.8mm of severance costs
- **Perion:** incl. \$3.0mm of amortized intangibles and \$0.1mm of FV items.
- **Taboola:** incl. \$2.6mm of holdback compensation expenses

# Appendix B: MarTech EBITDA Detail (3 / 5)

	Most Recent Quarter EBITDA											
(\$ millions)	Amplitude	Appier	BIGCOMMERCE	braze	BRIGHTCOVE	coveo	DV DoubleVerify	HubSpot	IAS	kaltura	LIVEPERSON	/LiveRamp
<b>Net Income</b>	(\$26)	(\$0)	(\$22)	(\$39)	(\$12)	(\$7)	\$12	(\$38)	\$3	(\$13)	(\$17)	(\$36)
(+) Interest (income) expense, net	(\$3)	(\$0)	(\$2)	-	-	(\$2)	\$0	(\$10)	\$3	(\$2)	(\$2)	\$5
(+) Provision for (benefit from) income tax	\$0	\$0	\$0	\$0	\$0	(\$0)	\$6	\$2	\$3	\$3	\$1	(\$6)
(+) D&A (excl. amortized intangibles)	\$1	\$4	\$3	\$2	\$4	\$0	\$9	\$16	\$13	\$1	\$7	\$4
<b>EBITDA</b>	<b>(\$28)</b>	<b>\$3</b>	<b>(\$21)</b>	<b>(\$37)</b>	<b>(\$7)</b>	<b>(\$9)</b>	<b>\$27</b>	<b>(\$30)</b>	<b>\$22</b>	<b>(\$11)</b>	<b>(\$11)</b>	<b>(\$33)</b>
(+/-) SBC (excl. assoc. payroll tax)	\$20	-	\$10	\$24	\$4	\$3	\$12	\$83	\$11	\$7	\$11	\$45
(+/-) Transaction costs	-	(\$1)	-	-	-	\$0	\$0	-	-	-	-	-
(+/-) Restructuring costs	-	-	\$0	-	\$0	-	-	\$29	-	\$1	\$12	\$13
(+/-) Acquisition costs	-	-	\$4	\$1	\$0	-	-	-	\$1	-	\$2	-
(+/-) FX (gains) losses	-	-	-	-	-	-	-	-	(\$1)	-	-	-
(+/-) Other expense (income), net	-	-	(\$0)	\$1	\$1	-	(\$3)	-	\$0	-	(\$34)	(\$10)
(+/-) Other adjustments	\$1	-	\$0	\$1	-	\$1	-	\$1	-	\$0	\$18	-
<b>Adjusted EBITDA</b>	<b>(\$7)</b>	<b>\$3</b>	<b>(\$6)</b>	<b>(\$9)</b>	<b>(\$3)</b>	<b>(\$3)</b>	<b>\$36</b>	<b>\$84</b>	<b>\$34</b>	<b>(\$3)</b>	<b>(\$1)</b>	<b>\$15</b>
<b>Broker Estimates (Median)</b>	<b>(\$8)</b>	<b>\$3</b>	<b>(\$7)</b>	<b>(\$18)</b>	<b>\$1</b>	<b>(\$5)</b>	<b>\$29</b>	<b>\$64</b>	<b>\$30</b>	<b>(\$3)</b>	<b>(\$7)</b>	<b>\$17</b>

## “Other Adjustments” Notes

- **Amplitude:** incl. \$0.9mm employer payroll tax related to SBC
- **BigCommerce:** incl. \$0.2mm payroll tax related to SBC
- **Braze:** incl. \$0.4mm net loss attributable to redeemable NCI and \$0.5mm employer payroll tax related to SBC
- **Coveo:** incl. \$1.1mm of amortized intangibles and \$0.0mm of charitable contributions
- **HubSpot:** incl. \$0.8mm of amortized intangibles, \$0.5mm non-cash interest expense for amortization of debt discount and debt issuance costs, and \$0.1mm loss on equity investments
- **Kaltura:** incl. \$0.2mm of facility exit and transition costs
- **LivePerson:** incl. \$5.4mm of amortized acquired intangibles and finance leases, \$1.7mm of FV items, and \$11.1mm of other litigation and consulting costs



# Appendix B: MarTech EBITDA Detail (4 / 5)

	Most Recent Quarter EBITDA											
(\$ millions)	ON24	QuinStreet	Quotient	SEMRUSH <sup>(1)</sup>	shopify	sprinklr	sproutsocial	SQUARESPACE	TechTarget	twilio	WIX <sup>(1)</sup>	YE XT
<b>Net Income</b>	<b>(\$18)</b>	<b>(\$0)</b>	<b>(\$18)</b>	<b>(\$10)</b>	<b>\$68</b>	<b>\$3</b>	<b>(\$10)</b>	<b>\$1</b>	<b>\$2</b>	<b>(\$342)</b>	<b>(\$10)</b>	<b>(\$0)</b>
(+) Interest (income) expense, net	\$0	\$0	\$2	(\$2)	-	\$5	(\$2)	\$8	(\$3)	-	\$21	(\$1)
(+) Provision for (benefit from) income tax	\$0	(\$1)	(\$0)	\$1	\$8	(\$1)	\$0	(\$8)	\$1	\$10	(\$2)	\$0
(+) D&A (excl. amortized intangibles)	\$1	\$5	\$4	\$1	\$29	\$4	\$1	\$7	\$5	\$71	\$6	\$5
<b>EBITDA</b>	<b>(\$16)</b>	<b>\$4</b>	<b>(\$12)</b>	<b>(\$7)</b>	<b>\$105</b>	<b>\$10</b>	<b>(\$11)</b>	<b>\$8</b>	<b>\$5</b>	<b>(\$260)</b>	<b>\$16</b>	<b>\$3</b>
(+/-) SBC (excl. assoc. payroll tax)	\$10	\$5	\$8	\$3	\$135	\$14	\$14	\$22	\$12	\$171	\$61	\$11
(+/-) Transaction costs	-	\$0	\$0	-	\$21	-	-	-	-	-	-	-
(+/-) Restructuring costs	\$3	\$0	\$5	-	-	-	-	-	-	\$122	-	-
(+/-) Acquisition costs	-	\$0	\$0	-	-	-	-	-	-	-	-	-
(+/-) FX (gains) losses	-	\$0	\$0	-	(\$3)	-	-	-	-	-	-	-
(+/-) Other expense (income), net	(\$3)	\$0	\$0	(\$1)	(\$48)	(\$4)	-	\$1	(\$0)	-	(\$17)	\$0
(+/-) Other adjustments	\$3	\$0	-	(\$2)	(\$212)	(\$6)	\$1	-	-	\$142	-	-
<b>Adjusted EBITDA</b>	<b>(\$4)</b>	<b>\$9</b>	<b>\$2</b>	<b>(\$7)</b>	<b>(\$2)</b>	<b>\$14</b>	<b>\$3</b>	<b>\$31</b>	<b>\$18</b>	<b>\$175</b>	<b>\$53</b>	<b>\$14</b>
<b>Broker Estimates (Median)</b>	<b>(\$4)</b>	<b>\$7</b>	<b>\$4</b>	<b>(\$6)</b>	<b>(\$49)</b>	<b>\$8</b>	<b>(\$0)</b>	<b>\$17</b>	<b>\$17</b>	<b>\$121</b>	<b>\$18</b>	<b>\$11</b>

## “Other Adjustments” Notes

- **ON24:** incl. \$0.1mm amortization of acquired intangibles and \$2.4mm of fees related to shareholder activism
- **QuinStreet:** incl. \$0.0mm litigation settlement expense
- **Shopify:** incl. \$6.0mm of payroll taxes related to SBC, (\$215mm) net gain on equity and other investments, and (\$3mm) income tax effects related to non-GAAP adjustments
- **Sprinklr:** incl. (\$3.6mm) of net amortization / accretion on marketable securities
- **Twilio:** incl. \$46.2mm impairment of strategic investments, \$30.4mm share of losses of equity method investee, \$21.8mm impairment of long-lived assets, \$17.9mm amortization of deferred commissions, \$8.6mm of non-cash reduction to right of use asset and other adjustments.

# Appendix B: MarTech EBITDA Detail (5 / 5)

(\$ millions)	Most Recent Quarter EBITDA	
	 ZETA	 zoominfo
<b>Net Income</b>	<b>(\$57)</b>	<b>\$45</b>
(+) Interest (income) expense, net	\$2	\$10
(+) Provision for (benefit from) income tax	\$0	\$24
(+) D&A (excl. amortized intangibles)	\$12	\$21
<b>EBITDA</b>	<b>(\$42)</b>	<b>\$99</b>
(+/-) SBC (excl. assoc. payroll tax)	\$64	\$38
(+/-) Transaction costs	-	-
(+/-) Restructuring costs	-	-
(+/-) Acquisition costs	\$0	-
(+/-) FX (gains) losses	-	-
(+/-) Other expense (income), net	\$2	-
(+/-) Other adjustments	-	(\$12)
<b>Adjusted EBITDA</b>	<b>\$24</b>	<b>\$125</b>
<b>Broker Estimates (Median)</b>	<b>\$23</b>	<b>\$125</b>

## “Other Adjustments” Notes

- **ZoomInfo:** incl. (\$11.6mm) tax impact on non-GAAP adjustments

# 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; net diluted shares outstanding could not be located in public disclosures. Figures correspond to the closest applicable quarter.
Appier	4180	TYO	Market Capitalization contemplates ordinary shares outstanding; inputs for net diluted shares outstanding could not be located in public disclosures.
Digital Turbine	APPS	NASDAQ	CY 2021 figures are presented on an estimated pro forma basis contemplating figures from a compilation of publicly-available information obtained via equity research reports and company guidance at the time of deal announcements for recent material acquisitions of AdColony and Fyber. The estimates for CY 2021 are adjusted to account for (i) interim reported performance versus prior consensus estimates (e.g., Q2/Q3 actuals versus consensus for corresponding periods), and (ii) revisions to consensus estimates of future performance. Growth rates calculated relative to CY 2021 are therefore stated on a pro forma basis, fully inclusive of recent acquisitions (on an estimated basis). CY 2022, CY 2023 and CY 2024 figures represent consensus estimates.
Magnite	MGNI	NASDAQ	CY 2021 figures are presented on an estimated pro forma basis inclusive of estimates for Telaria and SpotX acquisitions for all presented periods. Pro forma figures are estimated by adjusting initial pro forma forecast published by Craig Hallum (as of May 3 <sup>rd</sup> , 2021) with figures derived from (i) interim reported financial performance versus prior consensus estimates (e.g., Q2/Q3 actuals versus consensus for corresponding periods), and (ii) revisions to consensus estimates of future performance. Current 2021 actuals for Magnite contemplate Craig Hallum equity research as of March 4, 2022. CY 2022, CY 2023 and CY 2024 figures represent consensus estimates.
Mobvista	1860	HKG	Market Capitalization represents ordinary shares outstanding; net diluted shares outstanding could not be located in public disclosures. Latest financial interim report as of 06/30/2022.
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 May 3, 2023.

## Fiscal Year – to – Calendar Year Reconciliation

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



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

**tvSquared**

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