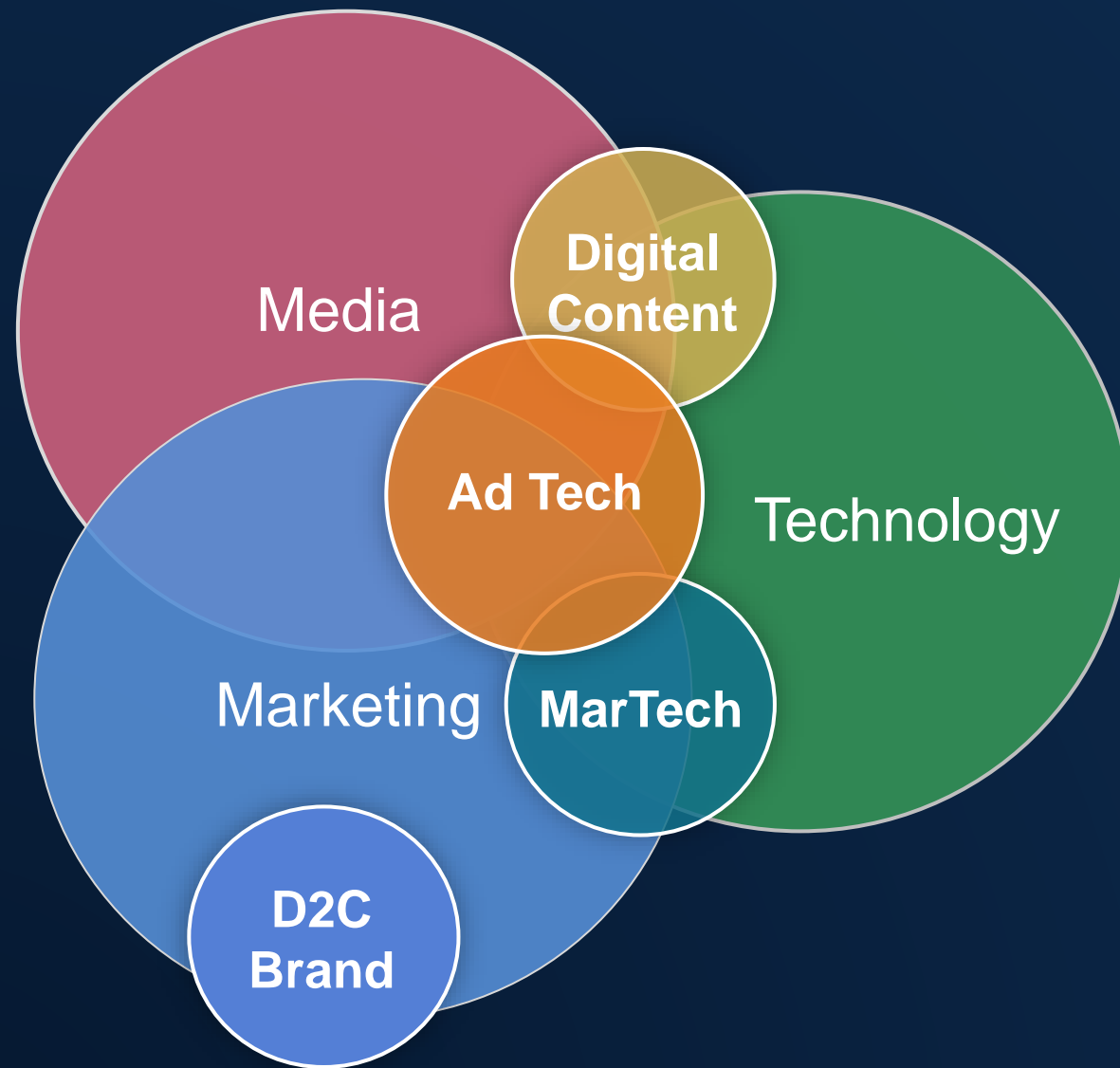




2020 Full Year Market Report

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.
- The **D2C Brand** sector is impacting the broader marketing industry and changing how marketers interact with and sell to customers.

LUMA's Recent Deals



December 2020

Blackstone

has agreed to acquire a majority stake in

LIFTOFF

The undersigned acted as financial advisor to Blackstone

December 2020

BEESWAX

has agreed to be acquired by

COMCAST

The undersigned acted as exclusive financial advisor to BeeswaxIO, Inc.

November 2020

TAPAD
a Group Company of

telenor

has been acquired by

experian

The undersigned acted as exclusive financial advisor to Telenor ASA

October 2020

TRUOPTIK

has agreed to be acquired by

TransUnion

The undersigned acted as exclusive financial advisor to Tru Optik Data Corp.

April 2020

factual

has agreed to merge with

FOURSQUARE

The undersigned acted as exclusive financial advisor to Factual, Inc.

April 2020

rubicon PROJECT
(NYSE: RUBI)

has merged with

telaria
(NYSE: TLRA)

The undersigned acted as financial advisor to The Rubicon Project, Inc.

February 2020

evergage

has been acquired by

salesforce

The undersigned acted as exclusive financial advisor to Evergage, Inc.

January 2020

AI Factory

has been acquired by

Snap Inc.

The undersigned acted as exclusive financial advisor to AI Factory, Inc.

Executive Summary

Overview

- Due in large part to the COVID-19 pandemic, 2020 was an unprecedented year in many respects and significantly impacted the Media, Marketing, and Technology ecosystem.
- Despite early setbacks, there has been a resurgence in confidence within the ecosystem; this has resulted in positive momentum in M&A, the public markets, and private financings to close out the year.
- This renewed confidence came from a combination of the following: (i) significant acceleration of consumer habits towards digital channels (CTV, audio, gaming, ecommerce), (ii) a “V-shaped” recovery in digital ad spend, and (iii) strong public markets buoyed by aggressive action from the Federal Government and Federal Reserve.

M&A Activity⁽¹⁾

- While M&A Activity was down significantly in 2020 (-30% YoY), much of this was driven by a lull in activity at the outset of the pandemic. With buyer confidence returning towards the end of the summer, the year ended on a strong note, with Q4’20 M&A Activity up +21% from Q4’19 and significant momentum going into 2021.
- Not all ecosystem subcategories were impacted equally in 2020. **Ad Tech** and **MarTech** each saw a significant declines early in the pandemic, driving annual deal activity down -46% YoY for each. Meanwhile, **Digital Content** (-8% YoY) and **D2C** (+8% YoY) were significantly less impacted by the pandemic.
- We expect elevated M&A Activity to continue in 2021 as strategic and financial buyers look to capitalize on the evolving ecosystem and acquire capabilities catering to the potentially-permanent, tech-centric changes downstream from the pandemic (e.g., streaming and gaming gains, increased eCommerce sales, and general software adoption).

Public Markets Activity

- Public Markets activity in 2020 followed a similar cadence to M&A Activity, though with a faster recovery. Despite technically becoming a “bear market” in mid-March, following swift government action, equity markets quickly recovered; by the end of the year, notable indices were trading near all-time highs.
- While equity market levels generally improved from the COVID-induced lows, a dramatic “chasm” has formed between the “Tech” focused and more “Traditional” companies. Among the 12 TMT Sub-Sectors⁽²⁾ that LUMA tracks, the top three performing sectors had tech-centric business models (**Ad Tech: +222%; MarTech: +183%; Digital Content ex-Gaming: +125%**), while the bottom three performing categories all had “Traditional” business models (**Traditional Media: +0%; Telcos: -3%; Agencies: -13%**).
- We expect the combination of (i) a robust pipeline of TMT issuers, (ii) valuation multiples at all-time highs, and (iii) a record amount of active SPAC capital to collectively result in ample public market issuances, as companies seek to capitalize on the robust environment for tech and tech-enabled business models.

Private Financing Activity

- Private Financing Activity persisted through the pandemic, particularly for high-growth businesses and those focused on trends that accelerated during the pandemic. Similar to the pattern observed in M&A and public markets, activity tended to be more robust during the second half of the year.
- We expect that the current positive sentiment for tech issuers (as observed in public markets) will continue to apply to companies seeking private capital, thus we are optimistic about continued financing activity headed in to 2021.

Source: LUMA, FactSet (market data as of 12/31/2020). | **Note: (1)** The term “M&A Activity” as used here, and YoY growth calculations thereof, refer to the number of M&A transactions that occurred during the specified period (i.e., rather than transaction value). **(2)** For an overview of the TMT Sub-Sectors evaluated in this analysis, see page 34.

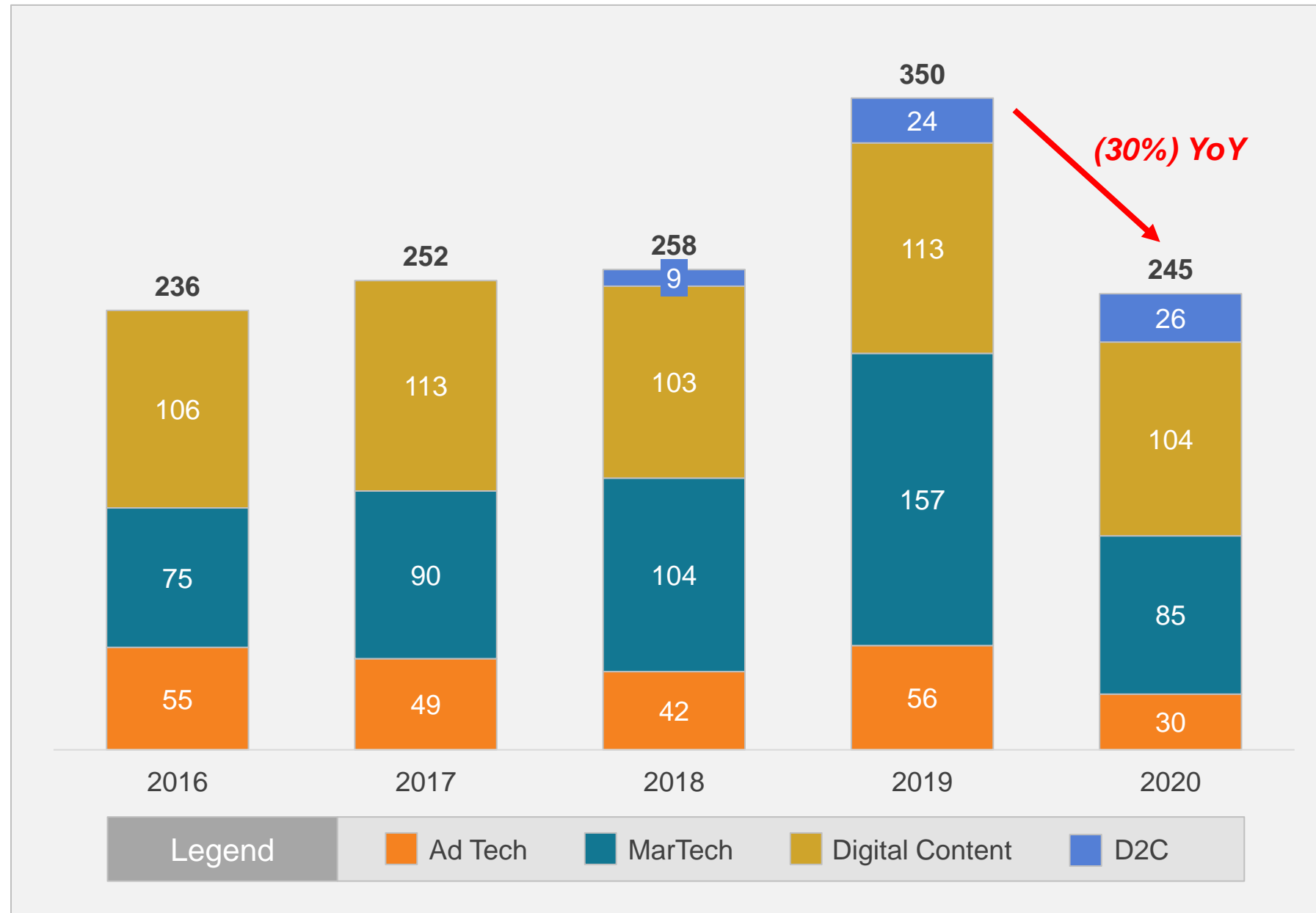
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Media & MarTech M&A Activity by Sector – Annual View

Ad Tech
MarTech
Digital Content
D2C

Number of Transactions – Annual (2016-2020)



Commentary

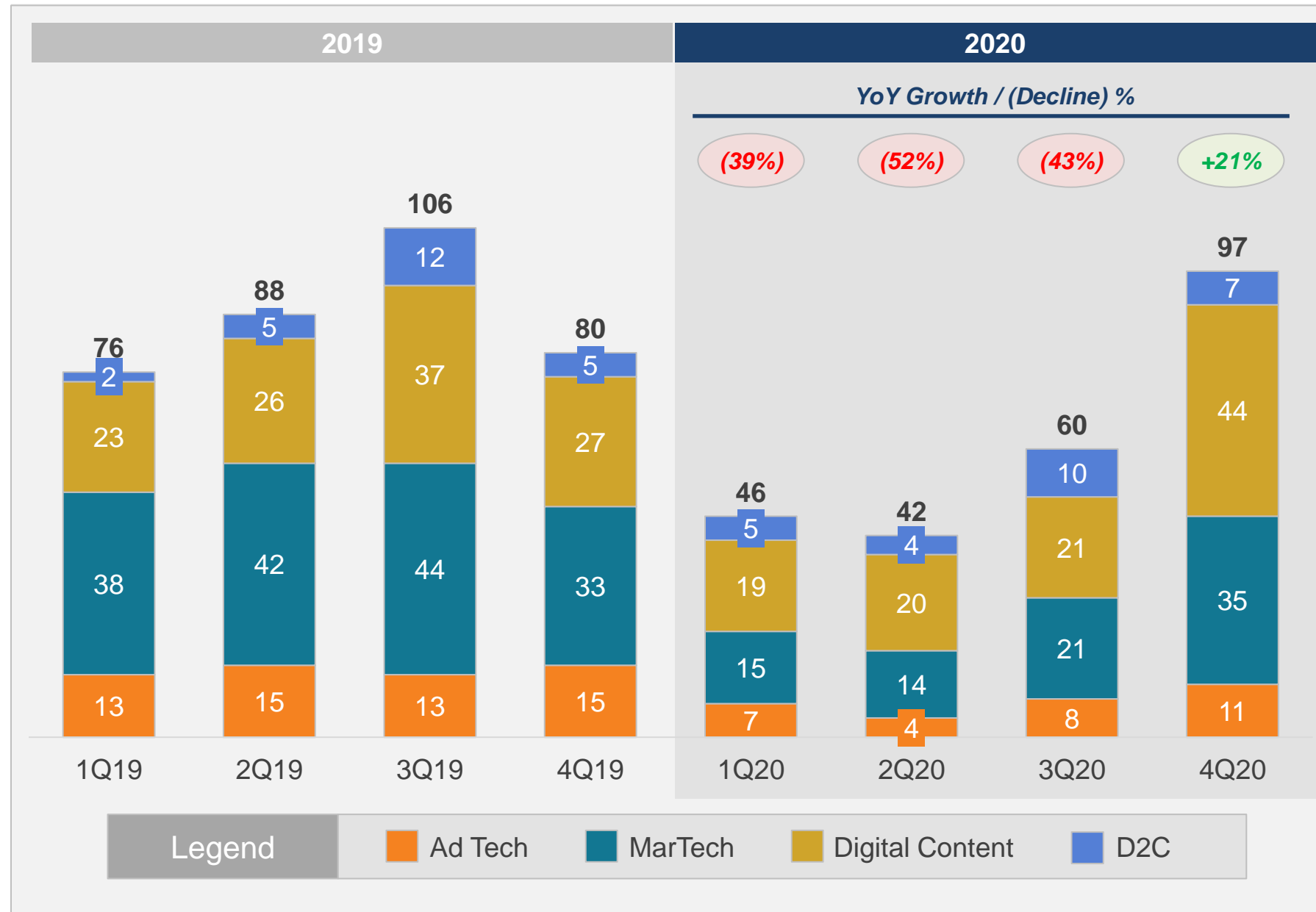
- In the aggregate, 2020 was a down year for M&A in the Media and Marketing Tech sectors, with total deal-making down **(30%) YoY**.
- The largest contributing factor to this decrease was the COVID-19 pandemic, which halted almost all M&A at the end of 1Q20. This slow-down lasted through the beginning of 3Q20, though overall M&A totals were buoyed by a strong return to M&A in late 3Q20 and 4Q20.
- Despite the overall slowdown, there were a number of sizable, strategic transactions across each of the sub-sectors. Digital Content and D2C scaled dealmaking (deals \geq \$100mm) rose on the year, with the total number of strategic Digital Content deals nearly doubling in 2020.
- Much of the strategic M&A that did occur was catalyzed by changing consumer trends that were accelerated by the pandemic. These included increases in streaming (CTV and Audio), gaming, and eCommerce.

Source: LUMA, PitchBook, Company announcements.

Media & MarTech M&A Activity by Sector – Quarterly View

Ad Tech
MarTech
Digital Content
D2C

Number of Transactions – Quarterly (1Q19-4Q20)



Commentary

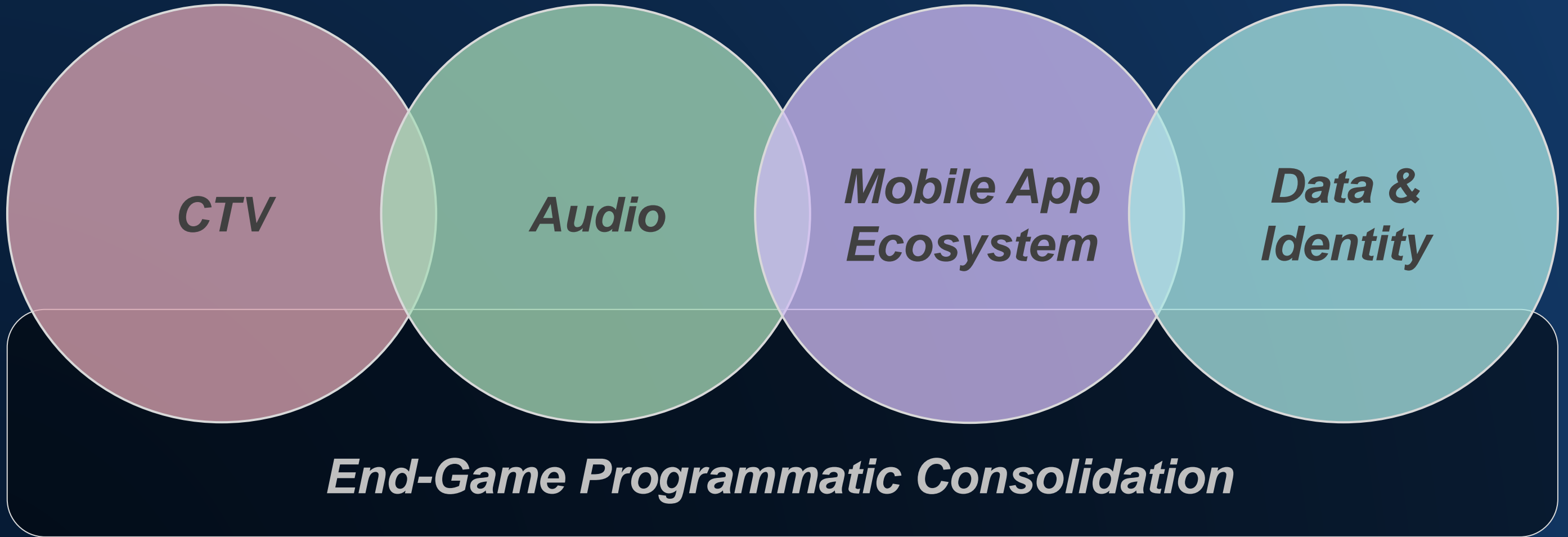
- Despite the (30%) YoY decrease in overall deal activity, the +21% increase in M&A transactions in 4Q20 is a promising sign that buyer confidence returned to pre-pandemic levels. The return of deal activity corresponded with renewed confidence in capital markets broadly, which came after extraordinary fiscal and monetary interventions by the U.S. Federal Government and Federal Reserve, respectively.
- Along with the uptick in overall M&A transactions, we saw a return of scaled deal activity in 4Q20, for which the 29 deals >\$100mm accounted for 30% of all scaled deal activity in 2020.
- Even more promising were the 12 deals that occurred in 4Q20 that were valued over \$1bn, highlighted by the Salesforce / Slack mega-merger.
- MarTech and Digital Content were both strong in 4Q20, with total deal activity at 2020 highs and surpassing prior year period (4Q19) totals.
- Ad Tech also saw a yearly high in deal activity during 4Q20, with transaction volume returning to a level comparable to 4Q19.
- D2C M&A activity has remained a consistent bright spot during 2020, as shopping patterns continued to shift to digital channels due to the pandemic.

Source: LUMA, PitchBook, Company announcements.

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LUMA's M&A Themes



LUMA M&A Themes: CTV

Notable CTV Transactions

Acquirer Category	Acquirer	Target	Target Category
Data & Ratings		TRUOPTIK* 	MarTech
Digital Content (ex-Gaming)		fubo TV 	Digital Content ex-Gaming
Traditional TV	FOX 	tubi 	
Telco / Cable	COMCAST 	xumo 	Ad Tech
		BEESWAX 	
Ad Tech	mediaocean 	4C 	

End-Game Programmatic

Source: LUMA, PitchBook, eMarketer.

Note: * Denotes transactions on which LUMA served as financial advisor to the indicated party. All figures in USD millions unless noted otherwise. Deals shown reflect those announced during calendar year 2020, thus certain transactions such as the merger between Rubicon Project and Telaria are not included, as such transactions were instead included in the 2019 report (despite closing during calendar 2020).














Observations

2020 represented a big year for CTV as consumer habits accelerated the shift towards streaming, leading a variety of acquirers to make big bets on tech capabilities and content/distribution to take advantage of CTV's future

- The COVID-19 lockdown accelerated a trend in consumer viewing habits toward streaming. Media and media-adjacent technology companies that were already positioning themselves for a shift to streaming over time likewise accelerated investment and acquisition of Convergent TV content, distribution and technology.
- **CONTENT / DISTRIBUTION:** Whereas some legacy players have the content and technology to play in the CTV landscape organically (e.g., Disney+), many of the others have looked for inorganic opportunities to expand their content and distribution capabilities. In 2020, some of the most notable deals included Comcast's acquisition of XUMO, Fox's acquisition of Tubi, and the merger of SPAC Facebank and FuboTV. These acquisitions are expected to add growth and scale quickly, with Fox publicly stating that Tubi revenue could surpass revenue from its broadcast networks in the next two to three years.
- **TECHNOLOGY:** Tech is the glue that binds the CTV ecosystem together and will be crucial to the growing AVOD opportunity. eMarketer projects OTT Ad Spend to reach \$11bn in 2021 and grow to \$18bn by 2024, as subscription fatigue sets in. To take advantage of this opportunity, companies have utilized M&A to build out the technology infrastructure required to support CTV advertising.
- **LOOKING AHEAD:** Expect M&A to continue at an accelerated pace, as consumer habits remain post-pandemic and more strategics seek to take advantage of the fast-growing AVOD opportunity.

LUMA M&A Themes: Audio

Notable Audio Transactions

Acquirer Category	Acquirer	Target	Target Category
Digital Content ex-Gaming			Digital Content ex-Gaming
			Ad Tech
Traditional Media			
			
			
Digital Giants			Digital Content ex-Gaming
			
Other			

End-Game Programmatic

Source: LUMA, Edison Research, eMarketer.

Note: Deals shown reflect those announced during calendar year 2020.

Observations

Audio activity in 2020 was focused almost entirely on Podcasting, as strategic buyers jockey for consumer attention and the growing ad opportunity

- Podcasts currently reach over 100mm monthly listeners and ad spend is following the consumers. eMarketer projects podcasting ad spend to surpass \$1bn in 2021 and audio platforms such as Spotify, Sirius, and iHeartMedia are acquiring technology to enable better advertising for podcasts.
- Audio platforms have also followed the CTV playbook and focused on acquiring or licensing original content in order to attract consumer to their platform. Most notably, Spotify acquired The Ringer and made multiple licensing deals including a >\$100mm deal with Joe Rogan, Amazon acquired Wondery, and SiriusXM acquired Stitcher.
- The reach of podcasting M&A has expanded outside of the usual suspects, with companies such as Penn National Gaming, a regional casino business and sports betting business, and The New York Times buying into podcasts as means to garner further customer acquisition and loyalty.
- LOOKING AHEAD:** We're beginning to enter a "Podcast 2.0" stage, as podcasting moves beyond the RSS feed and sophisticated advertisers seek more advanced data and analytics as ad spend grows. Outside of podcasting, look for renewed attention and activity around Voice capabilities as consumers embraced this technology during "stay-at-home."

LUMA M&A Themes: Mobile App Ecosystem

Notable Mobile Gaming Transactions

Acquirer Category	Acquirer	Target	Target Category
Ad Tech / Gaming (Hybrid)	APPLOVIN	MZ	Gaming
	Tencent 腾讯	LE YOU	
Gaming	EMBRACER+ GROUP	DECA	
		A THINKING APE	
	MINICLIP	ilyon	
	MOONACTIVE	MELSOFT GAMES	
	MTG	Hutch	
	STILLFRONT GROUP	candywriter	
		nanobit	
		Storm8	
	SUPER FREE GAMES		
	T2	DOTS	
UBISOFT	KOLIBRI Games		
zynga	peak GAMES		
	follic		

Observations

Mobile was among the hottest deal sectors, in large part due to the dramatic growth in mobile gaming usage during COVID-19

- Similar to video streaming, Mobile Gaming experienced significant growth spikes (+30% in Q2 2020) during the COVID-19 lockdown as consumers, confined to their homes, turned to their phones.
- Mobile advertising – gaming and non-gaming – has remained strong, as multiple players pursue the attractive app install / mobile growth opportunity. Q2 was particularly strong with performance advertisers taking advantage of the COVID-driven pullback in brand spend and corresponding CPM drop to drive new installs.
- This activity comes despite ongoing uncertainty related to privacy changes, such as Apple's plan to require user consent on an individual app basis to track user activity across other apps / sites.

Notable Non-Content Mobile Transactions












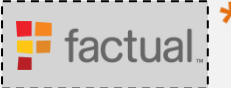




Acquirer Category	Acquirer	Target	Target Category
Financial Sponsor	Blackstone *	LIFTOFF	Ad Tech
Digital Content ex-Gaming	twitter	CROSSINSTALL	Digital Content ex-Gaming
MarTech	Snap Inc.	AI Factory *	Digital Content ex-Gaming
	FOURSQUARE	factual *	MarTech

End-Game Programmatic

Source: LUMA, PitchBook, AppsFlyer, SensorTower.
 Note: * Denotes transactions on which LUMA served as financial advisor to the indicated party. Deals shown reflect those announced during calendar year 2020.

LUMA M&A Themes: Data & Identity

Notable Data & Identity Transactions

Acquirer Category	Acquirer	Target	Target Category
Data & Ratings		 *	MarTech
		 *	
MarTech			
			
			
		 *	
Marketing Clouds		 *	
			

End-Game Programmatic

Observations

M&A activity remained robust within Data & Identity, as first-party data becomes increasingly important to the advertising, marketing, and commerce industries; strategics continue to seek enhanced capabilities

- Since the implementation of GDPR in mid-2018, consumer privacy and regulation of consumer data has evolved outside of an Ad Tech & MarTech discussion into a hot-button issue for the broader tech industry.
- In response to both regulatory-driven changes (e.g., CCPA and GDPR) and platform driven changes (e.g., iOS 14 and cookie-less Chrome), investors and acquirers have flocked to data & identity opportunities that are compliant under these new circumstances and have focused more on first-party data solutions.
- From an M&A point of view, several deals revolved around the orchestration and organization of first-party consumer data with significant CDP acquisitions (e.g., Twilio → Segment and Salesforce → Evergage). In addition to CDP's, there was a distinct focus on identity resolution, with a number of cross-device acquisitions focused on tying consumers across mediums (e.g., Experian → Tapad and TransUnion → Tru Optik).
- **LOOKING AHEAD:** Look for continued activity as the ever-evolving technology requirements and regulatory environments breed opportunity, particularly around growing compliance capabilities. Outside of compliance, the increase in eCommerce during the pandemic will drive further opportunities for personalization, identity and analytics capabilities.

Source: LUMA, PitchBook.
 Note: * Denotes transactions on which LUMA served as exclusive financial advisor to the indicated party.

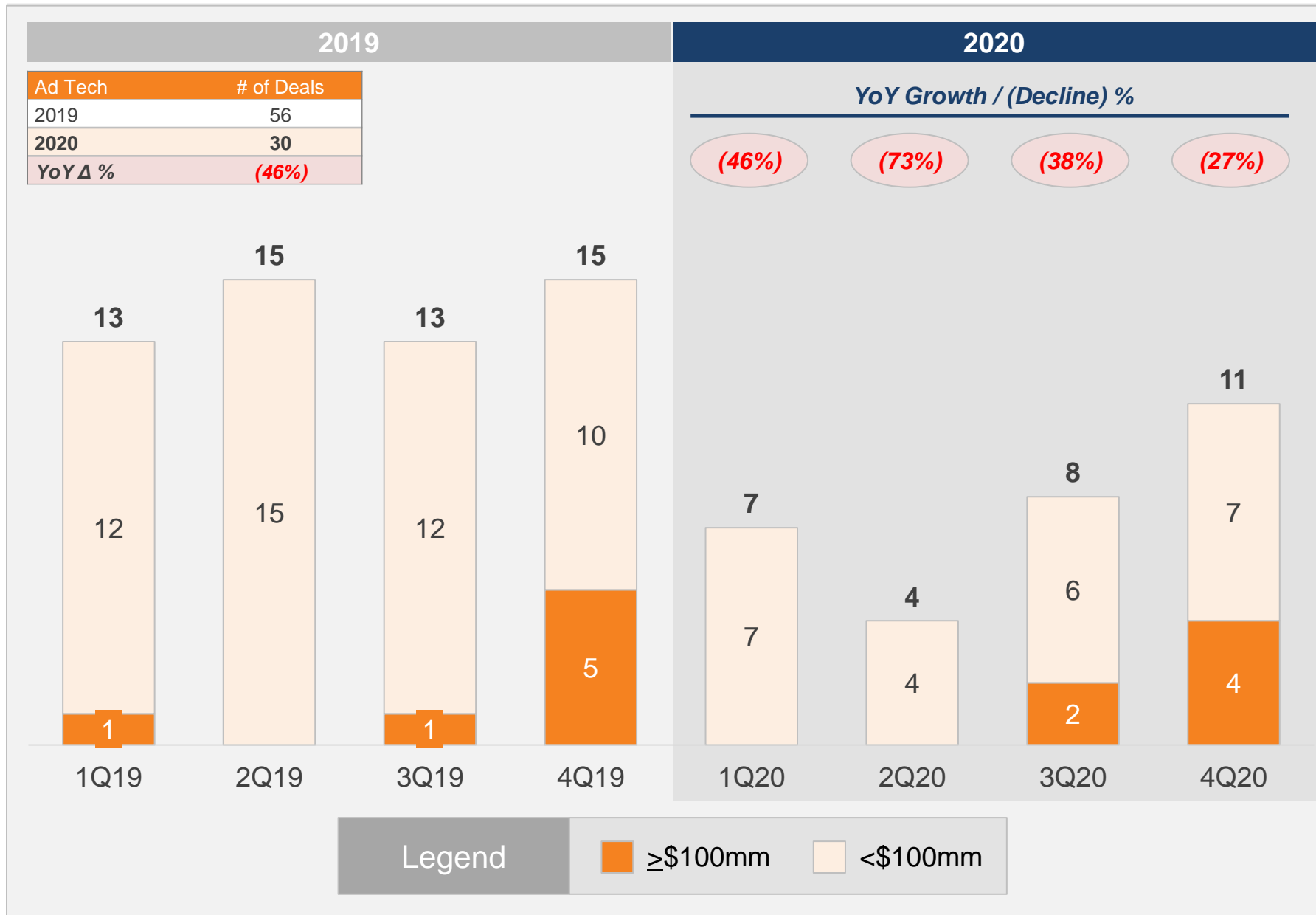
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Ad Tech M&A Activity

Ad Tech
MarTech
Digital Content
D2C

Number of Transactions



Source: LUMA, PitchBook, Company announcements.

Observations

- Ad Tech, already a lower-volume M&A market relative to Digital Content and MarTech, was more impacted by the COVID-19 pandemic in part because of its reliance on ad spend.
- Strategic acquirers were opportunistic in buying capabilities to remain competitive in the evolving landscape; scaled transactions did not occur until the “V-shaped” recovery become more apparent in 3Q20. Notable deals include Comcast’s acquisition of Beeswax, and 4C’s sale to Mediaocean.
- The mobile app ecosystem continues to thrive, as evidenced by Blackstone following-up last year's Vungle deal with a majority investment into Liftoff.

























Looking Ahead

- As CTV & Digital Audio continue to attract more consumers and ad dollars, companies will look to build out their technology offerings to accommodate the shift in ad spend.
- Privacy continues to be an evolving topic / challenge in Ad Tech, as both regulators and platforms look to quell consumer concerns while preparing for upcoming changes (e.g., IDFA, Google Chrome) to come into effect.

Ad Tech – 2020 Notable Deals (1 / 1)

Highlight denotes LUMA Transactions

Ad Tech
MarTech
Digital Content
D2C

	Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
Q4	12/22/20	 LIFTOFF		\$7	ND	<ul style="list-style-type: none"> Liftoff, a global performance-based mobile DSP, has agreed to a majority investment by Blackstone. Proceeds will be used to accelerate investment priorities, expand global footprint, and fuel growth initiatives.
	12/21/20			\$33	ND	<ul style="list-style-type: none"> Goldman Sachs Merchant Banking has acquired fraud detection company White Ops. Along with Goldman, ClearSky Security and NightDragon invested to help White Ops expand its business.
	12/17/20			\$55	ND	<ul style="list-style-type: none"> Kenshoo acquired market intelligence and analytics company Signals Analytics for an undisclosed sum. Per Kenshoo, the acquisition will position it to help brands catch up with accelerated eCommerce adoption.
	12/17/20			\$27	ND	<ul style="list-style-type: none"> Beeswax, a SaaS programmatic ad buying platform, has agreed to be acquired by Comcast. Beeswax's capabilities will help expand and accelerate FreeWheel's current programmatic technologies.
	11/10/20			ND	\$235	<ul style="list-style-type: none"> Spotify has acquired podcast hosting and monetization platform Megaphone for \$235mm. The deal will open Spotify's Streaming Ad Insertion technology to third party podcasts for the first time.
	10/29/20			\$85	ND	<ul style="list-style-type: none"> Lightbox, a digital out-of-home media company, has been acquired by Mexico City based Cattri. Lightbox will give Cattri a foothold in the U.S. digital OOH market, specifically in shopping & lifestyle centers.
	10/23/20			\$13	ND	<ul style="list-style-type: none"> iHeartMedia has acquired audio ad tech platform Voxnest for an undisclosed amount. With the acquisition, iHeart can now offer its podcasters more robust programmatic audio advertising tools.
	10/13/2020			\$3	ND	<ul style="list-style-type: none"> Vungle acquired AlgoLift, a user acquisition automation platform for mobile advertisers. Per Eric Seufert, the deal is "the most intriguing development in mobile" post Apple's IDFA changes.
Q3	9/25/20			\$76	ND	<ul style="list-style-type: none"> SuperAwesome, a kid-friendly advertising platform, has been acquired by Fortnite creator, Epic Games. Epic Games will integrate SuperAwesome into its Unreal Engine platform to offer kid-safe monetization.
	7/13/20			\$38	\$150	<ul style="list-style-type: none"> MediaOcean has acquired ad tech and analytics platform 4C for a reported \$150mm. 4C's optimization technology will help establish a modern system of record for omnichannel advertising.
Q2	5/12/20			ND	ND	<ul style="list-style-type: none"> Twitter has acquired mobile-only DSP Crossinstall for an undisclosed amount. Crossinstall's core capabilities lie in user acquisition via its proprietary bidder and creative offerings.
Q1	2/10/2020			\$94	\$66	<ul style="list-style-type: none"> Mobile Posse, a mobile advertising platform, was acquired by Digital Turbine for a reported \$66mm. Per the announcement, Mobile Posse generated \$50mm in revenue and \$10mm in EBITDA in CY 19.

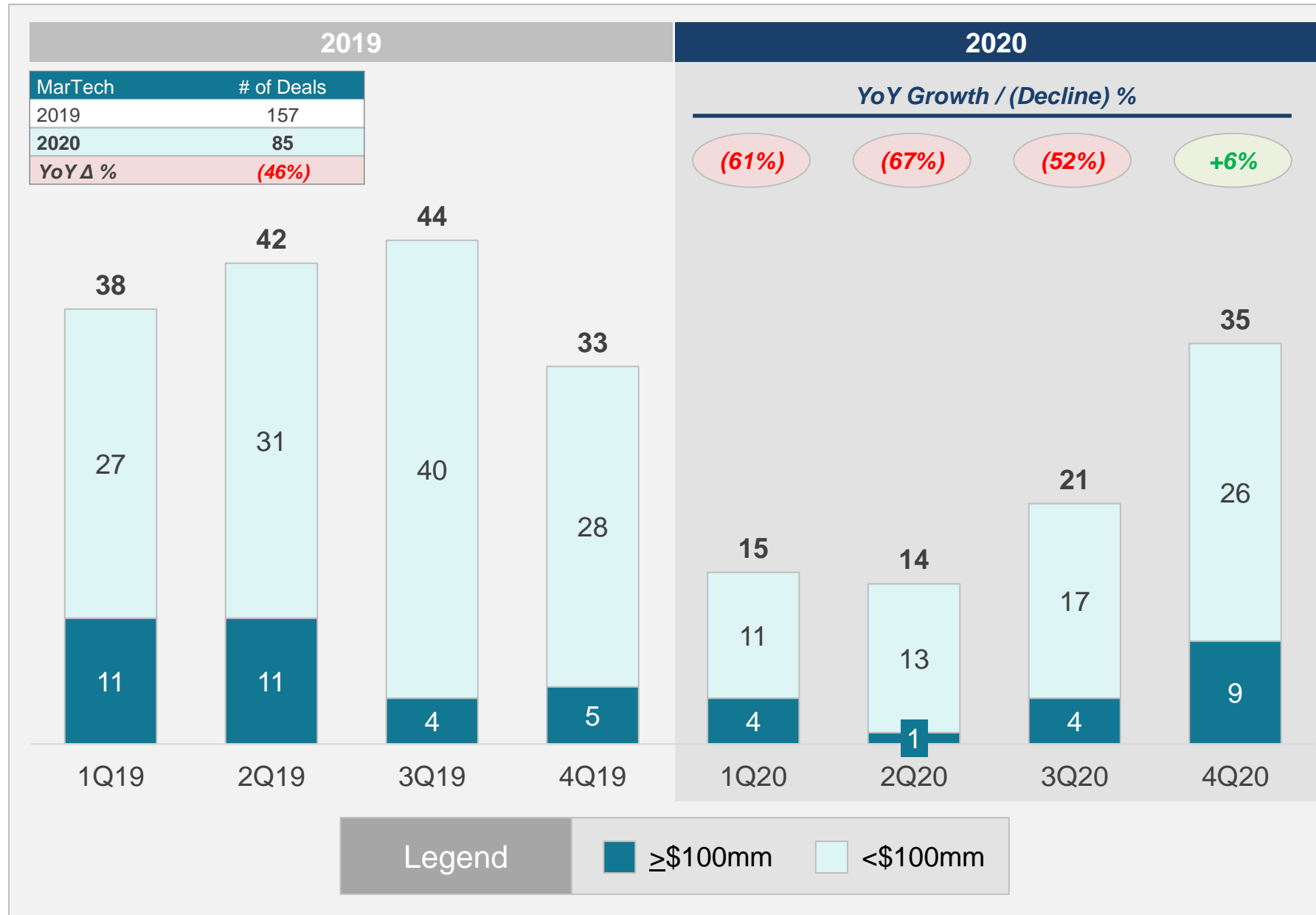
Source: PitchBook, Company announcements, The Verge, Marketing Dive, TechCrunch, AdExchanger, VentureBeat, Wall Street Journal, Business Insider, AustinInno.

Note: All figures in USD millions unless noted otherwise. Deals shown reflect those announced during calendar year 2020, thus certain transactions such as the merger between Rubicon Project and Telaria are not included, as such transactions were instead included in the 2019 report (despite closing during calendar 2020).

MarTech M&A Activity

Ad Tech
MarTech
Digital Content
D2C

Number of Transactions



Source: LUMA, PitchBook, Company announcements.

Observations

- Following a return to scaled deal activity in 3Q20, 4Q20 accounted for half of all the scaled MarTech deals in 2020 as total deal activity increased to pre-COVID levels (up +6% from 4Q19).
- Salesforce led the way as the most acquisitive strategic, acquiring Vlocity, Evergage, Mobify, and, most notably, Slack, in the Company's largest acquisition to date for \$27.7bn.
- There were several other >\$1bn acquisitions, all of which took place in 4Q20. These transactions include: Facebook's acquisition of Kustomer; Vista's acquisitions of Gainsight and Pipedrive; Adobe's acquisition of Workfront; Clearlake's acquisition of Endurance; and Twilio's acquisition of Segment.


















Looking Ahead

- As strategic buyers continue to regain confidence in the M&A market, look for an increase in deal activity as deals that were put on hold due to the pandemic continue to announce and close in the new year.
- With privacy regulations and data restrictions creating new challenges in the sector, continued investment into first-party data and identity solutions will be crucial for companies to succeed.

MarTech – 2020 Notable Deals (1 / 2)

Highlight denotes LUMA Transactions

Ad Tech
MarTech
Digital Content
D2C

























Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
12/10/2020	BrightTALK™		\$22	\$150	<ul style="list-style-type: none"> TechTarget acquired event marketing and webinar platform BrightTALK. Implied EV / revenue multiple of 3.0x, based on reported EV and 2020 revenue of \$150mm and \$50mm.
12/1/20	 Kustomer	FACEBOOK	\$174	\$1,000	<ul style="list-style-type: none"> Facebook has agreed to acquire CRM startup Kustomer for a reported \$1bn. Kustomer's CRM technology will be used to grow Facebook's customer service offerings to businesses.
12/1/20	 slack		ND	\$27,700	<ul style="list-style-type: none"> Workplace chat and collaboration platform Slack has agreed to be acquired by Salesforce for \$27.7bn. The acquisition of Slack gives Salesforce a competitive offering against Microsoft's Teams platform.
11/30/20	Gainsight		\$188	\$1,100	<ul style="list-style-type: none"> Vista Equity Partners acquired a majority stake in customer success platform Gainsight. The deal, valued at \$1.1bn, comes as Gainsight was reportedly on track to hit \$100mm ARR in 2020.
11/19/20	TAPAD		NM	\$280	<ul style="list-style-type: none"> Experian has acquired digital identity resolution platform Tapad from Telenor for \$280mm. The acquisition will enhance Experian's digital offerings for advertisers, agencies and publishers.
11/12/20	pipedrive™		\$8	\$1,500	<ul style="list-style-type: none"> Vista Equity Partners acquired a majority stake in Pipedrive, a CRM tool for SMB's, at a \$1.5bn valuation. Pipedrive reportedly has 95,000 companies currently using its technology.
11/9/20	workfront		\$101	\$1,500	<ul style="list-style-type: none"> Adobe has acquired workflow management platform Workfront for \$1.5bn. Workfront has a customer base of 3,000 companies and will be integrated into the Adobe Experience Cloud.
11/5/20	 EVERSTRING		\$100	ND	<ul style="list-style-type: none"> ZoomInfo has acquired EverString, a B2B data solutions provider, for an undisclosed amount. ZoomInfo will integrate 100mm company records & 70mm professional profiles into its existing data set.
11/2/20	 ENDURANCE International Group		\$350	\$3,000	<ul style="list-style-type: none"> Clearlake Capital has acquired Cloud based solutions provider Endurance International Group. The all-cash transaction valued the Company at ~\$3bn (including debt).
11/2/20	 selligent MARKETING CLOUD	CM Group	\$2	ND	<ul style="list-style-type: none"> Insight Partners-backed CM Group has acquired Selligent Marketing Cloud for an undisclosed amount. With this deal, CM Group now has over 700,000 customers and an annual revenue of over \$250mm.
10/12/20	 Segment		\$284	\$3,200	<ul style="list-style-type: none"> Twilio made its largest acquisition to date by acquiring customer data platform Segment for \$3.2bn. Segment will bolster Twilio's customer engagement services and will provide access to new customers.
10/1/20	 emarsys		\$55	ND	<ul style="list-style-type: none"> SAP has acquired cloud marketing company Emarsys for an undisclosed amount. SAP gains access to customer personalization technology and a customer base of 1,500 companies.

Source: PitchBook, Company announcements, AdExchanger, TechCrunch, Forbes.
 Note: All figures in USD millions unless noted otherwise.

MarTech – 2020 Notable Deals (2 / 2)

Highlight denotes LUMA Transactions

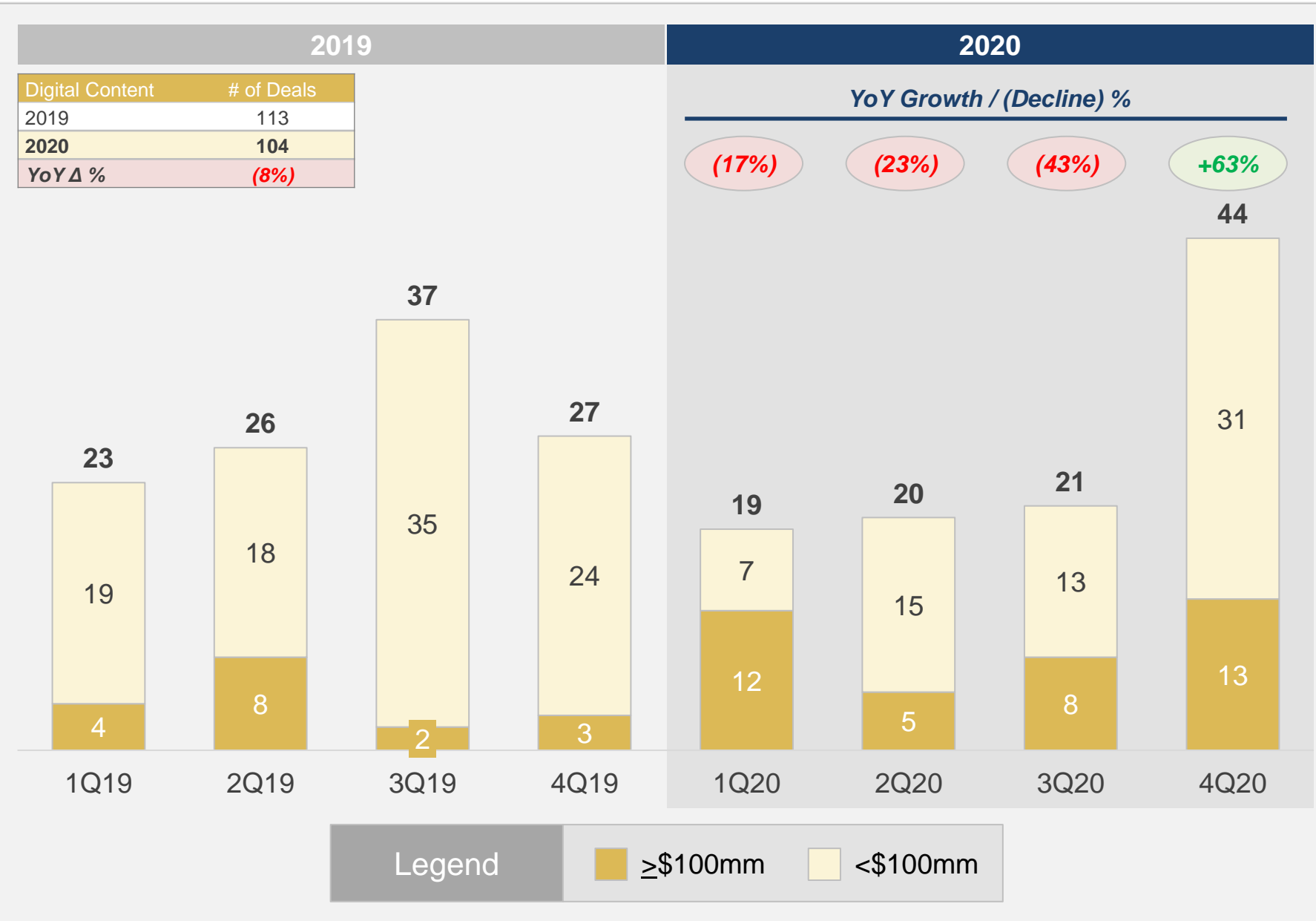
Ad Tech
MarTech
Digital Content
D2C

	Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
Q3	9/3/20	 Optimizely		\$257	ND	<ul style="list-style-type: none"> Insight Ventures-backed Episerver acquired personalization and A/B testing technology provider Optimizely. Optimizely has raised over \$200mm in funding and currently works with over 1,000 companies.
	9/1/20	 TRUOPTIK		\$14	ND	<ul style="list-style-type: none"> Tru Optik, a CTV data marketplace and DMP, has been acquired by TransUnion for an undisclosed amount. Tru Optik will enable TransUnion to focus on CTV as part of a broader omni-channel identity strategy.
	8/24/20	 Brandfolder		\$11	\$155	<ul style="list-style-type: none"> Smartsheet has acquired digital asset management provider Brandfolder for \$155mm. This acquisition will enable Smartsheet to better manage workflows involving content and collaboration.
	8/24/20	 node		\$51	ND	<ul style="list-style-type: none"> Accel-KKR-backed SugarCRM acquired customer intelligence platform Node for an undisclosed amount. The deal adds a new customer prediction element to SugarCRM's existing platform.
Q2	6/16/20	 Engagio		\$32	ND	<ul style="list-style-type: none"> Demandbase has acquired ABM company Engagio for an undisclosed amount. The deal gives Demandbase notable first-party data capabilities, complementing its third-party data assets.
	5/19/20	 TUNE		\$36	ND	<ul style="list-style-type: none"> Constellation Software acquired partner marketing platform TUNE for an undisclosed sum. Canada-based Constellation has plans to acquire more performance marketing companies in the near term.
	4/22/20	 voc		\$20	\$59	<ul style="list-style-type: none"> Voci Technologies, a real-time speech-to-text platform, was acquired by Medallia for \$59mm. Voci's speech-to-text capabilities will be integrated with Medallia's experience management platform.
	4/6/20	 factual		\$100	ND	<ul style="list-style-type: none"> Approximately one year after acquiring Placed, Foursquare merged with location data provider Factual. The combination creates the #1 independent leader in location-based technology and data.
Q1	2/26/20	 Vlocity		\$163	\$1,330	<ul style="list-style-type: none"> Vlocity has been acquired by Salesforce in a \$1.3bn all-cash deal. The Company's platform builds industry specific CRMs on top of Salesforce.
	2/10/2020	 Localytics		\$163	\$68	<ul style="list-style-type: none"> Upland Software acquired mobile app personalization and analytics vendor Localytics for \$68mm. Per Upland, the acquisition adds ~\$20mm in annualized revenues and is EBITDA accretive.
	2/3/20	 emailage		\$56	\$480	<ul style="list-style-type: none"> LexisNexis acquired fraud prevention and risk management solutions provider Emailage for \$480mm. This is the latest in a recent string of buyouts by LexisNexis' Risk Solutions group.
	2/3/20	 evergage		\$28	ND	<ul style="list-style-type: none"> Evergage, a personalization and customer data platform, has been acquired by Salesforce. The combination will enable companies to deliver more relevant experiences across the customer journey.

Source: PitchBook, Company announcements, AdExchanger, TechCrunch, GeekWire.
 Note: All figures in USD millions unless noted otherwise.

Digital Content M&A Activity

Number of Transactions



Source: LUMA, PitchBook, Company announcements.

Observations

























- Throughout the pandemic, Digital Content has remained a relative bright spot in M&A activity with total deal volume down only (8%) on the year, while scaled activity increased +124% YoY.
- A primary driver in deal activity was gaming, with notable deals including Tencent's acquisition of LeYou, EA's acquisition of Codemasters, Microsoft's acquisition of Zenimax, and AppLovin's acquisition of Machine Zone.
- Digital audio continues to garner significant interest, with Spotify, SiriusXM, The New York Times, Penn National Gaming, and MelodyVR all making notable acquisitions in 2020.

Looking Ahead

- We anticipate continued robust mobile gaming deal activity from strategic acquirers and investors, as COVID "stay-at-home" has accelerated the secular trend of gaming apps continuing to take share across entertainment broadly defined.
- The Podcasting space continues to attract significant investment, both from M&A and content licensing. We expect this trend to continue, as audio platforms prepare for the podcasting battle on the horizon.

Digital Content – 2020 Notable Deals (1 / 4)












Ad Tech
MarTech
Digital Content
D2C

Announcement Date`	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
12/30/20	 WONDERY	 amazon	\$18	ND	<ul style="list-style-type: none"> Amazon has acquired independent podcast network Wondery for an undisclosed amount. Wondery will be integrated with Amazon Music to provide a competitive offering in the podcast marketplace.
12/23/20	 MELSOFT GAMES	 MOONACTIVE	ND	>\$100	<ul style="list-style-type: none"> Moon Active acquired mobile gaming company Melsoft for an amount rumored to be greater than \$100mm. Per VentureBeat, Melsoft's run-rate annual revenue is more than \$160mm.
12/18/20	 SUPER FREE GAMES	 STILLFRONT GROUP	ND	\$150	<ul style="list-style-type: none"> Stillfront acquired Super Free Games for \$150mm upfront plus a contingency-based earnout. Super Free Games develops Casual Word games, such as <i>Word Collect</i>, <i>Word Nut</i>, and <i>Trivia Star</i>.
12/17/20	 BESTREVIEWS	 Nexstar MEDIA GROUP, INC.	ND	\$160	<ul style="list-style-type: none"> Nexstar has acquired BestReviews, a consumer product recommendations company, for \$160mm. This deal highlights the ongoing opportunity at the intersection of content and commerce.
12/14/20	 LE YOU	 Tencent 腾讯	ND	\$1,500	<ul style="list-style-type: none"> Game developer and distributor Leyou has been acquired by Tencent for \$1.5bn. Leyou owns several game studios, including Digital Extremes, Splash Damage, Kingmaker, and Radiance.
12/14/20	 CODEMASTERS	 EA	ND	\$1,200	<ul style="list-style-type: none"> UK-based game developer Codemasters has agreed to be acquired by Electronic Arts (EA) for \$1.2bn. This acquisition will help to further establish EA as a leader in the racing video game genre.
12/14/20	 dubsmash	 reddit	\$20	ND	<ul style="list-style-type: none"> Reddit has acquired TikTok competitor DubsMash for an undisclosed amount. DubsMash will continue to operate independently, but its technology will be integrated into Reddit's platform.
12/9/20	 crunchyroll	 SONY	NA	\$1,180	<ul style="list-style-type: none"> Sony has agreed to acquire anime streaming service Crunchyroll from AT&T for \$1.18bn. Crunchyroll, which currently has over 3mm subscribers, will become a part of Sony's Funimation studio.
12/8/20	 Hutch	 MTG	\$6	\$375	<ul style="list-style-type: none"> Modern Times Group has acquired mobile games developer Hutch for \$375mm. With this deal, Modern Times gains access to Hutch's portfolio of mobile racing games.
12/1/20	 DAYBREAK	 ENAD GLOBAL 7	ND	\$300	<ul style="list-style-type: none"> Enad Global 7 has acquired online gaming studio Daybreak for \$300mm. Daybreak's portfolio of games will be added to Enad Global 7's growing catalog of over 1,000 titles.
11/19/20	 HUFFPOST	 BuzzFeed	NM	ND	<ul style="list-style-type: none"> Digital media outlet BuzzFeed has acquired HuffPost from Verizon Media for an undisclosed amount. HuffPost, f/k/a The Huffington Post, was originally acquired in 2011 by AOL for \$315mm.
11/18/20	 A THINKING APE	 EMBRACER GROUP	ND	\$105	<ul style="list-style-type: none"> Embracer Group, via its subsidiary DECA Games, has acquired gaming studio A Thinking Ape for \$105mm. Founded in 2008, A Thinking Ape is a developer of mobile free-to-play games with a social core.

Source: PitchBook, Company announcements, Invest Game, The Verge, Pocket Gamer, Wall Street Journal, Quartz, Vox, Reuters, VentureBeat.
 Note: All figures in USD millions unless noted otherwise.

Digital Content – 2020 Notable Deals (2 / 4)

Ad Tech
MarTech
Digital Content
D2C

	Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
Q4	11/8/20	QUARTZ	Management Buyout	\$8	ND	<ul style="list-style-type: none"> Following its acquisition by Uzabase in 2018, CEO & Co-Founder Zach Seward is buying Quartz back. Quartz recently surpassed 200k paying subscribers for its content.
	10/13/20	 MORNING BREW	BUSINESS INSIDER	ND	\$75	<ul style="list-style-type: none"> Morning Brew, a short-form business newsletter provider, has been acquired by Business Insider. The deal was reportedly valued at \$75mm as Morning Brew was on pace for \$20mm in revenue for 2020.
	10/1/20	PLAYBOY	Mountain Crest Acquisition Corp	\$61	\$413	<ul style="list-style-type: none"> Playboy Enterprises has agreed to go public via a SPAC merger at a \$413mm valuation. Playboy plans to use proceeds of the deal to expand into the sexual wellness space and on acquisitions.
Q3	9/21/20	 ZeniMax[®] MEDIA INC.	 Microsoft	ND	\$7,500	<ul style="list-style-type: none"> ZeniMax Media, parent company to Bethesda Game Studios, agreed to be acquired by Microsoft for \$7.5bn. Upon closing, Bethesda's portfolio of titles will be added to Microsoft's cloud gaming service.
	9/17/20	 nanobit	STILLFRONT GROUP	ND	\$148	<ul style="list-style-type: none"> Stillfront Group acquired Croatia-based mobile game developer Nanobit in a deal worth up to \$148mm. Nanobit's library will expand Stillfront's offering into the narrative & lifestyle RPG mobile gaming market.
	9/16/20	 VERTIGOGAMES	EMBRACER⁺ GROUP	ND	\$136	<ul style="list-style-type: none"> Embracer Group has acquired VR games creator Vertigo Games in a deal worth up to \$136mm. Embracer will pay \$59mm upfront and the remainder is contingent upon Vertigo Games' future performance.
	9/2/20	skillz	Flying Eagle Acquisition Corp	\$141	\$3,500	<ul style="list-style-type: none"> Mobile gaming platform Skillz began trading via a reverse merger with SPAC Flying Eagle Acquisition Corp. Skillz, valued at \$3.5bn at the time of the merger, announced projections of \$225mm in 2020E revenue.
	8/25/20	 napster	 melody^{VR}	ND	\$70	<ul style="list-style-type: none"> MelodyVR has acquired digital music platform Napster via a reverse merger for \$70mm. With this deal, MelodyVR plans to combine immersive virtual live music with streaming service capabilities.
	8/18/20		 T2 TAKE-TWO INTERACTIVE	\$21	\$192	<ul style="list-style-type: none"> Mobile game developer Playdots has been acquired by Take-Two Interactive for \$192mm. This deal will strengthen Take-Two Interactive's position in the free-to-play, mobile gaming market.
	8/13/20	DECA	EMBRACER⁺ GROUP	ND	\$73	<ul style="list-style-type: none"> Embracer Group acquired DECA Games, an acquirer of established game IP, assets, and licenses. At the time of the deal, DECA owned eight game IPs in its portfolio.
	8/10/20	 CuriosityStream	Software Acquisition Group, Inc.	\$240	\$331	<ul style="list-style-type: none"> CuriosityStream has agreed to go public via a SPAC merger at a \$331mm valuation. The Company's documentary-centric SVOD service has over 13mm paid subscribers in 175 countries.
	8/5/20	rollic	 zynga	ND	\$168	<ul style="list-style-type: none"> Zynga acquired 80% of Istanbul-based hypercasual mobile gaming company Rollic for \$168mm. Rollic has more than 5 million DAUs and gives Zynga a foothold in the hypercasual gaming market.
















Source: PitchBook, Company announcements, TechCrunch, The Verge, Gamasutra, Venture Beat, Bloomberg, AdWeek.

Note: All figures in USD millions unless noted otherwise.

Digital Content – 2020 Notable Deals (3 / 4)

Highlight denotes LUMA Transactions













Ad Tech
MarTech
Digital Content
D2C

	Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
Q3	7/22/20		The New York Times	ND	ND	<ul style="list-style-type: none"> NYT has acquired Serial Productions, the creators of the Serial podcast series, for a reported \$25mm. Going into its fourth season, the Serial podcast has garnered over 1bn downloads.
	7/6/20			ND	\$325	<ul style="list-style-type: none"> SiriusXM acquired podcast distribution & monetization tech-provider Stitcher from E.W. Scripps for \$325mm. This marks SiriusXM's second acquisition in the podcasting space in 2020.
Q2	6/1/20			\$19	\$1,800	<ul style="list-style-type: none"> In its largest deal to date, Zynga acquired game developer Peak Games for \$1.8bn. Zynga had previously acquired Peak's casual card game studio for \$100mm in 2017.
	5/15/20		FACEBOOK	\$155	\$400	<ul style="list-style-type: none"> Facebook announced its acquisition of GIF-creation and sharing platform GIPHY for a reported \$400mm. In June 2020, a UK antitrust authority launched a retroactive investigation into the acquisition.
	5/14/20			\$726	~\$500	<ul style="list-style-type: none"> AppLovin acquired mobile game maker Machine Zone in a deal reportedly valued at ~\$500mm. Machine Zone has reportedly earned \$5bn in revenue on over 310mm app downloads since forming in 2008.
	5/14/20			\$116	\$100	<ul style="list-style-type: none"> NextVR, a startup that provides sports and other content for VR headsets, has been acquired by Apple. The Company, which has clients such as the NBA and Fox Sports, specializes in live streaming to VR.
	4/28/20			ND	ND	<ul style="list-style-type: none"> Scopely has acquired game development studio PierPlay, the maker of the Scrabble Go mobile word game. Scopely title <i>Scrabble Go</i> has >2.5mm DAUs; these users have an average session of 100 minutes / day.
	4/23/20		STILLFRONT GROUP	ND	\$195	<ul style="list-style-type: none"> Stillfront acquired mobile game developer and publisher Candywriter in a deal worth up to \$195mm. Per Stillfront, Candywriter has ~1.2mm DAUs and ~7.8mm MAUs.
	3/23/20			\$301	\$700	<ul style="list-style-type: none"> OTT provider FuboTV has merged with the virtual entertainment company Facebank Group. The deal combines FuboTV's OTT live-streaming business and FaceBank's IP in entertainment.
Q1	3/17/20	tubi	FOX	\$125	\$440	<ul style="list-style-type: none"> Fox has acquired AVOD streaming platform Tubi TV for \$440mm. Tubi is currently available on over 25 digital platforms with 20,000 film and TV titles in its content library.
	2/26/20	xumo	COMCAST	ND	\$100	<ul style="list-style-type: none"> Comcast has acquired XUMO, an AVOD streaming service, in a deal reportedly worth over \$100mm. XUMO comes pre-installed on smart televisions and claims over 10mm MAUs.
	2/5/20	AI Factory	Snap Inc.	ND	ND	<ul style="list-style-type: none"> Snap acquired AI Factory, creator of next generation Augmented Reality messaging products. AI Factory powers Snapchat's Cameos, an AI-powered AR video feature.

Source: PitchBook, Company announcements, TechCrunch, Venture Beat, Bloomberg, The Verge, Vox, Reuters.
 Note: All figures in USD millions unless noted otherwise.

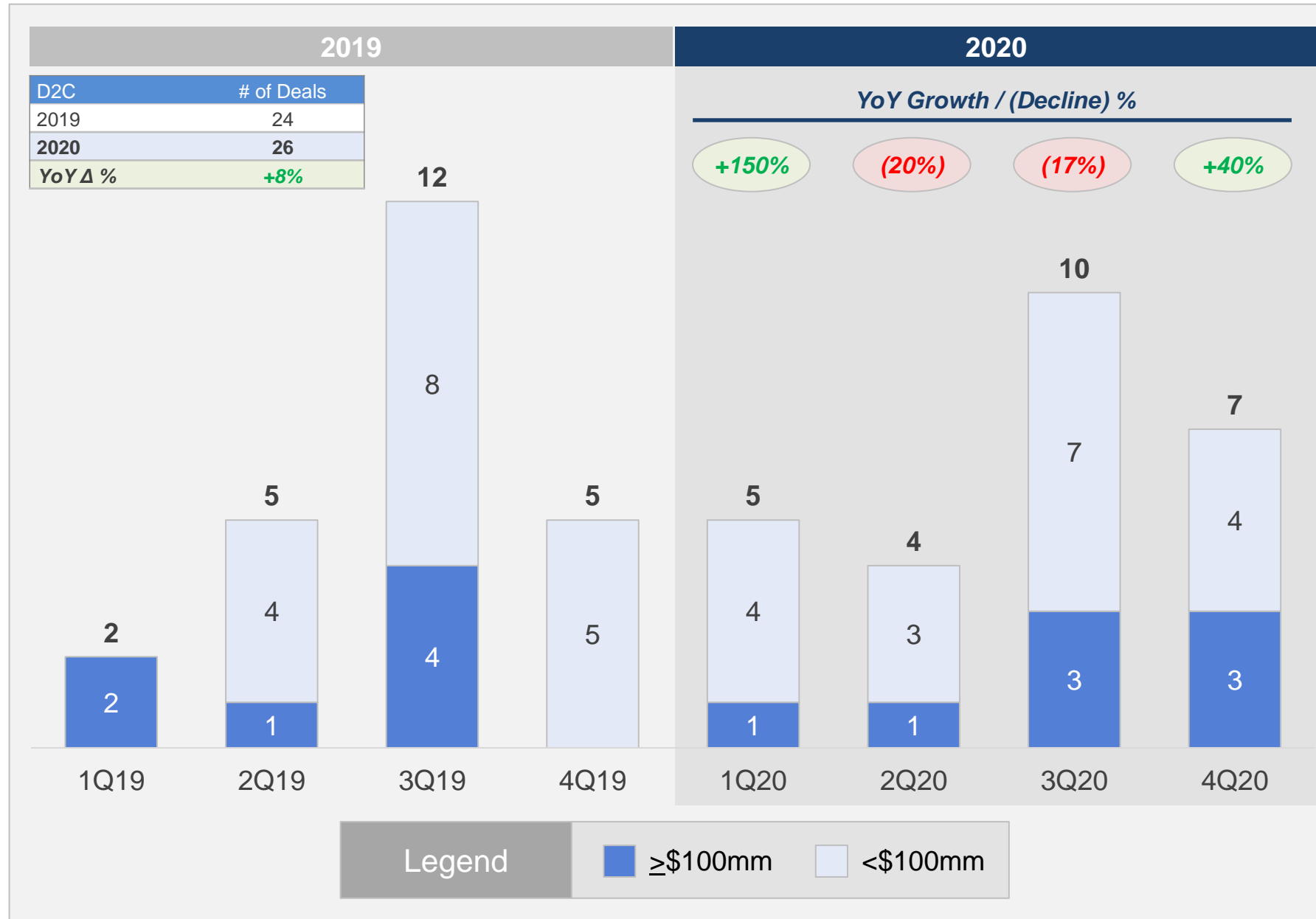
Digital Content – 2020 Notable Deals (4 / 4)

Ad Tech
MarTech
Digital Content
D2C

	Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
Q1	2/5/20			NA	\$250	<ul style="list-style-type: none"> Spotify has acquired popular sports podcast network The Ringer, led by Bill Simmons, for \$250mm. The Ringer brings over 40 podcast titles to bolster Spotify's existing content library.
	2/4/20			ND	ND	<ul style="list-style-type: none"> Ubisoft acquired 75% of Berlin mobile game developer Kolibri Games for an undisclosed sum. Kolibri is best known for its mobile-free-to-play games, such as <i>Idle Miner</i>.
	1/29/20			ND	\$450	<ul style="list-style-type: none"> Penn National increased its ownership stake in digital publisher Barstool Sports at a \$450mm valuation. Barstool produces over 50 podcasts and is reported to have generated \$90mm-\$100mm in 2019 revenue.
	1/22/20			ND	ND	<ul style="list-style-type: none"> FoxNext Games, the developer of mobile game <i>MARVEL Strike Force</i>, was sold to Scopely by Disney. <i>MARVEL Strike Force</i> was released in March 2018 and is reported to have generated \$150mm in revenue.
	1/21/20			ND	\$400	<ul style="list-style-type: none"> Stillfront Group acquired mobile gaming studio, Storm8, in a deal worth \$400mm. Storm8 has a portfolio of casual games (e.g., <i>Dragon Story</i>), and is also a developer of licensed games.
	1/6/20			ND	\$100	<ul style="list-style-type: none"> Miniclip, a subsidiary of Tencent, acquired Ilyon Games for a reported \$100mm. Ilyon is best known as a developer of casual games such as <i>Bubble Shooter</i> and <i>Cookie Rush</i>.

Source: PitchBook, Company announcements, Forbes, PocketGamer, Vox.
 Note: All figures in USD millions unless noted otherwise.

Number of Transactions



Source: LUMA, PitchBook, Company announcements.

Observations

















- D2C was the only sector that saw a YoY increase in total deal activity, with total deal volume up **+8%**.
- With lockdowns in effect for most of 2020, food / grocery delivery services saw material growth. M&A activity followed suit, as several notable transactions were announced: Uber's acquisition of Postmates, Just Eat Takeaway's acquisition of Grubhub, and Centerbridge's acquisition of FreshDirect.
- 4Q20 also saw two D2C companies agree to go public via SPAC mergers: BarkBox merged with Northern Star Acquisition Corp at a \$1.6bn valuation and Hims merged with Oaktree Acquisition Corp, coincidentally at the same valuation (\$1.6bn).
- Following the cancellation of Edgewell's acquisition of Harry's last year, the FTC stepped in again and sued to block P&G's acquisition of Billie. After the FTC challenge, P&G opted to terminate the planned merger in early January 2021.

Looking Ahead

- Increasing adoption of eCommerce channels and contraction of brick-and-mortar retail will continue to shift share to D2C brands among North American shoppers. Look for increased M&A activity, as legacy retailers look to increase their exposure to D2C.

D2C – 2020 Notable Deals (1 / 1)

Ad Tech
MarTech
Digital Content
D2C

	Announcement Date	Target	Acquirer	Cumulative Capital Raised	Enterprise Value	Commentary
Q4	12/17/20		Northern Star Acquisition Corp	\$286	\$1,600	<ul style="list-style-type: none"> Pet subscription service BarkBox is going public via SPAC merger at a \$1.6bn valuation. BarkBox has over 1mm subscribers as the pandemic has caused a spike in pet adoption and spending.
	11/18/20		Centerbridge	ND	ND	<ul style="list-style-type: none"> Grocery delivery service FreshDirect agreed to be acquired by PE-firm Centerbridge Partners. Along with Centerbridge, supermarket operator Ahold Delhaize will acquire a majority stake in Fresh Direct.
	10/30/20		IPSY	\$8	\$500	<ul style="list-style-type: none"> Cosmetics subscription service IPSY has acquired competitor BoxyCharm in a deal worth \$500mm. The combined company will have over 4.3mm subscribers.
	10/1/20		Oaktree Acquisition Corp	ND	\$1,600	<ul style="list-style-type: none"> Hims is going public via a reverse-merger with SPAC Oaktree Acquisition Corp at a \$1.6bn valuation. Hims currently has over 260k subscribers and projects \$138mm in revenue for 2020.
Q3	9/2/20			ND	\$225	<ul style="list-style-type: none"> Bayer has acquired a 70% stake in D2C vitamin and supplement provider Care/of at a \$225mm valuation. Bayer plans to expand Care/of across new channels and markets to deliver more personalized nutrition.
	7/6/20		Uber	ND	\$2,650	<ul style="list-style-type: none"> Postmates has agreed to be acquired by Uber in a \$2.65bn all-stock deal. Uber plans to run Postmates alongside Uber Eats while integrating the technology with its existing offering.
Q2	6/29/20			\$72	\$500	<ul style="list-style-type: none"> Lululemon has acquired the in-home fitness company Mirror for a reported \$500mm. Mirror competes with Peloton and will continue to operate as a standalone company within Lululemon.
	6/10/20			ND	\$7,300	<ul style="list-style-type: none"> Just Eat Takeaway has acquired food-delivery company Grubhub in an all-stock deal valued at \$7.3bn. The combined company will have over 70mm active customers and expands Just Eat into the U.S.
	5/15/20	FRAMEBRIDGE		\$83	ND	<ul style="list-style-type: none"> Custom picture framing company Framebridge has been acquired by Graham Holdings. Framebridge will focus on building on its existing online business and expanding its physical retail presence.
Q1	2/10/20			\$35	\$110	<ul style="list-style-type: none"> Safilo Group has acquired a 61% stake in celebrity-endorsed eyewear brand Privé Revaux for \$68mm. Safilo plans to build on Privé Revaux's digital marketing strategy and leverage its millennial consumer base.
	1/23/20			\$6	ND	<ul style="list-style-type: none"> Hello, a premium oral care brand, has been acquired by Colgate-Palmolive for an undisclosed amount. The Company focuses on creating natural oral care products geared toward a younger demographic.

Source: PitchBook, Company Announcement, Business Insider, Fortune, The New York Times, Forbes, Modern Retail, TechCrunch, Bloomberg, CNBC, Wall Street Journal.

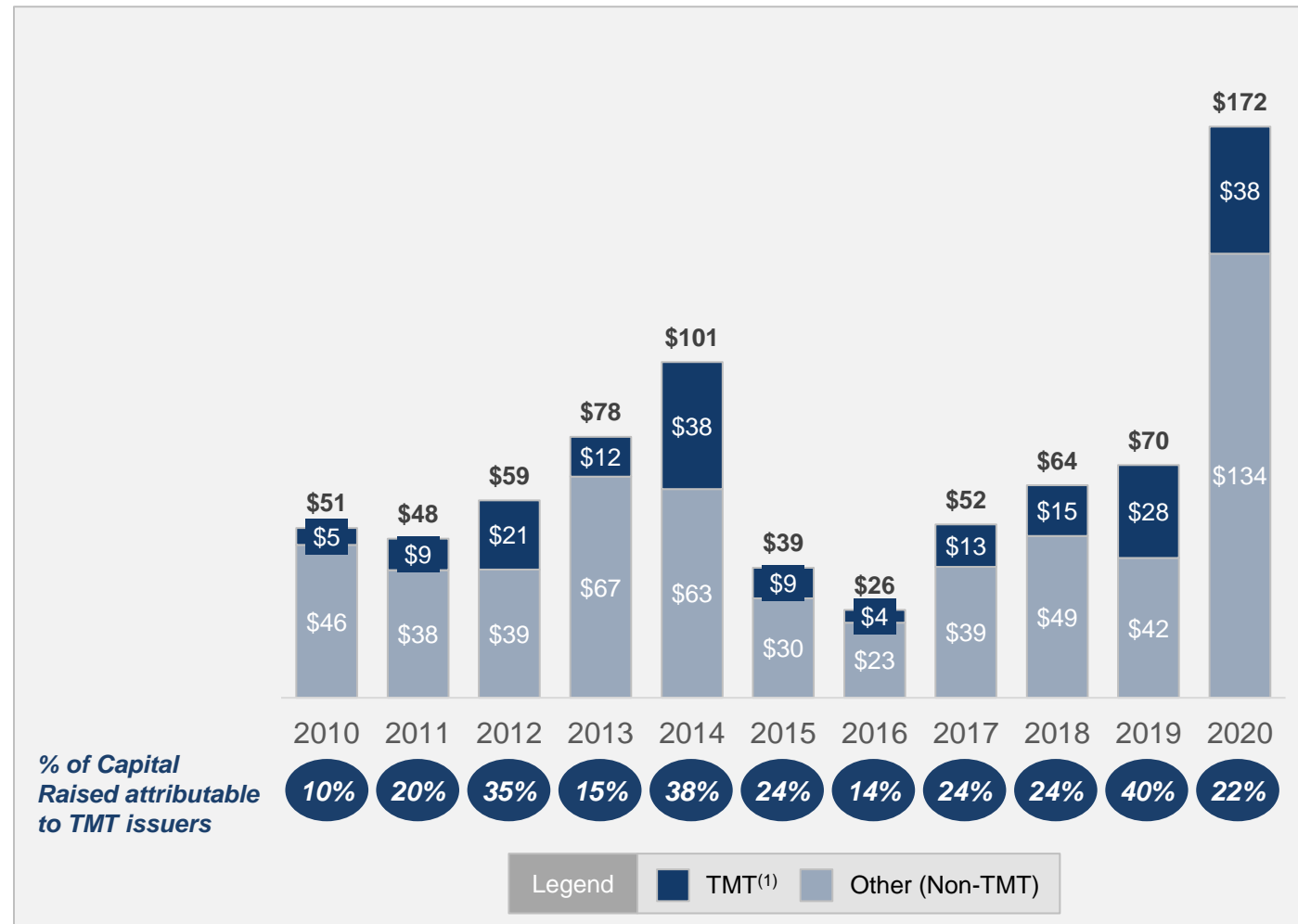
Note: All figures in USD millions unless noted otherwise.

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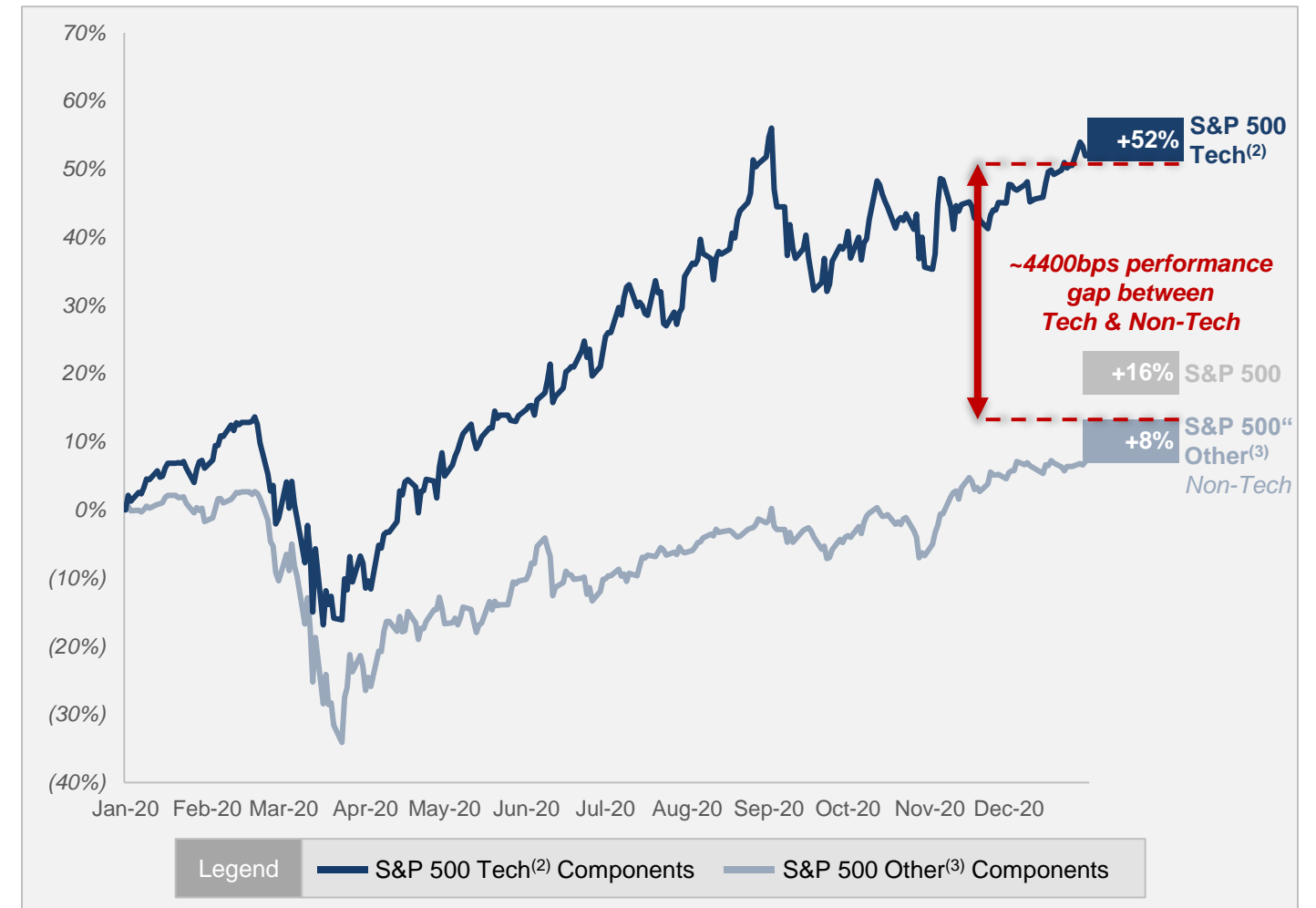
1	2020 M&A Activity
2	2020 Public Markets Activity
A	General Equity Market Trends
B	TMT Sub-Sector Performance & Trends
C	Ad Tech & MarTech Performance & Trends
3	2020 Private Financing Activity

General Public Markets Activity in 2020

Total Capital Raised (in \$bn) by U.S. Listed IPOs – TMT⁽¹⁾ vs. Other



S&P 500 Performance – Tech⁽²⁾ vs. Other⁽³⁾



**Public markets have demonstrated significant appetite for new listings
Tech issuers have generally outperformed their non-tech peers**

Source: FactSet (market data as of 12/31/2020), DataHub.io (for list of S&P 500 components), LUMA analysis (for categorization of companies / industries). | **Note:** (1) "TMT" designation includes all proceeds (including overallotment) from all U.S.-listed IPOs designated by FactSet to relate to the following industries: Packaged Software, Internet Software/Services, Information Technology Services, Computer Communications, Semiconductors, Telecommunications Equipment, Internet Retail, Movies/Entertainment, Cable/Satellite TV, Data Processing Services, Advertising/Marketing Services, Computer Processing Hardware, Computer Peripherals, Specialty Telecommunications, Wireless Telecommunications, Broadcasting, Media Conglomerates, Major Telecommunications; (2) "Tech" index measures aggregate performance of 29 S&P 500 components' market caps (value-weighted). The "Tech" designation was assigned to companies that were subjectively determined by LUMA as having a business model primarily predicated upon software technology, internet technology, and/or general information technology. This determination resulted in the following list of companies: Activision Blizzard, Adobe, Akamai Technologies, Alphabet, Amazon.com, ANSYS, Apple, Autodesk, Cadence Design Systems, Citrix Systems, eBay, Electronic Arts, Etsy, F5 Networks, Facebook, Fortinet, Intuit, Microsoft Corporation, NortonLifeLock, Oracle Corporation, Paycom, salesforce.com, ServiceNow, Synopsys, Take-Two Interactive, Twitter, Tyler Technologies, VeriSign, Verisk Analytics. (3) "Other" index measures the aggregate market cap performance (value-weighted) of all other S&P 500 components (i.e., aside from the aforementioned list of 29 "Tech" companies).

TMT Public Markets Activity in 2020

Table Legend

- Denotes Ad Tech Deal
- Denotes MarTech Deal
- Denotes Digital Content Deal
- Denotes D2C Deal

Selected Public Market TMT Transactions

















Date	Issuer	Deal Type	Capital Raised in Transaction (\$mm)	Share Price (\$ / share)			Share Price Performance	
				Offering Price	Day 1 Closing	End of Year	Day 1 vs. Offering Price	12/31/20 vs. Offering Price
12/16/2020	wish	IPO	\$1,104	\$24.00	\$20.05	\$18.24	(16.5%)	(24.0%)
12/10/2020	airbnb	IPO	\$3,490	\$68.00	\$144.71	\$146.80	112.8%	115.9%
12/9/2020	PubMatic	IPO	\$118	\$20.00	\$29.45	\$27.96	47.3%	39.8%
12/9/2020	DOORDASH	IPO	\$3,366	\$102.00	\$189.51	\$142.75	85.8%	40.0%
10/28/2020	MediaAlpha	IPO	\$176	\$19.00	\$31.86	\$39.07	67.7%	105.6%
10/20/2020	CuriosityStream ⁽¹⁾	SPAC	\$219	\$10.20	\$10.09	\$13.95	(1.0%)	36.8%
10/9/2020	fubo ^{TV}	IPO	\$183	\$10.00	\$10.07	\$28.00	0.7%	180.0%
9/30/2020	asana	Direct Listing	\$811	\$21.00	\$28.80	\$29.55	37.1%	40.7%
9/30/2020	Palantir	Direct Listing	\$2,571	\$7.25	\$9.50	\$23.55	31.0%	224.8%
9/18/2020	unity	IPO	\$1,300	\$52.00	\$68.35	\$153.47	31.4%	195.1%
9/16/2020	snowflake	IPO	\$3,360	\$120.00	\$253.93	\$281.40	111.6%	134.5%
9/2/2020*	skillz ⁽²⁾	SPAC	\$184†	\$11.00	\$14.02	\$20.00	27.5%	81.8%
8/5/2020	BIGCOMMERCE	IPO	\$216	\$24.00	\$72.27	\$64.15	201.1%	167.3%
7/27/2020*	RUSH STREET INTERACTIVE ⁽³⁾	SPAC	\$160†	\$11.30	\$11.85	\$21.65	4.9%	91.6%
7/2/2020	Lemonade	IPO	\$319	\$29.00	\$69.41	\$122.50	139.3%	322.4%
7/1/2020	dun&bradstreet	IPO	\$1,723	\$22.00	\$25.35	\$24.90	15.2%	13.2%
6/22/2020	DRAFTKINGS ⁽⁴⁾	SPAC	\$1,600	\$10.17	\$10.84	\$46.56	6.6%	357.8%
6/4/2020	zoominfo	IPO	\$935	\$21.00	\$34.00	\$48.23	61.9%	129.7%
6/3/2020	WARNER MUSIC GROUP	IPO	\$1,925	\$25.00	\$30.12	\$37.99	20.5%	52.0%
Total / Average among Selected Transactions			\$23,760				+51.8%	+121.3%

Observations

- Despite the general uncertainty that COVID has caused in the public markets this year, the U.S. IPO market is having one of its best years since the tech bubble of 2000.
- Companies across the broader TMT sector achieved favorable results when entering the public markets this year, with an average first day return of **+52%** and an overall return of **+121%** since IPO.
- Another trend we are seeing is that companies are looking beyond the traditional IPO path, with Direct Listings and SPAC mergers becoming more popular among tech companies for going public.
- Asana and Palantir both entered the public market via Direct Listing and have seen success since, with share price gains of **+41%** and **+225%** respectively.
- The TMT sector has also seen success in the recent explosion of SPAC mergers to enter the public market, with several companies across the sector opting for these mergers to go public.
- The overall response has been positive to these SPAC mergers, with companies such as Skillz, Rush Street Interactive, and DraftKings each experiencing over **>80%** value appreciation since announcement.

Source: FactSet (market data as of 12/31/2020), PitchBook, SEC (EDGAR), CNBC, WSJ, Company announcements. | **Note:** Unless otherwise indicated, dates shown are "Deal Dates" per PitchBook. In the case of SPACs, Offering Prices shown are calculated as each respective SPAC entity's closing trading price on the day before announcement. See following footnotes for detailed assumptions used to calculate SPAC transactions' share performance. * Denotes transaction announcement date; † Denotes inclusion of PIPE proceeds; **(1)** CuriosityStream's Offering Price and Day 1 Closing Price reflect the SPAC's daily closing prices as of 8/10/2020 (day before transaction announcement) and 8/11/2020 (announcement date), respectively. **(2)** Skillz's Offering Price and Day 1 Closing Price shown are the SPAC's closing prices as of 9/1/2020 (day before transaction announcement) and 9/2/2020 (announcement date), respectively. Skillz's "Capital Raised in Transaction" is calculated as Company's PF Cash of \$250mm (post de-SPAC) less prior balance sheet cash of \$66mm (\$250 - \$66 = \$184). The transaction included \$159mm of PIPE proceeds, which are assumed to contribute to PF Cash. All figures used in calculations are per Company's IR presentation as of September 2020; **(3)** Rush Street Interactive's Offering Price and Day 1 Closing Price are the SPAC's closing prices as of 7/26/2020 (day before transaction announcement) and 7/27/20 (announcement date), respectively. **(4)** DraftKings' SPAC transaction was announced in Dec-19 but completed in 2020. Offering Price and Day 1 Prices for DraftKings reflect the SPAC's closing prices as of 12/22/2019 (day before transaction announcement) and 12/23/2019 (announcement date), respectively.

Upcoming TMT IPOs

Anticipated 2021 TMT IPOs	
Ad Tech	 
Digital Content (Gaming)	  
MarTech	   
D2C	     
Other Tech	         

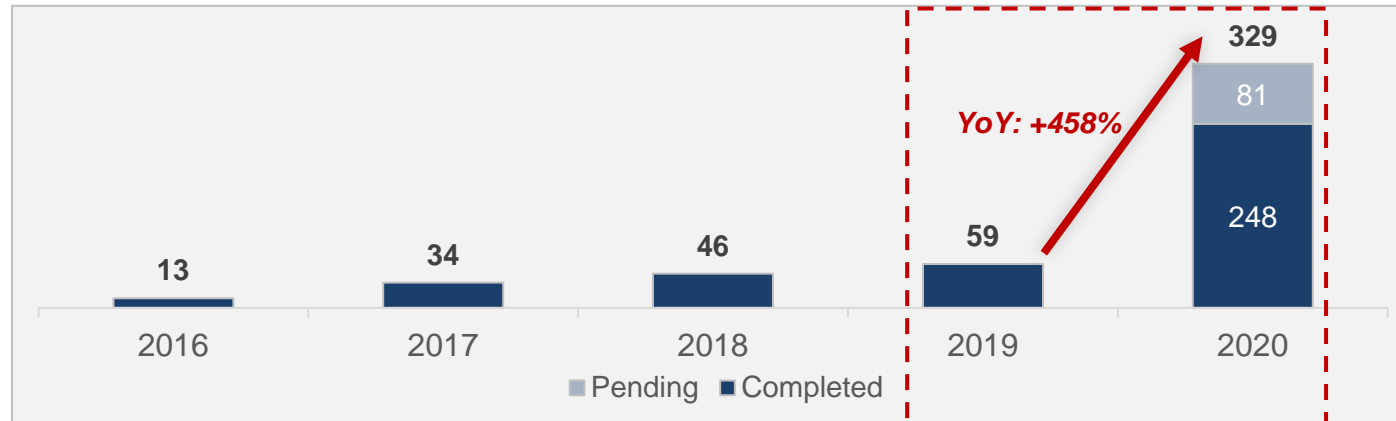
Observations
<ul style="list-style-type: none"> Per <i>The Information</i>, 65 tech companies made public listings in 2020, raising a total of \$39bn. This represented a significant uptick from 2019, during which 49 companies went public and raised \$26bn. Investor enthusiasm for tech companies and “big names” is arguably stronger than ever. The market’s positive reactions to recent tech listings lead many to believe the trend will continue, and that a large number of companies will soon seek liquidity via the public markets. Among our sample, public markets have almost universally rewarded new TMT issuances with positive trading performance. The sole exception among selected TMT issuers was Wish, which has fallen (24%) versus its offering price since its mid-December issuance. Among the expected 2021 IPO’s are several Enterprise Software companies (Databricks, DataRobot) and well-known brand names (Instacart, Robinhood). Also on the short list of potential IPOs are several companies operating in the Mobile App ecosystem (AppLovin, ironSource, and Playtika). Roblox, another Gaming Content provider, announced in early Jan-20 that they are raising \$520mm in advance of the Company’s planned direct listing. The financing implies a ~\$30bn valuation for Roblox.

Deep bench of upcoming TMT IPOs headed into 2021, as issuers seek to capitalize on positive equity market sentiment for secular trends of tech/software adoption & digitization

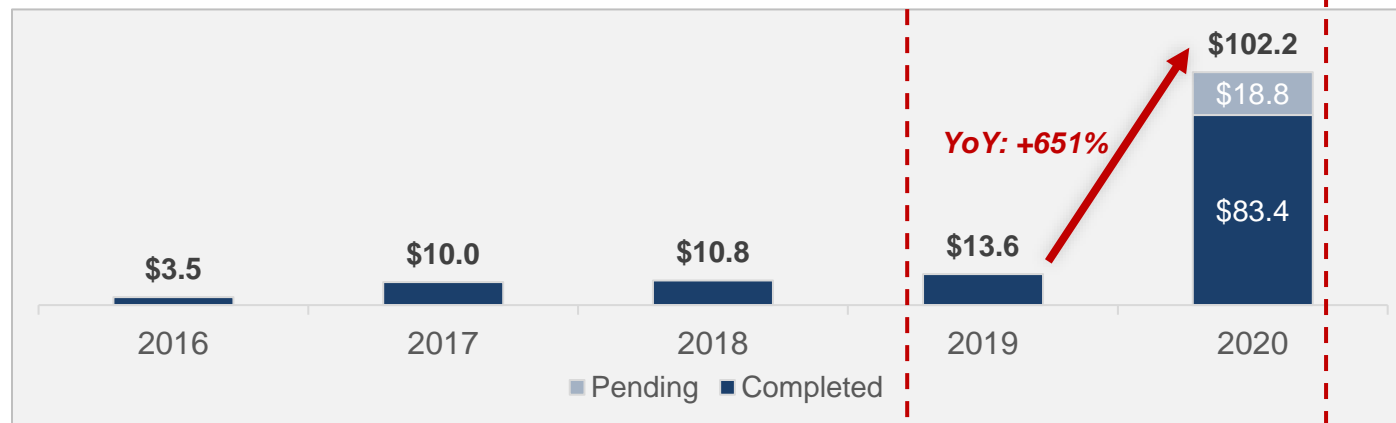
Source: FactSet (market data as of 12/31/2020), CNBC, PitchBook, Company websites, *The Information*.

2020: The Year of the SPAC

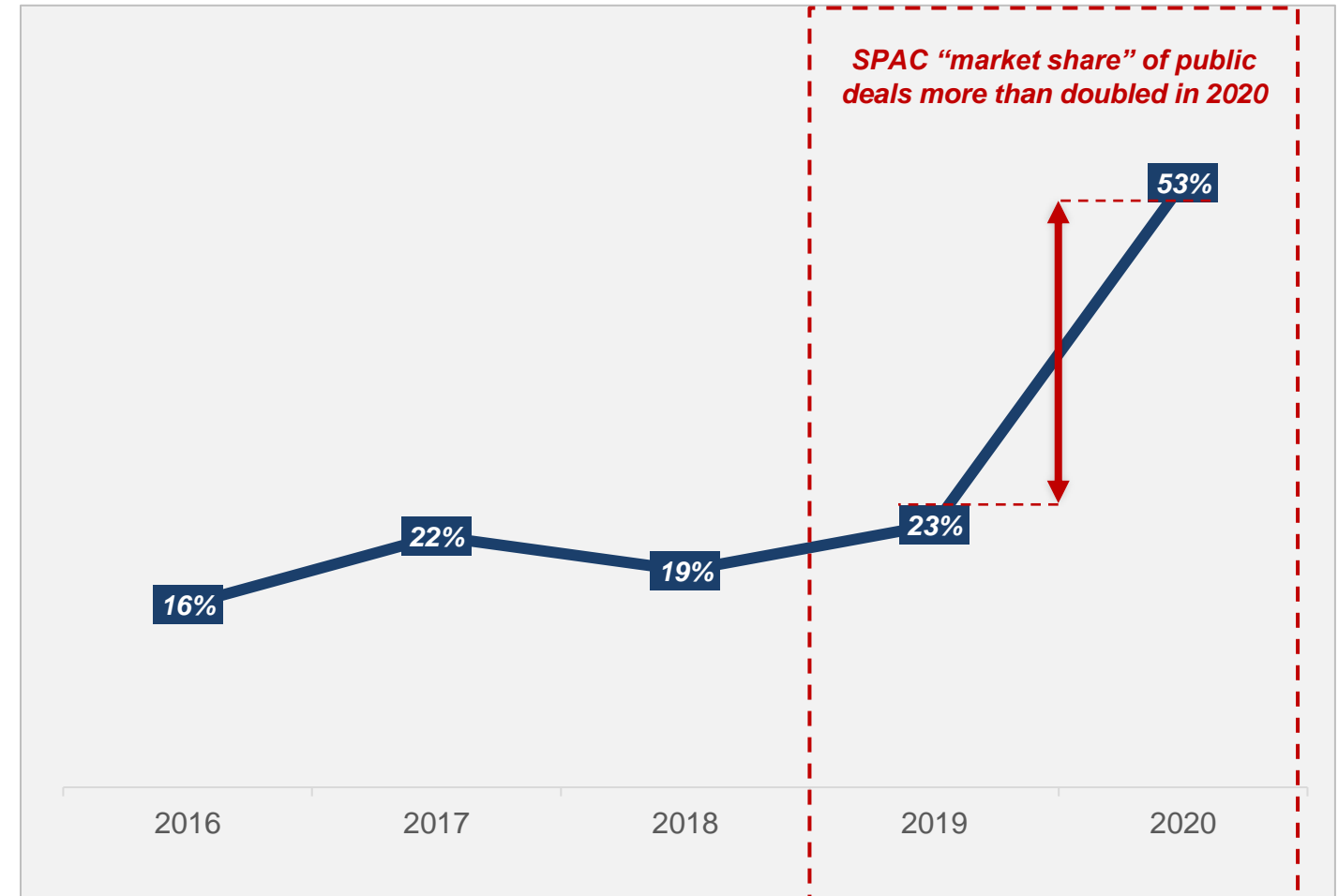
Number of SPAC IPOs



Value of SPAC IPOs (in US\$bn)



SPAC Deal Count as % of Total Public Market Deal Count⁽¹⁾

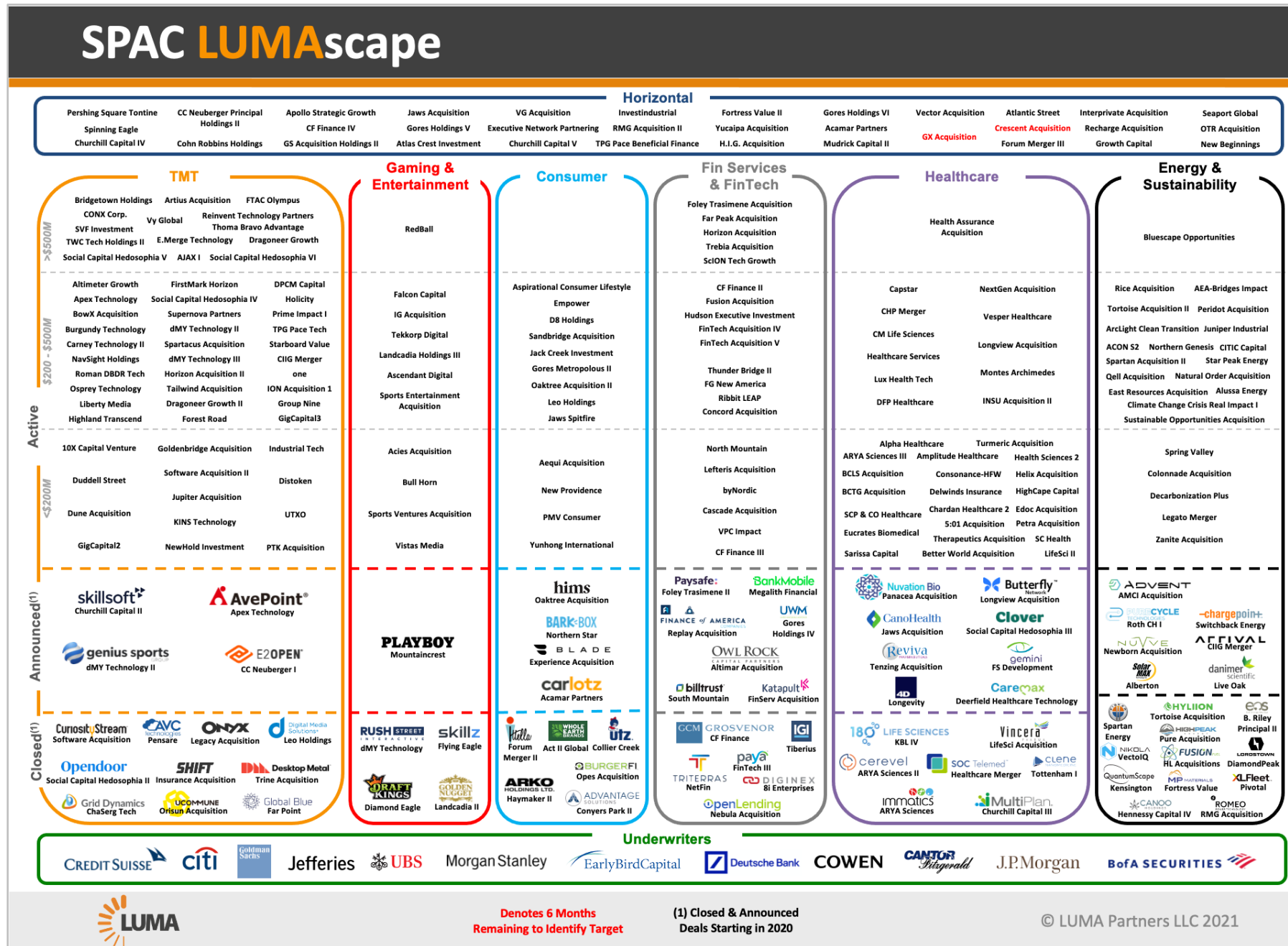


The dramatic rise in both (i) new SPAC formation and (ii) committed capital make SPACs collectively an increasingly viable public exit alternative to traditional IPOs and direct listings

Source: SPACAlpha.com as of 12/31/2020.

Note: (1) "Public Market Deal Count" is calculated as sum of all U.S.-listed IPOs and SPACs corresponding to the indicated period. "IPOs" for the purposes of this definition is the sum of U.S. initial public offerings excluding the following transaction types: SPACs, Reg A+ IPOs, closed end funds, non operating trusts, best efforts offerings, and companies with market capitalization below \$50mm.

Introducing: The SPAC LUMAscape



Overview

- SPACs, or “blank check” companies, have exploded in 2020 with record IPOs totaling more than \$80bn. The SPAC LUMAscape maps this ecosystem with over 250 SPACs based across three stages described below.
- ACTIVE: Funded SPAC entities in search of a target.** There are over 180 such companies across 7 categories that, in the aggregate, have \$63bn in cash. Note that because a typical SPAC obtains PIPE financing at the time of a merger, it can consummate deals with companies which have enterprise values of up to ~5x cash on-hand. This implies that the \$63bn of SPAC cash translates to >\$300bn in buying power.
- ANNOUNCED: SPAC funds that have identified a target, negotiated a merger and are awaiting a shareholder vote to approve the combination.** There are currently 31 companies in this stage.
- CLOSED: Fully “de-SPAC’d” funds that have completed their merger and now trade under the name of the target company.** There are 45 companies denoted with the logo of the target company.

[Click here for a Tweetstorm of LUMA's observations of the SPAC phenomenon](#)

Source: LUMA, SPACAlpha.com.

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3	2020 Private Financing Activity

LUMA's TMT Sub-Sectors

"Tech" Sub-Sectors		"Traditional" Sub-Sectors	Overview
Ad Tech		Traditional TV	<ul style="list-style-type: none"> Carrying on the trends of the past decade, 2020 was the year in which Tech companies accelerated their separation from the broader TMT pack. At the beginning of 2020, the aggregate Market Cap of the "Tech" Sub-Sectors amounted to \$6.6tn (or 81% of the overall TMT category). By the end of 2020, this number increased to \$10.2tn (86% of the sector). The average "Tech" sub-sector's EV / LTM Revenue multiple expansion was +6.6x in 2020 (from 7.9x → 14.6x). In "Traditional" sub-sectors, however, revenue multiples grew just ~0.4x (from 3.0x → ~3.4x). All but two sub-sectors within "Traditional" TMT underperformed the S&P 500 this past year, while every single sub-sector within "Tech" outperformed the index by +8% or more. Experiencing negative market growth in 2020 were the Telcos and Agencies, which declined in aggregate market value by (2.5%) and (12.7%), respectively.
MarTech		Telcos	
Digital Content	Digital Content ex-Gaming	Traditional Media	
	Gaming	Data & Ratings	
Digital Giants		Agencies	
Marketing Clouds		Tech Services	

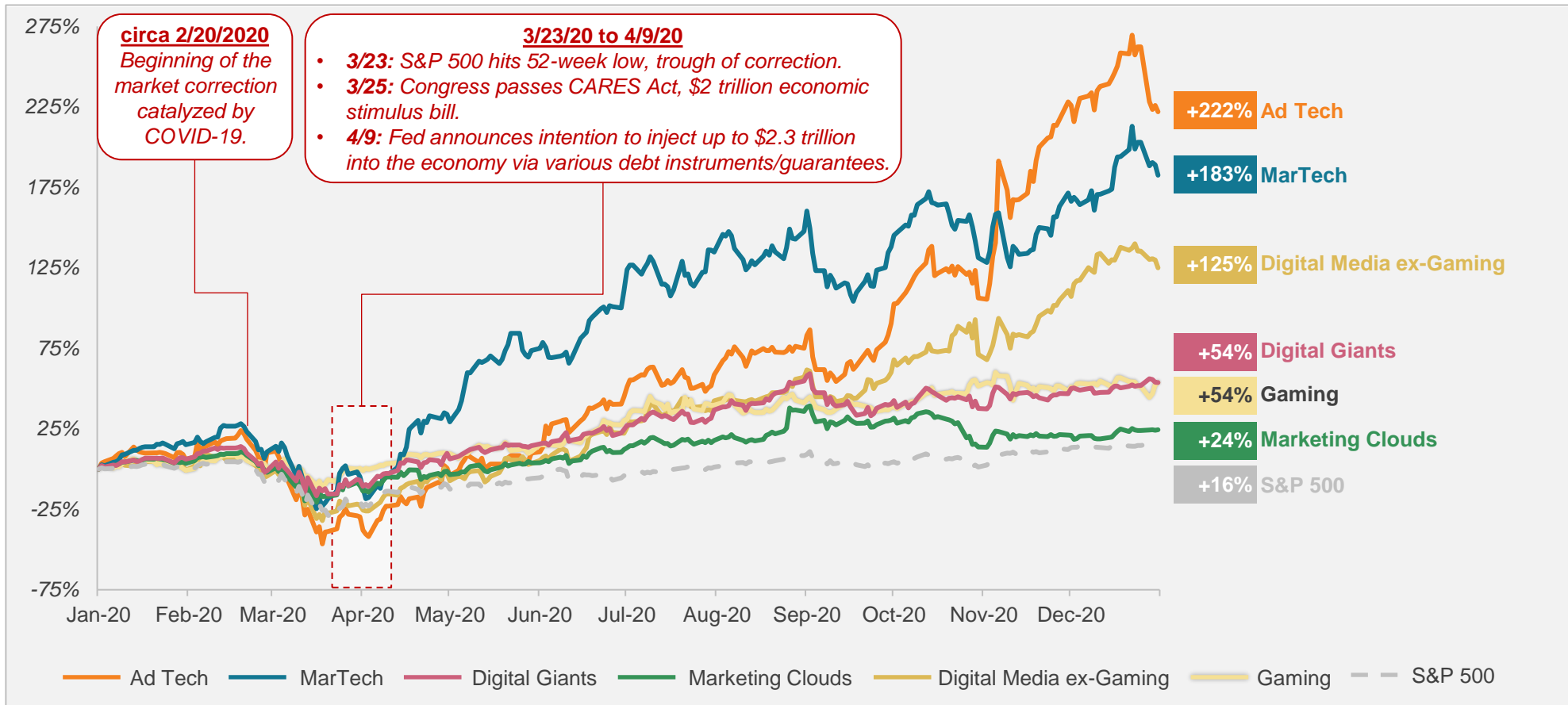
Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations).

Tech Sub-Sectors Made Major Gains in 2020... (1 / 2)

Ecosystem Sub-Sectors (Tech)

Ad Tech	
MarTech	
Digital Content ex-Gaming	
Digital Giants	
Gaming	
Marketing Clouds	

2020 Aggregate Market Cap Evolution by Sub-Sector



- **Ad Tech** – Vastly outperformed the market; included multiple companies with triple-digit % appreciation; Acuity Ads’ market cap grew by a factor of >10x.
- **MarTech** – Twilio and Shopify continue to be standout performers (each up ~200%+); SproutSocial and HubSpot each also appreciated >100%.
- **Digital Media ex-Gaming** – Several companies (e.g., Roku, Spotify) benefitted from COVID-19 restrictions and shifting media consumption habits.
- **Digital Giants** – Despite starting the year at an aggregate market cap of ~\$5tn, the sub-sector still grew >50% in 2020.
- **Gaming** – The Gaming sub-sector benefitted significantly from stay-at-home orders and increases in time-spent gaming; aggregate market cap grew >50%.
- **Marketing Clouds** – Lagging revenue growth resulted in subdued value appreciation relative to other Tech sub-sectors, but still exceeded the S&P 500.

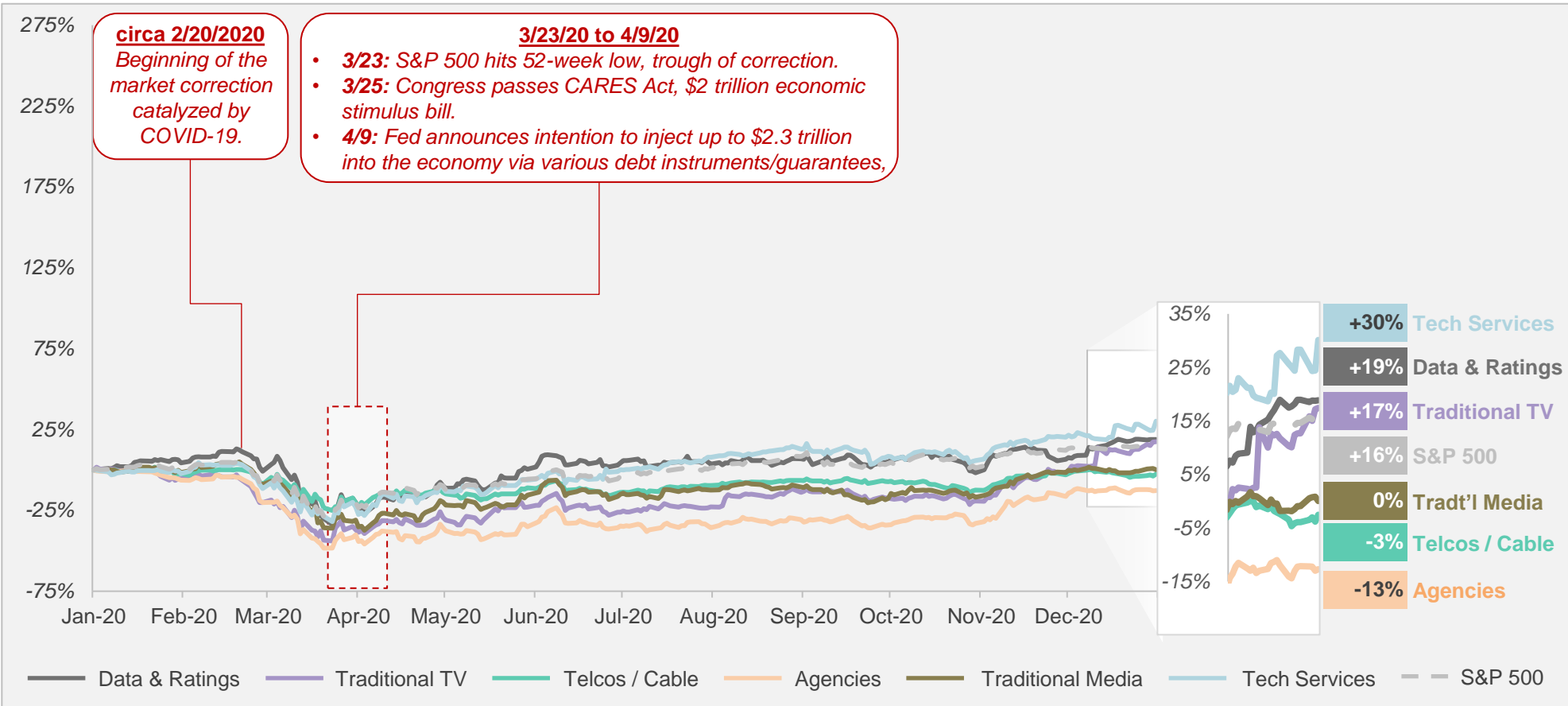
Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations).

Note: [Grey Box] Denotes exclusion from analysis (indicated company became publicly-listed during calendar 2020). Companies excluded by category – **Ad Tech:** Unity Software, MediaAlpha, PubMatic | **MarTech:** BigCommerce, ZoomInfo | **Digital Media Ex-Gaming:** IAC | **Gaming:** Skillz, NetEase. For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations.

...While “Traditional” Gains Were More Modest (2 / 2)

Ecosystem Sub-Sectors (Traditional)	
Traditional TV	
Telcos / Cable	
Traditional Media	
Data & Ratings	
Agencies	
Tech Services	

2020 Aggregate Market Cap Evolution by Sub-Sector



- **Tech Services** – Strongest performer among Traditional TMT, led by S4 Capital’s market value appreciating +180%.
- **Data & Ratings** – Performed above the market in part due to performance of Credit Bureaus, all of which performed at or above the S&P.
- **Traditional TV** – Buoyed by strong market performance of Disney, which grew market value +27% this year amid the launch of Disney+.
- **Traditional Media** – News Corp and NYT each performed above the S&P, while radio players iHeart and SiriusXM experienced value declines.
- **Telcos / Cable** – The largest Mobile Carriers, AT&T and Verizon, declined in 2020; CableCos (Comcast, Altice, Charter) all grew at or above market.
- **Agencies** – Agencies experienced further declines in 2020 as Brand clients slashed ad budgets and production of new campaigns came to a standstill.

Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations). For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations.

2020 Equity Market Performance Ranking by Sub-Sector

Ranking – Highest to Lowest 2020 Market Cap Increase in %

Category	Tech or Traditional?	Beginning (US\$bn)		End of Year Basis (US\$bn)	
		Starting Market Cap	2020 Increase / (Decrease) in \$	Ending Market Cap	2020 Increase / (Decrease) in %
1 Ad Tech	Tech	\$16	+ \$36	\$53	221.8%
2 MarTech	Tech	\$81	\$148	\$229	182.5%
3 Digital Content ex-Gaming	Tech	\$84	\$105	\$188	125.0%
4 Digital Giants	Tech	\$5,057	\$2,717	\$7,774	53.7%
5 Gaming	Tech	\$643	\$345	\$988	53.7%
6 Tech Services	Traditional	\$169	\$51	\$220	30.1%
7 Marketing Clouds	Tech	\$634	\$155	\$790	24.5%
8 Data & Ratings	Traditional	\$71	\$13	\$85	18.9%
9 Traditional TV	Traditional	\$335	\$58	\$394	17.4%
10 S&P 500	Generic / Benchmark	N/A	N/A	N/A	16.3%
11 Traditional Media	Traditional	\$48	\$0	\$48	0.0%
12 Telcos / Cable	Traditional	\$880	(\$22)	\$858	(2.5%)
13 Agencies	Traditional	\$65	(\$8)	\$56	(12.7%)

Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations).

Note: Analysis excludes market capitalization and financial metrics for all companies that became publicly-listed during calendar 2020. Companies excluded by category – Ad Tech: Unity Software, MediaAlpha, PubMatic | MarTech: BigCommerce, ZoomInfo | Digital Media Ex-Gaming: IAC | Gaming: Skillz, NetEase. For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations.

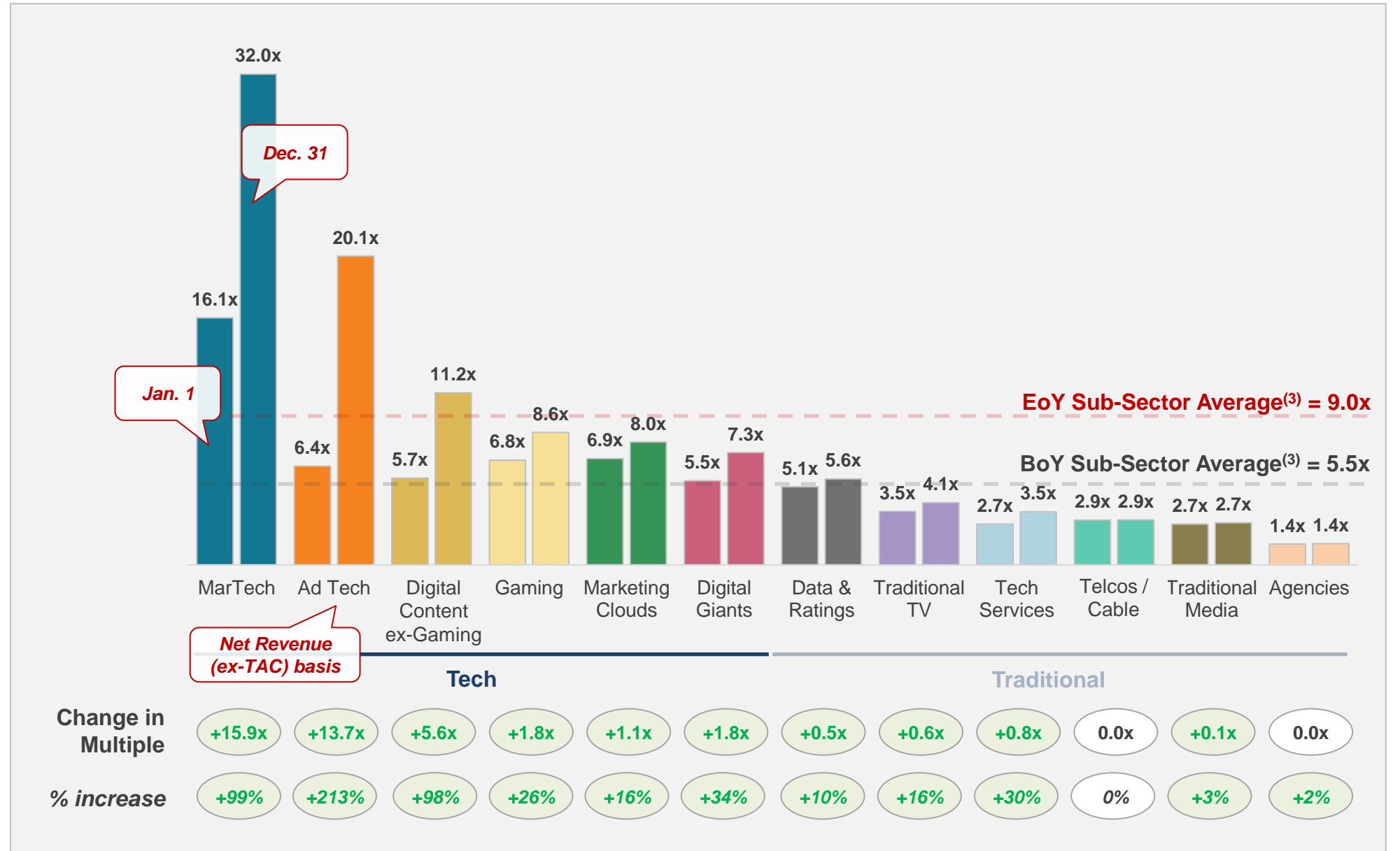
Overview

- 2020 accelerated an existing trend in the public markets towards tech stocks as the primary driver of growth in the global equity markets. Technology platforms and tech-adjacent media companies realized significant market value gains over the course of the year, with companies in the Tech category appreciating 54% (+\$3.5tn) on the year. Meanwhile companies in the Traditional category appreciated just 6% (+\$92bn) on the year, underperforming the S&P 500 by 10%.
- Three sub-sectors in the Tech category realized triple-digit market value appreciation: **Ad Tech (+222%)**, **MarTech (+183%)**, and **Digital Media ex-Gaming (+125%)**.
 - Ad Tech** growth was driven in large part by the continued success of The Trade Desk, which realized a 3.2x value appreciation over the course of the year (\$11.8bn → \$37.6bn). Several large Ad Tech IPOs in 2020 drove down TTD's relative share of the Ad Tech sector, as Unity overcame TTD as the largest Ad Tech company in late December.
 - MarTech** continues to be buoyed by the strong performance of Shopify and Twilio (both up >200% on the year) and the addition of SproutSocial (IPO'd in Dec-19), which is up 207% in 2020.
 - Digital Media ex-Gaming** benefitted significantly from the shift in media consumption trends in 2020, as evidenced by Roku, Pinterest and Spotify all achieving triple-digit market value growth in 2020.
- For Traditional companies outside of the Tech category, 2020 was a challenged year. **Data & Ratings** and **Traditional TV** were the only sub-sectors within the Traditional category that outperformed the S&P. Within **Traditional TV**, Disney was the only company to increase market cap in 2020, in part due to their investment in streaming capabilities. Meanwhile, TransUnion and Equifax were the only companies within **Data & Ratings** that outperformed the S&P.

Tech Multiples Expanded Significantly; Traditional Largely Flat

Ecosystem Sub-Sectors	
Ad Tech	theTradeDesk, criteo, TREMOR INTERNATIONAL LTD, unity, Magnite, digital turbine, MediaAlpha, PubMatic, cardlytics, acuity
MarTech	LiveRamp, BIGCOMMERCE, twilio, zoominfo, ye XT, shopify, HubSpot, Medallia, sproutsocial, SurveyMonkey, LIVEPERSON
Digital Content ex-Gaming	ROKU, twitter, Snap Inc., j2 Global, Pinterest, Spotify, fubo TV, IAC
Gaming	zynga, EA, netmarble, com2us, STILLFRONT GROUP, SKILLZ, Activision, NEXON, MTG, Nintendo, IGG, T2, SEGA-SAMMY, UBISOFT
Digital Giants	FACEBOOK, amazon, Google, NETFLIX, Microsoft, Apple
Marketing Clouds	ORACLE, salesforce, Adobe, SAP
Traditional TV	VIACOMCBS, FOX, TEGNA, Discovery, Nexstar, Disney, SBG
Telcos / Cable	verizon, COMCAST, altice, dish, AT&T, Charter
Traditional Media	News Corp, The New York Times, meredith, iHeart MEDIA, ((SiriusXM))
Data & Ratings	EQUIFAX, nielsen, experian, TransUnion, comscore
Agencies	OmnicomGroup, WPP, IFG, dentsu, PUBLICIS GROUPE
Tech Services	Cognizant, accenture, S4 CAPITAL

Aggregate⁽¹⁾ EV / LTM Revenue⁽²⁾ Evolution – January 1st vs. December 31st



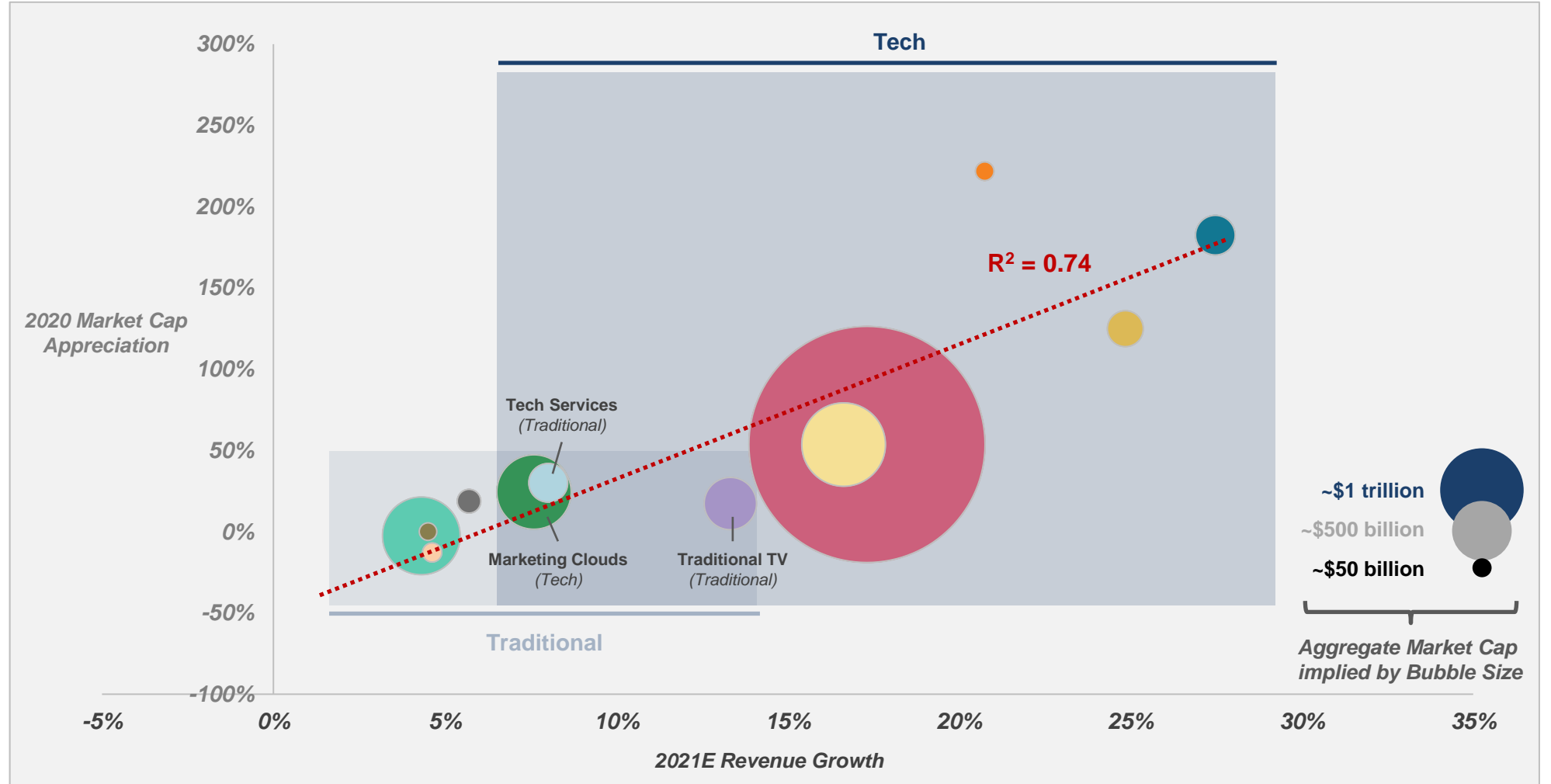
Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations). | Note: [Grey Box] Denotes exclusion from analysis (indicated company became publicly-listed during calendar 2020). Companies excluded by category – **Ad Tech**: Unity Software, MediaAlpha, Pubmatic | **MarTech**: BigCommerce, ZoomInfo | **Digital Media Ex-Gaming**: IAC | **Gaming**: Skillz, NetEase. Sub-Sectors are ordered by aggregate EV / LTM Revenue as of 12/31/2020. For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations. (1) Multiples for each sub-sector are calculated on aggregated basis (i.e., a sum of all of the relevant companies' Enterprise Values as of a given date, divided by the sum of the same companies' LTM revenues); (2) Defined as latest reported LTM revenue per available filings as of 1/1/2020 and 12/31/20, respectively; (3) Average multiples are calculated as a linear average of sub-sector multiples (rather than average of individual companies) as of given date.

Tech is Leading Traditional in Both Revenue & Value Growth

Ecosystem Sub-Sectors

Tech	Ad Tech	theTradeDesk, criteoL., TREMOR INTERNATIONAL LTD, unity, Magnite, digital turbine, MediaAlpha, PubMatic, cardlytics, acuity
	MarTech	LiveRamp, bigCOMMERCE, twilio, zoominfo, ye XT, shopify, HubSpot, Medallia, sproutsocial, SurveyMonkey, LIVEPERSON
	Digital Content ex-Gaming	ROKU, twitter, Snap Inc., j2 Global, Pinterest, Spotify, fubo TV, IAC
	Gaming	zynga, glu, ROVIO, com2US, Tencent, SEGA-SAMMY, IGG, T2, EA, netmarble, STILLFRONT GROUP, NEXON, MTG, UBISOFT, EMBRACER GROUP, Skillz, Activision, BUNNIP, Nintendo, NexGen Games
	Digital Giants	FACEBOOK, Google, Microsoft, amazon, NETFLIX, Apple
Traditional	Marketing Clouds	ORACLE, salesforce, Adobe, SAP
	Traditional TV	VIACOMCBS, TEGNA, Discovery, Nexstar, FOX, Disney, SBG
	Telcos / Cable	verizon, attice, AT&T, COMCAST, dish, Charter
	Traditional Media	News Corp, The New York Times, meredith, iHeart MEDIA, ((SiriusXM))
	Data & Ratings	EQUIFAX, experian, TransUnion, nielsen, comscore
	Agencies	OmnicomGroup, WPP, IFG, dentsu, PUBLICIS GROUPE
	Tech Services	Cognizant, accenture, S4 CAPITAL

Comparison of (x) 21E Rev. Growth, (y) Mkt. Performance, and (z) Aggregate Mkt. Cap.



Higher expectations for Tech revenue growth have resulted in superior equity appreciation and higher multiples vs. Traditional

Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations). | Note: [Grey Box] Denotes exclusion from analysis (indicated company became publicly-listed during calendar 2020). 2021E revenue growth rates shown reflect FactSet revenue estimates for calendar 2020 and calendar 2021 (or closest 12-month periods available). For Ad Tech companies, revenues are on a net basis (i.e., excluding TAC / media acquisition costs). Companies excluded by category – **Ad Tech**: Unity Software, MediaAlpha, PubMatic | **MarTech**: BigCommerce, ZoomInfo | **Digital Media Ex-Gaming**: IAC | **Gaming**: Skillz, NetEase. For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations.

2020 Revenue Multiple Ranking by Sub-Sector

Ranking – Highest to Lowest EV / LTM Revenue Multiple

	\$ in billions	Tech or Traditional?	Aggregate EV / LTM Revenue		Aggregate Revenue Growth %	
			Beginning of Year	End of Year	LTM	2021E
1	MarTech	Tech	16.1x	32.0x	45.9%	27.5%
2	Ad Tech	Tech	6.4x	20.1x	5.0%	20.7%
3	Digital Content ex-Gaming	Tech	5.7x	11.2x	17.0%	24.8%
4	Gaming	Tech	6.8x	8.6x	22.9%	16.6%
5	Marketing Clouds	Tech	6.9x	8.0x	6.9%	7.6%
6	Digital Giants	Tech	5.5x	7.3x	16.6%	17.3%
7	Data & Ratings	Traditional	5.1x	5.6x	3.2%	5.7%
8	Traditional TV	Traditional	3.5x	4.1x	(1.4%)	13.3%
9	Tech Services	Traditional	2.7x	3.5x	1.6%	8.0%
10	Telcos / Cable	Traditional	2.9x	2.9x	(2.7%)	4.3%
11	Traditional Media	Traditional	2.7x	2.7x	(5.1%)	4.5%
12	Agencies	Traditional	1.4x	1.4x	(11.5%)	4.6%
Aggregate Average ⁽¹⁾ (Traditional + Tech)			5.5x	9.0x	8.2%	12.9%
"Tech" Average ⁽²⁾			7.9x	14.6x	19.0%	19.1%
"Traditional" Average ⁽³⁾			3.0x	3.4x	(2.6%)	6.7%

Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations), Equity research. | **Note:** Analysis excludes market capitalization and financial metrics for all companies that became publicly-listed during calendar 2020 (**Ad Tech:** Unity Software, MediaAlpha, PubMatic; **MarTech:** BigCommerce, ZoomInfo; **Digital Media Ex-Gaming:** IAC; **Gaming:** Skillz, NetEase). For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations. 2021E revenue growth rates shown reflect FactSet revenue estimates for calendar 2020 and calendar 2021 (or closest 12-month periods available). For Ad Tech companies, revenues are on a net basis (i.e., excluding TAC / media acquisition costs). As described on slide 38, "aggregate" basis figures shown here for each sub-sector are calculated as a sum of all of the relevant sub-sector companies' corresponding metric (i.e., Enterprise Value, revenue, or revenue growth). (1) "Aggregate Average" is calculated as the linear average of all 12 sub-sectors' corresponding aggregate metrics. (2) "Tech" Average is calculated as the linear average of the six "Tech" sub-sectors' corresponding aggregate metrics. (3) "Traditional" Average is calculated as the linear average of the six "Traditional" sub-sectors corresponding aggregate metrics.

Overview

- Investors continue to reward high-growth companies with tech-centric business models and predictable revenues. Many such companies currently garner double-digit revenue multiples ("Tech" Average: 14.6x LTM revenue).
- Revenue growth potential continues to be a driver for "Tech" valuations. These companies tend to grow double digits or more, and often have predictable and/or SaaS-like revenues, on which investors place a premium.
- Lower-growth businesses in the "Traditional" category—while often more profitable than some "Tech" peers—are garnering lower revenue multiples from investors ("Traditional" Average: 3.4x LTM revenue).
- Some sub-sectors within the "Traditional" TMT have notable examples of constituent companies placing bets on higher-growth, strategic tech assets:
 - Data & Ratings:** Two players made bets on identity assets to bolster their respective marketing services businesses: **Experian** → Tapad and **TransUnion** → Tru Optik.
 - Telcos / Cable:** **Comcast** acquired both XUMO and Beeswax in 2020.
 - Traditional TV:** **Fox** acquired its first major CTV asset in Tubi TV, now expecting Tubi to surpass its broadcast ad revenue in a few short years. **Disney**, reaped the benefits of organic investments in streaming, with the Disney+ platform gaining momentum throughout the year. This was a key driver in Disney's +27% market performance, the only "Traditional TV" company to see market cap gains in 2020.
 - Traditional Media:** Within Traditional Media, two legacy radio and broadcasting companies acquired into the high-growth digital audio / podcasting space: **iHeartMedia** → Voxnest and **SiriusXM** → Stitcher.

Certain “Traditional” Companies are Making Major Bets on Digital



December 2020

BEESWAX 

has agreed to be acquired by

 **COMCAST**

The undersigned acted as exclusive financial advisor to BeeswaxIO, Inc.

 **LUMA**

November 2020

TAPAD

a Group Company of

 **telenor**


has been acquired by

 **experian**


The undersigned acted as exclusive financial advisor to Telenor ASA

 **LUMA**


October 2020

TRUOPTIK 

has agreed to be acquired by

 **TransUnion**

The undersigned acted as exclusive financial advisor to Tru Optik Data Corp.

 **LUMA**

Selected Other Transactions

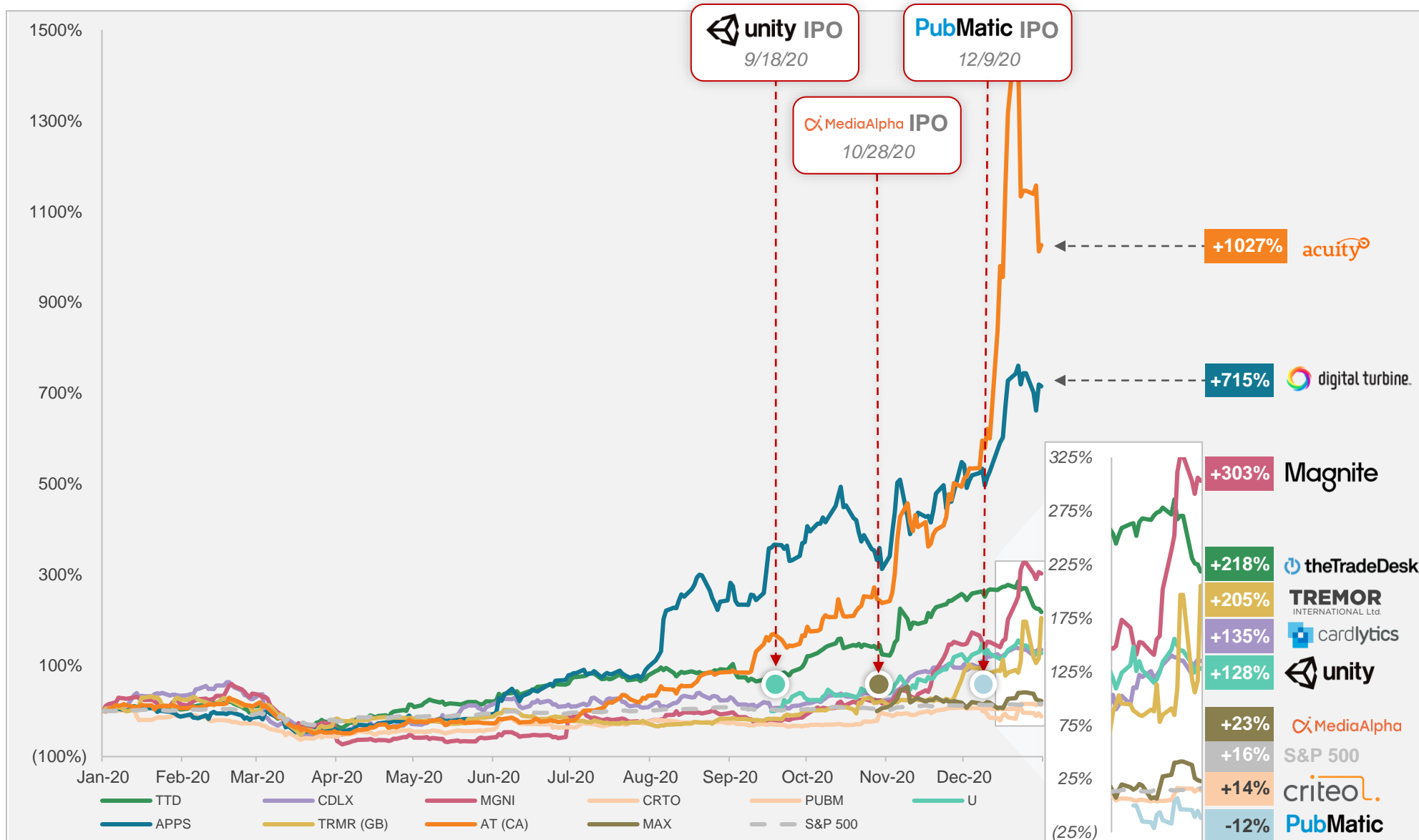


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Ad Tech – 2020 Market Performance (1 / 2)

2020 Market Cap Evolution by Ad Tech Company



Commentary





- **AcuityAds (AT-CA):** Experienced massive market value gains and multiple expansion, as the Canadian Ad Tech vendor completed a “bought deal” (i.e., a “back-stopped” public offering) of \$20mm in early December; Acuity received favorable analyst coverage around the time of the deal.
- **Magnite (MGNI):** While COVID initially brought a soaring, newly-combined RUBI/TLRA back down to earth, Magnite now trades above its pre-COVID peak and is up **+303%** on the year.
- **Digital Turbine (APPS):** Mobile Ad Tech platform Digital Turbine reached new highs in mid-December and grew its EV / LTM Revenue multiple by **+19.5x** (4.9x → 24.4x) during 2020.
- **TheTradeDesk (TTD):** Still the darling of Ad Tech, TTD remained steadfast during a tumultuous year, and at one point reached a \$40bn market cap.
- **Unity Software (U):** One of the strongest IPOs in recent memory, Unity debuted at an \$18bn market value and has since overtaken TTD as the largest Ad Tech company.
- **Tremor Int’l (TRMR-GB):** Tremor, a smaller-scale, video-focused Ad Tech company, ended the year up **+205%**.
- **Cardlytics (CDLX):** Following management changes in early 2020, Cardlytics built upon 2019’s momentum and grew market cap over **+125%** on the year.
- **MediaAlpha (MAX):** An ad network for the insurance industry, MediaAlpha debuted on the NYSE in late October; its share price skyrocketed >50% in the first day of trading and ended the year **+22%** relative to the first trading day’s closing price.
- **Criteo (CRTO):** Criteo was relatively flat on the year, as the Company continues to experience declining revenues and challenges related to the evolving data / identity landscape.
- **PubMatic (PUBM):** PubMatic, the first major supply-side platform to IPO since Rubicon Project in 2014, had a strong initial pop on day 1, but has since declined from its initial highs, ending the year down **(12%)** from its day 1 closing price.

Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations).

Note: Market performance figures for companies that became publicly-listed during calendar 2020 are calculated relative to their closing price at the end of the first trading day (rather than versus offering price). For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations.

Ad Tech – 2020 Market Performance (2 / 2)

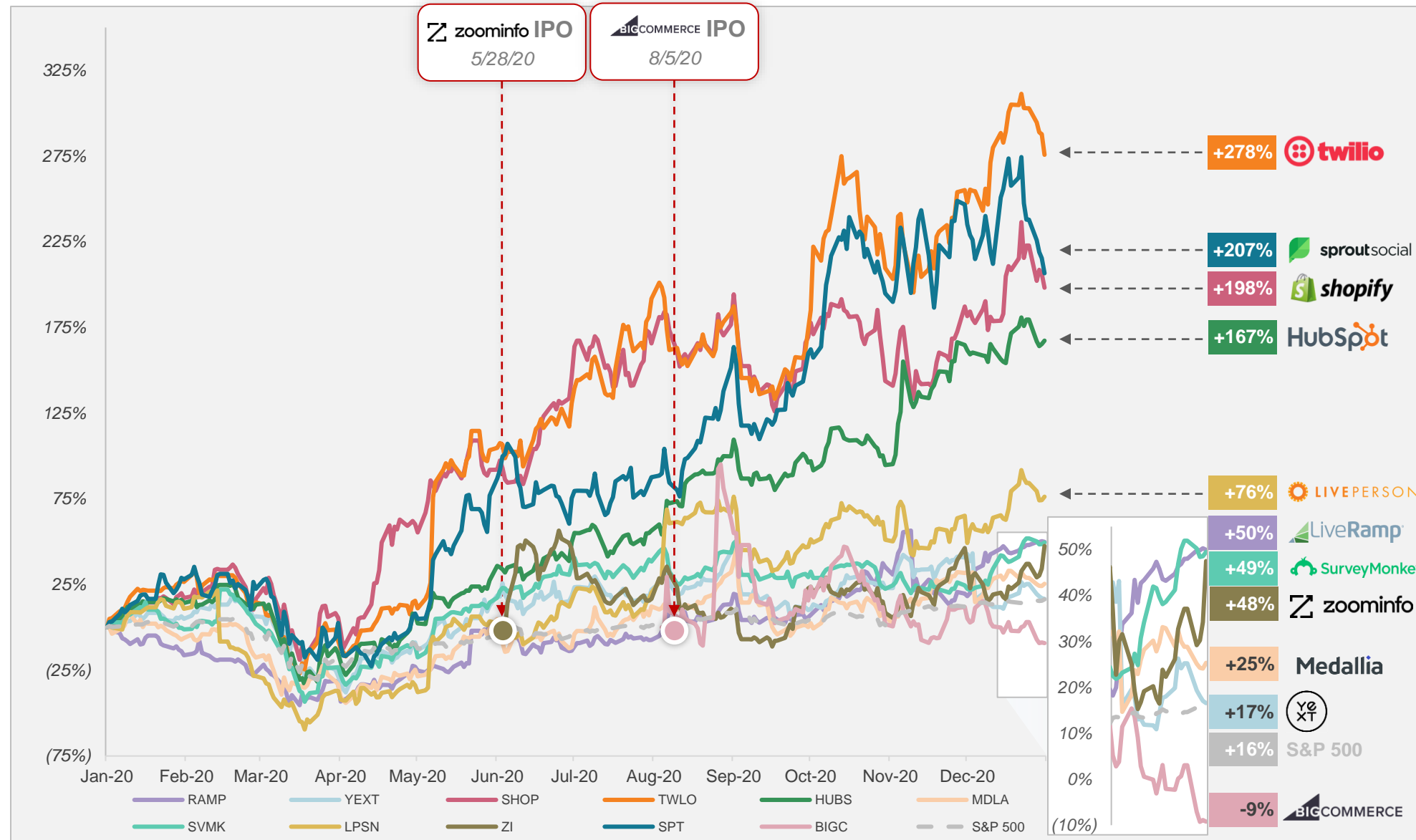
Ranking – Highest to Lowest Market Cap Increase / (Decrease) in %

Company	Market Cap (US\$bn)		Market Cap Increase / (Decrease)		EV / LTM Revenue		Revenue Growth %	
	Starting ⁽¹⁾	End of Year	2020 \$ Increase / (Decrease)	2020 % Increase / (Decrease)	Beginning of Year	End of Year	LTM	2021E
1  acuity	\$0.1	\$0.6	\$0.5	1026.6%	0.8x	7.1x	(5.5%)	25.1%
2  digital turbine.	\$0.6	\$5.0	\$4.4	715.1%	4.9x	24.4x	69.7%	35.5%
3  Magnite	\$0.9	\$3.4	\$2.6	303.0%	3.5x	16.3x	(4.4%)	23.8%
4  theTradeDesk	\$11.8	\$37.6	\$25.8	218.4%	19.3x	51.1x	20.9%	34.3%
5  TREMOR INTERNATIONAL Ltd.	\$0.2	\$0.7	\$0.5	205.2%	0.6x	2.1x	14.3%	19.4%
6  cardlytics	\$1.7	\$3.9	\$2.3	135.0%	8.3x	20.2x	0.1%	41.5%
7  unity ⁽¹⁾	\$18.3	\$41.6	\$23.3	127.6%	29.5x	56.2x	10.9%	26.0%
8  MediaAlpha ⁽¹⁾⁽²⁾	\$1.1	\$1.3	\$0.2	22.6%	14.3x	15.6x	3.7%	N/A
9 S&P 500	N/A	N/A	N/A	16.3%	N/A	N/A	N/A	N/A
10  criteo ⁽³⁾	\$1.1	\$1.2	\$0.2	14.2%	0.9x	1.1x	(12.0%)	(2.7%)
11  PubMatic ⁽¹⁾⁽⁴⁾	\$1.4	\$1.2	(\$0.2)	(11.5%)	11.1x	9.9x	N/A	N/A

Source: FactSet (market data as of 12/31/2020), LUMA (for “Ad Tech Business Model” distinctions), Company filings and websites. **Notes:** For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations. 2021E revenue growth rates shown reflect FactSet revenue estimates for calendar 2021 (or closest 12-month periods available). **(1)** For companies who have been publicly listed prior to 2020, starting values are the latest market closing prices as of January 1, 2020. For companies that became public during calendar year 2020, starting values are as of the IPO / listing date. IPO / listing dates for companies that became public during calendar year 2020 – **Unity:** 9/18/2020, **MediaAlpha:** 10/28/2020, **PubMatic:** 12/9/2020. **(2)** For MediaAlpha, the Company’s “Contribution” metric is utilized as a proxy for Net Revenue. “Contribution” is defined as: “revenue less revenue share payments to suppliers and online advertising costs.” Consensus broker estimates for 2021E are unavailable. **(3)** Revenues reflected net of Traffic Acquisition Costs (TAC). **(4)** LTM revenue growth-rate Not Applicable (“N/A”) as LTM revenues for Starting and End of Year periods are both as of 9/30/2020.

MarTech – 2020 Market Performance (1 / 2)

2020 Market Cap Evolution by MarTech Company



Commentary



- **Twilio (TWLO):** Continues to be a top performer (+278%) within MarTech. In 2020, the Company grew revenue by >30% YoY, and made its largest acquisition to-date (Segment).
- **Sprout Social (SPT):** After debuting in late 2019, SproutSocial grew from a ~\$800mm market cap company to a ~\$2.5bn market cap company over the course of 2020.
- **Shopify (SHOP):** Shopify was well-equipped to help small businesses accelerate their transition to eCommerce as necessitated by COVID. Growing market value 202% this year, Shopify is now a \$100bn business.
- **HubSpot (HUBS):** HubSpot continues to deliver robust (>20%) revenue growth; currently trades at >20x LTM revenue.
- **LivePerson (LPSN):** “Conversational” / customer service-focused cloud platform LivePerson ended the year up +76%, and now trades at >12x LTM revenue.
- **LiveRamp (RAMP):** In an increasingly cookie-less world, deterministic identity resolution platform LiveRamp has capitalized on the over-arching trends in the identity space on the way to a 10x LTM revenue multiple (+50% on the year).
- **SurveyMonkey (SVMK):** Experienced significant market cap appreciation in 2020 (+49%); is expected to grow revenue ~20% in 2021E (per consensus broker estimates).
- **ZoomInfo (ZI):** After a strong IPO performance during the midst of COVID, ZoomInfo has experienced a decline in LTM Revenue multiple since the date of its IPO (22.8x → 20.3x).
- **Medallia (MDLA):** Achieved below-peer average market cap growth (+25%) amid expected slowdown in revenue growth.
- **Yext (YEXT):** Hovering around ~5.5x LTM revenue most of the year, Yext ultimately performed in line with the S&P 500.
- **BigCommerce (BIGC):** After experiencing an IPO-date pop, BIGC was at one point valued at >\$7bn. BigCommerce has since declined, catalyzed in part by negative analyst coverage.

Source: FactSet (market data as of 12/31/2020), LUMA (analysis and categorizations).

Note: Market performance figures for companies that became publicly-listed during calendar 2020 are calculated relative to their closing price at the end of the first trading day (rather than versus offering price). For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations.

MarTech – 2020 Market Performance (2 / 2)

Ranking – Highest to Lowest Market Cap Increase / (Decrease) in %

Company	Market Cap (US\$bn)		Market Cap Increase		EV / LTM Revenue		Revenue Growth %	
	Starting ⁽¹⁾	End of Year	2020 \$ Increase / (Decrease)	2020 % Increase / (Decrease)	Beginning of Year	End of Year	LTM	2021E
1 	\$13.6	\$51.1	\$37.5	275.7%	12.3x	31.4x	53.3%	31.2%
2 	\$0.8	\$2.4	\$1.6	206.6%	9.2x	18.3x	27.8%	27.5%
3 	\$46.3	\$138.0	\$91.7	198.1%	30.9x	53.6x	74.7%	32.6%
4 	\$6.8	\$18.2	\$11.4	167.2%	10.2x	21.8x	29.2%	22.3%
5 	\$2.4	\$4.2	\$1.8	76.2%	8.5x	12.1x	23.5%	23.4%
6 	\$3.2	\$4.9	\$1.6	49.9%	7.5x	10.2x	24.5%	18.3%
7 	\$2.4	\$3.6	\$1.2	49.4%	9.0x	10.4x	23.3%	20.2%
8 	\$5.3	\$7.8	\$2.5	47.5%	22.8x	20.3x	45.8%	28.5%
9 	\$4.0	\$5.0	\$1.0	25.4%	9.4x	10.4x	21.2%	19.1%
10 	\$1.6	\$1.9	\$0.3	16.5%	5.3x	5.4x	22.3%	16.4%
11 S&P 500	N/A	N/A	N/A	16.3%	N/A	N/A	N/A	N/A
12 	\$4.9	\$4.4	(\$0.5)	(9.2%)	43.2x	30.6x	17.2%	18.7%

Source: FactSet (market data as of 12/31/2020), Company filings and websites. **Notes:** For all public companies evaluated in this analysis (including non-US companies), all market capitalization, financial metrics, and percentage changes thereof are calculated on a USD basis. Thus, figures may be impacted by currency fluctuations. 2021E revenue growth rates shown reflect FactSet revenue estimates for calendar 2020 and calendar 2021 (or closest 12-month periods available). (1) For companies who have been publicly listed prior to 2020, starting values are the latest market closing prices as of January 1, 2020. For companies that became public during calendar year 2020, starting values are as of the IPO / listing date. IPO / listing dates for companies that became public during calendar year 2020 – **ZoomInfo:** 6/4/20, **BigCommerce:** 8/5/20.

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Ad Tech & MarTech – 2020 Key Financings (1 / 3)

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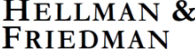


















Announcement Date	Company	Selected / Key Investor(s)	Capital Raised in Transaction	Valuation	Commentary
12/21/20	OneTrust	TCV	\$300	\$5,100	<ul style="list-style-type: none"> Privacy platform OneTrust raised \$300mm in Series C funding at a \$5.1bn valuation. This investment nearly doubles OneTrust's \$2.7bn valuation following a \$210mm fundraising earlier this year.
12/16/20	Usercentrics	fi	\$20	ND	<ul style="list-style-type: none"> Munich-based consent management solutions platform Usercentrics raised \$20mm in Series B funding. Usercentrics reported 4x growth in ARR and headcount in the past 12 months due to GDPR.
12/15/20	Sourcepoint	Arrowroot Capital	\$17	ND	<ul style="list-style-type: none"> Sourcepoint, a NY-based privacy compliance platform, raised \$17mm in funding led by Arrowroot Capital. The Company plans to use these funds for R&D, market expansion, and additional hiring.
12/9/20	GetAccept	Bessemer Venture Partners	\$20	ND	<ul style="list-style-type: none"> GetAccept, an all-in-one digital sales platform, raised a \$20mm Series B led by Bessemer Venture Partners. The Company plans to invest in its SMB-centric platform, for which adoption has accelerated due to COVID.
11/18/20	Cogito	Goldman Sachs Salesforce Ventures	\$25	ND	<ul style="list-style-type: none"> Boston-based call analytics startup Cogito raised a \$25mm convertible debt round led by Goldman Sachs Growth Equity and Salesforce Ventures; Cogito has raised \$138mm to-date.
11/17/20	Klaviyo	Accel	\$200	\$4,150	<ul style="list-style-type: none"> Marketing automation firm Klaviyo raised a \$200mm Series C led by Accel at a reported \$4.15bn valuation. The Company is reported to have ~500 employees and plans to double that number in the next year.
11/16/20	Zeotap	SIGNALFIRE™	\$19	\$158	<ul style="list-style-type: none"> First-party customer identity platform Zeotap raised \$18.5mm in a Series C at a reported \$158mm valuation. Zeotap, which offers Customer Intelligence and ID Resolution capabilities, also raised \$42mm in July.
10/28/20	DoubleVerify	BlackRock Fidelity Investments NEUBERGER BERMAN TIGERGLOBAL	\$350	ND	<ul style="list-style-type: none"> Brand safety vendor DoubleVerify raised a \$350mm financing round at an undisclosed valuation. The Company reports that Providence Equity remains its majority investor and is planning a 2021 IPO.
10/27/20	SimilarWeb	ION Crossover Partners VIOLA GROWTH	\$120	ND	<ul style="list-style-type: none"> Market intelligence platform SimilarWeb raised \$120mm in a round co-led by ION Crossover & Viola Growth. SimilarWeb competes with other analytics & market intelligence platforms such as Nielsen and comScore.
10/22/20	ROKT	SquarePeg Capital tdm. GROWTH PARTNERS	\$80	\$450	<ul style="list-style-type: none"> eCommerce marketing software provider Rokt raised a \$80mm Series D round at a \$450mm valuation. Rokt reports that it has been profitable since 2014 and expects to reach 2020 revenue of \$100mm-\$110mm.
10/13/20	NINJACAT	CLOVIS	\$26	ND	<ul style="list-style-type: none"> Ninjacat, a marketing analytics and reporting software provider, raised \$26mm from Clovis Point Capital. Per Ninjacat, the capital will enable the Company to accelerate its product roadmap.
10/6/20	airkit	Accel EMERGENCE salesforce ventures	\$28	ND	<ul style="list-style-type: none"> "Low-code" customer engagement platform Airkit announced that it had raised \$28mm since inception. The Company was founded in 2017 and had been operating in stealth up until now.

Source: PitchBook, Company announcements, TechCrunch, TechEU, FinSMEs.

Note: All figures in USD millions unless noted otherwise. OneTrust raised \$210mm in Feb-20 led by Insight Partners & Coatue; Zeotap raised \$42mm in July-20 led by Neue Capital.

Ad Tech & MarTech – 2020 Key Financings (2 / 3)



















Ad Tech
MarTech
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	Announcement Date	Company	Selected / Key Investor(s)	Capital Raised in Transaction	Valuation	Commentary
Q4	10/6/20	 skilljar	 INSIGHT PARTNERS	\$33	ND	<ul style="list-style-type: none"> Skilljar, a customer education platform, raised \$33mm in Series B funding in a round led by Insight Partners. Per the Company, the funding will accelerate market, customer, and product roadmaps.
	10/1/20	 sendinblue	 BlackRock  bpi france  partech	\$160	ND	<ul style="list-style-type: none"> Marketing automation company SendinBlue announced \$160mm of funding. The Company reports that the funding will help support acceleration of its go-to-market efforts.
Q3	9/29/20	 SEISMIC	 PERMIRA  edbi  Ameriprise Financial	\$92	\$1,600	<ul style="list-style-type: none"> Sales enablement platform Seismic raised a \$92mm Series F led by Permira. This latest round values the Company at \$1.6bn (up 60% from its \$1bn valuation in Dec-18).
	9/23/20	 attentive	 COATUE  WELLINGTON MANAGEMENT  atomico  TIGER GLOBAL  BainCapital  IVP  D1 CAPITAL PARTNERS  SOZO VENTURES +6 others ⁽¹⁾	\$230	\$2,200	<ul style="list-style-type: none"> Mobile messaging company Attentive raised \$230mm in Series D funding at a \$2.2bn valuation. The Company has raised \$340mm this year, with two additional funding rounds in January and April.⁽²⁾
	9/9/20	 sprinklr	 HELLMAN & FRIEDMAN	\$200	\$2,700	<ul style="list-style-type: none"> Customer experience platform Sprinklr raised \$200mm at a reported \$2.7bn valuation. The Company reported expectations that it will reach \$400mm ARR by the end of 2020.
	9/1/20	 INFO SUM	 upfront  IA VENTURES	\$15	ND	<ul style="list-style-type: none"> Privacy and data collaboration startup InfoSum has raised \$15mm in new funding. The Company recently announced former Xandr CEO, Brian Lesser, will assume the same role at InfoSum.
	8/13/20	 RevenueCat	 Index Ventures	\$15	ND	<ul style="list-style-type: none"> RevenueCat, the subscription platform for mobile apps, raised \$15mm. The Company disclosed >3,000 developers are using its platform, and that business had tripled in the month prior to announcement.
8/4/20	 YOTPO.	 Bessemer Venture Partners  ACCESS INDUSTRIES  vertex  Hanaco	\$75	ND	<ul style="list-style-type: none"> Yotpo, a startup that provides marketing cloud solutions to D2C and eCommerce brands, raised \$75mm. Yotpo plans to use this capital to invest in its suite of products and additional integration partnerships. 	
Q2	6/27/20	 contentful	 SAPPHIRE VENTURES	\$80	~\$1,000	<ul style="list-style-type: none"> Contentful, a provider of headless CMS software, raised an \$80mm Series E round. Per TechCrunch, this brings Contentful's total raised to \$158mm, and values the Company at nearly \$1bn.
	6/17/20	 Outreach	 SANDS CAPITAL	\$50	\$1,330	<ul style="list-style-type: none"> Outreach, a sales automation company, raised a \$50mm Series F round at a reported \$1.3bn valuation. Outreach's platform integrates with CRM vendors & provides SaaS-based tools to optimize sales processes.
	5/27/20	 BLUECORE	 Georgian	\$50	ND	<ul style="list-style-type: none"> Bluecore, a retail-focused CDP, raised \$50mm in a round led by Georgian Partners. The funding will be used to build & launch the next iteration of Bluecore's technology offering.
	5/21/20	 Amplitude	 GIC	\$50	>\$1,000	<ul style="list-style-type: none"> Amplitude, a product intelligence platform, raised a \$50mm Series E round led by GIC. Per the Company, this round values Amplitude at more than \$1bn.

Source: PitchBook, Company announcements, TechCrunch, MarTech Series, Forbes, NYT, Venture Beat, Axios. | **Note:** All figures in USD millions unless noted otherwise. **(1)** Per PitchBook, in addition to the six investors for which logos are shown, Attentive also received investment from Eniac Ventures, Frontline Ventures, High Alpha, NextView Ventures, Sapphire Ventures, and Sequoia Capital during its September financing. **(2)** Attentive previously raised \$70mm in Jan-20 (led by Sequoia Capital & IVP), and \$40mm in Apr-20 (led by Sequoia and Coatue). The sum of the Jan-20 financing (\$70mm), Apr-20 financing (\$40mm), and Sep-20 financing (\$230mm) equal the \$340mm that Attentive has raised in total this year.

Ad Tech & MarTech – 2020 Key Financings (3 / 3)

























Ad Tech
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	Announcement Date	Company	Selected / Key Investor(s)	Capital Raised in Transaction	Valuation	Commentary
Q2	5/19/20	 CONTENTSSQUARE	BlackRock	\$190	ND	<ul style="list-style-type: none"> Contentsquare, a customer experience analytics platform, raised a \$190mm in Series D financing. The new capital will help Contentsquare continue to invest in innovation and expand its business globally.
	5/4/20	 SensorTower	RIVERWOOD  CAPITAL	\$45	ND	<ul style="list-style-type: none"> Mobile app market intelligence company Sensor Tower raised \$45mm in funding from Riverwood Capital. The Company reports that it is profitable and saw 2019 ARR growth of 65%, and headcount growth of 50%.
Q1	3/2/20	 mparticle	 Arrowroot Capital	\$45	ND	<ul style="list-style-type: none"> Customer data platform mParticle raised \$45mm in funding led by Arrowroot Capital. mParticle plans to use this capital on new products, scaling its data infrastructure, and new partnerships.
	2/14/20	 gumgum	Morgan Stanley NEWVIEW  upfront CAPITAL	\$22	ND	<ul style="list-style-type: none"> GumGum, a contextual advertising platform, raised \$22mm in funding from existing investors. The Company plans to pursue potential M&A after the business reported \$155mm in global revenue in 2019.
	2/11/20	 moengage	8 th EIGHT ROADS™	\$25	ND	<ul style="list-style-type: none"> Moengage, a customer analytics & cross-channel engagement platform, raised a \$25mm Series C. Per the Company, the funds will be used to deepen relationships in Asia and scale US / EMEA operations.
	1/28/20	 ActiveCampaign >	 SUSQUEHANNA GROWTH EQUITY	\$100	ND	<ul style="list-style-type: none"> ActiveCampaign, the Chicago-based customer experience automation platform, raised \$100mm. The Company reports that it is profitable and works with over 90,000 customers across 160 countries.
	1/27/20	 SUPER AWESOME	 M12 MICROSOFT'S VENTURE FUND	\$17	ND	<ul style="list-style-type: none"> SuperAwesome, a kid-friendly advertising platform, raised \$17mm from Microsoft's venture fund, M12. The Company was later acquired by Epic Games in September 2020.
	1/21/20	 AppsFlyer	 GENERAL ATLANTIC	\$210	\$1,600	<ul style="list-style-type: none"> Mobile ad attribution platform AppsFlyer raised \$210mm at a \$1.6bn valuation. AppsFlyer later raised an undisclosed amount from Salesforce Ventures in Nov-20, at a \$2bn valuation.
	1/15/20	 6sense	 INSIGHT PARTNERS	\$40	ND	<ul style="list-style-type: none"> 6sense, an account-based orchestration platform, raised \$40mm in a round led by Insight Partners. The Company's platform enables B2B sellers and marketers to more effectively target new accounts.
1/15/20	 ACTIONIQ	 MARCH CAPITAL PARTNERS	\$32	ND	<ul style="list-style-type: none"> CDP ActionIQ raised \$32mm in Series C funding in a round led by March Capital Partners. The Company plans to use this capital to accelerate the expansion of sales and marketing. 	

Source: PitchBook, Company announcements, TechCrunch, Fortune Term Sheet.
 Note: All figures in USD millions unless noted otherwise.

Digital Content – 2020 Key Financings (1 / 2)













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	Announcement Date	Company	Selected / Key Investor(s)	Capital Raised in Transaction	Valuation	Commentary
Q4	12/2/20	HODINKEE		\$40	>\$100	<ul style="list-style-type: none"> Hodinkee, a site specializing in watches, raised \$40mm from a group of investors at a >\$100mm valuation. This round of funding will be used to improve both the editorial and eCommerce aspects of the business.
	11/18/20		 	\$35	\$2,400	<ul style="list-style-type: none"> Duolingo, the language learning app with 500mm app downloads, raised \$35mm at a \$2.4bn valuation. The new valuation is a significant increase from its \$1.65bn valuation earlier this year.
	11/16/20			\$110	ND	<ul style="list-style-type: none"> Fitness and activity tracking platform Strava raised \$110mm in Series F funding. Strava has 70mm users and claims to have added 2mm new users per month in 2020.
	11/5/20			\$150	ND	<ul style="list-style-type: none"> Video sharing and services platform Vimeo raised \$150mm in new funding led by Thrive Capital and GIC. Vimeo currently has 1.5mm paying subscribers and more than 3,500 enterprise clients.
	11/4/20			\$25	ND	<ul style="list-style-type: none"> Mobile gaming publisher Lockwood Publishing has raised \$25mm in funding from Tencent. Lockwood's most popular title, <i>Avakin Life</i>, is a 3D virtual world that has over 200mm registered users.
	10/28/20			\$340	\$3,300	<ul style="list-style-type: none"> Mobile gaming company Scopely raised \$340mm of funding at a \$3.3bn valuation. Scopely, which has been an active buyer recently, expects to close out 2020 with over \$900mm in revenue.
Q3	10/5/20			\$17	ND	<ul style="list-style-type: none"> Survios, a developer of VR games, raised \$17mm from SeAH Group's investment vehicle, Irongrey. This marks Survios' fourth round of funding and brings total capital raised to \$71mm.
	9/21/20			\$100	\$1,000	<ul style="list-style-type: none"> Playco, a mobile game developer of instant-play games, raised \$100mm in funding at a \$1bn valuation. The Company officially launched out of stealth alongside this Series A funding announcement.
	9/1/20			\$90	\$1,200	<ul style="list-style-type: none"> Patreon, a platform that allows creators to monetize content through subscriptions, has raised \$90mm. The Company supports >200K content creators and connects them to ~6mm subscribers on the platform.
	8/17/20			ND	\$1,400	<ul style="list-style-type: none"> Following an undisclosed investment, Tencent is a minority shareholder in casual games creator Voodoo. Voodoo, which has over 300mm MAUs, is valued at \$1.4bn as a result of this investment.
	8/17/20			\$120	\$3,000	<ul style="list-style-type: none"> Brazilian mobile gaming developer Wildlife Studios has raised \$120mm, valuing the business at \$3bn. Wildlife Studios attracts over 100mm MAUs and will use this funding to fuel continued growth of its games.
8/7/20			\$1,780	\$17,300	<ul style="list-style-type: none"> Game developer / publisher Epic Games raised \$1.78bn in funding at a reported \$17.3bn valuation. Epic Games' most popular title, <i>Fortnite</i>, has over 350 million registered players. 	

Source: PitchBook, Company announcements, Forbes, TechCrunch, MarTech Series, VentureBeat, The Gaming Economy.
 Note: All figures in USD millions unless noted otherwise.

Digital Content – 2020 Key Financings (2 / 2)
























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	Announcement Date	Company	Selected / Key Investor(s)	Capital Raised in Transaction	Valuation	Commentary
Q3	7/23/20			\$100	ND	<ul style="list-style-type: none"> ■ Ceros, a digital experience platform, raised \$100mm in a financing round led by Sumeru Equity Partners. ■ Ceros' platform enables clients to build no-code content; Company intends to utilize the funding for M&A.
	7/1/20			\$113	\$600	<ul style="list-style-type: none"> ■ Caffeine, a live-streaming platform with strong traction for rap-music competitions, raised \$113mm. ■ Since launching in Nov-19, the Company has attracted more than 2mm users as a Twitch alternative.
	7/1/20			\$100	\$3,500	<ul style="list-style-type: none"> ■ Discord, a gaming-focused chat app, raised \$100mm in funding at a \$3.5bn valuation. ■ This round of funding will help to fuel an expansion out of the gaming world and into non-gaming content.
Q2	5/21/20		ND	\$350	ND	<ul style="list-style-type: none"> ■ Magic Leap raised an emergency \$350mm of financing after pivoting away from its consumer business. ■ This funding helped prevent the termination of ~1,000 employees.
	5/12/20	Luminary	ND	\$30	\$200	<ul style="list-style-type: none"> ■ Luminary Media, a podcasting startup, raised \$30mm in a new round of funding. ■ It was reported that the funds were raised below the \$200mm valuation Luminary garnered in 2019.
	5/4/20			\$100	\$800	<ul style="list-style-type: none"> ■ MasterClass, a start-up selling celebrity-taught classes via a digital platform, raised \$100mm in funding. ■ MasterClass plans to use the capital to accelerate creation of new classes and experiment with new formats.
Q1	3/4/20		ND	\$750	\$1,750	<ul style="list-style-type: none"> ■ Quibi raised \$750mm at a reported valuation of \$1.75bn. This followed a \$400mm fundraising in January.⁽¹⁾ ■ After the 90-day free trial membership, Quibi couldn't maintain its subscriber base and ultimately shut down.
	2/27/20	ROBLOX	ANDREESSEN HOROWITZ	\$150	\$4,000	<ul style="list-style-type: none"> ■ Online gaming platform Roblox raised \$150mm at a \$4bn valuation. ■ Roblox, which has 115mm monthly users, will use this funding invest in its engineering and infrastructure.
	2/11/20			\$75	ND	<ul style="list-style-type: none"> ■ Soundcloud raised \$75mm from Sirius XM in exchange for a minority stake and two board seats. ■ The strategic round comes as the Company claims it is trending toward \$200mm+ revenue in 2020.
	1/21/20	THE ATHLETIC	BEDROCK	\$50	\$500	<ul style="list-style-type: none"> ■ The Athletic, a subscription-based digital publisher for sports content, raised \$50mm at a \$500mm valuation. ■ This funding will be used to expand its global business as the Company approaches 1mm subscribers.

Source: PitchBook, Company announcements, Business Insider, WSJ, TechCrunch, Fortune Term Sheet, Bloomberg.
 Note: All figures in USD millions unless noted otherwise. (1) Quibi raised \$400mm in Jan-20 from undisclosed investors.

D2C – 2020 Key Financings (1 / 1)

Ad Tech
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	Announcement Date	Company	Selected / Key Investor(s)	Capital Raised in Transaction	Valuation	Commentary
Q4	10/28/20			\$100	\$750	<ul style="list-style-type: none"> Women's clothing rental company Rent the Runway raised \$100mm in funding at a \$750mm valuation. After being hit hard by the pandemic, Rent the Runway will now focus on selling clothes and not just renting.
	10/28/20	WHOOP®		\$100	\$1,200	<ul style="list-style-type: none"> Wearable fitness company WHOOP raised \$100mm in Series E funding at a \$1.2bn valuation. The Company plans to use the capital for product development and improving the membership experience.
Q3	9/28/20	<i>allbirds</i>		\$100	\$1,700	<ul style="list-style-type: none"> D2C footwear giant Allbirds raised \$100mm in Series E funding, increasing its valuation to \$1.7bn. The Company also raised \$75mm in January⁽¹⁾ as it continues to focus its growth beyond just digital.
	8/28/20	FASHIONPHILE		\$39	ND	<ul style="list-style-type: none"> Fashionphile, a luxury Recommerce company, raised \$39mm in a round led by Newspring. The Company plans on expanding its in-house technology and domestic footprint.
	8/27/20	WARBY PARKER	   	\$245	\$3,000	<ul style="list-style-type: none"> D2C eyewear giant Warby Parker raised \$245mm in funding, reportedly bringing its valuation to \$3bn. Warby Parker has now raised over \$500mm in funding.
	8/17/20			\$200	\$11,200	<ul style="list-style-type: none"> Robinhood, a mobile investing platform, raised \$200mm in funding at a \$11.2bn valuation. Robinhood has over 10mm users on its platform and is targeting an IPO in the near future.
	8/13/20			\$350	\$1,970	<ul style="list-style-type: none"> Sports apparel and clothing e-commerce platform Fanatics raised \$350mm of funding at a \$6.2bn valuation. Fanatics plans to use this fresh round of funding to fuel M&A and acquisition of additional licensing rights.
	7/27/20		GENERAL  CATALYST	\$200	\$1,500	<ul style="list-style-type: none"> D2C healthcare and supplements startup Ro raised \$200mm in Series C funding at a \$1.5bn valuation. The company reported it expects \$250mm in revenue for 2020.
	7/6/20		DST GENERAL  CATALYST	\$100	\$13,800	<ul style="list-style-type: none"> Grocery delivery service Instacart raised \$325mm in Q3 – \$225mm in June and \$100mm in July. Instacart, now reportedly valued at \$13.8bn, has raised over \$2.2bn in funding to date.
Q2	6/12/20		 	\$400	\$16,000	<ul style="list-style-type: none"> DoorDash, a food delivery platform, raised \$400mm after delivery volume spiked during COVID lockdown. DoorDash has since entered the public market via IPO, rising 86% in its first day of trading.
Q1	3/3/20	brooklinen		\$50	ND	<ul style="list-style-type: none"> Brooklinen, the online bedding and linens retailer, raised \$50mm in funding led by Summit Partners. Brooklinen plans use this funding for international expansion and growing its physical retail presence.
	1/31/20	MODA OPERANDI	 	\$100	ND	<ul style="list-style-type: none"> Moda Operandi, an online clothing marketplace, raised \$100mm from NEA and Apax Digital. The Company offers luxury fashion products from over 1,000 brands and designers.

Source: PitchBook, Company announcements, WSJ, TechCrunch, Venture Beat, Forbes, Reuters, Business Insider
 Note: All figures in USD millions unless noted otherwise. (1) Allbirds raised \$75mm in Jan-20 led by Baillie Gifford & Fidelity.

LUMA's Recent Deals



December 2020

Blackstone

has agreed to acquire a majority stake in

LIFTOFF

The undersigned acted as financial advisor to Blackstone

December 2020

BEESWAX

has agreed to be acquired by

COMCAST

The undersigned acted as exclusive financial advisor to BeeswaxIO, Inc.

November 2020

TAPAD
a Group Company of

telenor

has been acquired by

experian

The undersigned acted as exclusive financial advisor to Telenor ASA

October 2020

TRUOPTIK

has agreed to be acquired by

TransUnion

The undersigned acted as exclusive financial advisor to Tru Optik Data Corp.

April 2020

factual

has agreed to merge with

FOURSQUARE

The undersigned acted as exclusive financial advisor to Factual, Inc.

April 2020

rubicon PROJECT
(NYSE: RUBI)

has merged with

telaria
(NYSE: TLRA)

The undersigned acted as financial advisor to The Rubicon Project, Inc.

February 2020

evergage

has been acquired by

salesforce

The undersigned acted as exclusive financial advisor to Evergage, Inc.

January 2020

AI Factory

has been acquired by

Snap Inc.

The undersigned acted as exclusive financial advisor to AI Factory, Inc.



The case for optimism in 2021

Change Breeds Opportunity

- *Stable, competent government (Biden)*
- *Ad spend rebounded, growing (V-shaped)*
- *Light at the end of the COVID tunnel (vaccines)*
- *Permanent gains in streaming and eCommerce*
- *New channel growth (audio)*
- *Identity changing (cookie, IDFA)*
- *Triopoly headwinds (anti-trust)*
- *New entrant buyers (credit bureaus, private equity)*
- *Capital cheap (record low interest rates)*
- *Equity valuations robust (S&P P/E > 30)*
- *Innovator / legacy value gap widening*

↳ M&A should be strong (hammer, meet nail)



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