AGCPARTNERS

Game Tech

How Technology is Transforming Gaming, Esports and Online Gambling

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Executive Summary

During the COVID-19 pandemic, as people are self-isolating and socially distancing, online and mobile entertainment is booming: gaming, esports, and online gambling

- According to Newzoo, the global games market is expected to reach $159B in revenue in 2020, up 9.3% versus 5.3% growth in 2019, a substantial acceleration for a market this large. Mobile gaming continues to grow at an even faster pace and is expected to reach $77B in 2020, up 13.3% YoY

- According to Research and Markets, the global online gambling market is expected to grow to $66 billion in 2020, an increase of 13.2% vs. 2019 spurred by the COVID-19 crisis

- Esports is projected to generate $974M of revenue globally in 2020 according to Newzoo. This represents an increase of 2.5% vs. 2019. Growth was muted by the cancellation of live events; however, the explosion in online engagement bodes well for the future

Tectonic shifts in technology and continued innovation have enabled access to personalized digital content anywhere

- Gaming and entertainment technologies has experienced amazing advances in the past few years with billions of dollars invested in virtual and augmented reality, 3D computer graphics, GPU and CPU processing power, and real time immersive experiences

Numerous disruptors are shaking up the market

- Content distribution platforms such as Netflix and Amazon have moved into content production, and content production companies including Disney and NBC have expanded into content distribution with Disney + and Peacock

- With casinos revenues plummeting by as much as 97% at their lows in in Q2 2020, there is renewed focus on online gambling. Barry Diller and IAC spent over $1B to acquire a 12% ownership interest in MGM to help expand their online business, and SPACs have done $8.5B in deals so far this year

- Epic is challenging Apple to rethink its app store terms and 30% commission rates

Game Tech defined

- For purposes of this paper, we define Game Tech as the companies and tools that support game developers, not the game studios themselves as studios are less about tech and more about betting on creative talent

- In the iGaming space, we include the digital operators of online betting sites that manage wagers and payouts, with a special focus on the emerging US market and Esports, which has a cross-over element both as a game play and a sports betting attraction

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Game Development Tools Landscape by Segment

Specialized Tools

Creator / Productivity Tools

AppOnboard, CorelDRAW, enduvo, favro, ftrack, GameSalad, the GameCreators, IncrediBuild BEYOND ACCELERATION, GitHub, Jira, OVERWOLF, PERFORCE, SMARTBEAR

3D

ARHT MEDIA, AUTODESK, blender, BeamNG, CHAOSGROUP, DIDIMO, ENSCAPE, InstaLOD, Matterport, MAXON, PERSISTANT STUDIOS, pixyz, Pixologic, SideFX, VIVIDQ

Audio Tools

descript, fmod, KROTOS, REPLICA, Sonantic, SONY, VOCALiD

Platforms and Content

Platforms/Engines

amazon, Apple, facebook, Google, magic leap, Microsoft, NIANTIC, Nintendo, NVIDIA, FOUNDRY, SONY, skillz, SUPER EVIL MEGACORP, unity, UNREAL ENGINE, VALVE

Marketplaces

cgtrader, Sketchfab, TURBOSQUID

Other Tools

coda, COHERENT, DEFORM DYNAMICS, GILDED, GG, HADEAN, neurable, QUALISYS, SPEECH GRAPHICS, Simul, Smartcat, SPIELWORKS, ultraleap, VR MONKEY, VRdirect, VRSTUDIOS

Network / Streaming

Blacknut, HATCH, IMPROBABLE, Network Next, Paperspace, Polystream, PARSEC, Rainway, SHADOW, Roku, SUBSPACE, vortex

Content

888 HOLDINGS, ACTIVISION, DREAMSCAPE, EA, LUCID SIGHT, OnPlay, REALLUSION, REC ROOM, ROVIO, T2, Tencent, TRIPWIRE, UBISOFT, utomik, vivendi, ZeniMax MEDIA INC., zynga

Monetization & Performance Tracking

3radical, adjust, AIRSHIP, anzu.io, APP ANNIE, APPLOVIN, App Radar, AppsFlyer, apptopia, apptweak, braze, bugsnag, Chartboost, CleverTap, Fyber, GameBench, GameRefinery, hadean, KOCHAVA, mixpanel, MOBILE ACTION, OneSignal, SensorTower, SHARK PUNCH, singular, SplitMetrics, storemaven, swrve, Tapjoy, TRE SENSA, Upfluence, UPSIGHT, VIRAL NATION, Vungle

Market Size & Forecast

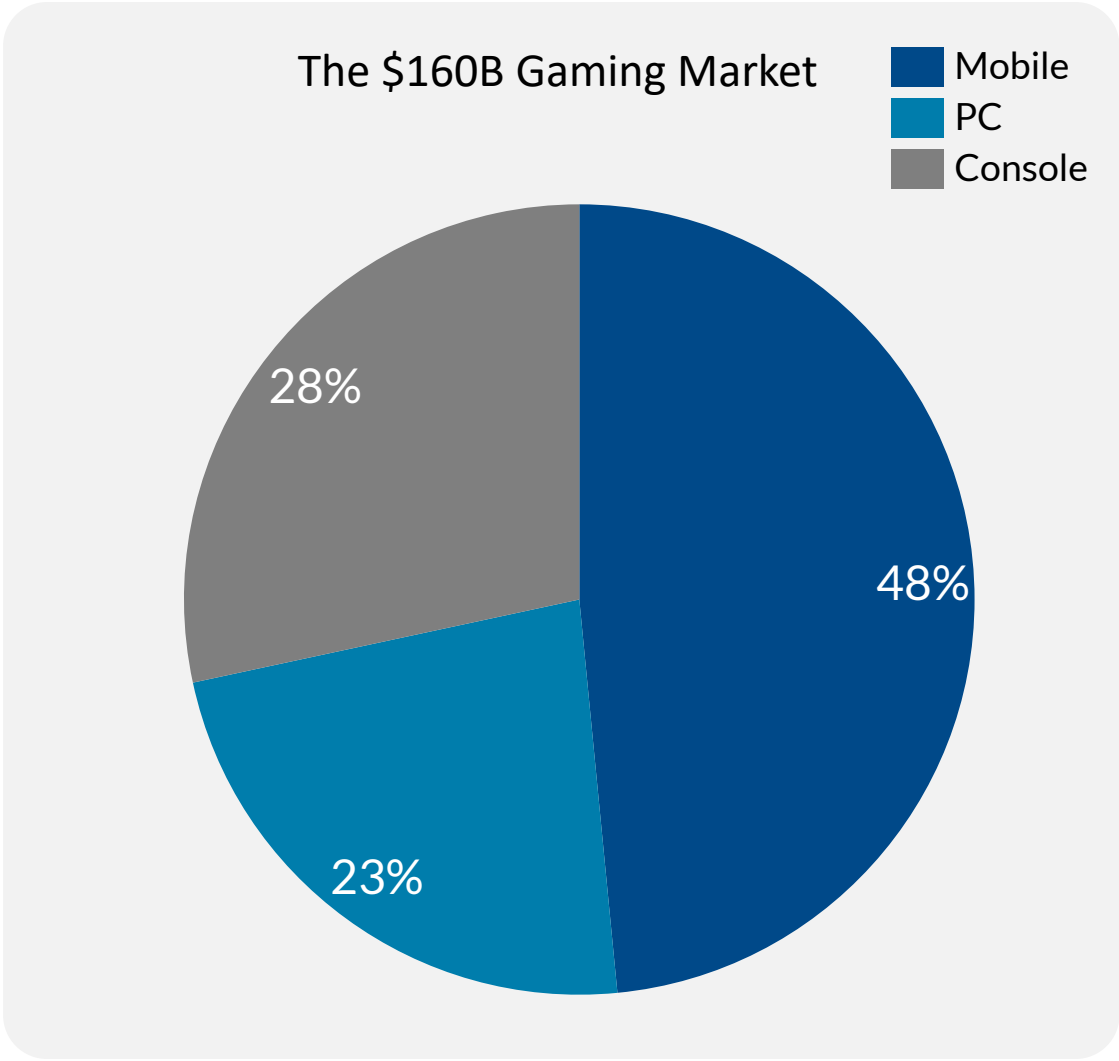## Massive $160B Industry

- At approximately $160B in size, video gaming is a massive market that is experiencing renewed growth from a product innovation cycle by software developers and hardware manufacturers alike

- Previously, industry growth was driven more by episodic releases of new consoles and blockbuster games
    - › While this is still an important pattern, the migration of gaming to the cloud has opened new avenues of growth for subscriber-based services and hardware solutions for multi-device, high speed streaming

- The number of gamers globally is estimated at 2.7 billion, roughly 1/3rd of the world's population

7.7%

2018	2019	2020	2021	2022	2023
$138.5B	$145.7B	$159.3B	$172.0B	$185.8B	$200.8B
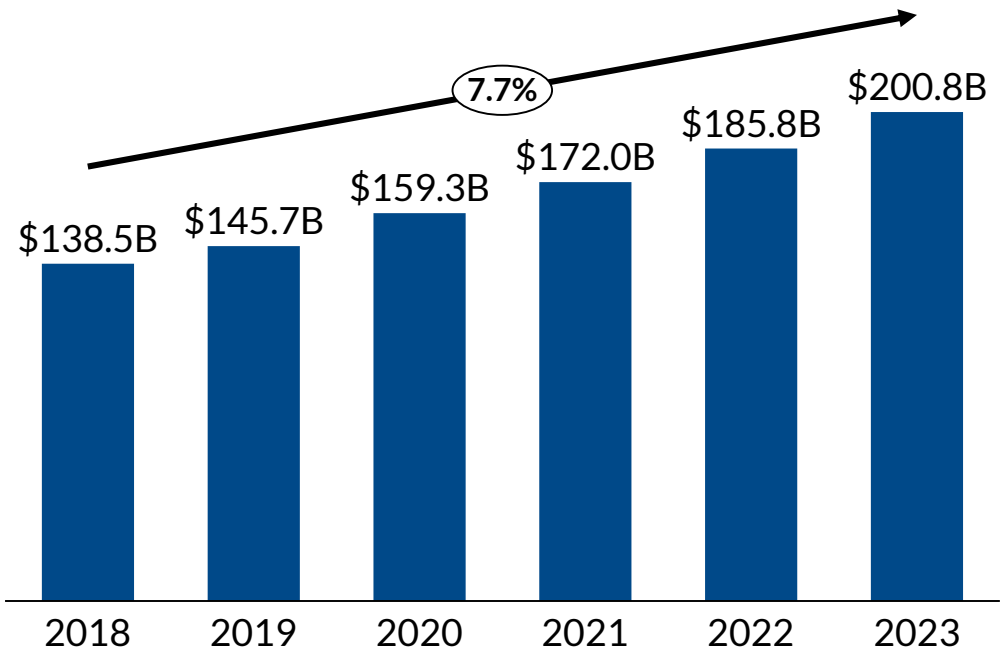
Sources: Newzoo

HOW VIDEO GAMES ARE PLAYED: REVENUES BY DEVICE

The $160B Gaming Market

- Mobile
- PC
- Console

- 48% Mobile
- 23% PC
- 28% Console

Game Development Trends & Drivers

The AAA video gaming industry has some of the most demanding software and performance requirements globally

- Game engines provide game developers a framework for creating a video game without the need to create all systems, such as the physics, graphics, and AI, from scratch or having to partner with hundreds of separate vendors. Epic Unreal and Unity have emerged as the main game engines used by developers globally. Over the years Epic Unreal and Unity have done multiple vertical software acquisitions to broaden their end-to-end offering and service the entire value chain to design and build a game

- That said, there are still hundreds of smaller, more vertically focused and specialized middleware game tech software companies that constantly innovate and push technology boundaries and fill in gaps of the game engines. Game developers looking for solutions that deliver more custom experiences turn to software vendors focusing on specific verticals. Gaming tools provide developers and others in the industry a variety of functionalities to aid in game development, design, and marketing

VR is no longer overly expensive or cumbersome to use

- Oculus Quest sold 705,000 Quest headsets in 2019, represented 49% of all VR sales in 2019 and is in short supply in 2020

- While headsets have evolved, there have been only a handful of great VR titles. The most recent successful game in VR, Half-Life: Alyx, added nearly 1 million VR users to Steam. There is a void of high quality VR content that is yet to be filled by AAA studios

As enterprises look to deliver interactive, real time content and experiences in-house and to their customers they turn to gaming technologies

- Gaming is the source of technological advances for 3D graphics, real-time rendering and simulation

- Gaming technologies are used across various industries including automotive, ecommerce, architecture, real estate, and furniture manufacturing amongst others. Epic Unreal and Unity are betting that their 3D graphics tools will shape the next generation of entertainment, movies and TV shows

- This vastly broadens the overall total addressable market for middleware software solutions in gaming and makes these solutions more sought out by investors and acquirers across industries

Segment Focus: Cloud Gaming

## The Next Wave of Content Disruption is Coming: Streaming Video…Games

- Today's games are played on a range of devices including smartphones, consoles, and PCs. However, reliance on the internet is one-way. Once purchased and downloaded, the games themselves run on players' devices much like the old client-server computer model

- With cloud gaming, a game lives entirely in data centers and delivery networks, eliminating the need for downloads and transforming a user's device into a connected high-resolution terminal
    - › Next generation of platforms for interactive, immersive, and social entertainment
    - › Many technology and telecom companies are steadily moving into media and entertainment
    - › Partnerships are being forged between game publishers and the disruptors. Telecoms want in on the action and then there are the hyperscale cloud behemoths
    - › The prize: 2.7B gamers who would drive this massive shift, or chase the opportunity if created for them

- At stake are significant revenue streams. Gaming consoles and handhelds generate $45B in revenue for Sony, Microsoft and Nintendo alone. Cloud gaming has far-reaching implication, including:
    - › Eliminate the need for specialized consoles while allowing gamers to play any game from almost any device
    - › Enable game companies to develop richer experiences supporting far more players
    - › Drive telecoms and content delivery networks to significantly expand their capabilities while stoking demand for 5G
    - › Place the top cloud service providers at the nexus of yet another massive opportunity while putting them in control of the sales funnel

- However, these advances might be more than streaming technology and telecom networks can bear
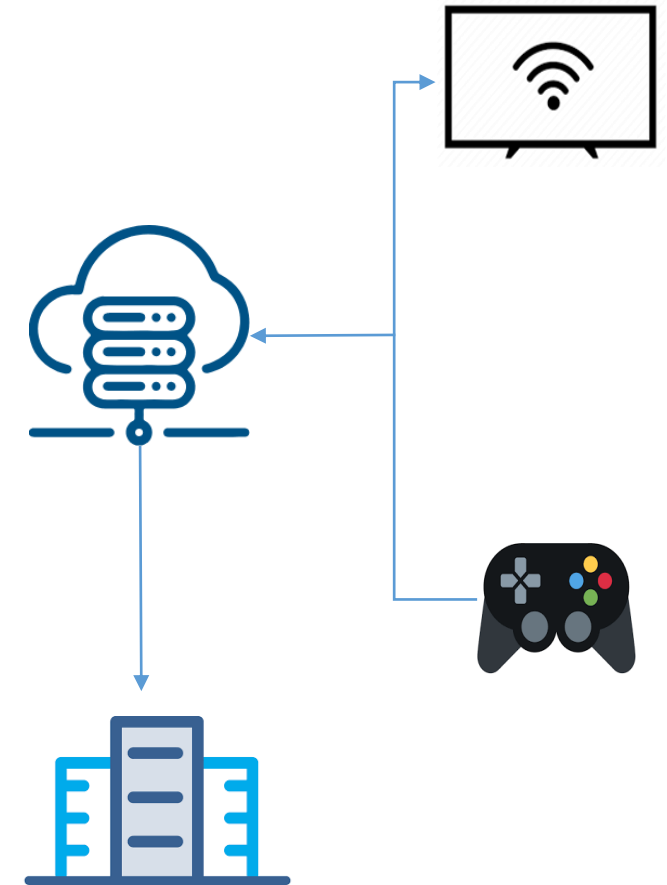
Segment Focus: Cloud Gaming (Cont'd)

Obstacles Still Remain

- Most games are purchased off the shelf or are downloaded to a device—a smartphone, gaming console, or PC
  - › The gameplay is rich in content and run smoothly. Why fix what's not broken?
  - › It is easy to be early: Netflix started streaming in 2007, and it took 10 years before cord cutting became a phenomenon

- Streaming video games is a much bigger technical challenge than streaming video
  - › Online multiplayer games in particular require bandwidth and real time coordination of actions…latency can quickly destroy the user experience
  - › To manage throughput, cloud streaming services must dynamically adjust to deliver the fewest number of bits needed for the best experience on a given device
  - › Each time a player inputs an action, the system sends it back upstream to the game engine, crisscrossing the network along the way
  - › Its not unusual for thousands of players to participate simultaneously in massive multiplayer games; with no more than 75 milliseconds before players fall out of sync, there is very little margin for error
  - › In parallel with these rapid fire actions, immersive gamers are also sending upstream messages, audio chats, and even live video of their gameplay, placing greater strain on network connectivity and compounds as more players join

Latency 🕐

Bandwidth

Sources Deloitte
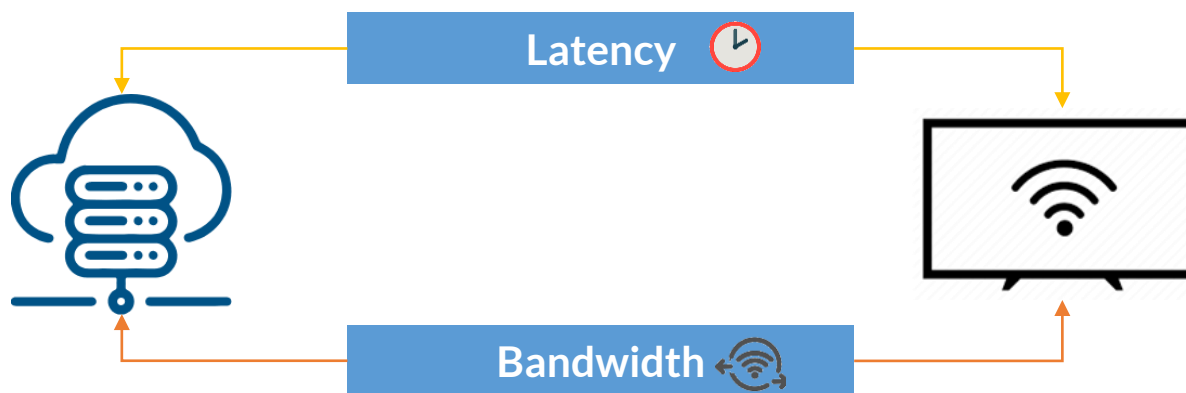
# Segment Focus: Game Development Software

More Streaming will Require More Software Development Tools

- The popularity of video game streaming is increasing due to the availability of games with higher frames per second. All these factors will drive the need for game development software or game design software as game development software providers offer optimizations in the games meant for live streaming.

- The demand for more online games is increasing due to the introduction of VR and AR games and availability of VR headsets such as Sony PlayStation VR, HTC Vive, Oculus Rift, Google Daydream View, and Samsung Gear VR.

- To adapt to these myriad environments, devices and complexity, Game Development Tools will continue to grow in importance

- Gaming tools provide developers and others in the industry a variety of functionalities to aid in game development, design, and marketing

- There is much more to it than choosing a game engine and creating 3D models, and gaming tools can help fill in some of those gaps. App development environments, asset exchanges, and even streaming services can all help create a game or a business around gaming

- Gaming tools can help with coding, controller support, and even AI. Potentially highly specialized gaming tools can help with niche problems that crop up while working in the video game industry

- **Game Engines:** a software-development environment designed for people to build video games. The core functionality typically provided by a game engine includes a rendering engine ("renderer") for 2D or 3D graphics. Visual development tools.
  - › Game engines provide game developers a framework for creating a video game without the need to create all systems, such as the physics, graphics, and AI, from scratch.

- **Physics Engines**: allow computers to create physics phenomena that we experience in the real world (gravity, fluid dynamics, etc.) and apply them to 3D objects in games and other 3D renderings

- **Audio Engines:** provide a framework to create and manage **audio** within video games.

VR Headsets

Game Engines

The Popular Game Engines Of Today
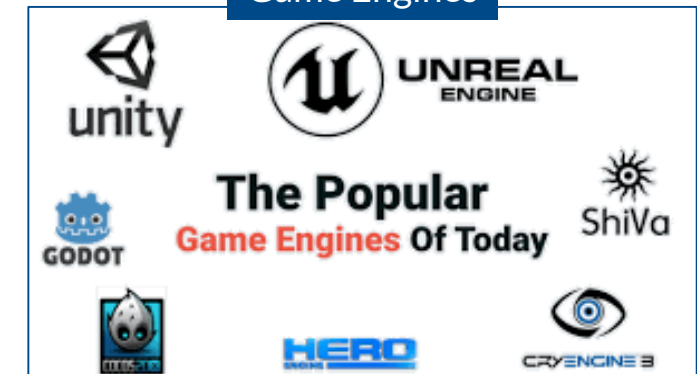
Collaboration Software Case Study

Favro is a subscription based, enterprise scale, agile planning and collaboration software platform for any kind of team and organization

favro.

Favro Overview

About Favro

- Founded in 2016 in Uppsala, Sweden, Favro has over 2,000 customers globally and most recently was named in the "Magic Quadrant for Enterprise Agile Planning Tools " by Gartner

- Favro enables individuals and teams to operate with agility, autonomy and alignment. Favro provides a single workspace for seamless collaboration, communication, planning, organization and creation.

- Favro scales to any business size from startups to unicorns, and established enterprises. The solution is relevant across any industry vertical and has high user engagement (>2 hr/day) with techies, creatives and executives alike.

- Go to market and customer acquisition based on sophisticated performance marketing strategy with minimal overhead and expenses.

- Favro has around 25 employees split between its offices in Uppsala, Stockholm, Da Nang and Kyiv

Strategic Goals & Opportunities

- Agile planning and collaboration is a white hot market. With evangelist customer base across industries, Favro is looking continue to grow globally.

Financial Overview

- Approximately $3M in ARR; considering raising a series A in the near future

Customer Snapshot

Riot Games at a Glance

- With 24 offices around the world, Riot Games is the maker of the massively successful game League of Legends.
- Riot Games organizes huge e-sport events around the world.

Favro & Riot Games

- Favor was picked up by tournament management teams wanting a simple yet sophisticated and powerful agile collaboration tool.

Results

- Favro spread to team after team, from developers to marketers. Favro replaced almost 20 other tools at Riot.
- Today thousands of employees at Riot Games use Favor.

Other Customers

Typical customers are startups to unicorns to enterprises with strategic initiatives around agile transformation, including PwC, SAP and Volvo.

The game industry has been fast to adopt Favro with companies like Resolutuon Games, Scopely, FunRock and Thatgamecompany.

Unity Technologies and Riot Games where early adopters with thousands of users today across various teams.
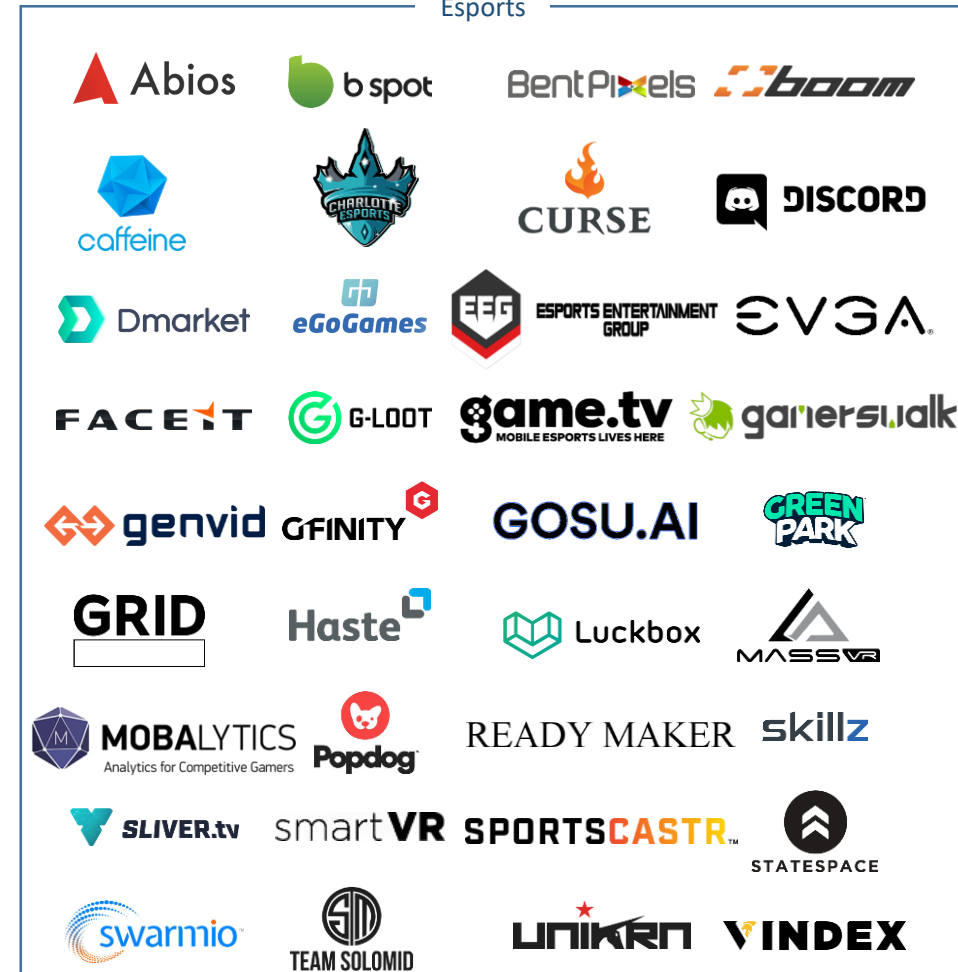
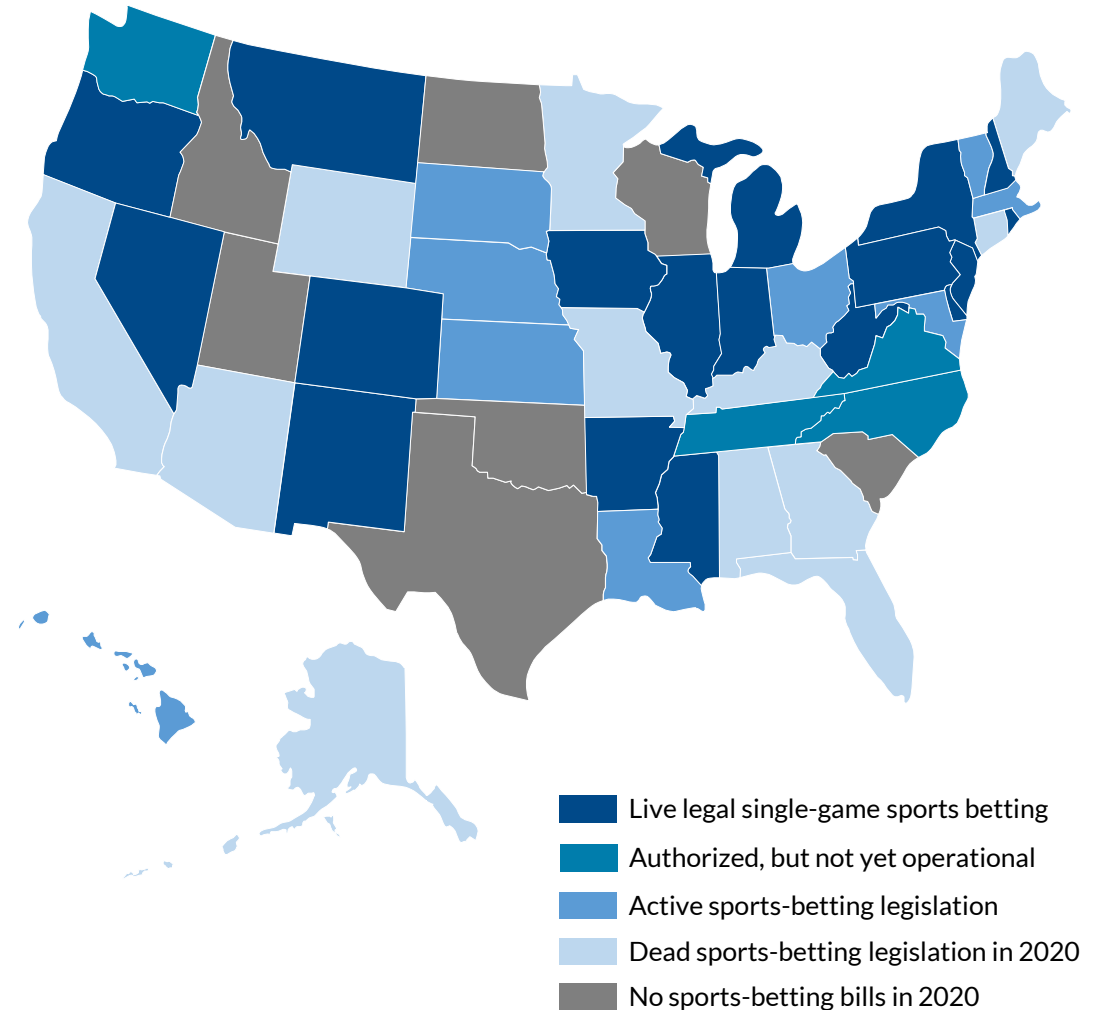# Table of Contents

Online Gambling and Esports Landscape

Segment Focus: Online Sports Betting

Stadiums may be empty, but the games continue; meanwhile, Esports is filling the void
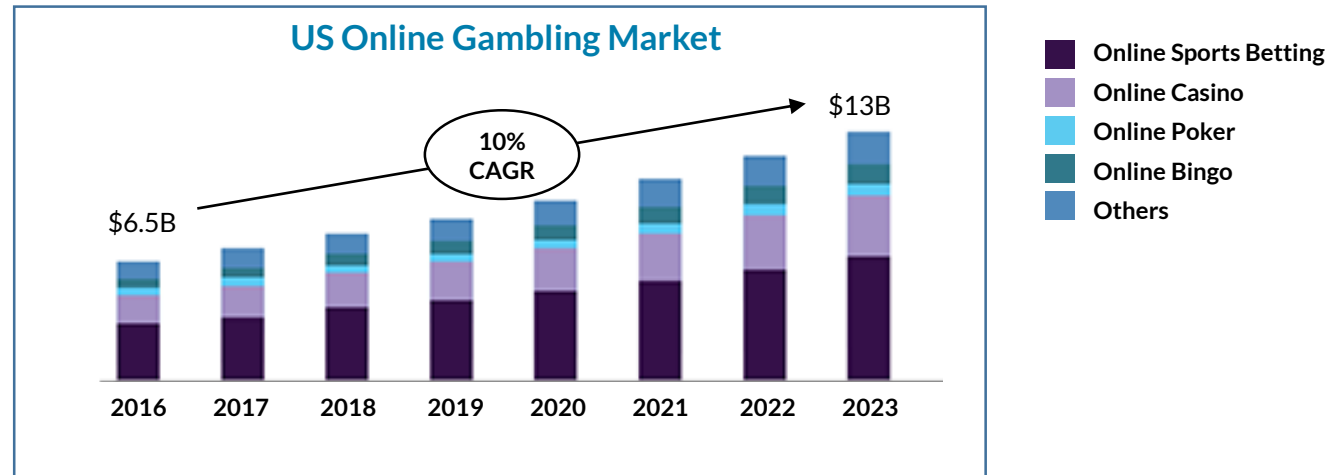
- Sports betting on live events took a hit when games were suspended, allowing Esports to take share during the shut down

- Now with sports increasingly back in action – albeit to empty stadiums – online betting is attracting increased interest as a new revenue source

- Interest is not limited to leagues and owners; State budgets are impaired and states are in search of new sources of revenue

- Online sports betting and gambling systems represent a natural extension to State lottery systems

    › In a Supreme Court decision in 2018, States won the right to legalize gambling, unleashing a wave of legislation

- At present, 22 states have legalized sports betting, covering approximately one-third of the US population, with another 8 currently contemplating legislation

- Sports betting already generates an estimated $40B in global revenue annually with online representing a relatively small but fast growing component

Legend:
- Live legal single-game sports betting
- Authorized, but not yet operational
- Active sports-betting legislation
- Dead sports-betting legislation in 2020
- No sports-betting bills in 2020

Sources: American Gaming Association

Segment Focus: Online Gambling

Online Casino and Poker

- Apart from Sports betting, online gambling is typically divided into two broad categories from a legislative standpoint:
  - › Casino-type games (slots, roulette, blackjack, etc.)
  - › Online poker (stud, draw, Texas Hold'em, etc.)

- Online Casino-style betting is legal in 6 states; not as broad based as sports betting but so far it is expanding into the same footprint; the setup for growth is strong

- Michigan passed a comprehensive online gambling and sports betting bill in the waning days of 2019
  - › Officials project year one revenues to exceed $650M and tax revenues to the State of $94M

- New Jersey is currently the largest regulated online gambling market in the US. Over a dozen legal and licensed online casino sites and poker rooms compete for an overall market that topped $470M in 2019

- In 2020, the State is on track for over $840M in online gambling and sports betting revenue. The industry is seeing 100% year-over-year gains in recent months

■ Live legal online casino-style games or poker
■ Legal sports betting but no online gambling
■ No sports-betting bills in 2020

Tech Infrastructure Playing Catch-Up to Legislative Big Bang

It is "Game On" After a 25 Year Hiatus in Sports Betting + Other Forms of iGaming

- Sports betting had been in dormancy since 1992 when the US passed the Professional and Amateur Sports Protection Act (PASPA), making sports betting illegal in most states. Outside of the US, the industry continued to grow rapidly and reached $40B in global revenue annually

- This all changed in 2018 when the Supreme Court overturned PASPA, giving states the right to regulate sports betting. This unleashed a tidal wave of legislation clearing the way for both online and offline betting

- The tech infrastructure to support the overnight creation of a multi-billion industry did not exist, and is still playing catching up

- Interstate gambling is still murky and may require Congressional action to provide clarity. Until then, more tech infrastructure is needed to keep internet traffic confined to intrastate

- Another key piece of technology infrastructure is platforms to support the mobile app development. These apps need to track high frequency interactions, wagers and micropayments. Payments infrastructure is critical in the mobile gambling world both to safeguard the betting book and to ensure a seamless user experience

US Online Gambling Market

10% CAGR

$6.5B

$13B

2016 2017 2018 2019 2020 2021 2022 2023

- Online Sports Betting
- Online Casino
- Online Poker
- Online Bingo
- Others

Sources: American Gaming Association, Grandview Research

Segment Focus: Online Betting & eCasino

The Casino "Bigs" are making long term bets that gamblers will stay at home...and keep playing

- The pandemic has kept customers away, pushing large scale operators to focus on expanding online

- Once a side show, online gambling is now a key channel for growth

  › Online revenues from casino and poker alone more than tripled in the 2nd quarter of 2020 to over $400M

  › Following its reverse merger and public listing in April, DraftKings' market value soared to $14B, eclipsing the market value of casino giant MGM and nearly equaling the newly formed Ceasars/El Dorado combination

  › This has spurred the large operators to pour money and resources into their online divisions to compensate for the collapse in offline gambling

- Online casino-style betting is legal in six states and is likely to expand rapidly now that online sports betting is legal in nearly half of the country

Gambling Revenues by Segment (New Jersey)

Legend:
- Offline Casino
- Online Gambling
- Sports Betting

Month	Offline Casino	Online Gambling	Sports Betting
Jan-20	183	46	45
Feb-20	209	43	8
Mar-20	77	56	4
Apr-20		71	
May-20		77	1
Jun-20		76	4
Jul-20	140	78	21
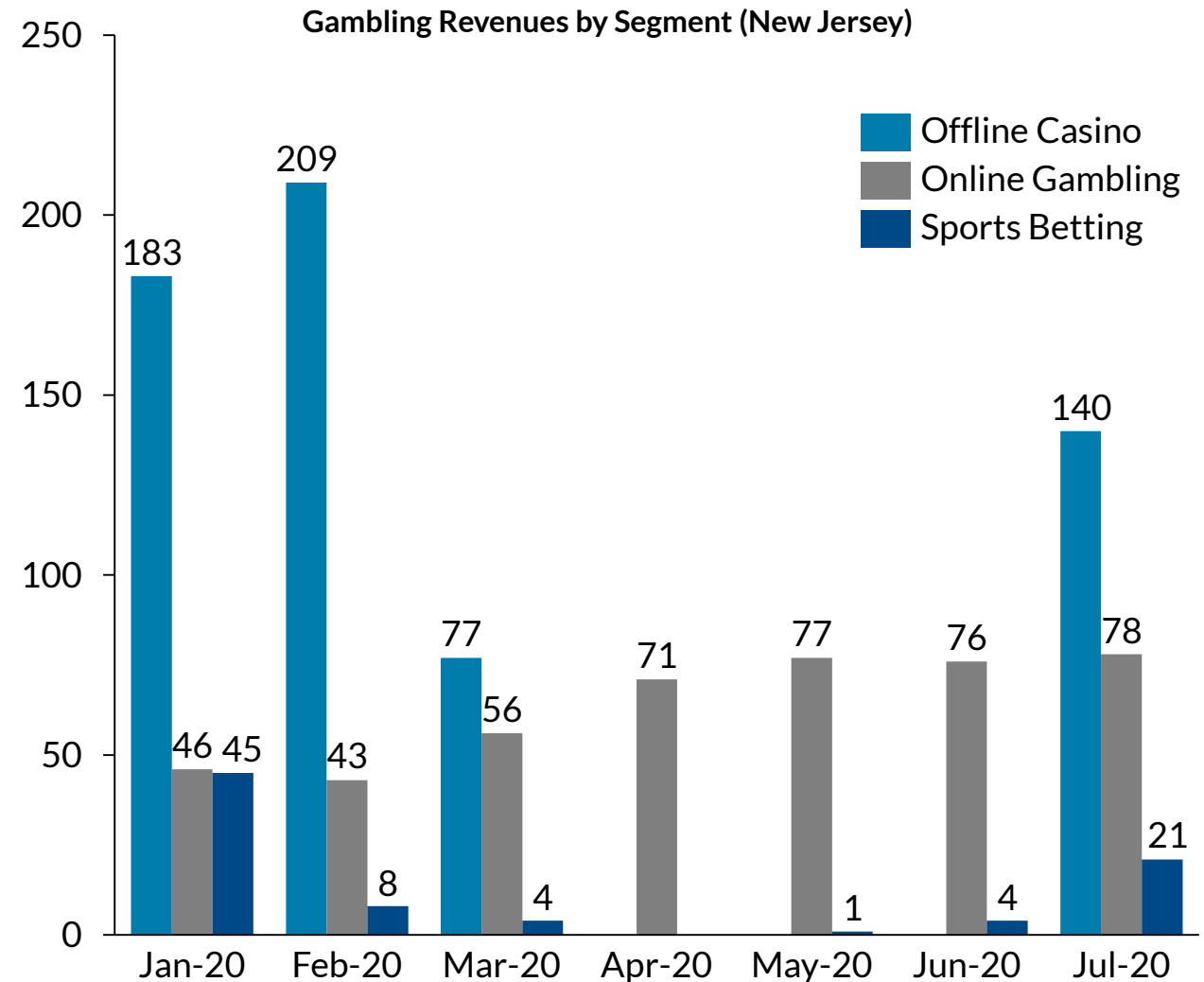
SPAC Attack

Special Purpose Acquisition Companies are getting into the game in online betting

- DraftKings executed a three way reverse merger with SBTech and Diamond Eagle to become the largest vertically-integrated U.S. based sports betting and online gambling company
  - The deal was completed at an initial market value of $3.3B in June and has since increased by six-fold to $21B, reflecting investor enthusiasm for this integrated online model
- Three months after completing the DraftKings deal, the same SPAC team announced a reverse merger involving its other entity, Flying Eagle, and mobile game operator Skillz in a deal valued at $3.5B. Skillz is the leader in the casual esports gaming category
- Rush Street Interactive announced its reverse merger with dMY Technology in late July in a deal valued at $1.8B
- Golden Nugget Online Gaming announced it would combine with Landcadia Holdings II in late June. The $745M deal is expected to close in the 3rd quarter
- Gateway Casino & Gambling scrapped its proposed $1.1B reverse merger with Leisure Acquisition Corp in July 2020
- Reviewing or Investing:
  - Caesars Entertainment / Eldorado Resorts (potential spin-out of Sports & Online Gambling operations)
  - MGM Resorts / IAC Interactive ($1 billion growth equity investment to fund online gambling growth)
  - GVC Holdings / MGM Resorts ($450M JV in BetMGM online app)
  - Penn National Gaming / Barstool Sports (JV for undisclosed amount in online betting app)
  - Sportrader – leading sports betting data provider to casino operators and bookmakers, believed to be following in DraftKings' footsteps with a SPAC-type reverse merger

DRAFT KINGS   **SBTech**

(Diamond Eagle – Apr '20)

$3.3B EV   7.3x - EV / Rev.

skillz

(Flying Eagle– Sep '20)

$3.5B EV   15.6x - EV / Rev.

RUSH STREET

(dMY Technology – Jul '20)

$1.5B EV   23.6x - EV / Rev.

GOLDEN NUGGET

(Landcadia II– Jul '20)

$745M EV   6.1x - EV / Rev.

Segment Focus: Esports

Next Destination for Ad and Online Gambling Spend

- Esports is projected to generate $974M of revenue globally in 2020 according to industry research group Newzoo. This represents a growth rate of 2.5% vs. 2019, lower than the +15.7% growth projected at the beginning of the year owing to the fallout from the Covid-19 crisis

- While forecasts for 2020 have been trimmed, nearly all of the adjustment can be attributed to revenues lost due to canceled live in-person events

- Despite muted immediate-term growth due to the crisis, Esports is poised to be a long-run beneficiary of shifting consumer and advertiser preferences
  - › Traditional sports leagues, which remain largely shut down, have looked to Esports as a means to maintaining fan engagement
  - › Many Esports competitions which were scheduled to be shown in-person are now being shown on live TV helping leagues gain traction with broadcasters
  - › Prolonged traditional sports league shutdowns are expected to drive many millennial and gen-z viewers to Esports permanently
  - › Increased user engagement within the overall video gaming space is expected to be a long-term tailwind for Esports
  - › NASCAR's iRacing Series has been a standout attracting a peak of 1.3 million viewers

- Buoyed by the lack of traditional sports broadcasting, Esports is expected to generate over $747M of sponsorship and media rights revenue representing more than 75% of total estimated 2020 revenue; both revenue sources are expected to significantly outgrow overall Esports revenue for 2020

- Through 2023, Esports is expected to grow by more than 64% to $1.6B. An acceleration of mainstream adoption amongst both viewers and broadcasters driven by increasing interest from millennials and gen-z is the cornerstone to long term industry expansion

- Betting on Esports is expected to double to $14B in 2020 as gamblers shift spending away from traditional sports during the pandemic and regulations are relaxed on Esports to permit legal sports betting
  - › Nevada recently approved bookmakers to offer wagers on games such as *League of Legends, Call of Duty, iRacing* and others

Sources: Newzoo, 2CV, ProdgeMR

Esports Technology Case Study

Statespace is the leading AI-based analytics and training platform for esports and beyond

STATESPACE

Vendor Profile

Statespace Labs, Inc. at a Glance

- Statespace, which was founded in 2017 by Wayne Mackey, Ph.D. in Cognition & Perception from NYU has developed an AI-based analytics and training platform that uses cognitive science and artificial intelligence to revolutionize the way humans improve personal performance and health outcomes

- Statespace develops highly engaging training platforms that allow for scientifically proven methods of data collection, measurement and synthesis of skills and performance data based on esports contents with significantly further reaching implications

- Current and in-process implementations range from esports training, to stroke rehabilitation partnerships with leading medical institutions including Mount Sinai, New York University and Johns Hopkins University

Strategic Goals & Opportunities

- The B2C market as served by Aim Lab, focused on esports training, is just the tip of the iceberg; all aspects of human development can benefit from adaptive cognitive training, data collection & analysis

- In addition to esports training, near term focus B2B applications in process and testing include health & wellness, education, military and traditional sports

Financial Overview

- Since its founding, Statespace has raised $18 million from leading VC investors

Technology Snapshot

AIMLAB

Aim Lab (*Beta*) at a Glance

- Aim Lab (*Beta*) is the ultimate first person shooter ("FPS") and third person shooter ("TPS") training solution. Built by neuroscientists, Aim Lab blends cutting-edge performance tracking and analytics with AI-based training to make you better, faster at esports

- The Aim Lab platform was developed by and is fully owned by Statespace

- Focus is to help players develop fundamental perceptual and cognitive skills that transcend both game and genre

- As players perform tasks, Aim Lab stores all their data to help them track improvement, understand which areas they can build upon, and recommend tasks specifically tailored for each player

- Players can achieve ranks based on performance

- At the completion of each task, players are provided with key metrics that provide players with actionable feedback

- Currently operates for PC; iOS and mobile to launch in process

Near-term Expansion Path

- Focus on accessing additional user base through:
  - › Launch of iOS, mobile and gaming console
  - › Expansion to new genres

Esports + Online Sports Betting Case Study

Abios is a subscription based esports data company, operating a DaaS (data as a service) business model

Abios

Abios Overview

About Abios

- Founded early 2013 in Stockholm, Abios now works with clients from all over the world engaged in everything from media to betting

- Abios distributes and provides esports data on a B2B basis. The core product, the Abios API, was the world's first of its kind in esports. It contains fast and granular esports data with the broadest coverage of games and matches, both live and historical

- In early 2019, Abios expanded its product catalog to include esports Widgets, delivering visual content with no technical overhead required from clients

- In 2020, Abios Odds were launched as the company's third product line, providing a full life cycle esports prediction service

- Abios has roughly 40 employees split between its three offices in Stockholm, Manilla and Beijing

Strategic Goals & Opportunities

- The esports data, odds and statistics market is in its infancy. Significant opportunities for expansion of use cases to traditional sports markets and sports related applicants exist

Financial Overview

- Abios has high gross margins, organic revenue growth of over 50%, and is currently cash flow break-even

Customer Snapshot

UNIBET

Unibet at a Glance

- Unibet, part of online gambling conglomerate Kindred, is one of the strongest sportsbook brands in Europe and recently expanded into the US.

- Kindred has more than 1,600 employees in more than 55 countries with hubs in London, Malta, Stockholm and Gibraltar as well as teams in Antwerp, Milan, Madrid, Paris, Copenhagen, New York and Sydney

Abios & Unibet

- Unibet leverages the Abios API for its detailed and granular Play-by-Play esports data, in particular for:
  › Match insights, esports lobby and information for punters
  › Connecting odds with statistics, displaying relevant information in connection to the odds
  › Region specific compliance, such as player ages

- Unibet has made use of the Abios Widgets to enhance the esports product:
  › Pre-match statistics, rosters, head-to-head encounters etc.
  › Detailed live widgets to create a more immersive feel

Results

- Unibet user engagement and bets placed on esports has skyrocketed over the past two years

- The modern interface and product offering has attracted a fresh younger audience

- Traditional sports bettors have increased interest in and transitioned betting to esports

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Publicly Traded Gaming & Online Betting Companies

Gaming / AR / VR							
($ in millions) Company	Enterprise Value / EBITDA	Enterprise Value / Rev	Enterprise Value	Revenue 2020E	Revenue Growth 2020E / 2019A	2020E Margins	
						EBITDA	Gross
Tech Titans							
Microsoft	21.8x	10.5x	$1,494,845	$149,336	11%	49%	45%
NVIDIA	75.2x	24.5x	319,463	15,719	44%	0%	63%
Betting							
DRAFT KINGS	NA	41.1x	$21,433	$522	NA	(49%)	NA
IGT	17.2x	2.7x	10,729	3,341	(30%)	30%	35%
Gaming / AR / VR							
AMD	93.8x	12.4x	$95,157	$8,888	32%	18%	44%
ACTIVISION	22.7x	8.1x	56,776	7,803	20%	41%	70%
EA	19.8x	5.6x	32,386	6,183	15%	35%	75%
T2	22.9x	4.8x	16,208	3,065	7%	26%	47%
UBISOFT	23.1x	6.6x	11,655	2,742	NA	26%	84%
zynga	92.1x	5.7x	9,188	2,212	67%	22%	63%
CD PROJEKT	14.8x	3.2x	1,143	380	7%	23%	38%
Total Median	**22.8x**	**6.6x**	**$21,433**	**$3,341**	**15%**	**26%**	**55%**

Notes

(a) Rule of 40 = Revenue Growth Rate + EBITDA Margin Ratio

(b) Calculated as Equity Value plus total debt, minority interest (at book value unless otherwise noted) and preferred stock, less cash & equivalents

(c) Based on closing stock prices on October 5, 2020

Source: PitchBook

Game Tech Valuations Fully Recover to Pre-COVID Highs

- The median EV/LTM revenue multiple of the Game Tech Index[1] dropped to a COVID correction low of 3.9x in March before rebounding 74% to a high of 6.8x, in early July

- At a 6.6x multiple, the index has fully recovered to pre-COVID valuation levels and is just one turn below its all time high in 2018

- A period of euphoria around Battle Royale games in 2018 led to a median EV/LTM Revenue multiple high of 7.3x,

[1] Constituents include: MSFT, NVDA, DKNG, IGT, AMD, ATVI, EA, TTWO, UBI, ZNGA

Game Tech M&A Trends

M&A VALUE & DEAL COUNT
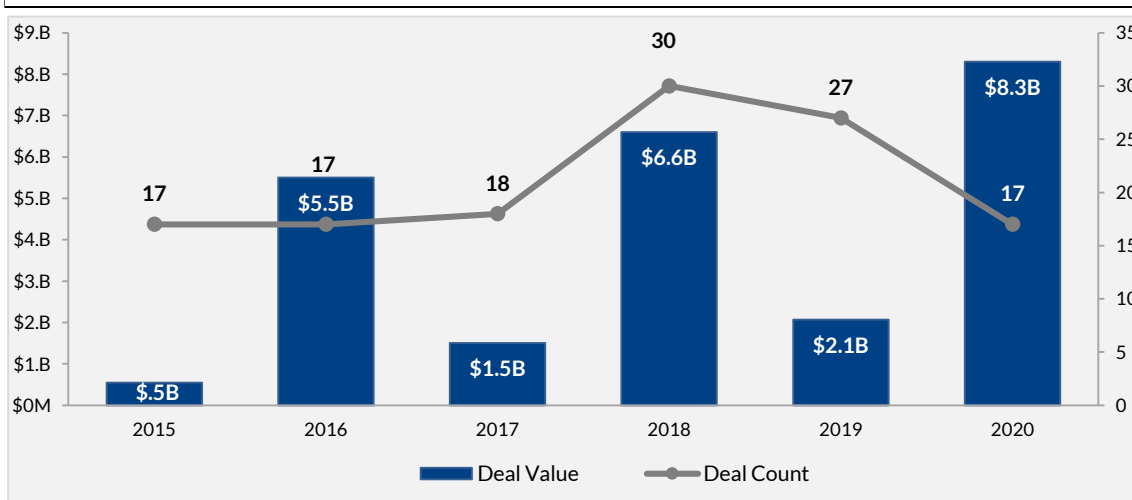
M&A COMMENTARY

- Annual M&A volume in the Game Tech hit a record 30 deals in 2018, a two-fold increase over 2015

- Many of the big name acquisitions in 2019 were Strategic led, including Sony's acquisition of Insomniac Games for $229M, Epic's acquisition of Psyonix, THQ Nordic's acquisition of Warhorse and Microsoft's purchase of Double Fine

- 2020 is shaping up to be a record year in total with over $8B in deal value, powered by the three blockbuster SPAC deals for DraftKings/SBTech, Rush Interactive and Golden Nugget Online Gambling

TOP 10 M&A TRANSACTIONS OF THE LAST 5 YEARS

Date	Target	Acquirer	EV ($M)	EV/Rev	Date	Target	Acquirer	EV ($M)	EV/Rev
Oct-2019	THE STARS GROUP	Flutter	$7,724	3.2x	Jul-2020	RUSH STREET INTERACTIVE	dMY Technology Group	$1,495	ND
Apr-2018	sky bet	THE STARS GROUP	4,710	5.6x	Apr-2017	DOUBLE DOWN INTERACTIVE	DOUBLEU GAMES	825	ND
Apr-2017	Playtika	YF Capital / HONY CAPITAL	4,400	ND	Jun-2020	GOLDEN NUGGET	LANDCADIA HOLDINGS	745	6.1x
Sep-2020	skillz		3,500	15.6x	Sep-2017	NYX GAMING GROUP	SCIENTIFIC GAMES	631	3.6x
Aprl-2020	DRAFTKINGS SBTech		2,721	7.0x	Jun-2019	gamesys group	jackpotjoy	623	ND

Top Game Tech Acquirers

Acquirer	Number of Acquisitions	Notable Transaction	Representative Acquisitions
unity	13	Nov-17 - Multiplay ($25M)	Multiplay; Obvioos; Mercer Road; Ludiq; Digital Monarch Media; deltaDNA; Codice Software; Artomatix; ChilliConnect; Engine Room Games; Finger Food Advanced Technology Group; Graphine; Vivox
Keywords STUDIOS	13	Dec-17 - Spearsoft ($27M)	Sperasoft; Synthesis; Studio Gobo; Strongbox; Blindlight; GameSim; Volta Creation; Yokozuna Data; Wizcorp; D3T; Snowed In; Coconut Lizard; Technicolor
playtech SOURCE OF SUCCESS	10	Jul-18 - Snaitech ($790M)	Snaitech; Best Gaming Technology; Eyecon; Quickspin; Bet Buddy; FTX Games; GECO Gaming Group; YoYo Games; ECM Systems; Funtactix
UBISOFT	10	Feb-17 - Growtopia ($30M)	Growtopia; Blue Mammoth Games; FreeStyleGames; i3D.net; Ivory Tower; Kolbri Games; Green Panda Games; 1492 Studio; Ketchapp Games; Longtail Studios
STILLFRONT GROUP	10	Dec-17 - Altigi ($320M)	Candywriter; Storm8; KIXEYE; Altigi; Babil Games; Imperia Online; Playa Games; eRepublik Labs; Simutronics; OnlineFussballManager
gamigo	10	Apr-19 - WildTangent (ND)	HoneyTracks; Playzo Games; Poged; WildTangent; Trion Worlds, Mediakraft Networks; Highdigit; Aeria Games; Infernum; Mobile Business Engine
EPIC GAMES	8	Jan-18 - Cloudgine (ND)	Cloudgine; Cubic Motion; Life on Air; 3Lateral; Agog Labs; Kamu; Psyonix; Quixel
PlayWay PlayWay.com	5	Jan-18 - Space Boat Studios (ND)	Space Boat Studios; Rebelia Games; Imaginalis Games; Woodland Games, Gameplanet
EnthusiastGaming	5	Apr-19 - Omnia Media ($34M)	Omnia Media; Steel Media; The Sims Resource; Operation Sports; IncGamers Brand;
logitech	4	Sep-19 - Streamlabs ($89M)	Streamlabs; upictol; CHALLONGE; Beyond Entertainment

Gaming Tech Private Placement Trends

CAPITAL INVESTED & DEAL COUNT

Legend: Capital Invested, Deal Count
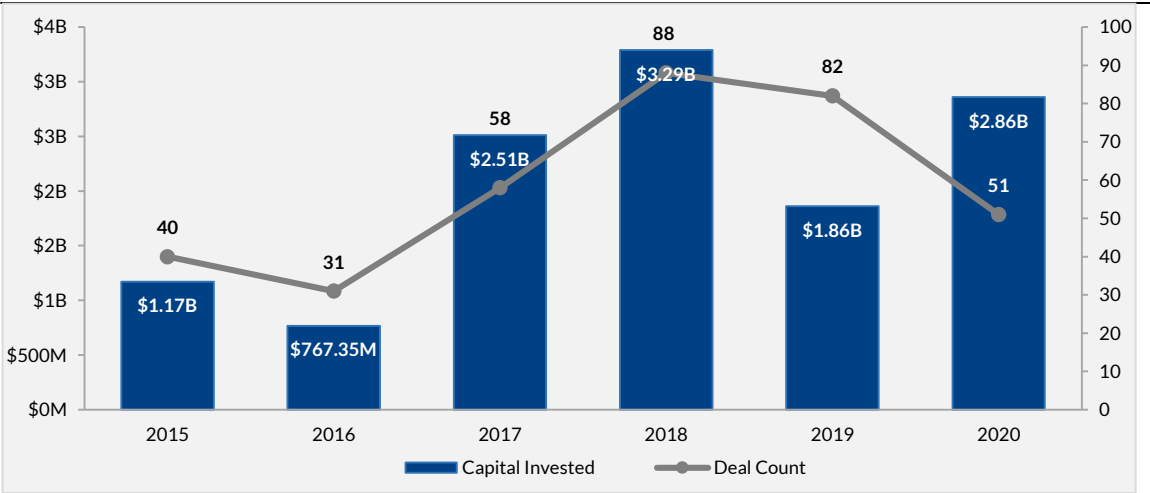
PRIVATE PLACEMENT COMMENTARY

- Investment in the Game Tech sector has continued to rise over the last four years. Private placement deal volumes and dollar value are on track to exceeded 50 deals and $2B for three of the last four years

- Notable recent venture rounds include Epic's late stage funding of $1.8B led by Sony in June and Unity's late stage funding of $699M led by Silver Lake ahead of its expected IPO later this year

- So far in 2020, 51 transactions have been completed highlighted for $2.8B. The year is on pace to eclipse 2018 for record fund raising

TOP 10 FINANCING TRANSACTIONS OF THE LAST 5 YEARS

Date	Size ($M)	Company	Type	Investor(s)	Date	Size ($M)	Company	Type	Investor(s)
Jul-2020	1,780	EPIC GAMES	Late Stage	SONY +10 other investors	Jun-2015	275	FANDUEL	Series E	KKR + 19 other investors
Oct-2018	1,250	EPIC GAMES	Late Stage	Disney +12 other investors	Jul-2020	250	EPIC GAMES	Corporate	SONY
May-2017	502	IMPROBABLE	Series B	SoftBank + 2 other investors	Jan-2019	245	NIANTIC	Series C	IVP
Jul-2015	500	DRAFTKINGS	Series D	MSG NETWORKS +14 other investors	Oct-2018	200	DRAFTKINGS	Series F	GTP Growth Technology Partners + 3 other investors
Jun-2017	400	Unity	Series D	SILVERLAKE + 5 other investors	Jan-2019	200	NIANTIC	Series B	SPARK + 3 other investors

Source: Pitchbook. North America and Europe regions only.

Top Gaming Tech Investors

Investor	Number of Investments	Representative Investments
MAKERS FUND	12	DreamCraft; FACEIT; Fad Mania; Gameye; Genvid; Midnite; Parsec; Popdog; SuperData; Superplus; Team SoloMid; Typhoon Studios
BITKRAFT ESPORTS VENTURES	9	Anzu.io; Boom.tv; Carbonated; Epic Games; FanAI; Koji; Kokyo; META Games; Ready Makers
THE VENTURE REALITY FUND	7	Drifter Entertainment; Epic Games; InstaVR; Rec Room; Replica Studios; Silver.tv; Torch 3D
GALAXY INTERACTIVE	7	Genvid; Immutable; Koji; Dazzle Rocks; Lucid Sight; Azarus; Gamefam
ANDREESSEN HOROWITZ	6	Caffeine; Carbonated; Descript; Improbable; SandboxVR; Super Evil Megacorp
LONDON VENTURE PARTNERS	6	AppOnboard; Coda Platform; Hadean; Matchmade; Polystream; Robin Games
intel Capital	6	Airship; Game TV; Overwolf; Paperspace; Polystream; WSC Sports
SEQUOIA	5	App Annie; Armis; Rec Room; Skillz; Unity
FOUNDERS FUND	4	Branch; GreenPark Sports; Mobalytics; Niantic
Battery	3	Braze; Niantic; Paperspace

*Deal count shown includes 2015 –July 2020

Source: 451 Research, PitchBook

Top Funded Companies

Company	Total Funding ($M)	Location	Sector	Lead / Majority Investors	Business Description
EPIC GAMES	$3,360	Cary, NC	Platforms & Content Aggregators	KKR, Vulcan Capital, Tencent Holdings, Sony	Developer of gaming platform designed for gamers and game developers to publish and play immersive games.
APPLOVIN	1,392	Palo Alto, CA	Monetization & Performance Tracking	KKR, Orient Hontai Capital	Operator of a mobile advertising network created to help advertisers target and deliver personalized ads to people who are similar to their existing user base.
unity	699	San Francisco, CA	Specialized Tools	Silver Lake, Sequoia Capital, DFJ Growth, WestSummit Capital, Altimeter Capital	Developer of a real-time 3D (RT3D) development platform intended to help in game and application development.
PERFORCE	661	Minneapolis, MN	Specialized Tools	Francisco Partners	Developer of source code management and collaboration software platform to build and deliver digital products faster and with higher quality.
IMPROBABLE	604	London, United Kingdom	Specialized Tools	Andreessen Horowitz, Norizons Ventures, NetEase, SoftBank Vision Fund, Amadeus Capital Partners	Developer of an operating system designed to offer virtual gaming experiences.
DISCORD	494	San Francisco, CA	eSports	Greenoaks Capital, Spark Capital, Index Ventures, Benchmark, Tencent Holdings, Greylock, 9+ Program	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly.
NIANTIC	480	San Francisco, CA	Entertainment Software	Spark Capital, Alsop Louie Partners, IVP	Developer of an augmented reality platform intended to enrich mobile gaming experiences.
VINDEX	380	New York, NY	Specialized Tools	J Ventures, Joel Greenblatt, Steve Bornstein	Developer of an esports infrastructure platform intended to equip partners with services and technology to scale to a mainstream global audience, and which is actively pursuing a consolidation strategy in this category.
branch	367	Redwood City, CA	Specialized Tools	Playground Global, Zach Coelius, New Enterprise Associates, TriplePoint Capital	Developer of deep linking technology designed to gain and retain mobile app users.
AppsFlyer	294	San Francisco, CA	Monetization & Performance Tracking	Eight Roads, F-Prime Capital, General Atlantic, Goldman Sachs Growth, Microsoft ScaleUp	Operator of a mobile attribution and marketing analytics platform intended to make the marketing industry measurable

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M&A Transactions

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Sep-20	Skillz	Flying Eagle Acquisition Corp	3,500	225	15.6x	Provider of online competitive mobile video games for consumers, primarily for use via iOS and Android mobile applications
Jul-20	Methodics	Perforce Software	ND	ND	ND	Provider of intellectual property lifecycle management and traceability solutions
Jul-20	Playable Platform	Huuuge Games	ND	ND	ND	Provider of advertising and marketing services in Amsterdam, Netherlands
Jul-20	Memsource	The Carlyle Group	ND	ND	ND	Developer of a web-based translation software designed to translate documents in the cloud
Jun-20	TestCraft	Perforce Software	ND	ND	ND	Developer of a test automation platform for regression and continuous testing, as well as monitoring of web applications
Jun-20	The Crown League	HOF Village	ND	ND	ND	Developer of investment gaming platform intended to institutionalize fantasy football into a national sports entertainment platform
May-20	Finger Food Advanced Technology Group	Unity	ND	ND	ND	Provider of software development and designing services based in Port Coquitlam, Canada
Apr-20	Allinsports	Torque eSports	11	ND	ND	Manufacturer of simulation systems based in Formigine, Italy
Apr-20	Amblyotech	Novartis	ND	ND	ND	Developer of medical modalities platform designed to offer novel medical treatments for treating amblyopia and other ocular disorders
Mar-20	Adaptavist (Test Management for Jira)	SmartBear	ND	ND	ND	Developer of a test management app for enterprise teams
Mar-20	Mandalorian Technologies	PAF	ND	ND	ND	Operator of an online gaming platform based in Sweden
Mar-20	Studio Firefly	Phoenix Games	ND	ND	ND	Provider of live-ops, development services and horizontal expansion to new platforms in Cluj-Napoca and Bucharest
Feb-20	Armis (USA)	Insight Partners	1,100	ND	ND	Developer of an agentless IoT security platform for enterprises intended to identify unmanaged devices and networks
Feb-20	Guru Games	Thunderful	ND	ND	ND	Provider of game designing services based in Skövde, Sweden

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Dec-19	Typhoon Studios	Alphabet	ND	ND	ND	Operator of a gaming studio designed to create computer games
Dec-19	PlayGiga	Facebook	78	ND	ND	Developer of a virtualization technology designed to play games that are streamed to Internet-connected devices
Nov-19	Emenda	Perforce Software	ND	ND	ND	Provider of tools and expertise to developers building software
Nov-19	Quixel	Epic Games	ND	ND	ND	Developer of an online multimedia platform intended to bring artistry and speed back to next-gen workflows
Oct-19	Optima Gaming	Sportradar	ND	ND	ND	Operator of sports betting and gaming platform based in Sevilla, Spain
Oct-19	ChilliConnect	Unity	ND	ND	ND	Developer of a game management platform intended for modern game development
Sep-19	Vungle	The Blackstone Group	750	430	1.7x	Provider of a performance marketing platform intended for in-app video advertisements
Sep-19	JPJ Group	Gamesys	ND	530	ND	Gamesys Group PLC is engaged in providing online gaming
Sep-19	deltaDNA	Unity	ND	ND	ND	Provider of an analytics and marketing platform designed to deliver dedicated tools and technology for gamers
Aug-19	Bitbar	SmartBear	ND	ND	ND	Developer of a cloud-based mobile application testing platform designed to make developers' lives easier
Jul-19	PLAYlive Nation	Simplicity eSports and Gaming	ND	ND	ND	Operator of gaming lounges based in Aberdeen, Washington
Jul-19	QA Systems	Perforce Software	ND	ND	ND	Provider of software development solutions based in Stuttgart, Germany
Jul-19	Sportium Apuestas Deportivas	Cirsa	158	ND	ND	Operator of an online sports betting house based in Barcelona, Spain
Jul-19	Sonantic	Oracle	ND	ND	ND	Developer of speech-driven communication intelligence software intended to create expressive, emotional, natural, human and hyperrealistic speech technologies

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Jun-19	Cucumber	SmartBear	ND	ND	ND	Developer of open source and commercial collaboration tools
Jun-19	BuildBox	AppOnboard	ND	ND	ND	Developer of a game development platform intended to help users create games without needing to code or program
May-19	Jetbull	AMGO AB	2	ND	ND	Operator of online gaming platform
May-19	Giga Games System Operation	Cirsa	ND	ND	ND	Operator of a game and leisure group, based in Spain
Apr-19	Respin	ND	1	ND	ND	Developer of mobile gaming technology
Mar-19	Chess24	Play Magnus	ND	ND	ND	Operator of online games headquartered in Hamburg, Germany
Feb-19	Rogue Wave Software	Perforce Software	473	150	3.2x	Developer of object-oriented and infrastructure software designed for building, connecting, and securing applications
Feb-19	Project Coin	Blueprint Gaming	ND	ND	ND	Developer of games and gaming machines based in Thornton Heath, United Kingdom
Feb-19	Adjarabet	Flutter Entertainment	256	67	3.8x	Developer of a decentralized peer-to-peer (P2P) betting platform designed to conduct online betting
Jan-19	Audiokinetic	Sony Interactive Entertainment	ND	ND	ND	Developer of an interactive audio powering technology intended to provide realistic gaming sound
Jan-19	Ezugi	Evolution Gaming Group	18	ND	ND	Provider of Live Casino solutions based in Tel Aviv, Israel
Dec-18	FreshPlanet	Gameloft	ND	ND	ND	Provider of an online gaming platform designed to offer educational games for children
Dec-18	Bridge Base Online	Funbridge	ND	ND	ND	Operator of an online gaming platform
Dec-18	X2 Games	Global Gaming Technologies	37	ND	ND	Developer of gaming software platform which integrate blockchain technology and cryptocurrency

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Dec-18	Virtually Entertained	Motorsport Network	ND	ND	ND	Provider of eSports equipment rental services, based in Silverstone, United Kingdom
Dec-18	Perfecto	Perforce Software	200	ND	ND	Provider of cloud-based testing, automation and monitoring technology designed to help customers strengthen their digital interaction
Oct-18	Newzoo	Advance Publications	ND	ND	ND	Provider of market intelligence intended to serve the global games, eSports, and mobile markets
Oct-18	Zephyr (Software)	SmartBear	ND	ND	ND	Provider of on-demand enterprise test management software
Sep-18	SuperData	The Nielsen Company	ND	3,300	ND	Provider of market intelligence platform intended to offer quantitative and qualitative insights on free-to-play games, digital console, mobile, PC downloadable and others
Aug-18	Professional eSports League	Akatsuki	ND	ND	ND	Operator of League of Professional eSports where professional sports teams participate in eSports
Jul-18	Snaitech	Playtech	790	1,068	.7x	Provider of products and services for the gaming and betting market in Italy
Jul-18	FanDuel	Betfair International	465	127	3.7x	Developer of a fantasy sports game platform created to make sports more exciting
Jul-18	Priori Data	AppScatter	18	ND	ND	Provider of mobile intelligence stack designed to provide tools needed to outperform competition in the application stores
Jun-18	Gaming Realms (UK online casino B2C business)	River UK Casino	40	18	2.3x	Provider of online casino gaming services in United Kingdom
Jun-18	River UK Casino	River iGaming	44	ND	ND	River UK Casino is an operator of online casinos
Jun-18	Made in Brazil EE	Immortals Gaming Club	ND	ND	ND	Operator of an eSports team in Brazil
Jun-18	Eagle Strike Entertainment	Grover Gaming	ND	ND	ND	Distributor of electronic pull tabs for the gaming industry
Jun-18	Baadshah Gaming	Casino Pride	500	ND	ND	Operator of an online gaming company

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
May-18	Hiptest	SmartBear	ND	ND	ND	Operator of test management platform
May-18	PRQA Programming Research	Perforce Software	ND	15	ND	Developer of enterprise-grade static code analysis platform designed to work hand-in-hand with developers to promote safe coding practices
Mar-18	William Hill Australia	CrownBet	244	154	1.6x	Operator of a bookmaking company
Mar-18	Vermantia	Arena Leisure	ND	ND	ND	Developer of omni-channel content for lotteries, gaming & betting operators
Mar-18	Sportium Apuestas Deportivas	GVC Holdings	ND	187	ND	Operator of an online sports betting house based in Barcelona, Spain
Feb-18	CrownBet	Stars Group	248	ND	ND	Provider of wagering services intended to be a trusted, socially-responsible wagering operator in Australia
Feb-18	BetCenter Group	Gauselmann	ND	129	ND	Provider of online betting services intended for sports betting in Belgium
Jan-18	Coffee Stain North	Coffee Stain Studios	ND	ND	ND	Developer, publisher and distributor of interactive entertainment products designed to deliver original and memorable gaming experiences across all popular platforms
Jan-18	Space Boat Studios	PlayWay	0	ND	ND	Developer of online video games
Jan-18	Gambit eSports	Mobile TeleSystems	5	ND	ND	Operator of an eSports organization managing several teams
Jan-18	Perforce Software	Clearlake Capital	ND	ND	ND	Developer of software configuration management systems
Nov-17	MTGamer	China Information Technology Development	ND	ND	ND	Provider of eSports hosting and organizing services
Nov-17	Experiment 101	Embracer Group	9	1	7.9x	Operator of a game development studio in Stockholm, Sweden
Nov-17	Gorilla Core	FaZe Clan	ND	ND	ND	Operator and manager of an eSports team

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Nov-17	NextGen Tech	Mr. Jerr Jones and Mr. John Goff	ND	ND	ND	Operator of a competitive gaming organization in Houston, Texas
Oct-17	Bet Buddy	Playtech	ND	ND	ND	Provider of a data analysis dashboard platform intended to offer gambling analytics
Aug-17	National League of Poker	Cafrino	ND	ND	ND	Provider of social and online poker gaming application
Jul-17	GameSparks	Amazon.com	13	3	4.1x	Developer of cloud based gaming platform designed to build and monetize games
Jun-17	Destiny.Games	ND	ND	ND	ND	Developer of online multiplayer games
May-17	SmartBear	Francisco Partners	410	ND	ND	Developer of enterprise-class software development and testing tools designed to deliver the highest quality and best performing software possible
Apr-17	Spicerack Media	Scientific Games	ND	ND	ND	Developer of mobile phone games
Feb-17	Eyecon	Playtech	62	ND	ND	Developer of computer games intended for entertainment
Feb-17	Lume Games	Next Games	ND	ND	ND	Developer of virtual games
Jan-17	DEQ Systems	Scientific Games	20	7	2.7x	Developer of online games
Jan-17	Simplygon	Microsoft	ND	ND	ND	Developer of automatic 3D-optimization solutions intended to enhance 3D data
Jan-17	Armature Studio	Permira	85	ND	ND	Developer of gaming software in the United States
Dec-16	Respin	Nektan	ND	ND	ND	Developer of mobile gaming technology
Dec-16	Foretell Studios	The Glimpse Group	ND	ND	ND	Developer of virtual games

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Nov-16	Seapine Software	Perforce Software	ND	ND	ND	Developer of application lifecycle management (ALM) software
Nov-16	Grimoire	Happy Elements	2	ND	ND	Developer, publisher and distributor of interactive entertainment products designed to deliver original and memorable gaming experiences across all popular platforms
Oct-16	Gamellon	TVN	ND	ND	ND	Developer of online games
Aug-16	Curse	Twitch Interactive	ND	ND	ND	Operator of a gaming portal
Jul-16	GameAnalytics	Mobvista	ND	ND	ND	Provider of cloud hosted services for tracking, analysis and reporting of game metrics
Jul-16	Best Gaming Technology	Playtech	177	ND	ND	Developer of betting software
Jun-16	Action Phase Games	Indie Boards and Cards	ND	ND	ND	Operator of a game design studio
Jun-16	Gameloft	Vivendi	1,081	284	3.8x	Developer of online games
May-16	FTX Games	Playtech	ND	ND	ND	Developer of a web-based gaming software designed to offer mobile and social games
May-16	Quickspin	Playtech	57	6	8.8x	Operator of a video game development studio and gambling center
May-16	Time Warner Cable	Charter Communications	77,403	24,111	3.2x	Provider of online video services
May-16	CrossBrowserTesting	SmartBear	ND	ND	ND	Provider of web based browser testing software
Apr-16	Vanguard Games	Force Field Entertainment	ND	ND	ND	Operator of a gaming studio created to provide online gaming
Mar-16	GECO Gaming Group	Playtech	ND	ND	ND	Developer of gaming software created to offer a content aggregation platform

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Feb-16	Perforce Software	Summit Partners	97	ND	ND	Developer of software configuration management systems
Oct-15	Telekinesys Research	Microsoft	ND	18	ND	Developer of game development technologies for artists, animators, programmers, and game developers
Sep-15	AlphaDraft	FanDuel	ND	ND	ND	Developer of an eSports platform intended for video game players
Sep-15	Neolotto	Axel Springer, Playtech	ND	ND	ND	Provider of lottery services to both government lottery provider and leading consumer brands
Aug-15	numberFire	FanDuel	ND	ND	ND	Provider of a sports analytics platform to predict and analyze sports performance
Jul-15	Kotikan	FanDuel	ND	ND	ND	Operator of a mobile application development company
Jun-15	Parlay (Rights to Software Source Code)	JPJ Group	2	ND	ND	A portfolio of software gaming products
Jun-15	Video King	Global Leveraged Capital	15	ND	ND	Manufacturer and distributor of gaming software
Apr-15	Arario	DTC Japan	ND	ND	ND	Developer and operator of online games
Mar-15	Cadillac Jack	AGS	382	93	4.1x	Supplier of products and technologies for the gaming market
Mar-15	Swagger.io	SmartBear	ND	ND	ND	An API open-source project
Mar-15	CrownBet	Crown Resorts	ND	ND	ND	Provider of wagering services intended to be a trusted, socially-responsible wagering operator in Australia
Mar-15	Stylefoundry	Spicerack Media	ND	ND	ND	Provider of web-development services
Mar-15	Pro-G Media	IBIBI HB	ND	ND	ND	Developer of online games

M&A Transactions (Cont'd)

Date	Target	Acquirer	Size ($M)	TTM Rev	EV / Rev	Target Description
Feb-15	YoYo Games	Playtech	21	3	6.4x	Provider of game development technology
Feb-15	Merkur Inspired	Inspired Entertainment	ND	ND	ND	Provider of virtual sports and mobile games
Jan-15	Vera&John	JPJ Group	126	ND	ND	Provider of gaming services
Jan-15	Max Software Engineering	otris software	ND	ND	ND	Provider of financial and e-commerce software

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Private Placement Transactions

Date	Target	Round	Size ($M)	Investors	Target Description
Aug-20	ChallengerMode	ND	$12	Back in Black, eWTP Capital, GP Bullhound, Telia Ventures, Zlatan Ibrahimovic	Provider of an online gaming platform intended to help players to compete against one another for money
Aug-20	Mobalytics	Series A	14	Almaz Capital, aXiomatic, Cabra VC, General Catalyst, GGV Capital, HP Tech Ventures, RRE Ventures, T1 Entertainment & Sports	Developer of a personal gaming assistant designed for competitive gamers to analyze and improve performance
Aug-20	GreenPark Sports	Series A	11	ND	Developer of digital experiences and mobile games intended for the new generation of sports and eSports fans
Jul-20	Vindex	ND	300	ND	Developer of an eSports infrastructure platform intended to equip partners with services and technology to scale to a mainstream global audience
Jul-20	Matterport	ND	52	ND	Developer of an immersive 3D media platform designed to establish 3D and Virtual Reality (VR) models as a primary medium for experiencing, sharing and re-imagining the world
Jul-20	b Spot	Series C	20	ND	Developer of real money mobile gambling platforms designed to offer a mobile games community of online horse wagering network
Jul-20	Caffeine	Series D	113	Andreessen Horowitz, Cox Enterprises, Fox Corporation, Greylock Partners, Sanabil Investments	Developer of a social broadcasting platform intended for gaming, entertainment and creative arts broadcasts
Jun-20	Discord	Series G	100	Index Ventures, IVP	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly
Jun-20	Epic Games	ND	1,780	BlackRock, Fidelity Management & Research, Kohlberg Kravis Roberts, Lightspeed Venture Partners, Ontario Teachers' Pension Plan, Smash Ventures, SonyThe Venture Reality Fund	Developer of gaming platform designed for gamers and game developers to publish and play immersive games
Jun-20	Boom.tv	Series A	10	BITKRAFT eSports Ventures, Boost VC, Crest Capital Ventures, Crosscut Ventures, Everblue Management, First Round Capital, H. Barton Asset Management, Imagination Capital	Developer of a 3D live streaming platform designed to watch eSports on any device
May-20	Statespace	Series A	15	Expa, FirstMark Capital, June Fund, Khosla Ventures, Lux Capital Management	Developer of AI-based analytics and training platform that uses cognitive science and artificial intelligence to revolutionize the way humans improve
May-20	Hatch	Series B	10	Lowercase Capital, NextEquity Partners, Shea Ventures, True Ventures, Walden Venture Capital	Developer of sleep-based smart products intended to help people get a good night's rest

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Apr-20	Sensor Tower	ND	$45	Riverwood Capital	Developer of data analytics platform intended to provide insights into the mobile app ecosystem
Mar-20	Genvid	Series B	33	Galaxy Interactive, Horizons Ventures, Huya, K5 Global, Makers Fund, March Capital Partners, NTT Docomo Ventures, OCA Ventures, Samsung Venture Investment, Valor Equity Partners	Provider of an interactive streaming engine designed to integrate games into eSports broadcasts
Mar-20	Koji	Series A	10	Andy Kleinman, BITKRAFT eSports Ventures, Galaxy Interactive, Keshif Ventures, Mark Pincus, Michael Eisner, Modern Times Group MTG, Moonshots Capital, Next 10 Ventures, Richard Gingras	Developer of a mobile platform aimed at designing Interactive posts, games and web applications in minutes
Mar-20	SimpleBet	Series B	20	Andre Agassi, David Baron, David Blitzer, David Levy, MLB Giants, San Francisco Baseball Associates	Developer of sports betting platform intended to make betting on sports easier
Feb-20	Dreamscape Immersive	Series C	31	ND	Developer of virtual reality technology designed to create an entirely new form of mainstream location based entertainment
Jan-20	AppsFlyer	Series D	210	General Atlantic, Goldman Sachs Growth, Magma Venture Partners, Pitango Venture Capital, Qumra Capital	Operator of a mobile attribution and marketing analytics platform intended to make the marketing industry measurable
Dec-19	DraftKings	ND	75	10X Capital, Alexander Capital Ventures, Kosinski Ventures	DraftKings Inc is a digital sports entertainment and gaming company
Dec-19	Game TV	Series A	25	Intel Capital	Operator of an online gaming platform intended to grow the mobile eSports fan and player base
Nov-19	Super Evil Megacorp	Series 2	16	Andreessen Horowitz	Developer of a gaming platform designed to offer quality graphics, precision controls and online gameplay experiences
Oct-19	Vindex	Series A	80	J Ventures, Joel Greenblatt, Steve Bornstein	Developer of an eSports infrastructure platform intended to equip partners with services and technology to scale to a mainstream global audience
Oct-19	Blade	ND	37	2CRSI, Nopporn Suppipat, Serena Capital	Developer of a dematerialized computer intended to offer cloud gaming servers required to play high-end games through any PC
Oct-19	CleverTap	Series C	35	Sequoia Capital India, Tiger Global Management	Developer of a marketing engagement and analytics platform designed to help businesses to grow faster

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Sep-19	Immutable	Series A	$15	Apex Capital Partners, Galaxy Interactive, Prosus Ventures, Reinventure Group	Developer of blockchain-based eSport games intended to familiarize users with blockchain technology in a fun and user-friendly environment
Sep-19	Subspace	Series A3	10	Bloomberg Beta, PROOF, Riot Ventures, Telia Ventures	Operator of a deep tech-based global network company intended to create the most competitive and engaging online experience possible
Sep-19	Descript	Series A	15	Andreessen Horowitz, Redpoint Ventures	Developer of a speech recognition platform designed to transcribe and mimic a text document
Sep-19	Branch	Series E	125	Potentum Partners	Developer of deep linking technology designed to gain and retain mobile app users
Aug-19	Skillz	Series D1	36	Goal Ventures, WestCap Group	Developer of a game development platform designed to transform mobile games into full-fledged mobile eSports
Aug-19	WSC Sports	Series C	23	Detroit Venture Partners, Elysian Park Ventures, Go4it Capital, Intel Capital, Maor Investments, NTT Docomo Ventures, O.G. Tech Ventures, The Israel Secondary Fund, WISE Ventures	Provider of an automation platform designed to maximize sports content
Jul-19	Techstars	ND	42	Foundry Group, RTP Global, SVB Capital	Provider of acceleration and incubation services intended to promote growth of early-stage startup companies
Jul-19	Blender	Series C	22	Asia Plus Securities, Aviv Group, Blumberg Capital, Doron Aviv, Eti Langermann, Fattal, Lahav Fund, Orange Blossom Ventures, Psagot Investment House, V Ventures	Developer of an e-lending platform created to reduce the interest differentials between loan providers and loan recipients
Jul-19	FACEIT	Series B	11	Index Ventures, Makers Fund, United Ventures	Provider of an eSports community platform intended to assist game developers to run their own online tournaments
Jul-19	SimpleBet	Series A	23	ND	Developer of sports betting platform intended to make betting on sports easier
Jul-19	Subspace	Series A	12	Lux Capital Management	Operator of a deep tech-based global network company intended to create the most competitive and engaging online experience possible
Jun-19	OneSignal	Series B	25	Rakuten Capital, SignalFire	Developer of customer engagement platform intended to send push notifications

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Jun-19	Adjust	ND	$227	Eurazeo, Highland Europe, Idinvest Partners, Morgan Stanley, Sofina, Telefónica Innovation Ventures, TriplePoint Venture Growth	Developer of a business intelligence platform designed to track mobile application marketing fraud prevention
Jun-19	Rec Room	Series B	15	Index Ventures	Developer of social virtual reality (VR) applications designed to build a global gaming community
May-19	Jackpocket	Series B1	21	BlueRun Ventures, Bullpen Capital, Conductive Ventures, David Stern, DCM Ventures, Digital Currency Group, Gavin Isaacs, Jamie Seltzer, M13, PROOF, Subversive Capital	Developer of a mobile lottery application intended to offer players with a secure way to order official state lottery tickets
May-19	Unity	Series E	150	ND	Developer of a real-time 3D (RT3D) development platform intended to help in game and application development
May-19	Exploding Kittens	ND	30	The Chernin Group	Developer of a card gaming application designed to offer a fun and challenging experience
Apr-19	Hadean	Series A	11	7percent Ventures, Aster Capital, Draper Esprit, Entrepreneur First, John Taysom, London Venture Partners, Luminous Ventures, Robert Sansom, Vikrant Bhargava	Developer of a cloud-first distributed computing platform designed to transform the way enterprise extracts actionable information from big data
Apr-19	Armis	Series C	65	Bain Capital Ventures, Insight Partners, Intermountain Ventures, Red Dot Capital Partners, Sequoia Capital, Tenaya Capital	Developer of an agentless IoT security platform for enterprises intended to identify unmanaged devices and networks
Apr-19	CleverTap	Series B	26	Accel, Sequoia Capital India, Tiger Global Management	Developer of a marketing engagement and analytics platform designed to help businesses to grow faster
Apr-19	Polystream	Series A	12	Initial Capital, Intel Capital, Lauder Partners, London Venture Partners, Wargaming Group	Developer of 3D interactive streaming platform designed to stream online video games over the cloud
Mar-19	Spectacle Entertainment	ND	40	ND	Operator of gaming firm specializing in the entertainment industry
Mar-19	G:loot	ND	25	Kichi Invest, Norron Asset Management, Swedbank Robur	Developer of a gaming application designed to bet money on real games
Mar-19	Matterport	Series D	48	CBRE Group, DCM Ventures, Ericsson Ventures, iRobot Ventures, Luminari Capital, Lux Capital Management, News Corp, Prairie Management Group, Qualcomm Ventures, Rev1 Ventures	Developer of an immersive 3D media platform designed to establish 3D and Virtual Reality (VR) models as a primary medium for experiencing, sharing and re-imagining the world

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Jan-19	Discord	ND	$94	ND	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly
Jan-19	Niantic	Series C	245	Anathem Ventures, Battery Ventures, Breyer Capital, Causeway Media, CRV, Founders Fund, Frontier Venture, HOF Capital, IVP, Juno Capital, Samsung Venture, Spark Capital, Pokemon Company	Developer of an augmented reality platform intended to enrich mobile gaming experiences
Dec-18	Discord	ND	150	FirstMark Capital, Greenoaks Capital Partners, Index Ventures, IVP, Technology Opportunity Partners, Tencent Holdings	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly
Dec-18	AppOnboard	Series B	15	500 Startups, Breakaway Growth Fund, Korea Investment Partners, Manta Ray Ventures, Mirae Asset, MTG, MTGx, Runa Capital, Tiller Partners, Troy Capital Partners, Vala Capital	Developer of a mobile technology platform intended to increase the authenticity and fidelity of application demos
Dec-18	Quali	Series C	23	Dell Technologies Capital, Evergreen Venture Partners, Gemini Israel Ventures, Jerusalem Venture Partners, Kreos Capital, Orr Partners	Developer of a DevOps automation and orchestration software intended to automate and improve DevOps lifecycle and productivity
Dec-18	Ultraleap	Series C	46	Cornes Technologies, Dolby Family Ventures, Hostplus Superannuation Fund, IP Group, Mayfair Equity Partners, Woodford Investment Management	Developer of mid-air haptics and 3D hand tracking/gesture technologies that are designed to cornerstone the shift towards spatial three-dimensional interfaces
Nov-18	Overwolf	Series B	16	Innovation Endeavors, Intel Capital, Liberty Media	Developer of an open-source platform designed for gamers to get hundreds of applications for popular PC and mobile games
Oct-18	Epic Games	ND	1,250	BITKRAFT eSports Ventures, ICONIQ Capital, Kohlberg Kravis Roberts, Lightspeed Venture Partners, Smash Ventures, Tencent Holdings, The Walt Disney Company, Vulcan Capital	Developer of gaming platform designed for gamers and game developers to publish and play immersive games
Oct-18	Swrve	Series D	25	Acero Capital, ACT Venture Capital, Atlantic Bridge Capital, Enterprise Equity Venture Capital, Ireland Strategic Investment Fund, Netgear, WestSummit Capital	Developer of a mobile marketing and customer engagement platform intended to facilitate digital brand building for enterprises
Oct-18	Paperspace	Series A	19	Battery Ventures, Initialized Capital Management, InnoSpring, Intel Capital, SineWave Ventures, Sorenson Ventures	Provider of a cloud-based virtual desktop platform designed to make cloud computing more accessible
Oct-18	Skillz	Series D	23	ND	Developer of a game development platform designed to transform mobile games into full-fledged mobile eSports
Oct-18	Braze	Series E	80	Battery Ventures, Cross Creek, ICONIQ Capital, Meritech Capital Partners, Spark Capital	Developer of customer engagement platform designed for marketing, growth and engagement teams

Source: PitchBook. Transactions of $10M+ Only.

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Oct-18	DraftKings	Series F	$200	ACME Capital, Growth Technology Partners, Schechter Private Capital, UIT Funds	DraftKings Inc is a digital sports entertainment and gaming company
Sep-18	Singular	Series B	30	General Catalyst, Method Capital, Norwest Venture Partners, Telstra Ventures, Thomvest Ventures, TransLink Capital	Developer of a marketing analytics platform designed to analyze and interpret user behavior for mobile marketing campaigns
Sep-18	Sandbox VR	Series A	68	Alibaba Group, Andreessen Horowitz, ChinaRock Capital Management, Dreamers VC, Evolution VC Partners, Floodgate Fund, Stanford University Venture Fund, TriplePoint Capital, Visary Capital	Provider of virtual reality social multiplayer gaming experiences designed to provide a full on virtual reality experience
Sep-18	Caffeine	Series C	94	21st Century Fox, 8VC, Andreessen Horowitz, BlueRun Ventures, Greylock Partners, M Ventures	Developer of a social broadcasting platform intended for gaming, entertainment and creative arts broadcasts
Aug-18	AppLovin	ND	400	Kohlberg Kravis Roberts	Operator of a mobile advertising network created to help advertisers target and deliver personalized ads to people who are similar to their existing user base
Aug-18	Branch	Series D	129	Chapter One Ventures, Coelius Capital DHVC	Developer of deep linking technology designed to gain and retain mobile app users
Aug-18	Genvid	Series A1	10	Horizons Ventures	Provider of an interactive streaming engine designed to integrate games into eSports broadcasts
Jun-18	Airship	Series F	25	August Capital, Foundry Group, Franklin Park Associates, Intel Capital, QuestMark Partners, True Ventures, Verizon Ventures	Developer of a customer engagement platform designed to create deeper connections with customers by delivering relevant, orchestrated messages on any channel
Jun-18	Unity	Series D1	145	ND	Developer of a real-time 3D (RT3D) development platform intended to help in game and application development
May-18	FaceUnity	ND	19	Hongtai Capital Holdings	Developer of a three dimensional (3D) face technology designed to provide support technology for virtual, augmented reality and mobile applications
May-18	IncrediBuild	ND	ND	Fortissimo Capital	Developer of software acceleration technology intended to reduce the time required for software builds.
Apr-18	Discord	Series F	50	Benchmark, Greylock Partners, IVP, Spark Capital, Tencent Holdings	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Apr-18	AppOnboard	Series A	15	500 Startups, Korea Investment Partners, London Venture Partners, Manta Ray Ventures, Mirae Asset, MTG, MTGx, Ophir CG, Runa Capital, Troy Capital Partners	Developer of a mobile technology platform intended to increase the authenticity and fidelity of application demos
Apr-18	Armis	Series B	30	Bain Capital Ventures, Red Dot Capital Partners, Sequoia Capital Israel, Tenaya Capital	Developer of an agentless IoT security platform for enterprises intended to identify unmanaged devices and networks
Feb-18	Blender	Series B	16	Blumberg Capital	Developer of an e-lending platform created to reduce the interest differentials between loan providers and loan recipients
Feb-18	Team SoloMid	Series A	37	AME Cloud Ventures, Bessemer Venture Partners, Colin Carrier, Makers Fund, Simon Equity Partners, Stephen Curry, Steve Simon, Telstra Ventures, Yifang Technology Group, Zhiyuan Yang	Operator of an eSports company intended to win gaming competitions
Jan-18	G:loot	ND	12	Norron Asset Management, Swedbank Robur, TrueSight Ventures	Developer of a gaming application designed to bet money on real games
Dec-17	Dreamscape Immersive	Series B	30	21st Century Fox, AMC Theatres, Bold Capital Partners, PTK Capital, The Nickelodeon Group, UTA Ventures, Viacom, VRSense Solutions, Warner Bros. Entertainment, WarnerMedia Investments	Developer of virtual reality technology designed to create an entirely new form of mainstream location based entertainment
Dec-17	Skillz	Series C	16	Accomplice VC, ATEL Capital Group, Bridge Bank, Liberty Global Ventures, Sand Hill Angels, Telstra Ventures, Wildcat Capital Management	Developer of a game development platform designed to transform mobile games into full-fledged mobile eSports
Nov-17	Niantic	Series B	200	Dolby Family Ventures, Founders Fund, Javelin Ventures, Meritech Capital Partners, Spark Capital	Developer of an augmented reality platform intended to enrich mobile gaming experiences
Oct-17	Winstrike	ND	10	ND	Operator of an eSports company intended to design and play cyber-sports and digital games
Aug-17	Sliver.tv	Series A	17	Advancit Capital, DCM Ventures, DHVC, GC VR Gaming Tracker Fund, GREE, Green Pine Capital Partners, Greycroft, Samsung NEXT Ventures, Sierra Ventures, Sony Innovation Fund	Developer of a virtual reality video platform designed to record, view and stream eSports games in 360 degrees cinematic VR video
Aug-17	Braze	Series D	50	Battery Ventures, ICONIQ Capital, InVision, Meritech Capital Partners, Omega Venture Partners, Runway Venture Partners, Sprinklr	Developer of customer engagement platform designed for marketing, growth and engagement teams
Jul-17	Singular	Series A	21	DCM Ventures, General Catalyst, Method Capital, Telstra Ventures, Thomvest Ventures, TransLink Capital	Developer of a marketing analytics platform designed to analyze and interpret user behavior for mobile marketing campaigns

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Jun-17	Blade	ND	57	Michael Benabou, Nopporn Suppipat, Pierre Kosciusko Morizet	Developer of a dematerialized computer intended to offer cloud gaming servers required to play high-end games through any PC
Jun-17	Armis	ND	17	Cerca Partners, Michael Boodaei, René Bonvanie, Sequoia Capital Israel, Tenaya Capital	Developer of an agentless IoT security platform for enterprises intended to identify unmanaged devices and networks
May-17	Unity	Series D	400	Breakaway Growth Fund, DFJ Growth, Mana Ventures, Oceanic Partners, Sequoia Capital, Silver Lake Management	Developer of a real-time 3D (RT3D) development platform intended to help in game and application development
May-17	Improbable	Series B	502	Andreessen Horowitz, Horizons Ventures, SoftBank Investment Advisers, Temasek Holdings	Developer of an operating system designed to offer virtual gaming experiences
May-17	Ultraleap	Series B	23	Cornes Technologies, Dolby Family Ventures, IP Group, Woodford Investment Management	Developer of mid-air haptics and 3D hand tracking/gesture technologies that are designed to cornerstone the shift towards spatial three-dimensional interfaces
Apr-17	Branch	Series C	60	Coelius Capital, Cowboy Ventures, Founders Fund, Hemisphere Ventures, Madrona Venture Group, New Enterprise Associates, Pear, Playground Global, Samsung NEXT Ventures	Developer of deep linking technology designed to gain and retain mobile app users
Mar-17	DraftKings	Series E1	119	111 Holdings, Data Point Capital, Flybridge Capital Partners, GGV Capital, Growth Technology Partners, Manhattan Venture Partners, Quantum Global Partners, Reform Ventures	DraftKings Inc is a digital sports entertainment and gaming company
Feb-17	Discord	Series E	48	Benchmark, Greylock Partners, Index Ventures, IVP, Spark Capital	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly
Feb-17	Dreamscape Immersive	Series A	11	21st Century Fox, Bold Capital Partners, IMAX, MGM Studios, Steven Spielberg, Warner Bros. Entertainment, Westfield Realty	Developer of virtual reality technology designed to create an entirely new form of mainstream location based entertainment
Feb-17	Caffeine	ND	35	Andreessen Horowitz, Greylock Partners, Neoteny, Raptor Group	Developer of a social broadcasting platform intended for gaming, entertainment and creative arts broadcasts
Jan-17	AppsFlyer	Series C	56	Armat Group, DTCP, Eight Roads, Goldman Sachs Growth, Magma Venture Partners, Pitango Venture Capital, Qumra Capital	Operator of a mobile attribution and marketing analytics platform intended to make the marketing industry measurable
Jan-17	AppLovin	ND	140	Orient Hontai Capital	Operator of a mobile advertising network created to help advertisers target and deliver personalized ads to people who are similar to their existing user base

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Dec-16	Caffeine	Series A	11	Greylock Partners	Developer of a social broadcasting platform intended for gaming, entertainment and creative arts broadcasts
Oct-16	Blade	ND	11	Financière Saint-James, Michael Benabou, Nopporn Suppipat, Pierre Kosciusko Morizet	Developer of a dematerialized computer intended to offer cloud gaming servers required to play high-end games through any PC
Aug-16	WSC Sports	Series B	12	3G Capital Investments, Daniel Gilbert, Detroit Venture Partners, Elysian Park Ventures, iAngels, Intel Capital, QB1 Ventures, Rock Ventures, WISE Ventures	Provider of an automation platform designed to maximize sports content
Jul-16	DraftKings	Series E	153	Counterview Capital, GGV Capital, Jerry Jones, Revolution, Washington Capital Ventures	DraftKings Inc is a digital sports entertainment and gaming company
Jul-16	Unity	Series C	181	China Investment Corporation, DFJ Growth, Frees Fund, Max Levchin, Sequoia Capital, Thrive Capital, WestSummit Capital	Developer of a real-time 3D (RT3D) development platform intended to help in game and application development
Jun-16	Discord	Series D	20	Benchmark, Greylock Partners, Specialized Types, Tencent Holdings, YouWeb Incubator	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly
May-16	FanDuel	Series E1	42	BluePointe Ventures, Comcast Ventures, Episode 1 Ventures, Evolution Media Capital, Hercules Capital, M13, Milwaukee Brewers, Next Play Capital, SK Ventures, Tusk Ventures	Developer of a fantasy sports game platform created to make sports more exciting
May-16	Braze	Series C	20	Accelerator Ventures, Battery Ventures, Blumberg Capital, Bullpen Capital, Compound, InterWest Partners, Michael Lazerow, Omega Venture Partners, Rally Ventures, Shasta Ventures, T5 Capital	Developer of customer engagement platform designed for marketing, growth and engagement teams
Apr-16	Branch	Series B	35	Benjamin Narasin, Coelius Capital, Cowboy Ventures, Founders Fund, Madrona Venture Group, New Enterprise Associates, Pear, Sea Lane Ventures, ZenStone Venture Capital	Developer of deep linking technology designed to gain and retain mobile app users
Apr-16	Discord	Series C	19	ND	Developer of an online gaming chat application designed to connect gamers in real-time seamlessly
Feb-16	Niantic	Series A	35	Alphabet, Alsop Louie Partners, Cyan Banister, Fuji Television Network, Javelin Venture Partners, Nintendo, Scott Banister, The Pokemon Company, You & Mr Jones	Developer of an augmented reality platform intended to enrich mobile gaming experiences
Feb-16	FACEIT	Series A	15	Anthos Capital, Index Ventures, United Ventures	Provider of an eSports community platform intended to assist game developers to run their own online tournaments

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Feb-16	Tapjoy	Series E	30	Global Brain, Iconica Partners, InterWest Partners, ORIX Growth Capital	Provider of technology platform for social media marketplace
Feb-16	Techstars	ND	28	Connetic Ventures, Dundee Venture Capital, eonCapital, MicroVentures	Provider of acceleration and incubation services intended to promote growth of early-stage startup companies
Jan-16	App Annie	Series E	63	e.ventures, Greenspring Associates, Greycroft, IVP, Sequoia Capital	Developer of a market intelligence platform designed to deliver data and insights to help build better application businesses
Nov-15	Swrve	Series C	30	Acero Capital, Atlantic Bridge Capital, Delta Partners, Enterprise Ireland, Evolution Media Capital, Ireland Strategic Investment Fund, Participant Media, TPG Growth	Developer of a mobile marketing and customer engagement platform intended to facilitate digital brand building for enterprises
Nov-15	Ultraleap	Series A	17	IP Group, Woodford Investment Management	Developer of mid-air haptics and 3D hand tracking/gesture technologies that are designed to cornerstone the shift towards spatial three-dimensional interfaces
Oct-15	Adjust	ND	17	Highland Europe	Developer of a business intelligence platform designed to track mobile application marketing fraud prevention
Sep-15	Skillz	Series B	15	Accomplice VC, Agman Partners, NextView Ventures, Sequoia Capital, The Kraft Family Foundation, Wildcat Capital Management	Developer of a game development platform designed to transform mobile games into full-fledged mobile eSports
Aug-15	DraftKings	Series D1	200	Hartford Financial Services Group, MassMutual Financial Group, The Hartford Financial Services Group	DraftKings Inc is a digital sports entertainment and gaming company
Aug-15	Super Evil Megacorp	Series B	26	Crosscut Ventures, General Catalyst, Index Ventures, Initial Capital, James Breyer, Korea Investment Partners, Raine Ventures, Shanti Bergel, Signia Venture Partners, Sunny Dhillon, Yuri Milner	Developer of a gaming platform designed to offer quality graphics, precision controls and online gameplay experiences
Jul-15	DraftKings	Series D	300	Agman Partners, GGV Capital, Kohlberg Kravis Roberts, MassMutual Financial Group, The Kraft Family Foundation, The Madison Square Garden Company, The Raine Group, Wellington Management	DraftKings Inc is a digital sports entertainment and gaming company
Jul-15	Curse	Series C	30	Riot Games, Uncork Capital	Operator of a gaming portal
Jul-15	Improbable	Series A	30	Conversion Capital, Horizon Ventures, Horizons Ventures, LocalGlobe, Temasek Holdings	Developer of an operating system designed to offer virtual gaming experiences

Private Placement Transactions (Cont'd)

Date	Target	Round	Size ($M)	Investors	Target Description
Jun-15	Unikrn	Series A	10	Binary Capital, Blockchain Capital, Hyperspeed Ventures, Indicator Ventures, Lerer Hippeau, Mark Cuban, Pantera Capital, Rubicon Venture Capital, Sound Ventures, Tabcorp Holdings	Developer of an online eSports betting platform designed to provide an opportunity to bet on the outcomes of matches and tournaments
Jun-15	FanDuel	Series E	275	Comcast Ventures, Kohlberg Kravis Roberts, NBC Sports Ventures, Pentech Ventures, Shamrock Capital Advisors, Visionary Private Equity Group, WarnerMedia Investments	Developer of a fantasy sports game platform created to make sports more exciting
Jun-15	Matterport	Series C	30	AMD Ventures, AME Cloud Ventures, Greylock Partners, iGlobe Partners, Lux Capital Management, Navitas Capital, Qualcomm Ventures, Rothenberg Ventures	Developer of an immersive 3D media platform designed to establish 3D and Virtual Reality (VR) models as a primary medium for experiencing, sharing and re-imagining the world
May-15	Branch	Series A	15	Benjamin Narasin, Clark Landry, Coelius Capital, Cowboy Ventures, Hasan Aslanoba, New Enterprise Associates, Pear, TriplePoint Capital	Developer of deep linking technology designed to gain and retain mobile app users
Mar-15	Improbable	Series A	22	Andreessen Horowitz	Developer of an operating system designed to offer virtual gaming experiences
Feb-15	Airship	Series D	21	August Capital, Foundry Group, Franklin Park Associates, ORIX Growth Capital, Portland Incubator Experiment, QuestMark Partners, Rick Webb, True Ventures, Verizon Ventures	Developer of a customer engagement platform designed to create deeper connections with customers by delivering relevant, orchestrated messages on any channel
Jan-15	AppsFlyer	Series B	20	Eight Roads, F-Prime Capital, Magma Venture Partners, Pitango Venture Capital	Operator of a mobile attribution and marketing analytics platform intended to make the marketing industry measurable
Jan-15	App Annie	Series D	55	e.ventures, Greycroft, IDG Capital, IVP, Sequoia Capital	Developer of a market intelligence platform designed to deliver data and insights to help build better application businesses

Table of Contents

Note: This document is intended to serve as an informative article only in order to further discussion, analysis and independent verification. This document is based upon sources believed to be reliable, however, we do not guarantee the sources' accuracy. Unless otherwise indicated, AGC does not believe that the information contained herein is sufficient to serve as the basis of an investment decision. There can be no assurance that these statements, estimates or forecasts will be attained and actual results may be materially different. This is not a solicitation of an offer of any kind. To learn more about the company/companies that is/are the subject of this commentary, contact one of persons named herein who can give you additional information.

GLOBAL LEADER IN TECH ADVISORY – 402 CLOSED DEALS

- AGC is consistently ranked as the most active pure tech boutique
- Over 40 active engagements with 35 deals closed in '19
- 10 offices across the US and Europe
- 52 employees
- Over 400 deals in our history
- '19 was a record year for revenue and profits

AGC Cumulative Deal Count

Year	Count
'03	3
'04	17
'05	37
'06	56
'07	66
'08	83
'09	103
'10	131
'11	155
'12	186
'13	207
'14	235
'15	263
'16	295
'17	327
'18	356
'19-'20	402
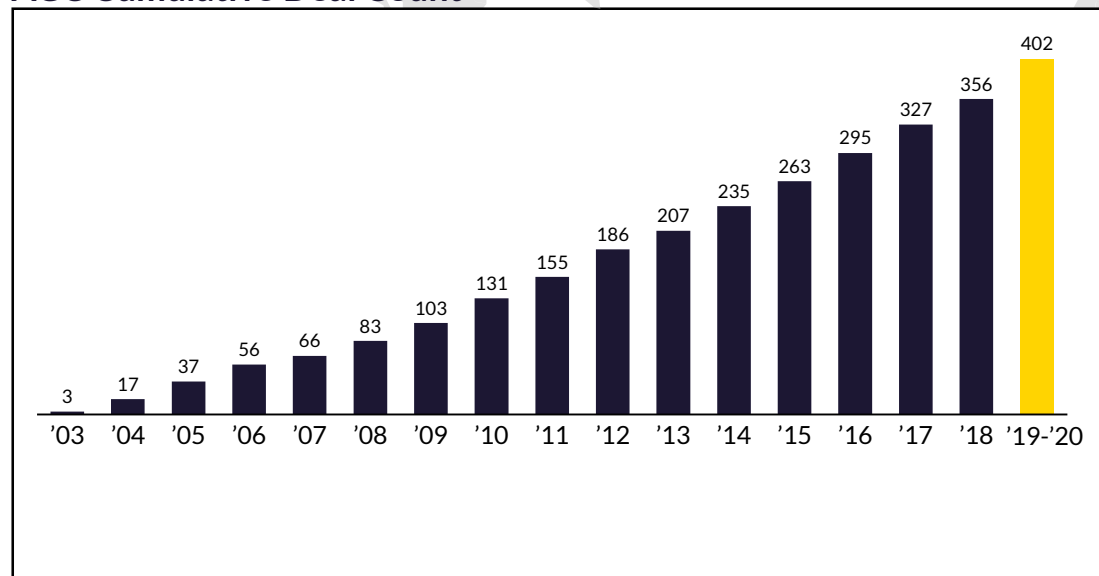
Top Tech Dealmakers of 2019

	Firm	# Trans
1.	Goldman Sachs	54
2.	Morgan Stanley	46
3.	J.P. Morgan	40
4.	William Blair	38
5.	Barclays Capital	35
6.	Evercore Partners	35
7.	Houlihan Lokey	33
8.	Raymond James	28
9.	**AGC Partners**	**27**
10.	GCA Advisors	27
11.	Bank of America Merrill Lynch	24
12.	Robert W. Baird	23
13.	Citigroup	22
14.	Credit Suisse	22
15.	Stifel	21
16.	RBC Capital Markets	18
17.	Canaccord Genuity	17
18.	Moelis & Company	17
19.	UBS	17
20.	Piper Jaffray	15
21.	Ernst & Young	11
22.	GP Bullhound	10
23.	Atlas technology Group	9

SaaS Rankings*

	Firm	# Trans.
1.	AGC PARTNERS	**109**
2.	William Blair	105
3.	RAYMOND JAMES®	87
4.	STIFEL	70
5.	Morgan Stanley	60
6.	HOULIHAN LOKEY	55
7.	GCA	53
8.	KeyBank	51
9.	EVERCORE	46

*451 Research deal count based on all SaaS related Sell-Side transactions since 2010. Excludes co-managed deals.

DELIVERING PREMIUM RESULTS FOR GAMING, AR & VR COMPANIES

CEO Feedback

The AGC team did an outstanding job of bringing this transaction together…
"It was a joy working with AGC on this transaction; together we managed to quickly find and execute the perfect strategic fit for the company…I was skeptical about hiring a banker. I am now glad that we did as the AGC team did an outstanding job of bringing this transaction together. We are very excited to be joining the Microsoft family."

Simplygon sold to Microsoft

Very knowledgeable of our sector and the buyer universe…
"AGC was a great partner throughout the process. Elena understood our business and the criteria we have outlined to find the right strategic partner. Elena was very knowledgeable of our sector and the buyer universe. We are very excited to be teaming up with Sony on the next stage of our evolution. I would recommend working with Elena and AGC again in the future."

Audiokinetic sold to Sony Interactive Entertainment

On every step we knew that AGC was in our corner…
"We had a very complicated transaction with many constituencies and significant time constraints. AGC Partners, and Tim Harned in particular, provided exceptional service and commitment throughout the process. On every step we knew that AGC was in our corner and had our best interests at heart. I wouldn't hesitate to recommend Tim again in the future, and look forward to our next transaction together."

Vuzix financed by Thayer Bancroft

EXTENSIVE EXPERTISE IN GAMING, AR & VR TRANSACTIONS

Selected Gaming Tech, AR & VR Transactions

Simplygon / Microsoft – *3D computer graphics software for automatic 3D optimization. AGC drove a 133% improvement from the initial offer, resulting in Microsoft paying 14.5x LTM/Rev*

Audiokinetic / Sony – *Developer of audio software for the video game industry. AGC was able to find the best buyer for growth opportunities and support in Sony*

Vuzix / Thayer Bancroft – *Vuzix's TDG provides head–mounted displays. AGC was able to create a competitive bidding environment that led to 5 LOIs for the TDG assets*

ReCAPTCHA / Google – *Helps digitize and secure content for the gaming industry. AGC was able to generate significant interest from both strategic and financial investors*

Amplitude / SEGA – *AGC represented SEGA, a leading publisher and distributor of video games globally, to broaden its portfolio of critically acclaimed production studios. AGC positioned SEGA as highly supportive of its internal studios and creative independence, which ultimately won the day with Amplitude having multiple suitors in hot pursuit.*

Comments

- AGC is a leader in Gaming, AR & VR transactions, advising leading companies including Simplygon, Audiokinetic, Vuzix, ReCAPTCHA, Sega, among others

- AGC was founded to bring exciting technology companies to the firm's deep network of funds in the US, Europe and Asia, including late-stage venture capital, growth equity, private equity, corporate ventures, family offices and crossover hedge funds

- AGC has published numerous whitepapers that highlight the key trends in the digital media and marketing market and review the technology landscape of all of the most relevant players
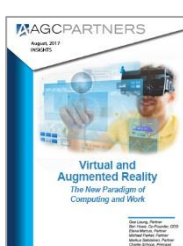
MARKET RESEARCH

GAMING

AR & VR Part II

AR & VR: Part I

AGC'S LEADING GAMING, AR & VR TEAM
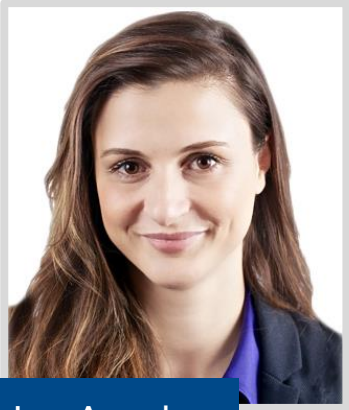
Los Angeles

ELENA MARCUS
Partner

She focuses on the AR/VR, Gaming, Digital Media, Enterprise Software, and HCM sectors, among others. Prior to joining AGC, Elena worked at Deutsche Bank and Jefferies & Co. Elena holds an MBA from the M.I.T. Sloan School of Management and a BA in Business Administration from Long Island University.

Boston

BEN HOWE
CEO, Co-Founder

Ben, Co-Founder and CEO of AGC Partners, has completed roughly 400 transactions in his 32+ years as an Investment Banker. Prior to AGC, Ben served as Head of Technology Investment Banking for Montgomery Securities, and as Managing Director, Head of M&A and Executive Committee Member at SG Cowen Securities.

London

SEAN TUCKER
Partner

Sean has advised on transactions ranging from sell-side and buy-side M&A mandates to debt and equity financings. He leads AGC's franchise in Europe and focuses on Infrastructure Software technologies. Prior to joining AGC, Sean worked at EY and Deloitte where he led engagement teams in the Financial Services Office.

Boston

JONATHAN WEIBRECHT
Partner

Jon provides strategic advice to technology companies servicing the the Real Estate, Gaming Lodging and Leisure spaces including esports and Online Sports Betting. Jon has advised on a range of public and private M&A mandates as well as debt and equity financings. Prior to joining AGC, Jon worked at Moelis & Company where he co-founded the firms Seasonal Leisure Practice.

AGC WILL LEAD THE PROCESS FROM START TO FINISH

Prepare Key Materials

1. Launch Note
2. Short Teaser Presentation
3. Detailed Company Presentation
4. Information Memorandum
5. 3 Statement Model 2016-2021
6. MRR Contract Model
7. Pipeline Analysis
8. Win-Loss Analysis
9. Market Sizing and Landscape
10. Competitive Analysis

Process Management

1. Contact Key Decision Makers
2. Maintain Process Activity Log
3. Hold Initial Buyer Calls
4. Schedule Management Meetings
5. Coordinate Management Roadshow
6. Provide Buyer M&A Profiles
7. Prepare Monthly Update Packages
8. Build Detailed Board Updates
9. Build Detailed Synergy Analysis
10. Manage Virtual Data Room

Negotiation & Closing

1. Craft Bid Letter
2. Build Due Diligence Presentations
3. Conduct Working Capital Review
4. Provide Term Sheet Template
5. Summarize Buyer Term Sheets
6. All Transaction Modeling
7. Term Sheet Negotiations
8. Transaction Agreement Summary
9. Transaction Agreement Negotiations
10. Organize Closing Dinner!

AGC will be a 24/7 partner throughout the entire process and carry the workload

OVER 800 PRIVATE TECH COMPANIES PARTICIPATE IN OUR CONFERENCE SERIES

London
June, 2021

Boston
October, 2021

San Francisco
February, 2021

	San Francisco	London	Boston	Total
Attendees	1,585	414	719	2,718
Private Companies	485	112	225	822
Investors	343	85	190	618
Strategics	233	26	50	309
Total 1-on-1 Meetings	3,000	915	2,250	6,165

Select Strategic Attendees

amazon   Microsoft

Google   CISCO

ORACLE   IBM

now   paloalto

Select Private Equity Attendees

THOMABRAVO   INSIGHT VENTURE PARTNERS   VISTA EQUITY PARTNERS   SUMMIT PARTNERS

MARLIN EQUITY PARTNERS   LUMINATE   K1   PROVIDENCE EQUITY

SPECTRUM EQUITY   JMI EQUITY   LEVEL EQUITY   SILVERSMITH CAPITAL PARTNERS

Frontier   PAMLICO CAPITAL   updata PARTNERS   CVC

REVOLUTION CAPITAL GROUP   SEP SUMERU EQUITY PARTNERS   WARBURG PINCUS   FP FRANCISCO PARTNERS