SUPERDATA
GAMES & INTERACTIVE MEDIA INTELLIGENCE

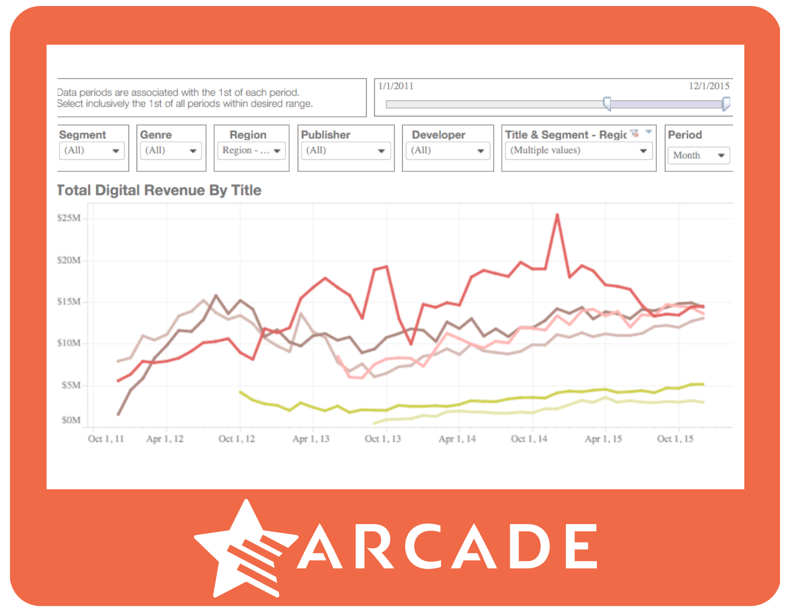
2017 YEAR IN REVIEW

DIGITAL GAMES AND INTERACTIVE MEDIA

ARCADE PLAYER PROFILE

The **SuperData Arcade and Player Profile** are the world's only cross-platform business intelligence tools on the global games market. The metrics contained here represent the largest and most comprehensive view of the vast and growing digital games market.

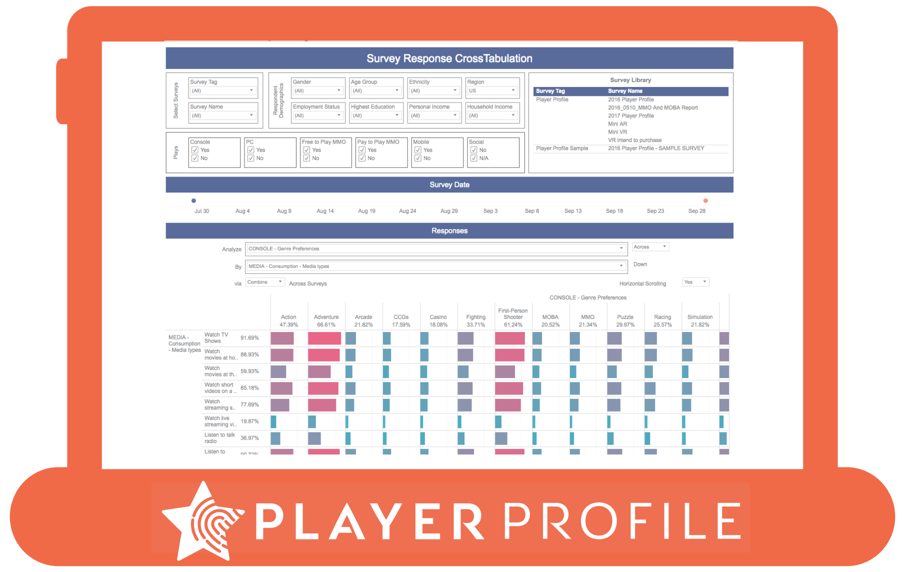
To arrange a demo, contact Sam Barberie at sam@superdataresearch.com.



Access insights of over 500 games and 100 publishers, ranging from high-level market trends to granular data title performance metrics.

Create custom queries and segmentation across all data and export to .csv or PDF format for full analytical control and presentations.

Receive automatic custom data pulls and spot opportunities early as soon as updates are available.



Learn detailed consumer data and behavior on Player Profile across all demographies and domains.

See beyond the numbers from quarterly updated Audience Tracker; know your consumer, where to find them, and what they want.

Identify audience inflection points and explain who and what is driving them.

VR Data Network

The VR Data Network is the first industry collaboration to quantify and validate the global VR market.

- Partners include headset makers, developers and ad networks
- Partners get ongoing insights and data to improve strategy
- Reviewing applications now

To apply, visit www.superdataresearch.com/superdata-vr-data-network/

EXECUTIVE SUMMARY

Interactive entertainment generated $108.4B in revenues in 2017

Digital games

$59.2
Mobile

$33.0B
PC[1]

$8.3B
Console

Interactive media

$0.8B
Esports

$3.2B
GVC

$4.0B
XR

One in three people on the planet (2.5B) play free-to-play games across PC and mobile platforms. Free-to-play games maintain their grip on the worldwide games market, generating $82B, or 89% across mobile and PC markets.

Consumers spent $14B more on mobile games in 2017 than in 2016. Games such as *Arena of Valor* and *Fantasy Westward Journey* from Asian publishers like Tencent and NetEase contributed to a 31% year-over-year growth for the worldwide mobile market.

Premium PC title *PlayerUnknown's Battlegrounds* was 2017's breakout success, generating $712M in revenue in just eight months. The title reinvigorated player interest in the battle royale genre, paving the way for similar games like *Fortnite* and *Knives Out*.

Esports generated $756M in revenue and is on track to become a billion dollar business in 2018. Popular titles like *League of Legends* and *Overwatch* helped esports attract a sizable audience of 258M unique viewers.

Price cuts on virtual reality (VR) headsets and must-have content drove extended reality (XR) revenue up by 37% in 2017. Steep Oculus Rift price cuts boosted sales and allowed the headset to outsell HTC's Vive during the year. In the console space, PlayStation VR enjoyed positive momentum as gamers jumped at the chance to play major game franchises like *Resident Evil* and *The Elder Scrolls* in VR.

Interactive entertainment includes all digital gaming segments, esports, GVC (gaming video content) and virtual and mixed reality. | [1]Includes Social, PC free-to-play, PC subscription and Premium PC games | [2]Includes virtual reality, augmented reality and mixes reality.

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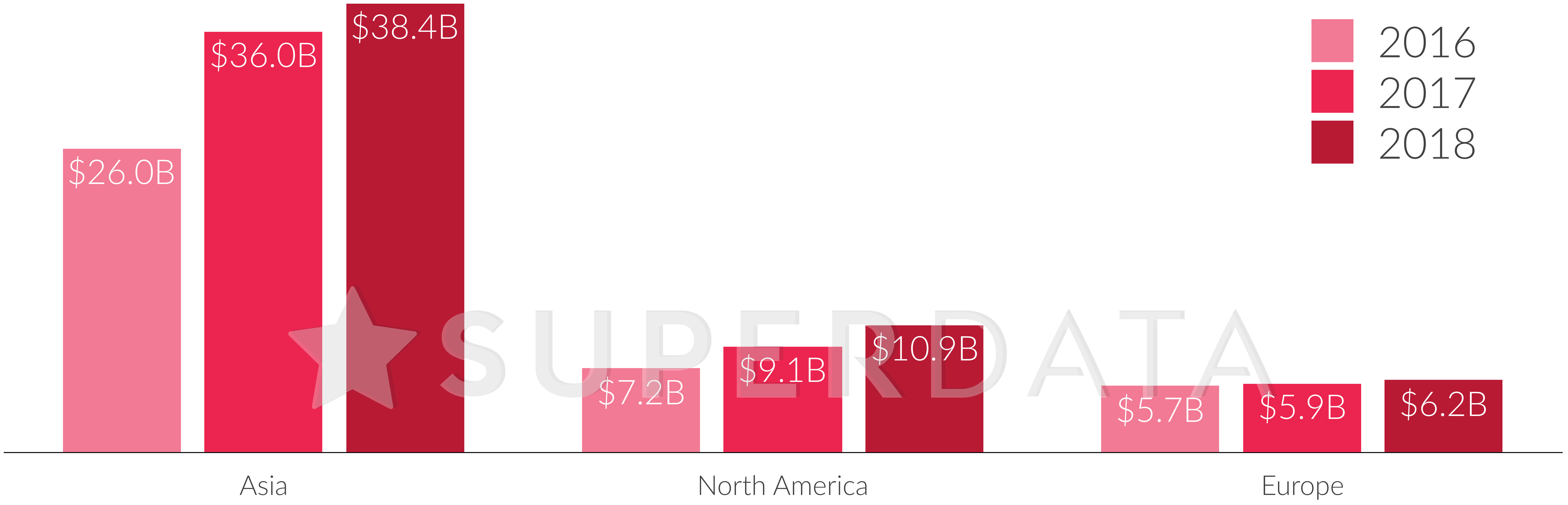
A CLOSER LOOK AT DIGITAL GAMES IN 2017

Mobile market and forecast by region



Revenue figures refer to digital game sales

The mobile market grew to $60B, but the top 10 still control 20% of revenue

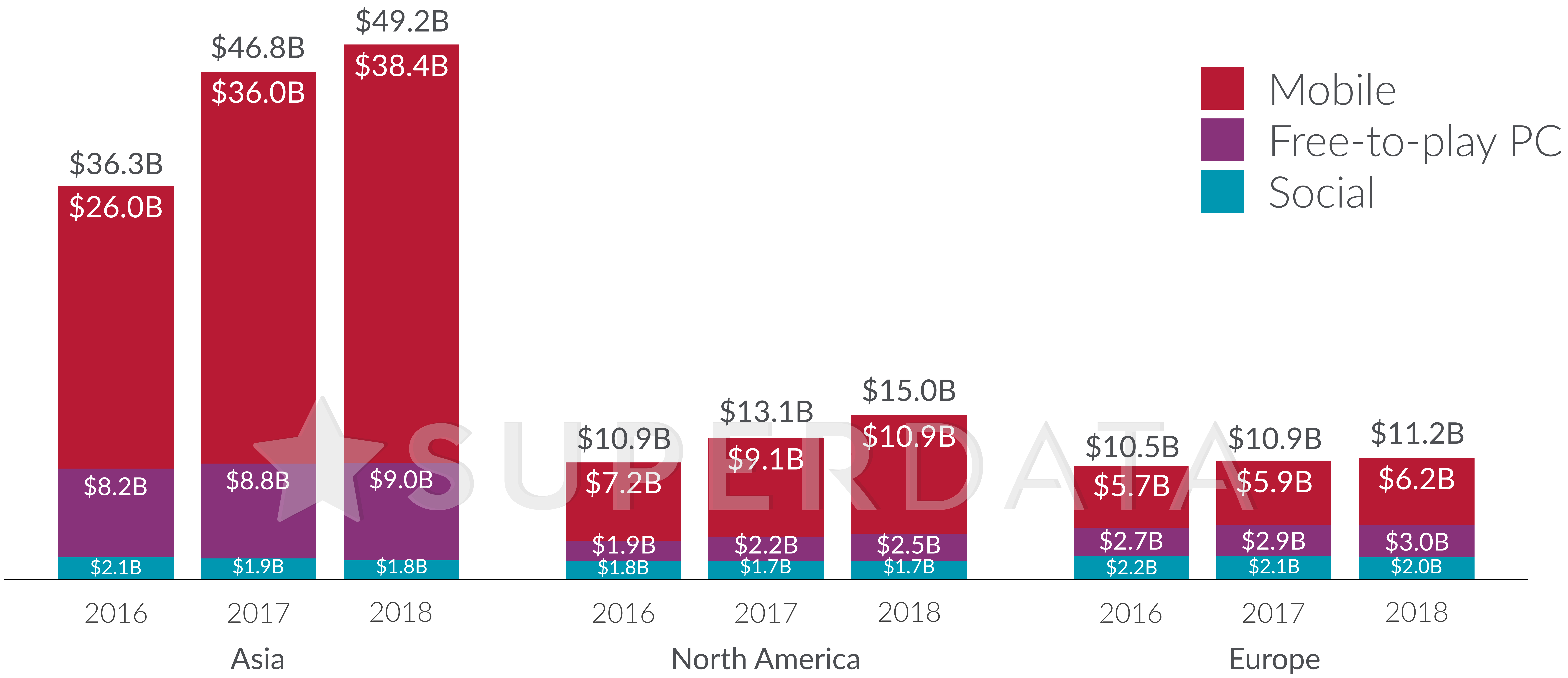
Top mobile games by revenue, 2017

Rank	Title	Publisher	Revenue
1	*Arena of Valor*	Tencent	$1.9B
2	*Fantasy Westward Journey*	NetEase	$1.5B
3	*Monster Strike*	Mixi	$1.3B
4	*Clash Royale*	Supercell	$1.2B
5	*Clash of Clans*	Supercell	$1.2B
6	*Fate/Grand Order*	Aniplex, Inc.	$982M
7	*Lineage 2: Revolution*	Netmarble Games	$980M
8	*Candy Crush Saga*	KING	$910M
9	*Pokémon GO*	Niantic, Inc.	$890M
10	*Ghost Story*	NetEase	$860M

Asian publishers dominate the mobile scene with the top 3 titles alone earning over $4.5B in 2017.
Regional publishers like Chinese behemoths Tencent and NetEase hold a legal, cultural, and brand-name advantage. Games like *Arena of Valor* and *Fantasy Westward Journey* feature historical and mythological themes and figures from Chinese culture. Meanwhile, Japanese gamers are still flocking toward the mobile platform despite increased competition from console platforms like PlayStation 4 and Nintendo Switch.

Powerful brand recognition is key to winning in the Western market.
Supercell and King have become household names over the past five years thanks to stellar performances from their flagship titles, *Clash of Clans* and *Candy Crush*, respectively. Meanwhile, Supercell's 2017 game, *Clash Royale*, managed to earn over $1B in less than a year while *Pokemon GO* continues to find overwhelming success despite drop-off from the initial hype.

Free-to-play market and forecast by region



Revenue figures refer to digital game sales

Free-to-play games took the lion's share (69%) of PC's $33 billion market

Top free-to-play PC games by revenue, 2017

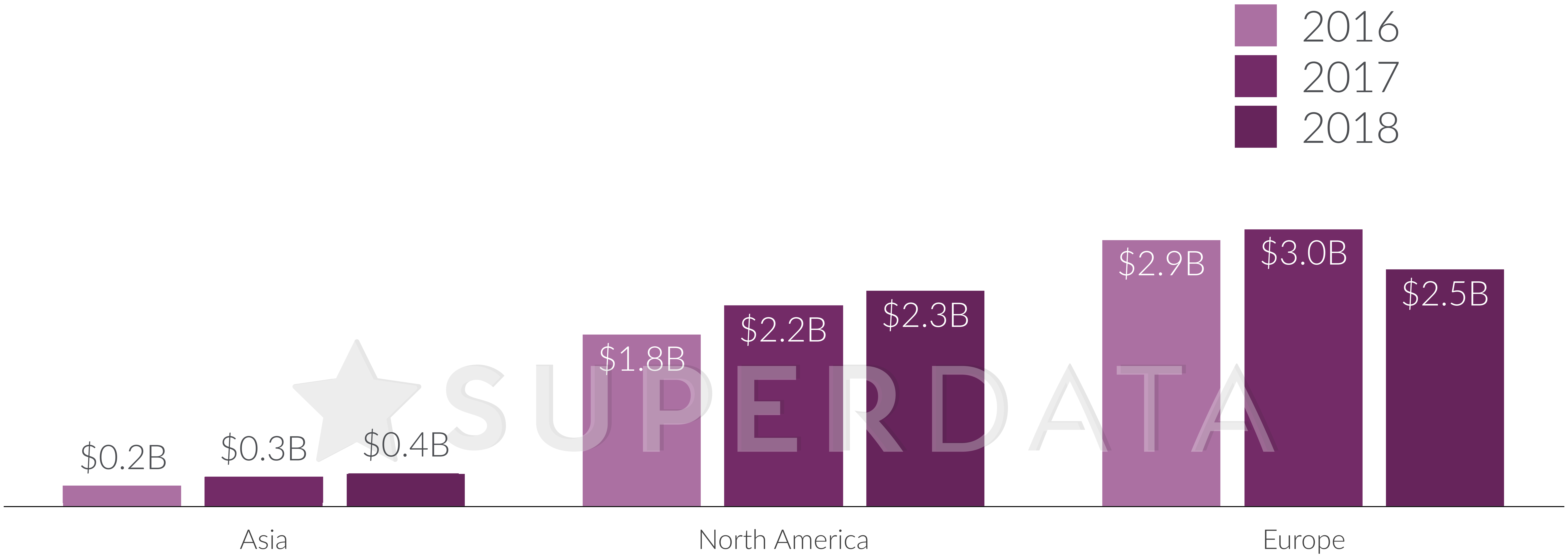
Rank	Title	Genre	Publisher	Revenue
1	*League of Legends*	MOBA	Riot Games/ Tencent	$2.1B
2	*Dungeon Fighter Online*	RPG	Nexon/Tencent	$1.6B
3	*CrossFire*	Shooter	Nexon/Tencent	$1.4B
4	*World of Tanks*	Shooter	Wargaming	$471M
5	*Dota 2*	MOBA	Valve Corporation	$406M
6	*Roblox*	Virtual World	Roblox Corporation	$310M
7	*MapleStory*	RPG	Nexon	$279M
8	*Hearthstone*	CCG	Activation Blizzard	$217M
9	*Blade & Soul*	RPG	NCSOFT/Tencent	$178M
10	*FIFA Online 3*	Sports	Nexon/Tencent	$163M

Top performers like *League of Legends* and *Dungeon Fighter Online* pushed free-to-play PC revenue to $15B.
The continued success of free-to-play esports titles like *CrossFire*, *Dota 2* and *League of Legends* helped drive a 15% year-over-year growth.

RPGs and shooters make up 56% of the free-to-play PC market.
While MOBAs bookend the top-five free-to-play rankings, most of the revenue generated came from RPGs (34%) and shooters (22%). This trend is mirrored in the annual growth of the genres: RPGS and shooters grew by 9% and 13% respectively compared to a stagnant increase of 3% for the MOBA genre.

Free-to-play games include free-to-play PC and social games

Premium PC market and forecast by region



Revenue figures refer to digital game sales

2017's breakout hit *PlayerUnknown's Battlegrounds* raked in 12% of all premium PC revenue

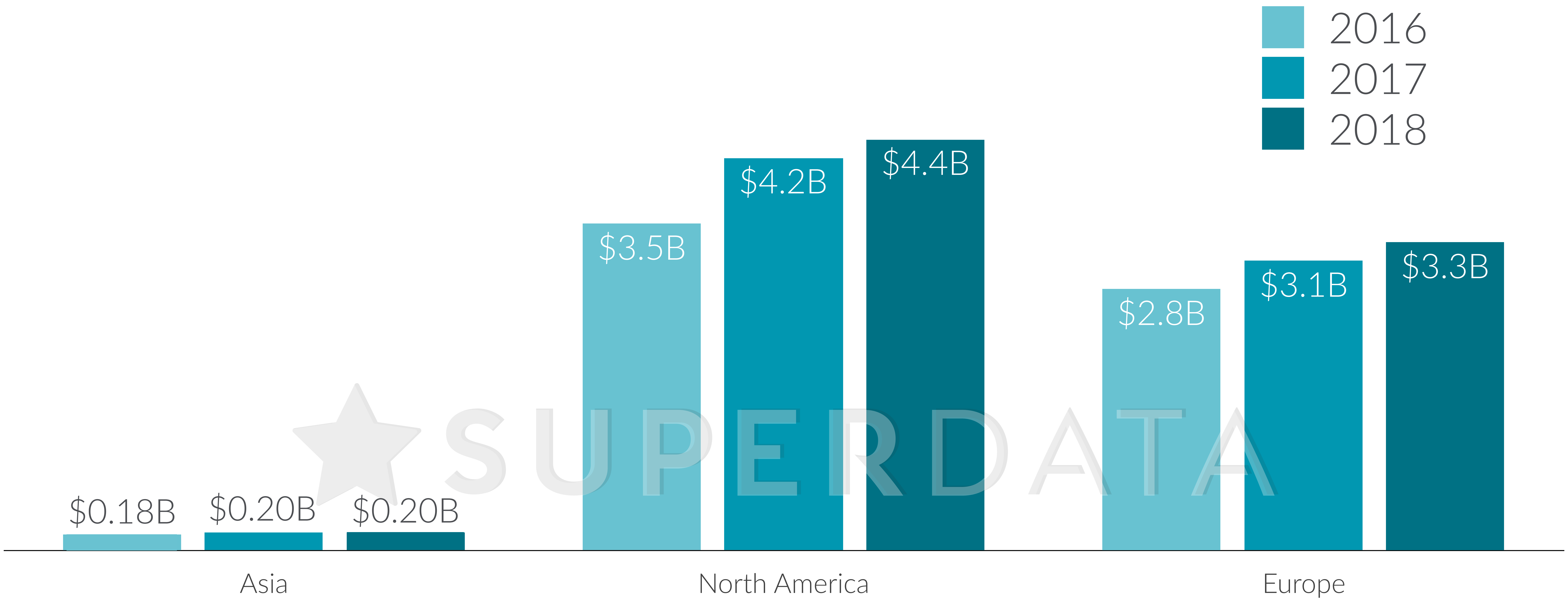
Top premium PC games by revenue, 2017

Rank	Title	Publisher	Revenue
1	*PlayerUnknown's Battlegrounds*	Bluehole	$714M
2	*Overwatch*	Activision Blizzard	$382M
3	*Counter-Strike: Global Offensive*	Valve Corporation	$341M
4	*Destiny 2*	Activision Blizzard	$218M
5	*Grand Theft Auto V*	Rockstar Games	$118M
6	*Battlefield 1*	Electronic Arts	$113M
7	*Minecraft*	Microsoft Studios	$92M
8	*Guild Wars 2*	NCsoft	$87M
9	*Divinity: Original Sin 2*	Larian Studios	$85M
10	*Tom Clancy's Rainbow Six: Siege*	Ubisoft	$67M

With $714M in revenue, *PUBG* rekindled player interest in the battle royale genre.
In just eight months after its March release, *PUBG* overtook recurrent heavyweights *Overwatch* and *Counter-Strike: Global Offensive* to claim the number one spot. The title's unexpected popularity made the battle royale genre the third largest in revenue behind action-adventure and shooter games.

Single-player games can still break the top 10 on PC.
Although online shooters generated the brunt of the $6.2B premium PC revenue, *Divinity: Original Sin 2* proves there is still a robust audience for story-driven games.

Console market and forecast by region



Revenue figures refer to digital game sales

Big-name shooters contributed over $3B to the console market

Top digital console games by revenue, 2017

Rank	Title	Genre	Publisher	Revenue
1	*Grand Theft Auto V*	Action-adventure	Rockstar Games	$521M
2	*Call of Duty: WWII*	Shooter	Activision Blizzard	$502M
3	*FIFA 17*	Sports	EA Sports	$409M
4	*Destiny 2*	Shooter	Activision Blizzard	$329M
5	*FIFA 18*	Sports	EA Sports	$324M
6	*Battlefield 1*	Shooter	Electronic Arts	$301M
7	*Call of Duty: Black Ops III*	Shooter	Activision Blizzard	$248M
8	*Tom Clancy's Ghost Recon: Wildlands*	Shooter	Ubisoft	$221M
9	*Call of Duty: Infinite Warfare*	Shooter	Activision Blizzard	$201M
10	*Tom Clancy's Rainbox Six: Siege*	Shooter	Ubisoft	$172M

New releases like *Call of Duty: WWII* and *Destiny 2* helped boost console revenue by 15% to $8.3B. While older titles like *Grand Theft Auto V* and *FIFA 17* continue to top the charts, the addition of new first-person shooters generated over $3B in sales, a 6% increase compared to 2016.

The Nintendo Switch gives indie developers access to a new audience. Having sold 13.5M in its first year, the Nintendo Switch is a prime target for indie titles looking to break into the mainstream. Currently, 25 of the top 30 most downloaded titles come from indie developers, and that number is expected to rise as more titles are ported over.

A CLOSER LOOK AT INTERACTIVE MEDIA IN 2017

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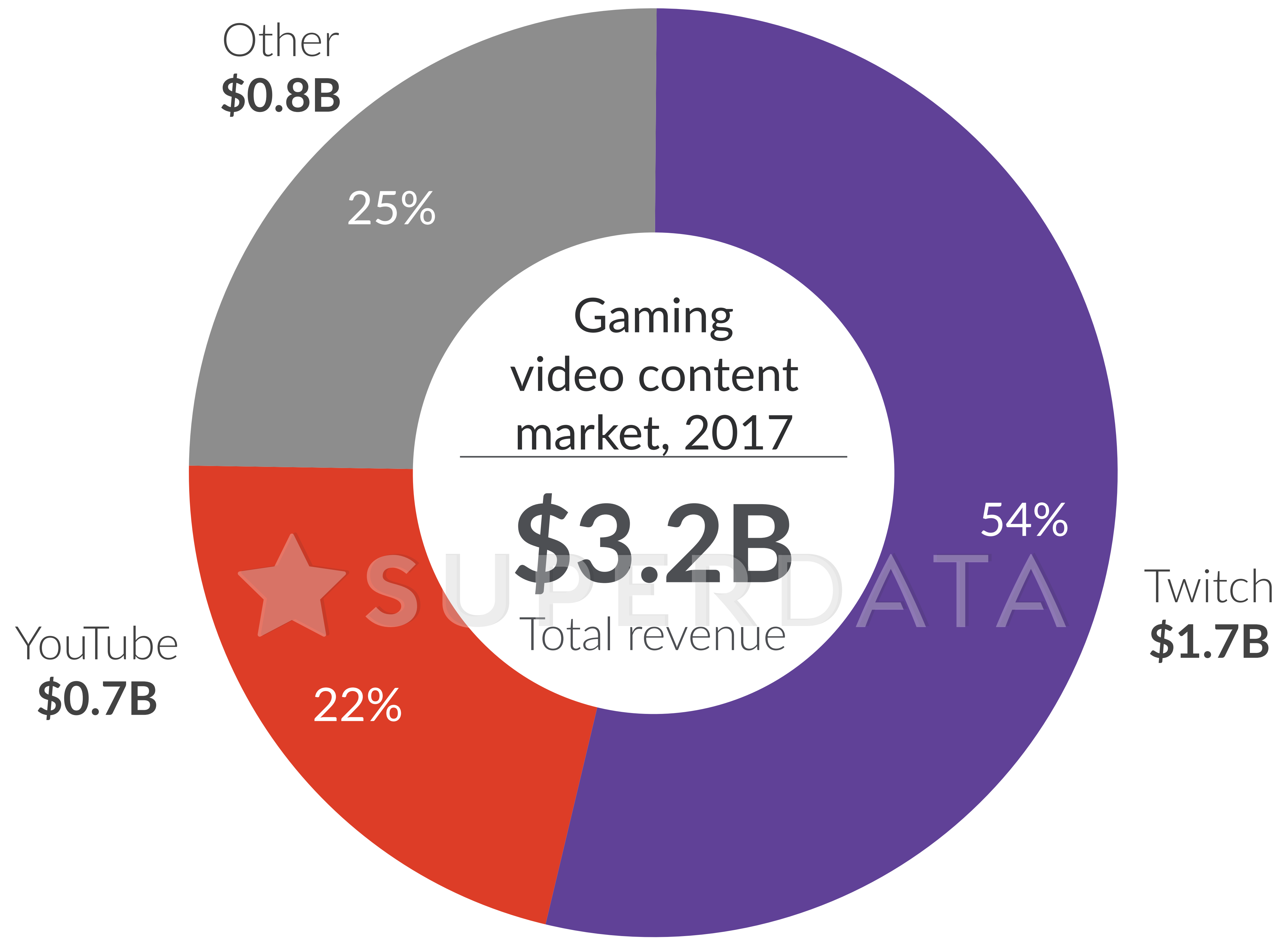
Twitch captures 54% of all gaming video content (GVC) revenue by attracting a high-spending audience



Despite having half the GVC audience of YouTube, Twitch's audience is more engaged and willing to spend on their favorite broadcasters.

Users on Twitch often support their favorite content creators directly through subscriptions and donations, which accounted for 51% of GVC revenue on the platform. In comparison, direct spending accounted for only 20% of YouTube's GVC earnings, with the rest coming from advertising (69%) and sponsorships (11%).

YouTube's GVC revenue plummeted by 50% year-over-year after struggling with problematic content and monetization.

Controversies surrounding uncensored, offensive content scared off advertisers. YouTube responded by implementing an algorithm that incorrectly demonetized unoffending videos. This in turn led to heavy backlash from its user base. Due to its poor handling of public relations, YouTube became a much less attractive destination for advertisers and GVC content creators.

Gaming is the second most popular content category on YouTube

YouTube Gaming has 77M subscribers, second only to YouTube Music.

YouTube's 'best of' channels feature popular and up and coming content from major content categories. YouTube Gaming's subscriber count beats out YouTube Sports' 75M and YouTube Movies' 56M. Individually, PewDiePie has more subscribers than the top two music channels on YouTube, JustinBieberVEVO and RihannaVEVO, combined.

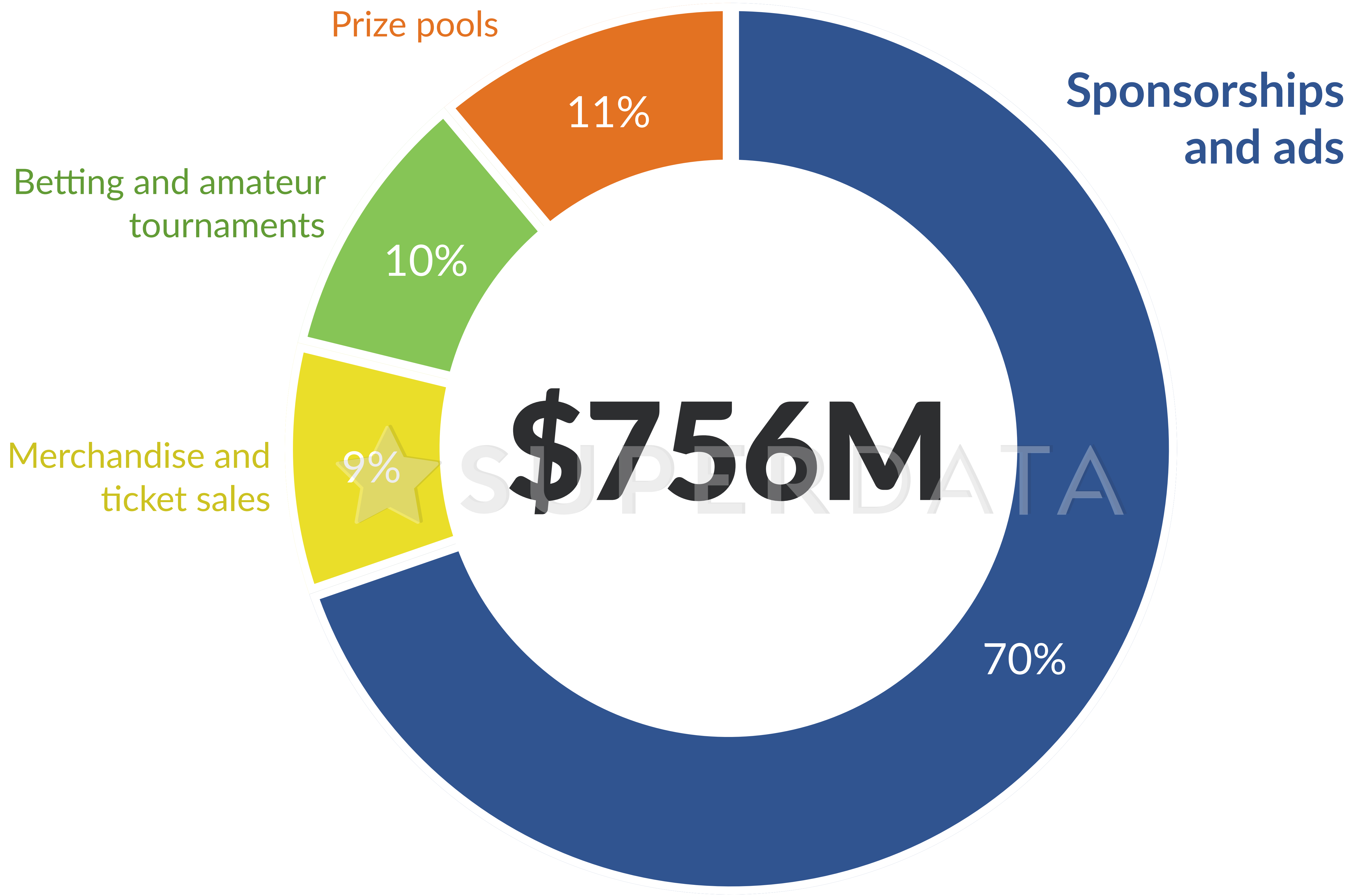
Top YouTube channels capitalize on virality to continually attract new and repeat viewers.

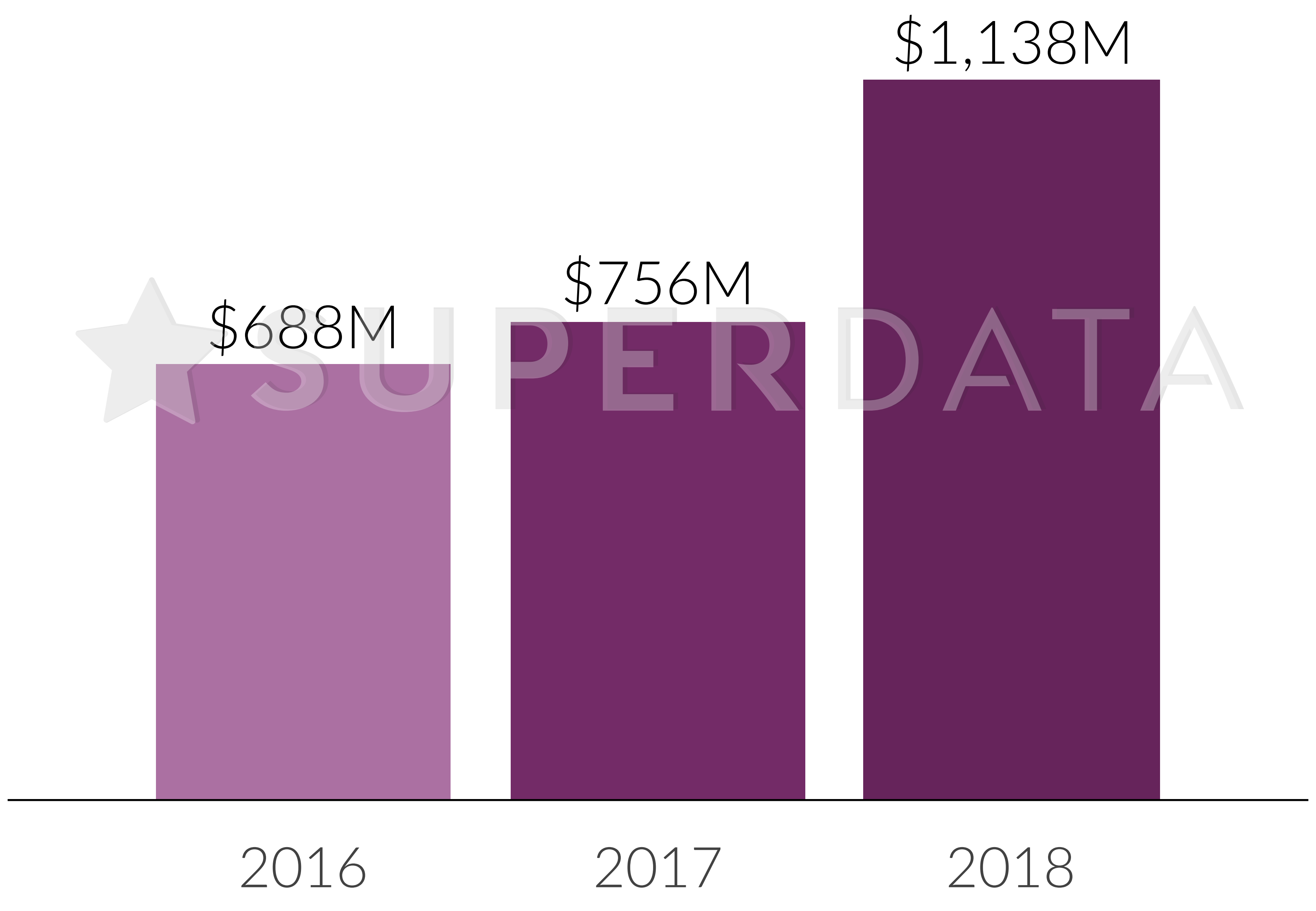
The most popular YouTube personalities are known for their over-the-top reactions rather than their gaming skills. They play a diverse selection of games, choosing titles that are either immensely popular like *Minecraft* or have shocking or unusual content like *Getting Over It*.

Top content channels, 2017

	Channel	Subscribers		Channel	Subscribers
1	PewDiePie Remains the most-subscribed user on YouTube despite recent controversies	60M	6	VEGETTA777 Spanish personality best known for narrating his *Minecraft* gameplay	20M
2	elrubiusOMG The second most subscribed to Spanish-speaking YouTube personality; known for his gaming, vlog, and skit content	27M	7	Markiplier Eccentric personality best known for his high-energy "Let's Play" videos	19M
3	Fernanfloo Salvadoran personality known for his lively commentary and exaggerated reactions	26M	8	Jacksepticeye Irish broadcaster who describes himself as "the most consistently energetic video game commentator on YouTube"	17M
4	JuegaGerman Chilean personality that primarily plays Roblox and Minecraft	24M	9	DanTDM British YouTube personality whose channel primarily focuses on *Minecraft* content	17M
5	VanossGaming Canadian personality whose videos center on playing games with others in the form of humorous montages	24M	10	PopularMMOs Showcases various gameplay videos and mods for *Minecraft*	13M

Esports market and forecast





Popular games helped esports reach 258 million unique viewers

Top esports games by viewership, 2017

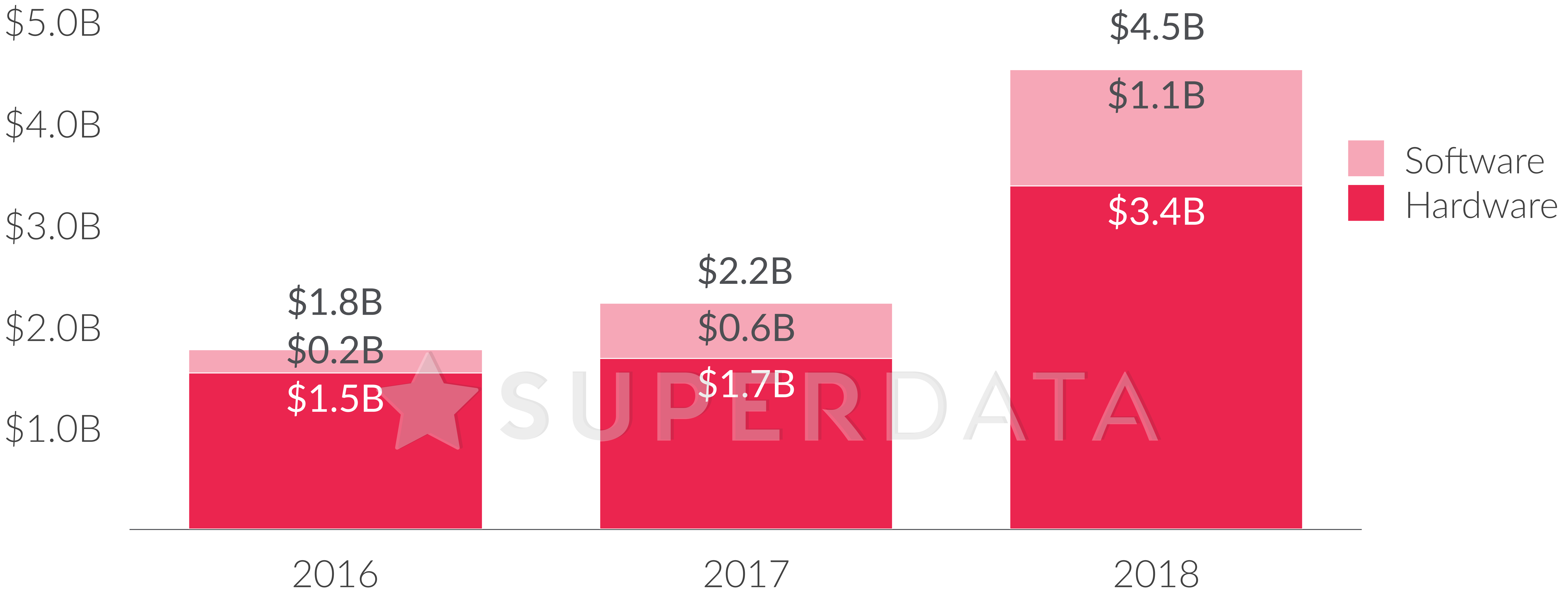
Rank	Title	Publisher	Viewers[1]
1	*League of Legends*	Riot Games/Tencent	157M
2	*PlayerUnknown's Battlegrounds*	Bluehole	102M
3	*Hearthstone*	Activision Blizzard	83M
4	*Dota 2*	Valve Corporation	65M
5	*Overwatch*	Activision Blizzard	63M
6	*Counter-Strike: Global Offensive*	Valve Corporation	43M
7	*Heroes of the Storm*	Activision Blizzard	15M
8	*FIFA*	Electronic Arts	14M
9	*Call of Duty*	Activision Blizzard	10M
10	*StarCraft II*	Activision Blizzard	9M

[1]Average monthly unique viewers

A diverse selection of games like *FIFA 17* and *PlayerUnknown's Battlegrounds* helped push the player base of the top 10 esports titles to 254M monthly active users, an increase of 10% year-over-year.
Games that lead their genres in monthly active users like *League of Legends* and *Overwatch* have an edge when it comes to growing a robust esports audience.

Overwatch established itself as the first esports franchise in the United States.
Taking a city-based approach to esports, Activision Blizzard signed franchising agreements with multiple sports and esports organizations to create the Overwatch League, which consists of 12 teams spread across eight major cities that include Los Angeles and New York.

Consumer virtual reality revenue[1]



[1]Revenue figures refer to spending on hardware and consumer software and services.

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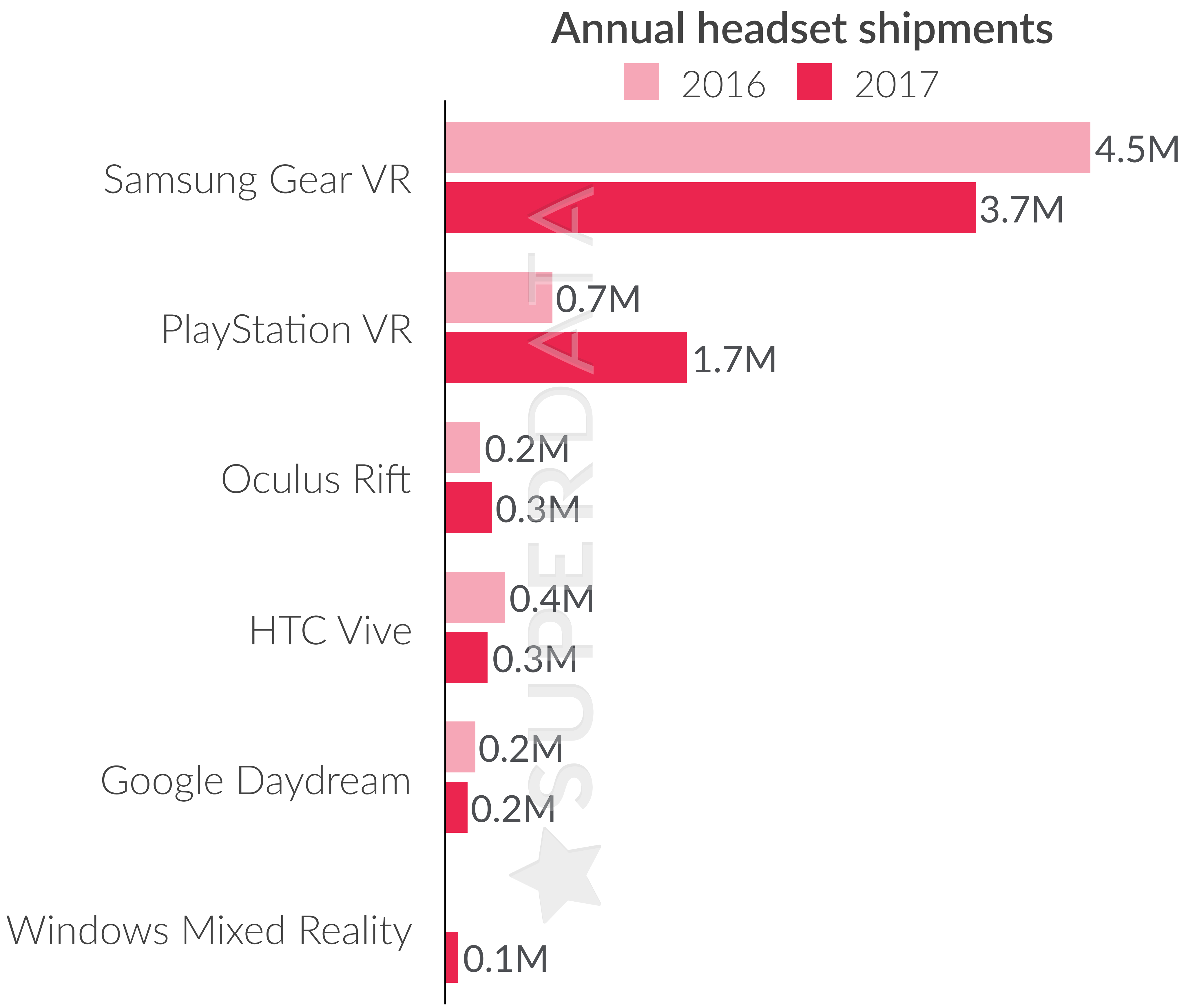
Hardware generated 75% of VR revenue but software monetization was limited to just $554M

The second year of mass-market VR saw revenue grow by 27% after the initial hype.

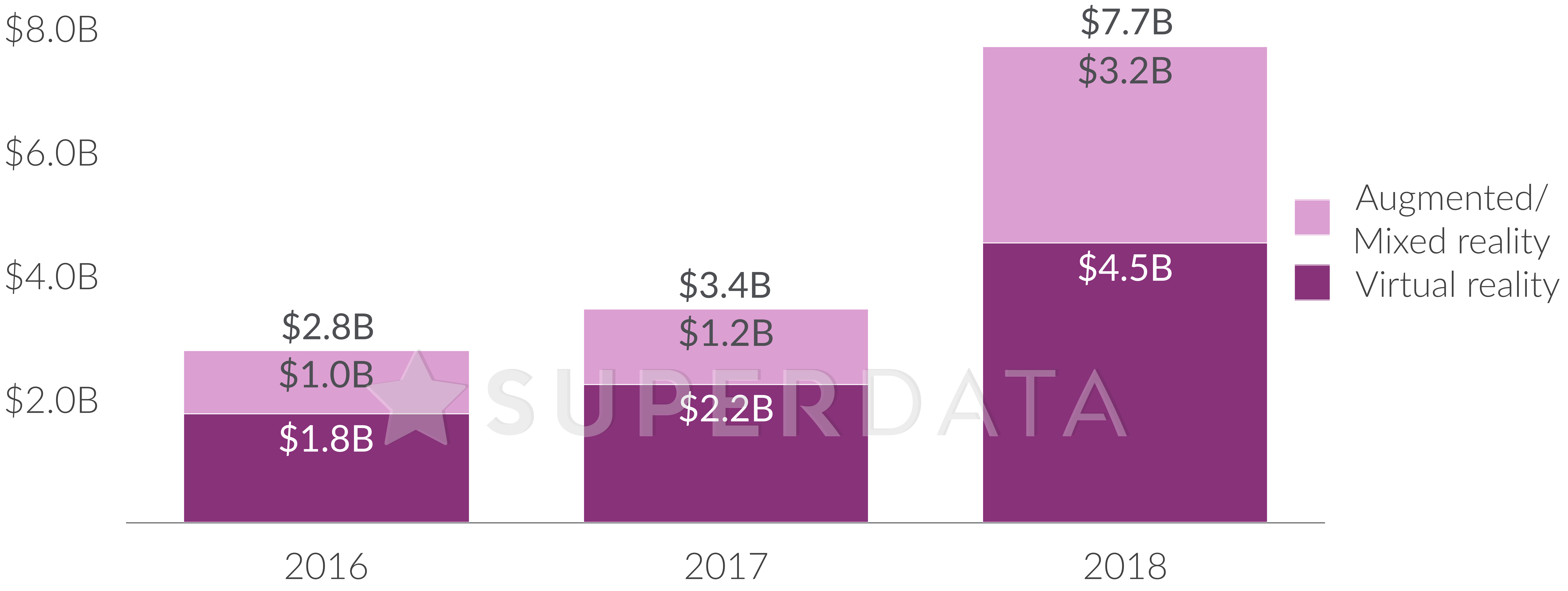
As VR became a known entity, headset manufacturers relied on a mix of price cuts and compelling content to drive sales in 2017. Oculus boosted Rift shipments by 34% thanks to aggressive discounts during the year. Meanwhile, PlayStation VR gained momentum with franchises like *The Elder Scrolls* and *Resident Evil*. However, 2017 still lacked a wide variety of monetizable non-game content, which limited overall revenue.

More hardware and software makers turned their focus to enterprise as they wait for consumer adoption to grow.

Immersive technology is already saving businesses money and improving efficiency in fields ranging from architecture to medicine. For example, carmakers like GM use VR to prototype car designs before investing the time to build physical models. Training is the top businesses use case for VR, and 56% of enterprise customers utilize the technology for this purpose.

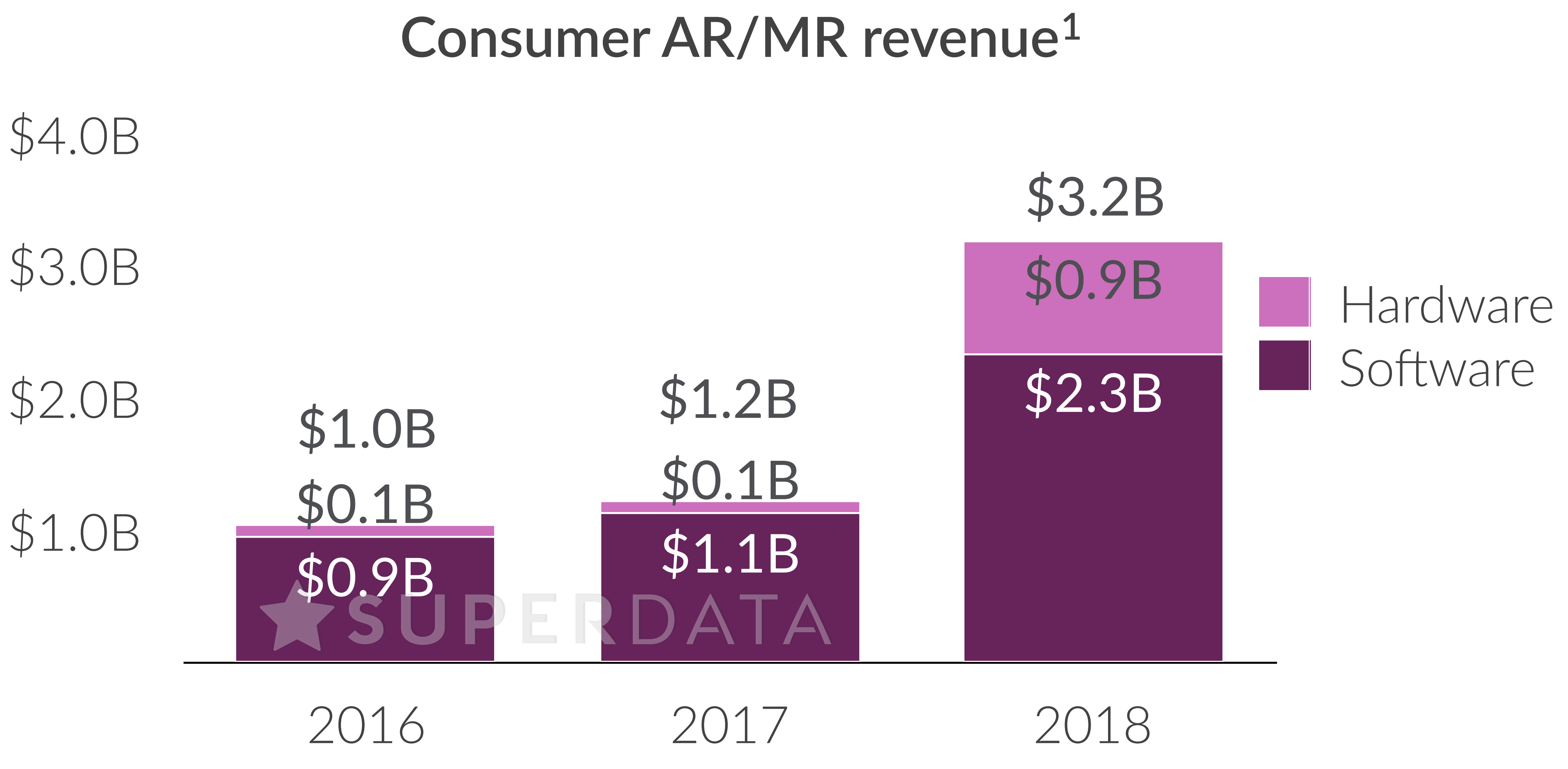


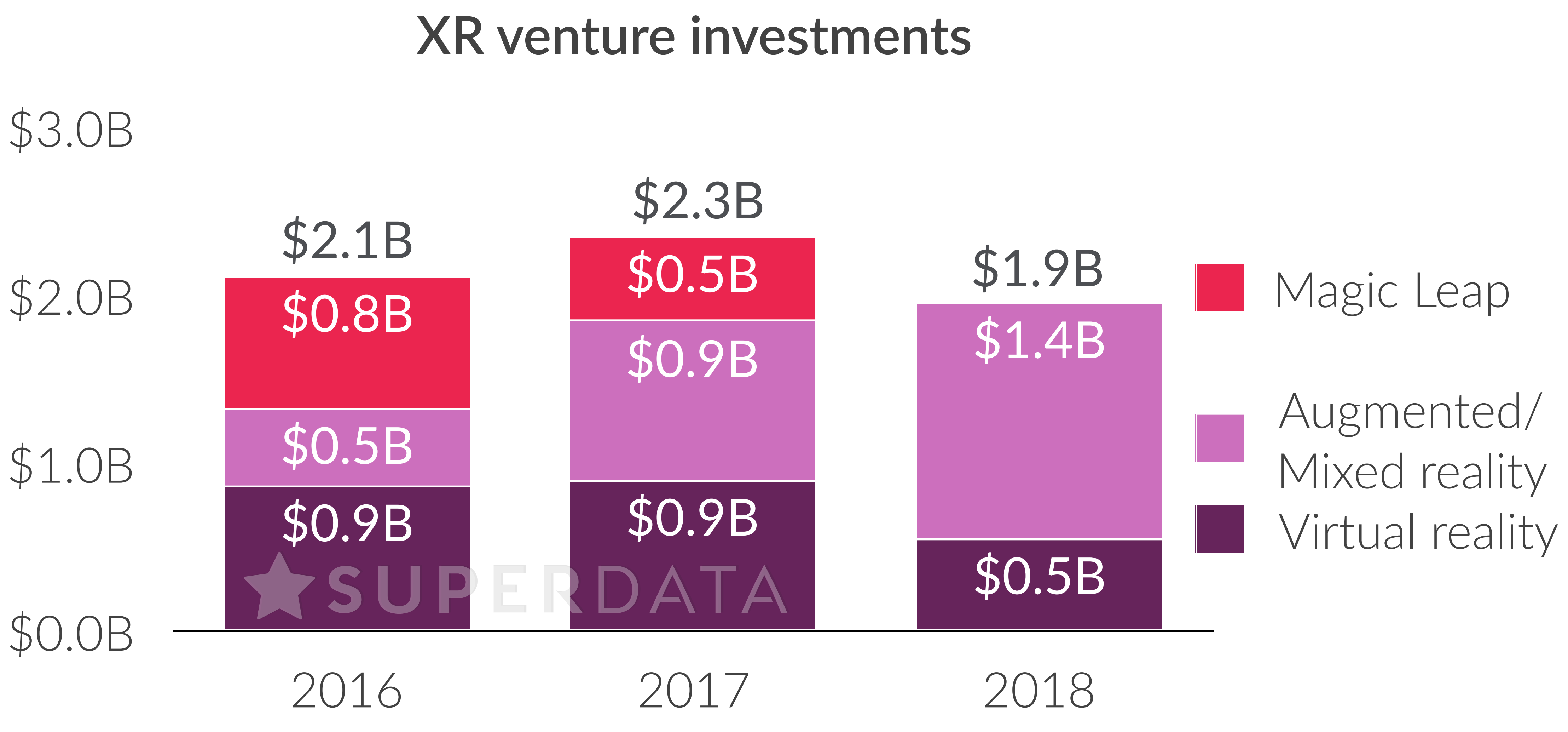
Consumer XR revenue[1]



Revenue figures refer to spending on hardware and consumer software and services.

More money was invested in augmented and mixed reality than VR in 2017





The launch of Apple's ARKit SDK in September expanded the addressable audience for high-quality mobile AR to hundreds of millions of iPhone owners.

Pokémon GO earned the vast majority (84%) of augmented reality revenue for the second year since few software developers have been able to monetize in the space. But companies are still finding meaningful ways to use the technology. For example, Amazon's iPhone app lets shoppers see how virtual items will look inside real-world rooms.

Investment in augmented and mixed reality companies rose 108% year-over-year[1] as investors saw potential in mobile AR and upcoming MR headsets.

With slower VR uptake than anticipated, investors are shifting their interest and dollars to AR and MR. Startup Magic Leap has raised $1.9B so far on the promise of its MR glasses, which were unveiled at the end of 2017.

Revenue figures refer to spending on hardware and consumer software and services. | Investment figures include the following investment types: Crowdfunding, seed, angel, Series A/B/C venture rounds or later, acquisitions, and IPO. | [1]Not including Magic Leap. Magic Leap is tracked separately from other AR/MR companies due to its outsize impact on funding totals.

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