IDG-MFM CONFERENCE
DECODING THE GAMES MARKET

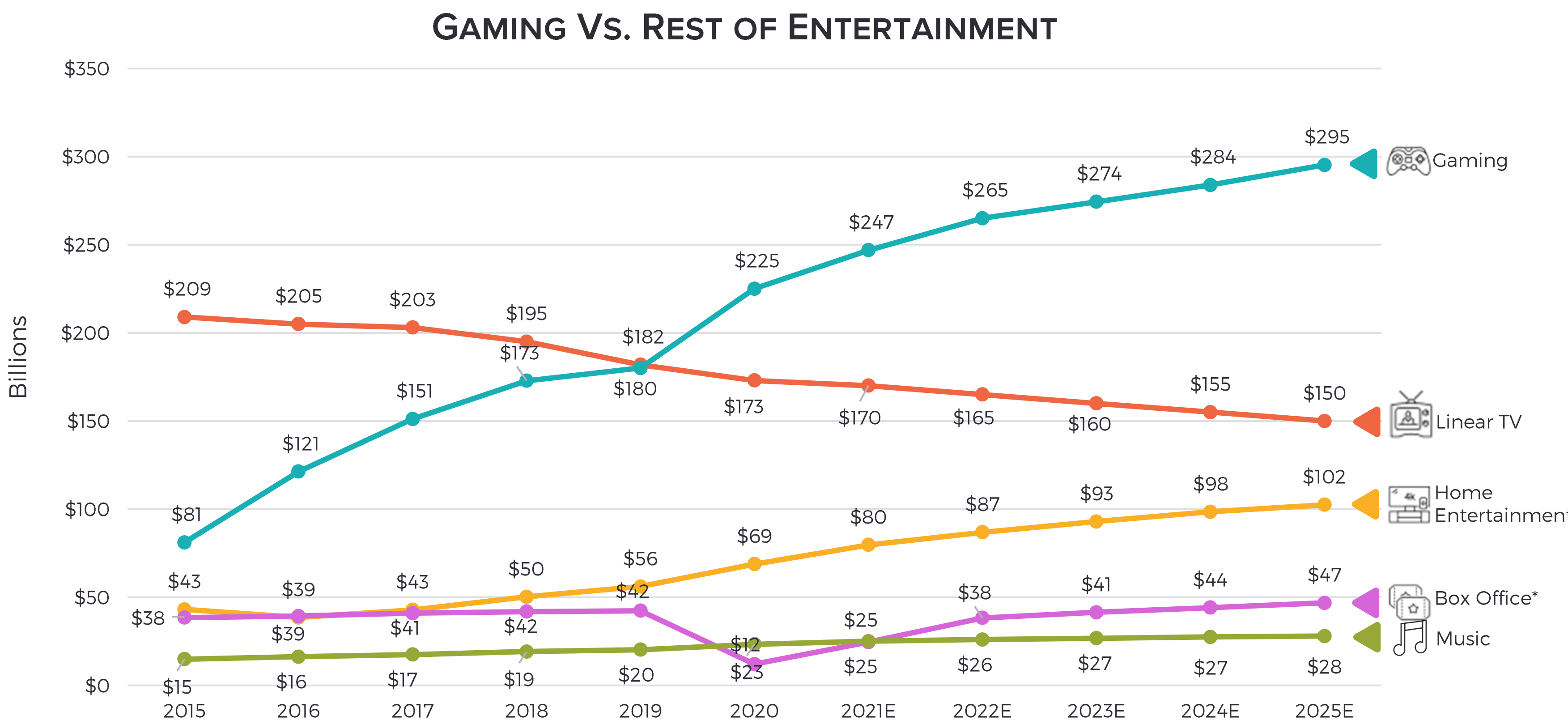
MAY 2022– PREPARED FOR
MFM CONFERENCE ATTENDEES

ANALYZING A JUGGERNAUT

GAMING GROWTH TRENDS

IDG INSIGHT – GLOBAL MARKETS

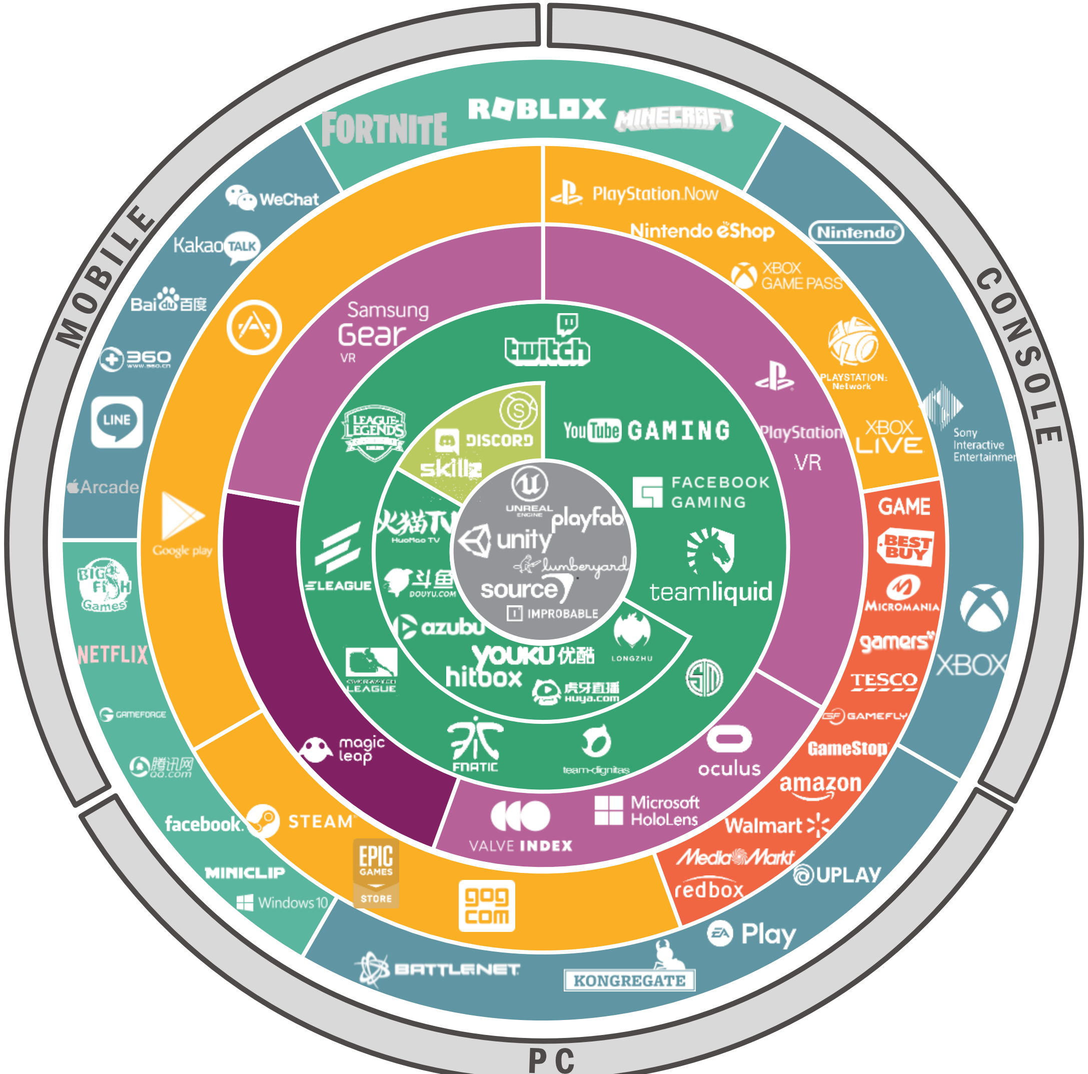
GAMING EXTENDS LEAD IN ENTERTAINMENT



* Box Office took the biggest hit from COVID-19, but will incrementally rebound by 2025

IDG FRAMEWORKS

GAMING ECOSYSTEM

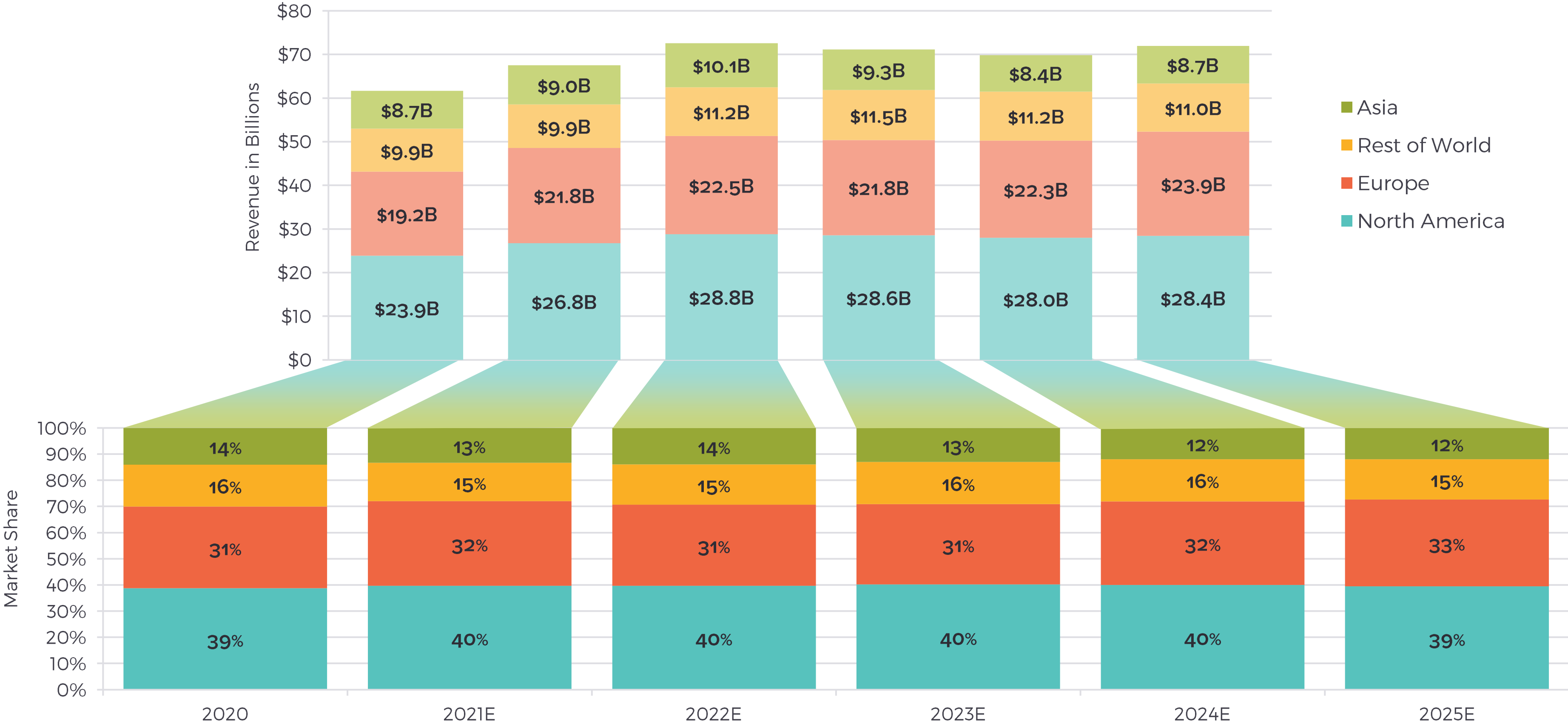


GROWTH CATALYSTS

CONSOLE AND PC GAMING

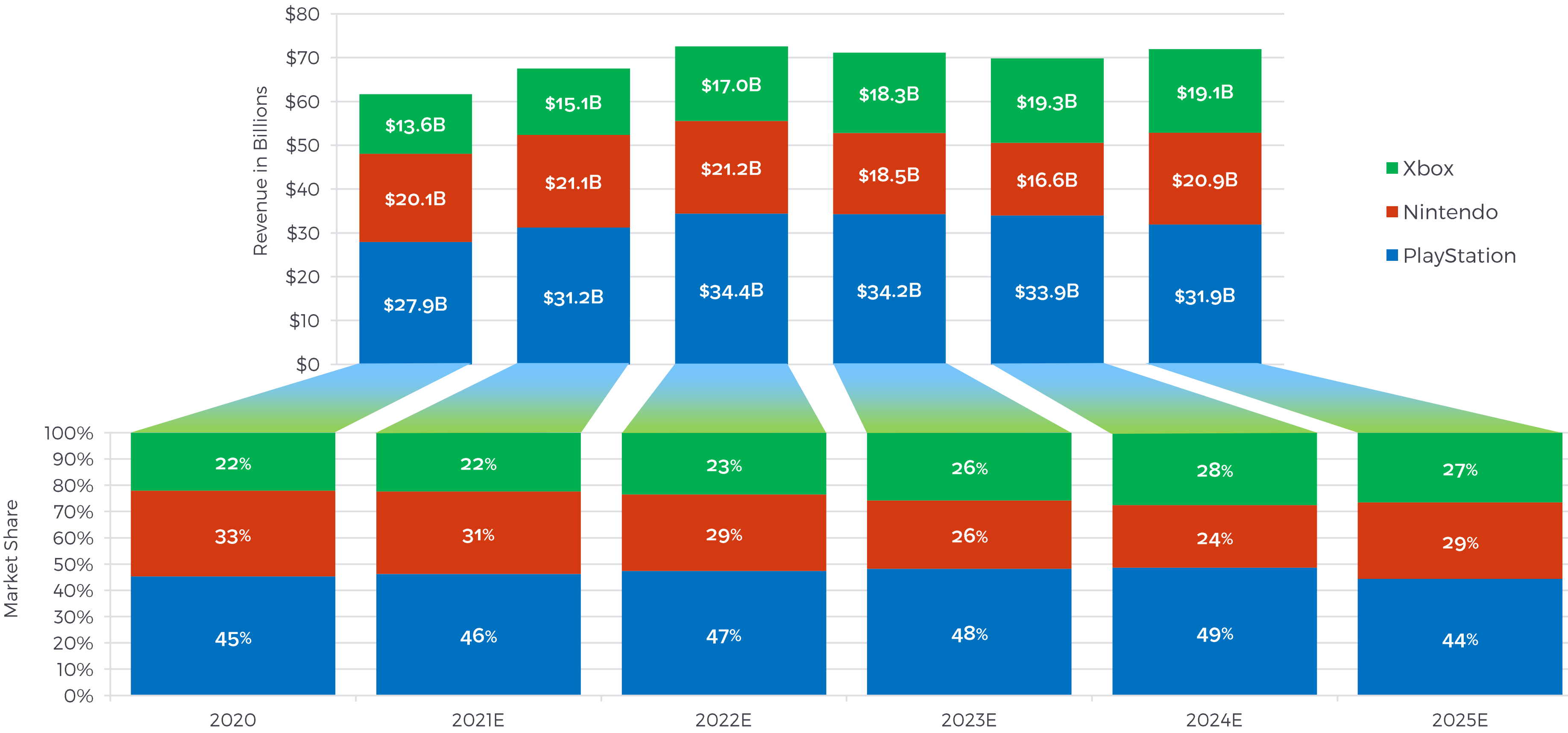
CONSOLE GAMING MARKET

5-YEAR FORECAST BY TERRITORY



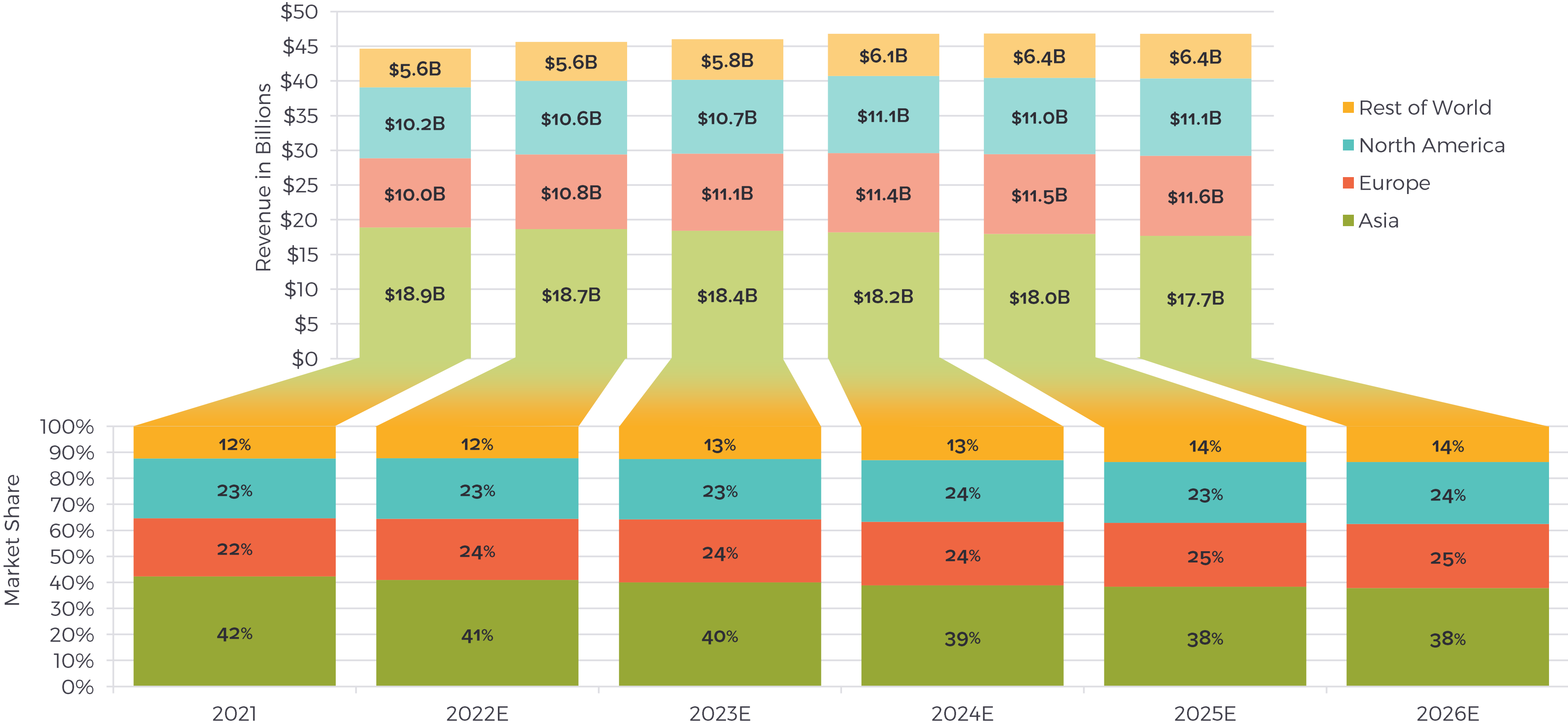
CONSOLE GAMING MARKET

5-YEAR FORECAST BY PLATFORM



PC GAMING MARKET

5-YEAR FORECAST BY TERRITORY

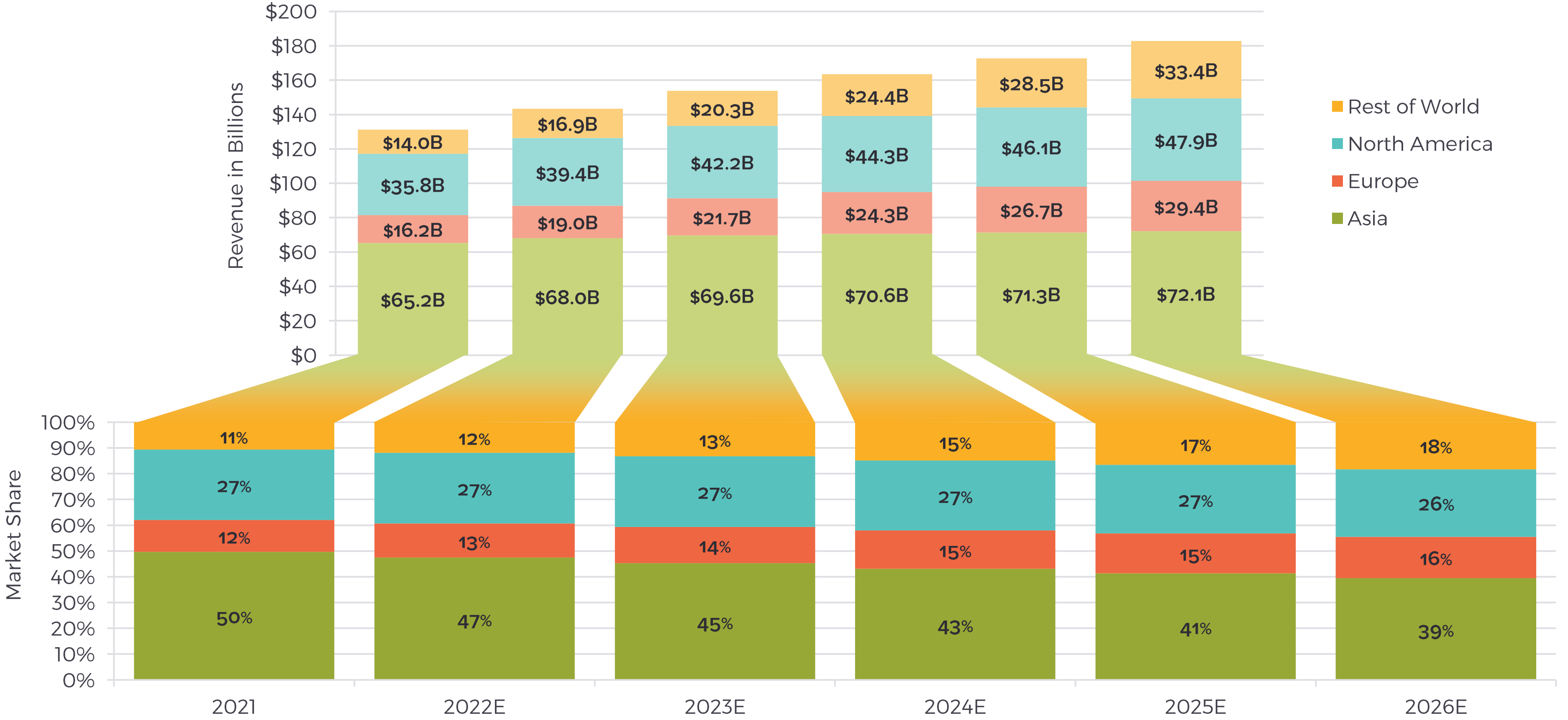


IDG DEEP DIVE

MOBILE GAMING MARKET

MOBILE GAMING MARKET

5-YEAR FORECAST BY TERRITORY



I D G I N S I G H T – M O B I L E M A R K E T

MOBILE FORECAST – BREAKOUT BY GEO

Over the next five years, IDG expects the major market share of Mobile to decrease slightly as developing regions such as LATAM and SEA modernize rapidly and gaming markets in these mobile-first markets grow

	2022	2023	2024	2025	2026
United States	$33,666M	$37,005M	$39,604M	$41,593M	$42,848M
Canada	$2,164M	$2,408M	$2,568M	$2,688M	$2,761M
UK	$3,588M	$4,012M	$4,476M	$4,988M	$5,452M
Germany	$4,204M	$4,706M	$5,296M	$5,949M	$6,550M
France	$2,079M	$2,201M	$2,312M	$2,431M	$2,511M
Spain	$670M	$703M	$734M	$765M	$782M
Italy	$1,106M	$1,254M	$1,405M	$1,572M	$1,727M
Nordics	$1,329M	$1,374M	$1,441M	$1,513M	$1,560M
Benelux	$1,180M	$1,297M	$1,429M	$1,574M	$1,702M
Poland	$454M	$541M	$615M	$699M	$777M
Russia	$1,576M	$1,696M	$1,836M	$1,987M	$2,112M
Japan	$19,430M	$19,643M	$19,697M	$19,715M	$19,749M
China	$39,708M	$40,746M	$41,688M	$42,334M	$42,813M
Korea	$6,064M	$5,973M	$6,071M	$6,287M	$6,491M
ANZ	$1,120M	$1,186M	$1,219M	$1,268M	$1,313M
Worldwide	$131,230M	$140,533M	$149,556M	$158,568M	$166,487M

IDG INSIGHT - MOBILE MARKET

2021 MOBILE STATISTICS

2021 has been an eventful year for the mobile gaming market.
Below is a round up of year-end stats for 2021 gathered from various sources.

- 174 mobile games generated over $100 million in 2021, a 10% y/y increase.
- Some mobile whale gamers will spend as much as $10K per month, or over $100K per year on high-monetizing games such as *Game of War, Lineage 2 Mobile (L2M)* and *Genshin Impact*
- In 2021, mobile games reached 83 billion downloads worldwide, and consumer spending reached $93.2 billion, a 7.3% y/y increase
- Mobile accounted for more than half of consumer spending in the games market
- In the top 10 mobile markets, the average number of hours spent on mobile per day per user was 4.8 hours with South Korea, Brazil and Indonesia each surpassing 5 hours.
- iOS and Google Play saw 2 million new game & app releases, 77% of which were on Google Play
- Over 290 mobile games made their first $1 million in revenue in 2021, a 6.7% decrease from last year
- Apple's decision to give its users an option to opt out of IDFA stoked fears of an implosion in ad revenue but mobile ad spending grew 23% y/y in 2021, in line with growth for the past few years
- 11 Netflix games released in 2021 have reached around 6M downloads since Netflix Games' launch in November
- In United States, Action became the fastest growing genre in terms of revenue with a 69% y/y increase, followed by Hypercasual (43%) and Tabletop (36%)

SOURCE: App Annie, Newzoo, Sensor Tower, and Apptopia

IDG INSIGHT - MOBILE MARKET

TOP WW MOBILE TITLES – 2021

RANK	REVENUE	DOWNLOADS	MONTHLY ACTIVE USERS
1	Roblox	Free Fire	PUBG Mobile
2	Genshin Impact	Subway Surfers	Roblox
3	Coin Master	Roblox	Candy Crush Saga
4	Honor of Kings	Bridge Race	Free Fire
5	Candy Crush Saga	Candy Crush Saga	Among Us!
6	PUBG Mobile	PUBG Mobile	Ludo King
7	Pokémon Go	Ludo King	Minecraft Pocket Edition
8	Uma Musume Pretty Derby	Hair Challenge	Subway Surfers
9	Game For Peace	Among Us!	Call of Duty: Mobile
10	Homescapes	Join Clash 3D	Pokémon Go

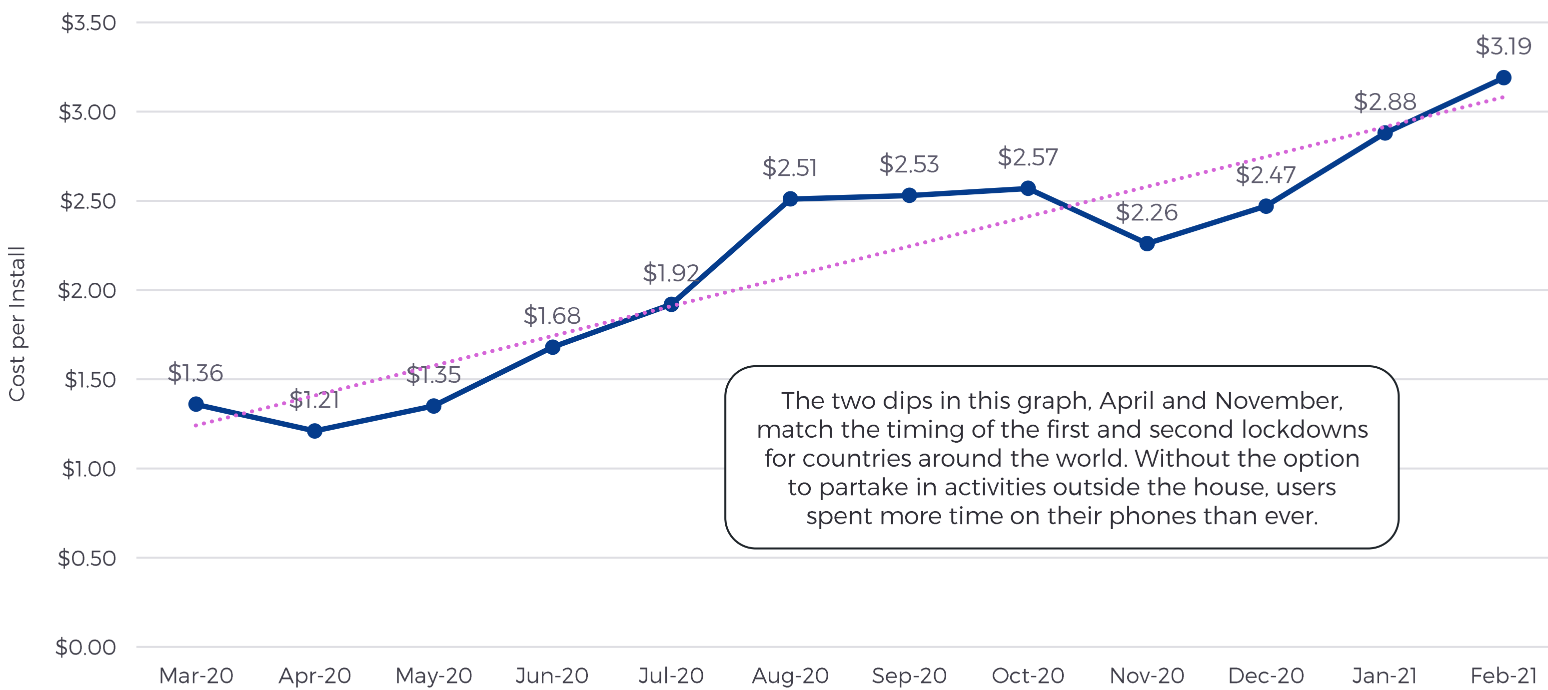
SOURCE: App Annie – State of Mobile 2022 report

IDG INSIGHT – MOBILE MARKET

CPI DURING THE PANDEMIC

The early days of the pandemic drove user acquisition costs down as mobile devices saw record usage, but beginning in the late spring of 2020, costs began to creep back up as countries began to reopen.

Worldwide CPI for Casual Gaming Apps, March 2020-February 2021



Source: Liftoff "Casual Games Report 2021"

IDG ANALYSIS

MAJOR INVESTABLE DRIVERS

IDG CROSS-PLATFORM INTELLIGENCE

LEADING CROSS-PLATFORM GAMES

	Cross-play Platforms	Cross Buy	Cross Platform DLC	Cross Platform Progression	Cross Platform Matchmaking	Cross Platform Friends List	Cross Platform Voice Chat	Cross Platform Parties	Cross Platform Private Games
Fortnite	Xbox, PlayStation, Switch, PC, Mac, iOS, Android	✓ *Save the World BR is F2P*	✓	✓	✓ when in cross-play party	✓ Epic Games Friends	✓	✓	✓
Rocket League	Xbox, PlayStation, Switch, PC, Mac	✗	✗	✗	✓	✗	✗ Quick text only	✗	✓ Private lobby
Minecraft	Xbox, PlayStation, Switch, PC, Mac, iOS, Android	✗	✓	✓	✓	✓ Xbox Live Friends	✓	✓	✓
Call of Duty Modern Warfare	Xbox, PlayStation, PC	✗	✓ Does not include CPs	✓	✓	✓ Activision Friends & friends on platform	✓	✓	✓
Call of Duty Warzone	Xbox, PlayStation, PC	✓ F2P	✓ Does not include CPs	✓	✓	✓	✓	✓	✓
Apex Legends	Xbox, PlayStation, Switch, PC	✓	✗	✗	✓ when in cross-play party	✓	✓	✓	✗ Upcoming feature
Smite	Xbox, PlayStation, Switch, PC, Mac	✓ F2P	✓ Transfer Process	✓	✓ when in cross-play party	✗	✗	✗	✗
Dauntless	Xbox, PlayStation, Switch, PC	✓ F2P	✓	✓	✓ when in cross-play party	✓ Epic Games Friends	✓	✓	✓
Paladins	Xbox, PlayStation, Switch, PC	✓ F2P	✓ Transfer Process	✓	✓ when in cross-play party	✗	✗	✗	✗
ARK Survival Evolved	Xbox, PC, iOS, Android	✓ F2P	✓ Xbox Play Anywhere	✓ account linking on mobile using token	✓	✓	✓	✓	✓ By hosting private server

NOTE: The *Fortnite* iOS and Android clients were removed by Apple and Google respectively on August 13, 2020. The macOS version will be unable to be updated but remains playable if one had already downloaded it. On Android, while it is no longer available on Google Play, it remains available via the Samsung Galaxy Store on Samsung Galaxy devices as well as directly from the Epic Games App on all other Android devices.

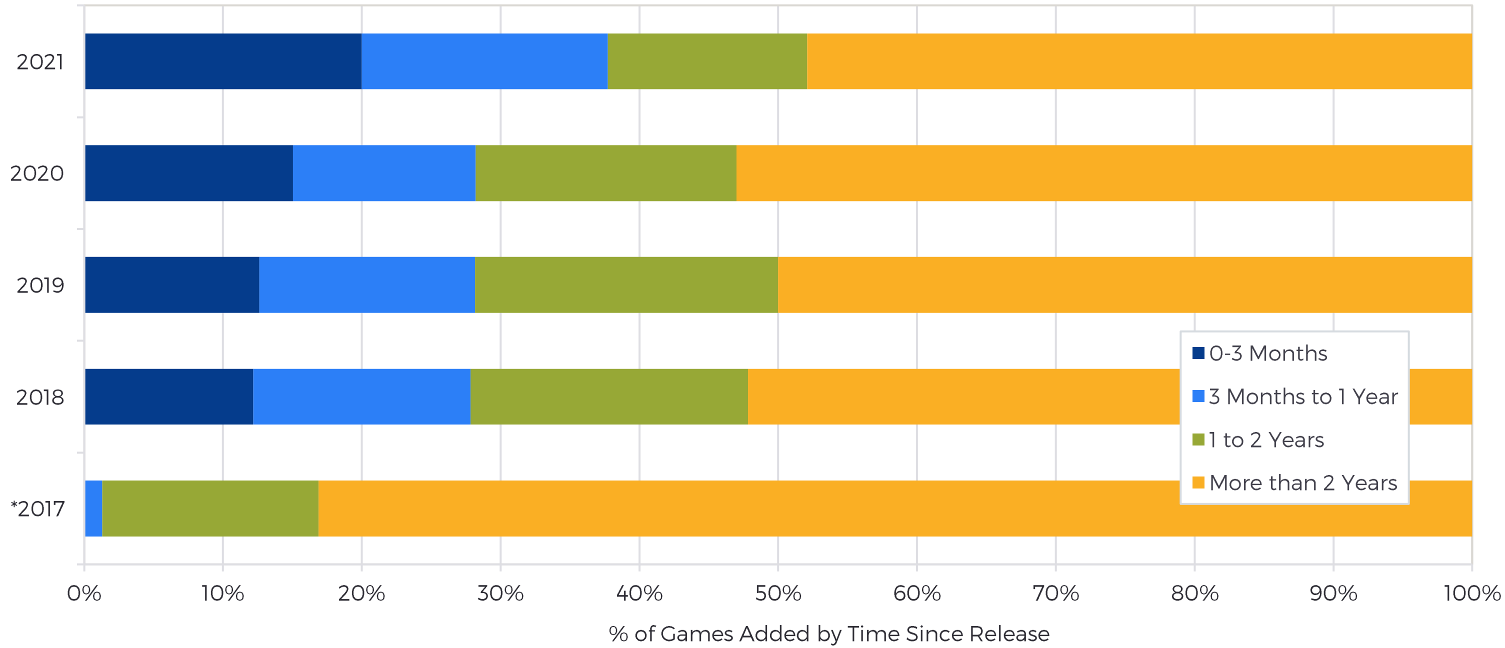
Apex Legends Mobile does not feature cross-play with the PC and console versions of the game

ARK: Survival Evolved features cross-play between the Android and iOS mobile versions, cross-play between Xbox and PC version purchased through the Microsoft Windows Store, and cross-play between Steam and Epic Games Store players

GAME PASS AND RECENT RELEASES

Starting in 2018, newer releases have constituted a larger share of Game Pass's catalogue each year, with 37.7% of new additions in 2021 being less than one year old, up from 27.8% from 2018

New Game Pass Additions by Time Since Release, 2017-2021



*2017 was the first year of Game Pass and as such the service added a far larger number of older titles than typical

VR 2.0?

VR will continue to see newfound growth, driven by major investments from Meta, Apple, Valve, and others. The quality and lower price points of hardware, coupled with better content and software, are leading to a renaissance for the category where the substance is finally living up to the hype. There will still be hardware supply chain bottlenecks this year, but by 2025 however, IDG is much more bullish on the long-term opportunity for VR.

VR HMD IB	2020	2025
Quest 1 & 2	1,500,000	5,250,000
HTC	2,000,000	2,400,000
Oculus Rift	1,600,000	2,400,000
Sony PSVR	5,950,000	8,400,000
Quest X	-	12,000,000
PSVR 2	-	11,000,000
All Others & New	-	11,500,000
Total	11,050,000	52,950,000

- VR 2.0 > VR 1.0
- IDG 2021 VR IB estimate = ~17M units
- AR as gateway to VR
- Niantic at nexus of VR/AR cross-platform metaverse trend

IDG'S 2022 PREDICTIONS

VR TECH ADVANCES

IDG'S 2022 PREDICTIONS

EMERGING SECTORS

CRYPTO/NFTS WON'T GO MAINSTREAM

Publishers will continue to experiment with crypto, NFTs, and play-to-earn through 2022, but until a clear use case is found that can't be accomplished using traditional means, consumers at large will continue to reject them. These paradigms will be hurt by the presence of speculators, making it difficult to balance any in-game implementations that have real-world monetary value.

METAVERSE CHAMPIONS WILL EMERGE

After 2021 saw the metaverse enter popular culture, 2022 will see the sector stabilize. Business models with long-term viability will rise, while flash-in-the-pan startups will run low on cash due to high burn rates and low revenue. Meta's involvement will continue to muddy the waters, but the reputations of the company and the concept will continue to diverge through 2022.

INVESTORS WILL TARGET WEB 3.0

With several ongoing issues creating uncertainty in the mobile market, such as the onset of IDFA and the headwinds in China, investors looking for a quick return will jump ship to pursue Web 3.0 instead. This will have the side effect of stabilizing the investment climate in the mobile sector as the flow of money slows, shifting this instability to the already volatile Web 3.0 sector.

IDG'S 2022 PREDICTIONS

MONETIZATION

IDFA'S EFFECTS WILL BECOME CLEAR

According to IDG analysis, IDFA has already had a negative effect on specific sectors in the mobile gaming sector, and this effect will become evident at a platform-wide level in the coming year. Downloads will be the metric that takes the largest hit, but the repercussions will be felt across mobile gaming.

30% REV SHARE WILL LOSE CREDIBILITY

Following the Epic-Apple lawsuit, industry reliance on the 30% commission benchmark will continue to wane. With pressure to lower the storefront cut coming from all sides on all three major platforms, and alternatives to full game purchases such as subscriptions gaining market share, this relatively arbitrary standard is likely to fall in favor of more developer-friendly alternatives.

ANOTHER MAJOR FRANCHISE WILL GO F2P

COD: Warzone and *Halo Infinite* have proven that F2P is a viable path for established franchises that previously used full-game purchases, providing a clear roadmap for integrating an F2P ecosystem into an existing property. It's likely that at least one other keystone franchise such as Rainbow Six or Battlefield will step in this direction.

IDG'S 2022 PREDICTIONS

CONSUMER TRENDS

SALES WILL DROP POST-COVID

Travel and events reopening post-Covid may cause a correction in some subsegments from the pandemic highs experienced last year. However, digital sales likely will be a bright spot, as many consumers forced to purchase digital due to pandemic lockdowns will continue to do so—the supply shortage will only accelerate this trend due to gamers being forced to buy digital-only consoles.

SEVERAL SUBSCRIPTIONS WILL LAUNCH

As more publishers release gaming subscriptions, the market will progressively fractionate in a similar way to media subscriptions, with each publisher pulling their content from other services to fill their catalog. However, if Microsoft's Activision Blizzard purchase is a show of financial support for Game Pass, it's possible that only major services such as Sony's will be able to compete.

MORE IP CROSSOVERS

Large companies with storied collections of IP will explore new ways to use them. More risk-averse companies will test the waters with guest character appearances, while those all-in on the crossover aspect of the metaverse may create their own crossover titles including huge casts of their own characters and guests.

IDG'S 2022 PREDICTIONS

MERGERS AND ACQUISITIONS

THE BUYING FRENZY WILL CONTINUE

Microsoft's $68.7 billion acquisition of Activision Blizzard is likely to be just one of several large deals in 2022 as consolidation continues. Due to an excess of capital in the market thanks to record revenue and stimulus from the pandemic, acquisition prices are likely to remain high with few suitable targets available for large players in the market to bolster their portfolios.

CHINESE INVESTORS WILL DIVERSIFY

Against the growing structural and societal barriers for gaming in China, major Chinese players such as Tencent and NetEase will aggressively pursue M&A in the Western market. Chinese developers may also reorganize their internal structures to move operations outside of the country, with miHoYo's relocation to Singapore serving as an example.

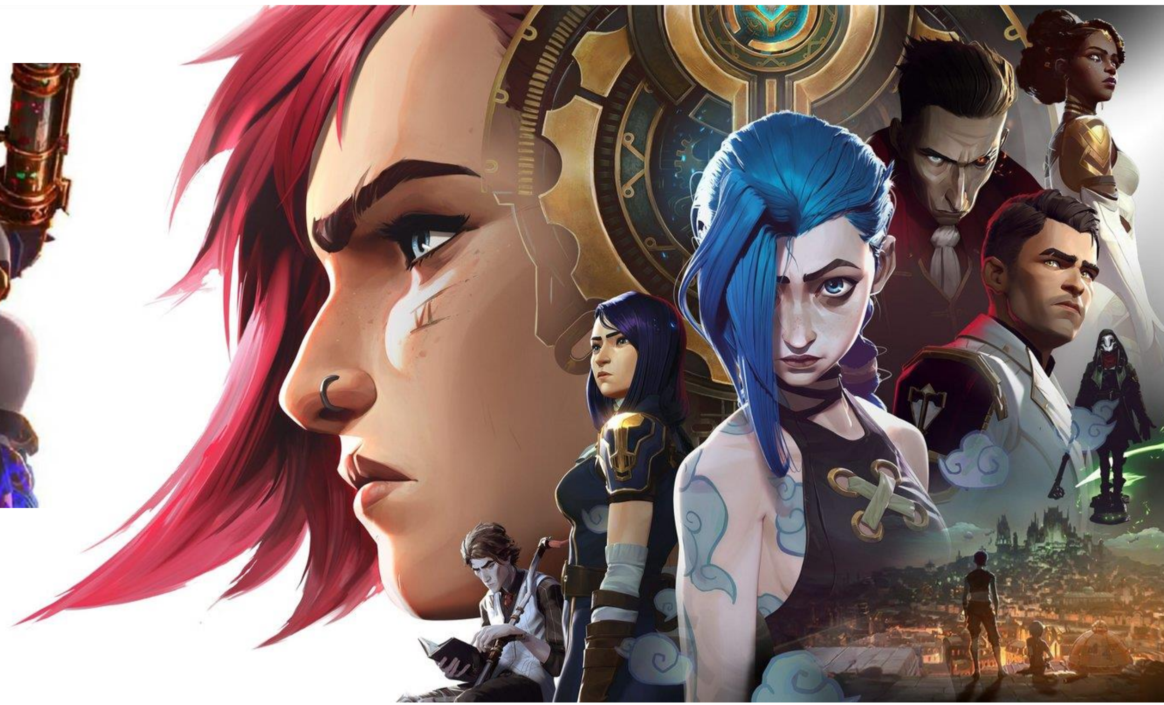
EMBRACER WILL STAY ON THE OFFENSIVE

Swedish conglomerate Embracer led gaming M&A from the front in 2021, rivaled only by Tencent. IDG expects this pattern to continue in 2022. Each of the company's divisions is likely to make several strategic acquisitions during the year, although THQ Nordic and Saber Interactive are expected to be the most active.


IDG TRANSMEDIA CASE STUDY
RIOT X
ARCANE X
NETFLIX
EVALUATION

IDG CASE STUDY

RIOT X ARCANE – TRANSMEDIA JUGGERNAUT



THE 6-YEAR JOURNEY TO ARCANE

2015 — Plans for Arcane kick-off

OCTOBER 2019 — Public confirmation of Arcane at Riot X Anniversary

MAY 2021 — Official Arcane trailers launched

NOVEMBER 6, 2021 — Super Weekend
LOL World Championship closing and Arcane Premier

NOVEMBER 6 - DECEMBER 9, 2021 — Arcane in-game activations and brand partnerships

NOVEMBER 21, 2021 — Arcane Season 2 Announcement
Season 2 is expected to launch in 2023

IDG CASE STUDY

RIOT X ARCANE – IDG KEY FINDINGS

- Arcane has had a stellar launch, ranking within Netflix's top-20 most watched shows in 2021
- Arcane activations were aimed at the whole Riot ecosystem, and Riot managed to test and learn how this new transmedia pillar can impact all the business lines including transactions of in-game content and sales of brand sponsorships
- Riot is seemingly focused on concentrating major updates and launches at the end of the calendar year, instead of spreading out the major updates and events through mid-season events
- While Arcane has made a significant dent in the entertainment space, for the core LOL audience, the Worlds Finals continues to be the event driving the largest impact on viewership and player engagement
- Riot has built a robust entertainment team, focused on creating an engine for growing the reach of the IP while boosting engagement among the 180 million active players in the Riot Universe
- Impressively, Arcane has offered a glimpse of how far Riot entertainment will be able to grow, as they have only utilized 4 characters of LOL's Lore in Arcane, out of the 160+ champions in LOL alone

IDG CASE STUDY

ACTIVATION PRINCIPLES

1. FOCUS ON THE LOL AUDIENCE

The series was made by Rioters to grow engagement, reactivate lapsed players and to nurture pride among the LOL community

While the Riot Universe has expanded its reach, its impact in adding new players to the franchise is very limited as the LOL barriers still prevail (MOBA complexity, lack of appeal of the Lore to non-MOBA players and aggressive/unwelcoming community for newbies)

2. ENABLE NEW PRODUCT FEATURES

Beyond cosmetics
Preseason updates
Map Accents
Champions featured in Arcane were overhauled and/or refreshed

3. OFFER MOST CONTENT FOR FREE

In *League of Legends*, Arcane-based content was released on a weekly basis and offered for free through affordable mechanics to players who played 3 games or won 1 game

In *Wild Rift* the mechanics were focused on rewarding players who logged-in every day

Twitch viewers who watched the Global Premier were offered In-game rewards for all games in the Riot Universe (*LOL, Valorant, Wild Rift, TFT* and *Legends of Runeterra*)

4. TIME CONSTRAINED – 30 DAYS

Arcane-themed content drops released in sync with the appearance of the different Champions in the series and LOL players were allowed to redeem the free content within 30 days.


CLOSING
THANK YOU!
DISCUSSION
& Q&A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