



GAMING REPORT

2023

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INTRODUCTION

In a year marked by shifting economic headwinds, creativity and innovation in the gaming industry are still going strong.

Developers are shipping games quickly and maintaining their player bases longer. Studios are finding opportunities to simplify game creation and sustain the success they've already built.

Though some trends from 2021 held true, like the growth of multiplatform games and longer game lifespans, the industry has changed significantly over the past year. For example, in mobile gaming, the number of daily active users (DAU) is up year over year for the median game.

However, the number of people making in-app purchases has declined.

This report provides fresh, actionable insights into the state of game development to help you navigate the current environment and make better business decisions as a developer or publisher.

It draws on data from the more than 230,000 developers who use the Unity game development platform, and ads data spanning over 423,000 developers on multiple platforms. We have also invited successful creators to share their insights into current trends and forecast what's ahead for 2023.

THESE ARE THE TRENDS SHAPING THE INDUSTRY.

TREND ONE

Indies are shipping games quickly and developers are working fewer hours.

Speed was the name of the game in 2022, with **62% of indies** shipping games in less than a year.

TREND TWO

Studios are starting more mobile-only games compared to 2021.

In 2022, studios of almost all sizes took more games to the small screen, with large studios seeing a **44% increase in mobile-only production**.

TREND THREE

Large studios are increasing the number of multiplatform games.

In 2022, large studios released **16% more multiplatform games** than in 2021, while indies moved towards a single-platform strategy.

TREND FOUR

More people are playing mobile games than in 2021.

Global daily active users have **increased by 8%** for the median game, signaling a shift in monetization metrics in 2022.

TREND FIVE

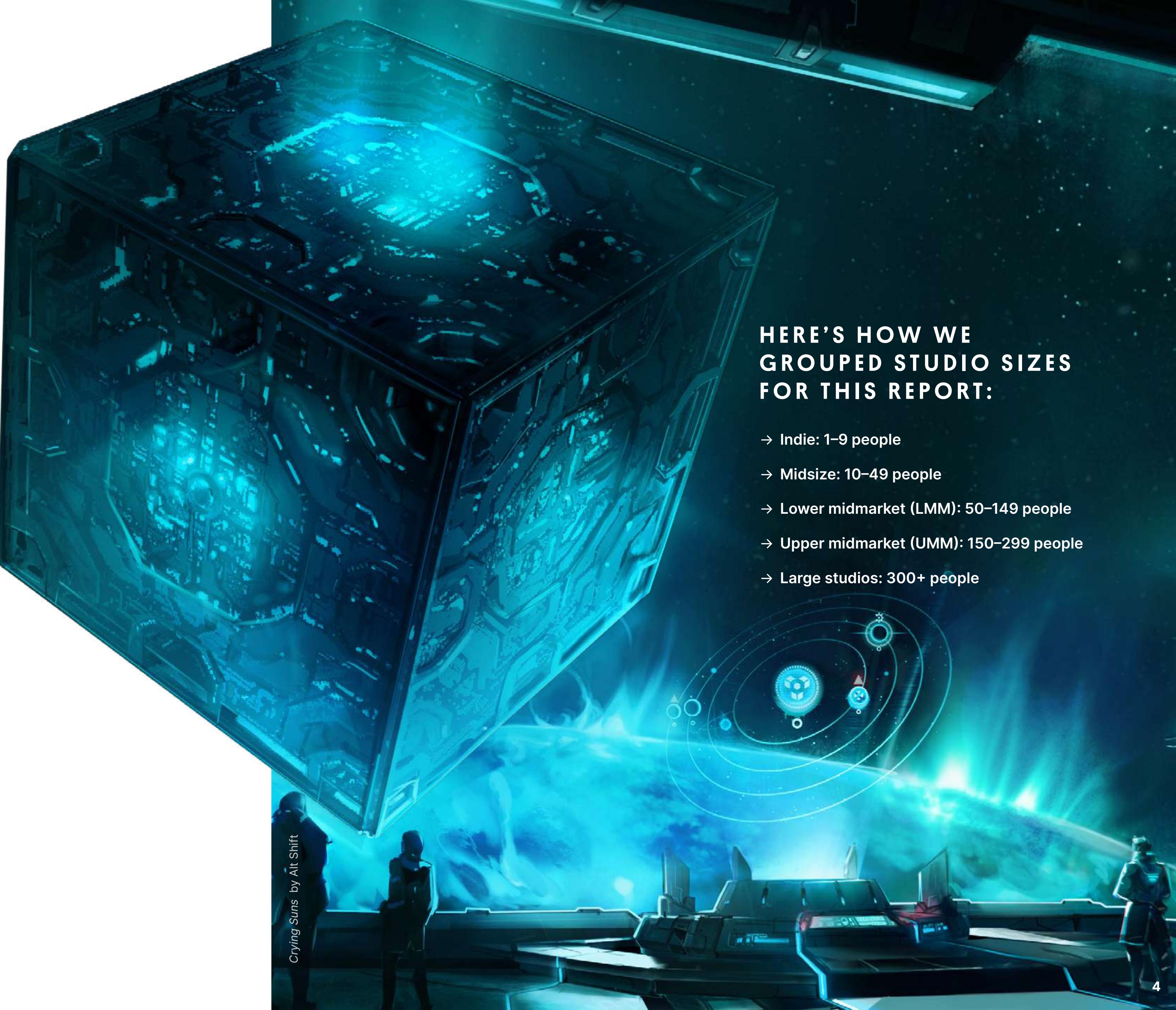
Studios are extending game lifespans year over year.

Studios are in it for the long run, extending the lifespan of existing mobile games **by 33%** and seeing higher player retention rates.

ABOUT THE DATA

The data in this report is drawn from the Unity real-time development platform and the Unity Gaming Services portfolio of products, including games made with Unity that are sending events through the platform. These solutions span mobile, PC, and console gaming, giving a unique view of the gaming industry. Additional data for this report comes from a survey of game developers who were invited to participate via various means such as social media advertisement, Unity customer emails, and the Unity community. In total, 356 respondents completed the survey with a margin of error of +/- 5.2%. We have also included data from ironSource's e-book, [The 2022 modern mobile consumer: App discovery and monetization](#).

We take data privacy seriously, and have omitted and anonymized information from this report that would individually identify any single game, developer, or publisher. Games are broken out into publicly available categories as defined on the iOS and Google Play stores where available. Although we also include outside sources of information, the data shown in the charts and graphics is original to Unity. In addition, we are grateful to those members of the industry whom we interviewed for this report, many of whose contributions are quoted throughout.



HERE'S HOW WE GROUPED STUDIO SIZES FOR THIS REPORT:

- Indie: 1–9 people
- Midsize: 10–49 people
- Lower midmarket (LMM): 50–149 people
- Upper midmarket (UMM): 150–299 people
- Large studios: 300+ people

TREND ONE

INDIES ARE SHIPPING GAMES QUICKLY AND DEVELOPERS ARE WORKING FEWER HOURS.

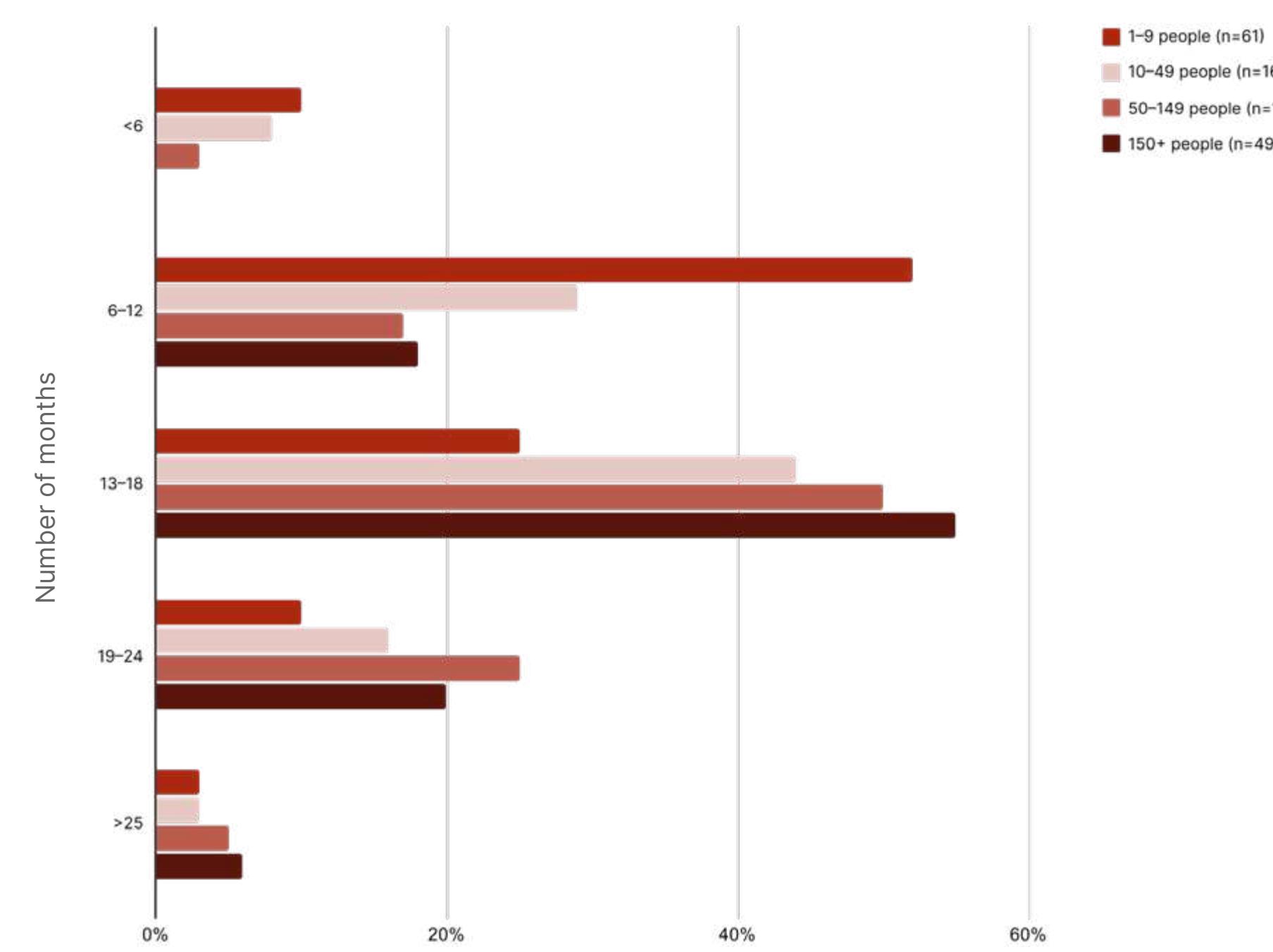
Speed was the name of the game in 2022, with **62% of indies** shipping games in less than a year.

STUDIOS ARE MAKING ONE-YEAR RELEASE PLANS.

The days of waiting for (and working on) a game for half a decade are becoming a thing of the past for smaller studios. Chart 1.1 shows that 62% of indies and 58% of midsize studios are now making games in less than a year, from start date to ship date.

Chart 1.1: Indies are shipping in less than a year.

Length of project time, from start to ship date



Greak: Memories of Azur by Navegante



Anahit Fernandez
Lead Producer, Navegante

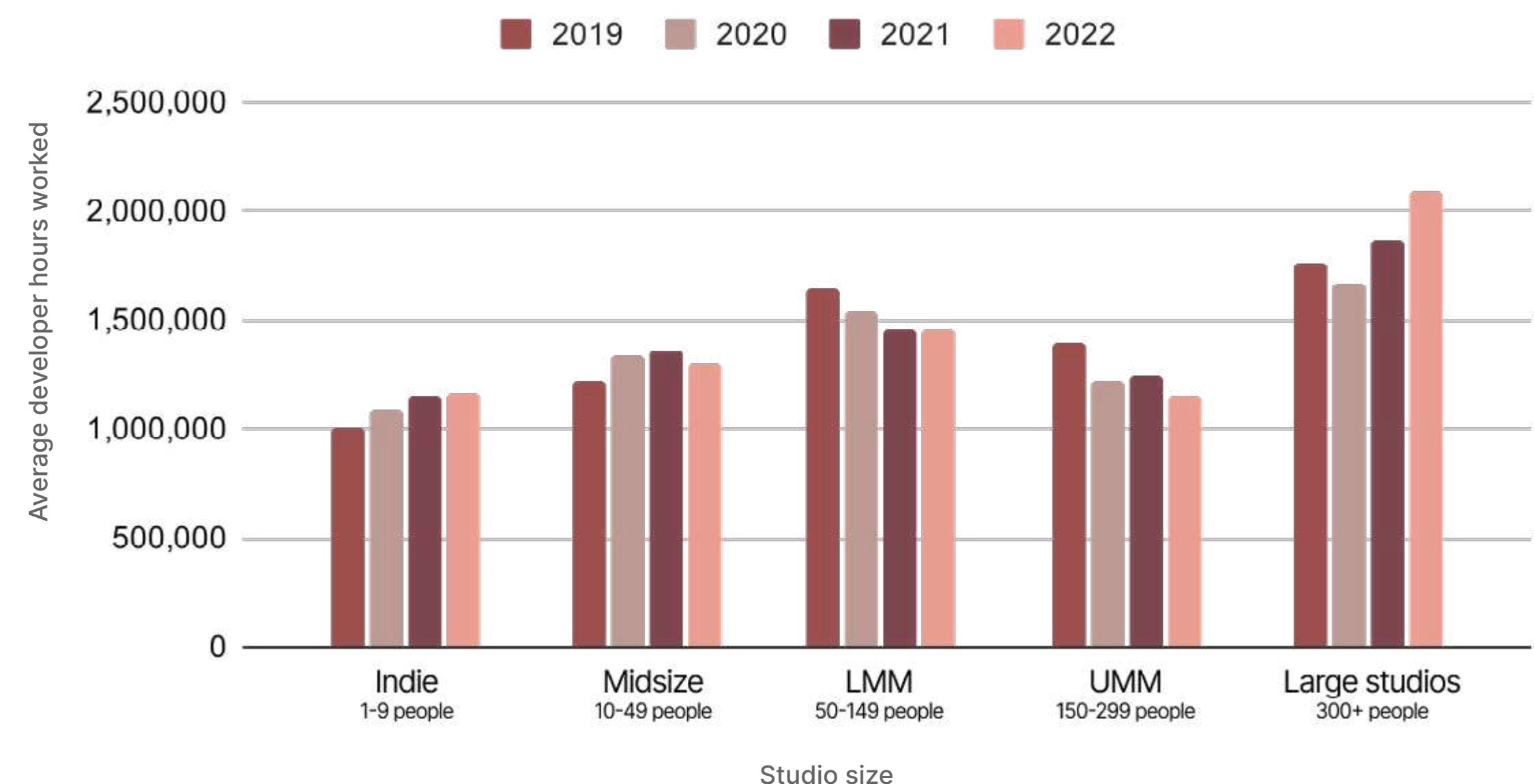
"Although working remotely has its challenges, it helps with better productivity. It's important to have a lot of discipline and communication within the team, and to make sure that you provide them with easy access to all of the available resources."

DEVELOPERS ARE WORKING FEWER HOURS.

You might think "start to ship" success in less than 12 months comes at the price of late nights, long hours, and gallons of caffeinated drinks. But, as Chart 1.2 shows, developers at indie, midsize, and lower midmarket studios are actually working 1.2% fewer hours. This might not sound like much, but that 1.2% per developer works out to about five years of total work hours, which helps make shipping a new title more attainable for many studios.

Tools like [Unity DevOps](#) and tactics like using premade assets can help developers streamline workflows and ship games faster.

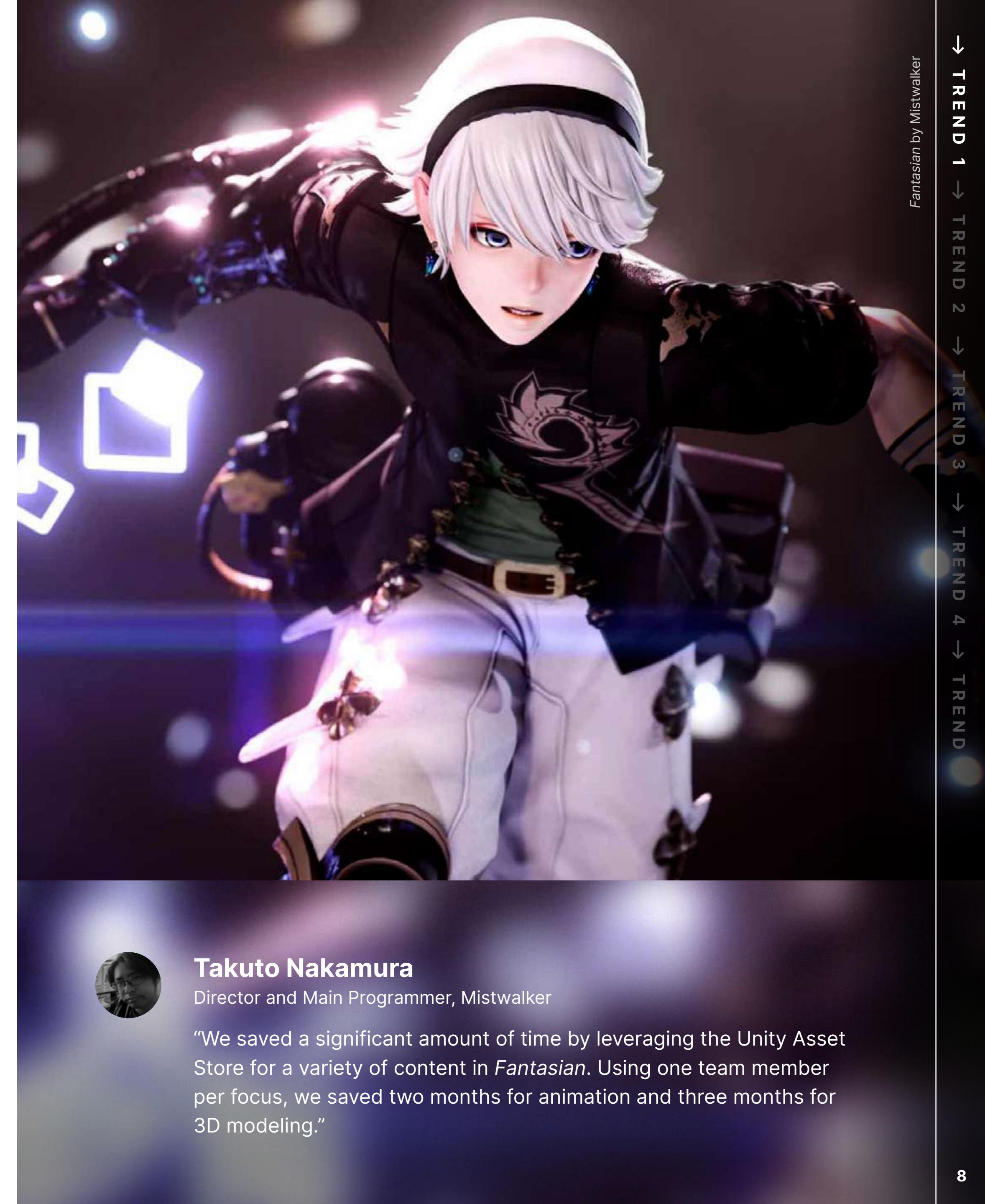
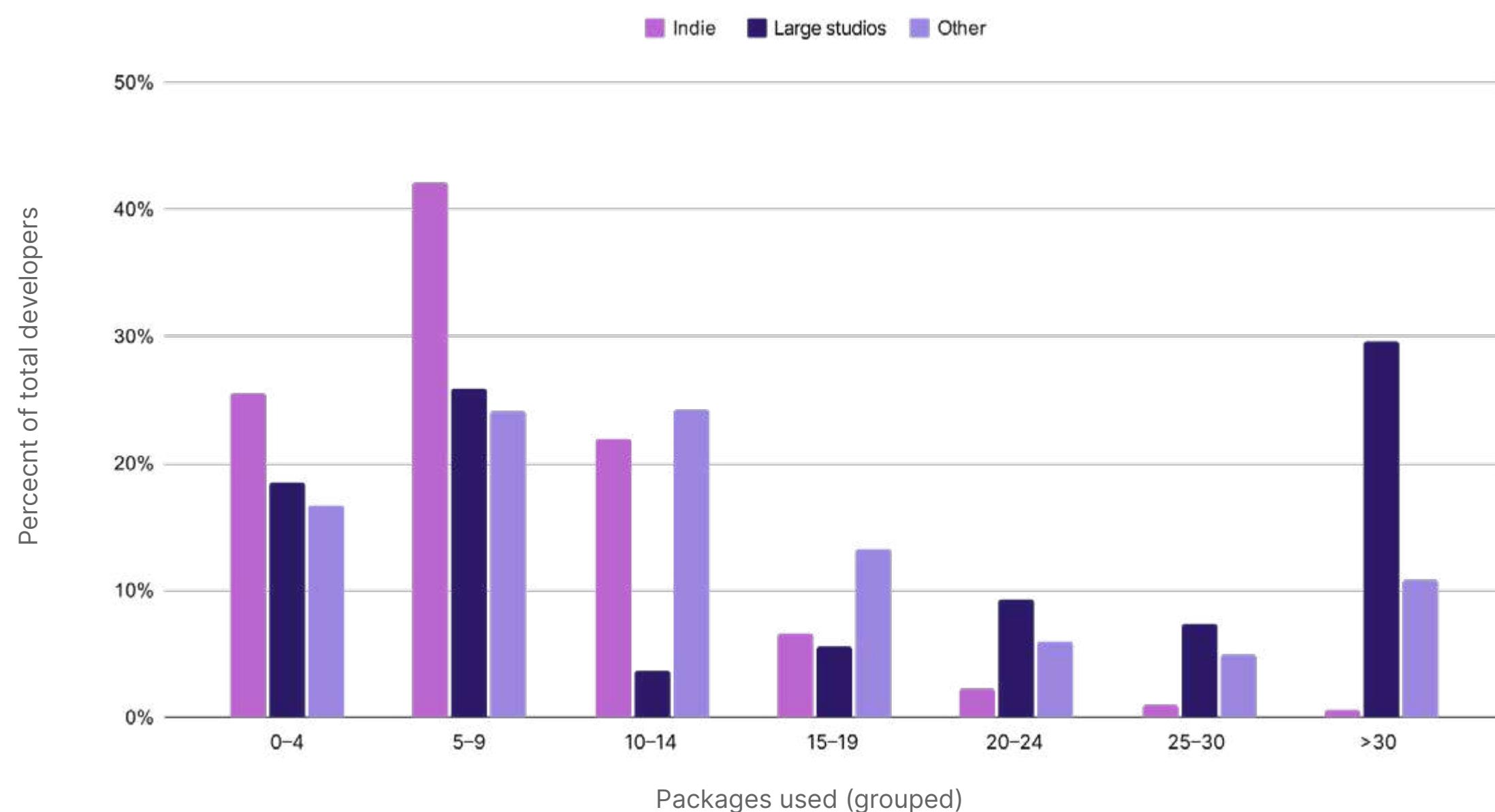
Chart 1.2: Indie through lower midmarket are delivering games while working fewer hours.



STUDIOS ARE USING PREMADE ASSETS TO TEST IDEAS QUICKLY.

Indie developers are no longer starting every project from scratch. Instead, they're turning to third-party assets for prototyping and testing, with 62% of indies using between five and 14 asset packages in their games, as seen in Chart 1.3.

Chart 1.3: Indies are using asset packages for prototyping and conceiving.



Takuto Nakamura

Director and Main Programmer, Mistwalker



"We saved a significant amount of time by leveraging the Unity Asset Store for a variety of content in *Fantasian*. Using one team member per focus, we saved two months for animation and three months for 3D modeling."



Maciej Szcześniak

CTO, Vinci Games

"Premade assets allow us to iterate rapidly on features. If we don't have an asset ready, we can just buy something on the Unity Asset Store to test out new ideas, then replace it with something that suits our style."



Blacktop Hoops by t Games

Chart 1.4: VR games include assets early in development.

Time between project creation and first asset used, VR projects only

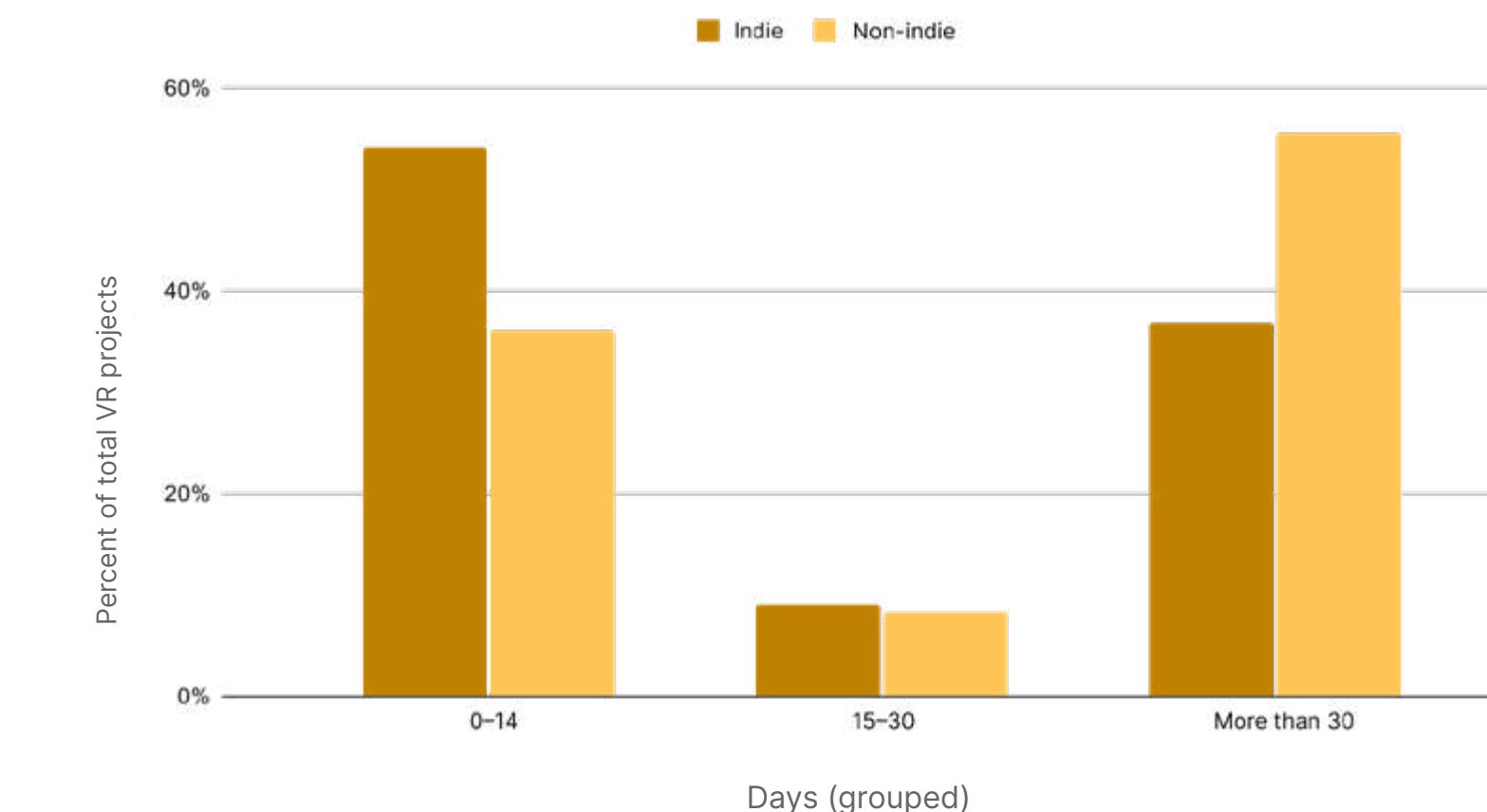
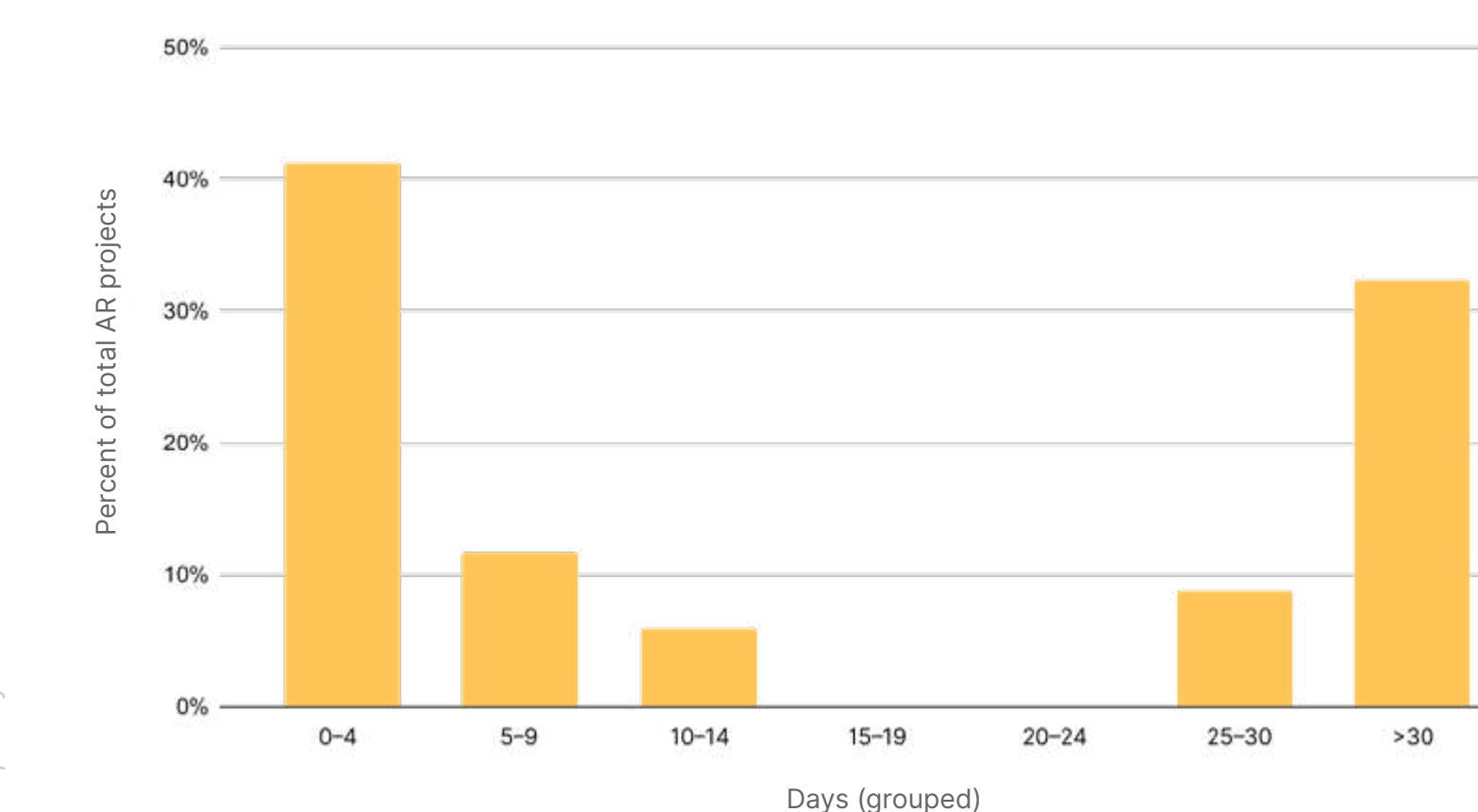


Chart 1.5: Assets are mainly used in the first week of AR development.

Time between project creation and first asset used, AR projects only

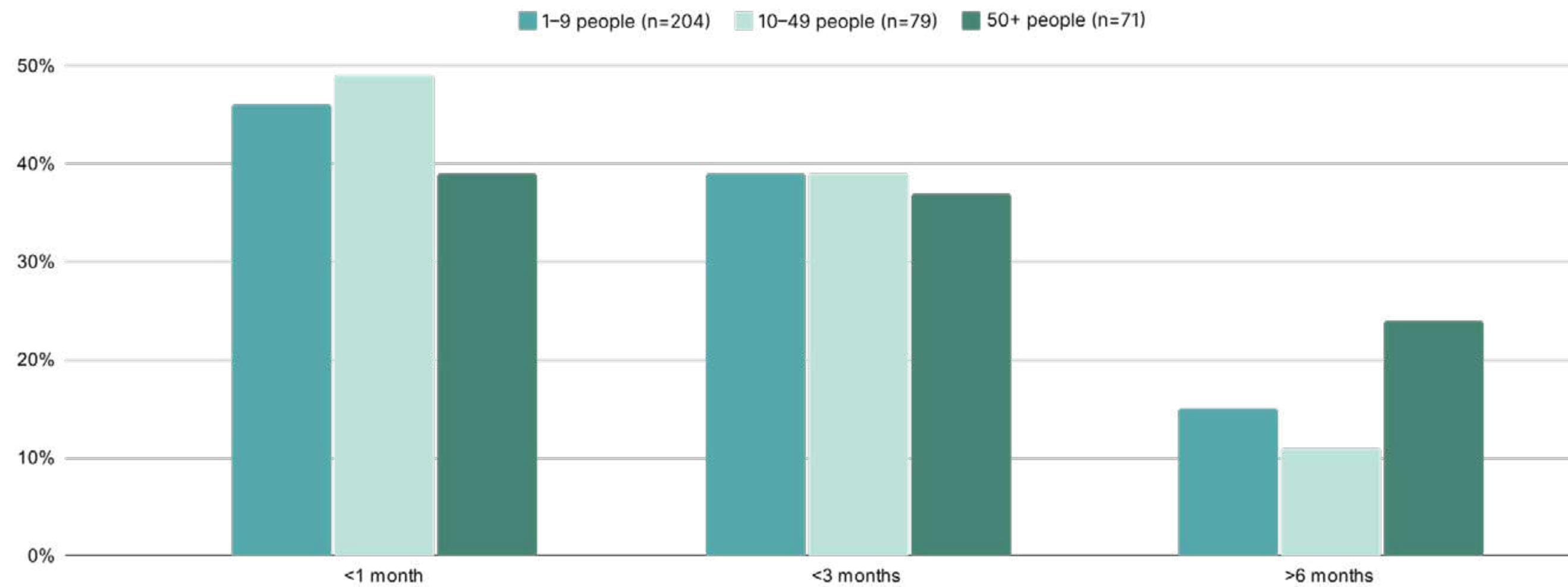


Assets are making an early appearance in the development of VR and AR games, too. As Chart 1.4 shows, 55% of indies are using assets within the first two weeks of starting a VR project. AR games are showing a similar rate of early adoption. As Chart 1.5 shows, 58% of studios use assets in the first two weeks of game development.

Not only do premade tools and art resources help save time in the earliest stages of game development, they reduce the need to devote in-house resources to asset development. Instead, studios can focus on gameplay.

Chart 1.6: Indies are prototyping in less than a month.

Length of prototyping phase, by studio size



As Chart 1.6 shows, 46% of indies have a prototyping phase that lasts less than a month. With the help of prefabricated third-party assets, studios can test many different ideas in a shorter time frame, which helps them develop stronger concepts.



Réjon Taylor-Foster

Co-owner and Lead UI/UX & Audio, Soft Not Weak

"I'm talking about turning two weeks of work into probably just a few hours. And for the team and myself, it's vital for how we work. We wouldn't be able to sustainably make the game otherwise."



Studios using the Unity Asset Store ship around 20% faster.



Yves Hohler

Cofounder, Broken Arms Games

"I can spend a hundred dollars on the Unity Asset Store instead of doing something that would cost me twenty or thirty thousand dollars and two to three months to develop."

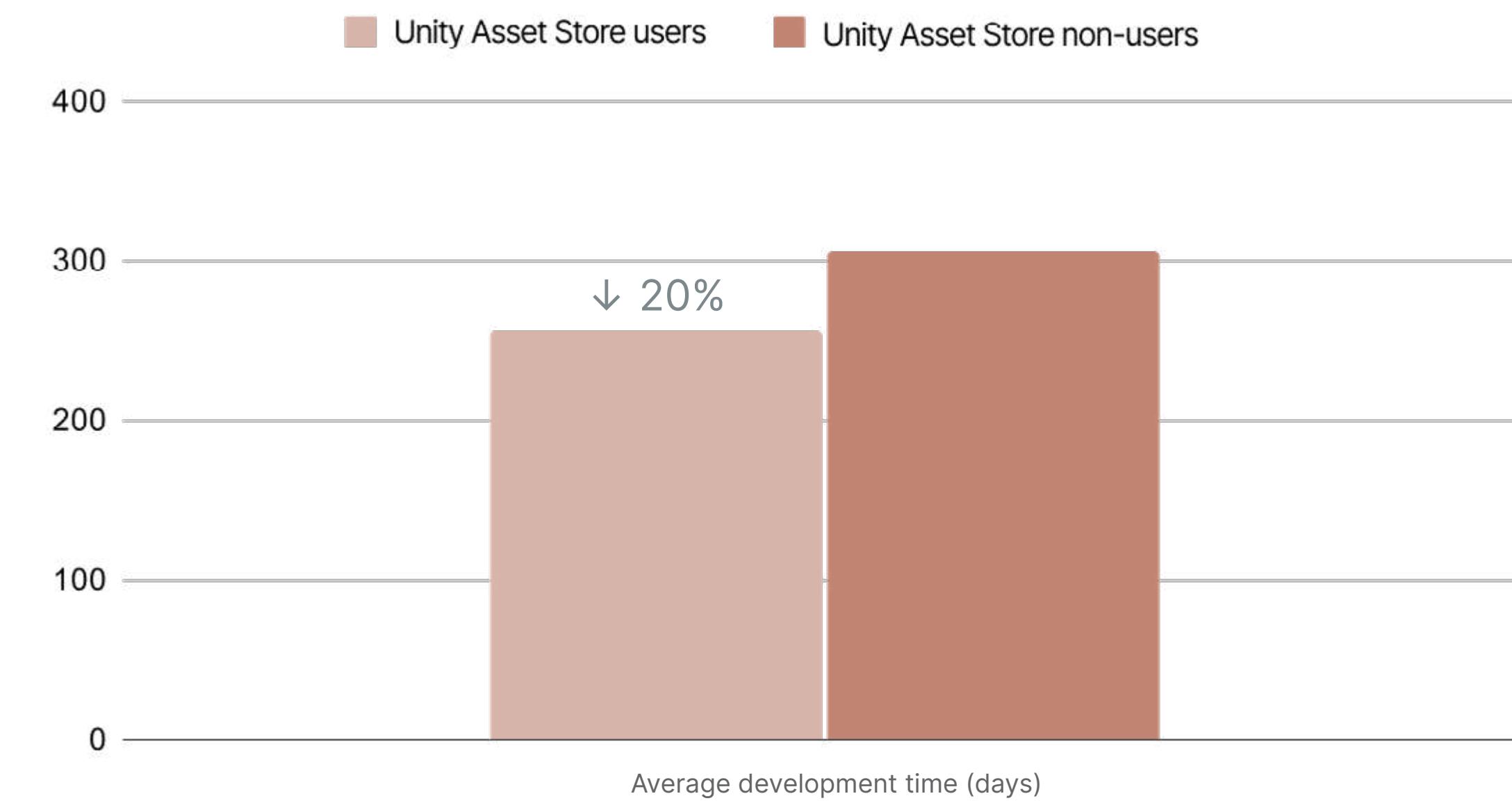
Hundred Days by Broken Arms Games

STUDIOS USE PREMADE ASSETS TO STREAMLINE WORKFLOWS.

Premade assets can also be an effective efficiency boost for production workflows. Studios that use the [Unity Asset Store](#) ship games approximately 20% faster.

It's not just a matter of cutting down asset production time. Knowing how much time the team is saving by not having to develop assets from scratch can help with task prioritization, enabling further efficiencies in development workflows.

Chart 1.7: Premade assets help shorten time to ship.



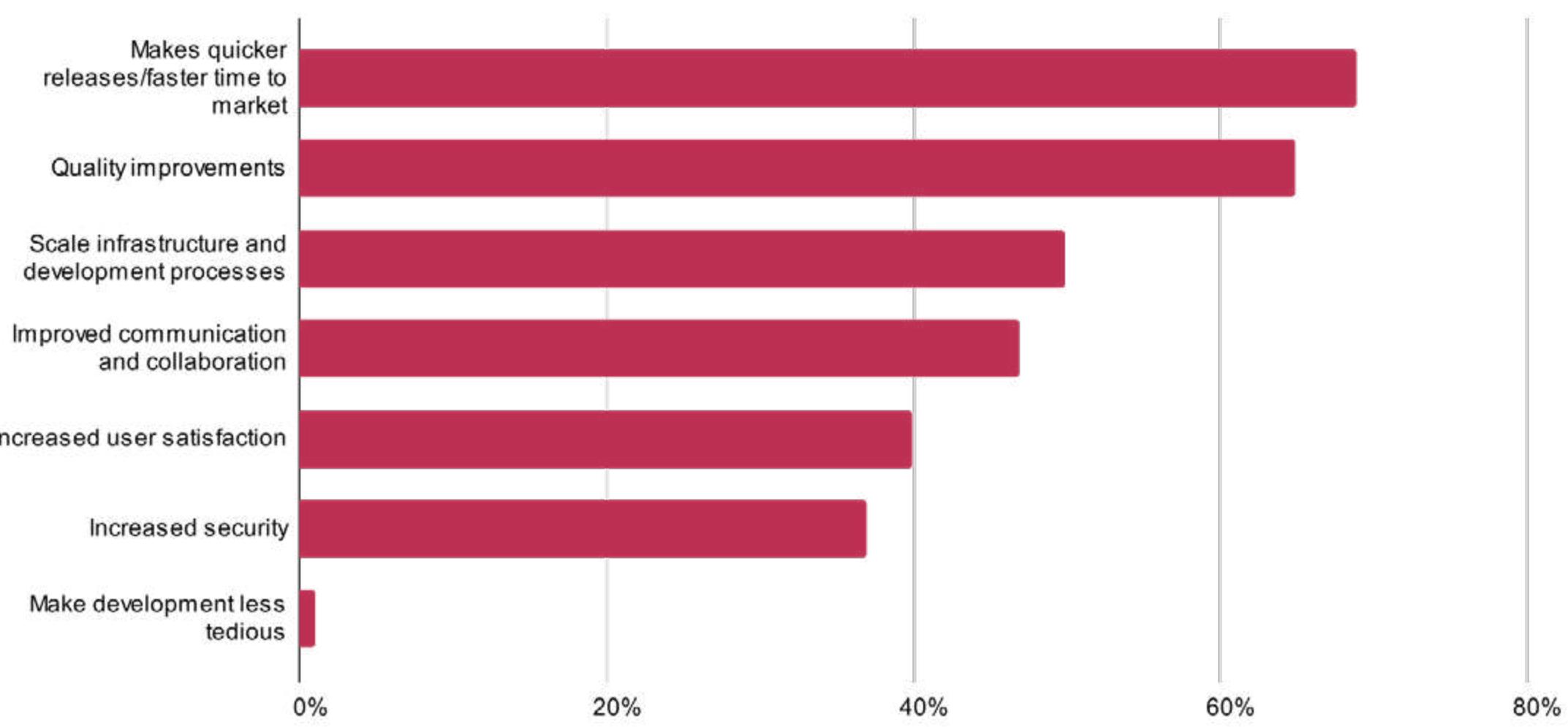
GAME DEVELOPERS USE DEVOPS TO RELEASE QUICKLY.

Some of the biggest challenges for creators across the industry include keeping projects organized, in scope, and on time – 47% of indies and 59% of midsize studios identify these as production pain points.

To help keep projects from falling prey to scope creep, many studios are embracing DevOps tools like [Unity Cloud Build](#) and [Unity Version Control](#) for faster collaboration, iteration, delivery, and to aid in protecting their code from errors.

What's important is not just that studios are getting their games into the hands of players in a shorter time frame, it's also how they're doing it. Chart 1.8 shows why 69% of studios choose DevOps tools to release games.

Chart 1.8: Here's why studios use DevOps to get their games to market more quickly.



MARVEL SNAP by Second Dinner



Ben Brode

Cofounder and CDO, Second Dinner

"In the past, getting games to peoples' devices wasn't easy. Unity Cloud Build made it very easy for the whole team, especially as we went fully remote during the pandemic. We used it extensively for all of our builds throughout the development of MARVEL SNAP."

TIPS FROM UNITY CREATORS ON SAVING TIME



"The availability of different out-of-the-box solutions is helping smaller teams be able to prototype quicker, build faster, and iterate more on their product so that they're able to get it out to the market much faster."



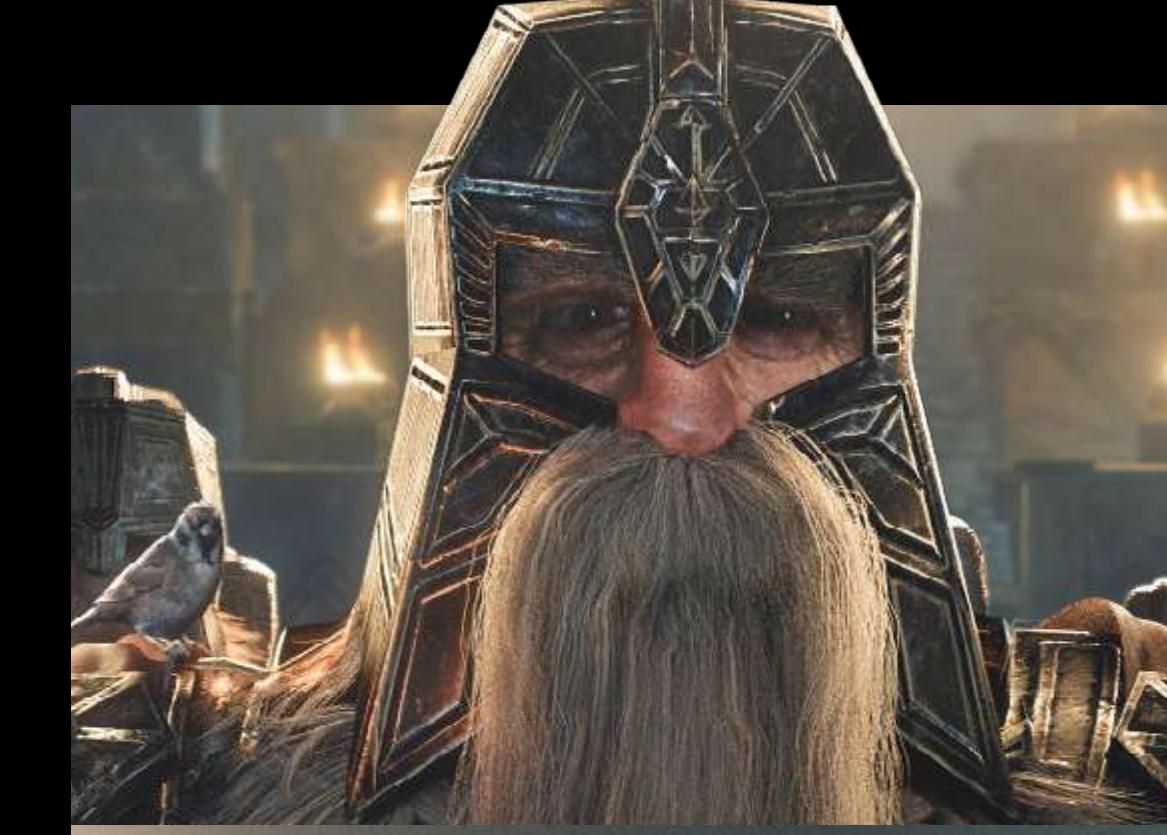
Nathan Ventura
Cofounder and CEO, Vinci Games



"If you find yourself doing the same thing over and over again in the process of development, you probably need a tool for it. You have to be sensible about it because every tool that you create has a maintenance or overhead component to it."



Jonny Hughes
Director, Hugecalf Studios



"Set up your pipelines early. Make sure you know what you want to do and that you have the right tools in place. Be aware of their limits and capacities, and seek help if you need."



Michela Rimensberger
Cofounder, CEO and Producer,
Sycoforge



"Having all of the tech you need in one place reduces costs so you don't have to go out and spend important resources on building tools. The vast majority of tools are there ready for you so you can concentrate on the game. This means you can put the game out much quicker than you used to be able to."



Chris Dawson
Cofounder and Creative Director,
Robot Squid

TREND TWO

STUDIOS ARE STARTING MORE MOBILE-ONLY GAMES COMPARED TO 2021.

In 2022, studios of almost all sizes took more games to the small screen, with large studios seeing a **44% increase in mobile-only production**.



STUDIOS ARE STARTING MORE MOBILE-ONLY GAMES.

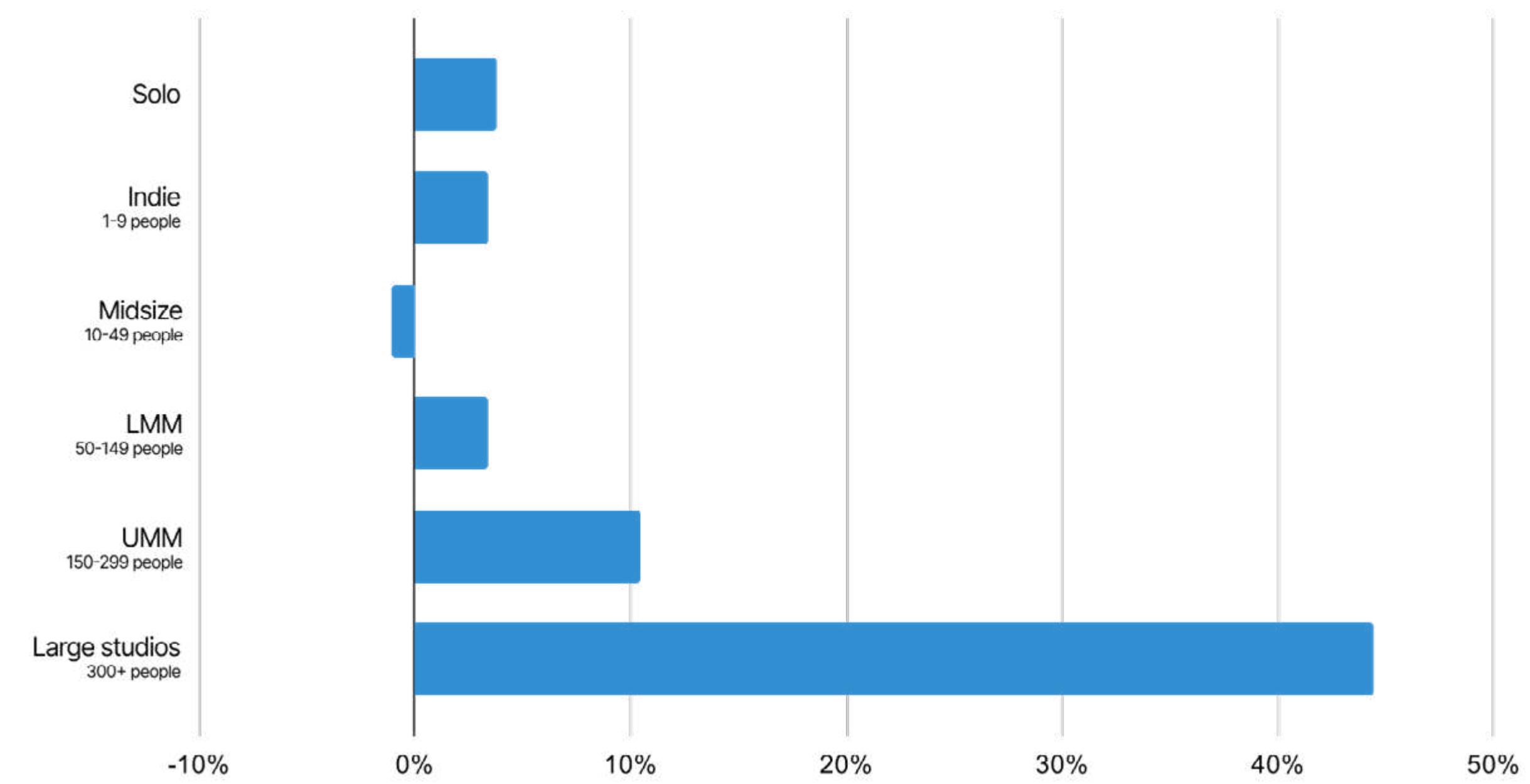
These days, expansive worlds and engaging gameplay aren't limited to big-screen PC or console blockbusters. In fact, you can find them right in your pocket. Given the ubiquity of smartphones, mobile games offer a larger potential user base than any other platform.

In 2022, studios of (almost) all sizes turned up the dial on mobile-only game production, tapping into the opportunities associated with bringing big ideas to the small screen.

Large studios have seen the most growth in mobile-only games since 2021 at 44%. Increasingly sophisticated smartphone hardware has made it easier for studios to live up to players' expectations of AAA-quality mobile games. In addition, the market's rising familiarity with the shorter core loops and gameplay cycles of mobile enables large studios to bring their already-successful IP to a platform that creates more opportunities to monetize.

Chart 2.1: Large studios are leading the way in mobile-only game growth.

Percentage increase in new mobile-only Unity projects, 2021 vs 2022

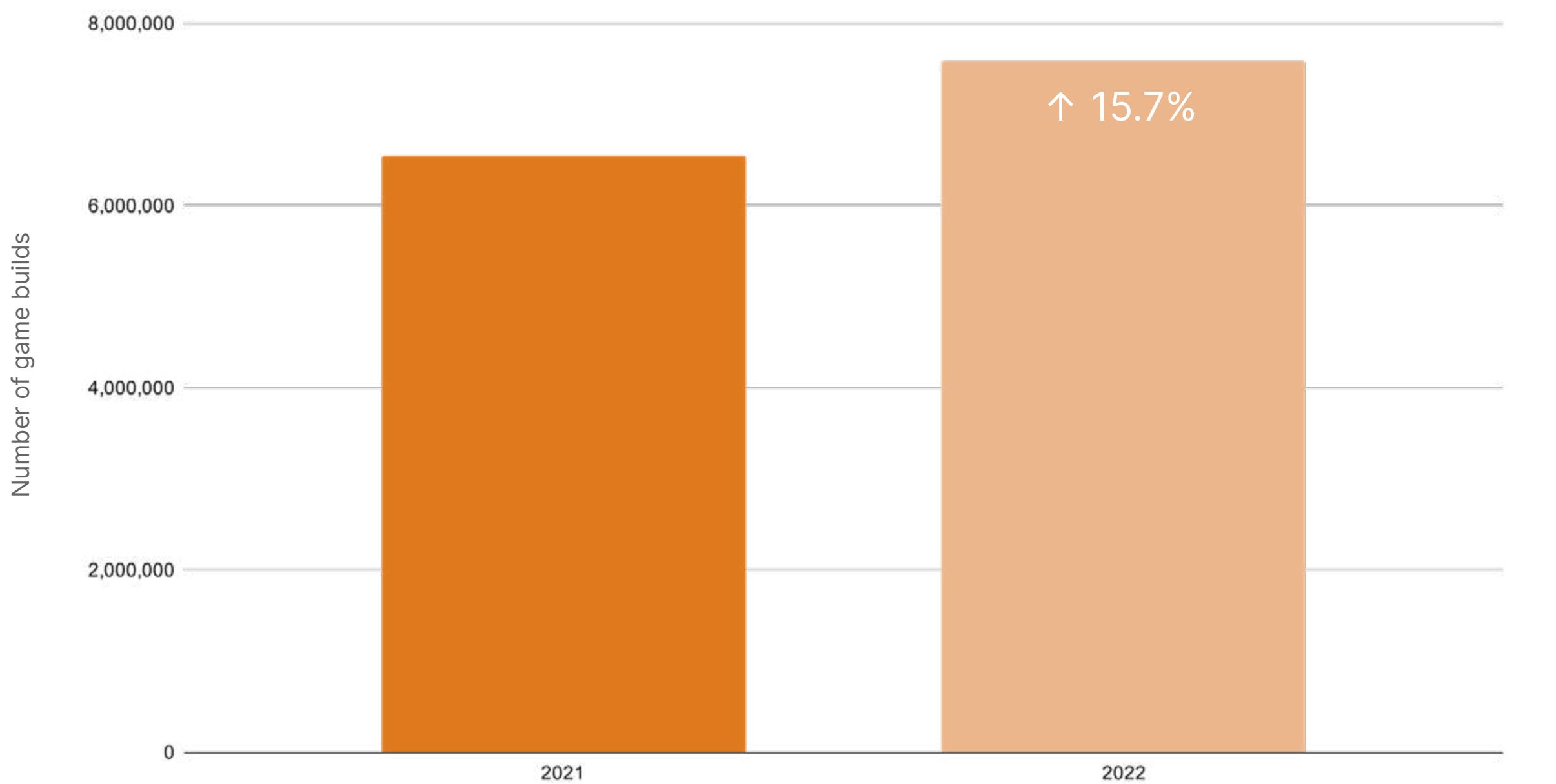


SHIFTING ECONOMIC HEADWINDS HAVEN'T SLOWED DOWN GAME DEVELOPMENT.

There's no shortage of innovation or enthusiasm when it comes to bringing new game ideas into reality. Over the past year, studios have done 15.7% more game builds.

Chart 2.2: Studios are doing more game builds year over year.

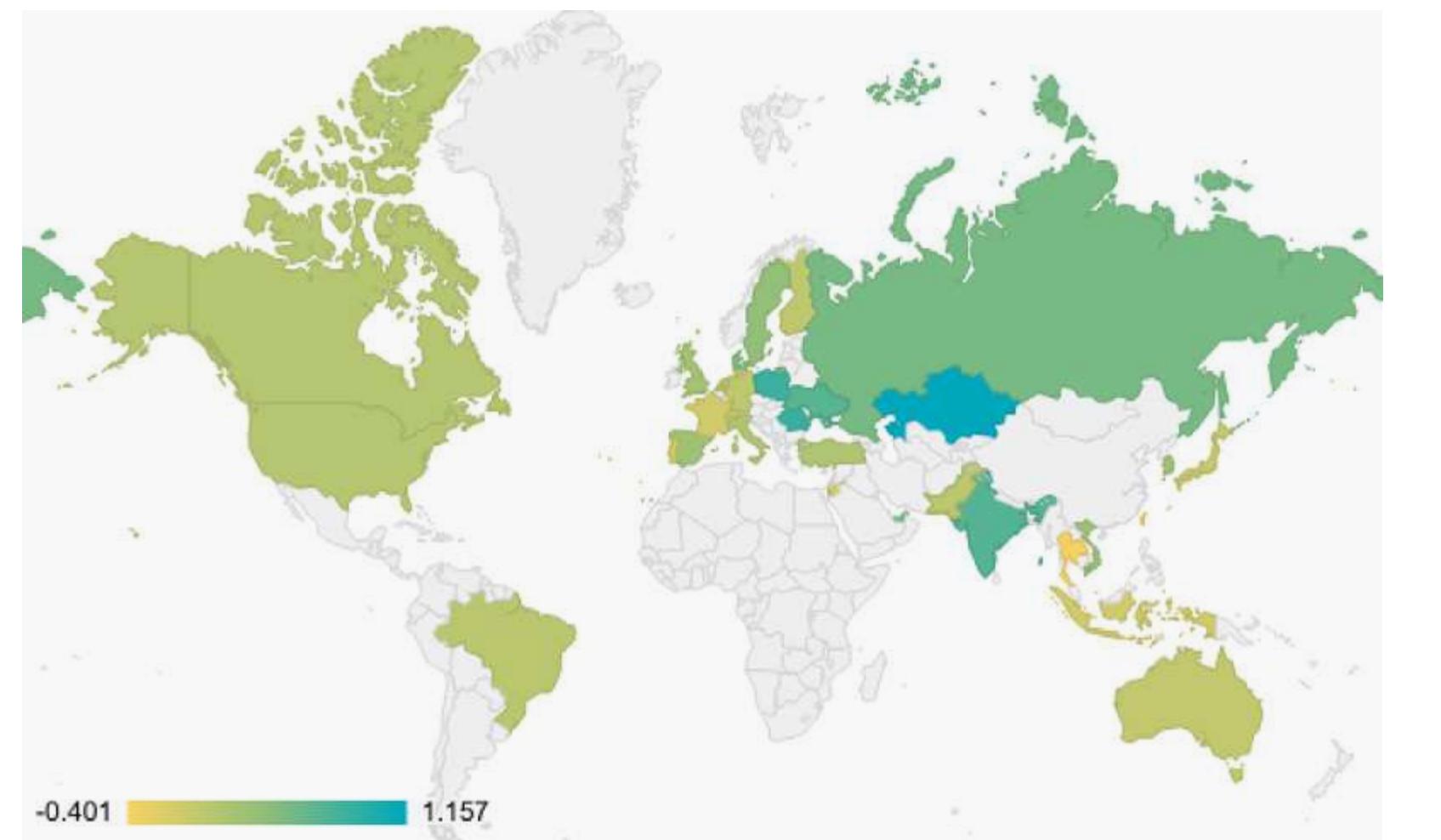
Annual count of local builds in the Unity Editor



Rollerdrome by Roll7



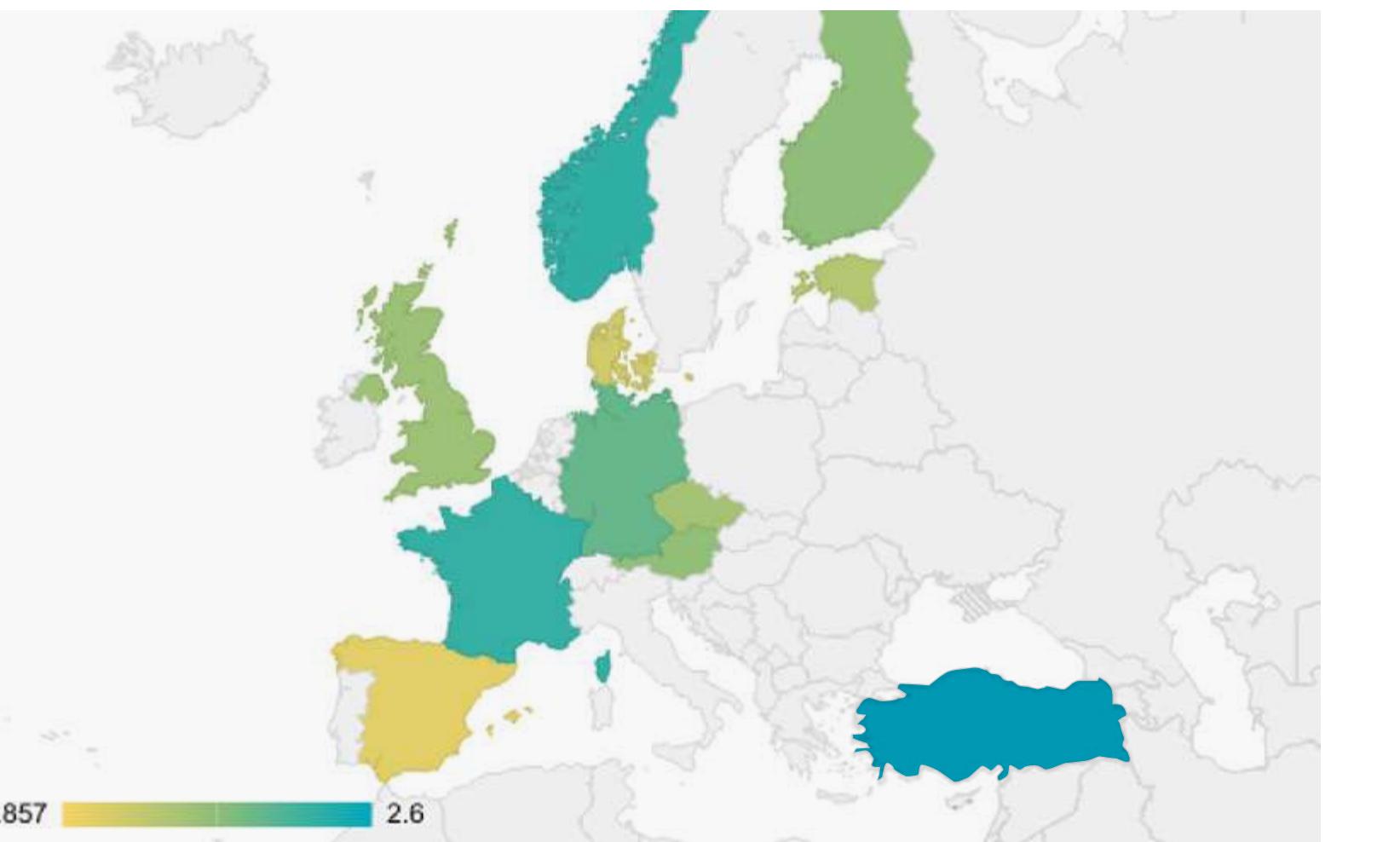
Chart 2.3: Indies around the world are starting more games.



New indie games have grown significantly in several countries over the past year:



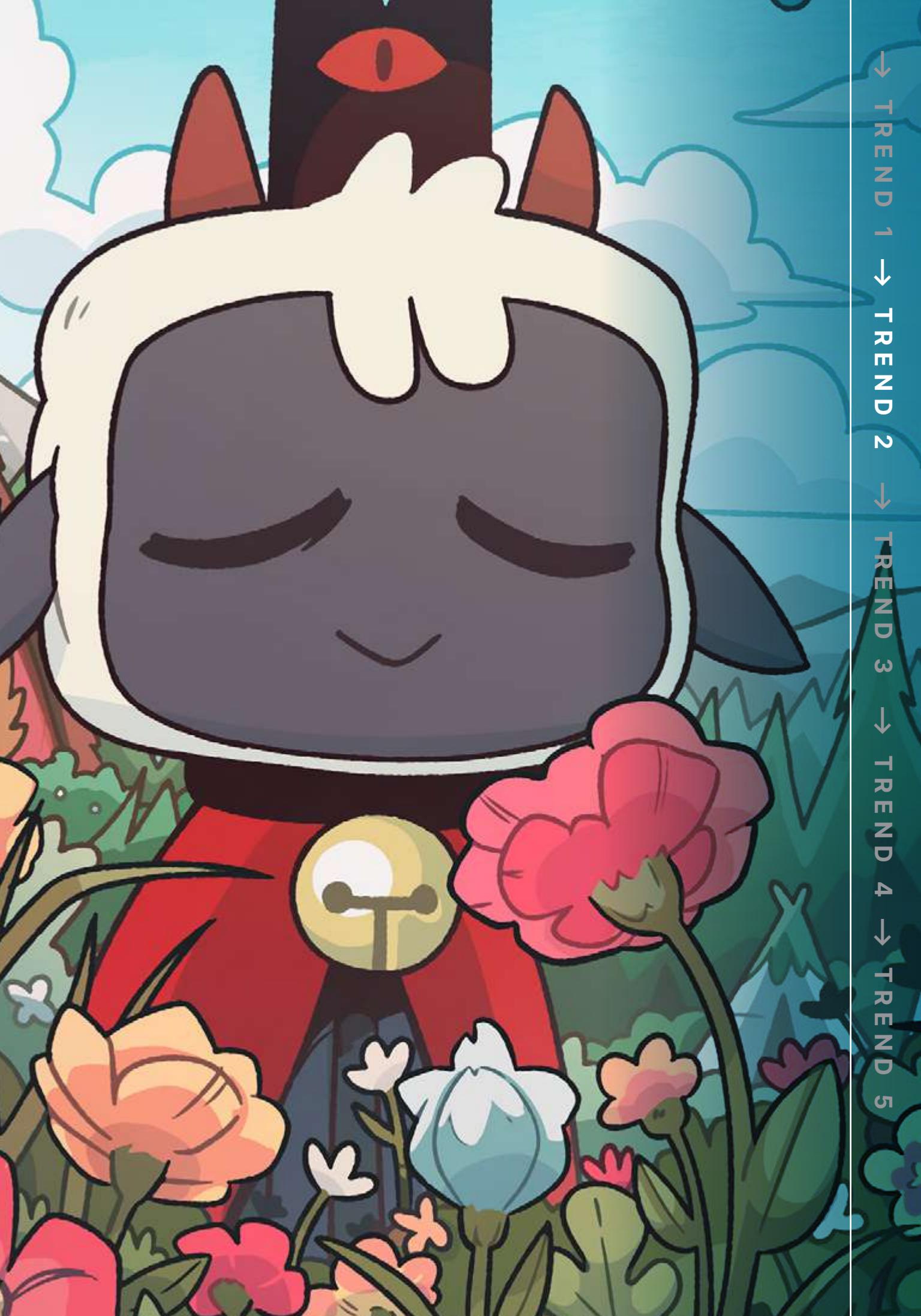
Chart 2.4: Growth for midsize studios in Eurasia is trending upward.



Check out the incredible growth in games from midsize studios in these countries:



Cult of the Lamb by Massive Monster



Jay Armstrong

Design Director, Massive Monster

"It does feel like there's been a huge wave of games being made. It could be that the barrier to entry is lower and that there are many more resources that are readily available."

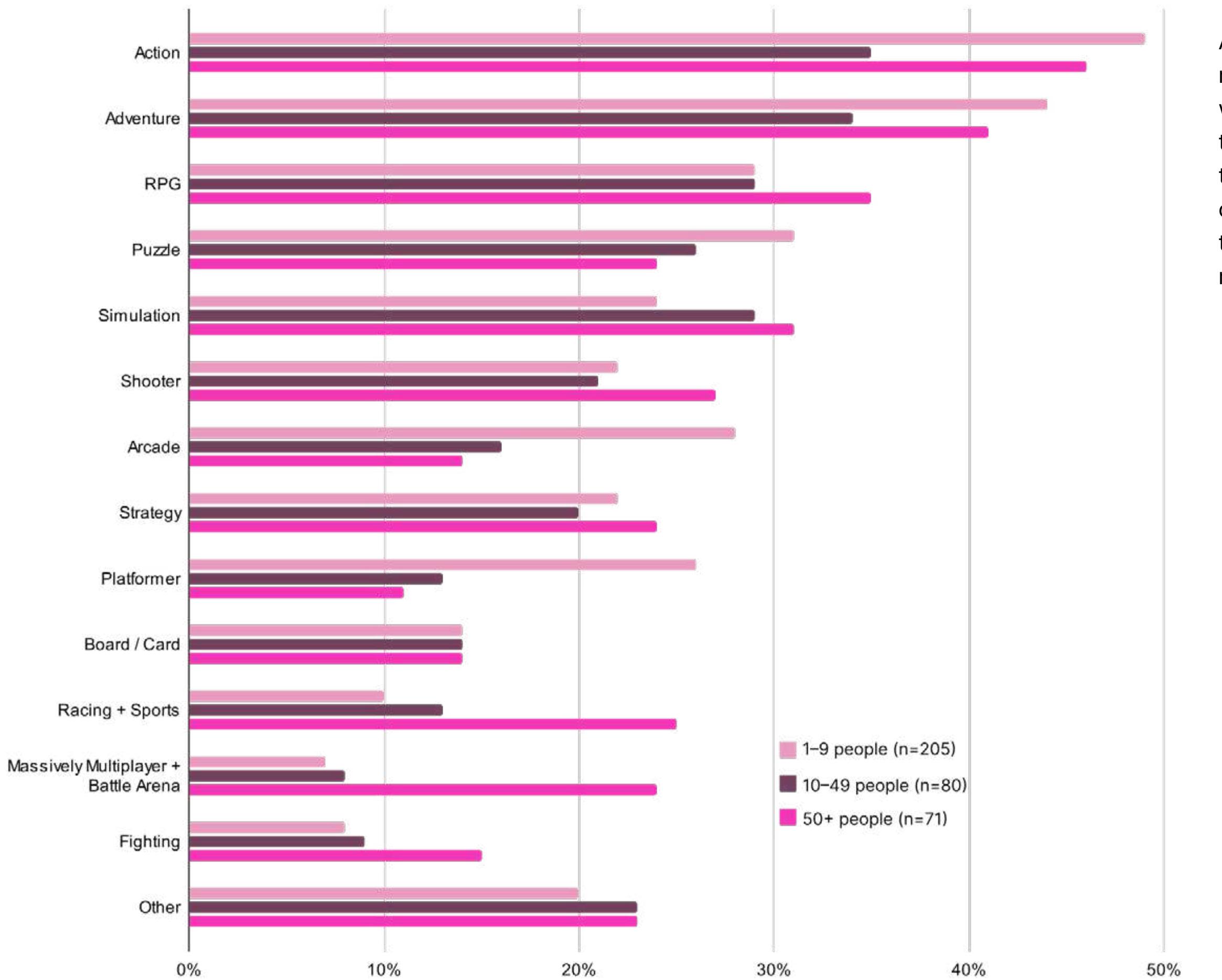


Pini Ashkenazi

Director of User Acquisition, Candivore

"More games are starting to develop multiplayer features because people want to establish that virtual community."

Chart 2.5: Platformers are popular among indies, while massively multiplayer games are favored by studios with 50+ people.



As Chart 2.5 shows, indies are mostly making action and adventure games, with puzzle games rounding out the top three. They are also more likely to create platformers, while studios of more than 50 people tend towards the racing or sports and massively multiplayer or battle arena genres.



TIPS FROM UNITY CREATORS ON STARTING GAMES



"With a saturated market, there are big opportunities for the biggest studios, but there are also a lot of smaller opportunities for innovation or pushing for very specific markets. I think that's a trend that could expand in Spain, South America, or Southeast Asia."



Andres Tallos

Cofounder and CEO, Everguild



"There are more tools and resources available now to help studios start projects. It helps smaller studios transition from having an idea to actually getting started."



Anahit Fernandez

Lead Producer, Navegante

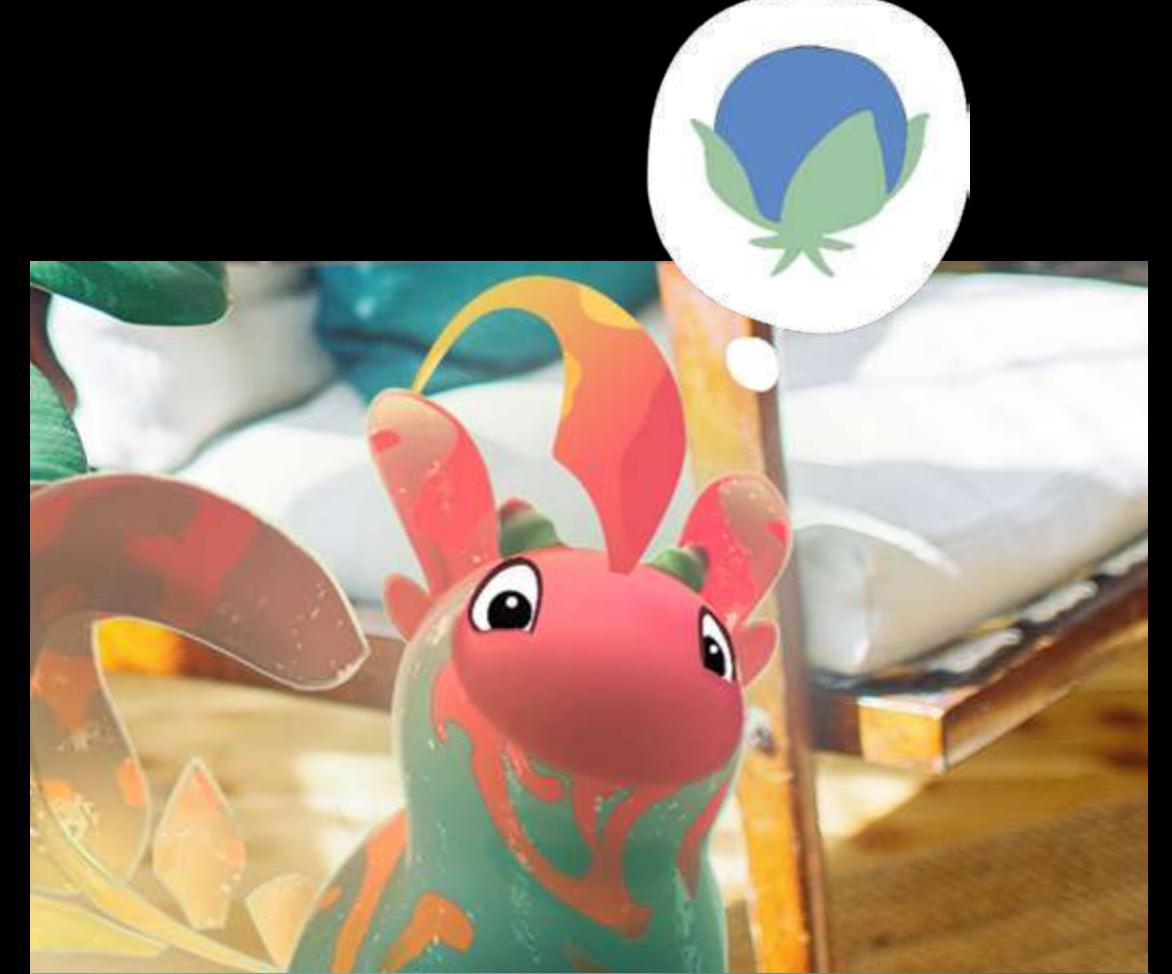


"My biggest advice for people who are just starting a project is to try and be as flexible as possible until you're sure that you've got something that you're feeling really good about."



Ben Brode

Cofounder and CDO, Second Dinner



"I think mobile games continue to be on the rise. We're seeing a consistent increase in engagement and retention across the board. I see this continuing into 2023 and beyond especially as we see periods of uncertainty in other areas of the market."



Kellee Santiago

Director of Production, Niantic

TREND THREE

LARGE STUDIOS ARE INCREASING THE NUMBER OF MULTIPLATFORM GAMES.

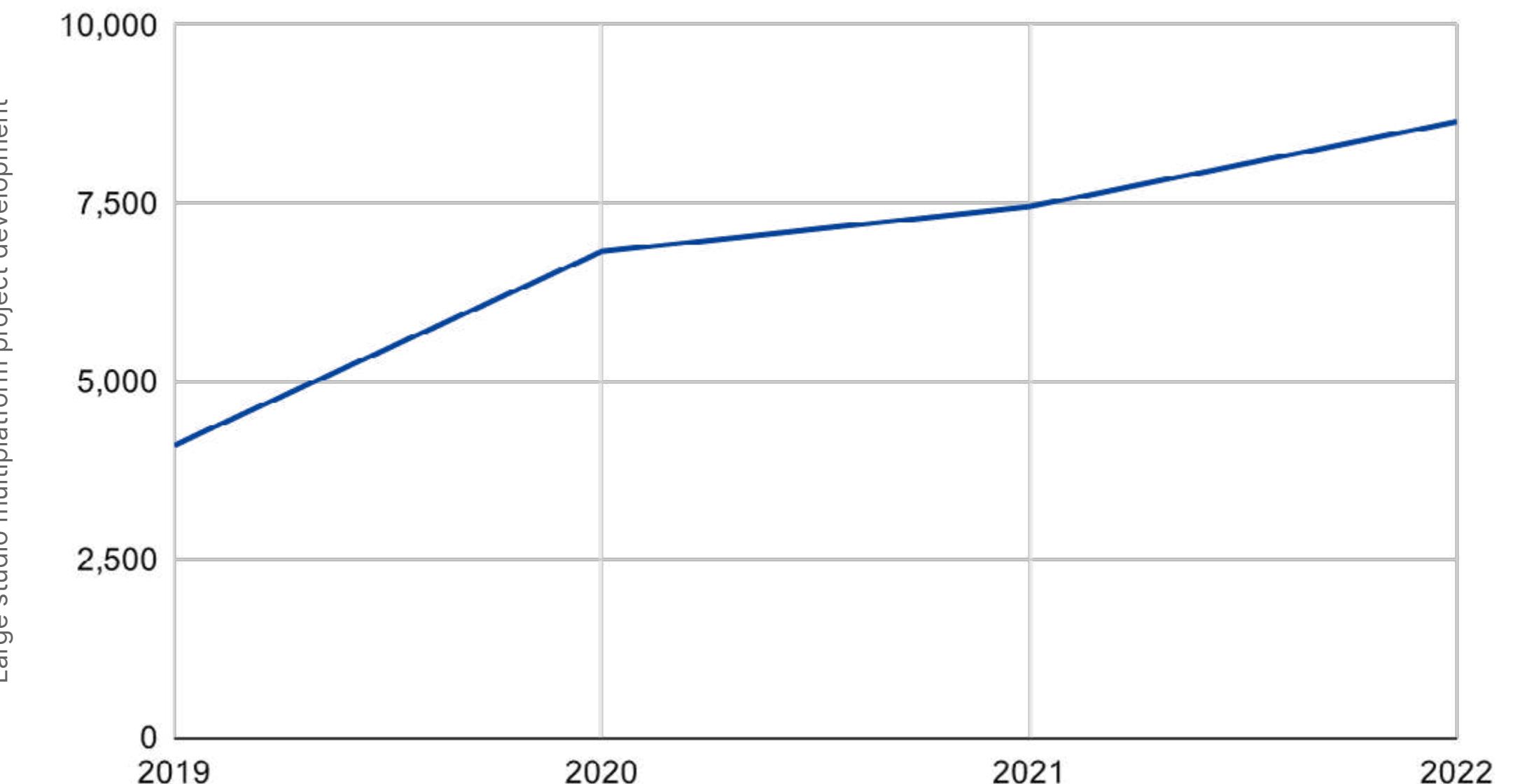
In 2022, large studios released **16% more multiplatform games** than in 2021, while indies moved towards a single-platform strategy.

LARGE STUDIOS ARE MAKING MORE MULTIPLATFORM GAMES THAN IN 2021.

When you've poured your time and energy into a great game, naturally you want everyone to be able to play it. To reach a broader audience and help sustain the success of their most popular content, large studios are multiplying the number of their multiplatform games.

Large studios have continued the upward trend noted in last year's report. They've increased the number of multiplatform games produced in 2022 by 16% compared to 2021, and 110% compared to 2019.

Chart 3.1: Large studios are bringing more games to multiple platforms.



There are benefits to this. From a financial perspective, rereleasing successful content on a new platform requires less investment than creating all-new content for an existing audience.

Multiplatform games enable people to game on their choice of platform at any time. For games with multiplayer functionality, enabling cross-platform play allows people to play with others on different platforms. This helps create a larger and more stable user base for matchmaking.

Chart 3.2: The majority of studios with more than 50 people are building cross-platform games.

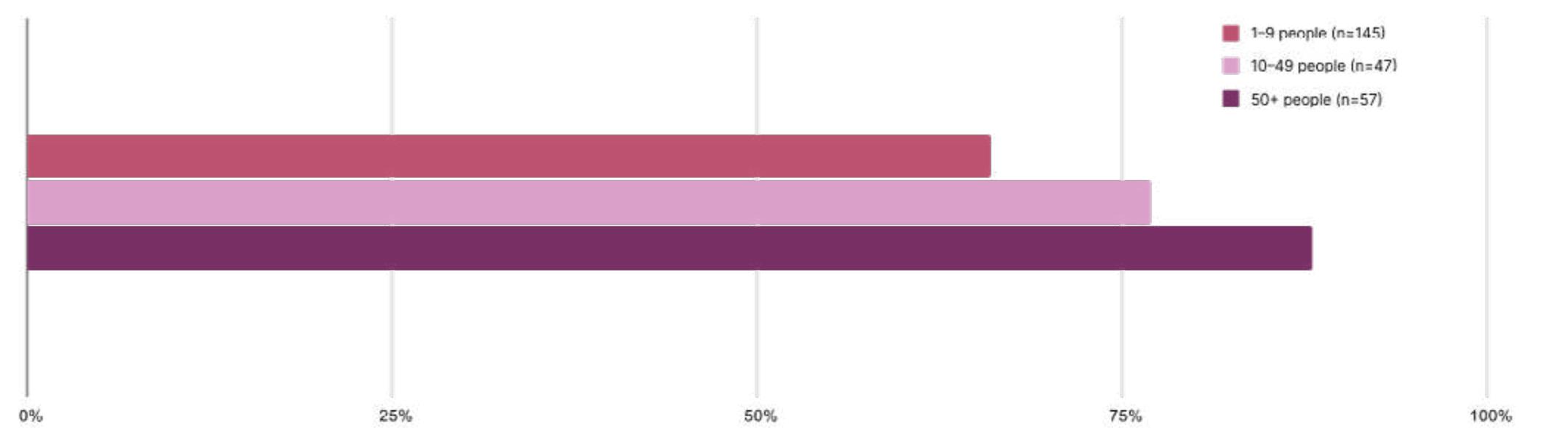


Chart 3.2 shows that 88% of studios with more than 50 people are making cross-platform games. These releases typically involve centralizing player configurations and optimizing for different hardware, which may not seem attainable for smaller studios.

However, tools like [Game Server Hosting](#), [Matchmaker](#), and [Cloud Content Delivery](#) can help game makers of all sizes enable cross-platform play more efficiently.



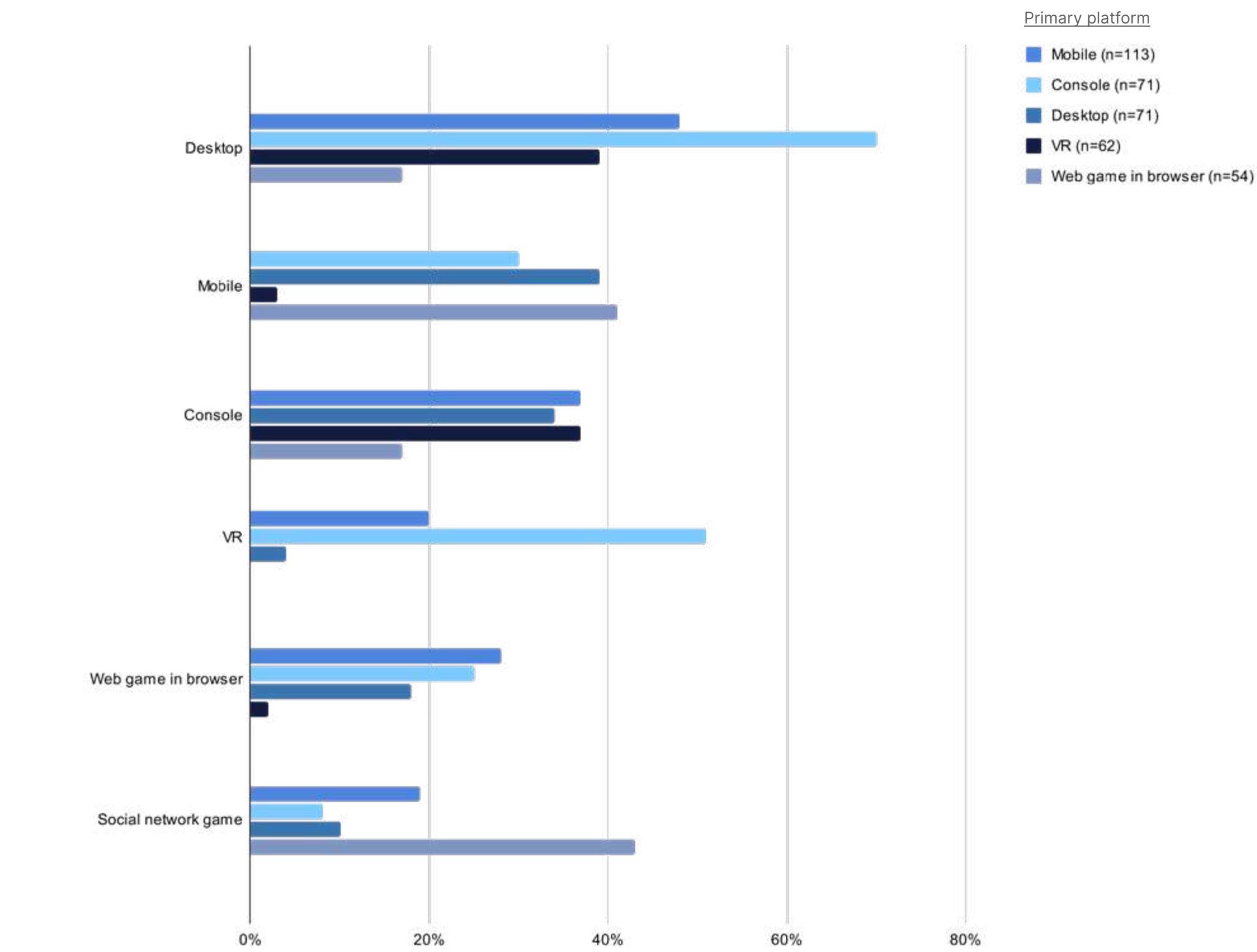
STUDIOS FOLLOW SIMILAR MULTIPLATFORM RELEASE STRATEGIES.

When bringing a game to multiple platforms, the choice of first platform can have an impact on what the next one is. Our data shows that studios that primarily develop for consoles are significantly more likely to also take on desktop or VR games, suggesting that this is a more popular release path. As Chart 3.3 shows, 70% of the studios surveyed that primarily build games for consoles also target desktop. Additionally, 51% of console-focused developers said they also build for VR.

Some platforms may have more complex release requirements, including device optimizations, quality oversight, or age-appropriate content review. Studios that are equipped for this type of production may be able to adapt their workflows for desktop development more easily.

Chart 3.3: Console game developers typically also target desktop and VR.

Platforms targeted with your current game

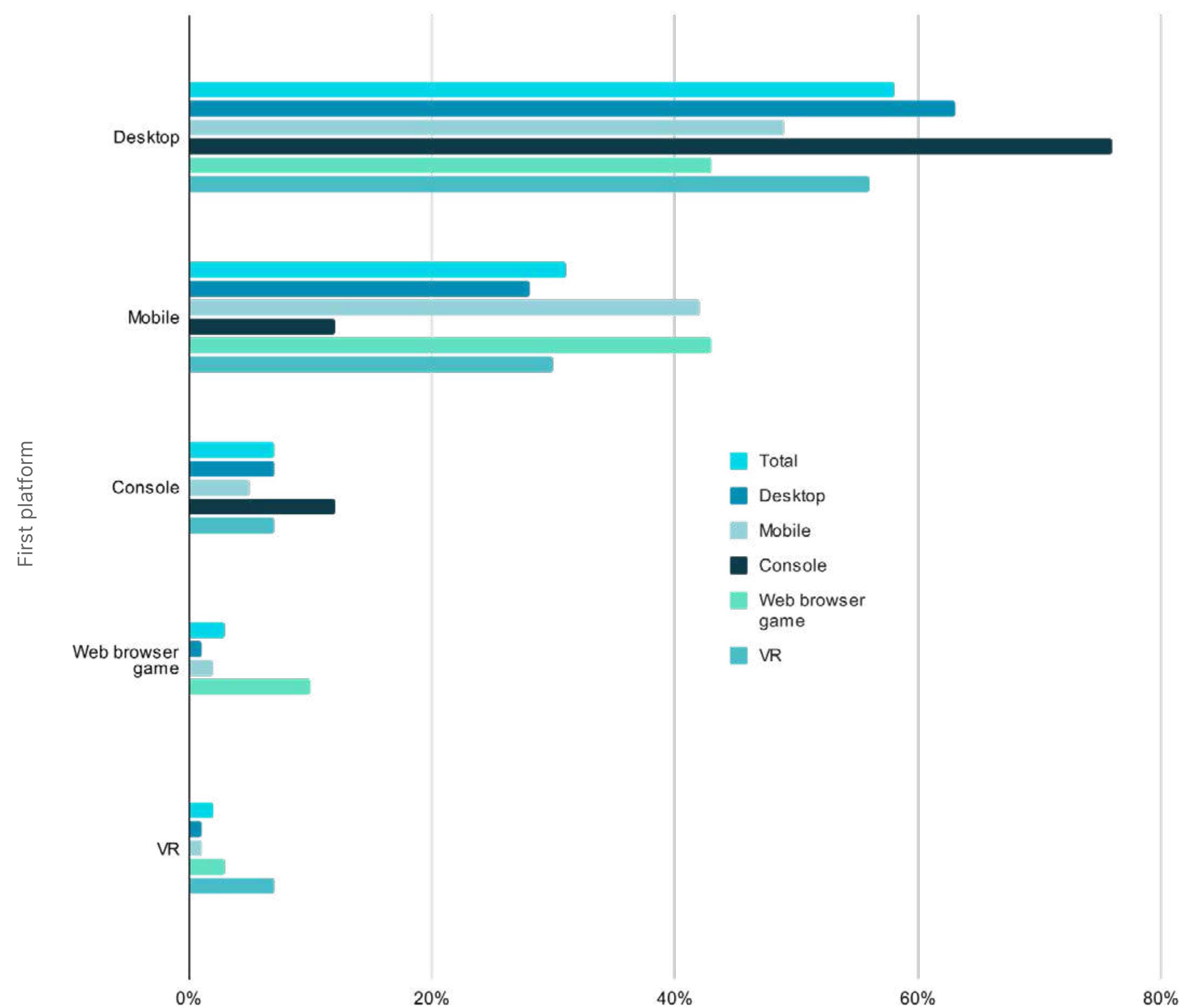


Matt Wyble

EVP of Product and Business, Second Dinner

"When asking players what they want from a game, the top answers are that they want to be able to play on whatever device they have, they want to play with friends on any device that they have, and they want their game to follow them around."

Chart 3.4: Multiplatform developers typically ship to desktop first.



Studios shipping to multiple platforms consecutively prefer to start with a specific platform. Chart 3.4 shows the typical order of release platforms. Desktop is the top choice for 76% of multiplatform developers, including studios that develop for consoles. This may be because shipping to desktop comes with fewer restrictions than console releases.

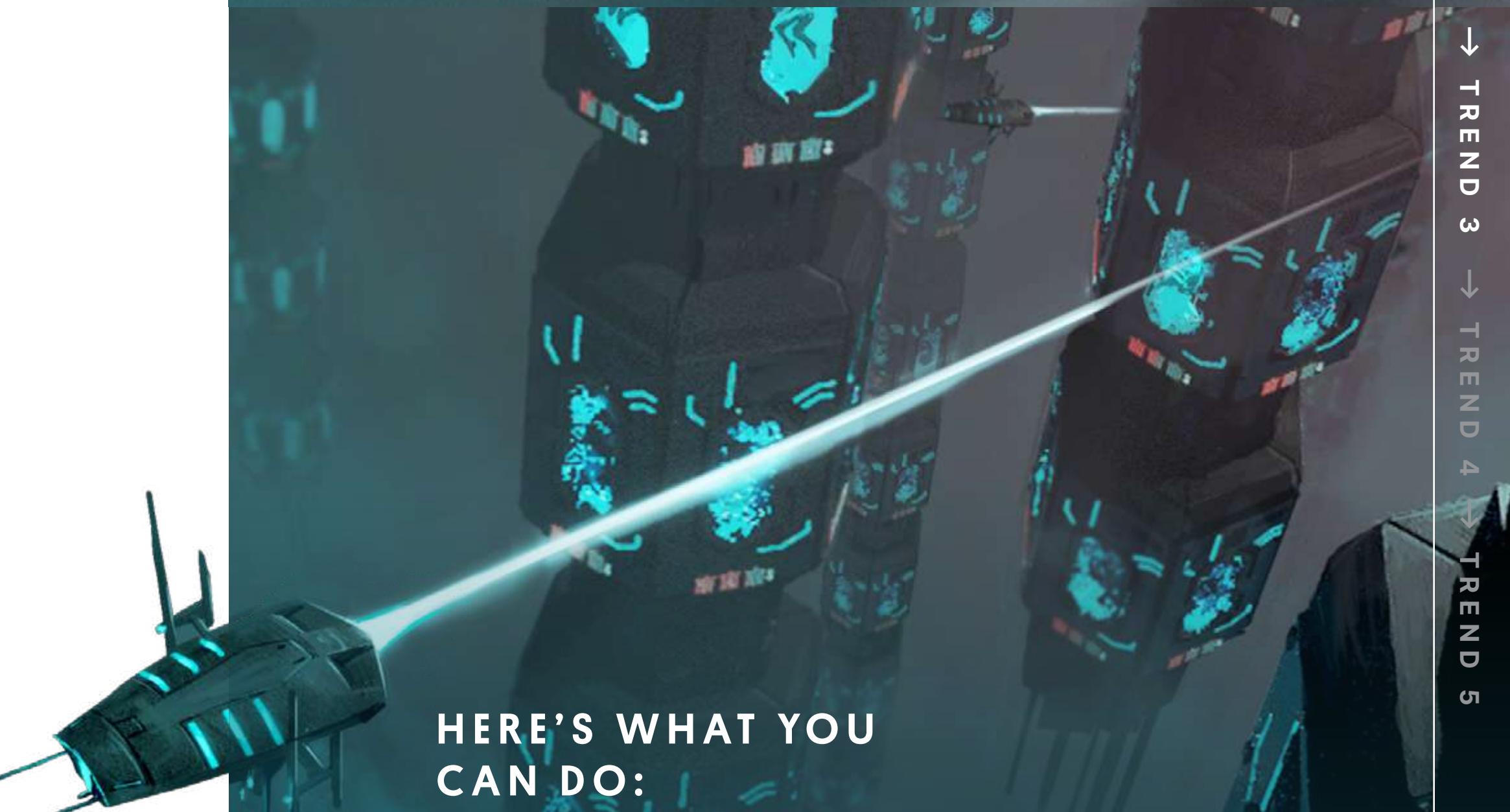


Christophe Sauveur

Lead Developer, Alt Shift

"If you plan to do mobile and PC at the same time, make sure you consider mobile as a real platform, not just a port platform. It's much easier to be featured by a mobile app store."

Crying Suns by Alt Shift



HERE'S WHAT YOU CAN DO:

- Consider your team's skill set and experience, and choose platforms you know you can execute well on
- For single-platform launches, prioritize player reach and leverage the platform's unique capabilities
- Look into tools that assist with server hosting, matchmaking, and content delivery to enable cross-platform play



Rodrigo Fernandez

Cocreative Director and Lead Programmer, Navegante

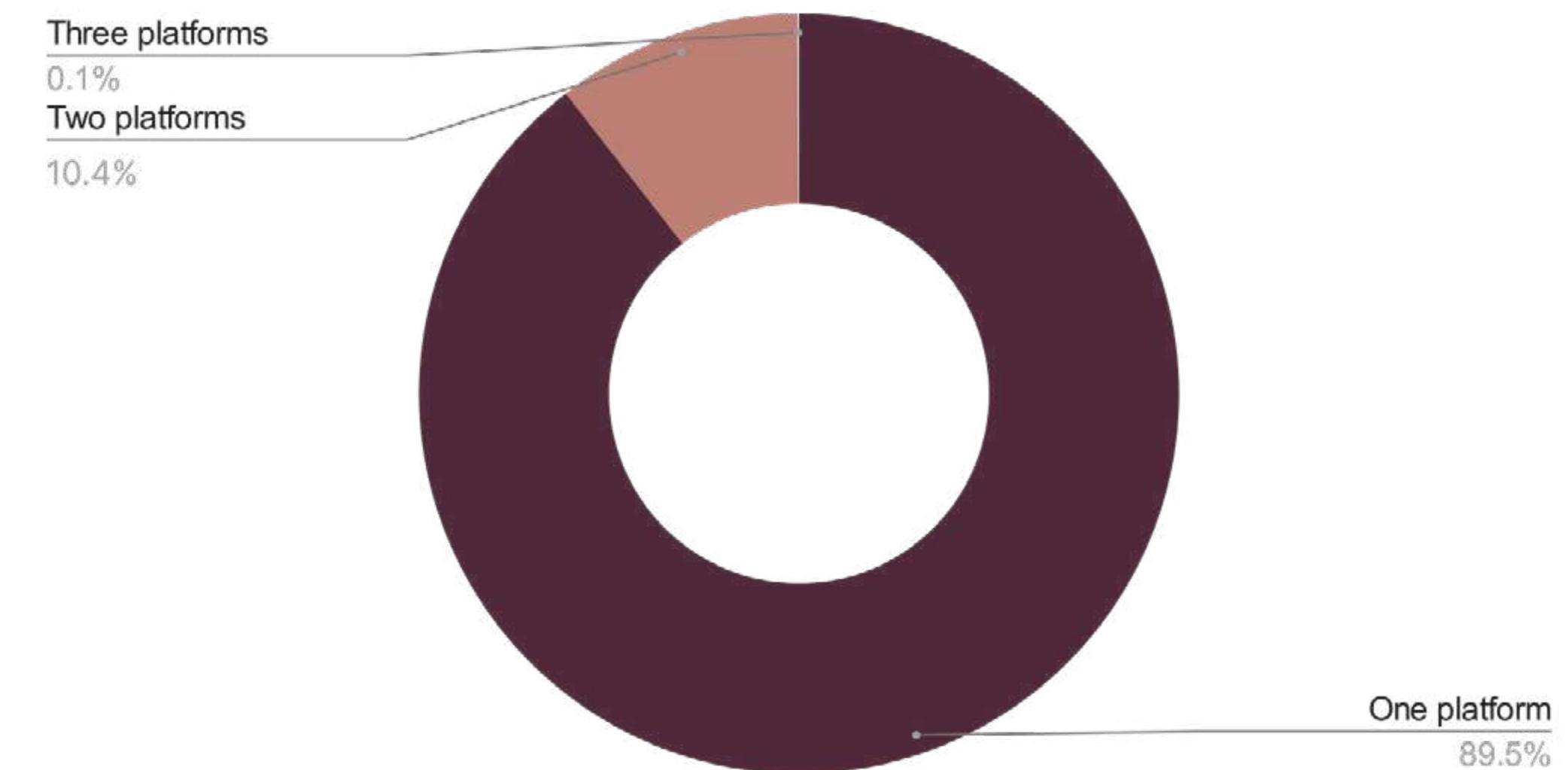
"It can get pretty hectic managing all of the different consoles, localization, and certification processes. For studios looking at single platform releases, I recommend having great communication with the platform of your choice."



SMALLER STUDIOS ARE STICKING TO A SINGLE PLATFORM.

Sometimes, simpler is better. Many indie through lower midmarket studios seem to be adopting this philosophy, choosing to launch on only one platform.

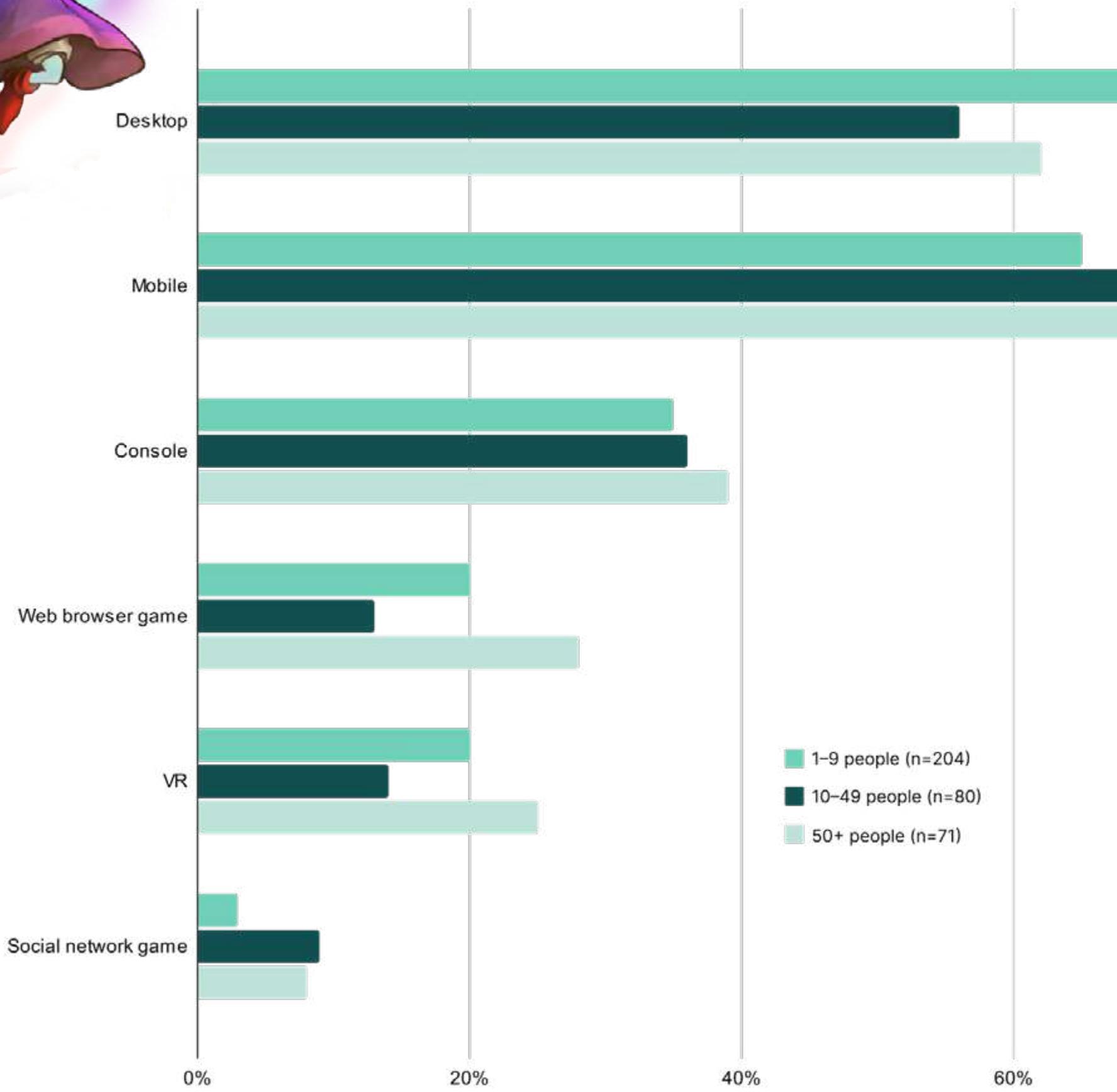
Chart 3.5: Nearly 90% of small studios are releasing on a single platform.





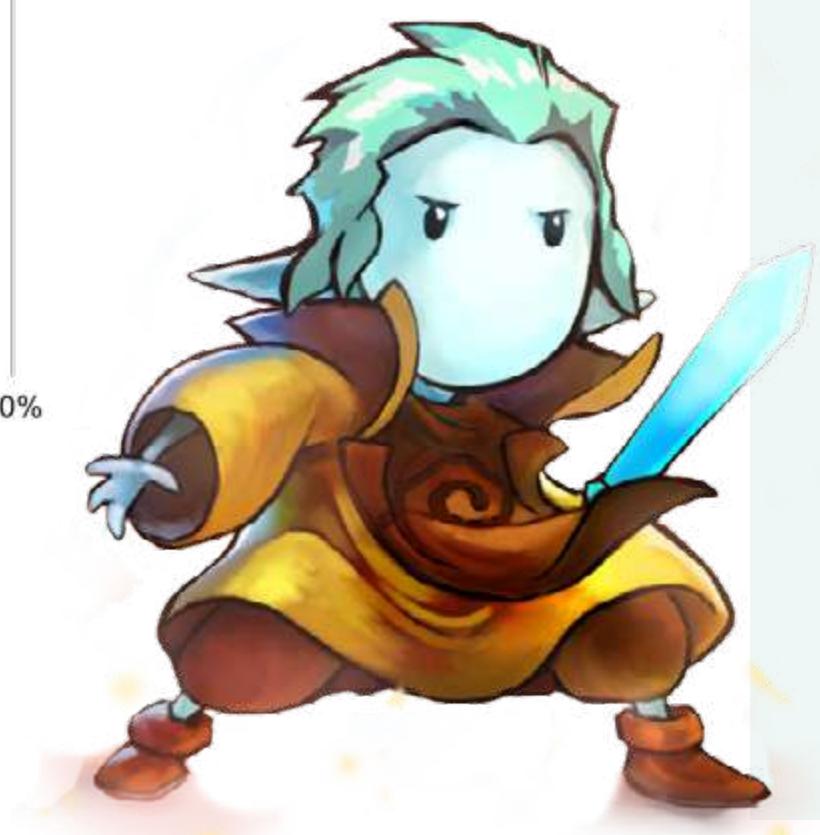
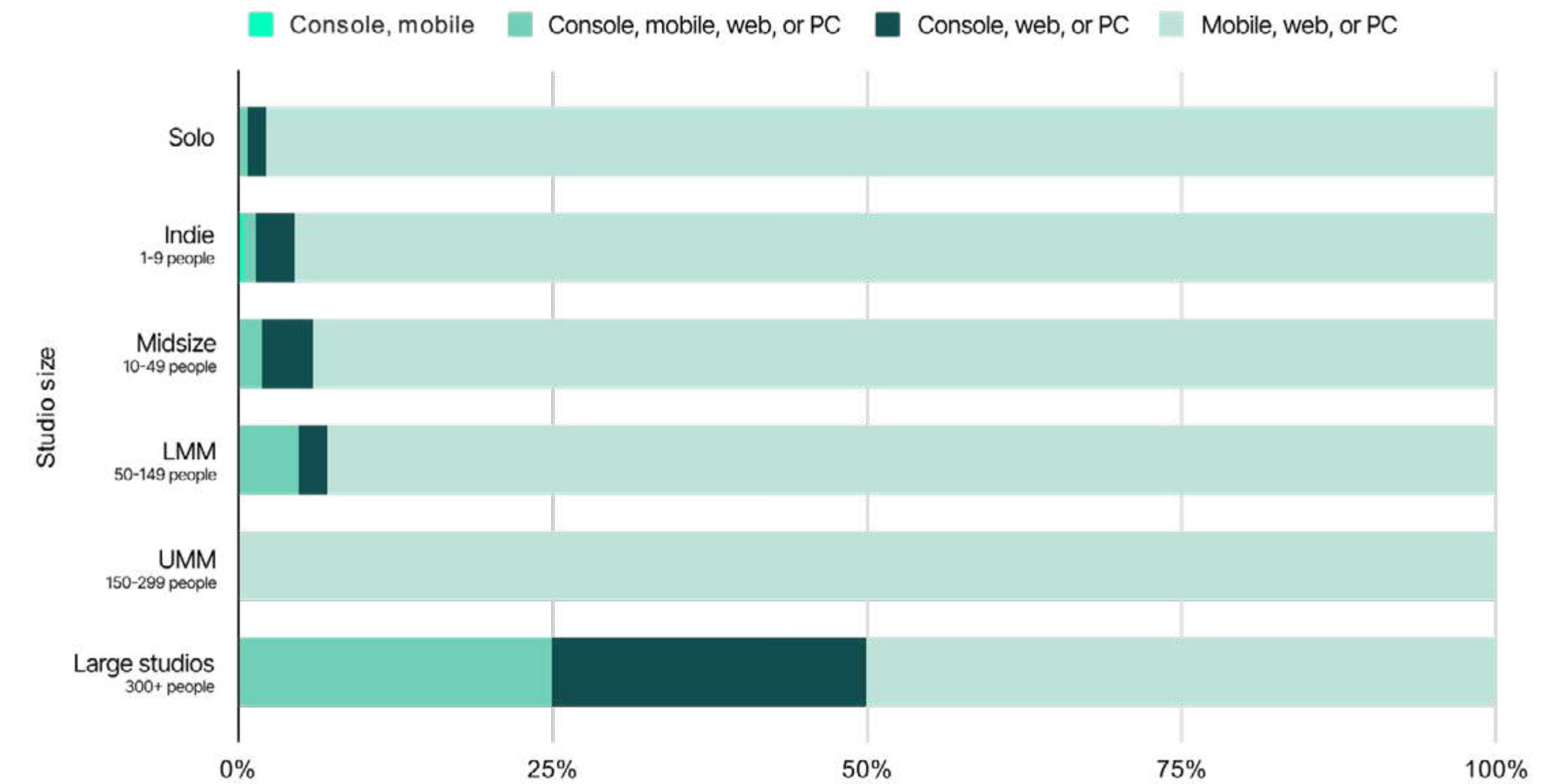
Though mobile games are growing, 77% of indie studios choose to build for desktop.

Chart 3.6: Most indies are releasing games for desktop.



As shown in Chart 3.7, when indie studios do choose to go multiplatform, 90% of those releases are for mobile and desktop or web.

Chart 3.7: Indies commonly choose mobile, desktop, and web for multiplatform releases.



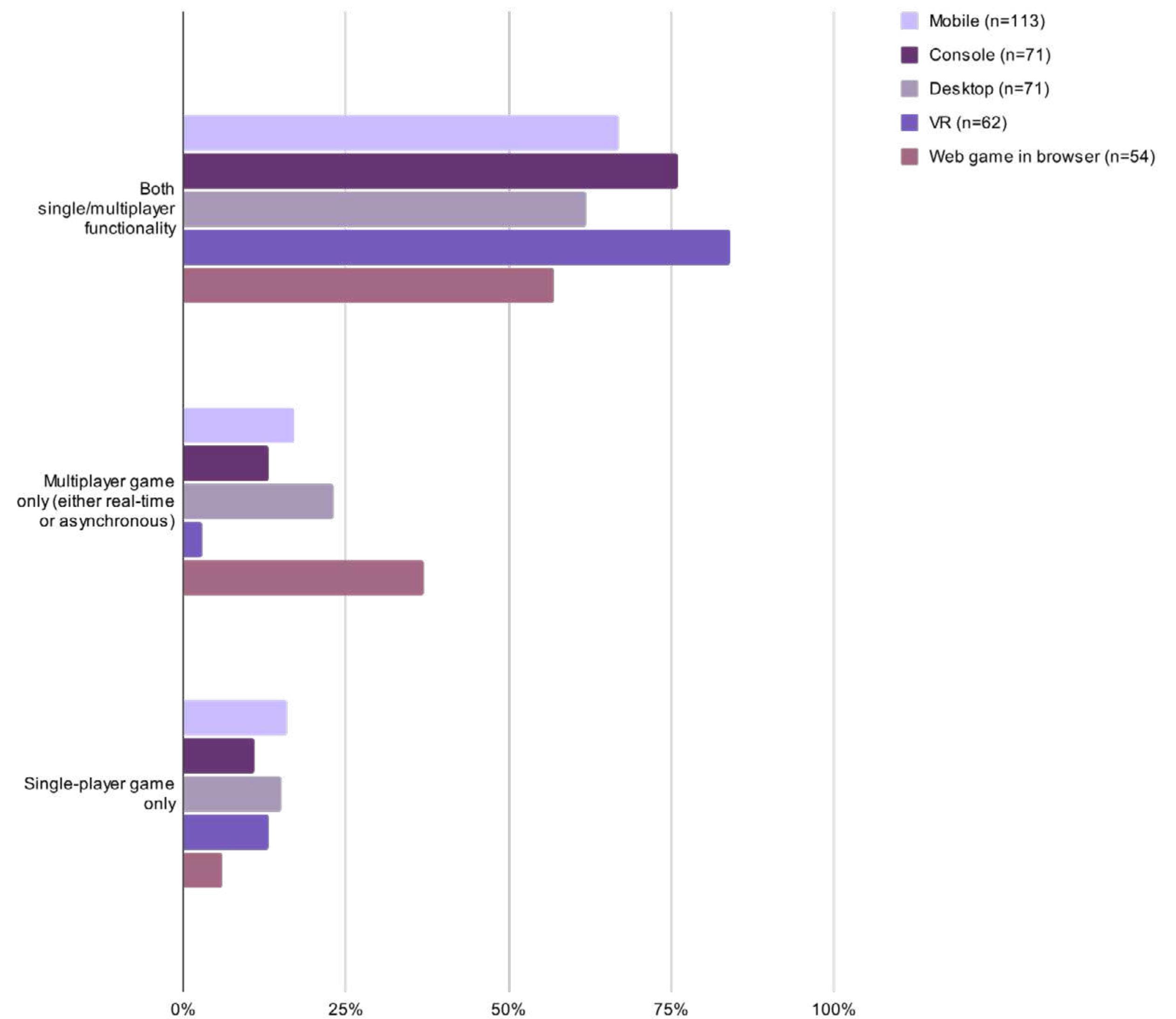
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- Large studios: 300+ people

GAME DEVELOPERS EMBRACE BOTH SINGLE-PLAYER AND MULTIPLAYER.

Platform choice can also be a factor in whether a game is single-player or multiplayer. Chart 3.8 shows that 84% of studios that develop mainly for VR are creating both single-player and multiplayer games. 37% of studios that primarily make web-based games choose multiplayer only. It's critical for studios to consider both functionalities during the planning phase of game development.

Chart 3.8: 84% of VR studios make both single-player and multiplayer games.



TIPS FROM UNITY CREATORS ON CHOOSING PLATFORMS



"I'd be a bit cautious in the early days in thinking too much about multiple platforms, especially if you're a small studio and you've got limited resources. Focus on the game and then worry about distribution across the different platforms."



Jonny Hughes

Director, Hugecalf Studios

Turbo Golf Racing



"Going multiplatform increased the reach, revenue, and the engagement of our players, who could play more often and comfortably."



Andres Tallos

Cofounder and CEO, Everguild



MARVEL SNAP

"Being on additional platforms is more than the sum of its parts. It's creating more ways that people can interact with you. If going multiplatform, focus on the platform that you think is most important first and make the experience as good as you can."



Matt Wyble

EVP of Product and Business,
Second Dinner



Peridot

"If you're going to release on a single platform, you really want to leverage the unique capabilities of that single platform. That's how you will stand out."



Kellee Santiago

Director of Production, Niantic

TREND FOUR

MORE PEOPLE ARE PLAYING MOBILE GAMES THAN IN 2021.

Global daily active users have **increased by 8%** for the median game, signaling a shift in monetization metrics in 2022.

IN 2022, THERE WERE MORE PLAYERS BUT FEWER PAYERS.

Here's how we've calculated these numbers:

- Pages 30, 34, 35 of this report are based on games with greater than 1,000 DAU
- Games ranked based on overall revenue to provide the 50th, 75th, and 90th percentiles and sliced results by geographical region

Here's how we've classified the different markets:

- Tier 1 (T1): Includes the U.S., Canada, Australia, and Great Britain. These are English-speaking countries with a large amount of purchasing power.
- Tier 2 (T2): Includes Denmark, Sweden, Norway, Finland, and Ireland. These countries have a high percentage of English speakers and a lower scale of purchasing power than T1.
- Rest of world (RoW): Includes countries not listed as T1 or T2
- Worldwide (WW): Includes all countries listed above

As the economic landscape shifted over the course of 2022, so did the monetization metrics for mobile gaming. As Chart 4.1 shows, the number of daily active users (DAU) has increased by 8% year over year for the median game, while the rate of paying active users has seen a decrease of 2% from 2021.

This data suggests that more people are playing mobile games and they may be more willing and able to watch an ad rather than make a purchase.

Chart 4.1: There are more daily active users than in 2021, but less IAP revenue.

	Percentile				Percentile				Percentile				
	50th	75th	90th		50th	75th	90th		50th	75th	90th		
Daily active users													
Tier 1	3%	8%	6%		Tier 1	-4%	-29%	17%		Tier 1	-9%	-12%	-41%
Tier 2	9%	16%	16%		Tier 2	-5%	-11%	8%		Tier 2	-5%	32%	27%
RoW	10%	12%	10%		RoW	33%	-4%	2%		RoW	1%	1%	1%
WW	8%	10%	10%		WW	-2%	-17%	-30%		WW	-2%	-5%	7%
Monthly active users													
Tier 1	10%	21%	-26%		Tier 1	-18%	-2%	-5%		Tier 1	-9%	-12%	-41%
Tier 2	-24%	7%	7%		Tier 2	-7%	1%	-3%		Tier 2	-5%	32%	27%
RoW	-11%	-10%	-11%		RoW	2%	-13%	-6%		RoW	1%	1%	1%
WW	-9%	-4%	-4%		WW	-11%	-13%	-6%		WW	-2%	-5%	7%
Stickiness													
Tier 1	-1%	-37%	-29%		Tier 1	0.16	-14%	-18%		Tier 1	-9%	-12%	-41%
Tier 2	13%	-25%	26%		Tier 2	-16%	-22%	-17%		Tier 2	-5%	32%	27%
RoW	-7%	-1%	92%		RoW	-11%	-28%	-8%		RoW	1%	1%	1%
WW	-25%	-24%	40%		WW	-8%	-10%	-17%		WW	-2%	-5%	7%
Payer %													
Tier 1					Tier 1					Tier 1			
Tier 2					Tier 2					Tier 2			
RoW					RoW					RoW			
WW					WW					WW			
Avg. # transactions per payer													
Tier 1					Tier 1					Tier 1			
Tier 2					Tier 2					Tier 2			
RoW					RoW					RoW			
WW					WW					WW			
Avg. \$ value per transaction													
Tier 1					Tier 1					Tier 1			
Tier 2					Tier 2					Tier 2			
RoW					RoW					RoW			
WW					WW					WW			
% of DAU watching ads													
Tier 1					Tier 1					Tier 1			
Tier 2					Tier 2					Tier 2			
RoW					RoW					RoW			
WW					WW					WW			

PLAYERS DON'T HAVE A STRONG PREFERENCE BETWEEN ADS AND IN-APP PURCHASES.

To IAP or not to IAP? When it comes to mobile game monetization, players in general prefer in-app purchases and ads almost equally. Although the [in-games ad market](#) saw challenges in the second half of 2022, mobile game players still prefer ads and IAP over feeds and subscriptions. It's a good idea to experiment and A/B test monetization strategies to see what works best. Adopting a balanced monetization strategy can also help mitigate potential shifts in player preference.

Chart 4.2: Mobile game players prefer ads and IAP over fees and subscriptions.

	Total	Gen Z	Millennials	Gen X	Parents	Male	Female	Nonbinary
Free, supported by purchases you make in the app (IAP)	31.2 %	36.6 %	33.1%	25.7 %	32.8 %	31.2 %	33.6 %	25.4 %
Free, supported by ads (IAA)	31.5%	31.1%	31.2%	34.4 %	32.1%	29.6 %	33.7 %	30.1%
Free, option to pay a one-time fee to remove ads	15.5%	13.4%	17.9%	19.2 %	19.1%	17.8 %	15.1 %	19.2 %
One-time fee at time of download (Premium)	6.5%	5.6%	8.4%	9.3 %	7.0 %	8.3 %	5.6 %	9.3 %
Ongoing subscription (Subscription)	3.2%	3.4%	2.8%	3.0 %	3.4 %	3.8 %	2.6 %	7.3 %
Prefer not to say	11.6 %	9.6 %	6.6 %	7.6 %	5.4 %	9.1 %	8.7 %	8.8 %
Other	0.5 %	0.4 %	0.1%	0.8 %	0.3 %	0.2 %	0.7 %	0.0 %

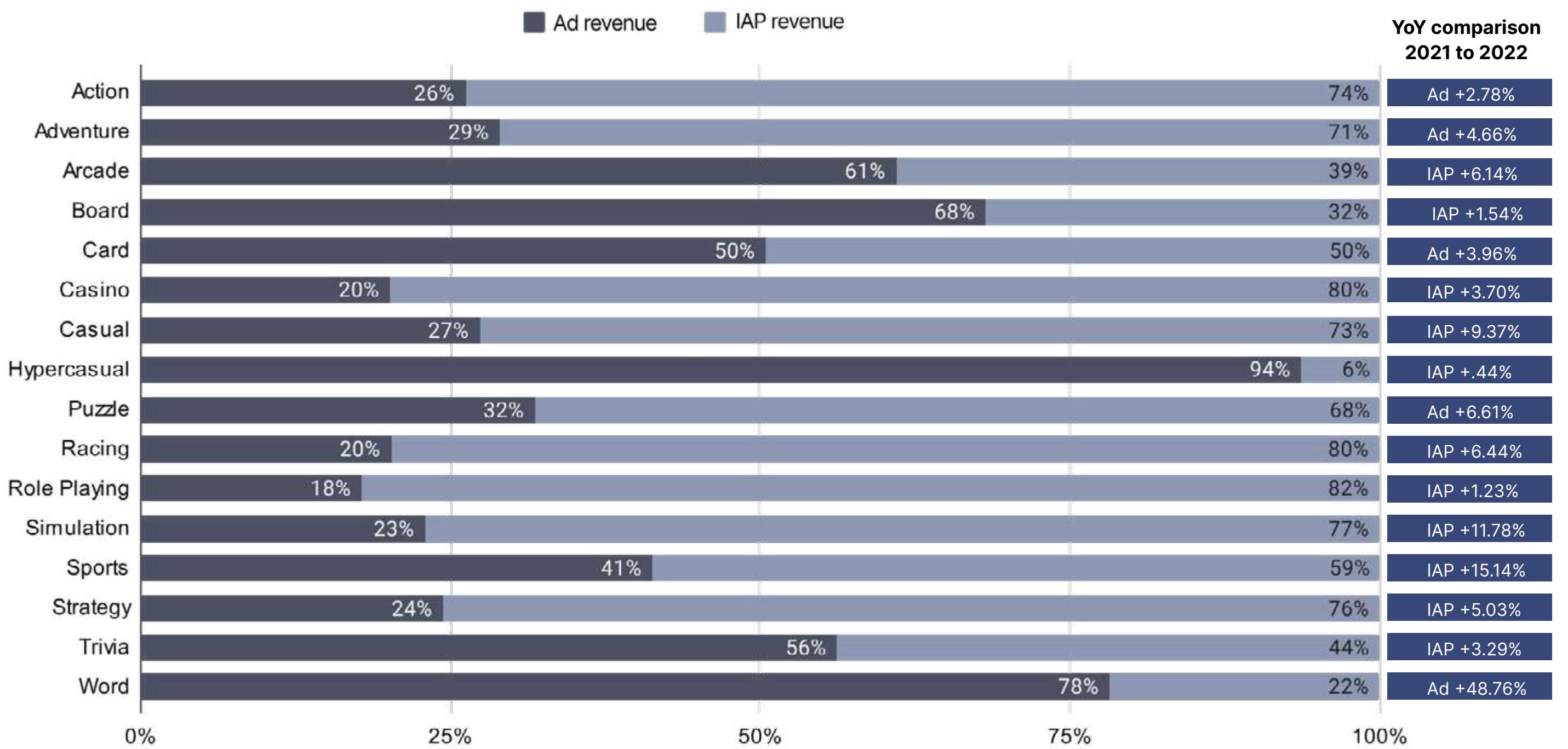
IN-APP ADVERTISING AND PURCHASE REVENUE ARE SHIFTING IN SPECIFIC GENRES.

Over the course of 2022, multiple genres saw revenue shifts in both [in-app advertising](#) (IAA) and [in-app purchases](#) (IAP).

Word games experienced the biggest shift towards **ad revenue at 48.7%**. Simulation games are relying more on IAP revenue compared to 2021, and sports games have seen both an increase in IAP and IAA revenue in 2022.

Since monetization is at the core of economic design, it's important to consider adopting a strategy that's balanced and flexible enough to adapt to trends and shifts in player behavior.

Chart 4.3: There were notable revenue model shifts in word, simulation, and sports games.



Boris Burangulov

Executive Producer, Pixonic (MY.GAMES)

"Not every game will allow you to use all kinds of monetization, but mid-core games can be easily integrated with all types of monetization (advertising and in-app). You should go with both."



War Robots by Pixonic



Phil Suh

VP of Ad Monetization, Zynga

"In today's landscape, games will need to be more dynamic to reach a wider audience, resulting in developers taking a more personalized approach to their games' monetization strategies. Developers will rethink how they view first-time payer conversion, payer retention, and payer lifetime value as the industry shifts away from micro-targeting users to focus on reaching a mass, global player base."



USE 2022 MOBILE BENCHMARKS TO PLAN FOR 2023.

Global benchmarks can help determine what success looks like and provide a starting point for scaling more efficiently and effectively. Here, you'll find the 2022 metrics for in-app purchases, active users, ad viewers, and retention, segmented by market.

Depending on the market, 0.5% or fewer of daily active users are making purchases on a given day. Across all geographic areas, these users are completing between one and two transactions per day, though the dollar amount per transaction varies by market. This type of benchmark can help determine an appropriate balance between IAP and ads in a monetization strategy.

Stickiness, or how often players return to a game, is akin to retention and remains fairly consistent between Tier 1 and Tier 2 markets in the 50th and 75th percentiles.

Chart 4.4: Key mobile gaming benchmarks vary by market.

	Percentile		
	50th	75th	90th
Daily active users			
Tier 1	7.1K	16.1K	39.5K
Tier 2	4.7K	8.7K	18.9K
RoW	5.4K	11.1K	24.1K
WW	5.5K	11.6K	26.3K
Monthly active users			
Tier 1	97.9K	164.3K	347.1M
Tier 2	39.6K	73.3K	94.2K
RoW	61.1K	110.8K	203.3K
WW	63.6K	108.7K	210.0K
Stickiness			
Tier 1	14.70%	13.10%	16.40%
Tier 2	14.50%	13.50%	33.90%
RoW	11.10%	15.20%	33.70%
WW	10.40%	13.30%	25.40%

	Percentile		
	50th	75th	90th
% of DAU watching ads			
Tier 1	38.4%	32.3%	43.9%
Tier 2	24.2%	24.9%	31.0%
RoW	37.0%	49.0%	61.0%
WW	29.1%	31.2%	29.4%
Avg. # impressions per daily active watcher			
Tier 1	3.8	2.7	3.1
Tier 2	2.3	2.5	2.8
RoW	3.3	4	5.8
WW	3.2	2.8	3

	Percentile		
	50th	75th	90th
Payer %			
Tier 1	0.5%	0.5%	1.4%
Tier 2	0.4%	0.8%	1.3%
RoW	0.4%	0.4%	0.7%
WW	0.3%	0.5%	0.7%
Avg. # transactions per payer			
Tier 1	1.4	1.5	1.6
Tier 2	1.3	1.4	1.5
RoW	1.5	1.4	1.5
WW	1.6	1.4	1.5
Avg. \$ value per transaction			
Tier 1	\$7.20	\$9.60	\$8.90
Tier 2	\$7.60	\$10.90	\$9.90
RoW	\$6.80	\$7.90	\$10.60
WW	\$9.00	\$11.10	\$11.50

U'Know by Passion Punch



How we measure player retention

D1, D7, and D30 are common retention metrics in the gaming industry. They refer to the percent of active users one, seven, and 30 days after installing a game.

Note: The percentile is based on total revenue generated by a mobile game, with the 50th percentile indicating median revenue.

When it comes to testing a game, there are a few challenges associated with Tier 1 markets. First, it's expensive to test in these markets. Second, players in Tier 1 markets tend to behave slightly differently than players in other markets.

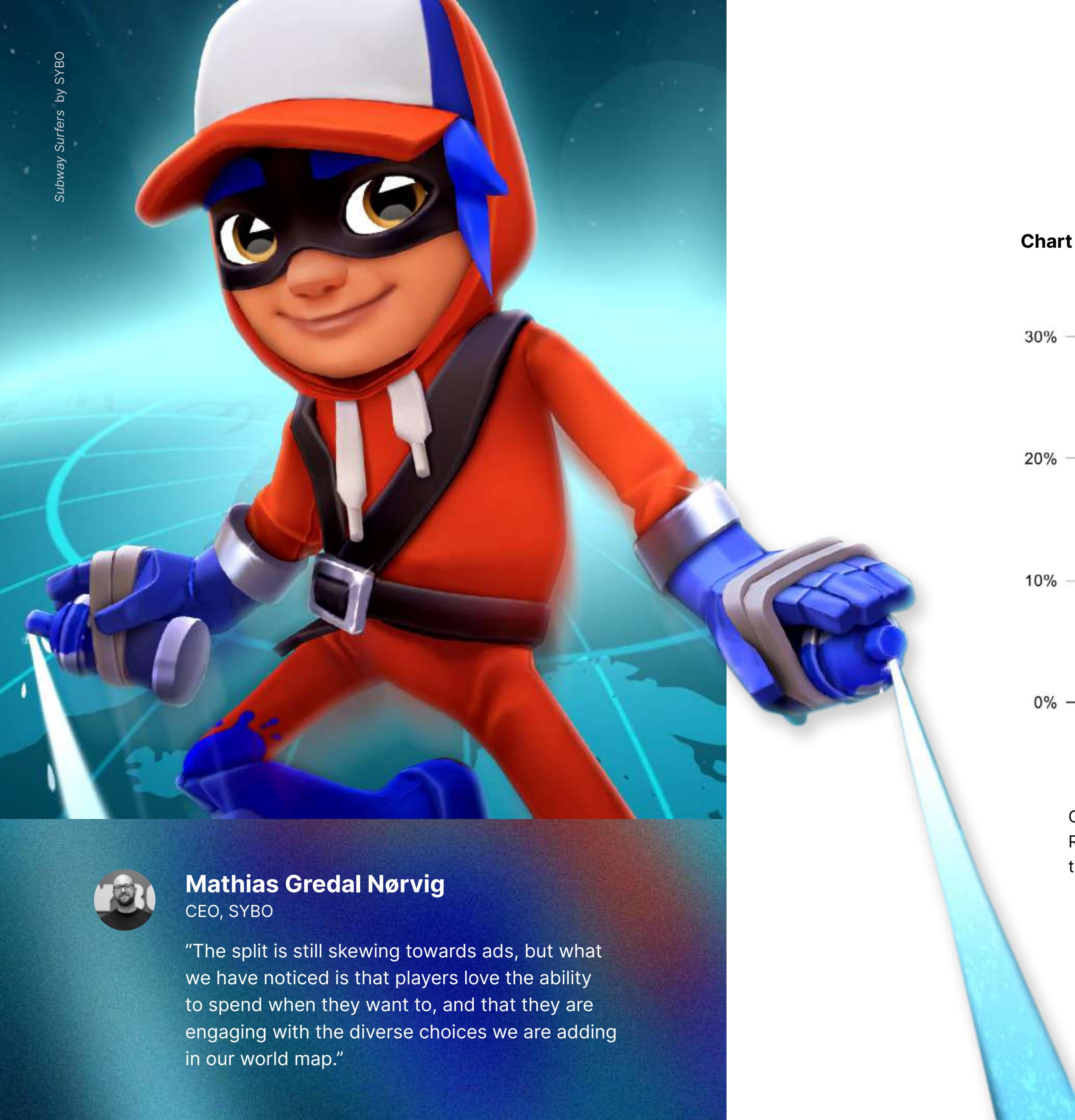
Here's what you can do:

- Try testing your game in less expensive markets first
- Use the data in this report to help establish relative expectations of how players in Tier 1 markets might respond

Chart 4.5: D1, D7, and D30 retention remains relatively consistent between Tier 1 and Tier 2 markets.

	Percentile											
	50th				75th				90th			
	Tier 1	Tier 2	RoW	WW	Tier 1	Tier 2	RoW	WW	Tier 1	Tier 2	RoW	WW
D1 retention % % of your players who return after 1 day	32.1%	35.9%	42.1%	33.8%	29.6%	36.7%	34.6%	37.7%	35.4%	39.9%	44.8%	36.4%
D7 retention % % of your players who return after 1 week	10.3%	13.9%	10.1%	8.7 %	9.1%	13.1%	11.7%	11.6%	14.3%	20.7%	12.1%	13.8%
D30 retention % % of your players who return after 1 month	3.4%	4.8%	2.6%	2.9%	3.7%	4.8%	4.6%	4.1%	6.1%	13.8%	4.6%	5.4%
Avg. # sessions per day Average number of times a player plays per day	1.1	1.2	1.4	1.2	1.2	2.1	1.4	1.4	1.2	1.9	1.5	1.4
Avg. session length of cohort games Length in minutes of the average game session	11.3	12.8	10.6	11.5	9.2	17.4	11.4	10.9	10.9	10.5	13.4	12

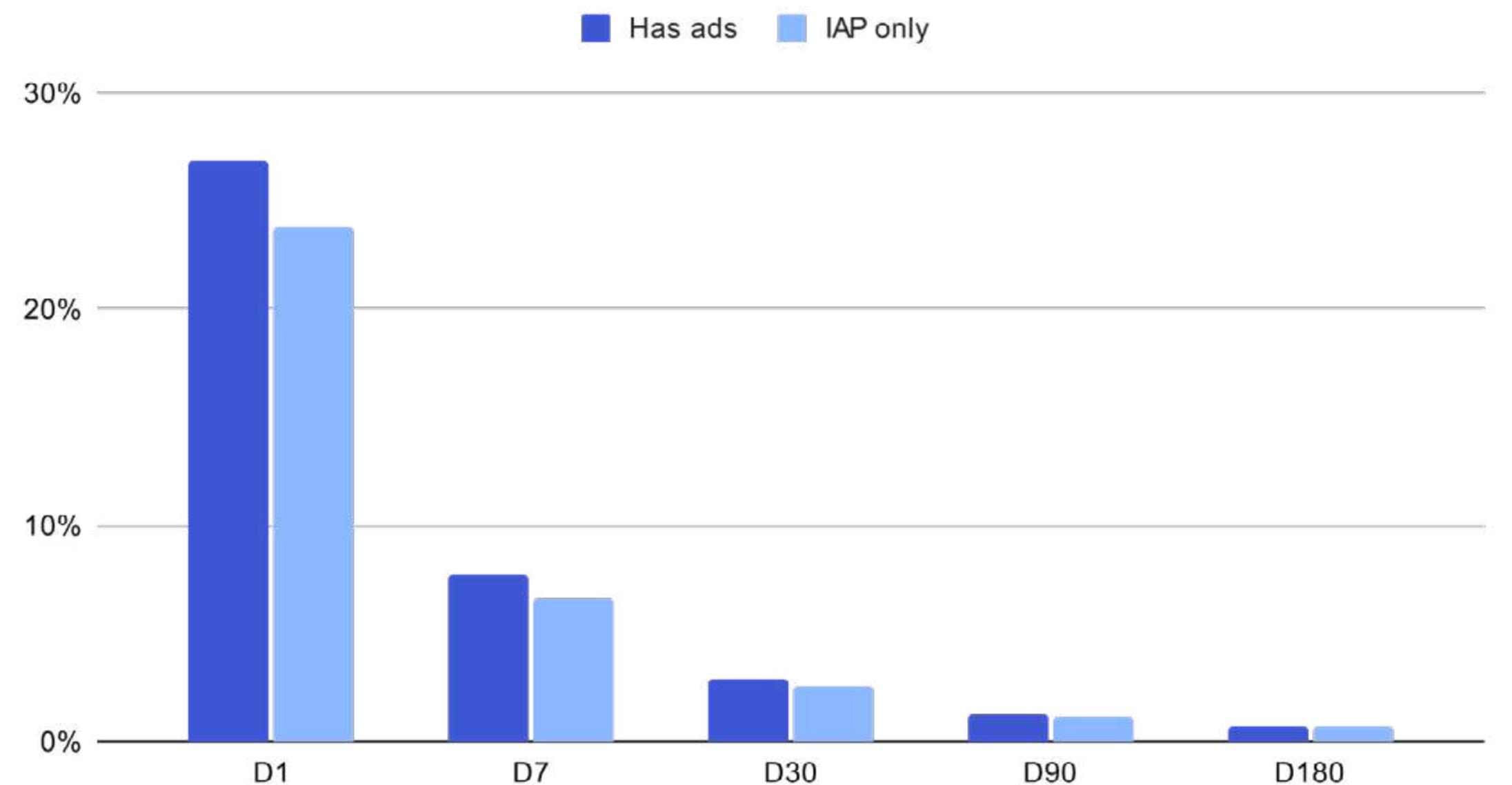
Relatively consistent differences in retention between Tier 1 and Tier 2 markets can help set expectations when testing in different markets. For example, studios that are tracking D1 retention in a Tier 2 market can reasonably expect retention to be approximately 3–5% lower in Tier 1.



Mathias Gredal Nørvig
CEO, SYBO

"The split is still skewing towards ads, but what we have noticed is that players love the ability to spend when they want to, and that they are engaging with the diverse choices we are adding in our world map."

Chart 4.6: In-game ads can help improve retention.

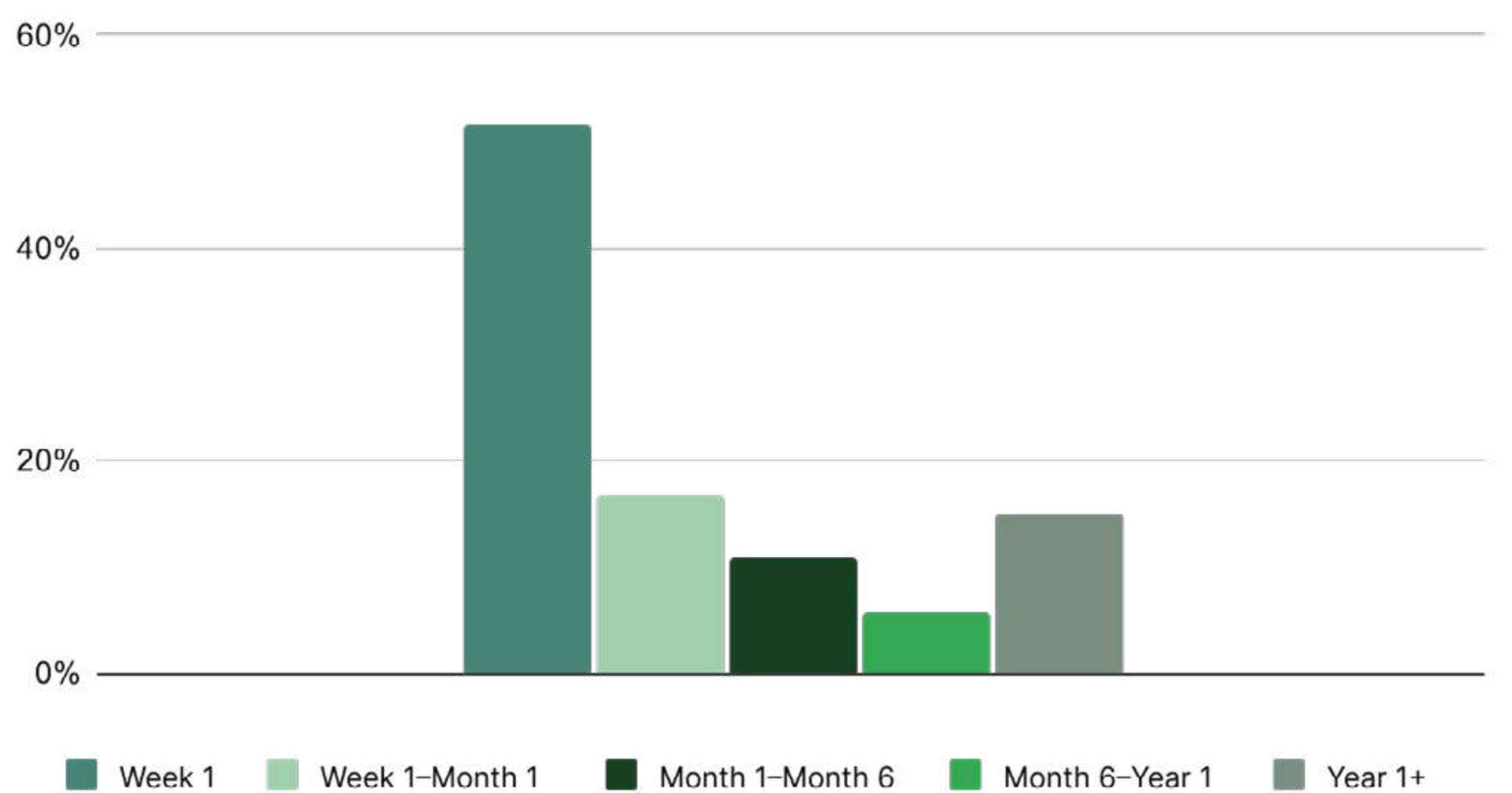


Games that feature ads have higher rates of retention than IAP-only games, as Chart 4.6 shows. Rewarded ads can encourage players to stay in the game longer by providing tools that can help them progress further, or enabling them to gain an extra life by watching a video.

STUDIOS ARE INCORPORATING MONETIZATION PLANNING EARLY.

Monetization and player retention are highly interconnected in mobile games, and they can have an impact on how studios scale. Studios are incorporating the tools to visualize these elements earlier – 70% of studios implement monetization packages within the first 30 days of development.

Chart 4.7: Studios are implementing monetization packages in the first week of development.



Gabrielle Heyman

Head of Global Brand Partnerships, Zynga

"Think about where your ads will be in the early stages of your game creation. It's really important that you know your game mechanic and what kind of ads can best suit that."

TIPS FROM UNITY CREATORS ON MONETIZATION



"In times where IAP might be seeing pressures in the face of economic trends, well-executed ad monetization has the potential to enhance success in the market."



Gabrielle Heyman

Head of Global Partnerships,
Zynga

CSR

Subway Surfers



"It's incumbent for smaller studios to think how the game will monetize. It's a mature and saturated market, so coming out, you need to have something that can pay the bills and salaries, while providing enough upside to help develop the second game. On the other hand, while important to start at the beginning, it's key to ensure that you give yourself enough time to find the fun in the gameplay."



Mathias Gredal Nørvig

CEO, SYBO

MARVEL SNAP



Matt Wyble

EVP of Product and Business,
Second Dinner



"We really believe that this is a game that can exist for a long time, so we are trying to create systems that can exist over many years that players will enjoy and are optimized for a longer time frame. Figuring out the core monetization and progression mechanics was a lot of the work of the last few years."



Ismail Hasanov

CTO, Passion Punch



"You have to think about the game economy as a whole. From the in-game currency, the way they are used, the way they are earned, and the way they are added into the economy. Thinking about the economy affects how you're going to strategize your monetization. You have to tune it so that you don't bore your players and you have to balance it."



TREND FIVE

STUDIOS ARE EXTENDING GAME LIFESPANS YEAR OVER YEAR.

Studios are in it for the long run, extending the lifespan of existing mobile games **by 33%** and seeing higher player retention rates.

THE LIFESPAN OF GAMES INCREASED 33% OVER THE COURSE OF 2022.

In 2022, longevity was the name of the game. The lifespan of existing games was extended by 33%. This can be attributed to a number of potential factors, including players' willingness to engage with a game for longer if it's regularly updated and maintained.

Regular updates improve retention, but not all studios are ready for a long-term commitment. Approximately 84% of studios with more than 50 people update their games for more than six months, while only 55% of indies keep their games updated for that long.

Chart 5.1: Games are around for longer compared to 2022.

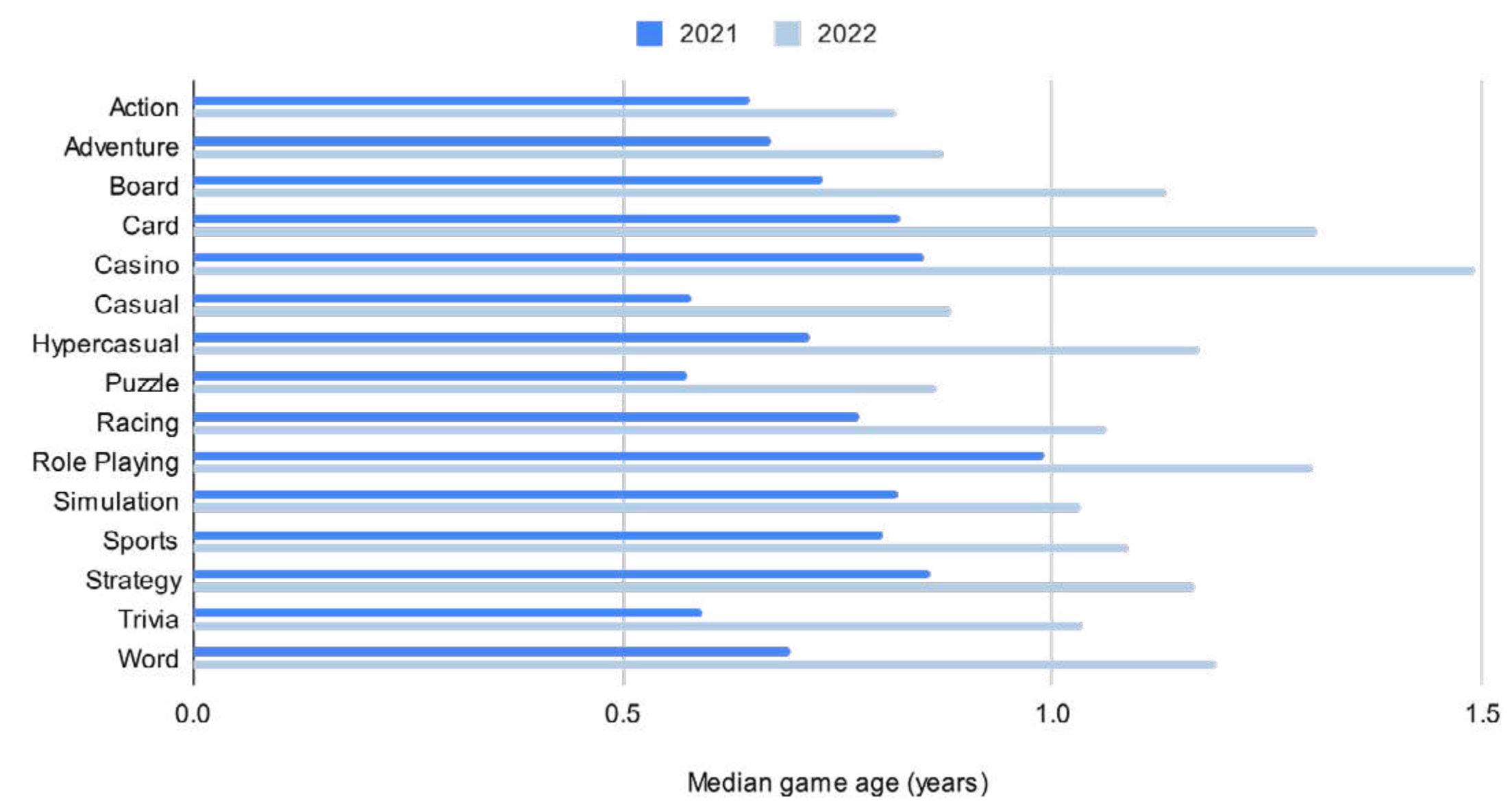
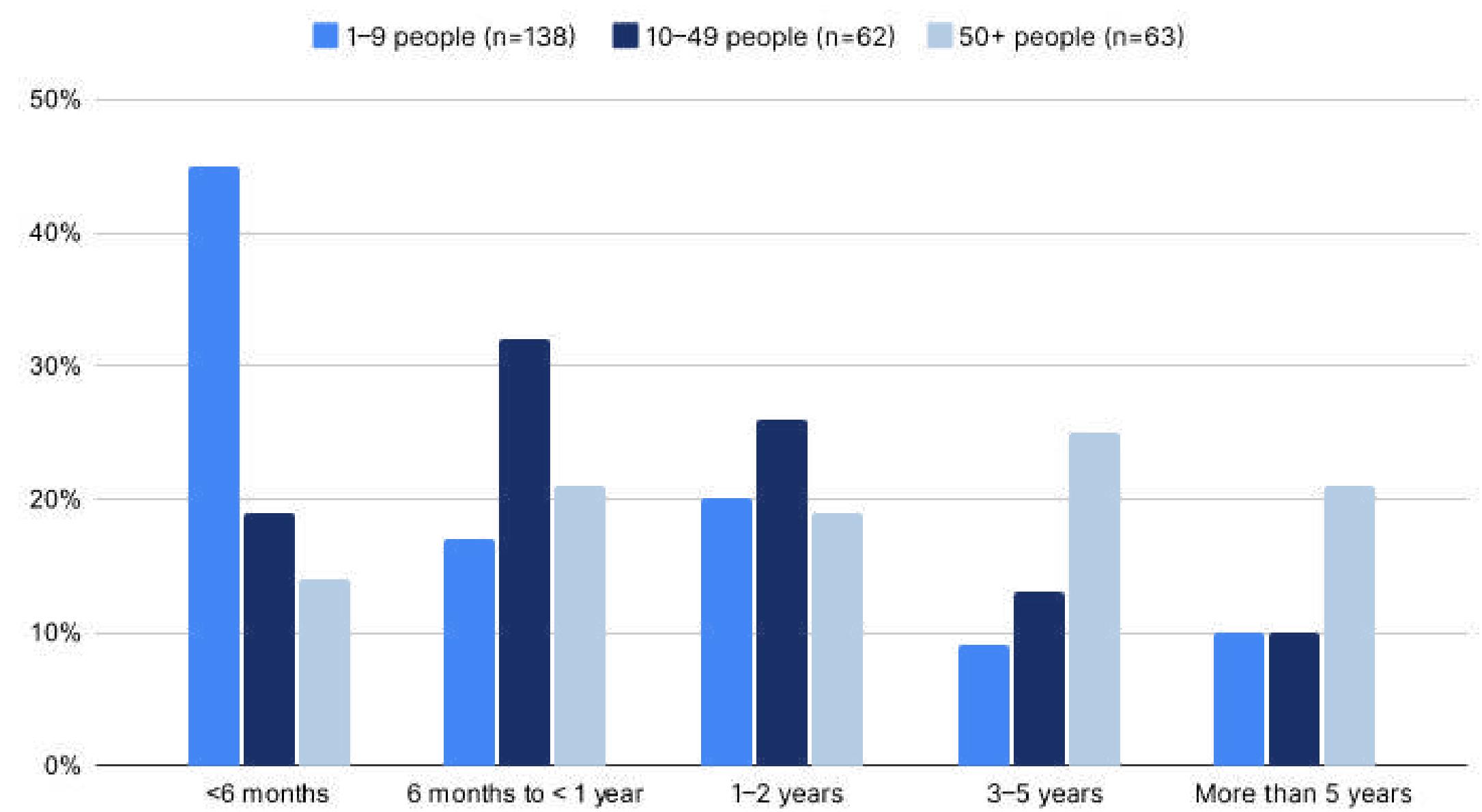


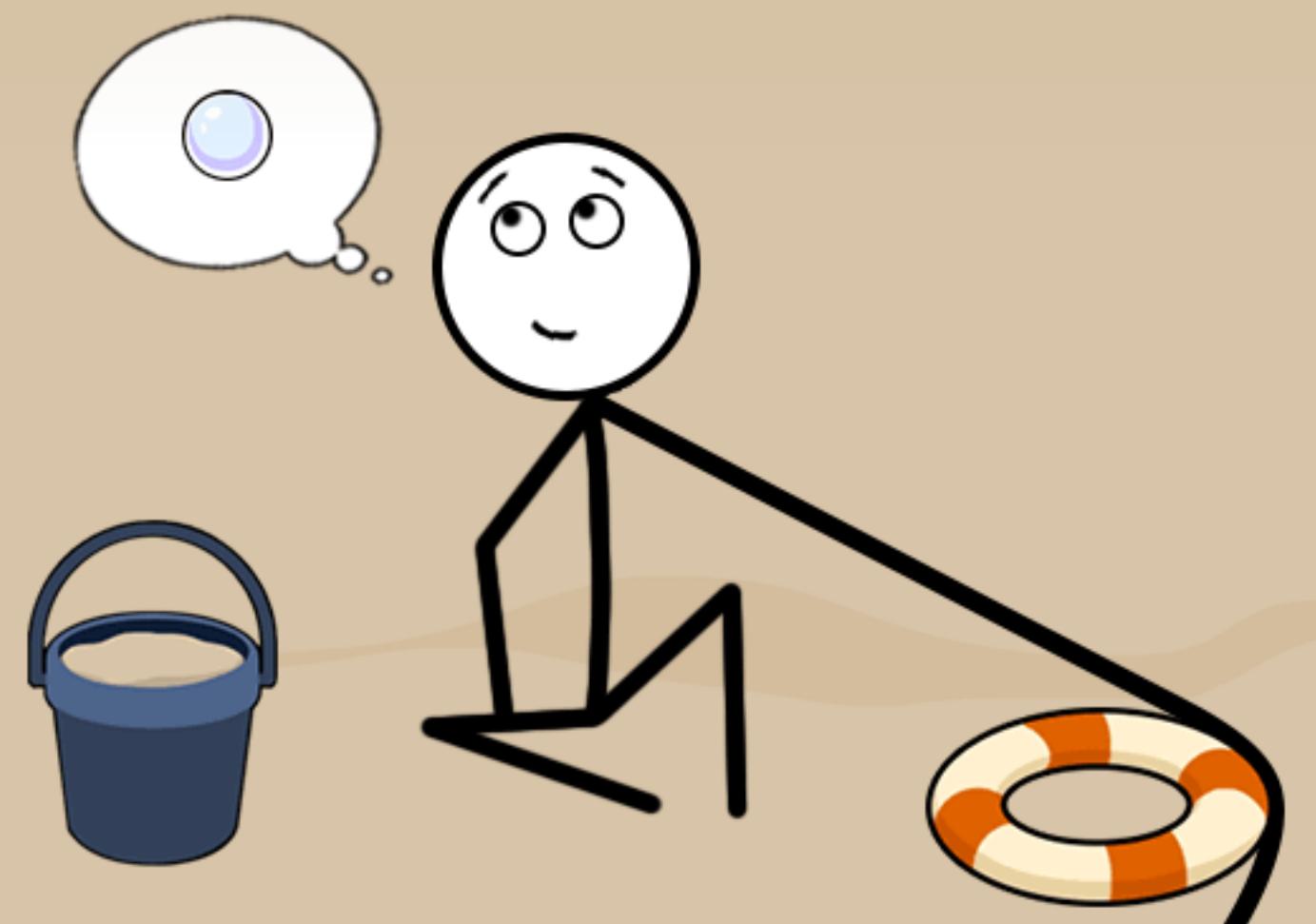
Chart 5.2: Studios with 50+ people are more likely to keep their games updated for longer.



POST-LAUNCH CHALLENGES INCLUDE USER ACQUISITION AND RETENTION.

Know before you grow. Before implementing a monetization strategy, gaining insight into the type of challenges you might encounter after launch can help you plan your efforts more strategically. Chart 5.3 shows that 54% of indies identify user acquisition as their biggest post-launch challenge, while 49% of midsize studios said theirs was retention.

Thief Puzzle: to pass a level by TapNation

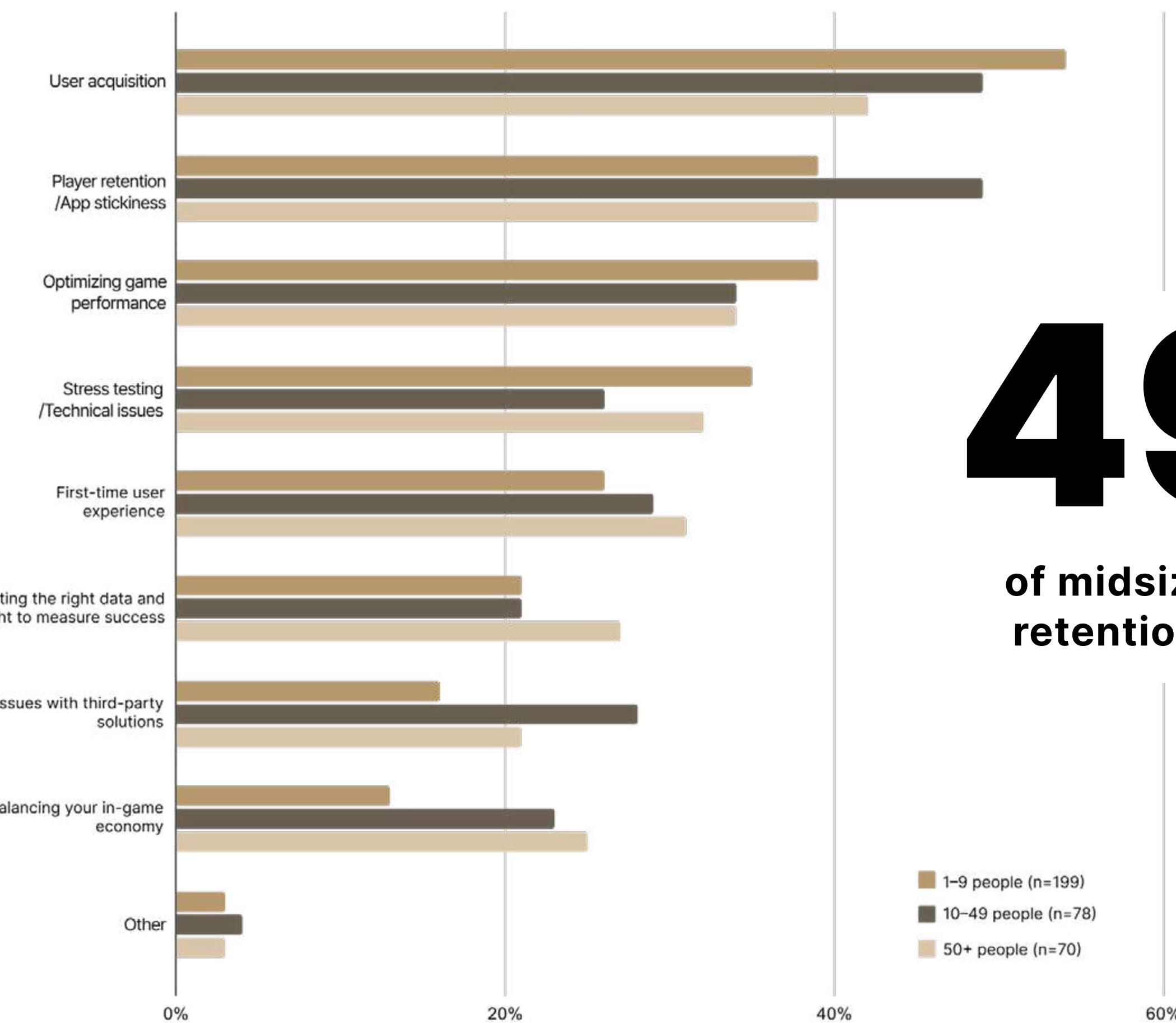


Jatin Mittal

User Acquisition Team Lead, TapNation

“Even with a small budget, you can test and scale. Build your game towards your market and audience needs.”

Chart 5.3: User acquisition and retention are common challenges.



49%

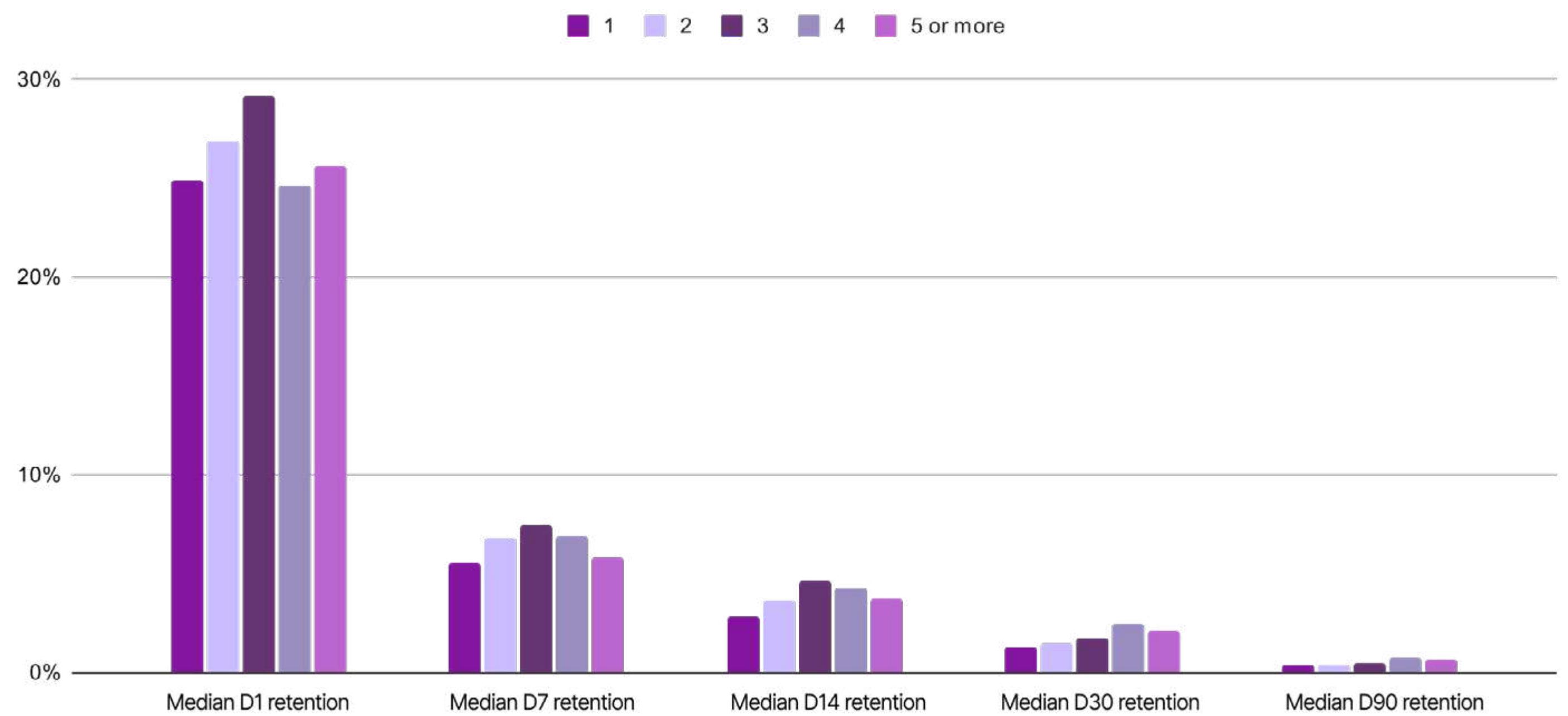
of midsize studios find retention challenging.

MORE UPDATES MEAN BETTER PLAYER RETENTION.

Player engagement can involve much more than adding new content or offering rewards. Updating games frequently also helps keep players around for longer. This can include front-facing technical improvements and even backend enhancements players don't see. In general, games with more updates have better D30 and D90 retention.

Chart 5.4: Players prefer games with more updates.

Retention by number of game updates, 2022



Andres Tallos

Cofounder and CEO, Everguild

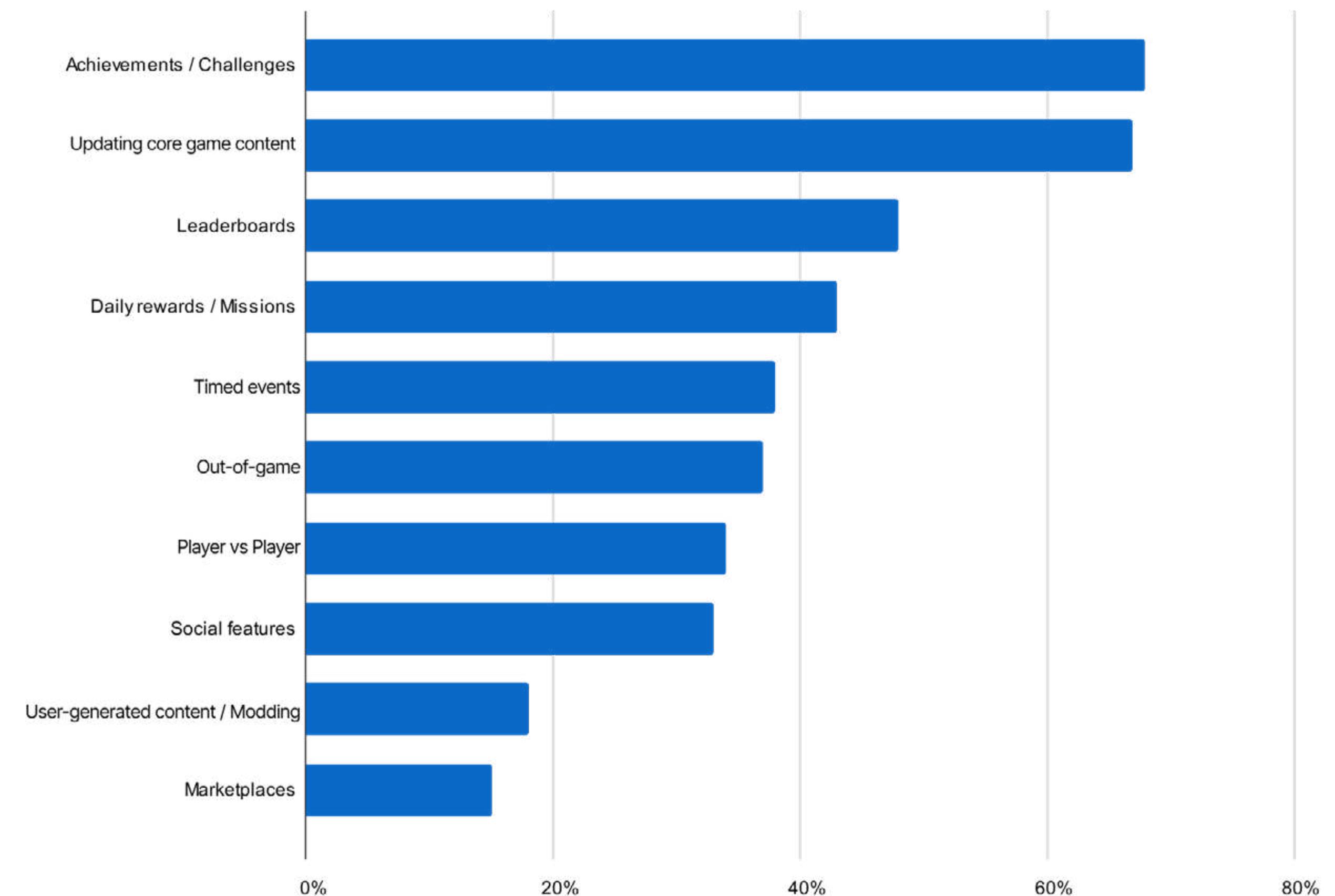
"The way that we visualize our game is as a 'game as a service.' We want to keep releasing more content and updating the game for many years. This isn't only for big content expansions. We design a lot of core mechanics for LiveOps."

STUDIOS USE DIFFERENT METHODS TO SUSTAIN THEIR PLAYER BASE.

There's no one-size-fits-all solution for player engagement. However, there are a few common methods currently being used by studios across the industry. As Chart 5.5 shows, 68% of studios use achievements and challenges, 67% update their core game content, and 18% integrate user-generated content.

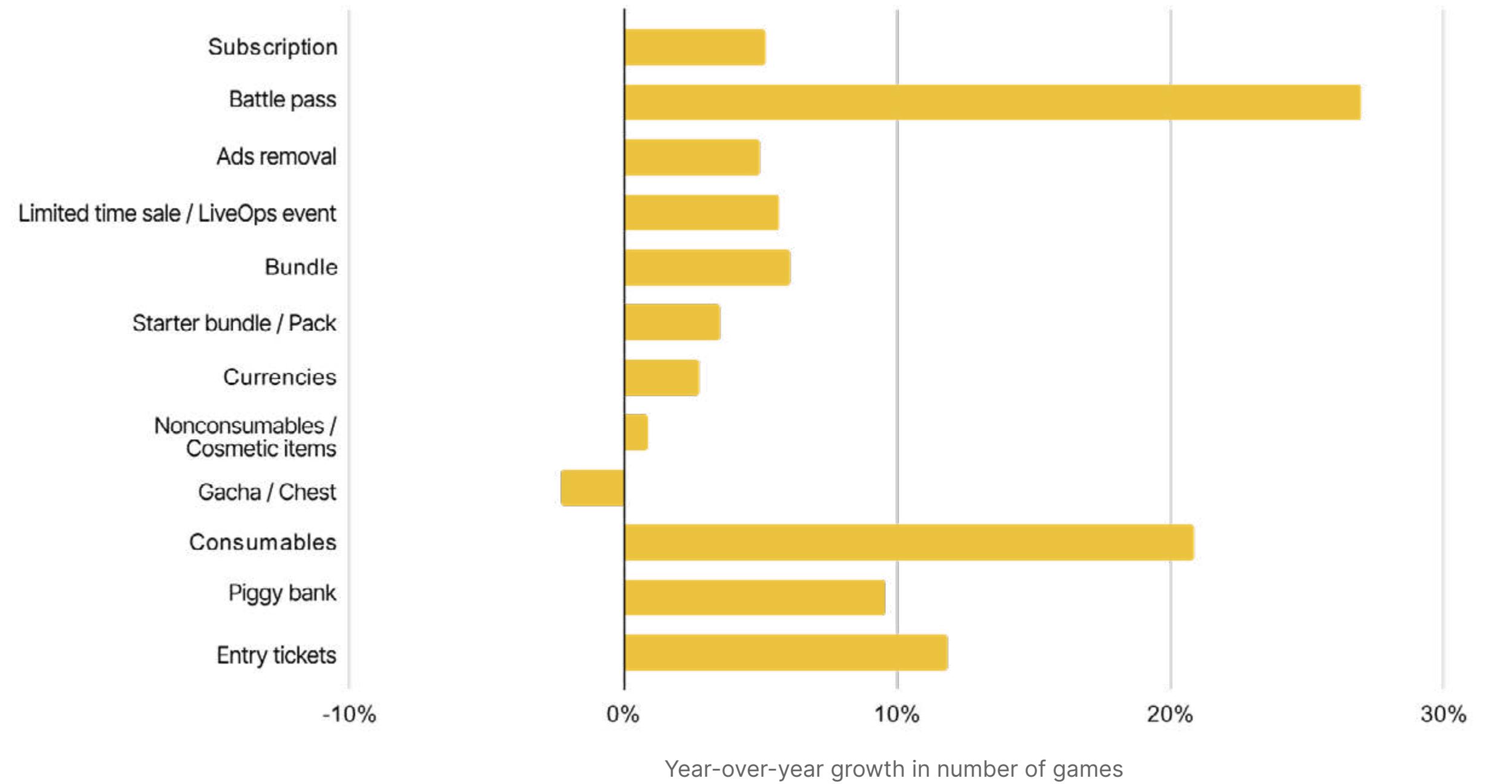
Chart 5.5: Achievements and challenges are the most common ways to engage players.

Player engagement techniques



As a studio grows, they may also branch out into other player retention solutions. 66% of studios with more than 50 people use timed events to pique interest, 65% offer daily rewards or missions, and 54% employ social features.

Chart 5.6: Battle passes are increasing in popularity.



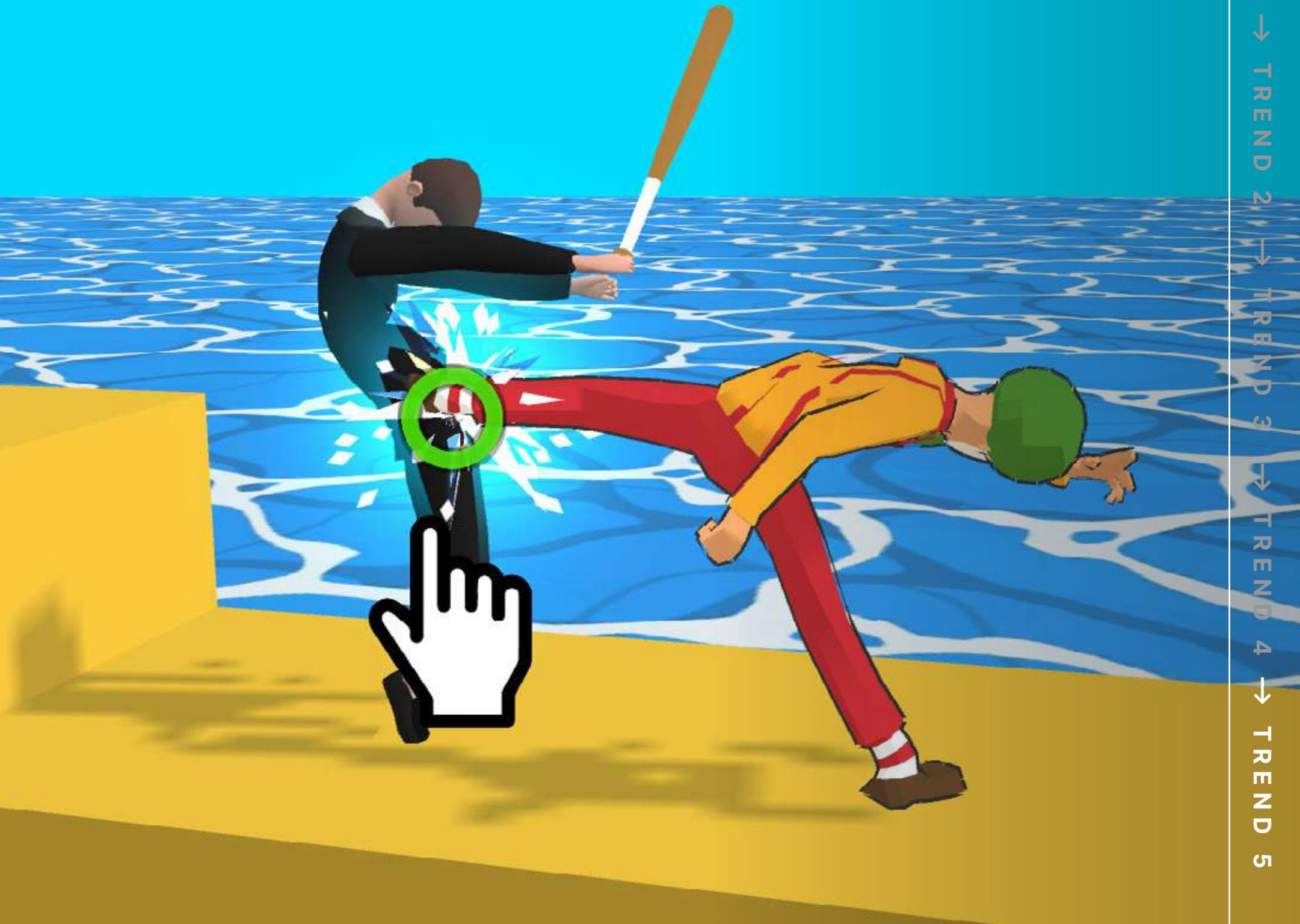
Knowing what players want is also important for longer-term retention. Developers are paying attention to player feedback and incorporating things like battle passes and consumables, both of which have seen an uptick in popularity over the past year. As Chart 5.6 shows, 27% more games used battle passes in 2022 compared to 2021.



Paul Raubic

Founder, PauRau Games

"You need more content that affects the gameplay and more engaging content to keep players interested."





Lauren Frazier

Cofounder and CTO, Ramen VR

"People either get it or they don't.
And the ones that get it stay, and the
ones that don't, leave immediately."

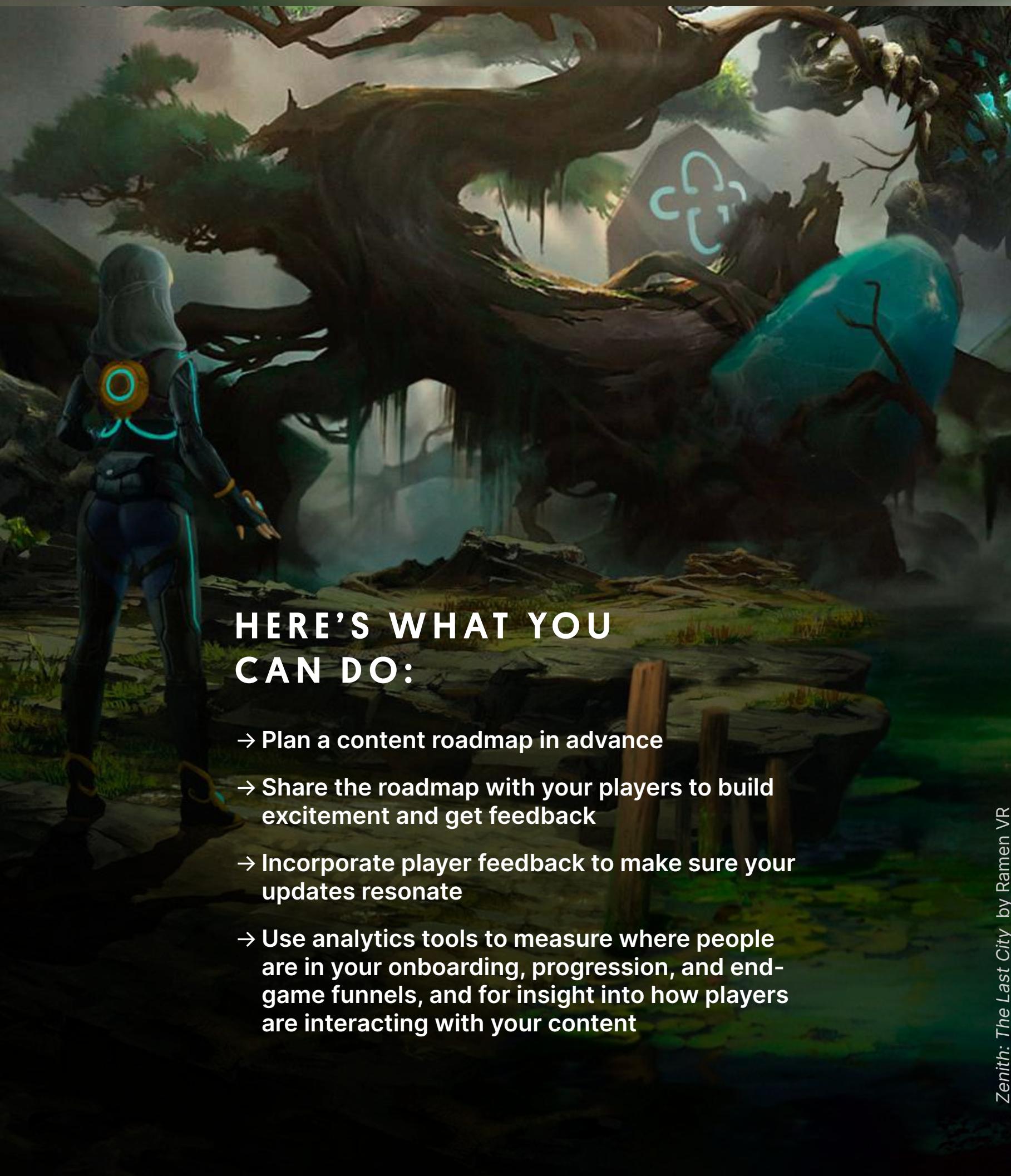
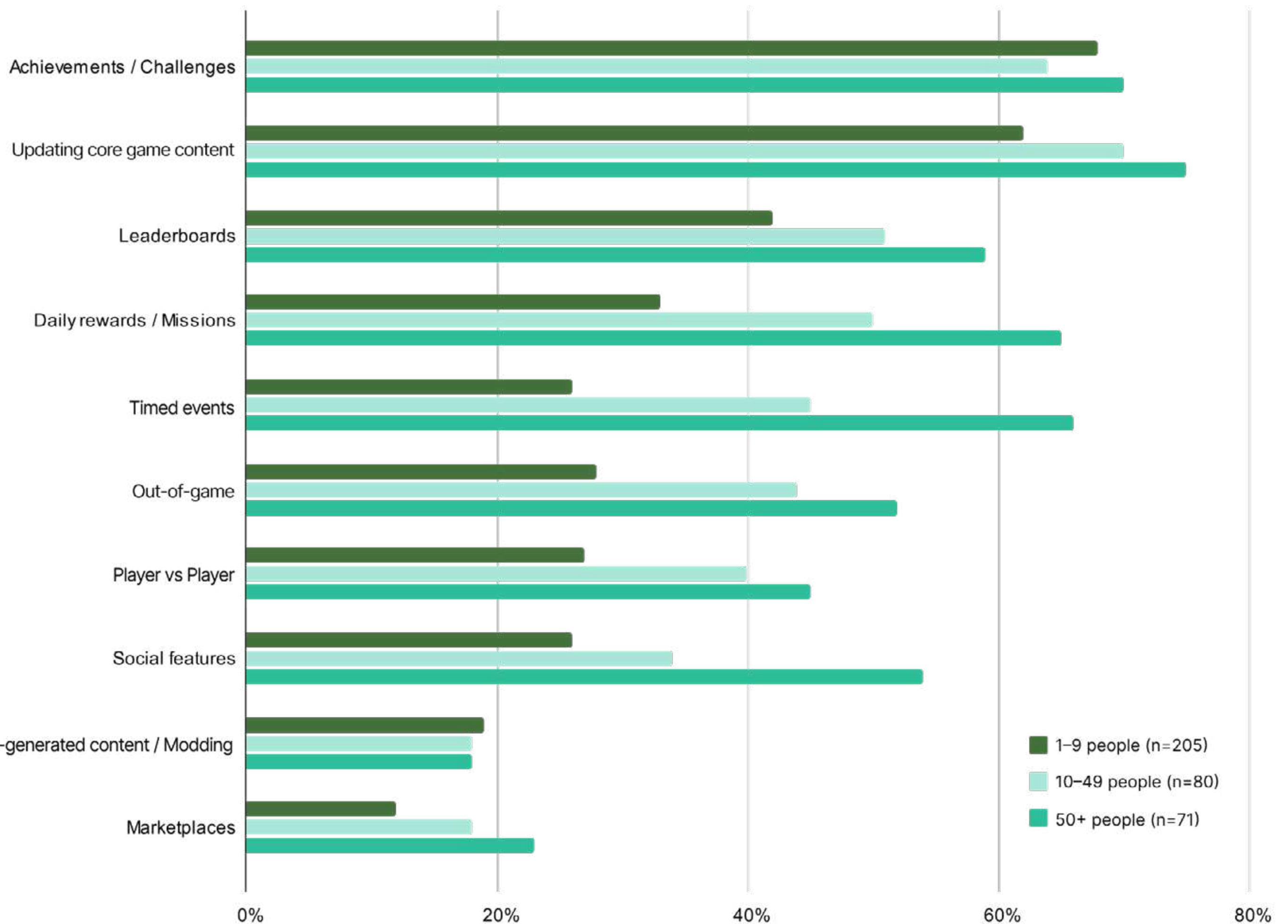


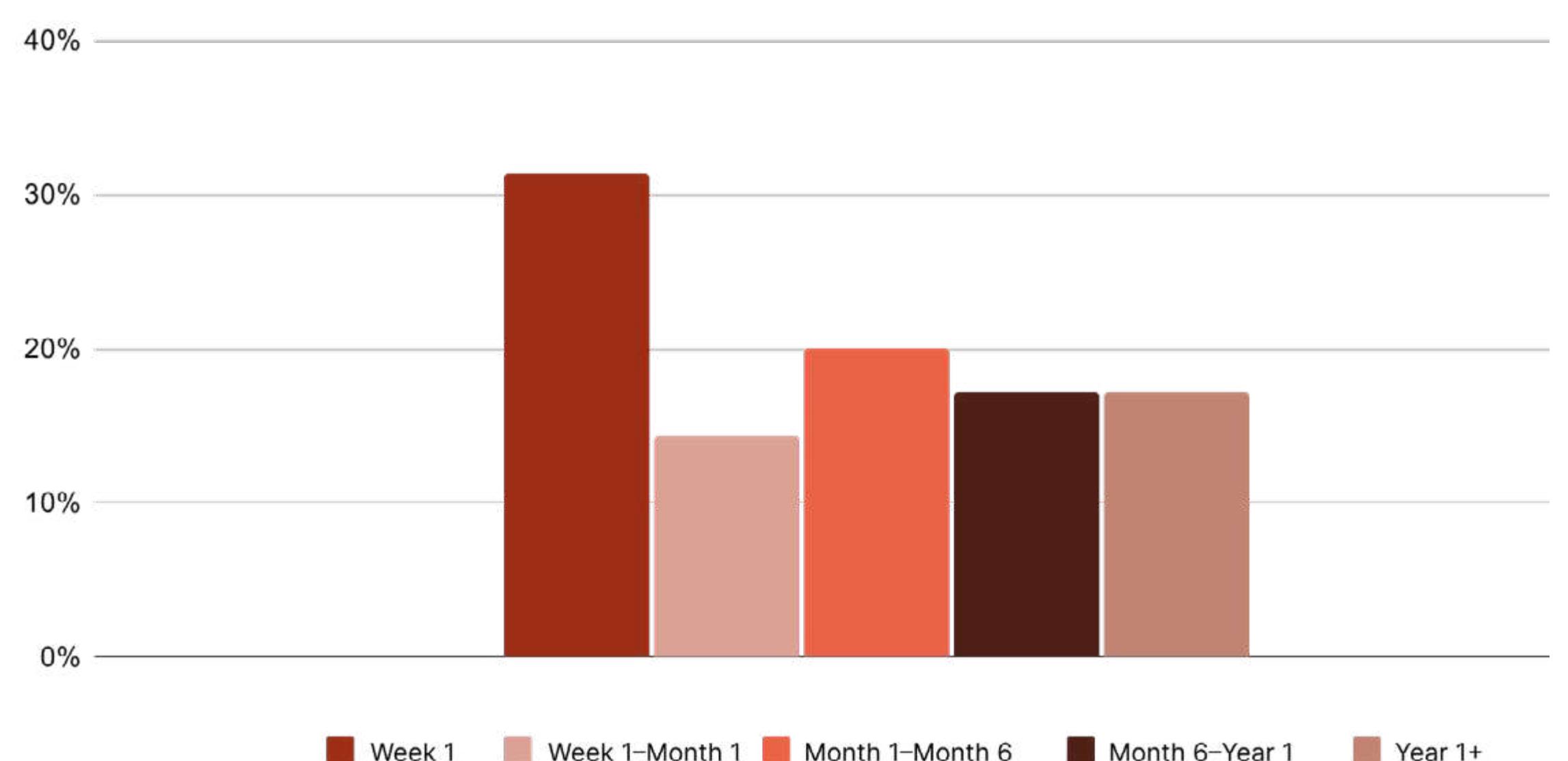
Chart 5.7: Studios with more than 50 people use a wider variety of retention tactics.



STUDIOS ARE BUILDING LIVEOPS INTO WORKFLOWS EARLY.

When it comes to attaining (and sustaining) success, planning ahead is key. LiveOps is a crucial part of a game's scalability because it enables studios to more easily manage backend data, gain player insights, and deliver content. Game developers are implementing [LiveOps solutions](#) within the first 30 days of development.

Chart 5.8: LiveOps is being incorporated in the first month of game production.



TIPS FROM UNITY CREATORS ON MAINTAINING GAMES



"The business of mobile games is slowly shifting into the business of maintaining games and holding on to people for as long as you can. Keep them engaged and bring those moments of happiness to them."

**Kaz Luska**

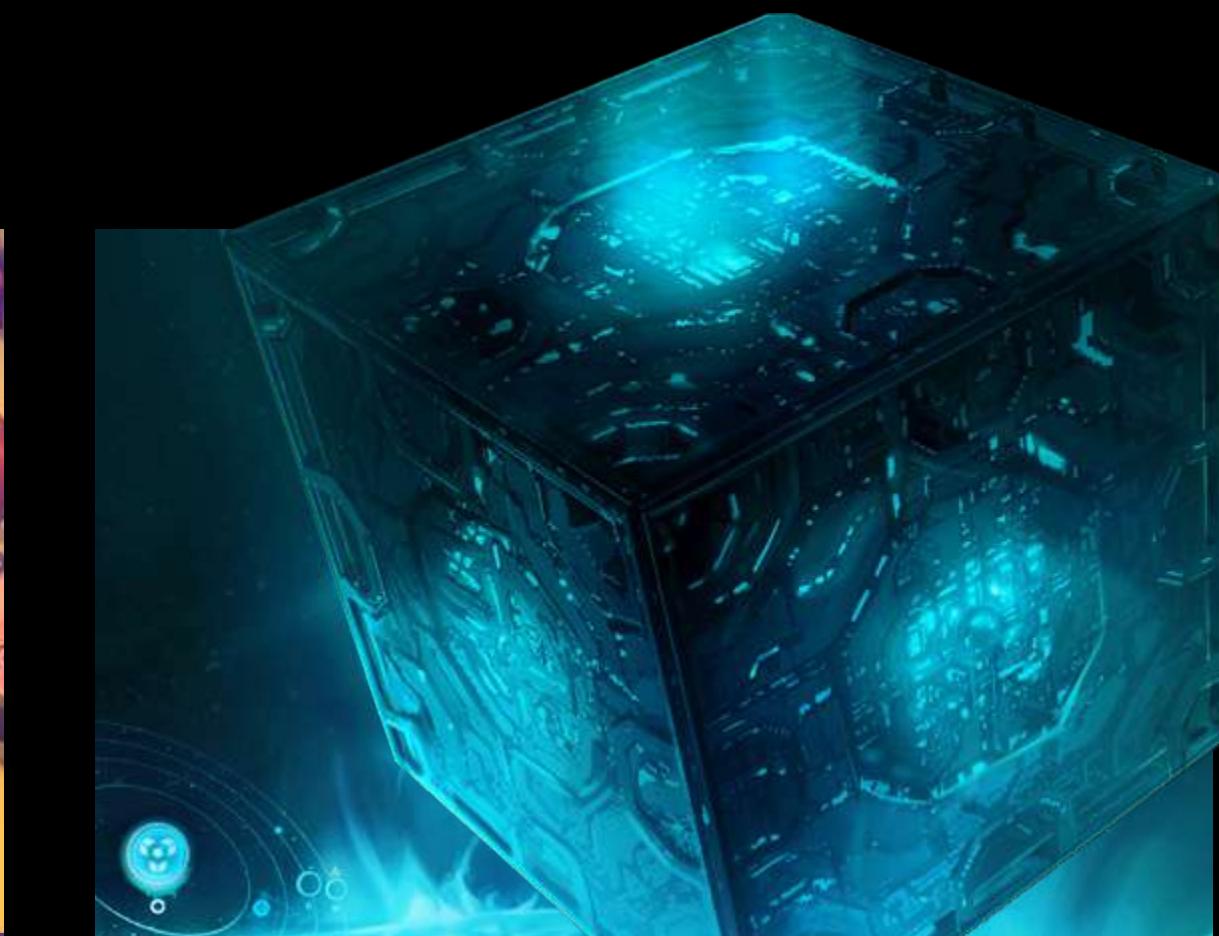
VP of Client Engineering,
Tripledot Studios



"We've found in VR that the more people feel involved with other players, the longer their play sessions are, and the more likely they are to come back."

**Nathan Ventura**

Cofounder and CEO, Vinci Games



"Content is king. It's a key feature to have a regular stream of content that is coming out. Most engaged players will want new content and new events."

**Simon Swinscoe**

Lead GD/LD, Alt Shift

Crying Suns



"As developers, our ability to be a part of our own community can make the community feel even more vibrant and exciting, and helps create a link between developers and players that helps with retention."

**Ben Brode**

Cofounder and CDO,
Second Dinner

MARVEL SNAP

CONCLUSION

2022 was a year of change for the gaming industry. Despite significant economic turbulence, studios found ways to explore fresh ideas, build new games, bring engaging content to players, and sustain their businesses.

As game developers and publishers continue to navigate challenges on a global scale, they remain a source of inspiration and insight into what's ahead.

HERE ARE FIVE TRENDS THAT WE THINK WILL BE RELEVANT TO STUDIOS IN 2023 AND BEYOND.

Economic pressures will keep fostering ingenuity.

In challenging times, studios find creative ways to hold on to players. We expect to see innovative solutions to familiar challenges like retention, community building, and monetization, along with awesome new games.

Smaller studios will launch more AAA-quality mobile games.

Players are becoming accustomed to deep and immersive gaming experiences on mobile. As more studios set their sights on the mobile opportunity, we expect to see indies innovating with tools and tactics commonly employed by large studios.

AI will become more involved in the game development process.

Generative AI is already being used in developer workflows. We expect AI to further augment content creation pipelines by generating images, audio, video, and code.

Hybrid-casual games will see a rise in popularity.

As hypercasual games continue to offer richer gameplay experiences, we expect that some will adopt a hybrid monetization strategy, creating opportunities for hybrid-casual games to become more popular. Hybrid-casual combines the simple gameplay loops of hypercasual with the reward, social, and monetization components of casual.

Player engagement will reach new heights through user-generated content.

We expect to see more players use games as creation tools, developing a deeper connection to them and becoming part of a game's longevity.

WHAT IS YOUR NUMBER ONE TIP?



Anahit Fernandez

Lead Producer, Navegante

"Get close to other developers. Follow their conferences, look for resources, and attend events. They can provide more information and expertise, which can be a game changer."



Ibs Rageh

VP of Engineering, Nifty Games

"Don't underestimate how difficult it is to find the fun in a game. Finding that spark and that joy is so important – you can't fake it."

Tom Hegarty
Director, Roll7

"Understand your scope and really narrow down what you're trying to achieve. Also, explore many avenues, and understand when something has run its course."



Boris Burangulov

Executive Producer, Pixonic (MY.GAMES)

"Start thinking as a businessperson from the very beginning. This is essential right now."

Zenith: The Last City by Ramen VR



Ben Brode

Cofounder and CDO, Second Dinner

"My advice is to ship something and do something very small, because often the reason we want to get into games is we have big dreams. We imagine incredible and grandiose projects, and those aren't realistic to do as your first thing. Instead, you should become really good with scope control and making something that is the minimum thing you can make, because the process of creating it and finishing it are such a hard thing to learn, and one of the things that developers look for most is your ability to finish projects."

MARVEL SNAP by Second Dinner



Lauren Frazier

Cofounder and CTO, Ramen VR

"Build your community early. Go to your community early because it's not just about sales. If you have a strong community, you can bounce ideas off of them even before the game comes out, and they're happy to contribute."

WHAT IS YOUR NUMBER ONE TIP?



Maciej Szczesnik

CTO, Vinci Games

"Just try it! It's actually pretty easy. With all the engines and free content available everywhere, it's pretty straightforward if you just watch videos online, you can start creating games right now. You just need to be brave enough and try."

Triple Tile: Match Puzzle Game by Tripledot Studios



Réjon Taylor-Foster

Co-owner and Lead UI/UX & Audio, Soft Not Weak

"There are two things I'd say about getting into games right now: number one, patience. With yourself and the process. The world is constantly changing so it's important to be flexible. Number two, make an attempt to understand, at least at the surface level, the discipline needed to make games. It's important that we have empathy for the processes and limitations that folks have to work through to make this magic real."



Kaz Luska

VP of Client Engineering, Tripledot Studios

"For a business, it is so much cheaper to retain a player than acquire a new player. If you have a good player base, then they stick with your product, they engage with your campaigns, and they engage with your outreach and LiveOps."



Phil Suh

VP of Ad Monetization, Zynga

"Developers should be thinking about how to increase the overall appeal of their games and the entire funnel of their marketing efforts to reach a wider audience. In today's climate, more casual games with a broader market appeal, combined with a creative, cross-channel marketing approach will be more impactful in reaching your core audience."



Eren Şengül

Cofounder and Product Director, Dream Games

"You have to focus on quality, especially if you're working on a new game. If you're not trying to make the best game in your genre, it's impossible to have a good game."



Kellee Santiago

Director of Production, Niantic

"Find your local game development community to start to make games with. This will help you hone your craft."



Andrew Hughes

Game Designer, Hugecalf Studios

"Don't do it alone. Bring people along with you. Making games can be tough and you'll face challenges. Having people around you that will lift you up will help you continue forward. Having a team and a community you can lean on is really important."



Ekaterina Zueva

Senior User Acquisition Manager, MY.GAMES

"It's extremely hard to find a gap in the gaming market, so it's so important to find your unique idea, and develop it quickly."

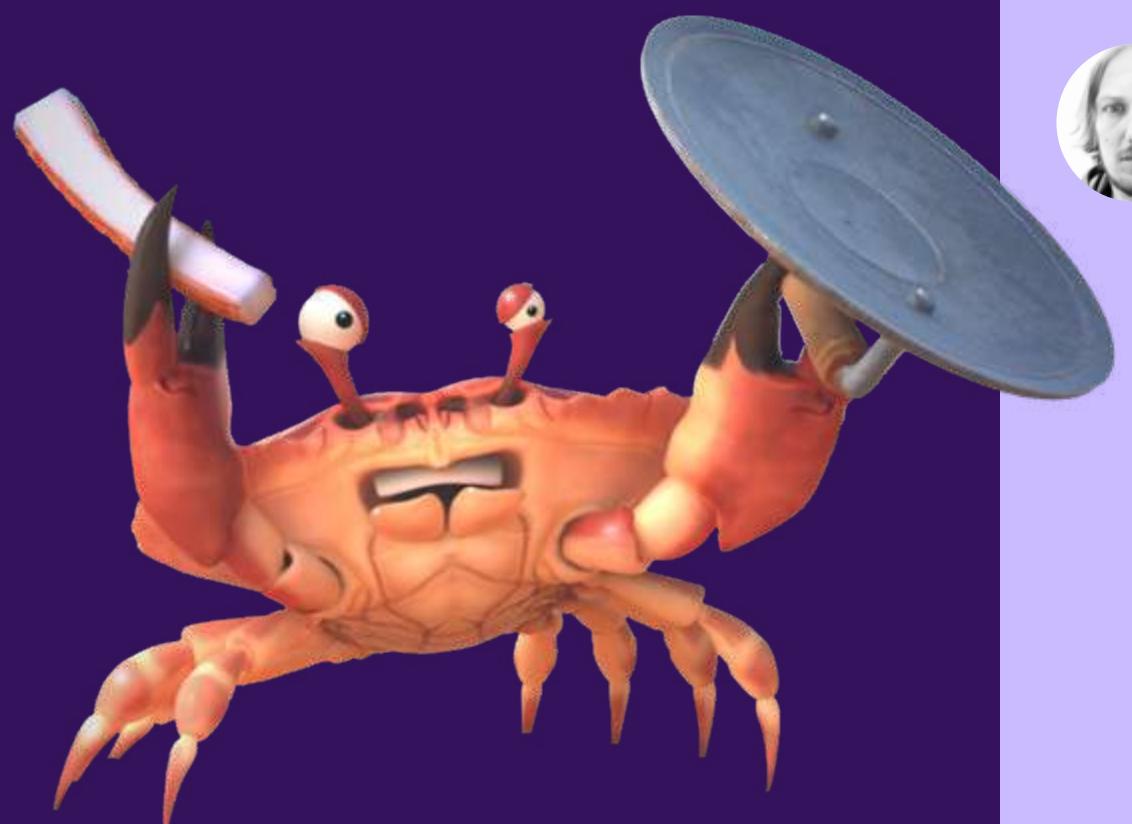
WHAT SHOULD GAME DEVELOPERS BE TALKING ABOUT?



Andres Tallos

Cofounder and CEO, Everguild

"Hyper-localized games. It's happening already in the Middle East. I think it's something that is going to grow as more and more markets become big enough to sustain successful games. Also, as the cost and challenge of development goes down, it's becomes increasingly viable to do not only low-budget games, but also very big games that target a single midsized country."



Chris Dawson

Cofounder and Creative Director, Robot Squid

"In terms of hardware, it'll be interesting to see if next year is the year AR/VR starts to take off. Obviously, companies have invested huge amounts of money into it, and it would be interesting to see if more content comes out next year."



Anahit Fernandez

Lead Producer, Navegante

"That there are an increasing number of women gamers out there. Also, there are more women making games."



Olov Redmalm

Game Director, Thunderful Games

"I'm really excited to see successful games that aren't about violence. It proves that there's a market for it, and that many players are looking for that kind of experience."

Lost in Random by Thunderful Games



Cult of the Lamb by Massive Monster



Kellee Santiago

Director of Production, Niantic

"Something often overlooked in industry analysis is the continued proliferation of small experiences that are intimate and boutique. Indie development is a very active, vibrant and dynamic area of our industry and should be talked about more."

Julian Wilton

Creative Director, Massive Monster

"The importance of Twitch integration."



WHAT SHOULD GAME DEVELOPERS BE TALKING ABOUT?

**Gabrielle Heyman**

Head of Global Brand Partnerships, Zynga

"There is a meaningful opportunity for increased budgets in mobile gaming. We're going to see more of the media mix applied to this space, and we believe there is vast growth potential."



Rollerdrome by Roll7

**Tom Hegarty**

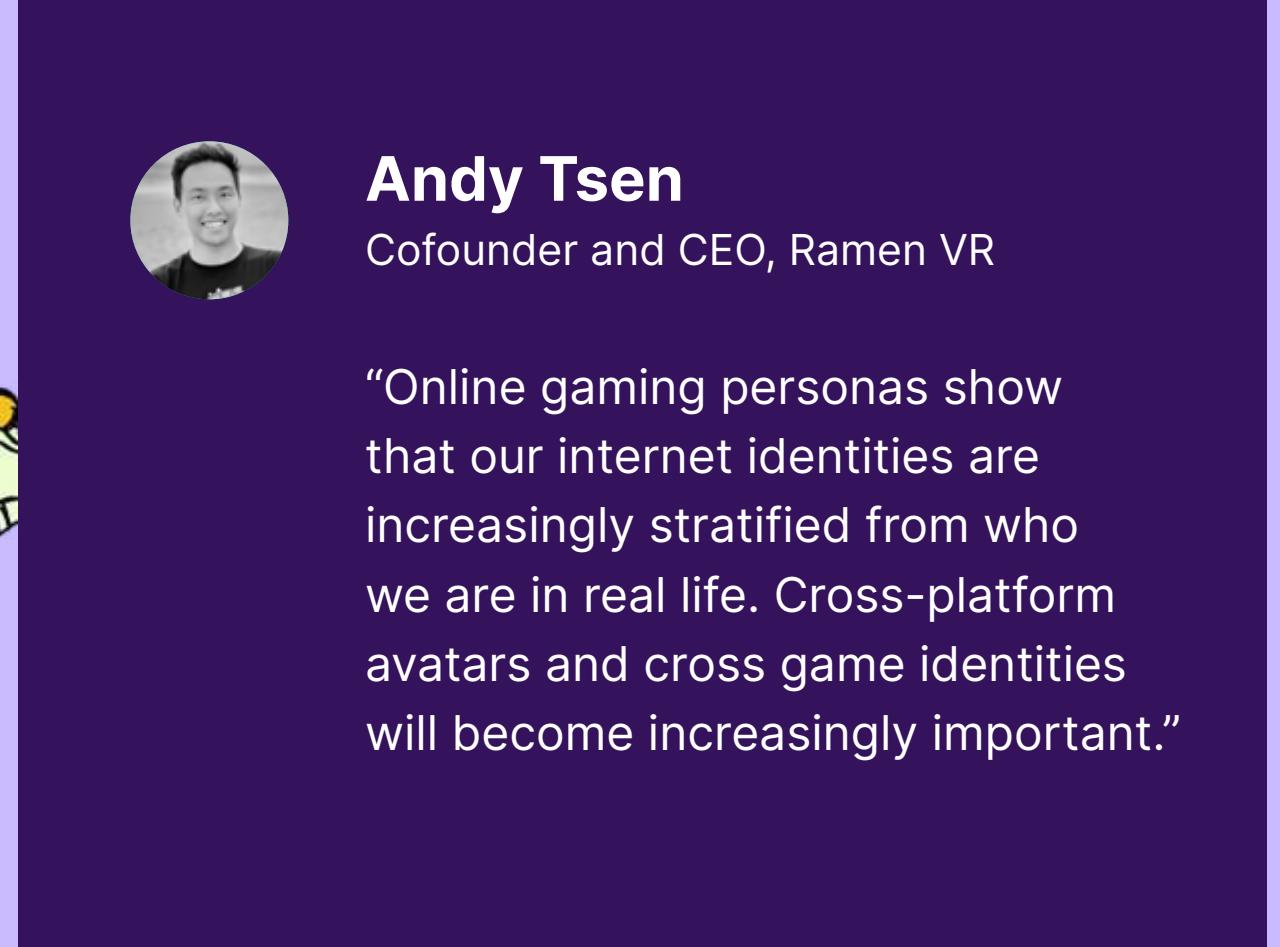
Director, Roll7

"How to get new hires into the games industry. We are not seeing the volumes of people coming through the educational system to match the growth of the industry."

**Ekaterina Zueva**

Senior User Acquisition Manager, MY.GAMES

"It's still a shock for me to see just how many people play mobile games on a regular basis. For example, every day, it's more than 10% of the world's population. That's huge, so I think that mobile gaming is still a hidden treasure, and not everyone is understanding how big the iceberg is."

**Andy Tsen**

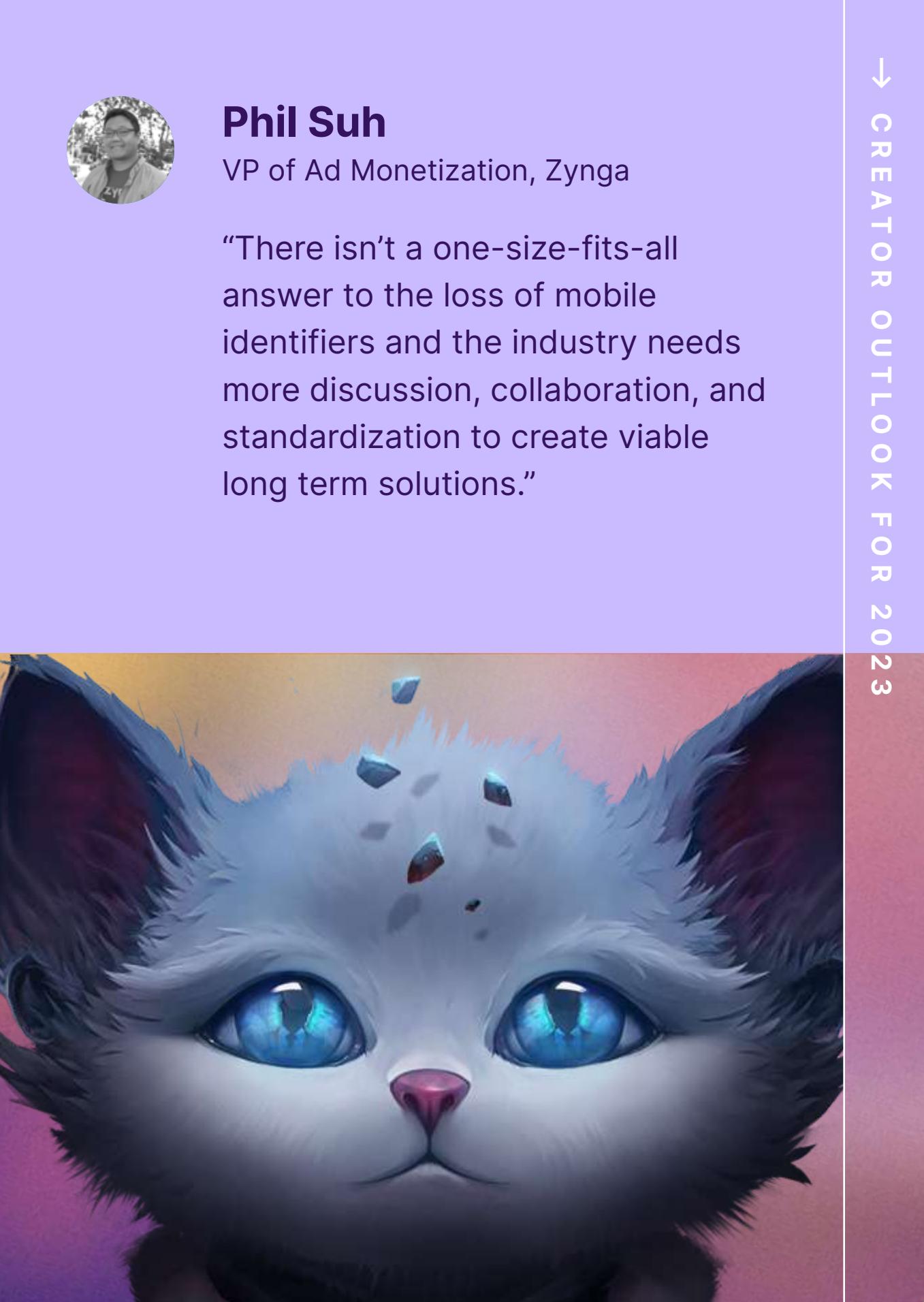
Cofounder and CEO, Ramen VR

"Online gaming personas show that our internet identities are increasingly stratified from who we are in real life. Cross-platform avatars and cross game identities will become increasingly important."

**Stephen Hey**

Head of Publishing, Radical Forge

"Players will demand the ability to create within their games more and more. Creating their own universe, and their own things to share, and then having shared experiences with other players that they are creating themselves."



Crying Suns by Alt Shift

**Christophe Sauveur**

Lead Developer, Alt Shift

"The rise of premium games on mobile. There was a time when there were absolutely no premium games on mobile. Now it's very different on app stores."

**Phil Suh**

VP of Ad Monetization, Zynga

"There isn't a one-size-fits-all answer to the loss of mobile identifiers and the industry needs more discussion, collaboration, and standardization to create viable long term solutions."

WHAT DO YOU THINK THE BIGGEST TREND WILL BE?



Stephen Hey

Head of Publishing, Radical Forge

"I think there's going to be a real resurgence and confidence in the smaller to midsize indie world now. You're seeing indie games exposed by things like the Steam Deck and certainly things like Xbox Game Pass, and so you see these games come to a mass market."



Andres Tallos

Cofounder and CEO, Everguild

"The focus on LiveOps. We pay a lot of attention to what some of the most successful games are doing or are changing. Many of these games are introducing new features, new monetization and mechanics, and often have the most data and insight into their players."



Tobias Barendt

Cofounder and CTO, Robot Squid

"We're going to see PC moving more free to play."

Hundred Days by Broken Arms Games



Yves Hohler

Cofounder, Broken Arms Games

"When COVID hit, I think a lot of AAA studios slowed their production, so I think in 2023 (and 2024), we'll see a resurgence of AAA titles."



Gabrielle Heyman

Head of Global Brand Partnerships, Zynga

"A big trend will be playables, which allow brands to do gamified versions of their ads and to engage more deeply with their consumers. We are increasingly seeing the desire of brands to reach audiences via our industry."



Subway Surfers by SYBO



Mathias Gredal Nørvig

CEO, SYBO

"The current pause in deals and financing will mean that bigger studios are taking safer bets – in turn, smaller studios will innovate and the emergence of innovative gameplay is inevitable. We will see bigger bets on fewer IPs as IP will continue to really matter."



WHAT DO YOU THINK THE BIGGEST TREND WILL BE?



Nathan Ventura

Cofounder and CEO, Vinci Games

"AI will go from something that's interesting and entertaining to play with, to being a part of the pipeline for a developer's content."



Jay Armstrong

Design Director, Massive Monster

"I could see user-generated content as a big trend for 2023. It helps players be more engaged, which is the key to so many successful games. I could definitely see it becoming a big part of our strategy in the future."



MARVEL SNAP by Second Dinner



Matt Wyble

EVP of Product and Business,
Second Dinner

"AI's ability to change this paradigm around larger and larger teams to make content. This will make us more effective as game makers. Secondly, it will allow us to create custom experiences for individual players at scale."

King of Crabs by Robot Squid



Chris Dawson

Cofounder and Creative Director, Robot Squid

"I think you're going to see far more high quality ports of popular PC games coming to mobile and be really well made and really successful. We'll see them dominate the app stores."



Boris Burangulov

Executive Producer, Pixonic (MY.GAMES)

"I think a lot of companies will put more effort into monetization. We'll see new mechanics and ideas because it will be necessary to increase revenue or at least keep it on the same level."



RollerDrome by Roll7



Tom Hegarty

Director, Roll7

"Community engagement. Properly integrating Twitch and Discord into their games to broaden their audience."

WHAT DO YOU THINK THE BIGGEST TREND WILL BE?



Carlton Forrester
Owner, VectorUp Games

"For hypercasual, I think the market is maturing and players are looking for deeper gameplay and high production value."



Cult of the Lamb by Massive Monster



Julian Wilton
Creative Director, Massive Monster

"I do see more smaller scope indie games hitting the market and getting updated if they are popular and find an audience. Making games will continue to be more attainable."



Freddie Babord
CTO, Radical Forge

"I think we'll see the AAAs playing it very safe, but I think we'll see more inventive games coming up from the indie world."

Turbo Golf Racing by Hugecalf Studios



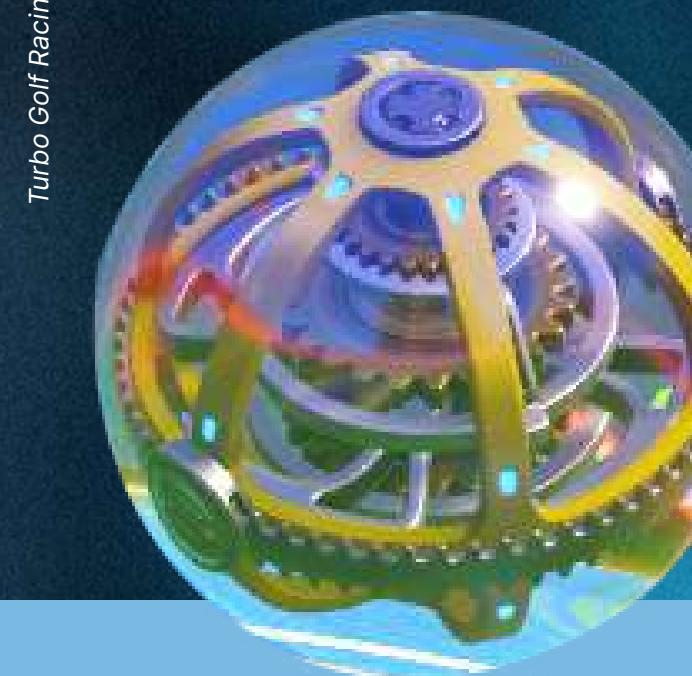
Réjon Taylor-Foster
Co-owner and Lead UI/UX & Audio, Soft Not Weak

"I believe another trend we'll see are folks working towards more sustainable models for making games, especially in regards to content distribution and growing collaborations at every sector of the industry."



Jonny Hughes
Director, Hugecalf Studios

"Co-op games are getting more popular. Lots of indies are exploring co-op mechanics and I think there will be some cool things coming out of that space. *It Takes Two* is a good example. Coming together, working together is a super powerful way to play games. Streamers love that sort of stuff because they can play with their audience or play with another streamer."



Simon Swinscoe
Lead GD/LD, Alt Shift

"There's space for a lot of different games. In 2022, we saw a lot of indie games that came out that worked. They just made their game and it succeeded, so I think it's a great time for indie devs."



Andy Tsen
Cofounder and CEO, Ramen VR

"A resurgence in engagement for more hardcore games. Multiplatform games will also continue to gain in prevalence."

ABOUT UNITY

Unity is the world's leading platform for content creators of all sizes to successfully realize their vision. Our comprehensive set of software solutions supports them through the entire development lifecycle as they build, run, and grow immersive, real-time 2D and 3D content for mobile phones, tablets, PCs, consoles, and augmented and virtual reality devices.

For more information, visit unity.com/solutions/game.

Tell us what you think of this report by filling out [our short survey](#).

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This report contains "forward-looking statements," as that term is defined under federal securities laws, including, in particular, statements about Unity's plans, strategies and objectives. The words "believe," "may," "will," "estimate," "continue," "intend," "expect," "plan," "project," and similar expressions are intended to identify forward-looking statements. These forward-looking statements are subject to risks, uncertainties, and assumptions. If the risks materialize or assumptions prove incorrect, actual results could differ materially from the results implied by these forward-looking statements. Further information on these and additional risks that could affect Unity's results is included in our filings with the Securities and Exchange Commission (SEC) which are available on the Unity Investor Relations website. Statements herein speak only as of the date of this report, and Unity assumes no obligation to, and does not currently intend to, update any such forward-looking statements after the date of this report except as required by law.



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