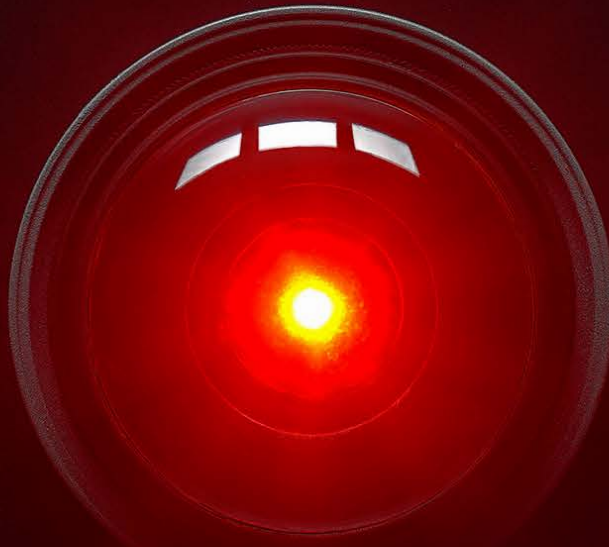


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REDEYE

GAMING
GUIDE 2023



REDEYE

Redeye is the next generation equity research and investment banking company, specialized in life science and technology. We are the leading providers of corporate broking and corporate finance in these sectors. Our clients are innovative growth companies in the nordics and we use a unique rating model built on a value based investment philosophy.

Redeye was founded 1999 in Stockholm and is regulated by the swedish financial authority (finansinspektionen).

About Redeye	4
The Redeye Technology Team	5
Interview questions with CEOs at our client companies	6
Redeye Gaming Guide 2023	
Why invest in gaming – A summary	22
Industry Description	24
Console & PC genres	25
Mobile genres	25
Industry value chain	26
The Market	29
Revenue by region	30
Global gaming market growth	30
Revenue split	31
Markets movers	31
Mobile games	33
PC & Console	36
Metaverse - An immersive gaming experience	40
VR & XR market	41
Gamer connectivity and interaction	42
Transmedia	44
User-generated content	44
Deal activity in the gaming industry	46
Overview of the largest M&A deals	48
Trouble in paradise	49
Competitive advantages in the gaming industry	52
Valuation per segment	54
Covered Companies	57
Disclaimer	72

Leading Nordic Investment Bank

Leading Advisor for Growth Companies

Founded

1999

Under supervision of the Swedish FSA

Corporate Broking

175+

175+ public corporates as clients

Ownership

Partner owned

Corporate Finance

160+

160+ transactions executed over the last five years

Employees

80+

Analysts: 30+
Corporate Advisory: 20

Key Specialties

Tech & Life Science

Redeye.se

150,000+

Attracting 150,000+ unique visitors monthly

Focused themes

10+

Includes 5G, AI, AR, Autotech, Cybersecurity, Disease of the Brain, Envirotech, Fight Cancer, Digital Entertainment and SaaS

Redeye Corporate Advisory

Leading Advisor for Growth Companies

Corporate Broking

- In-depth research coverage – sector expertise
- Investor events & activities
- Create brand awareness, credibility and manage expectations
- Strategic advise regarding how to create the optimal shareholder structure and build a strong and well-positioned financial brand

Certified Adviser

- Requirement for companies listed on Nasdaq First North incl. Premier
- Ensures compliance with Nasdaq Rule Book
- CA-breakfast seminars and newsletters to ensure client companies are up-to-date with the latest information and hot topics

Corporate Finance

- The go-to adviser for growth companies
- One of the most active advisers within the segment
- Leading adviser within private and public transactions
- Highly skilled team with vast experience from private and public transactions
- Over 160+ executed transactions including IPO:s, preferential rights issues, directed issues

ECM

- The most relevant investor network for growth companies
- Matching companies with the right investors
- Broad network of investors including institutional investors, family offices and retail investors



Johan Ekström
Head of Digital Entertainment

Johan has a MSc in finance from Stockholm School of Economic and has studied e-commerce and marketing at MBA Haas School of Business, University of California, Berkeley. Johan has worked as analyst and portfolio manager at Swedbank Robur, equity PM at Alfa Bank and Gazprombank in Moscow and as hedge fund PM at EME Partners. At Redeye, Johan works in the Corporate Advisory team with special focus on Digital Entertainment and Tech.



Tomas Otterbeck
Head of Research

Tomas Otterbeck gained a Master's degree in Business and Economics at Stockholm University. Tomas was previously responsible for Redeye's website for six years, during which time he developed its blog and community and was editor of its digital stock exchange journal, Trends. Tomas also worked as a Business Intelligence consultant for over two years. Since 2016 he has covered several gaming stocks in the Nordic gaming industry. Today Tomas is Head of Equity Research at Redeye.



Hjalmar Ahlberg
Analyst

Hjalmar is an equity analyst within the technology team focusing on gaming and online gambling sectors. He holds a Master's degree in finance and has previously worked within the banking industry with focus on equity research covering various sectors.



Viktor Lindström
Analyst

Viktor is an equity analyst in the technology team, focusing on gaming and cleantech sectors. He holds a Master's degree in Finance from University of Gothenburg. Previously, he held positions at Carnegie Investment Bank and Consensus Asset Management.



Anton Hoof
Analyst

Anton is an equity analyst within the technology team at Redeye. He holds a Master of Science in Business and Economics from Linnaeus University. Anton has previously worked at EY as an auditor.



Interview questions with CEOs at our Client Companies

The questions we asked the CEOs of our Client Companies were:

- 1) Can you tell us about the major highlights in your company during 2023?
- 2) What will be your 2-3 main focuses in the next coming 12 months?
- 3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

PC/Console companies:

In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

Mobile games:

Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?"



Martin Walfisz, CEO
Thunderful Group

1) Can you tell us about the major highlights in your company during 2023?

So far this year we've released some highly anticipated titles: Planet of Lana (Wishfully) and Viewfinder (Saw Owl Studios). Both are critically acclaimed with a metascore above 80, and well loved by the gaming community. Later this year we are looking forward to launching several new games, among them Islanders VR (Coatsink) and SteamWorld Build, the next installment in our most well-known franchise.

In our Distribution segment, through our subsidiary Bergsala, we've held the exclusive distribution rights of Nintendo products in the Nordics and Baltic region for over forty years. Bergsala saw an exceptional Q2 due to Nintendo's successful release of Zelda: Tears of the Kingdom and continued high demand for hardware.

Finally, during the year we've continued to expand our Games' leadership team with highly experienced executives, preparing us to better lead and grow our production and publishing efforts in the coming years.

2) What will be your 2-3 main focuses in the next-coming 12 months?

As I just joined the group as CEO at the end of August, I'm currently assessing our strategies and structures. My initial focus is on reviewing our portfolio strategy in the Games segment, while also ensuring that we have proper cash flow (which the fantastic-looking Super Mario Bros Wonder will help with when it launches in Q4). We will also continue strengthening our business and management structures, and review our key processes to see how we can become more efficient.

Overall, we will continue to develop, publish and distribute wonderful games. I have no doubt that the coming twelve months will be very exciting, with more of our internal titles readying for launch, and, like everyone else in the world, I hope that Nintendo will come with some mind-bending news.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

AI will change everything in the games industry. Within just a few years, AI will allow game studios to increase their production efficiency tremendously. It will allow smaller teams,

10-40 developers, to produce experiences that are close to current AAA levels, but at a fraction of the cost. There is no doubt that consumers are in for a treat, when they'll get even more great choices. As a business, we need to harness this new tool, and increase our creativity and efficiency with it.

In addition, as AI continues to evolve, we will see an increasing number of AI-driven experiences, where each player gets a completely unique, individually designed, path through a game. It will take a bit longer to get this right, and I think that human-led creativity will have an edge for a long time, but within a decade or two consumers will have access to AI platforms allowing them to write prompts like: "Tonight I'd like to play a single-player FPS campaign in a 1890s Wild West setting. A hero's journey that I can finish in about three hours, and I expect a few plot twists. [Press to Start]"

4) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

I would argue that there's almost always been an oversupply of new games. Especially since digital distribution was introduced, we've had an abundance of games that almost no one played. What really matters in this industry is quality and efficiency. In other words, as competition increases, we have to improve the quality and efficiency of our output.

The teams working at Thunderful have always had a strong eye for game quality, and in the coming years we will continue to develop that, and improve our processes to ensure that our games, internal or external, are consistently among the best in their respective categories.

And improving efficiency allows us to create and publish better games while keeping costs in check. As mentioned, AI will play an increasingly important role in this. Increasing the quality of our IPs, and the efficiency in our publishing efforts, takes time and a lot of hard work, but there is no other way to build a consistently successful business in this industry.



Jussi Tähtinen, CEO
Nitro Games

1) Can you tell us about the major highlights in your company during 2023?

We're busy launching a new mobile game called Autogun Heroes. It's a platformer shooter with a very strong initial performance in the launch phase so far. The other big highlight for the year so far is that we announced our collaboration with Digital Extremes on Warframe Mobile. Warframe is a really successful PC & console game, expanding to mobile in 2024.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Our main focus point this year is to steer our business towards profitability. Beyond that, we're focusing on scaling up our games business with Autogun Heroes. And in our partner business, we're focusing on delivering with the upcoming launches of the projects we have.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

We're using AI-assisted tools in different areas of our business and clearly see how things are evolving from here for us and the whole industry. In general, the current benefits of doing things in an AI-assisted way are the obvious increase in productivity but also increased quality as many things can be QA'd or validated so much faster with a bit of AI. In the longer run, AI is transforming the way we approach any creative or software development process as a whole, including the development of games. AI is like any gold rush, where ultimately you want to be selling pickaxes rather than using them. I'm sure we're not the only ones busy figuring out what that means in practice.

4) Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?

I would highlight 2 main reasons for this:

- 1) Changes in the mobile games marketing landscape.
- 2) People realizing how difficult the F2P mobile games market really is.

The changes in the mobile games marketing landscape are making it more difficult to do performance-based data-driven marketing, which means that many companies are struggling - unless they have something that works in today's new environment, and as a result the formula of "how things are done" is again changing. The difficulty of succeeding in the F2P mobile games market has resulted in many investors abandoning investing in start-ups in the sector, as well as many developers abandoning and transitioning to other platforms - and what we'll ultimately have left are the ones who know what they're doing and succeed. Our take has been to adapt to the changes early on, which is exactly what we've done with Autogun Heroes where we're steering our investment away from risky early stage to products that have already been validated and can be operated in the new environment. Also, in our B2B partner business, we're working more and more with cross-platform games, where the role of the mobile is a bit different than with mobile-exclusive productions. This combined gives us a strong position in today's market.



Ace St. Germain, CEO
Beyond Frames

1) Can you tell us about the major highlights in your company during 2023?

The major highlights of Beyond this year revolve around getting an opportunity to work with some incredible studios and partners around the world and firmly establishing our presence on the market as a best-in-class publishing partner. We launched *Silhouette* by Team Panoptes out of Belgium, *Mixture* by Played With Fire out of Poland, ARK and ADE by Castello, Inc. out of Italy, and *Ghosts of Tabor* by Combat Waffle Studios out of the US. Furthermore, our wholly-owned studio Cortopia secured a partnership with a yet-to-be-revealed publisher for a project to develop the sequel to one of the best-selling games in VR history.

With five releases under our belt in the publishing unit and our internal studios hard at work for the next few years, we feel that 2023 really shows our ambition. While we might have fewer releases in consecutive years to optimize for quality, we feel confident in our operational capacity to move fast when needed and opportunities are on the table.

For a more financial-focused answer, we're thrilled about returning to profitability with record-breaking revenues.

2) What will be your 2-3 main focuses in the next-coming 12 months?

First, continue to scale our XR operations. Our momentum in this space allows us to put incredible games in the hands of players.

While Beyond Frames will continue to operate as an "XR first" company (as opposed to our previous strategy to operate as an "XR only" company) in the near future, we want to make sure that we're well-positioned to take advantage of our momentum and expand our business where it makes sense and if we find attractive opportunities.

Our internal studios have secured their resources in on-going projects, something we will talk more about in due time, but we still see opportunities to start another project or two in the coming 12 months.

The XR publishing team additionally have an almost full slate, specifically we're taking *Ghosts of Tabor* to the full Meta Quest store and out of Early Access in 2024 which will be a significant event. The Combat Waffle team have delivered above and beyond (no pun intended) in Early Access and we're really excited to continue to work with them for a strong full launch and a wider audience reach. The inbound pipeline

of projects looking for a publishing partner is still strong and we will be moving opportunistically when we identify projects that we feel are a good match for us. Second, accelerate our expansion plans to add non-XR business lines to Beyond. We want to put IP at the core of our business versus focusing solely on single platforms.

This will be an ongoing strategy assessment in the next year, but we believe that widening our focus, where it makes sense, can create new opportunities and expand our revenue streams. We're in the early stages today, but we will communicate more around this throughout 2024.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

I could probably write a novel worth of pages about my thoughts on AI, but we'll keep this brief and focused. I think it's important to separate the artificial intelligence the games industry has been using for more than a decade and the relative "newness" of LLMs and generative AI. For this answer, I will focus specifically on generative AI.

Near-term, at Beyond, we're seeing a lot of benefits in using generative AI to communicate ideas between disciplines. This helps to smooth out the production process and save time and money. In the future, I see us being able to take on more productions at a healthy pace at the high-quality bar our players expect from us.

Specific to our vertical, I think VR is uniquely positioned to take the best advantage of generative AI. The worlds we create in VR in the future will be filled with far more immersive interactions between the player and digital inhabitants and other assets. This deepening of the immersive experience, I see, will make VR the ultimate platform for digital social and play.

Generative AI, in time, will undoubtedly help make game development more accessible to a larger group of creators. This is not dissimilar to how the rise of game engines like Unity and Unreal brought more game developers to the table. But also like Unity and Unreal, the sheer volume of new games will saturate the market, putting a heavier emphasis on the need for quality and discovery.

In general, I think generative AI presents an opportunity for exponential output. As examples, with generative AI, a software developer can be a 10x software developer and a 10x developer can be a 50x software developer. This implies that a baseline of talent is required, and I believe this is where the major differentiators are going to come into play. This also means we should expect smaller teams to be able to meet the high-quality standards of today, but I suspect the quality bar is going to be set much higher in the future, which will likely still require heavy financial means to reach those new standards.

One area of AI I feel will have the greatest impact is the policing of online game communities. Toxicity is a real issue that is difficult to combat due to the sheer volume of players vs. moderators vs. tools. Many players churn out of live service multiplayer games and would-be players refuse to play online due to toxicity issues, which takes a lot of money off the table for the games industry.

There's still much to be discovered and discussed about AI. Regarding generative AI in general, I think it's important we look at the ethical sourcing of training data, how we define ownership of data and IP, ways we could reward those providing the data, and other ways this could impact our industry for the negative as well as the positive. I'd much prefer to go into this new era of development eyes wide open.

4) Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?

Mobile game purchases, especially free-to-play microtransactions are generally "impulse purchases" which weaken as consumer pockets soften, unlike the higher retail cost of premium games. Additionally, the loss of mobile tracking has led to less efficient ad spend, causing the cost of acquiring new users to increase from what was already becoming too expensive for most mobile games.

The consumer markets will improve, but I doubt the performance ad market will ever return to its earlier days. Like the traditional gaming market, discovery is a challenge and I think near-term, games are going to have to partner with publishers and other partners with significant first-party data or access to dedicated audiences to break out. We're not big in mobile games, but this will likely be the path we take early days as we expand into non-VR initiatives.

5) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

Yes, I absolutely agree with the oversupply assessment. While not exactly causal, a cursory evaluation of the financial performance of AA and AAA games vs. indie titles shows a strong correlation between cost of production, marketing spend, and revenues. You can cite exceptions to this on both the small and big-budget side of the line, but it holds true on average. Discovery is difficult in this time of saturation, and players want value for their money.

If you want another example, just look at Hollywood. They've been around longer than the games industry, and when consumer pockets get soft, Hollywood immediately goes to well-known, trusted IP to reinvigorate sales. That's not an accident. Big IP comes with built-in brand equity that greatly subsidizes their marketing cost, so even if they spend \$500 million USD on marketing, they're getting \$1 billion USD in value from it.

For Beyond, our 2 areas of focus toward developing our portfolio are:

1. Create and publish games that players have signaled they want, and
2. Subsidize every step of the game development and go-to-market processes.

These might seem like basic principles, but most game companies still work off "feel". We've added a lot of product thinking to Beyond. We're looking at a lot of 1st and 3rd party data, embedding ourselves in communities, and working with influencers and IP owners to maximize the probability of success of our games.

We're also not just focused on one game at a time, but a diversified portfolio of "safe bets" and high-risk projects that average out to a positive at worst and highly profitable at best. This was our plan starting Q2 of 2022 and the results are proving we have the right way forward.



Björn Mannerqvist, CEO
M.O.B.A Network

1) Can you tell us about the major highlights in your company during 2023?

Signing a very competitive agreement with Raptive, one of the worlds most premium ad management companies, securing the best possible conditions for all of our ad driven revenue assets.

Signing partnership with MediaCube, strengthening content creators' offering and enhancing the revenue opportunities for Union for Gamers

Acquisition of Wargraphs, that owns and operates world leading in-game applications and gaming services, providing players of popular games such as League of Legends, Teamfight Tactics and Legends of runeterra with key statistics and data. In addition to highly popular websites with millions of monthly visitors. The in-game app Porofessor has close to 11 million downloads and around 800K daily users.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Onboarding and incorporating new assets to the MOBA Network, in ad setup, SEO solutions and general group synergies.

Strengthening our SEO capabilities in-house

Acquisition, Acquisition, Acquisition....

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

We're committed to using AI responsibly to benefit our gaming communities and stakeholders while staying agile in a dynamic industry. That said, there are absolutely things that we are exploring in terms of AI, such as data analysis, optimize marketing and advertising, improving player support, assisting in content creation to name a few.

4) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

Our assets and brands aims and focuses on services and content to gamers that play games with a rich history, a dedicated fanbase, and a solid long term position, such as League of Legends, World of Warcraft, Dota2, Minecraft and many more. Having this model tends to make us less vulnerable to the issues that new and weak IP:s have - we simply start monetizing content around games that already is somewhat of a success



Ji Ham, CEO
EG7

1) Can you tell us about the major highlights in your company during 2023?

During 2023 My Singing Monsters have continued to show strong performance and retention of players after the game went viral by the end of last year and we are excited to see where the new normalized level for the game will be. At the same time, we have successfully ramped up our Work For Hire (WFH) business where Piranha have signed a contract worth approximately SEK 100 million over 18 months. Fireshine successfully released of Shadows of Doubt through Steam Early Access in April and the game has achieved a 90+ percent positive rating. Further establishing a strong track record and reputation for quality offerings in the indie publishing segment.

Furthermore, we have hosted our first CMD where we conclude that we successfully executed a transformation phase over the past two years. During the next phase of EG7's history we have and will launch some organic growth initiatives to be evaluated over the next coming years. We are thrilled to see what shareholder value that might bring.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Over the past several quarters, we have materially enhanced EG7's overall business, both in terms of operational improvements and financial performance. As we leave a time of consolidation behind us we can now fully focus on our long-term goals and to deliver attractive long-term shareholder value appreciation.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

This far we have not experienced any major impact from AI in our production. But we explore how the technology can help our business units to become more efficient in different tasks.

4) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

We agree with that statement, the gamers spend a fairly low amount of its entertainment budget on games and we do not see that the level of today's financial turmoil has any impact to that budget. Meanwhile, the lion part of the profitability in this sector is concentrated to a limited number of publishers and platforms. Games outside this range are attached with lower predictability, lower quality controls and higher general risk. These games will have more challenges to compete. We have a high level of predictability in our live games portfolio which is not notably affected by any oversupply.



Jens Lauritzson, CEO
Flexion Mobile

1) Can you tell us about the major highlights in your company during 2023?

Our focus on adding and expanding distribution for developers with new partnerships such as Xiaomi Getapps, Digital Turbine Game Hubs are some highlights that are important since they have generated more distribution power. The other highlight I want to mention is our expanded partnership with Scopely which included the number 1 game in the market right now Monopoly Go and Stumble Guys - two major games added to our already strong portfolio.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Continued expansion with new distribution partnerships is critical and the Digital Markets Act in the EU should provide exciting new opportunities. We of course continue our focus on signing top grossing games but also marketing partnerships with existing stores to scale the portfolio. We are also looking at opportunities beyond traditional app store distribution such as cloud-gaming and direct distribution through some of our existing partnerships

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

AI will help drive new development within content creation and to some extent game development. It can also help with User Acquisition in areas where automation and optimization is possible. For Flexion AI can help us be more efficient in terms of delivery, providing support for more automated processes where manual delivery is required today. It is an exciting space but it is a little hyped in my view.

4) Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?

Several factors have impacted the market negatively in the last 18 months. The market has just come out of a growth spurt due to the prolonged covid effect was cooling down. Then came changes to IDFA that has impacted user acquisition negatively, particularly the mid core segment that has been driven by programmatic User acquisition. On top of this, the macro climate with high inflation and weak global growth has of course had an impact. Flexion grew by 110% last year and 12 % the first half of 2023 while the market in general is down. This shows that the alternative markets are gaining more attraction.



Christina Seelye, CEO
Maximum Entertainment

1) Can you tell us about the major highlights in your company during 2023?

The biggest highlight from a company perspective would be the relaunch of what was previously Zordix into Maximum Entertainment as a full-service integrated entertainment company in February. Along with this announcement we presented a unified roadmap of games for 2023-2025 coming from the group together with a presentation of our new company strategy of having 30% of our revenues come from owned IP games by 2025. We have already seen great results of this strategy with owned IP titles like Smalland: Survive the Wilds and Bramble – The Mountain King releasing in the past months reaping both critical and player acclaims.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Our focus over the coming 12 months will be to execute on the owned IP strategy while continuing to feed our pipeline of published third-party titles. The integrational work commenced in 2022 will continue, where we strive to find efficiencies with cross-functional teams in order to increase gross margins across the group.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

There are of course many areas where we can utilize AI to improve business results. On the publishing side for example, AI can be utilized for contract management and creation, creating workflows for project managers and much more. On the development side, we are closely following the usage of AI and the ongoing discourse on AI created content vs. IP rights. AI can be used very efficiently for iteration and speed of problem solving. We love employees using AI to learn quickly since our industry is changing every day. AI is a tool like any other and we will all learn how to incorporate it into our businesses.

4) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

Yes, the industry is getting increasingly crowded and competitive and we must do more to set ourselves apart and create awareness for the creative content we are developing and bringing to market. That said, we have had a great experience this year with 2 brand new IPs with Smalland and Bramble and 2 extension IPs with Hammerwatch II and Double Dragon Gaiden: Rise of the Dragons. So, we believe that there is room in this industry for both new and extension IPs. Effective management of development budgets and focusing on strong content with deep mechanics, high levels of replayability and social components are where we are focused to grow and increase margins and profitability.



Marcus Teilman, CEO
Fragbite Group

1) Can you tell us about the major highlights in your company during 2023?

We have had an intense 2023 so far with growth in our existing business and as well as expansion into new revenue streams. Our web3 gaming offer has continued the earlier trajectory of significant growth with the NFT sale for and release of our second game title, as well as a successful migration of our first game title onto a new, more flexible blockchain. Our business of porting games from PC to mobile has gone through a period of expansion as we have invested in higher capacity, resulting in a larger pipeline of upcoming game releases and an increase in production pace. Our mobile game development studio has moved to in-house publishing to increase efficiency and margins. In our esports business area we launched a new brand, Config, for our agency offer. Finally, we recently added another revenue stream with the launch of Playdigious Originals, a new business unit and brand for publishing independent games on PC and console.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Fragbite Group will continue to grow both organically and through M&A in the coming 12 months. In our gaming business area, we will keep focusing on expanding an already profitable core business with the aim of securing contracts to port even higher profile games. In esports we will work with our own IP:s and further develop our unique gaming and esports agency offer. In web3 our focus now is the launch and public sale of our token, an in-game currency called Koban, to complete the financial ecosystem of the game portfolio. We are also focusing on being a trailblazer in web3 by, for example, onboarding web2 players, i.e. gamers without experience in owning digital assets.

3) AI is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

AI is already having an impact on the industry as so many of the core tasks of game development can benefit from AI, specifically in the early stages with for example fact-finding, inspiration for creative design, automating repetitive coding tasks and more. On the Group level for a company like ours it can contribute to for instance research and sourcing in M&A processes, marketing and communication activities. Most gaming companies have likely started looking at various ways to simplify tasks with AI, just like we have. When it comes to the impact of AI on the gaming industry, we must however also pay attention to the regulatory side, most notably the ownership of digital assets. No game exists without visuals and those visuals are a key part of the financial value of a game. Using AI-generated images for inspiration will likely become the norm, but very soon, probably ahead of legislation, we will see contracts detailing what constitutes originality or ownership of final game assets in relation to AI, as anything in the grey zone may endanger all parties of the value chain. This will also affect code and other key aspects of game development where ownership can potentially be questioned. At Fragbite Group we aim to be ahead of the curve, and we are assessing how to use AI to our advantage, all the while paying attention to how legal standards emerge. Game developers who can establish protocols for how to harness the power of AI in various processes but also safeguard their own assets and those of their partners, will have a competitive advantage. Developers with knowledge of web3 will also have an advantage as the safest solution to ensuring digital ownership of assets on a global scale is through blockchain technology.

4) (PC/Console) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not “soft pockets” amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next coming years?

We agree that globally there is an over-supply, but this it is not limited to small and mid-budget. AA or AAA games fail as well, at least ROI-wise. Small and mid-budget games are much more likely to have a better ROI than big games if they succeed, and shorter development time means ROI sooner. Another factor however is player demands on both quality and quantity as almost all games are expected to churn out new content at a pace that demands the resources of large teams over time, making it harder to meet those demands with smaller games. You can't simply launch and then go to the next project, most games on PC nowadays are like services rather than products. Monetising on that reality, while also properly taking the lifetime cost and commitment of the game into consideration before embarking on the project is key.

For our new PC publishing business unit Playdigious Originals, we rely on a careful selection process to identify independent titles which have the capacity to both attract and sustain a clearly identified segment of players, developed by studios which can manage the lifetime demands on the game. We also work to create healthy communities with consistent marketing efforts around each game which are continuously measured and perfected.

5) (Mobile) Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?

Firstly, when it comes to free-to-play mobile games the entire industry has been heavily affected by Apple's changes in APP (App Tracking Transparency). In our mobile game development vertical, we have seen the effect on the bottom line and our strategy to combat this is a combination of self-publishing and even more careful testing and monitoring of UA activities to ensure optimal ROI.

Secondly, the covid pandemic first drove an increase in the size and growth pace of the entire industry, which then retracted somewhat as normal life was resumed. As the industry is regaining some kind of equilibrium, we don't think that growth in mobile games across the board will continue to be soft. However, there is still significant supply globally in mobile games, hence the importance of staying relevant to clearly identified target groups. In our porting from PC to mobile business vertical, our strategy is to work on games that are already successful on PC first, generally having sold over 500k paid units. The risk on mobile is much lower, thanks to low development costs and a strong screening process where we evaluate potential mobile revenue based on actual PC revenues together with a number of other criteria. In short, the PC to mobile vertical is an almost risk-free business, but it is limited in term of possible profits compared to having success with a proprietary title. To keep on our already profitable path, we will continue to scale with bigger and more varied projects as well as resume our global publishing activity. This comes with more risk, but on the



Rade Prokopovic, CEO
Sozap

1) Can you tell us about the major highlights in your company during 2023?

In 2023, we directed our resources toward the development of two titles: Fishing Tour and Questopia, both of which emerged from our MVP strategy initiated in 2022. Early in 2023, we decided to shift our seasoned developers from ARMED HEIST to Fishing Tour, seeing its potential as one of our most promising titles to date. We also secured vital capital through an oversubscribed rights issue. In addition to strengthening our financial position, we enhanced our team by recruiting a Lead Monetization Manager with extensive industry experience. Furthermore, we ventured into a publishing agreement with the renowned mobile publisher, Voodoo, to explore potential opportunities for Questopia.

2) What will be your 2-3 main focuses in the next-coming 12 months?

In the upcoming months, our primary focus at SOZAP will undoubtedly be the global launches of both Fishing Tour and Questopia. Our strategy is to scale these games efficiently, targeting profitability, with the ambition of achieving a cash flow positive position sooner rather than later. We're particularly bullish on Fishing Tour, viewing it as potentially the next big thing in mobile fishing games globally. This is not to understate Questopia, which has shown high potential for profitability in our market tests.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI in the coming years? How will AI impact competition in the industry?

AI is undeniably a game-changer. For us at SOZAP, we envision harnessing AI to enhance user experiences through tailored content, while also finetuning in-game economies and understanding user behaviors more effectively.

4) Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?

The softer growth for mobile games can likely be attributed to factors like market saturation, increased competition, and increased cost of user acquisition. At SOZAP, our strategy to counter this is clear: we aim to cater to specific niches delivering a premier user experience. By focusing on the fine balance between monetization and player satisfaction, we intend to cultivate long-term retention and consistent growth.



Tobias Sjögren, CEO
Starbreeze

1) Can you tell us about the major highlights in your company during 2023?

- Announced release date for PAYDAY™ 3 at Xbox Showcase
- Celebrated 10 years of PAYDAY™ 2 live service resulting in close to 90 playable heists and in total ~250 content updates
- Expanded third party publishing with new titles
- Showcased PAYDAY™ 3 at Gamescom 2023, resulting in two awards for “Best PC Game” and “Most Entertaining Game”
- Successfully completed rights issue to execute on future growth strategy

2) What will be your 2-3 main focuses in the next-coming 12 months?

- Ensuring a successful launch of PAYDAY™ 3 and initiating the live service phase with four announced DLC's over the coming 12 months
- Continue development of our next AAA-title, internally known as Project BAXTER
- Expanding our third-party publishing, and for example-launching both the 1.0 version of Roboquest as well as The Tribe Must Survive

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI in the coming years? How will AI impact competition in the industry?

AI is no silver bullet but could at various stages of production streamline for example in early development phase to create early concept illustrations and jump-start creativity. As such, it's no replacement for humans but could assist in increasing the general quality of games in, say, in-game textures and assets.

It's will likely see an increased use in procedural generation of levels and worlds based on assets, like is already the case in global hits such as No Man's Sky.

Like many other technologies introduced over decades in the gaming industry, they ultimately lead to better products and therefore increased value for end customers, even if budgets and man-hours stay fairly consistent.

4) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not “soft pockets” amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

The entertainment industry in general has almost always been characterized somewhat by an oversupply of “products”. Small games can still hit big, big games can still flounder. While it's become somewhat easier to create and distribute games, the demand for a clear concept, great gameplay and overall lifetime value proposition of a game might increase as customers might more discriminately evaluate games on value per hour played.

It is getting harder and increasingly risky to make “release and forget games” – games that what you buy on release is what you get. Games as a service, with continuous updates, content and by extension then increasing value for consumers is a trend that we believe will grow stronger in the coming years.



Veli-Pekka Puolakanaho, Head of Corporate Development
Remedy

1) Can you tell us about the major highlights in your company during 2023?

We are soon launching Alan Wake 2, which is our biggest game yet. It has been a major effort for the whole company. The game is looking great, and reception to the marketing campaign has been fantastic.

At the same time, we have been able to advance all of our other 4 game projects. This is a strong indication that the long-built multi-project model is working.

There are a lot of learnings that we have gathered over the years, which have resulted in a series of improvements in the way we work. These improvements are benefiting us in our current game projects and will do even more in the coming years.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Our full focus is currently on launching Alan Wake 2 and supporting the launch with our publishing partner Epic Games to sell well. In addition, we naturally put great effort into advancing our other four game projects according to their production plans.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI in the coming years? How will AI impact competition in the industry?

We are in the process of learning what benefits AI can offer for us in the long-term. We are actively following the developments as well as testing and utilizing some of the opportunities. As any potentially big trend, there are a lot of initiatives going on. In addition, it is especially important for us working in a creative industry to acknowledge the AI related challenges and honor copyrights. It will take some time for the industry to fully understand and appreciate the full potential and the long-term impacts of AI.

4) In our report we argue that we have an oversupply of new games in the PC/Console industry. Many small and mid-budget games with new or weak IPs do not sell well and we argue that the problem is not "soft pockets" amongst consumers. Do you agree with this hypothesis? How will the industry/your company increase profits the next-coming years?

Consumers overall have more and more choices on how to use their money and time. In gaming, gamers' libraries have grown with free offers, subscription services and regular discount campaigns. At the same time, a lot of games are service-oriented, offering more for longer periods of time. The competition for consumers' attention keeps on increasing. It will most likely be harder to introduce new IPs, and many of the established IPs will likely get even more focus and keep on growing. At the same time there is still demand also for new games, but they have to be of high quality, have distinctiveness in order to stand out in the market.



Vlad Suglobov
G5 Entertainment

1) Can you tell us about the major highlights in your company during 2023?

In the third quarter of 2022 we have made a big change to our development funnel, and 2023 is the year when we are applying the new approach. The goal is not to bring everything we create to the market, but to apply staging and only allow the best games that meet certain benchmarks, to move forward. Our goal is to launch the development of 5-6 games in a year, but only release one or two, the best of what we were able to make. We have already communicated that one new game has “graduated” our new process and we will release it globally before the end of the year. Any positive financial impact will happen in 2024. Another highlight of the year 2023 is G5 Store, our own direct to consumer distribution channel with minimal processing fees (compared to 30% in large stores), which continues to grow over 100% year over year. G5 Store is already responsible for more than 8% of our net revenue.

2) What will be your 2-3 main focuses in the next-coming 12 months?

Our goal is to produce and release great games and our game ideas and games in development pipeline will be the focus point. Our new process is to test new game ideas in the market before we even begin the development, and to only work on ideas where we see the possibility of creating a game that would make a significant impact on the company's financials. It is a complex process that we are still refining. We need better and faster iterations on the development of the initial versions of our new games, this will be number two focus point. And of course our existing games and further developing the potential of G5 Store is another important focus point for us.

3) Artificial Intelligence (AI) is this year's mega trend in the investor community. How will your business benefit from AI the next-coming years? How will AI impact competition in the industry?

We have used AI for years in certain areas of our game development pipeline, for example, when making new game levels. Generative AI made it possible to more easily incorporate AI into everyday work processes of content creators. We see generative AI as an advanced tool which can save us time, money, improve efficiency in certain aspects of game development or research. Like with any powerful tools, I think it helps the industry be more efficient and creative and in the end it affects quality of the games positively and the consumer.

4) Growth in mobile games has been soft in 2022-23. What do you believe is behind this? How do you aim to improve growth in your business going forward?

Indeed, the market overall was not doing too well recently. I think it's only natural after a long term growth of the smartphone market, the increasing adoption of mobile games, all while interest rates and inflation were low. Then we had a culmination of this growth run with covid, and since that has peaked and receded, we are sort of working our way back to more normal situation. Of course the inflation and interest rates are not helping. I think the long term outlook for the market remains positive, but we will see it fall down on the base trajectory before it continues upward. Even now, if you look at the market, there are games that are growing. It is more difficult to find the games that can bring us positive dynamic, but it's not impossible, and that is why we made the change with the development funnel and are working on bringing only the best games we make to the market. Also like I said we are seeing growth in D2C channels and this has positive effect on our profitability even if our top line dynamic is not ideal. That said, once again, we are bringing a new game to the global market before the end of the year and I am quite excited about the potential of this new game.

Redeye Gaming Guide 2023

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Why invest in gaming – A summary

The gaming industry constitutes an opportunity for investors to benefit from ongoing secular growth trends. This includes globally improved living standards, demographic shifts, and emerging technologies such as AI, Blockchain, Virtual Reality, and the Metaverse.

Secular growth trends

Global living standards are steadily improving for emerging markets, resulting in a greater demand for leisure time entertainment and increased purchasing power, thus more time and money spent on gaming globally. Moreover, in Western countries, productivity continuously increases, and weekly working hours decrease.

A demographic shift

As the younger generations, who spend the most time gaming, gradually become adults and professionals, their spending power increases, and thus, sales in the gaming market will increase. Furthermore, Redeye estimates that the interest in gaming will be passed on from current generations to the next ones, making the gaming industry a sound long-term investment beyond this demographic shift in the upcoming years.

Emerging technologies:

The gaming industry is a first mover in the metaverse and at the forefront of extended reality (virtual and augmented reality), whose field of application is more comprehensive than simply gaming. Moreover, the industry quickly adapts to, embraces, and utilizes emerging technologies such as AI and blockchain. An investment in the gaming industry no longer constitutes only an investment in entertainment but technological advancements.

M&A and deal activity

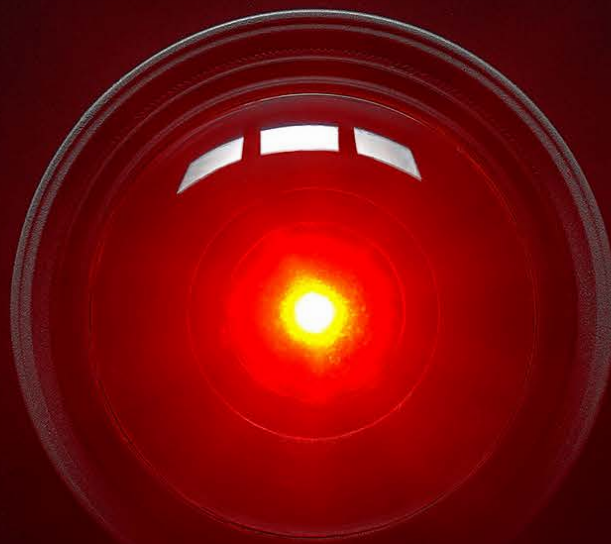
M&A and deal activity are expected to recover with public gaming companies holding USD44.7bn in cash and cash equivalents and corporations with large gaming divisions having upwards of USD200bn, there is dry powder for M&As. Coupled with an increased diversity of acquisition targets and reduced uncertainty following court rulings regarding the Microsoft acquisition of Activision Blizzard, deal activity is expected to bounce back to FY21 & FY22's levels.

A shift in revenue streams

There is an ongoing diversification regarding monetization tactics of the gaming industry as games and their ecosystems become more complex and versatile with technological advancements. More games see revenue streams stemming from transactions between users. At the same time, in-game ads are becoming more popular and a viable option for premium games. Moreover, Cloud gaming and games as a streaming service is growing. A shift in revenue streams will likely lead to changes in sales for different companies, creating opportunities for investors.

Industry description

The gaming industry consists of several different game genres for all kinds of players. We describe the various categories and provide game examples. We also look closer at the industry value chain and the impact of digitalization.



Console & PC genres

Shooter/FPS

In the shooter genre, we can find many popular subgenres which often test the player's reflexes, speed, and accuracy. First Person Shooters (FPS) is the most popular subgenre. These games are popular on all platforms.

Examples: Call of Duty, Battlefield, Halo, and Counter Strike: Global Offensive.



Action/Adventure

Played in the third person. The games are story-driven with a focus on action and collecting inventories. Often has higher degrees of problem-solving and puzzle elements. While this genre is liked on all platforms, they are arguably more prevalent on PC & Console since they provide a better in-game experience worthy of the story.

Examples: Zelda, Tomb Raider, and God of War.



RPG (Role Playing Game)

Played with customizable characters with items that evolve as the game progresses. Most games today are Action RPGs. This genre is widespread on all platforms.

Examples: The Witcher, Final Fantasy, Skyrim, and Mass Effect.



MMORPG (Massive Multiplayer Online RPG)

Thousands of individuals play online simultaneously. The game environment is constantly active. Paid accounts and in-game purchasing. Available and popular on all platforms.

Examples: World of Warcraft, EVE, The Elder Scrolls Online, and New World.



Strategy

Strategy games have logical and tactical gameplay, mostly played on PC or Mobile, in real-time or turn-based. MOBA (Multi-player Online Battle Arena) is a subgenre especially popular in Asia.

Examples: Clash of Clans, League of Legends, DOTA, Starcraft, Crusader Kings III Honor of Kings.



Simulation

Designed to simulate real-world activities closely. Usually no strictly defined goals in the game.

Examples: Cities: Skylines, Sims, FIFA, NBA2K, and Farming Simulator.



Puzzle

Objective to solve or survive the puzzle. The player's intelligence is primary and controller skills are secondary. Tetris invented the sub-genre Match 3 Puzzle, and Candy Crush made it highly commercial on Mobile.

Examples: Tetris, Candy Crush Saga, Viewfinder, and Unravel.



Mobile genres

Casino

Simulated poker, roulette, and slots. The objective is to win either in-game currency or real money. Popular on PC and Mobile.

Examples: Bingo Blitz, Jackpot Party, Slotomania



Arcade

Games with aesthetics and gameplay similar to traditional arcade games. The objective is usually to reach a new high score or milestones. More prevalent on Mobile than on consoles or PC.

Examples: Horizon Chase, Fruit Ninja, Crossy Road, Hill Climb Racing.



Tabletop

Board game adaptations. Most popular on Mobile.

Examples: Monopoly, Chess and Wordfued.



Casual

A very popular category for mobile gaming. Often a simple puzzle or match game. Easy-to-play and low barrier to entry for new players.

Example: Candy Crush Saga.



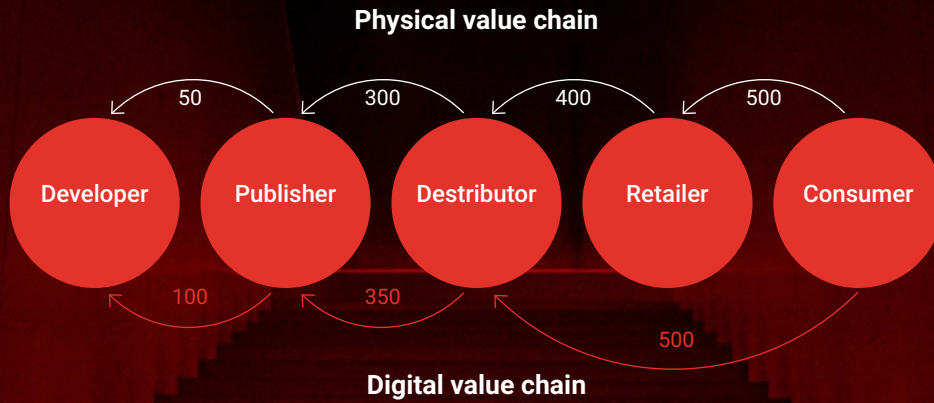
Hyper Casual

In terms of downloads, the biggest genre on Mobile. Even more lightweight than casual games, hyper casuals are almost entirely F2P, with easy mechanics and minimalistic API. The objective is often to reach new high scores, and the gameplay is often to avoid obstacles with an avatar. Almost mobile-exclusive.

Examples: Helix Jump, Temple run, Tall Man Run.



Industry value chain



Simplified, the value chain within the Gaming industry consists of the following players:
Developer, Publisher, Distributor, Retailer and Consumer

Developers

Developers can be divided into three different categories. A first-party developer is part of a platform owner, such as Sony and Microsoft, and develops games exclusively for this platform.

Second-party developers are game developers connected to a platform owner in making exclusive content. Unlike a first-party developer, they can be an independently owned studio. Most of these developers have been acquired by the sole platform owner in the last ten years or decided to become independent (third-party).

Third-party developers are platform-independent developers and often also a publisher as well. EA, Ubisoft, and Remedy are examples of third-party developers.

Publishers

A game publisher publishes games that they have either developed internally or have developed through a video game developer. Usually, the publisher provides financing for the games' development while also being responsible for the market research, pricing of the game, and all aspects of marketing and advertising.

Distributors

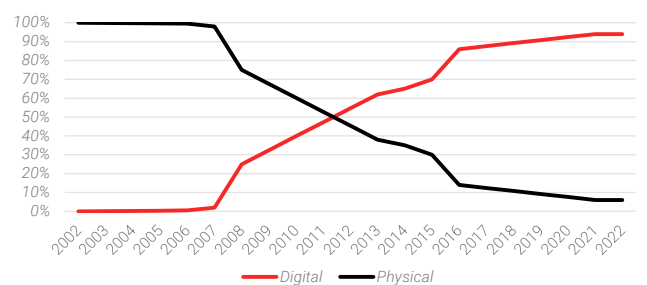
Distributors are usually game vendors, supermarkets, and internet providers. Distribution via digital channels is becoming more common as gamers prefer digitally distributed games. All the console manufacturers have their own digital platforms.

From Store Shelves to Online Sales

There has been a dramatic change from physical distribution to digital distribution.

The change meant higher revenues for publishers and, in some cases, developers. Distributors such as Sony and Microsoft, through PlayStation Store and Xbox Games Store, minimize risk and maximize profits due to digital distribution.

Physical and digital share of gaming consumer spend



Source: Game Developer/Omdia (underlying data), Redeye research (chart structuring)

Platform Monopolies and Multi-platform Realities

As the distribution shifted from physical to digital, the digital distributors, who also owned the platform, monopolized the distribution on their respective platforms. IOS is a closed platform; all apps on Apple's mobile devices are downloaded via App Store. Similarly, digitally bought games on PlayStation come from PlayStation Store, on Xbox via Xbox Games Store, and for Nintendo's platforms from Nintendo eShop. The platforms are not closed on Android and PC, although Google Play and Steam got a virtual monopoly for their respective device. Here, Steam, and arguably Google, are the only distributor that does not own the device it operates on.

The market position of these distributors on their devices enabled them to charge a hefty fee for the sales made on their platform, for some as much as 30%, as publishers had nowhere else to do business. However, as the regulatory envi-

ronment grows stricter about monopolies in tech and more developers make their games multi-platform compatible, things might have to change. Difficulties and twists regarding who, if anyone, should be allowed to take a fee of sales from a game arise with multi-platform games as the complexity grows.

For example, should Apple be allowed to take a 30% fee from Fortnite's in-game sales on iOS, and Sony another percentage if the sale is made on PlayStation, or should Epic be allowed to bypass respective devices' payment system for in-game transactions and thus avoiding any fee. This twist is the basis for the Epic Games v. Apple lawsuit. Either way the distributors are losing due to the growing popularity of multi-platform. In essence, if the publishers use the payment systems of distributors, they can favor sales on the platform with the lowest fee through campaigns, forcing distributors to compete through pricing towards publishers, if they want any sales on their platform.

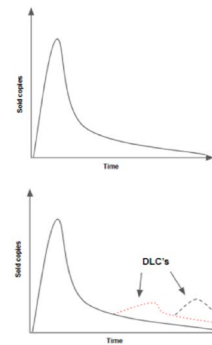
Revenue models & Game Monetization

Traditional

A complete game model where the customer pays for the whole game up front. About 60% of the lifetime value often comes during the first month's post-release.

Extra Content

DLC (downloadable content). DLCs consist of an extended storyline, new game areas, or objects which are distributed digitally by the game's official publisher.



Freemium & Season passes

A model which has recently taken a strong position in the PC/Console industry with titles like Fortnite, PUBG, and Apex Legends. Freemium means that the game itself is free to download. However, certain items such as rewards, parts of the game, or achievable skins for characters are behind a paywall. Often, what is included in a season pass is for sale through multiple micro-transactions. However, the season pass bundle is at a volume discount in comparison, prompting the player to buy the whole bundle.



Microtransactions & loot boxes

A business model where the player can purchase specific game contents, such as cosmetics, in-game currency, or items for an enhanced gaming experience. Some games let the player know what they are paying for, while others require players to buy loot boxes with unknown content. Games that rely heavily on loot box systems to unlock the entire gaming experience are called Gacha games. The Microtransaction revenue model is widely used for PC, Console, and mobile.



Subscription-based

Subscription-based games-as-a-service is a relatively new trend. EA, Sony, and Microsoft have launched new subscription-based services, where a select portfolio of games is included as a subscription. A recurring fee could also be a more common revenue model for mobile games in the future. In 2018, Microsoft's two biggest exclusive titles were released on "Xbox Game Pass" on the first day, a "game-changer" for the entire industry. However, pay-to-play games are not new, with MMORPG IPs such as World of Warcraft having utilized this revenue model for a long time.



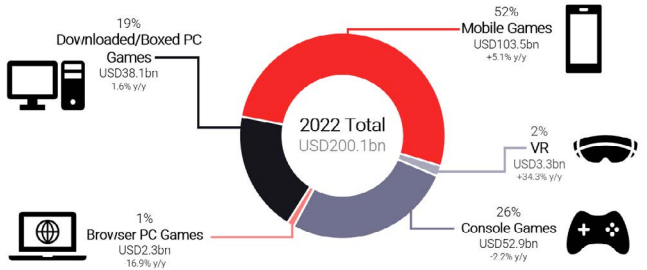
Advertising

Often free-to-play games generate revenue streams from in-game ads that the player must watch to continue playing. The player is usually offered an opportunity to remove ads with in-game purchases. Advertisement is a prevalent revenue model for mobile games, but not as much for PC and Console.

The Market

The gaming market had an annual sale of USD200bn in 2022, constituting a 2.5% YoY growth. The number itself though, due to the size and complexity of the market, says little about the developments in the industry. Luckily, the market is divided into the major platforms used to play on, and in doing so, we get a far more descriptive picture of the state of the market.

Revenue split between market segments



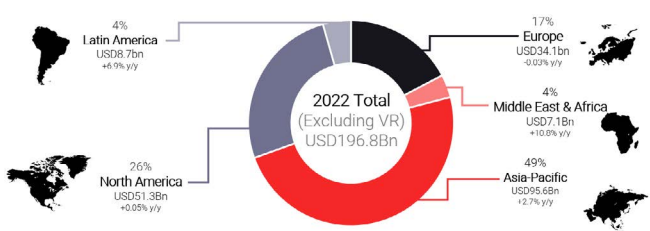
Source: Newzoo, PWC (underlying data), Redeye research (chart structuring)

Mobile games are the largest market segment by platform, with roughly 52% of the total video game revenue coming from smartphone games. We can also see relatively high growth in the mobile segment, amounting to +5.1% y/y outgrowing the overall market. Further, we see a hefty growth in the VR market, totaling a +34.3% y/y growth. We estimate a decrease in growth rate as the VR market reaches maturity in the coming years. The past year was harsh for the Browser PC games as gamers moved to mobile for the casual gaming experience.

Revenue by region

Dividing the industry by region, North America represents 26% of global sales and Asia-Pacific roughly 49%. Together the two stands for three-fourths of the gaming market, making it very reliant on trends in these regions. We see the highest growth in the emerging markets as living standards increase in these regions.

Revenue split by region

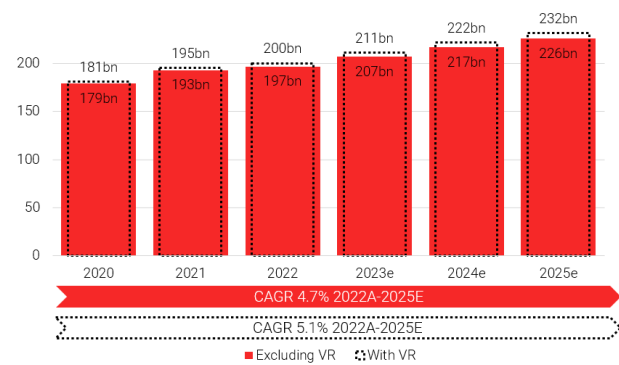


Source: Newzoo (underlying data), Redeye research (chart structuring)

Global gaming market growth

The global gaming market is growing, and revenue of USD232bn by 2025e is expected, constituting a 5.1% CAGR for the next three years, making it a reasonably fast-growing market in the upcoming years. The growth is expected to be primarily driven by gamers coming of age with an increased spending power, a fast-growing and developing VR market seeing higher sales as the headset becomes more affordable, and higher revenues from ads and casual games.

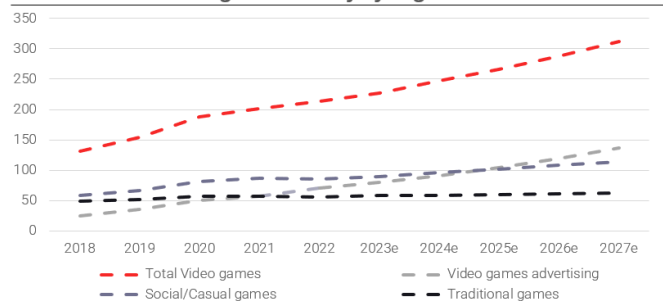
Global Gaming market in USD



Source: Redeye research (chart structuring), Newzoo, PWC (underlying data)

Forecasted further, until 2027, PWC estimates sales of USD312bn, indicating a 7.9% CAGR using their valuation of the market for 2022.

Growth of the video game industry by segments

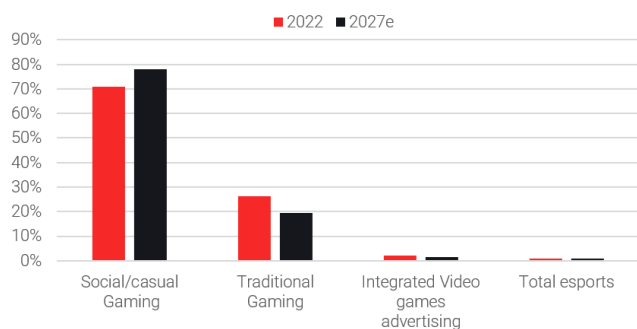


Source: PWC (underlying data), Redeye research (chart structuring)

Revenue split

The revenue from the gaming market, however, is more than just pure traditional game purchasing but also from advertising and streaming gaming-related content. By 2027e, a shift in revenue split is estimated: with casual gaming increasing its share of the revenue from 71.1% to a 78.0% share of the total revenue and a decrease in the traditional gaming market's (e.g., core PC & Console gaming) share of total revenue, from 26.2% 2022 to 19.6%.

Gaming industry revenue split

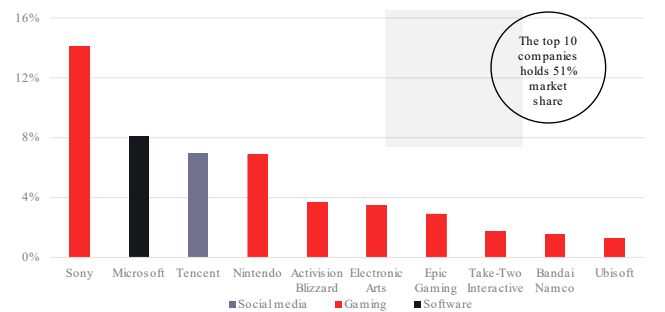


Source: PWC (underlying data), Redeye research (chart structuring)

Markets movers

The Video Game industry is moderately fragmented, with no player holding more than 15% alone and the ten most prominent players having scarcely 50% of the market. Sony is the market leader with a 13% penetration rate, outsizeing Microsoft's 8% market share, closely followed by Tencent and Nintendo. As seen by the graph's coloring, there are a few companies whose primary industry is not gaming, such as Microsoft and Tencent. Strategic business units whose corporate parent's primary industry is in a different industry arguably have other competitive conditions, such as solid financing when the gaming industry hits a rough patch. However, they are also at the risk of being deprioritized to focus on the corporate's primary industry.

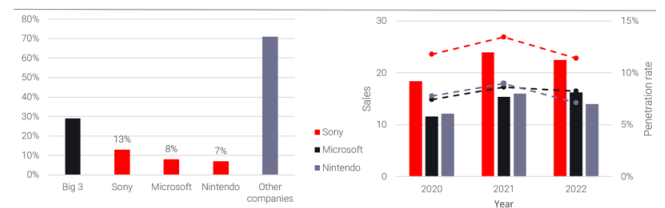
Companies with the largest gaming divisions and their main industry



Source: Alltopeverything (underlying data), Redeye research (chart structuring)

The Big Players

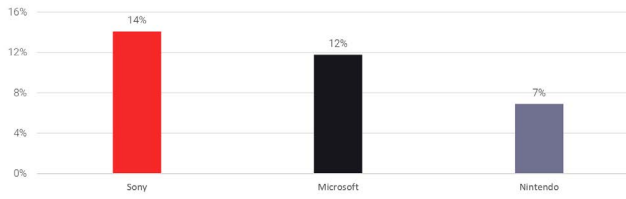
Looking at the video game market over time, you will notice "the big three," consisting of Sony, Microsoft, and Nintendo, who have held a large proportion of the market share for a long time due to their diverse gaming market presence.



Source: Public Reporting, Newzoo (underlying data), Redeye research (chart structuring)

Would Microsoft's acquisition of Activision Blizzard go through, there would be a notable power restructuring were Microsoft would be able to compete with Sony in exclusive games and the following console sales. Nintendo's strength lies in its exclusive titles and popular franchises, presenting a distinct value proposition that differentiates it from Microsoft and Sony. Consequently, Nintendo might not encounter an equivalent level of effect as they would have if their flagship game were not exclusives.

Penetration rate of gaming industry if Microsoft's acquisition of Activision goes through

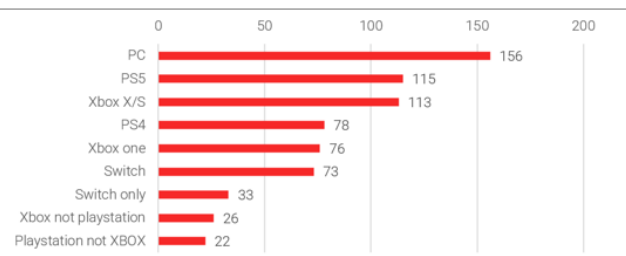


Source: Public Reports, Alltopeverything (underlying data), Redeye research (chart structuring)

Platform releases

Anticipating the forthcoming release of significant video game titles, PC stands as the primary platform with a substantial count of 156 games slated for launch between the span of 2022 and 2024. Subsequently, the Microsoft Xbox X/S series closely trails the Sony PS5, whereas the PS4 platform ranks above Xbox One. Leading the roster of platform-exclusive games on the console front is Nintendo's Switch platform.

Number of major games released 2022-2024 by platform

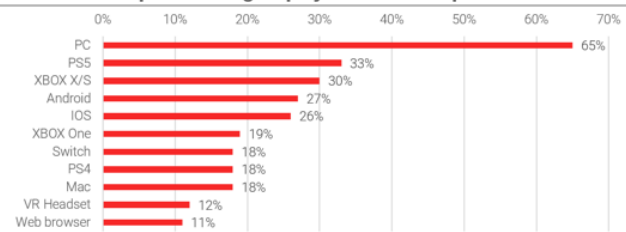


Source: DFC Intelligence (underlying data), Redeye research (chart structuring)

Developer selected platforms

Closely related to game releases by platform is the distribution of game developers currently working on games for selected platforms. Here we see that Android and IOS take some of the top spots and that 12% of developers are developing a VR-applicable game. PC stays on top.

Share of developers working on projects for select platforms

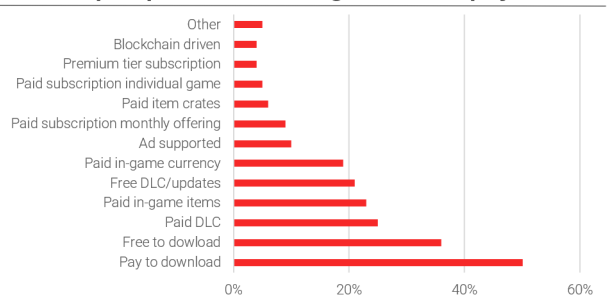


Source: Game Developer Conference (underlying data), Redeye research (chart structuring)

Monetizing plans

The monetization approach adopted by a game or game development studio holds considerable influence over the achievement of the game, the studio's prosperity, and the efficacy of investments. For 2023, developers outline their strategies for monetizing their games, frequently embracing a combination of revenue models. For instance, Sims 4, employs a free-to-download framework coupled with paid downloadable content (DLCs) to generate revenue. Conversely, titles like World of Warcraft employ a pay-to-download framework harmonized with subscription services. It is noteworthy that the traditional gaming business model with pay-to-download remains the most popular approach.

Game developers' plans for monetizing their current project

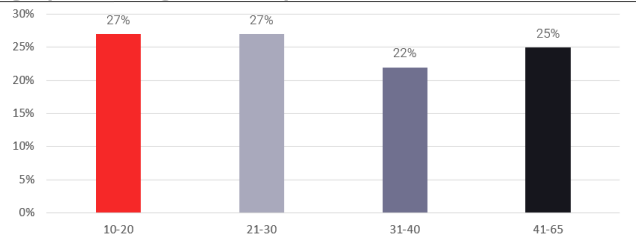


Source: Game Developer Conference (underlying data), Redeye research (chart structuring)

Gaming market demographics

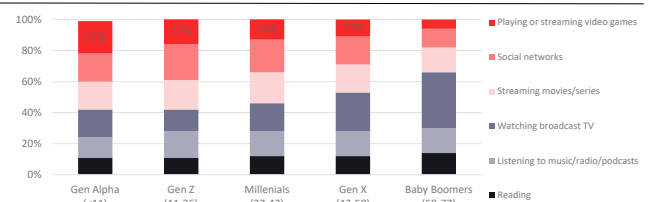
Moving on to the market demographics, there is opportunity for growth as there will be a demographic shift. If we look at the age split between gamers worldwide, we see that people under 30 make up 52% of the gaming market in terms of gamers. Moreover, the younger generations, Gen Alpha & Z, spend the most time gaming, suggesting that the gaming industry will grow alongside their spending power.

Age split between gamers on all platforms



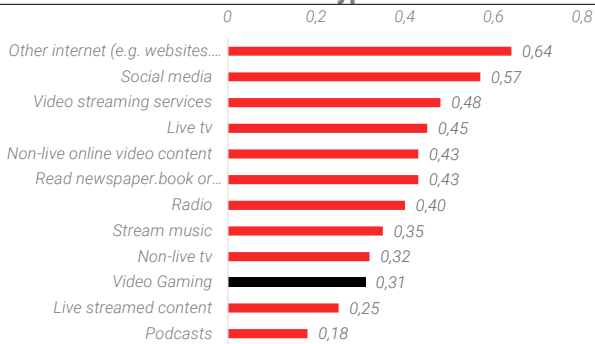
Source: Newzoo (underlying data), Redeye research (chart structuring)

Share of leisure time spent per entertainment platform



Source: Yougov (underlying data), Redeye research (chart structuring)

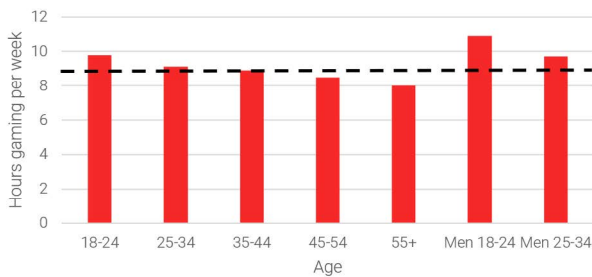
Media activities undertaken in a typical week



Source: Yougov (underlying data), Redeye research (chart structuring)

Only 14% globally are saying that gaming is one of the three media activities they spend the most time on. Nor does the gaming industry impress in how many unique people play video games. We can however see that certain groups, such as men aged between 18-24, spend the most time out of all media activities gaming.

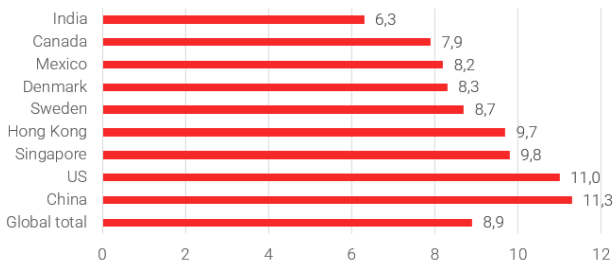
Average global weekly gaming time by demographics



Source: Yougov (underlying data), Redeye research (chart structuring)

Moreover, the global average of gaming time per week amounts to roughly 9 hours, with people between 18-24 gaming approximately 10 hours and men of that age game about 11 hours weekly.

Average weekly gaming time per country



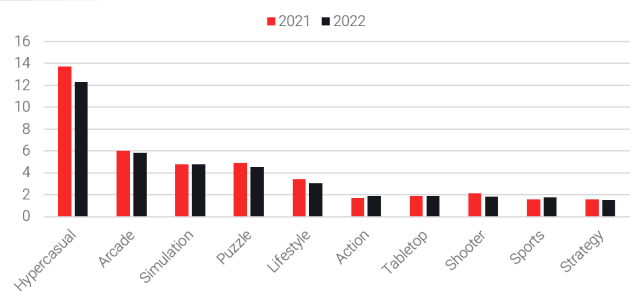
Source: Yougov (underlying data), Redeye research (chart structuring)

Dividing time spent gaming per region, Asian countries are commonly at the top, with China, Singapore, Hong Kong, and the US beating the average.

Mobile games

Mobile is by far the largest platform in the gaming industry, with 52% of the total gaming revenue. A divider between mobile games and console/PC is that for mobile the transaction sizes are usually much smaller and a considerable portion of the total revenue stems from ads. Comparing downloads for 2022 with 2021a, we see the Hypercasual genre dropping 10%, yet still being the most popular genre. A hypercasual is an easy-to-play and often free-to-play (F2P) game with a minimalistic user interface.

Global downloads in billions per genre and year

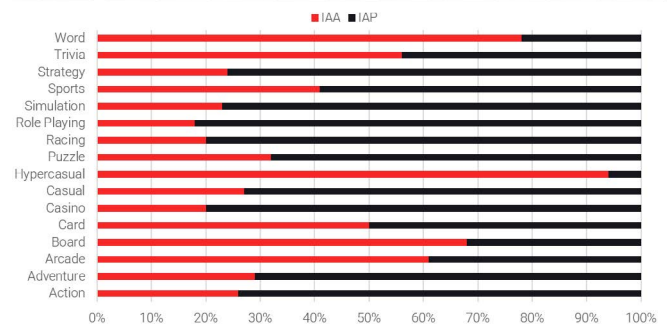


Source: Sensortower (underlying data), Redeye research (chart structuring)

IAP or IAA?

Over the past year, there has been a subtle adjustment in the average monetization approach across various genres. In the mobile games segment, it is appropriate to divide the revenue between if it was generated by in-app ads (IAA) or if it was generated by in-app purchases (IAP). Concluding the past year, the average revenue generation per genre was as follows:

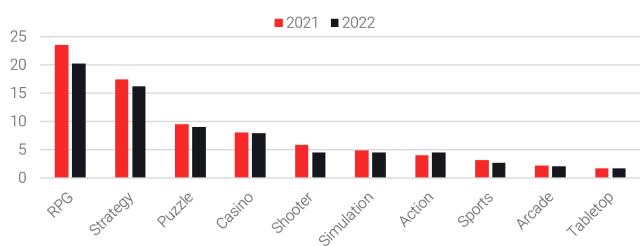
IAA & IAP split per genre (Mobile)



Source: Unity (underlying data), Redeye research (chart structuring)

After alterations in revenue streams and download patterns across distinct genres, the aggregate revenue transformation within various categories predominantly exhibited negative trends. The shooter genre experienced the most significant relative drop of -22% and the RPG genre the largest absolute reduction of USD3.3bn. The action and tabletop genres were the sole categories to witness positive advancements.

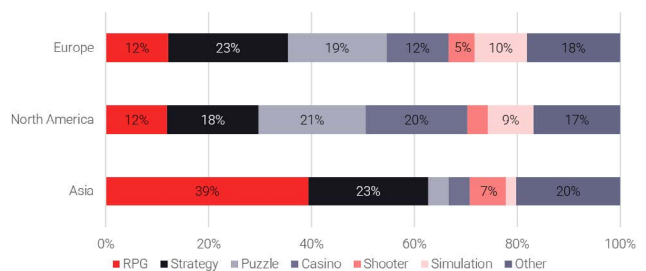
Global revenue split by genre (USDbn)



Source: Sensortower (underlying data), Redeye research (chart structuring)

In the Asian market, RPGs have substantial prominence, accounting for approximately 39% of total genre revenues. In Europe and North America revenue distribution among genres is more diversified. Notably, no single genre commands a revenue share exceeding 25%. This disparity underscores the varying regional preferences and consumption patterns.

Share of revenue by genre and region



Source: Sensortower (underlying data), Redeye research (chart structuring)

Biggest games on mobile

Focusing on how the most successful games, in terms of revenue generated, does it, we'll see certain common denominators. For example, all top 10 games have Live-Ops, meaning that they are regularly updated with new gameplay and improvements, free of charge, to retain users and keep the game exciting. Secondly, another common denominator is that many of the games have starter packs, meaning that they convert the players to payers in an early stage, as a payer often is more willing to invest furtherly than a non-payer.

Game	Game class	Live-Ops	Gacha/loot boxes	Season Pass	Subscription	Starter pack
Honor of kings	Mid-core	✓	✗	✓	✓	✓
PUBG Mobile	Mid-core	✓	✗	✓	✓	✓
Genshin Impact	Mid-core	✓	✓	✓	✓	✓
Candy Crush saga	Casual	✓	✗	✓	✗	✓
Roblox	Casual	✓	✗	✗	✓	✓
Coin Master	Casino	✓	✗	✗	✗	✓
Pokémon go	Casual	✓	✗	✗	✗	✓
Three Kingdoms tactics	Mid-core	✓	✓	✗	✗	✓
Uma Musume Pretty Derby	Mid-core	✓	✓	✗	✓	✗
Fate/Grand Order	Mid-core	✓	✓	✗	✗	✗

Source: Sensortower (underlying data), Redeye research (chart structuring)

Powered by AI

We can see how AI is used through the mobile gaming value chain, from the inception of game mechanics ideas to post-development user acquisition optimization. An example can be found in the practices of TapNation, a prominent mobile developer, which uses AI across various stages of game development. For instance, AI is used to identify popular game mechanics and ensures a balance between making the game challenging yet not overly frustrating for players. Furthermore, it contributes to creating engaging reward systems that captivate players' interest. Beyond these technical aspects, AI also lends its creative touch to character design, making them more relatable and appealing to players.








AI is also used in the coding and review processes to streamline game development and make it more effective. Moreover, AI continues to be a valuable asset in post-game development. Several publishers have embraced AI to optimize their monetization strategies, leveraging it for the strategic placement of ads that are more engaging and relevant to individual players. This includes determining the frequency at which ads should appear for different players and tailoring in-app purchases to suit the preferences of diverse player profiles

King has been at the forefront of leveraging AI for gameplay optimization over the past several years. This includes activities like testing and fine-tuning game levels, ensuring that each level strikes the right balance of difficulty. As the company looks to the future, it sees AI as a key driver for increased productivity and even greater personalization in gameplay experiences. Hence, AI is expected to enhance game mechanics and improve player retention, offering a promising path forward for developers in the evolving landscape of mobile gaming.

Unity Runtime Fee

Unity, a multiplatform game engine developed by Unity Technologies, is primarily recognized among game developers for its prominent role in the creation of indie and mobile games. It stands as one of the largest game engines globally, currently holding a substantial 29.4% market share. Unity Technologies themselves assert that over 70% of all mobile games owe their existence to Unity's game engine, making them the largest game engine used by mobile game developers.

Mobile games made with Unity game engine

Game	Lifetime downloads	Release year
	4bn	2012
	1bn	2016
	650m	2019
	1bn	2017
	-	2014
	500m*	2018
	139m	2014

*Includes both PC, console and mobile

In September 2023, Unity Technologies announced a significant change in their pricing model, which has caused concern among mobile game developers. The previous revenue model was based on a standard subscription system where developers paid for access to the engine. The new model retains elements of the old one but introduces an additional cost component known as the "Unity Runtime Fee."

The Unity Runtime Fee operates by implementing two initial thresholds:

Unity runtime fee thresholds

	Unity Personal and Unity Plus	Unity Pro	Unity Enterprise
Revenue Threshold (last 12 months)	USD200.000	USD1m	USD1m
Install Threshold (lifetime)	200.000	1m	1m

Source: Unity (underlying data), Redeye research (table structuring)

cess of monitoring downloads. Subsequently, a fee ranging from USD 0.01 to USD 0.20 per download per month will be levied, depending on the specific subscription and download activity.

It's important to note that this fee is scheduled to become effective on January 1, 2024. From that date, the fee will apply on all downloads, including for games that were released previously.

Unity runtime fee rates

New installs per month	Unity Personal and Unity Plus	Unity Pro	Unity Enterprise
		Standard rate (When thresholds are met)	
1-100.000	USD0.2 per install	USD0.15 per install	USD0.125 per install
100.001-500.000		USD0.075 per install	USD0.06 per install
500.001-1.000.000		USD0.03 per install	USD0.02 per install
1.000.001+		USD0.02 per install	USD0.01 per install

Source: Unity (underlying data), Redeye research (table structuring)

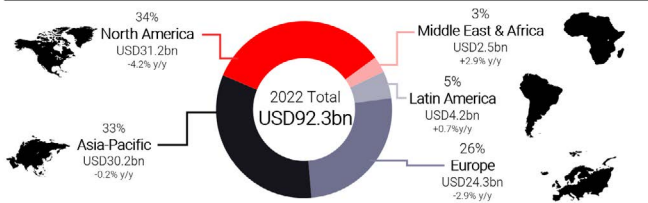
The introduction of the runtime fee has elicited a strong negative response from developers utilizing the Unity game engine. Currently, there are indications that adjustments may be made to the fee's overall structure. Unity has stated that "90 percent of customers will not be impacted by the Unity Runtime Fee." However, we anticipate that the runtime fee could serve as a deterrent for developers, potentially prompting them to explore alternative game engines such as Unreal Engine, owned by Epic Games, or Godot Engine. Games that are already popular and developed using Unity may have a portion of their earnings taken away if they meet the thresholds.

PC & Console

The PC and Console segment constitutes a substantial 26% of the total gaming industry. North America and Europe hold shares of 34% and 26%, respectively. Concurrently, the Asia-Pacific market assumes a comparatively diminished position, accounting for 33% in of the total PC and console market, whereas its presence in the general market amounts to a higher 49%.

This phenomenon can be attributed to a coherent rationale. Specifically, the possession of a gaming console, unlike mobile gaming, is regarded as a luxury, thereby favouring regions with a comparatively higher capacity for discretionary spendings—such as Western countries. Moreover, the Asian market’s holds a preference towards PC gaming rather than consoles, primarily due to historical factors, such as consoles’ limited availability for resale in the past, particularly in the context of China.

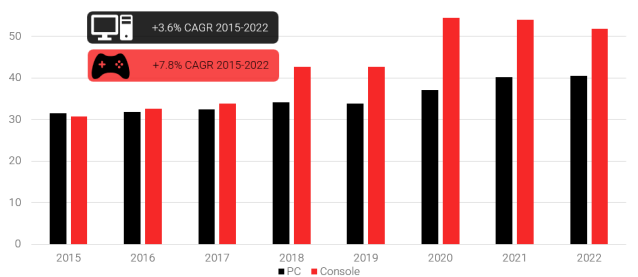
PC & Console revenue split per region



Source: Redeye research (chart structuring), Newzoo (underlying data)

As seen in the PC & Console sales graph from 2015-2022, the console market has significantly outgrown the PC market with a scarcely twice as high growth rate in the last seven years. The sudden acceleration in growth between 2019 and 2020 is a consequence of the pandemic as people had to find leisure activities at home.

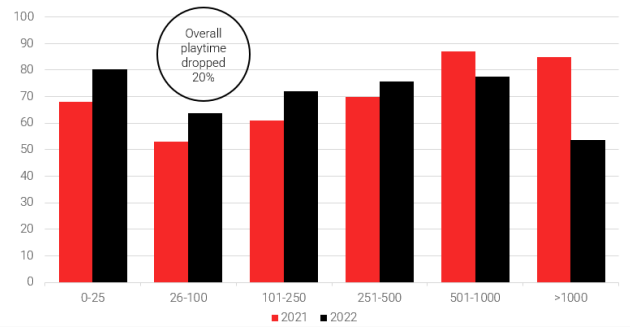
Total sales development for PC & Console (USDbn)



Source: Redeye research (chart structuring), Newzoo (underlying data)

As the restrictions eased, more people found leisure time outside gaming and their home. From 2021 to 2022, we can see a shift in the playtime graph, with gamers moving to the left as temporary hardcore gamers return to being mainstream ones. Thus, we do not consider this decrease in overall playtime worrying, but rather that the industry is returning to pre-pandemic levels.

Average hours of gaming



Source: Redeye research (chart structuring), Newzoo (underlying data)

Examining the Monthly Active Users (MAU) for both PC and various consoles, it is noticeable that Switch platform features numerous Nintendo-exclusive titles, such as Pokémon and Mario Kart, while there are more shared elements seen among the leading games on other platforms. Additionally, a noteworthy aspect is the prevalence of top-ranking games released before 2022 and embracing the Free-to-Play (F2P) model.

Top 10 MAU on PC and Console

	PC	Xbox	PlayStation	Nintendo Switch
1	ROBLOX	Fortnite	Fortnite	Pokémon Scarlet/Violet
2	Call of Duty Modern Warfare II/Warzone 2.0	Call of Duty Modern Warfare II/Warzone 2.0	Call of Duty Modern Warfare II/Warzone 2.0	Fortnite
3	Fortnite	Grand Thet Auto V	Grand Thet Auto V	Fall Guys
4	Minecraft	Minecraft	Call of Duty Modern Warfare/Warzone	Mario Kart 8
5	Apex Legends	Call of Duty Modern Warfare/Warzone	Apex Legends	Minecraft
6	Call of Duty Modern Warfare/Warzone	High on Life	NBA 2K23	Pokémon Legends: Arceus
7	The Sims 4	ROBLOX	NBA 2K22	Rocket League
8	Overwatch 1 & 2	Apex Legends	God of War: Ragnarrok	Animal Crossing: New Horizons
9	Valorant	Fall Guys	Minecraft	Nintendo Switch Sports
10	Counter-Strike: Global Offensive	NBA 2K22	Call of Duty: Black Ops Cold war	Splatoon 3

Source: Newzoo (underlying data), Redeye research (table structuring)

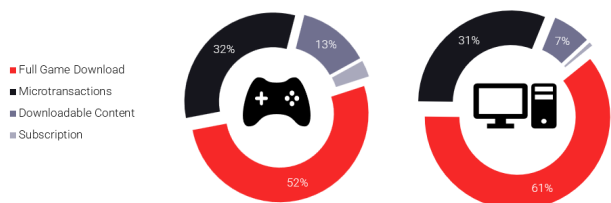
As older games see longer lifespans and maintain popularity due to live services to games, new projects have a more challenging time competing, as seen in the chart. To deliver live service to a game, large teams, funding, and a continuous focus are required, making it near impossible for smaller studios to compete in popularity for the PC & Console market. And, harder for large studios to deliver multiple competitive games.

Game	Release Date	Business model
ROBLOX	2006	F2P
Call of Duty Modern Warfare II/Warzone 2.0	2022	Premium/F2p
Fortnite	2017	F2P
Minecraft	2011	Premium
Apex Legends	2019	F2P
Call of Duty Modern Warfare/Warzone	2019	Premium/F2p
The Sims 4	2014	F2P
Overwatch 1 & 2	2016	F2P
Valorant	2020	F2P
Counter-Strike: Global Offensive	2012	F2P
Grand Thet Auto V	2013	Premium
High on Life	2022	Premium
Fall Guys	2020	F2P
NBA 2K22	2021	Premium
Nba 2K23	2022	Premium
God of War: Ragnarrok	2022	Premium
Call of Duty: Black Ops Cold war	2020	Premium
Pokémon Scarlet/Violet	2022	Premium
Mario Kart 8	2014	Premium
Pokémon Legends: Arceus	2022	Premium
Rocket League	2015	F2P
Animal Crossing: New Horizons	2020	Premium
Nintendo Switch Sports	2022	Premium
Splatoon 3	2022	Premium

Source: Newzoo (underlying data), Redeye research (table structuring)

Revenue split by is majority held by microtransactions and gull game download which can be explained by that AAA game titles often uses full game download as their primary source of revenue whilst F2P uses microtransactions. Whilst microtransactions have become more prevalent in combination with full game download it is often frowned upon by gamers.

Revenue split by category for each platform (US)



Source: Redeye reserach (chart structuring), Newzoo (underlying data)

Per Newzoo, three of the top 20 games by average MAU in PC and console adopted a free-to-play business model during 2022. Moving from premium to F2P works as a revitalization of the game. On average, the tactic resulted in a 327% increase in MAU in the first month. Additionally, only 40% of those players were new ones, meaning that it attracted new players and brought old players back. The top games that went F2P in 2022 were Overwatch 2, which relaunched the Overwatch franchise, Fall Guys, and The Sims 4, which made the base game F2P but kept the DLCs on a premium- model.

Ads a viable monetization strategy for AAA games?

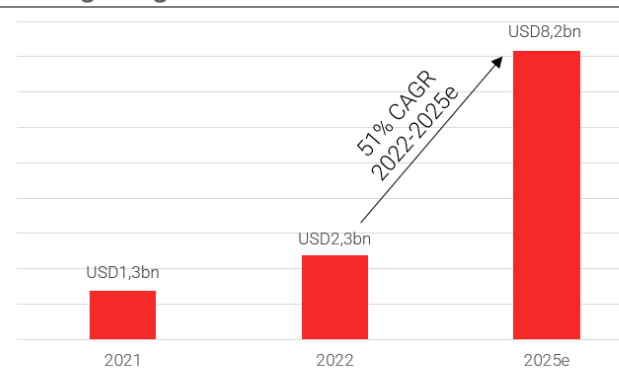
As F2P titles become increasingly popular, taking a larger and larger share of the playtime, monetization per player might become an issue. Only 54% of PC and 50% of console players are payers. In an attempt to monetize the non-payers, advertising might be a viable approach and thus bypass their refusal to pay. Additionally, it would stabilize revenue streams since in-game sales diminish during economic uncertainty. Since the popularity of the F2P games showcases that the business model is a pillar of modern gaming and here to stay, monetization strategies must adapt, which it has done for mobile gaming. For AAA games, however, gamers will likely be less enthusiastic about implementing ads as it might ruin the immersive experience of AAA games. Newzoo gives three viable options for retaining the experience of AAA games yet introducing advertisements:

- Blended ads that are smoothly integrated into the gaming experience. For example, if the environment in the game is a city, billboards can show real ads instead of in-game ones. Another alternative is that in-game items or events are named after or presented by companies.
- Rewarded ads, such as those often used in mobile gaming.
- Subscriptions tiers where a subscription can remove ads.

Cloud gaming a force to be reckoned with

Another growing revenue source is cloud gaming, which means that the game is played on remote, more powerful, servers and computers and then streamed to your computer. Likewise, your input is streamed to that server and processed there. Ultimately, this has a couple of benefits for the gamer: Firstly, there is no need to download games and take up memory in the computer. Secondly, you can bypass the hardware requirements to play certain games on your computer, meaning that mainstream gamers can get a more immersive experience without buying better and expensive hardware. Thirdly, since all your progress is in the cloud it is transferable between all devices and accessible anywhere with an internet connection. Cloud gaming is expected to be one of the fastest growing segments of the gaming industry the upcoming years, with an expected CAGR of 51% between 2022 and -2025e.

Cloud gaming revenue forecast



Source: Newzoo (underlying data), Redeye Research (chart structuring)

There are several value offerings within the cloud gaming market that are still in their early stages. These are often incorporated into the subscription programs, such as Xbox Cloud Gaming, which still is in their Beta phase, and PlayStation cloud gaming, which is incorporated in PlayStation's most expensive subscription tier, PlayStation Plus Premium. Subscription-based is somewhat of a new business model within the gaming industry and is best described as "Netflix for games" where gamers pay for subscription and in return gets a full library of games to play. However, there are some differences. For example, Xbox game pass ultimate, Microsoft's premium service for USD17 per month, is available for mobile, PC, Xbox, and some Samsung TVs, while PlayStation Plus Premium, Sony's most exclusive service for USD18 per month, is available on PC and PlayStation. Additionally, only some Xbox Game Pass games are cross-platform compatible, with a lot of titles available only on a single platform.

NVIDIA also employs a subscription-based approach for its cloud gaming services, leveraging the strength of its robust computer and server infrastructure. This setup allows gamers to seamlessly stream their personal game libraries from platforms like Epic Games and Steam. The GeForce Now subscriptions are tiered, with higher-priced options granting access to superior features such as increased resolutions, smoother frame rates, and extended gaming sessions.

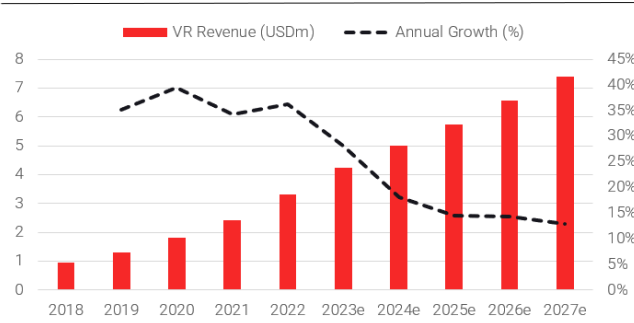


Metaverse - An immersive gaming experience

VR & XR market

The VR industry is in an early stage of its lifecycle, characterized by high growth and uncertainty. The graph shows that the last couple of years' growth rate has been around 30%-40% annually, heavily outgrowing the underlying market. By 2027e, the sales are estimated to reach USD7.4bn, constituting a 17.5% CAGR from 2022's sales of USD3.31bn—undoubtedly making it a fast-growing market.

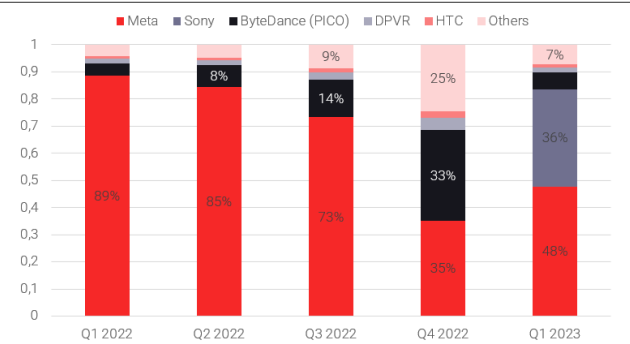
Global VR revenue development & growth rate



Source: PWC (Underlying data), Redeye research (chart structuring)

Well-positioned to seize the opportunities in this rapidly expanding market is Meta, which has long dominated the VR market. However, competition has emerged in the form of Sony, who has garnered favorable reviews for their PSVR2. It's worth noting that the VR market is highly concentrated, with the top five players controlling 93% of the market.

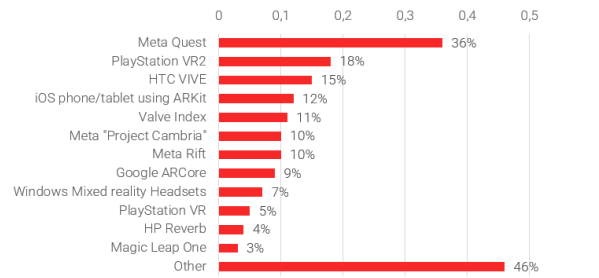
VR headset share of sales for quarter



Source: IDC (underlying data), Redeye research (chart structuring)

The share of developers currently working on projects compatible with Meta's Different VR headsets further cements the company as the leading player. Despite losing market share to PSVR2 in Q1 2023, Meta's Quest is doubling the share of developers currently working on games for it.

Share of developers working on projects by XR platforms

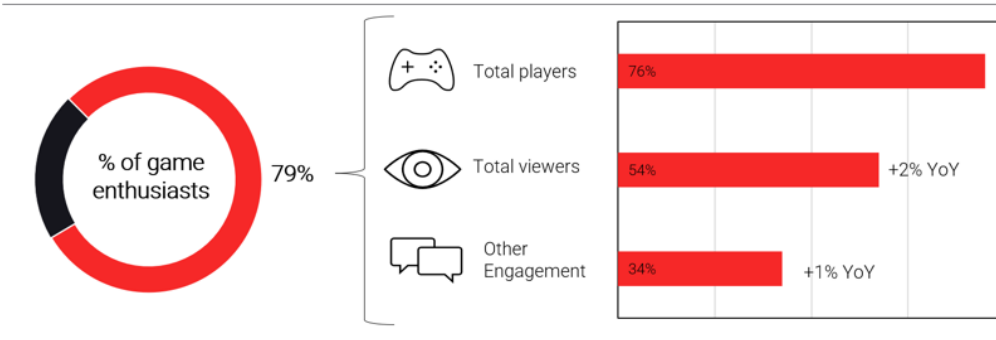


Redeye research (chart Structuring), Game Developer Conference (underlying data)

Gamer connectivity and interaction

According to Mark Zuckerberg, the metaverse is a virtual environment where players can meet people in digital spaces. There are multiple possibilities to access the metaverse, from apps on phones and PCs to immersive virtual and augmented reality devices. The defining quality for the metaverse is 'presence'—the feeling that you are there — the live interaction between players and the captivating and holistic experience. Thus, when discussing metaverse, it is relevant to discuss not only VR but also the expanding versatility and widening experience of the gaming universe, such as multi-media interaction, the E-sports industry, cross-platform gaming, and the ability for players to be creative and share it (User Generated Content). The metaverse will lead to entirely new experiences and economic opportunities.

Gaming Engagement



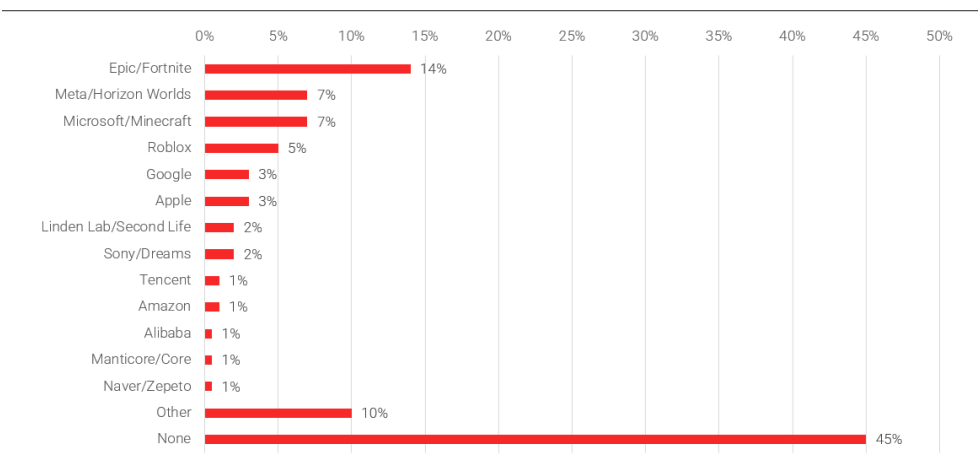
Source: Newzoo (underlying data), Redeye research (chart structuring)

By interacting with other industries, such as transmedia, basing movie and series plots off games, the gaming experience is deepened as the gaming universe is expanded. By offering ways to play your favorite games anywhere, cross-platform lowers the effort required to start a gaming session. Additionally, more players are gaming for the social aspects of communities. Play-to-earn has also reached new heights with user-generated content and a growing Esports scene. The added dimensions of ways to interact with games have made the industry and the experience more holistic, versatile, and immersive than ever.

The metaverse – a long way to go

Despite the progress made, VR headsets are still too expensive to reach the general household and make people nauseous when playing. Multi-platform availability is still uncommon for IPs and often provides different gameplay functions on different platforms. Additionally, the rise of multi-platform has highlighted the difficulties of interoperability between companies in a connected space, as twists arise about who benefits from a purchase depending on how and where it was made (e.g., Epic Games vs. Apple). The farfetchedness of the metaverse is showcased in developers' thoughts on which company is best positioned to deliver on the promise of a metaverse concept:

Developers' thoughts on which company is best positioned to deliver a metaverse concept



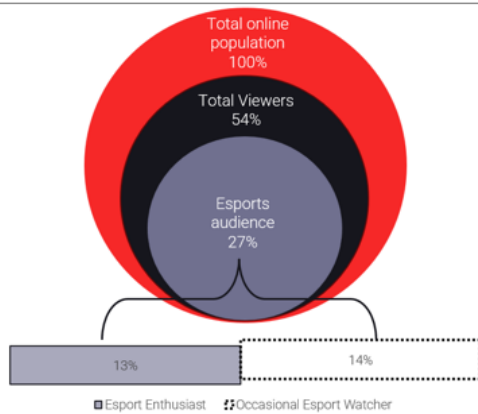
Source: Game Developer Conference (underlying data), Redeye Research (chart structuring)

Esports scene

The advancements in the gaming industry have led to the emergence of many associated sectors, one of which is esports. There is no exact definition of esports that is widely adopted. Still, one description used by Newzoo is “professional or semi-professional competitive gaming in an organized format (tournament or league) with a specific goal/prize, such as winning a championship title or prize money.” This definition makes it similar to regular sports, with the main difference being that players compete through video games rather than physical activities. Just as people who play a specific sport often like to watch that sport, people who play a particular game tend to enjoy watching professional gameplay of it.

For the gaming industry, esports serve several purposes. Firstly, it serves as entertainment and promotes further gaming and more profound experience through fandom. Secondly, it gives gamers a goal to train for, becoming professional, just as it does a football player. Thus, esports takes gaming from just being a leisure activity to potentially being a career by enabling gamers to make a living out of their passion – which is also why it is highly relevant to discuss in correlation with the Metaverse/evolution of gaming. Thirdly, esports generates revenue streams, primarily through sponsorships, media rights, and additional sales (e.g., from skins).

Share of game viewers and esports audience

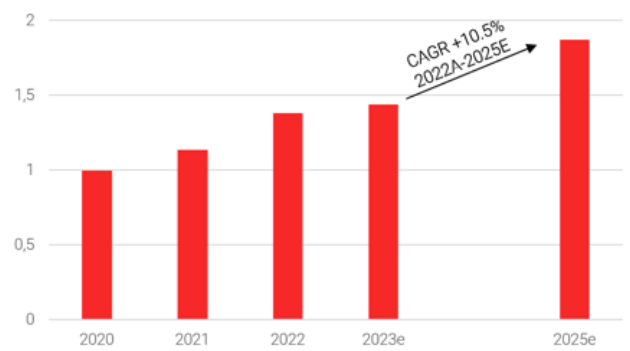


Source: Newzoo (underlying data), Redeye research (chart structuring)

As of 2023a, 27% of the online population have watched esports in the last 12 months. With 13% watching it more than once a month, so-called Esports Enthusiasts per Newzoo. Although these numbers might not be that impressive, the esports market is growing in terms of money and viewers.

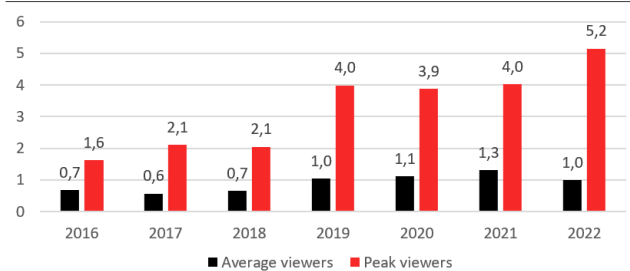
In terms of viewers, Esports is expected to grow at a CAGR of 8% 2022-2025e, parallel with the overall gaming market. Revenue, however, is expected to grow at a CAGR of 10.5% 2022-2025e since monetization of viewers is expected to improve. Today, esports is highly reliant on sponsorships, representing over 60% of sales. E-sports do not have broadcasting licensing revenues that traditional sports have. However, esports have more information accessible about the viewer through the account used to stream, especially if the stream is done through your gaming account. With this information, personalized offers can be sent. John Needham, president of Esports at Riot Games, exemplifies two scenarios for League of Legends: a pro player chooses a champion you often play – you get a special offer for a skin to that champion. Or you tend to watch a certain team which triggers a special offer for a “fan pack” with team exclusives. This way, monetization per viewer is expected to increase through higher extent of direct-to-fan sales.

Esports revenue development in USDbn



Source: Newzoo, DemandSage (underlying data), Redeye research (chart structuring)

League of Legends World Championships viewers in

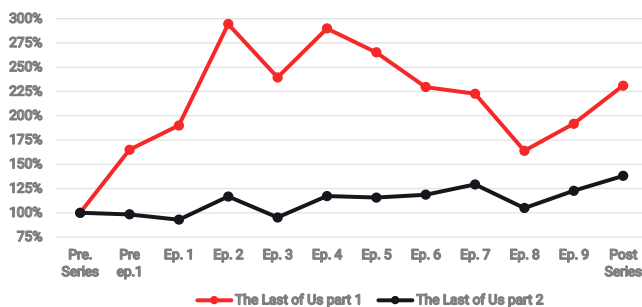


Source: Esports charts (underlying data), Redeye research (chart structuring)

Transmedia

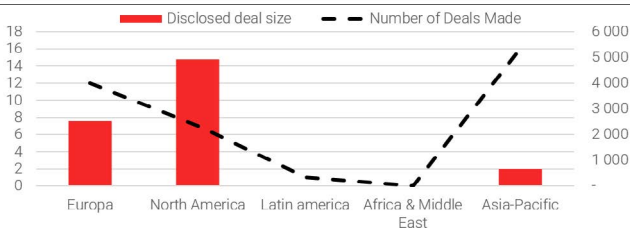
Transmedia IPs and creating games based on popular franchises is not a new approach. The strategy started in 1982 with Atari's disastrous E.T. transmedia launch but has since also seen success in many game launches, such as the Star Wars universe. However, lately, the strategy has seen accelerating success by basing movies and series off of games instead of vice versa (e.g., Uncharted, Arcane, The Last of Us, and Cyberpunk).. In recent years, this strategy has proven to work well as a revival for games, heavily boosting their active users and sales. For example, The Last Of Us saw a 231% increase in sustained players the week after the series finished airing on HBO MAX, with a peak of 276% increase in players. Similar statistics can be seen in Cyberpunk 2077's MAU following the release of the Series Cyberpunk: Edgerunners on Netflix. Additionally, Riot Games' series Arcane not only constituted a transmedia tactic but also opened the way for a crossover with Epic Games, as Fortnite's in-game store featured Arcane skins for a limited time during the series release. The last example of resounding success for video game-based motion pictures is The Super Mario Bros. Movie, grossing USD1.36bn, the 15th highest of all time.

Indexed WAU for TLOU part 1 & 2 following episode



Source: Redeye research (chart structuring), TrueTrophies (underlying data)

M&A Disclosed deal sizes and number of deals



Source: CapitalIQ (underlying data), Redeye Research (chart structuring)

User-generated content

User-generated content (UGC) is arguably the mainstay to achieving a metaverse. VentureBeat describes it well: "The ability to empower creativity and participate in the creation of reality is ultimately the promise of an interconnected digital world," a metaverse, in other words. To create a virtual universe, players must be able to interact and create themselves and get rewarded for their time spent and the improvements made.

What is UGC and who utilizes it?

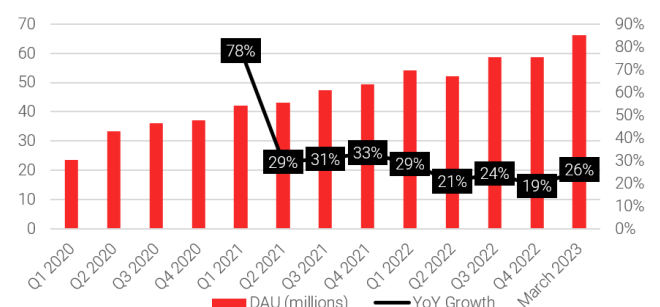
User-generated content is what it sounds like, and it is a bigger phenomenon than simply in the gaming industry. For example, when a YouTuber records, cuts, and publishes a video, it is UGC, the same with feeds in other social media. However, in the gaming industry, UGC works differently since, to make it doable, developers must provide users with a greater extent of tools to create and publish themselves, compared to TikTok, for example, where music and filters get far as tools. And, to make it work in the long run, creators must have or be able to achieve some monetary incentive to create. Gaining financial rewards based on users creation is necessary for two reasons. It is a time-requiring task- it needs to pay to be sustainable for the top creators. Additionally, the developers want to incentivize as much content as possible to achieve the most transactions and the best game experience.

Some games embrace UGC by providing players with tools to create and platforms to publish their creations. While some games receive UGC through mods, without providing creators with modes to create in-game, such as GTA V. Other games, such as FIFA, have little to no UGC.

Some good examples of games that embrace UGC as game development are Roblox, Minecraft, and Fortnite. These games encourage and employ UGC as part of gameplay but in different ways and to different extents.

Roblox is arguably an extreme case, as the whole game is based on UGC, and the game itself is a platform to create, publish, and play other user's, games. Roblox was first released on September 2006. Here is what their growth in DAU looks like today:

Average DAU of Roblox and YoY growth



Source: Public Reporting, Romonitor (underlying data), Redeye research (chart structuring)

Minecraft is another example of a UGC-embracing game, as its gameplay itself is UGC, building houses of your design in an open world. However, Minecraft's UGC is not only restricted to your gameplay, as players can, in the Java edition, download third-party content such as mods and join different servers. On the Bedrock version, they have the Minecraft marketplace, a curated marketplace for UGC.

Lastly, we have Epic Games' Fortnite, which for long had their Fortnite Creative as a toolset for UGC and saw huge success with it. Although, they have recently stepped up their game by launching the Beta Unreal Editor for Fortnite (UEFN) and their Creator Economy 2.0. The Fortnite creative toolset, in short, lets the player personalize an island with terrain, setting, and gameplay rules – such as if one should take damage, if and which weapons are allowed, etc. To exemplify, this enabled players to create games where only sniping was allowed or to create obstacle courses, and of course, much else but still within Fortnite's limited code.

However, with Epic Games' release of the UEFN beta in March 2023, players gain access to some of the Unreal Engine 5's functionality while creating in Fortnite. UEFN runs on PC and is integrated directly with Fortnite. Players can join a UEFN session and help create from any platform if the host is on a PC. The UEFN has access to all the modular gameplay available in Fortnite, which allows a creator to add gameplay and try their new game out easily. The tool also has the same landscape editing toolset as those used to create Fortnite, meaning that a creator can drastically change the environment and gameplay to be nothing like Fortnite. UEFN also allows for importing custom assets, meaning that users can add 3D models, change textures and materials, and thus the look and feel of objects. It also allows a creator to add so-called skeletal meshes and animate the movement of these, meaning that users could, for example, add an object or creature and animate the movement of it in Fortnite. All the above-stated capabilities are of the Beta version, which is planned for improvement and expansion.

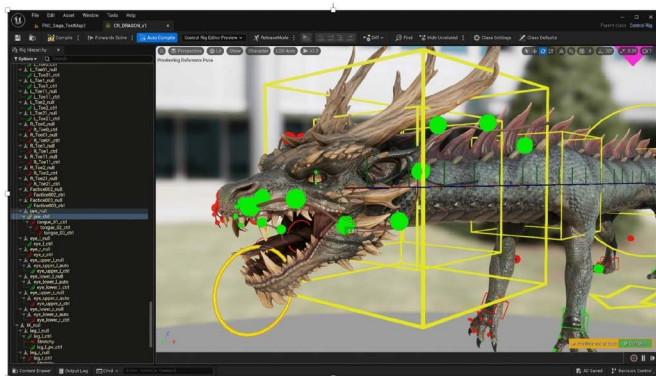


Figure 1: Screenshot of UEFN animating a dragon's movement.
Source: Epic Games

In conjunction with the release of the UEFN Beta, Epic Games also released its UGC monetization plan, which states that 40% of Fortnite's net revenue is going to creators. Although, there is a big catch regarding this generous offer from Epic Games – their own in-game islands, such as the battle royale, are also eligible, just as creator islands, for a part of this 40%. Additionally, out of this 40% pledged to creators, it is distributed by player engagement instead of playtime, favouring the standard islands since players will return there with a higher frequency. Despite the catch, this still seems to be a significant improvement from a creator perspective compared to the "Support-A-Creator" system previously used.

Success factors for a thriving UGC-embracing game.

Previously there have been multiple ways to achieve a thriving creative environment among players. As mentioned, Roblox started with a toolset, while Minecraft and Fortnite primarily started with in-house developed gameplay, developing creative toolsets in correlation with the game's success. For two reasons, Roblox's go-to-market strategy of launching a toolset first, and waiting for gameplay to come, might not be so repeatable for other games. Firstly, Roblox had a first-mover advantage and few competitors, which meant that when gamers wanted to create, Roblox was the place to go – which would not be the case for a newly launched game anymore. Second, Roblox took a long time and patience to grow its games library and player base - time and patience that not all studios and investors have. Instead, a creative toolset first might today lead to a "chicken-and-egg" problem, which Konvoy describes by saying: "Creators are not incentivized to build experiences when there are no users and users are not encouraged to adopt a platform without great content." Thus, according to Konvoy, Fortnite's process towards embracing UGC to a greater extent as the game grows, but launching with a strong IP, might be a more repeatable strategy for upcoming games.

Deal activity in the gaming industry

する 飲み会 愛はどこでもにある 魅了された 覚醒した うねる 楽しい時間
覚醒した うねる 楽しい時間 それに値する 飲み会 愛はどこでもにある
愛はどこでもにある それに値する 魅了された うねる 覚醒した 楽しい時間
する 楽しい時間 飲み会 うねる 楽しい時間 愛はどこでもにある 覚醒した
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をする 飲み会 愛はどこでもにある 魅了された 覚醒した うねる 楽しい時間
る 覚醒した うねる 楽しい時間 それに値する 飲み会 愛はどこでもにある

Throughout the last three years, the gaming industry has seen a very high deal activity, totalling USD164bn, with the opportunity to reach USD233bn depending on the Microsoft Activision outcome. The highest activity was seen in 2021, amounting to an overall deal value of USD74.2bn. Last year, FY2022, meant a 25% drop in deal value, with all measurements decreasing except the value of the M&As.

Type	2020		2021		2022	
	Value (USDbn)	Number of deals	Value (USDbn)	Number of deals	Value (USDbn)	Number of deals
Private Investments	5.9	361	12.0	562	10.1	538
M&A	12.7	218	37.7	318	41.0	222
Public Offering	15.7	82	24.5	68	4.6	22
















Source: InvestGame (Underlying data), Redeye research (chart structuring)

in both the number of deals and deal value. Private Investments saw the largest total deal value at USD1.5bn across 239 deals, while M&A, which usually tops the value list, only saw USD0.9bn across 71 deals.

Type	H1'20		H1'21		H1'22		H1'23	
	Value (USDbn)	Number of deals	Value (USDbn)	Number of deals	Value (USDbn)	Number of deals	Value (USDbn)	Number of deals
Private Investments	1.4	161	4.8	276	7.6	316	1.5	239
M&A	4.0	89	22.7	160	28.7	132	0.9	71
Public Offering	4.9	31	17.2	56	3.4	15	1.7	20

Source: InvestGame (Underlying data), Redeye research (chart structuring)

As seen in the table below, a lot of cash and cash equivalents are on hand in public gaming companies and corporates with gaming divisions. In other words, there is much gunpowder for M&As. As previously illustrated, the market is not particularly consolidated with many smaller indie studios. In conclusion, the gaming industry currently has a healthy M&A environment. Thus, there is evidence that the activity in this area will remain strong despite raised interest rates and a slow start of the year.

Gaming Companies		Tech Companies with Gaming Divisions	
Company	Cash & equivalents	Company	Cash & equivalents
 ACTIVISION	USD13.0bn	 amazon	USD64.5bn
 Nintendo	USD13.5bn	 Microsoft	USD111.3bn
 sea	USD7.1bn	 Google	USD118.3bn
 EA Electronic Arts	USD2.6bn	 Apple	USD62.5bn
 NEXON	USD4.0bn	 Tencent 腾讯	USD48.2bn
 BANDAI NAMCO	USD1.5bn	 Meta	USD53.6bn
 NetEase Games	USD15.5bn	 SONY	USD13.0bn
Others	USD12.3bn	 NETFLIX	USD8.6bn

Source: Konvoy & Factset (underlying data), Redeye Research (chart structuring)

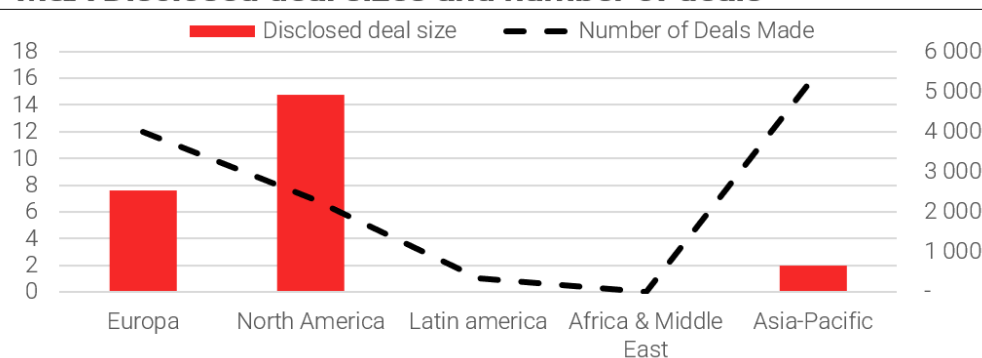
Overview of the largest M&A deals

Looking back at H1 2023, some big gaming M&As have happened:

Target	Buyer/Investors	Size (USDmn)	Announced Date	Closed Date
Scopely, Inc.	Savvy Games Group	4900	Apr-05-2023	Jul-12-2023
Kahoot!	General Atlantic Ft B.V., Glitrafjord AS, Goldman Saachs Asset Management, L.P., Kirkbi Invest A/s	1733	Jul-14-2023	-
Rovio Entertainment	Sega Europe	777	Apr-17-2023	-
Playtika Holding	Fortune Bliss Venture	625	Apr-28-2023	-
Asphere Innovations	Sabuy Technology	210	Mar-30-2023	-
Yoozoo Interactive	Shanghai Jiayou Enterprise	159	Mar-03-2023	Mar-15-2023
Leyou	Kidswant Children Products	146	Jun-10-2023	-

Source: CapitalIQ (underlying data), Redeye research (table structuring)

M&A Disclosed deal sizes and number of deals



Source: CapitalIQ (underlying data), Redeye Research (chart structuring)

Divided by region, Asia-Pacific had the highest number of deals, but they were all relatively insignificant compared to Europe and North America in value. North America had the highest deal value due almost entirely to the huge Scopely-Savvy Games deal.

Trouble in paradise

It is quite obvious that the gaming industry has a hangover after the end of a super capital cycle. We believe that demand is not the problem, supply is. For more than five years game developers and publishers have screamed “Content is King” to the degree that consumers now have too much content. The last year this has been more and more obvious, where many mid-budget publishers have been struggling with games that don’t meet commercial expectations. We believe that the biggest problem is not “share of wallet” but “share of spare time”.

In last year’s gaming report, we made a parallel with the film industry, where most AAA movies are released in cinemas and everything else is released on a digital subscription platform such as Netflix. We see a clear trend that the games industry has moved in the same direction. The biggest franchises seldom disappoint. The latest entries of Zelda, Call of Duty, and FIFA all made new sales records recently. While small quality titles from publicly listed publishers such as Thunderful, Digital Bros and Devolver Digital have disappointed, with share prices plummeting as a result.

Pandemic Woes

During the pandemic, game companies were one of the biggest winners on the stock market. Investment returns were high in the industry, which attracted new capital. All this capital needed to find a home, in Sweden this capital financed the M&A boom, through targeted rights issues and some IPOs.

In the diagram below we see the capital cycle in the gaming industry. When gaming companies became more profitable driven by the rise of mobile games and digitalization, investment capital found its way to the industry between 2017 and 2022.

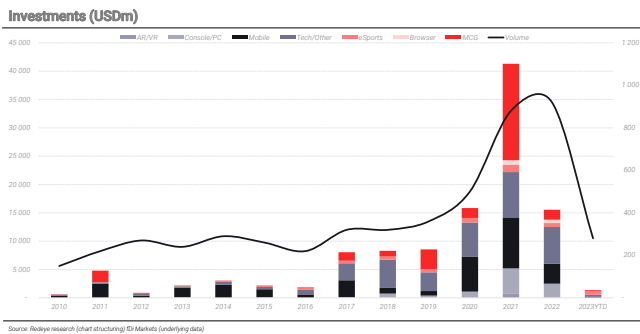
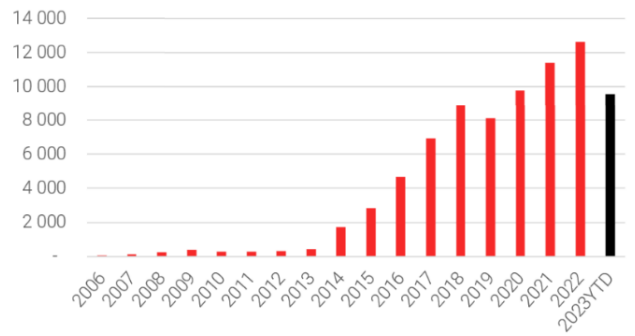


Diagram comments: The big red area in 2021 is investments in “Massive Community Games” such as social online games often very popular in Asia (MMOs, MOBA, Battle Royal, and Metaverse). The biggest contributor in 2021 was the Roblox IPO, which raised USD12.8bn. We are quite surprised by the big investments during 2022, which is pretty close to the value in investment during the pandemic year 2020 according to this research from “Digital Development Management (DDM). In 2023 we seem to be back at the more modest investment levels before 2017.

Since 2020-2021, capital expenditures have been increasing while investment returns have been decreasing. According to fDi Markets, an online database from the Financial Times, capex increased by a staggering 150% during 2022 in a

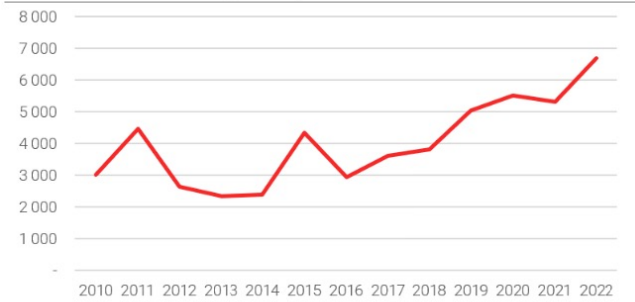
selected group of gaming companies. It is hard to say how accurate this data is, but it is likely safe to say that capex seems to have increased to unsustainable levels. Supply is now likely higher than the demand for new games, which means many games have a lower ROI which has been seen recently, especially in new or weak IPs.

Games released on Steam (Yearly)



Source: Redeye research (chart structuring), SteamDB (underlying data)

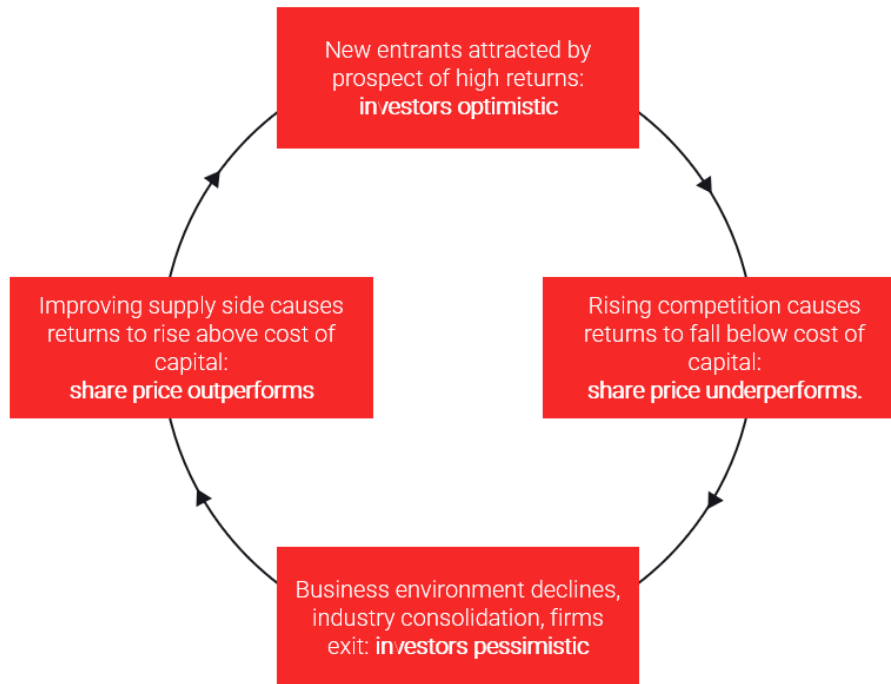
Capex development (USDm)



Source: Redeye research (chart structuring), Factset (underlying data)

Dampened growth and ROI have created pessimistic investors in the stock market. In Sweden for example, the M&A-driven former investment darlings Embracer and Stillfront have seen their stock prices decline 70-80% in the last three years. Big loans and alarming earn-outs have been two factors that have fueled investor pessimism. Overly optimistic guidance from management has also created investor mistrust.

However, this is only a typical capital cycle. Sooner or later investors will find their way back to the sector. The consolidation will continue, which in a long-term perspective most likely increases profit levels in the industry as a whole. We also think AI will increase productivity and therefore profitability in the future.



In the picture above we see a simplified model of an industry capital cycle from the book "Capital Returns". We are currently most likely in the phase explained in the box at the bottom. Investments in the industry have already declined. The industry will in the years to come continue to consolidate and some firms will have to close their business. When gaming companies yet again show solid profitability investors will come back.

Timing investments is always of extreme importance, and it is always hard to say when we have moved to the next phase in the capital cycle.

Our assumption is that the cycle could move to the next phase in one year or more. But of course, many gaming stocks live their own life as well. Some companies will manage to adapt to the new environment better and faster than others.

Competitive advantages in the gaming industry

Most industries often have specific companies that can generate outsized returns over long periods. Such out-performance often stems from one or more competitive advantages inherent to a company's business model. Over the upcoming paragraphs, we will highlight five examples of business dynamics that enable firms to generate long-term outperformance.

Device-owning distributors and closed platforms

Distributors such as Apple, Sony, Microsoft, and Nintendo own the device where games are played. As such, they can legally have a closed platform for selling and controlling which games can be sold for the device. In addition to providing a strong bargaining position against game developers, this control enables them to take a cut on all transactions done on the platform.

According to Omdia's estimates, distributors collected a sum of USD41bn from publishers in 2022, meaning 20% of the total market. This advantage is difficult to replicate, as it builds on a successful rollout of new hardware, which requires significant upfront investments from new actors wishing to establish themselves.

However, the advantage is not entirely insurmountable. With the rise of multi-platform games, the bargaining power of the closed-platform owners might diminish. Offering unfavorable terms to publishers might result in publishers providing more favorable terms to players on other platforms, thus making customers choose that platform instead. For multi-platform games, the monopoly could potentially transition into an oligopoly with distributor price competition.

First-mover advantages

Steam, the largest gaming distributor on PC, is not a platform owner like any other. Steam has obtained a robust competitive position from being a first mover in the space. We believe the advantage stems from its large player base and the game library connected to players' Steam accounts. These two factors will be elaborated upon further below:

1. Firstly, since Steam was a first mover in the space, players had their library of games on Steam's platform. By the time there were competitors to challenge, players wanted to keep all their games in one place. This creates a barrier to entry for competitors; as all else equal, players will be more inclined to buy the game through Steam. However, it is not entirely unchallenged. For example, competitor Epic Games Store might see the same effects on their player base in the future, as new players choose Epic Games Store to a greater extent than old ones since they have no library on any platform.

2. Second, with a significant market share, Steam has strong bargaining power towards publishers. This enables a profitable sales split. Steam takes 30% of sales made on Steam and gives 70% to developers. Additionally, they have aggressive deal terms where developers cannot sell their games cheaper on other platforms, ensuring that Steam also has competitive consumer pricing. This is a clear example of network effects; developers want to be where the gamers are, and gamers want to be where the games are.

A thriving UGC community

A continuous flow of user-generated content (UGC) comes with positive operating leverage and, from a cash perspective, free additions to the value offering. Suppose a creative toolset and creator economy are implemented successfully. In that case, game content will be added by creators (who might also be players), prompting more players to come as there is always new gameplay. This spirals into a sustainable way for the company to add content without further investments, a two-sided network effect. Successfully creating a thriving community with UGC is difficult for a couple of reasons:

1. A significant player base is needed, meaning it requires a strong IP in most cases
2. Highly technical resources and a well-designed creative mode are necessary as the creative tool needs to be both easy to use and, at the same time, advanced enough that players feel their creativity is not too limited, a combination that is hard to achieve.
3. It is challenging to implement, as the culture and behavior of players are hard to affect, and it takes a long time before it is achieved, similar to implementing company culture.

All in all, it is difficult to copy for competitors. It is technically challenging to achieve, and creators generally lack the incentive to create content for new games with few players.

There are different ways that companies try to capitalize on UGC. Some companies allow and encourage mods, providing platforms for players to upload and download them free of charge. Others go even further, providing users with in-game tools to create and an economic system to profit from their creation.

Examples of companies with the organizational structure and value offering to capitalize on this competitive advantage are Microsoft (Minecraft), Epic Games (Fortnite), and Roblox (Roblox).

Developer credibility

Some developers, as in any industry, have a competitive advantage due to their brand awareness and reputation for releasing high-quality games. Being well-reputed allows for taking a higher price and receiving a higher sales volume for releases, as it lowers search costs since gaming enthusiasts will keep track of releases. Thus, this reputation is a valuable advantage. It is hard to copy as several consecutive releases of high-quality games are often required to receive such a reputation. It is not easy to achieve, and arguably even harder to sustain, as a few consecutive releases where the games do not live up to the studio's usual standards might hurt the reputation. For example, CD Projekt lost much confidence from fans with its failed release of *Cyberpunk 2077*, and Bioware with its release of *Anthem*, making people more hesitant to buy the next game based on the developers' name. Another example of a company that has lost most of its reputation as a credible developer is Blizzard, the subsidiary of Activision Blizzard, through games not living up to standards and excessive pricing.

Noteworthy examples of enterprises possessing substantial and enduring developer credibility include Rockstar Games (a subsidiary of Take-Two), Square Enix, and FromSoftware. Further, a recent entrant that has rapidly gained substantial developer credibility is Larian Studios, primarily attributed to their launch of "*Baldur's Gate 3*".

Strong IP franchises

Some developers, publishers, and platforms have franchises with dedicated fan bases, allowing them to focus on releasing games within that franchise at a high frequency and relatively low risk. Nintendo is a master of this tactic, releasing four *Zelda* games (including remakes of old ones) on Nintendo Switch since the console's launch in 2017, an impressive 11 *Pokémon* games officially launched on Switch (not just available on the console), and three upcoming *Mario* games for 2023 and 2024. The Activision Blizzard-owned *Call of Duty* franchise is another example, releasing a game annually that continuously sells well. These popular franchises allow frequent game releases and alternative revenue sources (e.g., from other media). Examples of alternative revenue sources include the *Pokémon* card game, the *Pokémon* anime, and the *Super Mario Bros* Movie.

In conclusion, releasing games in a franchise is highly profitable for gaming companies compared to releasing stand-alone games with the same frequency. Furthermore, it is a rare and inimitable advantage as it requires a lot of work and several successful releases to build a devoted fan base. Some companies' business models are especially well-suited to profit from a dedicated fan base, such as *Pokémon* or *Call of Duty* with frequent releases.

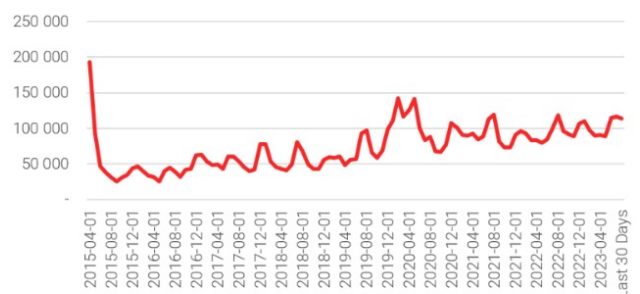
High switching costs

Games with many in-game transactions and a high emphasis on item-gathering features can often benefit from high switching costs. Players who have invested a lot into a game might be reluctant to switch to a new game where they must start over. This would result in them losing the benefits gained from their hard work, a prime example of the sunk-cost fallacy.

Some games have retained players at an extreme rate over a long time. Often, live-ops are required to maintain a player base for a long time to ensure that the investment in the game is significant enough to generate the high switching costs. *GTA V* and *League of Legends* are arguably the best examples of maintaining a solid player base for many years. Both games have vital item-gathering functions. In *GTA V* online, you gather new vehicles, weapons, and outfits, while in *League of Legends*, you gather new skins, emotes, and icons.

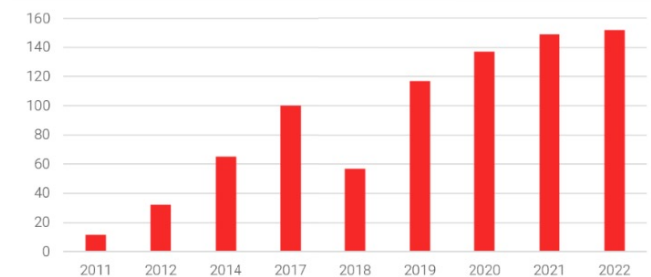
Since a strong IP and live-ops are often prerequisites for securing the initial investment of time and money required to achieve the high switching cost experience, this competitive advantage is both rare and hard for competitors to copy. Furthermore, a certain size of the company is needed to provide the game with live services and regular updates. Thus, not all companies have the organizational scale to achieve this advantage.

Average GTA V players on Steam per month since 2015



Source: Steamcharts (underlying data), Redeye research (chart structuring)

Average monthly LoL players (millions)



Source: RiftFeed, ActivePlayer (underlying data), Redeye research (chart structuring)

Valuation per segment

The median valuation in the gaming sector range from around 8x EV/EBIT 2024E for Mobile/F2P companies to around 13x for Premium game companies. The Nordic group has the lowest median valuation of around 6x EV/EBIT 2024E. Our company sample is based on 31 companies sorted into three categories; Premium, Mobile/Free to play, and Nordic listed companies.



Premium Games

The Premium games companies have the highest valuation in the group with a median EV/S of c4x and EV/EBIT of 13x. However, the span is wide depending on size and where the companies' gaming portfolios stand in their development phase. The forecasted median growth for the group is expected to be 7% during 2023-25E with an EBIT margin of 23%. With limited M&A during 2023, the growth is likely to be mainly organic.

Valuation Premium Gaming segment

Company	EV, SEKm	EV/Sales	EV/EBIT	Sales CAGR	EBIT-margin
		2024E	2024E	23-25E	Avg. 23-25E
Activision Blizzard	728 697	6,7	16,9	3%	39%
Bandai Namco	144 407	1,8	12,6	5%	14%
CD Projekt	36 754	17,4	66,8	-14%	27%
Devolver Digital, Inc.	371	0,3	6,9	15%	4%
Electronic Arts	354 726	3,9	12,3	6%	32%
Embracer Group	53 725	1,2	6,6	6%	18%
Frontier Developments PLC	1 399	0,9	n.m.	5%	n.m.
Games Workshop Group PLC	47 326	6,4	17,5	7%	37%
Keywords Studios PLC	16 169	1,5	10,6	11%	14%
Netease	597 134	3,4	12,8	10%	26%
Nintendo	451 781	3,9	13,2	0%	30%
Paradox Interactive	27 616	9,3	23,7	9%	40%
Remedy Entertainment	3 304	4,8	n.m.	44%	-9%
Take-Two Interactive	271 189	3,0	13,5	21%	20%
Team17 Group PLC	5 927	2,8	8,9	7%	31%
tinyBuild Inc.	142	0,3	4,6	7%	7%
Ubisoft Entertainment	52 002	1,9	10,5	7%	18%
Average		4,1	15,8	9%	22%
Median		3,0	12,6	7%	23%

Source: Factset (underlying data), Redeye research (table structuring)

Mobile and Free to play

The companies in our Mobile and Free-to-play list have an almost exclusive focus on mobile or free-to-play while the exposure to premium games is limited. On an aggregated level this group has a lower valuation than Premium gaming companies. The median valuation for the group is 1x EV/S and 8x EBIT based on 2024E. The median growth forecast for the group is expected to be 5% in 2023-25E with an EBIT margin of 19%. The growth is somewhat lower than Premium which we view as reasonable given the slower-than-expected growth for the mobile segment in recent years.

Valuation Mobile/Free-to-Play segment

Company	EV, SEKm	EV/Sales	EV/EBIT	Sales CAGR	EBIT-margin
		2024E	2024E	23-25E	Avg. 23-25E
Corn2us Corporation	3 574	0,5	15,7	6%	2%
Enad Global 7	1 840	0,9	4,4	1%	20%
G5 Entertainment	1 065	0,7	5,9	0%	13%
MTG	6 194	1,0	8,2	5%	13%
Playtika Holding	56 504	1,9	9,0	3%	21%
Huuuge, Inc.	2 051	0,7	2,4	-4%	30%
Roblox Corp	177 899	4,0	n.m.	14%	-31%
Stillfront Group	13 341	1,7	6,2	5%	28%
Ten Square Games	1 389	1,1	7,3	3%	13%
Tencent Holdings	4 327 857	4,1	13,7	12%	29%
Unity Software	180 397	6,2	31,7	20%	19%
Average		2,1	10,4	6%	14%
Median		1,1	7,7	5%	19%

Source: Factset (underlying data), Redeye research (table structuring)

Nordic companies

We have also built a separate group of Nordic listed companies which consists of both mobile/free to play focused companies as well as premium games focused companies. The median valuation for the Nordic sector is 1x EV/S and 6x EV/EBIT which is lower than the average for the two other groups. While growth outlook is similar to the global average, we believe the lower valuation could be partly explained by a higher focus on M&A-driven growth.

Valuation Nordic Gaming segment

Company	EV, SEKm	EV/Sales	EV/EBIT	Sales CAGR	EBIT-margin
		2024E	2024E	23-25E	Avg. 23-25E
Embracer Group	53 725	1,2	6,6	6%	18%
Enad Global 7	1 840	0,9	4,4	1%	20%
G5 Entertainment	1 065	0,7	5,9	0%	13%
Media and Games Invest	5 362	1,3	6,3	11%	20%
MTG	6 194	1,0	8,2	5%	13%
Paradox Interactive	27 616	9,3	23,7	9%	40%
Remedy Entertainment	3 304	4,8	n.m.	44%	-9%
Starbreeze	1 060	3,2	41,7	-28%	25%
Stillfront Group	13 341	1,7	6,2	5%	28%
Thunderful Group	1 102	0,4	5,3	1%	6%
Maximum Entertainment	409	0,3	3,8	7%	8%
Average		2,3	11,2	6%	17%
Median		1,2	6,3	5%	18%

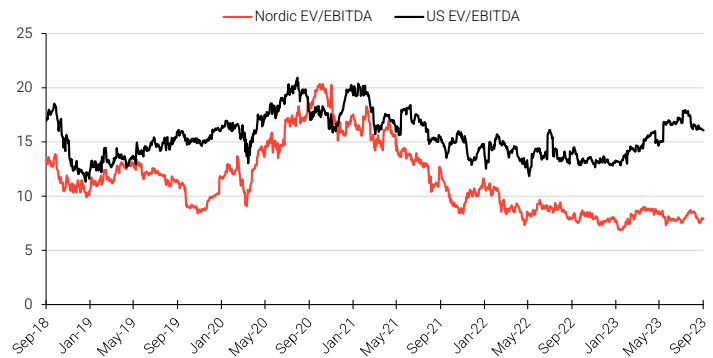
Source: Factset (underlying data), Redeye research (table structuring)

Nordic vs US valuation and earnings trend

Taking a longer view and comparing the valuation trend for the gaming sector over the last five years it saw expanding EV/EBITDA multiples during 2018-20. This was driven by strong growth in the sector which peaked during the covid-19 lockdown where demand for stay-at-home stocks also increased. Thereafter valuation levels have declined although it looks to have bottomed out with a more flattish trend during 2022-23. On the positive side, we also note that the EPS trend looks to be picking up, which could support a more positive view of the sector going forward. Looking at the valuation difference between Nordic gaming companies (Embracer, Stillfront and Paradox) compared to larger US peers (Activision, EA Games and Take Two) the groups almost traded same multiples during 2020 while the discount for the Nordic group has thereafter gradually widened to the current record high of c. 14-15x EBITDA the Nordic sector trades at around 6-7x EBITDA.

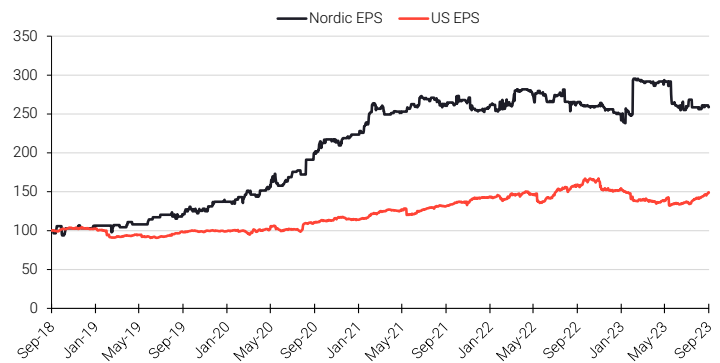
We believe this is mostly to the longer history of the US peers coupled with a higher dependence on M&A-driven growth for the Nordic companies (which is also the main factor for the strong EPS increase for the Nordic group). However, we also find it interesting that the US group has seen a recovery in valuation which could potentially be an indication for the future direction of the Nordic group.

EBITDA valuation trend Nordic vs US



Source: Factset (underlying data), Redeye research (chart structuring)

EPS estimates NTM Nordic vs US



Source: Factset (underlying data), Redeye research (chart structuring)



Covered Companies

Beyond Frames **BEYOND**

Company page

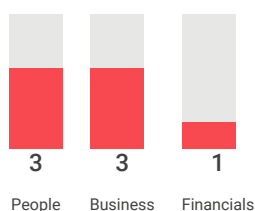
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Publication date

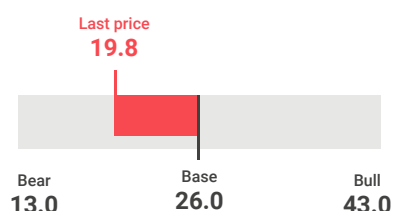
September 18 2023

Redeye Rating

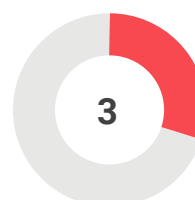
COMPANY QUALITY



FAIR VALUE RANGE

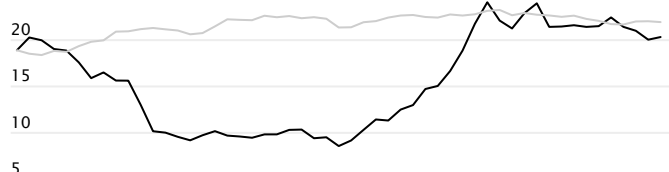


TIMELINESS



Snapshot

Beyond Frames OMXS30



Volume



Marketplace Spotlight Stock Market

CEO Ace St. Germain

Chairman Mikael Söderström

Share information

Share price (SEK) 19.8

Number of shares (M) 17.2

Market cap (MSEK) 340

Net debt (2023E, MSEK) -26

Analyst



Viktor Lindström
viktor.lindstrom@redeye.se

Conflict of interests

Viktor Lindström owns shares in Beyond Frames: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	21/22	22/23	23/24E	24/25E	25/26E
Revenue, MSEK	24	25	108	120	126
Growth	90.6%	4.1%	>100%	11.9%	4.3%
EBITDA	-1	-15	9	12	27
EBITDA margin	Neg	Neg	8.1%	9.8%	21.3%
EBIT	-9	-23	-6	-5	8
EBIT margin	Neg	Neg	Neg	Neg	6.3%
Pre-tax earnings	-8	-23	-5	-5	8
Net earnings	-9	-23	-4	-5	7
Net margin	0.0%	0.0%	0.0%	0.0%	0.0%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	-0.56	-1.35	-0.24	-0.27	0.41
P/E adj.	-63.5	-7.2	-85.9	-77.9	51.0
EV/S	20.4	4.8	3.1	2.9	2.6
EV/EBITDA	-324.7	-8.0	38.3	29.1	12.4

Last updated: 2023-08-24

Owner	Equity	Votes
Avanza Pension	16.1%	16.1%
Arvr Holding AB	15.5%	15.5%
Mathias Fredriksson	11.1%	11.1%
Magnus Unger	8.6%	8.6%
Ricky Helgesson	5.5%	5.5%
Catherine Ehrensward	4.2%	4.2%
Futur Pension	3.8%	3.8%
SEB Life International	3.2%	3.2%
Nordea Liv & Pension	2.2%	2.2%
Erik Åfors	1.9%	1.9%

EG7 **EG7**

Company page

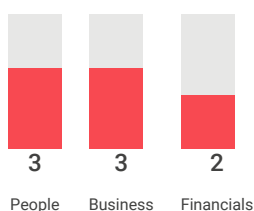
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Publication date

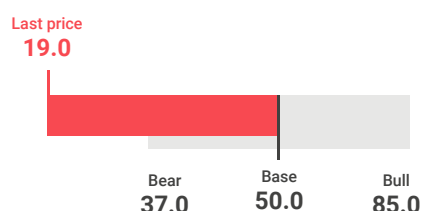
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Redeye Rating

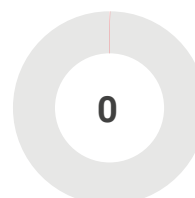
COMPANY QUALITY



FAIR VALUE RANGE



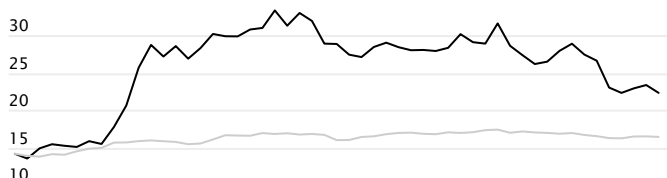
TIMELINESS



Snapshot

EG7

OMXS30



Volume



Marketplace First North Stockholm

CEO Ji Ham

Chairman Jason Epstein

Share information

Share price (SEK) 19.0

Number of shares (M) 88.6

Market cap (MSEK) 1,687

Net debt (2023E, MSEK) -514

Analyst



Hjalmar Ahlberg
hjalmar.ahlberg@redeye.se

Conflict of interests

Hjalmar Ahlberg owns shares in EG7: **Yes**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	1,671	1,866	2,181	2,044	2,128
Growth	>100%	11.7%	16.9%	-6.2%	4.1%
EBITDA	381	481	552	481	498
EBITDA margin	22.8%	25.8%	25.3%	23.5%	23.4%
EBIT	290	394	444	379	392
EBIT margin	17.4%	21.1%	20.4%	18.5%	18.4%
Pre-tax earnings	91	-310	276	251	264
Net earnings	97	-324	189	188	198
Net margin	0.0%	0.0%	0.0%	0.0%	0.0%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	2.19	3.98	3.88	3.63	3.74
P/E adj.	16.0	7.5	6.7	7.2	6.9
EV/S	1.8	1.2	0.8	0.7	0.5
EV/EBITDA	7.8	4.8	3.2	3.0	2.2

Last updated: 2023-08-16

Owner	Equity	Votes
Settecento LTD	10.1%	10.1%
Jason Epstein	9.7%	9.7%
Avanza Pension	9.2%	9.2%
Alta Fox Capital	6.0%	6.0%
Rasmus Davidsson	3.2%	3.2%
Alexander Albedj	3.0%	3.0%
Handelsbanken Liv Försäkring AB	2.4%	2.4%
Ji Ham	2.3%	2.3%
Aguja Capital GmbH	2.2%	2.2%
Dan Sten Olsson med familj och stiftelse	2.2%	2.2%

Embracer Group **EMBRAC B**

Company page

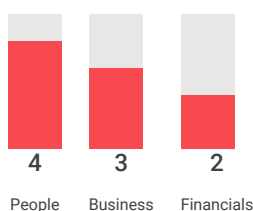
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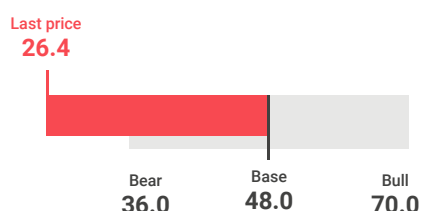
September 18 2023

Redeye Rating

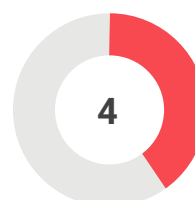
COMPANY QUALITY



FAIR VALUE RANGE



TIMELINESS



Snapshot

Embracer Group OMXS30



Marketplace NASDAQ Stockholm

CEO Lars Wingefors

Chairman Kicki Wallje-Lund

Share information

Share price (SEK) 26.4

Number of shares (M) 1,339.4

Market cap (MSEK) 35,314

Net debt (2023E, MSEK) 13,452

Analyst



Viktor Lindström
viktor.lindstrom@redeye.se

Conflict of interests

Viktor Lindström owns shares in Embracer Group: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	21/22	22/23	23/24E	24/25E	25/26E
Revenue, MSEK	17,067	37,665	42,782	46,916	49,299
Growth	89.0%	>100%	13.6%	9.7%	5.1%
EBITDA	1,667	6,717	8,439	12,299	13,647
EBITDA margin	9.8%	17.8%	19.7%	26.2%	27.7%
EBIT	4,465	6,367	7,527	9,057	9,910
EBIT margin	26.2%	16.9%	17.6%	19.3%	20.1%
Pre-tax earnings	1,770	5,014	2,372	4,203	5,564
Net earnings	1,077	5,515	6,050	6,953	7,552
Net margin	6.3%	14.6%	14.1%	14.8%	15.3%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	3.69	4.41	4.62	5.19	5.64
P/E adj.	21.5	11.0	6.3	5.6	5.1
EV/S	6.2	2.2	1.3	1.1	1.0
EV/EBITDA	63.4	12.2	6.6	4.2	3.5

Last updated: 2023-08-18

Owner	Equity	Votes
Lars Wingefors AB	19.6%	37.8%
JP Morgan Chase Bank NA	8.6%	5.9%
Savvy Gaming Group	7.5%	5.2%
S3D Media Inc	6.2%	10.2%
State Street Bank And Trust co	5.2%	3.6%
Pierce, Fenner & Smi, Th Incorpor Merrill Lynch	4.1%	2.9%
DNB Asset Management AS	3.4%	2.4%
UBS Switzerland AG	3.4%	2.3%
Canada Pension Plan Investment Board (CPP)	3.2%	2.2%
Alecta Tjänstepension	3.1%	2.1%

Flexion Mobile **FLEXM**

Company page

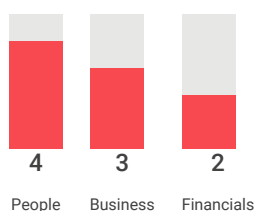
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Publication date

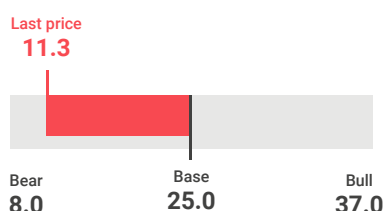
September 18 2023

Redeye Rating

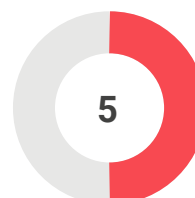
COMPANY QUALITY



FAIR VALUE RANGE



TIMELINESS



Snapshot

Flexion Mobile OMXS30



Marketplace First North Stockholm

CEO Jens Lauritzson

Chairman Carl Palmstierna

Share information

Share price (SEK) 11.3

Number of shares (M) 56.2

Market cap (MSEK) 632

Net debt (2023E, MSEK) -19

Analyst



Anton Hoof
anton.hoof@redeye.se

Conflict of interests

Anton Hoof owns shares in Flexion Mobile: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	33	69	81	99	117
Growth	58.0%	>100%	17.8%	23.0%	17.8%
EBITDA	0	4	6	10	13
EBITDA margin	1.1%	5.8%	7.4%	10.2%	10.9%
EBIT	0	1	3	8	11
EBIT margin	1.3%	2.1%	3.6%	8.5%	9.2%
Pre-tax earnings	0	0	2	8	11
Net earnings	0	0	1	7	9
Net margin	0.9%	0.5%	1.6%	6.9%	7.4%
Dividend/Share	0.00	0.00	0.01	0.06	0.08
EPS adj.	0.01	0.02	0.02	0.12	0.16
P/E adj.	2,540.0	646.2	464.3	90.7	70.9
EV/S	1.2	0.5	0.3	0.2	0.1
EV/EBITDA	114.3	9.3	4.3	2.4	1.0

Last updated: 2023-09-18

Owner	Equity	Votes
Mobile Sensations Ltd	20.2%	20.2%
Carl Palmstierna	6.8%	6.8%
BNY Mellon NA (Former Mellon)	6.5%	6.5%
Alta Fox Capital	4.6%	4.6%
Odey Asset Management LLP	3.9%	3.9%
Fredrik Palmstierna	3.5%	3.5%
Bank Julius Baer & Co. LTD	3.5%	3.5%
Bank Julius Baer & co. ltd, w8imy without	3.4%	3.4%
lbrk Financial Services AG	2.8%	2.8%
Joachim Odqvist	2.8%	2.8%

Fragbite Group **FRAG**

Company page

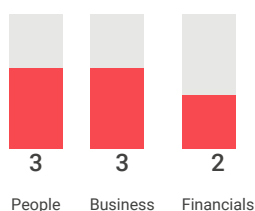
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Publication date

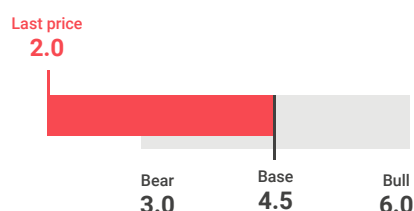
September 18 2023

Redeye Rating

COMPANY QUALITY



FAIR VALUE RANGE

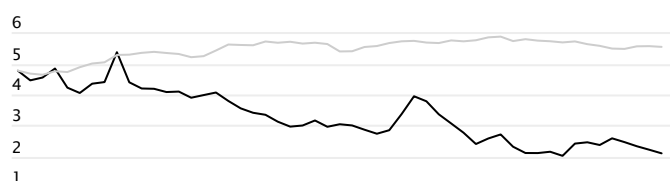


TIMELINESS



Snapshot

Fragbite Group OMXS30



Volume



Marketplace First North Stockholm

CEO Marcus Teilman

Chairman Stefan Tengwall

Share information

Share price (SEK) 2.0

Number of shares (M) 90.7

Market cap (MSEK) 178

Net debt (2023E, MSEK) 39

Analyst



Viktor Lindström
viktor.lindstrom@redeye.se

Conflict of interests

Viktor Lindström owns shares in Fragbite Group: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	124	254	251	295	336
Growth	>100%	>100%	-1.4%	17.8%	13.8%
EBITDA	6	12	19	28	40
EBITDA margin	4.5%	4.7%	7.8%	9.6%	11.8%
EBIT	-11	6	12	19	29
EBIT margin	Neg	2.4%	4.9%	6.6%	8.6%
Pre-tax earnings	-46	-96	-93	-71	-61
Net earnings	-15	-14	-11	4	14
Net margin	Neg	Neg	Neg	1.3%	4.3%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	-0.18	-0.15	-0.12	0.04	0.16
P/E adj.	-44.4	-25.6	-20.1	59.0	15.7
EV/S	5.0	1.4	1.1	0.9	0.7
EV/EBITDA	112.2	30.3	13.7	9.1	6.0

Last updated: 2023-08-18

Owner	Equity	Votes
Swedbank Försäkring	10.3%	10.3%
Mikael A Pettersson	8.0%	8.0%
The Barbarian Group AB	6.7%	6.7%
Citi Switz AG AS Agent For Clients	6.3%	6.3%
W-8imy Caceis Bank	6.1%	6.1%
Svensk, Filial Alandsbanken Abp (Finland)	6.0%	6.0%
Moongolde Ltd	5.1%	5.1%
Santhe Dahl	5.0%	5.0%
Avanza Pension	4.5%	4.5%
Sellers of Lucky Kat B.V.	4.4%	4.4%

G5 Entertainment **G5EN**

Company page

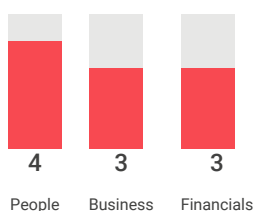
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Publication date

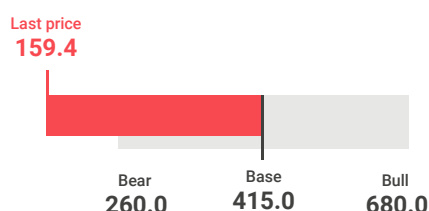
September 18 2023

Redeye Rating

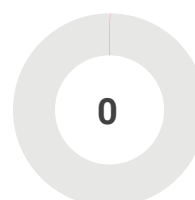
COMPANY QUALITY



FAIR VALUE RANGE

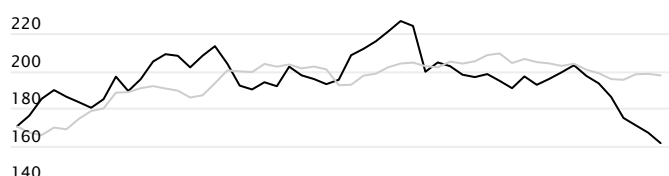


TIMELINESS



Snapshot

G5 Entertainment OMXS30



Volume



Marketplace NASDAQ Stockholm

CEO Vladislav Suglobov

Chairman Petter Nylander

Share information

Share price (SEK) 159.4

Number of shares (M) 8.6

Market cap (MSEK) 1,364

Net debt (2023E, MSEK) -332

Analyst



Hjalmar Ahlberg
hjalmar.ahlberg@redeye.se

Conflict of interests

Hjalmar Ahlberg owns shares in G5 Entertainment: **Yes**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	1,316	1,400	1,364	1,432	1,503
Growth	-3.0%	6.4%	-2.6%	5.0%	5.0%
EBITDA	349	318	312	351	377
EBITDA margin	26.6%	22.7%	22.9%	24.5%	25.1%
EBIT	216	167	154	186	210
EBIT margin	16.4%	11.9%	11.3%	13.0%	14.0%
Pre-tax earnings	209	76	170	186	210
Net earnings	198	67	157	167	184
Net margin	0.0%	0.0%	0.0%	0.0%	0.0%
Dividend/Share	7.00	8.00	9.00	10.00	11.00
EPS adj.	23.47	18.67	19.50	20.77	22.84
P/E adj.	16.9	11.2	10.3	9.6	8.8
EV/S	2.4	1.1	0.9	0.8	0.7
EV/EBITDA	9.2	4.9	4.1	3.3	2.7

Last updated: 2023-08-11

Owner	Equity	Votes
Wide Development Ltd	7.5%	7.6%
Avanza Pension	6.9%	7.0%
G5 Entertainment AB (Publ)	5.9%	4.2%
Purple Wolf Ltd	5.6%	5.7%
Swedbank Robur Fonder	5.1%	5.2%
Tommy Svensk	4.7%	4.8%
Proxima Ltd	3.3%	3.3%
Nordnet Pensionsförsäkring	3.2%	3.2%
Argenta Asset Management SA	2.9%	3.0%

Maximum Entertainment

Company page

<https://www.redeye.se/company/maxent>

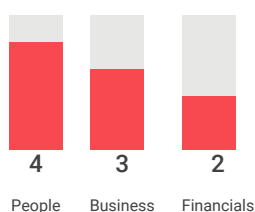
Publication date

September 18 2023

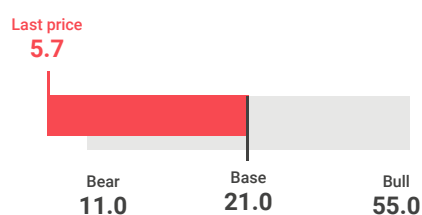
MAXENT B

Redeye Rating

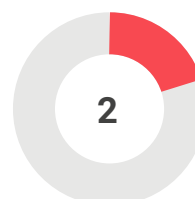
COMPANY QUALITY



FAIR VALUE RANGE

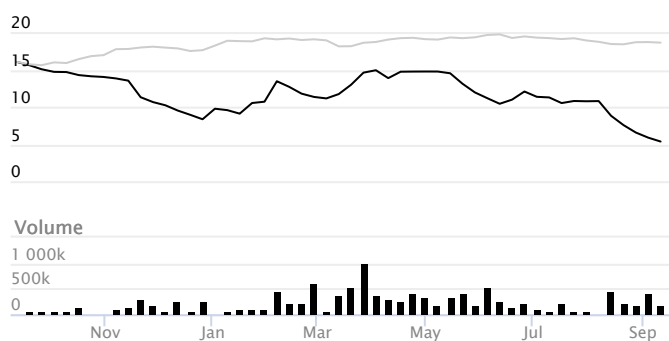


TIMELINESS



Snapshot

Maximum Entertainment
OMXS30



Marketplace First North Stockholm

CEO Christina Seelye

Chairman Stefan Lindeberg

Share information

Share price (SEK) 5.7

Number of shares (M) 51.1

Market cap (MSEK) 293

Net debt (2023E, MSEK) 241

Analyst



Hjalmar Ahlberg
hjalmar.ahlberg@redeye.se

Conflict of interests

Hjalmar Ahlberg owns shares in Maximum Entertainment: **Yes**

Redeye performs/have performed services for the Company and receives/have

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	465	1,147	1,154	1,190	1,280
Growth	>100%	>100%	0.6%	3.1%	7.5%
EBITDA	72	98	100	165	209
EBITDA margin	15.4%	8.5%	8.6%	13.9%	16.3%
EBIT	51	68	60	121	161
EBIT margin	10.9%	6.0%	5.2%	10.2%	12.5%
Pre-tax earnings	17	-62	-92	-25	23
Net earnings	3	-80	-107	-55	-18
Net margin	0.5%	Neg	Neg	Neg	Neg
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	0.92	1.33	0.37	1.39	2.14
P/E adj.	31.6	7.5	29.9	7.9	5.1
EV/S	2.5	0.4	0.7	0.7	0.7
EV/EBITDA	16.3	5.3	8.0	5.2	4.4

Last updated: 2023-08-18

Owner	Equity	Votes
Philippe Cohen	12.9%	9.6%
Avanza Pension	11.1%	8.2%
Christina Seelye	9.1%	19.7%
Prioritet Finans	4.7%	3.5%
Matti Larsson	4.2%	9.6%
Knutsson Holdings AB	3.9%	2.9%
Viktor Vallin	3.6%	2.7%
Joanne Keighran	3.4%	2.5%

Media and Games Invest **M8G**

Company page

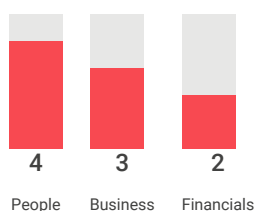
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Publication date

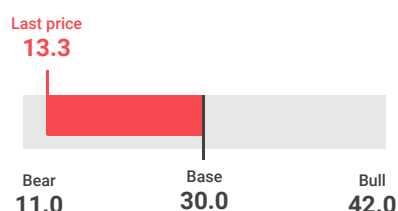
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Redeye Rating

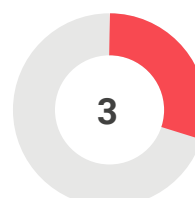
COMPANY QUALITY



FAIR VALUE RANGE



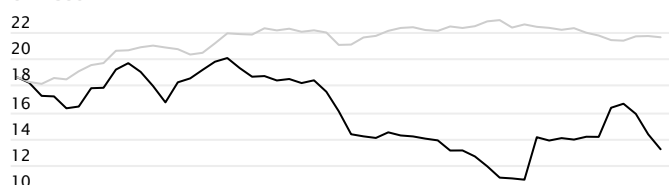
TIMELINESS



Snapshot

Media and Games Invest

OMXS30



Volume



Marketplace First North Stockholm

CEO Remco Westermann

Chairman Tobias M. Weitzl

Share information

Share price (SEK) 13.3

Number of shares (M) 159.2

Market cap (MSEK) 2,121

Net debt (2023E, MEUR) 288

Analyst



Viktor Lindström
viktor.lindstrom@redeye.se

Conflict of interests

Viktor Lindström owns shares in Media and Games Invest: **No**
Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MEUR	252	324	303	339	386
Growth	79.9%	28.7%	-6.5%	11.9%	13.7%
EBITDA	65	85	83	103	117
EBITDA margin	25.8%	26.1%	27.3%	30.5%	30.2%
EBIT	37	27	56	75	86
EBIT margin	14.6%	8.2%	18.3%	22.0%	22.2%
Pre-tax earnings	15	-11	7	37	48
Net earnings	16	-20	5	28	37
Net margin	6.4%	Neg	1.8%	8.4%	9.5%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	0.19	0.13	0.10	0.24	0.30
P/E adj.	23.8	12.9	14.8	6.0	4.7
EV/S	3.1	1.6	1.7	1.5	1.2
EV/EBITDA	12.0	6.3	6.2	4.8	4.0

Last updated: 2023-09-04

Owner	Equity	Votes
Clearstream Banking S.A. W8imy	66.1%	66.1%
Bodhivas GmbH	27.1%	27.1%
Oaktree Capital Management LLP	17.7%	17.7%
SIX SIS AG	5.5%	5.5%
The Bank Of New York Mellon	5.3%	5.3%
Sterling Strategic Value Fund	5.0%	5.0%
Case Kapitalförvaltning	2.1%	2.1%
Trend Finanzanalysen GmbH	1.6%	1.6%
Luxembourg Branch, UBS Europe Se	1.5%	1.5%
Nordnet Pensionsförsäkring	1.5%	1.5%

M.O.B.A. Network **MOBA**

Company page

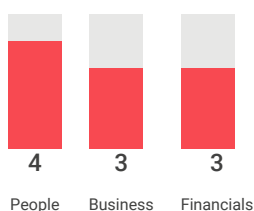
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Publication date

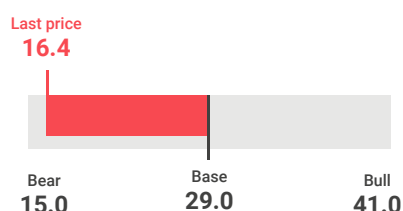
September 18 2023

Redeye Rating

COMPANY QUALITY



FAIR VALUE RANGE

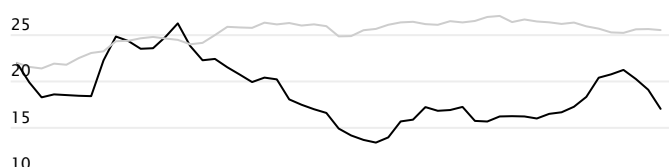


TIMELINESS



Snapshot

M.O.B.A. Network
OMXS30



Volume



Marketplace First North Stockholm

CEO Björn Mannerqvist

Chairman Fredrik Burvall

Share information

Share price (SEK) 16.4

Number of shares (M) 22.7

Market cap (MSEK) 372

Net debt (2023E, MSEK) 173

Analyst



Anton Hoof
anton.hoof@redeye.se

Conflict of interests

Anton Hoof owns shares in M.O.B.A. Network: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	200	291	303	407	424
Growth	>100%	45.4%	4.2%	34.4%	4.2%
EBITDA	27	32	47	111	115
EBITDA margin	13.7%	11.0%	15.6%	27.4%	27.1%
EBIT	25	27	41	104	107
EBIT margin	12.3%	9.4%	13.5%	25.5%	25.3%
Pre-tax earnings	23	26	16	61	64
Net earnings	16	22	12	49	51
Net margin	8.2%	7.5%	3.9%	11.9%	12.1%
Dividend/Share	3.56	2.47	2.72	0.00	0.00
EPS adj.	1.42	0.97	0.90	3.24	3.42
P/E adj.	24.7	22.2	22.5	6.2	5.9
EV/S	2.0	1.6	2.1	1.6	1.5
EV/EBITDA	14.6	14.1	13.4	5.9	5.5

Last updated: 2023-09-18

Owner	Equity	Votes
New Equity	22.7%	22.7%
Henrik Kvick	16.0%	16.0%
Jonas Bertilsson	10.5%	10.5%
Thomas Jansson	10.2%	10.2%
Alcur Fonder	9.7%	9.7%
TIN Fonder	9.6%	9.6%
Cloverhill Holdings Ltd	8.8%	8.8%
Bank Julius Baer & co. ltd, w8imy without	3.5%	3.5%
Björn Mannerqvist	2.3%	2.3%
SEB	2.2%	2.2%

Nitro Games **NITRO**

Company page

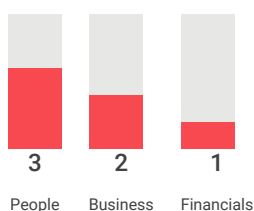
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Publication date

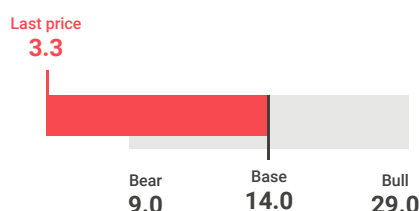
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Redeye Rating

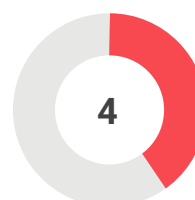
COMPANY QUALITY



FAIR VALUE RANGE

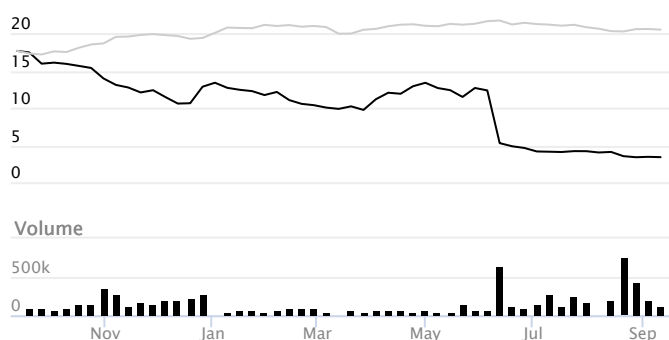


TIMELINESS



Snapshot

Nitro Games
OMXS30



Marketplace First North Stockholm

CEO Jussi Tähtinen

Chairman Johan Biehl

Share information

Share price (SEK) 3.3

Number of shares (M) 24.9

Market cap (MSEK) 83

Net debt (2023E, MEUR) 2

Analyst



Anton Hoof
anton.hoof@redeye.se

Conflict of interests

Anton Hoof owns shares in Nitro Games: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MEUR	3	7	10	14	18
Growth	>100%	>100%	31.5%	44.3%	29.1%
EBITDA	-2	-3	-2	1	2
EBITDA margin	Neg	Neg	Neg	3.7%	12.6%
EBIT	-3	-3	-3	-1	1
EBIT margin	Neg	Neg	Neg	Neg	3.6%
Pre-tax earnings	-3	-3	-3	-1	0
Net earnings	-3	-3	-3	-1	0
Net margin	Neg	Neg	Neg	Neg	2.0%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	-0.23	-0.26	-0.11	-0.04	0.01
P/E adj.	-13.3	-4.5	-3.0	-8.0	23.7
EV/S	11.7	2.6	1.1	0.9	0.7
EV/EBITDA	-13.2	-7.2	-6.5	24.0	5.4

Last updated: 2023-09-18

Owner	Equity	Votes
Egmont Group	50.3%	50.3%
Avanza Pension	7.0%	7.0%
Johan Biehl	2.3%	2.3%
Matti Nikkola	1.8%	1.8%
Turret Oy Ab	1.7%	1.7%
Markus Johansson	1.5%	1.5%
Nordnet Pensionsförsäkring	1.4%	1.4%
Zakaria Rtel Bennani	1.4%	1.4%
Feat Invest AB	1.4%	1.4%
Antti Villanen	1.1%	1.1%

Remedy Entertainment **REMEDY**

Company page

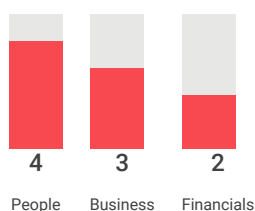
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Publication date

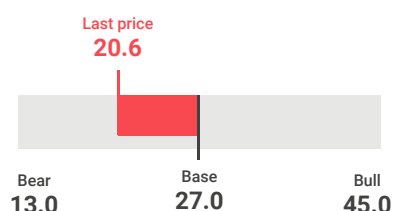
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Redeye Rating

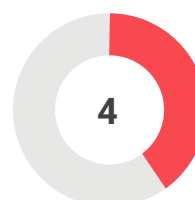
COMPANY QUALITY



FAIR VALUE RANGE

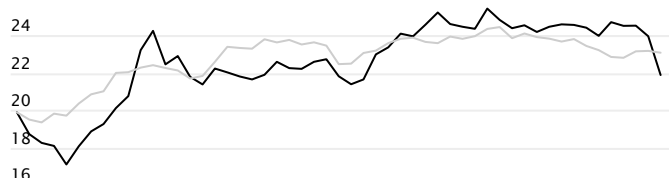


TIMELINESS



Snapshot

Remedy Entertainment OMXS30



Volume



Marketplace NASDAQ Helsinki

CEO Tero Virtala

Chairman Markus Mäki

Share information

Share price (EUR) 20.6

Number of shares (M) 13.5

Market cap (MEUR) 278

Net debt (2023E, MEUR) -27

Analyst



Tomas Otterbeck
tomas.otterbeck@redeye.se

Conflict of interests

Tomas Otterbeck owns shares in Remedy Entertainment: **Yes**
Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

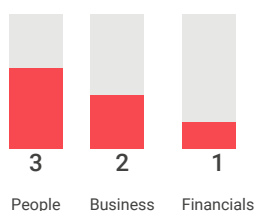
			Redeye Estimates	
	2021	2022	2023E	2024E
Revenue, MEUR	45	44	35	62
Growth	8.8%	-2.5%	-20.2%	77.3%
EBITDA	14	2	-15	10
EBITDA margin	30.5%	4.4%	Neg	16.0%
EBIT	13	-1	-18	6
EBIT margin	28.4%	Neg	Neg	10.0%
Pre-tax earnings	13	-1	-17	6
Net earnings	10	-1	-14	5
Net margin	23.4%	Neg	Neg	8.0%
Dividend/Share	0.17	-0.01	-0.21	0.07
EPS adj.	0.79	-0.05	-1.03	0.37
P/E adj.	50.5	-486.7	-22.3	62.9
EV/S	10.3	6.1	8.1	4.6
EV/EBITDA	33.9	140.1	-18.7	28.7

Last updated: 2023-08-14

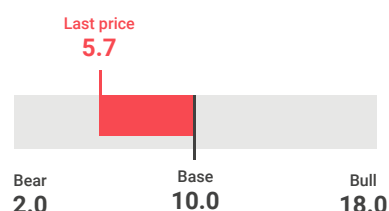
Owner	Equity	Votes
Markus Mäki	23.7%	23.7%
Accendo Capital	15.3%	15.3%
Working Capital Management Pte Ltd	7.8%	7.8%
Tencent	5.0%	5.0%
Sami Järvi	4.2%	4.2%
Aktia Asset Management	2.6%	2.6%
Tero Virtala	2.2%	2.2%
Saku Lehtinen	1.7%	1.7%

Redeye Rating

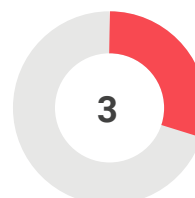
COMPANY QUALITY



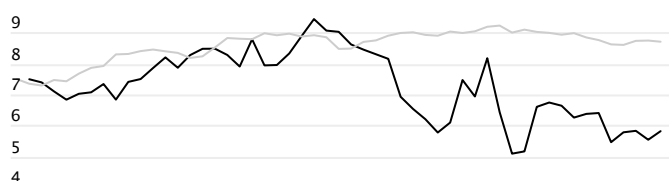
FAIR VALUE RANGE



TIMELINESS



Snapshot

Sozap
OMXS30

Volume



Marketplace First North Stockholm

CEO Rade Prokopovic

Chairman Claes Wenthzel

Share information

Share price (SEK) 5.7

Number of shares (M) 11.4

Market cap (MSEK) 65

Net debt (2023E, MSEK) -4

Analyst



Anton Hoof
anton.hoof@redeye.se

Conflict of interests

Anton Hoof owns shares in Sozap: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	17	17	17	33	49
Growth	65.9%	-5.2%	0.9%	95.9%	49.5%
EBITDA	-1	-3	-2	10	17
EBITDA margin	Neg	Neg	Neg	29.2%	35.2%
EBIT	-8	-14	-7	2	7
EBIT margin	Neg	Neg	Neg	6.2%	13.5%
Pre-tax earnings	-8	-14	-7	2	7
Net earnings	-8	-14	-7	2	5
Net margin	Neg	Neg	Neg	5.3%	10.7%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	-0.95	-0.90	-0.63	0.15	0.46
P/E adj.	-17.3	-9.3	-7.9	32.9	10.8
EV/S	6.4	3.5	3.1	1.9	1.4
EV/EBITDA	-137.0	-21.7	-33.3	6.5	4.1

Last updated: 2023-08-17

Owner	Equity	Votes
Rade Prokopovic	23.1%	23.1%
Ivan Prokopovic	9.3%	9.3%
Avanza Pension	6.6%	6.6%
Ossian Hellers	6.6%	6.6%
Rödgotören AB	5.3%	5.3%
Nordnet Pensionsförsäkring	4.9%	4.9%
Claes Wenthzel	3.7%	3.7%
Patrik Bloch med familj	3.6%	3.6%
SEB Life International Assurance	2.7%	2.7%
Augment Partners AB	2.6%	2.6%

Starbreeze **STAR B**

Company page

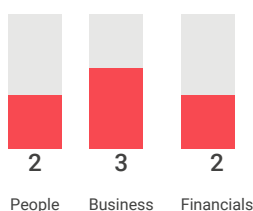
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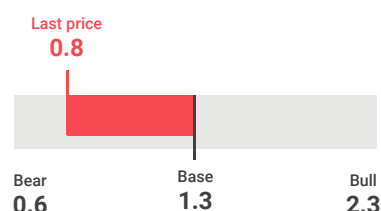
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Redeye Rating

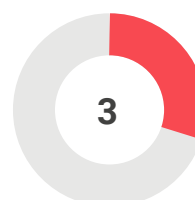
COMPANY QUALITY



FAIR VALUE RANGE

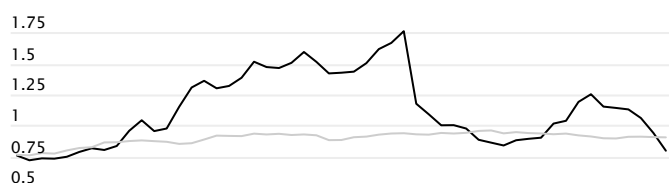


TIMELINESS



Snapshot

Starbreeze
OMXS30



Volume



Marketplace NASDAQ Stockholm

CEO Tobias Sjögren

Chairman Torgny Hellstöm

Share information

Share price (SEK) 0.8

Number of shares (M) 1,476.8

Market cap (MSEK) 1,184

Net debt (2023E, MSEK) -420

Analyst



Tomas Otterbeck
tomas.otterbeck@redeye.se

Conflict of interests

Tomas Otterbeck owns shares in Starbreeze: **Yes**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	126	122	527	279	225
Growth	6.6%	-2.6%	>100%	-47.0%	-19.5%
EBITDA	6	66	376	153	85
EBITDA margin	5.0%	54.2%	71.4%	54.8%	37.7%
EBIT	-54	7	284	-3	-75
EBIT margin	Neg	5.5%	53.9%	Neg	Neg
Pre-tax earnings	-103	-55	241	-9	-55
Net earnings	-100	-55	241	-5	-47
Net margin	Neg	Neg	45.8%	Neg	Neg
Dividend/Share	-0.07	-0.04	0.08	0.00	-0.02
EPS adj.	-0.14	-0.08	0.16	0.00	-0.03
P/E adj.	-7.2	-12.4	5.8	-285.6	-29.4
EV/S	8.6	9.8	1.8	3.6	5.0
EV/EBITDA	170.7	18.1	2.6	6.6	13.2

Last updated: 2023-08-17

Owner	Equity	Votes
Digital Bros	21.0%	38.8%
Första AP-fonden	9.1%	4.8%
Avanza Pension	6.9%	6.7%
Swedbank Robur Fonder	5.7%	3.0%
Nordnet Pensionsförsäkring	3.0%	2.0%
Fjärde AP-fonden	2.8%	1.5%

Thunderful Group **THUNDR**

Company page

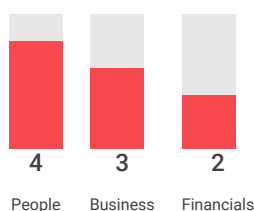
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Publication date

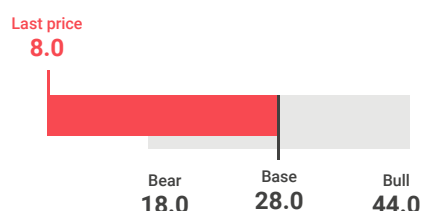
September 19 2023

Redeye Rating

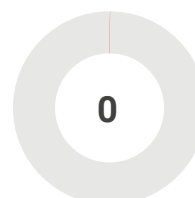
COMPANY QUALITY



FAIR VALUE RANGE

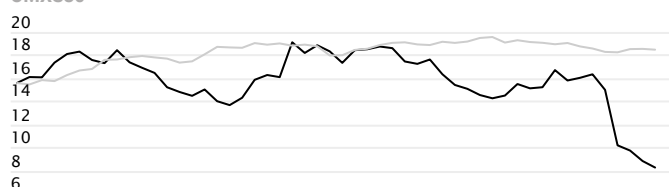


TIMELINESS

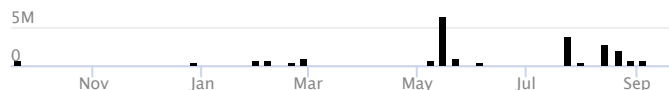


Snapshot

Thunderful Group OMXS30



Volume



Marketplace First North Stockholm

CEO Anders Maiqvist

Chairman Mats Lönnqvist

Share information

Share price (SEK) 8.0

Number of shares (M) 70.3

Market cap (MSEK) 562

Net debt (2023E, MSEK) 418

Analyst



Viktor Lindström
viktor.lindstrom@redeye.se

Conflict of interests

Viktor Lindström owns shares in Thunderful Group: **No**

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.

Financials

			Redeye Estimates		
	2021	2022	2023E	2024E	2025E
Revenue, MSEK	3,141	3,031	3,194	3,467	3,484
Growth	1.9%	-3.5%	5.4%	8.5%	0.5%
EBITDA	336	370	355	456	487
EBITDA margin	10.7%	12.2%	11.1%	13.1%	14.0%
EBIT	209	196	138	234	261
EBIT margin	6.6%	6.5%	4.3%	6.7%	7.5%
Pre-tax earnings	169	158	41	214	241
Net earnings	132	127	33	169	190
Net margin	4.2%	4.2%	1.0%	4.9%	5.5%
Dividend/Share	0.00	0.00	0.00	0.00	0.00
EPS adj.	2.91	2.91	2.80	3.88	4.19
P/E adj.	30.5	8.2	22.2	4.4	3.9
EV/S	1.5	0.5	0.4	0.3	0.3
EV/EBITDA	14.0	4.3	3.3	2.4	2.0

Last updated: 2023-08-21

Owner	Equity	Votes
Bergsala Holding AB	25.5%	25.5%
Brjann Sigurgeirsson	6.2%	6.2%
Klaus Lyngedal	6.1%	6.1%
UBS Switzerland AG	4.6%	4.6%
Avanza Pension	3.3%	3.3%
Alcur Fonder	3.2%	3.2%
ÖstVäst Capital Management	3.1%	3.1%
SEB Life International Assurance	3.1%	3.1%
Knutsson Holdings AB	3.0%	3.0%
Goldman Sachs International	2.5%	2.5%

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