# Progressive EQUITY RESEARCH

# **TINYBUILD** SOFTWARE & COMPUTER SERVICES

27 July 2023

## TBLD.L

13.5p

Market Cap: £27.5m



## SHARE PRICE (p)



Source: LSE Data (priced as at prior close)

KEY DATA	
Net (Debt)/Cash	\$26.5m <i>(at 31/12/22)</i>
Enterprise value	£6.8m
Index/market	AIM
Next news	Interims, Sept
Shares in Issue (m)	203.9
Chairman	Henrique Olifiers
CEO, Founder	Alex Nichiporchik
CFO	Giasone Salati

## COMPANY DESCRIPTION

tinyBuild is a premium AA-rated and indie video games publisher and developer with a focus on multimedia franchises.

www.tinybuild.com

TINYBUILD IS A RESEARCH CLIENT OF PROGRESSIVE

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## Initiating coverage: Building for the future

In an attractive video games market, tinyBuild is investing to accelerate growth, including new technologies and larger-budget Games-as-a-Service (GaaS) titles, and has a strong pipeline of games under development. The company's strategy retains an emphasis on expanding its own intellectual property (own-IP) portfolio and monetising its catalogue of AA and indie games using a franchise and multimedia model. Following recently reported challenges, the outlook for platform deals has stabilised. Direct sales to consumers continue to perform well and the strong reception to recently announced titles bodes well for the future.

- Majority own-IP is key to maximise revenue potential. With a back-catalogue of over 80 games, tinyBuild is focused on long-term value creation by adding new content and utilising cross-media opportunities to extend the life of each title. This strategy also benefits the company with improved profit margins. In FY22, own-IP as a percentage of revenues was high comparative to peers, accounting for 77% of revenue.
- Expanding the lifespan of titles via a franchise and multimedia model. Following the commercial success of the *Hello Neighbor* franchise, tinyBuild intends to use this model for other games: creating additional content, making titles available across different devices and platforms, and reaching new audiences through multimedia products to maximise revenue generated from each IP. New episodes of the *Hello Neighbor* animated series are due to launch in the second half of 2023.
- Developing larger-budget games. tinyBuild continues to invest in diversifying its games portfolio and has shown that it can successfully produce bigger-budget titles. Three new games with a budget of over \$1m were launched in FY22, achieving an average return of 1.9x in less than six months. These GaaS titles have the potential to be played for over 100 hours and to generate revenues over years to come.
- Focus on cash generation. Further to the recent trading update, tinyBuild is focusing on organic growth and maintaining a strong financial position. After accounting for a lower contribution from platform deals, management guidance is that net cash will still be between \$10m and \$20m at the end of FY23, and the company also has an undrawn revolving credit facility of up to \$35m. This steady financial base, along with the appointments of Giasone (Jaz) Salati as CFO and Michael Schauble as CCO, provides the opportunity for tinyBuild to position itself for growth.

FYE DEC (\$M)	2021	2022	2023E	2024E	2025E
Revenue	52.2	63.3	50.2	53.7	57.5
Adj EBITDA	22.2	24.4	5.2	5.7	7.0
Fully Adj PBT	20.5	19.6	0.5	1.1	2.3
Fully Adj Dil EPS (c)	8.3	7.4	0.2	0.4	0.8 🦿
EV/Sales (x)	0.2x	0.1x	0.2x	0.2x	0.2x
EV/EBITDA (x)	0.4x	0.4x	1.7x	1.5x	1.3x 🌶
PER (x)	2.1x	2.3x	83.9x	43.2x	20.8x 🍆

Source: Company Information and Progressive Equity Research estimates.

This publication should not be seen as an inducement under MiFID II regulations.

Please refer to important disclosures at the end of the document.



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## Progressive EQUITY RESEARCH



AAA games: Video games with large development and marketing budgets. Made by companies that can produce huge blockbuster-style games.

AA games: Video games produced and distributed by mid-sized or major publishers. Higher budgets than other tiers of games.

Indie games: independent video games made by small teams (sometimes one person). They typically produce smaller budget games and are often active with social media, communities and forums for marketing.



Game developers create and develop the game.

Game publishers are responsible for the distribution, marketing, sales and PR of the games.

## **Executive summary**

## Introduction to the company

tinyBuild is a leading video game publisher and developer primarily focused on AA and premium indie games. It distributes games primarily on PC and consoles, including Steam, Xbox, PlayStation, Nintendo and Epic Games. The company's mission is to build long-lasting, sustainable franchises across multiple media formats. Founded in 2013, tinyBuild operates in the US and Europe, and listed on the London Stock Exchange in 2021. Founder and CEO Alex Nichiporchik is well-versed in the video game industry as a life-long gamer. He has been immersed in the sector throughout his career from his days as a professional gamer aged 14, to roles in journalism, game production and marketing.

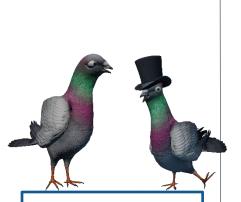
## Strategy and business model



Source: tinyBuild

- tinyBuild seeks to grow the number of titles in its portfolio with a focus on owning the IP. Own-IP means the publisher and development studio's objectives are perfectly aligned and upside is uncapped; if a game does well, the company can seamlessly expand the franchise, as discussed below. The company's back-catalogue of own-IP titles provides recurring revenue, which helps to build predictability of cash flow for the business to fund new projects. tinyBuild also has a diversified pipeline of new IP across a range of genres, with a shift towards Games-as-a-Service (GaaS).
- Extend revenue potential through a franchise and multimedia model. Creating additional content and spin-off games enables tinyBuild to increase the lifespan of popular titles that already have an engaged audience, reducing the launch risk. Working across media including books, graphic novels, merchandise and TV-series assists in marketing titles, reaching new audiences and keeping existing players engaged.
- A decentralised operating model creates teams that can specialise in a single platform format or specific gameplay feature, allowing the company to simultaneously deliver games across multiple platforms. Each team operates as an independent pod supported by the top-level infrastructure. Teams have direct ownership of games in production, which removes bottlenecks and allows them to make decisions quickly.
- Effective use of influencers, social media, and audience engagement. Games are often released to a select audience at the development stage for testing and feedback. Together with the use of social media and strong relationships with influencers streaming the company's gaming content, this plays an important part of tinyBuild's marketing strategy.





**Premium games:** Players buy the game to play. The games are sold at a specific price point with a percentage of the sales going to the developer and publisher, after fees paid to the distribution platform.

**Free-to-play games:** Provide free access to players for a significant portion of content, with further content and features available for purchase via micropayments.



## tinyBuild games catalogue

- **80+ games** in the back-catalogue.
- **Core pillars:** indie / retro, AA, physics comedy, Games-as-a-Service (GaaS) and horror.
- Titles across multiple genres include the Hello Neighbor franchise, Graveyard Keeper, SpeedRunners, recently acquired Surgeon Simulator and industry award nominated games like Potion Craft and Not for Broadcast.
- Three games \$1m+ launched in FY22, with an average return on investment of 1.9x within six months and a record number of new releases announced for FY24 and FY25.

## Revenue

tinyBuild develops and publishes games based on its own and third-party IP. It generates revenues from direct sales to consumers and large deals with distribution platforms. In FY22, game and merchandise royalties accounted for 65% of revenue. The rest of the company's revenue is received from distribution partners to assist with the development of game titles and from DevGAMM, the company's video-games events business.

- FY22 the most successful year to date with revenue +21% to \$63.3m (FY21: \$52.2m).
- **77% of sales from own-IP and 80% back-catalogue** as a % of gaming revenues.
- HY23 setback due to lower contribution from platform deals and the underperformance of development studio Red Cerberus and indie games publisher Versus Evil will have a material impact on revenue and profit in FY23 and FY24. However, the company has a strong pipeline, with new larger-budget games scheduled to launch in 2024 and 2025.

## Market backdrop

- The gaming industry is now worth more than music and movies combined. The video games sector is a large and growing market with forecasts the market will increase to \$211.2bn by 2025 (Source: NewZoo).
- The market was already growing before the Covid-19 pandemic. Lockdown accelerated this growth and, although there was a small decline in various geographies in FY21 or FY22 as lockdowns eased, the industry is once again on-track for global growth. For example, the UK games market declined by -2% year-on-year in 2021, then increased +2.3% in 2022, marginally ahead of the record 2020 totals (*Source: era*).
- The gaming audience has diversified in terms of gender and age, with different reasons for engaging including playing, watching gaming content and socialising. More people are playing across multiple platforms, and multimedia content is being used to keep audiences engaged.



## Competitors

The video games market has attractive growth prospects. Large AAA publishers compete in the same space as one-man, independent developers creating free-to-play content, and everything in between.

Key competitors to tinyBuild include Frontier Developments, Team 17, Devolver Digital, Embracer and, on a slightly different level, Keyword Studios. tinyBuild considers itself as unique in the space as it retains the agility of a small developer-publisher, while having a diversified portfolio of own-IP and a large back catalogue to fund further growth.

## **Investment case**

- tinyBuild retains a strong focus on organic growth supported by in-house developers and a good network of existing partnerships. As well as investing in new technologies, it has a strong pipeline with new larger-budget games for release in the near future.
- The company's focus on own-IP maximises the expected returns and aligns incentives between publisher and developer. The diversified portfolio approach (across genres, target audience, price points, technology etc.) minimises the risk attached to any single game.
- Its franchise model and multimedia ambitions contribute to additional growth potential as the company extends the lifespan of back-catalogue and provides predictable cash flows. An example of this is the company's *Hello Neighbor* franchise, which released two episodes of its *Hello Neighbor* animated series in December 2022 to coincide with the release of *Hello Neighbor* 2. The first episode of the animated series premiered ingame. These initial episodes had collected over 2m views on YouTube during the month, potentially attracting new gamers while also generating YouTube advertising income. An additional 10 episodes are due to be released throughout 2023, timed to coincide with updates on existing titles and new title launches in the franchise.









Source: https://www.statista.com/chart/22392/global-revenue-of-selected-entertainment-industry-sectors/

## The video games sector is worth more than music and movies combined

As displayed in the chart above, the video games sector is the largest category in the entertainment industry with revenues surpassing those of the books, film and music industries. In part, this growth is attributed to increased popularity of mobile gaming and e-sports, as well as the rise of streaming platforms with Cloud gaming and Games-as-a-Service (GaaS) benefiting games companies. The demographics of gamers is also expanding, with greater diversity in terms of age and gender. The ability to socialise and compete with other gamers is one factor in attracting and retaining new players. With over 3 billion gamers globally, this trend looks set to continue, with further growth predicted.

### A large and growing market

Market data from Newzoo forecasts that the market will grow to \$211.2bn by 2025, with the number of players worldwide increasing to 3.6 billion from 2.9bn in 2020. With demand from expanding demographics increasing and long-term growth trends in the mid-single digits, there is still plenty of opportunity in the gaming sector.

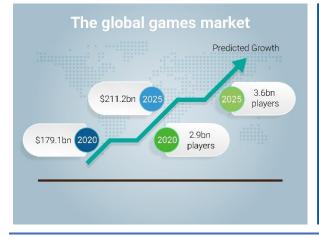
Although mobile devices have increased the scope of the addressable market, PC and console remain a core component. Newzoo<sup>1</sup> reported that in 2022 there were 1.1bn PC players and 611m console players, with PC and console games generating revenues of \$92.3bn.

<sup>&</sup>lt;sup>1</sup> Source: Newzoo, PC & Console Gaming Report 2023



## 27 July 2023

## Video games sector – predicted growth



Source: Newzoo, Global Games Market Report Free Version, 2023

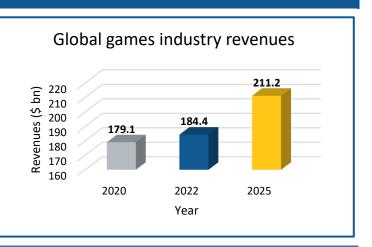
## Digital Distribution Platforms:

Core distribution platforms can charge fees between 15–30%+ to distribute games. Examples of game distribution platforms include:

- Sony PlayStation
- Steam
- Nintendo
- Apple Store
- Epic Games
- Microsoft Xbox
- Tencent

Platform deals can be signed to provide a game exclusively to a specific platform, for a duration of time or a specific service. Subscription deals or development deals can also be made with a platform.

Alternatively, sales can be made directly to consumers with purchases made by the gamer on any platform.



## Post-Covid landscape

The easing of Covid-19 meant that 2022 saw a slight downturn in the global games market, with overall playtime and spending down. As restaurant, entertainment venues, gyms and sports centres reopened, and foreign travel restrictions lifted, the strong growth experienced in the games market was impacted. Globally, the PC and console market was -2.2% year on year, with the average playtime dropping by -23% across Steam, Xbox and PlayStation from 2021 to 2022 (*source: Newzoo*). However, this was not the case across individual markets. For example, in the UK, after a small decline in annual revenues of -2% in 2021 there was a rebound in 2022, with spending on video games up +2.3% to a record £4.7bn (*source: era*).

A substantial gaming audience existed pre-Covid, but the pandemic injected large-scale growth at a faster rate than could have been anticipated. Although the extreme engagement experienced in lockdown has relaxed, many new audiences who took up gaming continue to play. Despite the small global market dip in 2022, growth is predicted in the PC and console market in 2023 and beyond.

Another consequence of the pandemic was a delay in games being developed and released. Many titles are due to be launched throughout 2023. With an influx of new games and an array of gaming platforms, the market is saturated with options for players to choose from. Attracting players' attention and ensuring they stay connected is key to gaining competitive advantage. As gaming audiences diversify and the way people use games to play, connect and socialise evolves, the industry is developing new ways to keep players engaged.

## Snapshot of general market trends

- Distribution platforms. tinyBuild has reported a reduction in platform deal activity due to mainstream distribution platforms reducing investment in indie games in favour of AAA titles. Platforms are benefiting from the backlog of delayed releases due to the pandemic, as mentioned above, and many have increased their fees meaning there is less upside potential for the developer / publisher.
- Microsoft / Activision deal. Microsoft announced its intention to acquire Activision Blizzard in January 2022. This would provide Microsoft Xbox with some of the most



popular video game franchises in the industry, such as *Call of Duty, Candy Crush* and *World of Warcraft*, if the \$68.7bn deal proceeds. In April 2023, the UK's Competition and Markets Authority blocked the deal on concerns it would offer reduced innovation and less choice for gamers, and in June 2023 a judge granted a request by the US Federal Trade Commission to temporarily block the takeover due to concerns it could substantially lessen competition in the sector. Although the EU has approved the deal, Microsoft and Activision need approval from regulators in the UK and the US. Microsoft believes that the future of gaming will be through subscriptions to libraries and streaming games through cloud gaming, rather than making one-off purchases.

- Meta redundancies and future focus. In May 2023, Meta, which owns Facebook, Instagram and WhatsApp, announced further redundancies, cutting 10,000 jobs in a second round of layoffs. In addition, 5,000 vacancies will be left unfilled. Higher US interest rates, global geopolitical instability and increased regulation were some factors cited as impacting the business. In June 2023, Meta announced its Quest 3 VR headset. However, it remains to be seen what level of investment the business will put into developing VR and the MetaVerse given its recent cost-cutting measures. In July 2023, Meta also launched a new social media site, Threads, as an alternative to Twitter.
- Audience diversification. The PC and console gaming audience is diversifying in gender and age. As well as actively playing games, audiences are engaging more generally in gaming by following streamers and using games platforms to connect and socialise in communities. There is no singular typical gaming profile, rather a range of subgroups.
- Cross-platform play. The number of gamers playing on multiple platforms (e.g., PC, console, mobile) is growing. Online games with cross-platform play can enable gamers to play with each other simultaneously, no matter which console or device they are using. It also allows the player to start a game on one platform and continue play on another. This boosts player engagement and strengthens IP.
- Cross-media strategies. To keep audiences engaged for longer, cross-media strategies are evolving. For those that own IP, this may involve franchising so that content is rolled out in games, movies, comics, books and other media platforms. More people are consuming video games content by reading, listening and watching, as well as creating game content, with Gen Alpha and Gen Z more likely to engage across different media. Remakes and remasters of older IP also help to maximise the value of a title.
- Cloud streaming. Cloud streaming continues to bring accessibility to new markets, reducing barriers such as hardware-related costs, and enables gamers to play the newest games through the cloud.
- Mixed revenue models. Subscriptions, freemium subscriptions (where players can play for free with some limitations), box sales, in-game advertising, downloadable content (DLC), microtransactions, virtual currency, persistent virtual worlds in franchises and merchandise are all means of video game monetisation. The latest trends suggest that companies will continue to use mixed revenue models.
- Artificial Intelligence (AI). Al is not new to video gaming, having been used across a range of applications to enhance player experience, determine behaviour of non-player characters and perform data mining on player behaviour. It can be used across the spectrum of gaming: design and development, adaptive gameplay, procedural content generation, feedback and bug detection. Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality can use AI to enhance environments. As new technologies enter the market and AI becomes more sophisticated, it will continue to reshape gaming.
- Semiconductors: Global supply chain issues impacted the availability of semiconductors and consequently console production. With supply chain issues resolving, devices are becoming more readily available to consumers in 2023.







**First-party model:** The publisher owns the IP which is developed by in-house developers. This provides more control over a game's design, publication and distribution and potential upside.

Second-party model: The publisher owns the IP which may be developed by an external studio. There is upside potential, but less control over the development process.

Third-party model: The agreement between the publisher and development studio is purely transactional and it normally ends after the release of the game.

## tinyBuild's strategy and business model

## What does tinyBuild do?

tinyBuild is a global video games publisher and developer creating video games across a range of genres, primarily for PC and console.

tinyBuild was founded in 2013 as an indie game developer and moved into publishing in the first year of operations. Initially focusing on publishing third-party IP, it has developed to an own-IP (second- and first-party IP) centred model. Formed as a pure-play digital distribution publisher, the company distributes games via all the major digital storefronts, on console, PC and mobile.

tinyBuild is US-incorporated and operates across the Americas and Europe, with over 400 staff. Listed on the London Stock Exchange in March 2021, tinyBuild's mission is to build long-lasting sustainable franchises across multiple media formats.

## Wait a minute... 'indie publishing is dead!'

This may seem like a surprising claim to come from indie publisher tinyBuild's founder Alex Nichiporchik. However, he argues that the traditional transactional independent publisherdeveloper relationship is obsolete. Here's why:

- It's an easy-to-replicate business model as most platforms are open, so you don't need a publisher to access them. Indie publishers used to be the gatekeepers to consoles and platforms like Steam, but this is no longer the case.
- Minimal starting capital is required and as a result there are too many new entrants diluting the market.
- The quantity of mid-sized publishers exceeds the number of good games being developed. The market is saturated with too many products competing for gamers' attention.
- Traditionally, publishers provided funding, production expertise and marketing. There are numerous agencies that can market games and funding is generally available to mid-sized development studios, particularly for per project investments. Production expertise, on the other hand, is more difficult to come by.

On the game development side, developers are increasingly spending a few years working for a large studio to gain experience, then leaving to make their own independent games.

tinyBuild incorporates both game development and publishing into its business model. With an extensive network, the company finds exciting new games and developers, and acquires the IP and talent. By scaling a one-man developer into larger teams, tinyBuild creates a partnership approach to publishing games, which will be utilised over the longterm rather than as a one-off transaction. In-house development capabilities provide the flexibility to assist external developers with product optimisation, combat design (making game systems for physical conflict between player(s) and often AI-controlled enemies such as in first person shooter or real-time action games) and porting (where a game designed to run on one platform is converted to run on a different platform).

- Third-party developers. Using a third-party developer, tinyBuild can produce games without being tied to any specific platform. Traditionally, the developer owns the IP to any title they create, but tinyBuild often acquires the team and the IP.
- Transactional model. Using this model, publishers promote individual titles for a developer. However, without a long-term relationship, a one-off hit game doesn't have



the scope to evolve. Although the initial value of the game may be high for both parties, this weakens if you stop making products with that IP.

Partnerships to create long-term IPs are the solution. Successful IP needs to be developed over the long term. Sequels, spin-offs, downloadable content (DLC), along with multimedia products such as books, TV and merchandise, help to build a franchise that will be in the audience's mind for 5-10 years, thus maximising the IP's revenue potential.

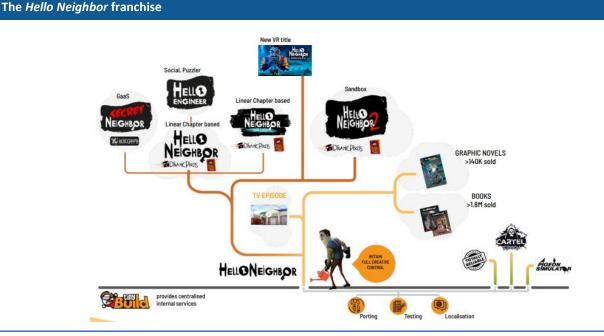
Alex Nichiporchik surmises that indie games are alive and kicking, but publishers need to adapt their business model to focus on building partnerships with developers to create long-lasting IPs and franchises.

## How to use own-IP to maximise value

tinyBuild's model is to build long-term partnerships with developers and invest into creating and acquiring long-lasting IP that can be built into multi-game and multimedia franchises. As mentioned above, this increases the monetisation potential of a title either by adding new content or creating multimedia products to extend the lifespan.

- 77% of group revenues were from own-IP titles in FY22, which enables a focus on long-term value creation and results in improved profit margins for the company.
- Sourcing new IP is a combination of actively seeking new games, either through existing relationships with developers or via the company's extended networks, as well as receiving over 1,000 unsolicited pitches each year. Often the business will 'acquihire' an external development team and relevant target IP to bring both the IP and talent inhouse.
- **Franchise potential.** tinyBuild focuses on games that can be played for over 100 hours and become self-standing franchises.

## Expanding IP – the franchise model in play



### Source: tinyBuild

**77%** of sales from Own-IP

One example of IP origination is *Cluster Truck* which was discovered on social news site Reddit.

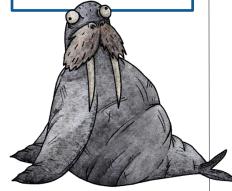




Alpha release is an early version of the game, only partially complete and may still have bugs and errors. It is usually only available to a small group of people for testing and feedback.

Beta versions are more finished, with the content complete and with optimised functionality, although errors and bugs may still be present.

**Closed-beta** versions are released to a restricted number of people for testing.



*Hello Neighbor* is tinyBuild's first multimedia franchise that demonstrates its business strategy in action. The company discovered the game through desktop research in 2015 after the developer was initially unsuccessful in publishing *Hello Neighbor*. However, tinyBuild believed it had potential, so provided creative and technical input and launched the game in 2017. Despite critics branding it one of the worst games of the year, it turned into a commercial success with over 70 million downloads accumulated by the end of FY22.

As the diagram on the previous page shows, the *Hello Neighbor* franchise has grown both organically and through M&A to produce a prequel and multiplayer spin-off in a variety of game formats including:

- Hello Neighbor 2, the sequel was previewed in 2020 with an Alpha release and involved players helping train the AI that is part of the final game. It launched for pre-orders as a closed-Beta version in April 2022 with version 1.0 released in December 2022.
- Hello Neighbor Search and Rescue, a virtual reality (VR) title that will be available on PSVR2 and Oculus.
- Hello Engineer will launch on PC and consoles.
- Secret Neighbor will also be adapted for online game platform Roblox.

In addition to expanding new game titles, *Hello Neighbor* has developed across media including merchandise, books, graphic novels and an animated series. tinyBuild has a dedicated division creating TV content, which includes the writers behind *Ben 10, Sonic* and *Big Hero Six*. Porting titles onto different platforms is demonstrated by the development of *Secret Neighbor* on iOS, primarily as a marketing tool, while cross-play options have been added for *Hello Neighbor 2*.

Other games that are being expanded into a multi-title franchise include *Streets of Rogue* 2 and *Totally Reliable Adventure Park. Graveyard Keeper* is another example of a game that regularly has new content added.

## What are the benefits of the franchise and multimedia model?

Over two million viewers watched the first two episodes of the *Hello Neighbor* animated series on YouTube. This acts partly as a promotional tool, potentially attracting new gamers who get to know the characters and world through the TV show, as well as providing existing gamers with extra content to keep them engaged. It also helps to generate an additional revenue stream through YouTube advertising income.

- Reduces launch risk. By building a franchise from already successful titles, subsequent releases have a minimised launch risk. The use of playable alphas during development and early access versions of new games means that well-received game characteristics are included, and less successful elements cut. It also serves to keep gamers engaged in the franchise during the development phase.
- Extends reach across different devices, PC, consoles and mobile, and across multiple gaming platforms, so there is something to offer diverse gaming preferences. Reach expands across media which helps to attract more fans.
- Extends the lifespan of the IP by providing a consistent flow of content with synergies across video game titles and multimedia content. New content reaching new audiences will also encourage them to explore earlier titles, further extending the lifespan of the original.



Key takeaways from the *Hello Neighbor* franchise case study are that value can be added from an early stage, with the use of playable alphas and early access versions strengthening the data-centric approach to game development. In the case of *Hello Neighbor*, it demonstrates the importance of listening to audiences rather than critics.

## Not every game will be a hit - a portfolio approach

In the video games industry, everyone aims to have a hit game. Although desirable they are rare, so relying on a single title to become a success is a risky strategy. tinyBuild still aim high but try to mitigate risk with a well-diversified portfolio and strong back-catalogue to support new releases.

With over 80 games in the back catalogue, accounting for 80% of gaming revenues, this helps to build in a level of predictability of cash flows. Existing titles receive continued investment to make the games available on more platforms in new formats to maximise their long-term potential. Outperforming games in the portfolio compensate for those falling short of estimations, which helps the business predict aggregate yearly revenues.

tinyBuild also invests heavily in creating and developing new games. The company has a strong pipeline due to well-established industry connections, continued engagement with the gaming community and relationships built from DevGAMM, the company's video-game events business. In 2022, tinyBuild worked on nearly twice as many games as in 2021 and is now investing in bigger-budget titles. Three new games with a budget of over \$1m were launched in 2022 and have received an average return of 1.9x in less than six months. It is worth noting that the lowest returning game had an ROI of 1.2x, the middle an ROI of 1.5x and the highest returning game an ROI of 2.9x which increases the average, but with all three larger-budget games contributing a return.

The business continually reviews quirky and interesting games that offer something new and have a highly professional team behind them. The company focuses on games that can be played for over 100 hours with IP that has the potential to become a franchise.

The back-catalogue helps to generate consistent revenue streams, which mitigates some of the risk involved in launching further titles. Investing in new games provides the opportunity to discover a revenue-boosting big hit.

## **Decentralised operating model**

As the business has grown, tinyBuild has decentralised its operations. This was propelled by the acquisition of the *Hello Neighbor* development team. Rather than operating with a traditional business structure with separate departments for different functions and division leads, the company builds multi-disciplinary teams of 3-7 people that focus on the product itself, for example by genre, geographic location or platform. This has led to greater efficiency of projects by removing bottlenecks, meaning decisions can be made quicker. It also hands over direct ownership of the project to the people working on the game.

Games can be developed across the world in a modular approach by teams with specialist expertise in a single format type or specific gameplay features. Each team operates as a pod with a producer at the head and is given creative freedom. This means games can be simultaneously developed for consoles, PC and mobile, increasing their presence on as many relevant platforms as possible. This model supports faster profitable growth, minimises dependencies on external suppliers and maximizes synergies among internal studios.

# >80

Games in the portfolio

80%

Back-catalogue as a % of gaming revenues

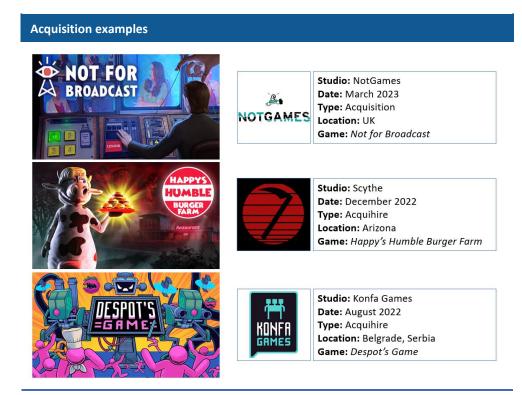
1.9x

Average return on investment on the three larger-budget games launched in 2022



## **M&A strategy**

Since 2013, tinyBuild has completed 14 acquisitions. An important part of this strategy is the 'acquihire' model, which is the process of acquiring a developer and selectively acquiring the relevant IP via an asset purchase, rather than a corporate acquisition. Although in the long term tinyBuild will continue to review opportunities for acquihires, as well as larger-scale acquisitions, to scale and diversify the business and to grow in-house development talent, games services and publishing labels, its current focus is on organic investments. As such, the company will be reducing M&A spend in the short term and focusing on investment in developing new games and extending existing titles. Below are a few of tinyBuild's recent acquisitions.



Source: tinyBuild

In addition to these examples, tinyBuild acquihired Demagic, a porting studio based in Serbia, in April 2022 and acquired the IP catalogue of Bossa Studios for an upfront consideration of \$3m in August 2022. tinyBuild previously acquired *Pigeon Simulator* from Bossa Studios in 2020 and this more recent acquisition adds the IP for *Surgeon Simulator* (and related titles), *I am Fish* and *I am Bread*, demonstrating the company's commitment to building long-term partnerships within the industry. The revenues generated from the Bossa acquisition should repay the initial investment relatively quickly and the deal provides potential opportunities for tinyBuild to expand the franchises.

### **Grassroots marketing**

tinyBuild typically takes a grassroots approach to marketing. A combination of direct engagement with consumers throughout the development process, long-term partnerships with influencers and ongoing community engagement are the key methods the business employs in marketing new titles.



- Two-way conversation with gamers. Direct engagement through social media platforms including Discord, which is commonly used by video game players, and TikTok provides insight into current and emerging themes in the sector. Incorporating consumers by integrating alpha and beta testing into game development ensures that games reflect current consumer trends and preferences.
- Strong relationships with influential streamers with over 10,000 verified influencers. These long-standing relationships assist in marketing tinyBuild's games and products. Building high viewer numbers enables the influencers to monetise their channels more efficiently. This reciprocal partnership has contributed to tinyBuild generating over 5 billion content-related views on YouTube, to 31 December 2022.
- DevGAMM events. tinyBuild invested in the Eastern European-focused video game event organiser in 2018. DevGAMM hosts conferences for video games professionals, providing a further means of engaging with the gaming community and building a strong network with developers, publishers, game designers, programmers and artists.
- Social media following. As at 31 December 2022, the company had over 600k followers on TikTok, 4.3 million likes across all videos and a total of 456.1 million views across the #helloneighbor hashtag. In addition to the game sub-brands' online presence, the tinyBuild consumer brand had over 1.6 million followers on social media platforms at the end of 2022, putting it ahead of the competition at this time (Devolver Digital 0.9m, Team 17 0.3m, Frontier Developments 0.1m).
- Marketing stunts. The table below shows some of tinyBuild's early marketing ploys, demonstrating the innovative ways the company reaches its audience and encourages engagement.

## Innovative marketing approach



## SpeedRunners' Influencer

**The initiative:** In 2015 tinyBuild created ingame characters for the world's 2<sup>nd</sup> largest YouTuber (at the time), PewDiePie, who had over 100 million YouTube subscribers. As well as an in-game character of him, the also created "Duck in a barrel," which only he can play as.

**The Outcome:** PewDiePie accumulated over 53 million *SpeedRunners*-related video views including over 8 million on two videos specifically covering his character.



## Twitch Plays Punch Club

The initiative: In 2016 Twitch chat users were set a challenge to beat a pre-release version of the game before it was officially released to the public. They had 8 days to beat the game...

**The Outcome:** Twitch chat came together and managed to beat the game in 36 hours which meant the game was released. It generated a lot of interest and coverage of the game.



## Twitch Vs One Troll Army

The initiative: In 2016 tinyBuild set a new contest – beat the developers at their own game in nine hours or less, and they'll release it for free! Every time the Twitch community won a round, the release price decreased...

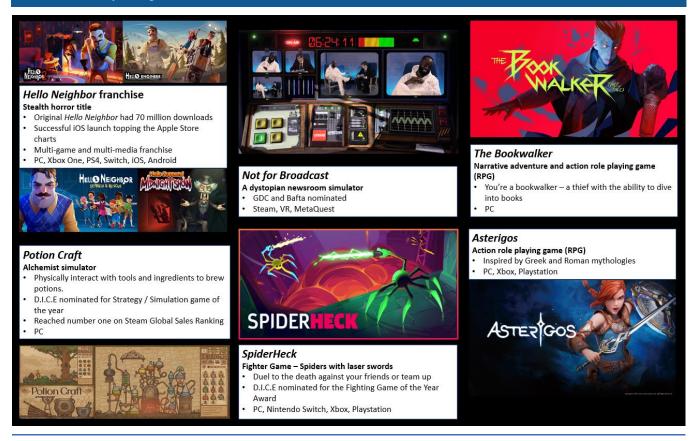
The Outcome: Once again Twitch users triumphed, and the game is available to download for free! High levels of engagement created a lot of publicity for both the game and tinyBuild.

Source: tinyBuild



## The games catalogue

### A selection of tinyBuild games



Source: tinyBuild

tinyBuild's catalogue of premium titles covers a variety of genres including horror, action, simulation and survival. The company's back-catalogue incorporates over 80 games categorised into five core pillars: indie/retro, AA, physics comedy, Games-as -a-Service and horror, with a focus on PC and console titles. Some of the most successful games to date include *Deadside*, *Graveyard Keeper*, *SpeedRunners*, *Street of Rogue*, *Potion Craft* and *Hello Neighbor*.

There is no such thing as a typical gamer, rather a series of sub-groups across different demographics with varying preferences in terms of genre, devices and platforms used. tinyBuild continues to expand into more genres and create capabilities in new platforms to reach wider audiences. The company aims to 'make more, better games that our players fall in love with'.

New upcoming launches due in H2 2023, as well as the pipeline for 2024 and 2025 can be found in the 'Opportunities for growth' section of this note.



Games are published primarily on PC and consoles including Steam, Xbox, Playstation, Nintendo and Epic Games, while mobile is typically used as a marketing tool. tinyBuild has long-standing relationships with each major platform and digital storefront, and is independent of them all. Games are typically released on PC first and subsequently launched on other channels dependent on their success on PC. This model helps to minimise upfront development risk. Where tinyBuild is expanding titles for proven existing IP, it may want to release the game simultaneously across multiple platforms. The decentralised operational structure means that tinyBuild has the capability to work on a game in different formats for simultaneous release. However, as noted in the 'Industry Overview' section, tinyBuild has experienced a lower contribution to revenue from platform deals leading to a material reduction in FY23 consensus. As it owns the IP, tinyBuild benefits from a high flow-through of typically 70%+ of revenue, although this will vary depending on the platform's fees. The business will continue to review whether it wants to accept various platform deals and depending on the terms, may look to sell directly to consumers, rather than direct to platform.

Using its gaming community connections, tinyBuild plans to organically grow promising new live service games to add new titles to the portfolio. By using a Games-as-a-Service (GaaS) model, the launch of these titles will be at the start of the growth curve, which offers a longer lifecycle, improved return on investment and contributes to increasing predictable and resilient revenues. Examples of existing GaaS games include *Hello Engineer* (part of the *Hello Neighbor* franchise) and *Totally Reliable Delivery Service*.

## **Environmental, Social and Governance (ESG) considerations**

Environmental: tinyBuild aims to reduce any adverse impacts of its operations.

- The use of single-use plastics is limited. The primary distribution method is digital with only a small proportion of games released on a physical disc.
- Games are compressed to ensure players do not waste energy through lengthy downloads.
- Offices operate to high environmental standards, including the use of sensor-activated lights.

**Social:** tinyBuild is dedicated to employee wellbeing and aims to provide the best working conditions in the industry.

- tinyBuild has implemented policies against 'crunching,' the industry practice by which developers overwork to meet certain targets.
- It provides unlimited paid holiday allowance for all direct employees. As a result, tinyBuild has one of the lowest levels of staff turnover in the industry.
- To assist workers affected by the conflict in Ukraine, tinyBuild relocated over 100 people and continues to support staff and families that are exposed to the consequences of the war. Having helped the staff move out of the riskiest areas, the company is now focusing on mental health and administrative support so everybody can settle in their preferred location across Europe.

**Governance:** tinyBuild aims to work to the highest standards of governance and functions ethically in the territories in which it operates. The business operates with high data protection standards across various jurisdictions to ensure customers' privacy.



- Players are always aware of what they are buying, and steps are taken to ensure that material is age appropriate and there are no 'hidden costs.'
- Privacy and security of data are a primary concern, and the company adheres to relevant legislation such as the General Data Protection Regulation (GDPR).
- tinyBuild has adopted the Quoted Companies Alliance Corporate Governance Code.



## **Revenue model**

tinyBuild primarily produces premium games for PC and console that are pay-per-play rather than free-to-play games. tinyBuild's mobile games are mostly used for marketing purposes at this point, with less than 5% of tinyBuild's sales currently generated by mobile and advertising.

## **Revenue generation**

tinyBuild generates revenue primarily from game sales, both direct to consumers and via platform deals, with a smaller contribution from services, plus merchandise and events.

**Games and merchandise** comprise the sales of the video games developed and published by tinyBuild. Platforms, such as Steam, Microsoft and Sony operate as distributors of video games for tinyBuild and revenues are generally recorded in the period earned, which is the point at which the distributor sells content to the end user. Occasionally the company enters licencing contracts with distributors, that guarantee a minimum amount in exchange for making a game available on the platform as part of a subscription service, in exchange for exclusivity (time, platform or services etc.).

**Development services** relate to revenue received from distribution partners to assist with the development of game titles. Advances are received and recognised as income when the distinct performance obligations set out in the contract, typically including the delivery of the video game, are met. Revenue is recognised over different time horizons with payment due upon milestones specified in the contract.

**Event revenue** is primarily generated from DevGAMM, the game developers' conference operator. Revenue is recognised at the conclusion of each event.

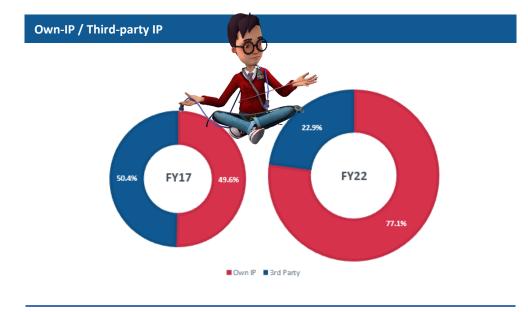
## **Business segments**

tinyBuild considers there to be only one operating segment, which is revenue from selfpublished franchises and other revenue streams such as royalties, licencing, development, and events. However, tinyBuild's portfolio of games is split between those based on IP owned by the company and IP owned by a third-party and is reported to aid understanding of the business.

Most of tinyBuild's revenue is now generated from own-IP. As discussed in the 'Strategy and business model' section, this increases margins, reduces reliance on external parties and enables tinyBuild to extend the lifespan of the IP to generate further revenue streams through sequels, spin-offs and multimedia expansion. The revenue share for a publisher typically ranges from 30% to 90% depending on whether a game is first, second or third-party IP.

In FY22, 77% of sales came from own-IP. This was down slightly on FY21 (81%), primarily due to the consolidation of third-party publisher Versus Evil, as well as portfolio mix: new third-party launches and some extended life monetisation events from third-party games in the portfolio. Going forward, tinyBuild expects that own-IP will continue to be the main contributor to revenue.

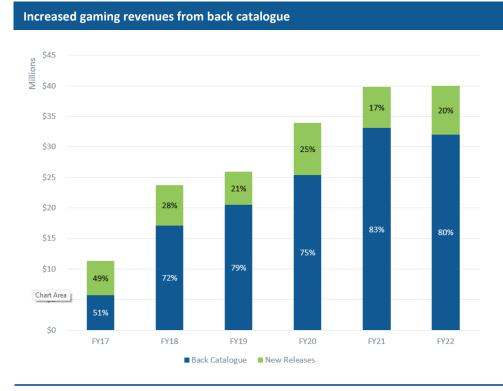




### Source: tinyBuild

The main advantage of owning IP, compared with publishing third-party IP, is that developer and publisher are perfectly aligned: the game can be ported to other platforms and technologies, sequels and spin-offs can be developed and the IP can be translated for multimedia without having to renegotiate the contract. The developer may also choose to work on a different title, rather than the sequel, without reducing the potential of the franchise.

### **Back-catalogue**



#### Source: tinyBuild



As discussed earlier, tinyBuild maximises the long-term potential of its back-catalogue with continued investment to make it available on more platforms, as well as creating spin-offs. This helps to generate stable and predictable cash flows. The graph above demonstrates how tinyBuild has grown its back-catalogue and increased its contribution to revenue, which accounted for 80% in FY22.

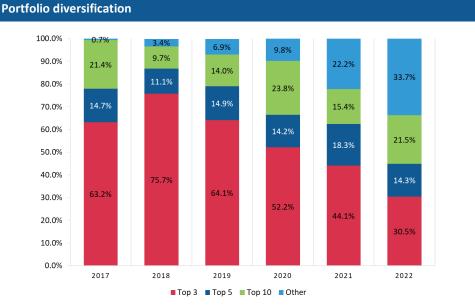
In FY22, tinyBuild launched three new titles with a budget of over \$1m, which achieved an average return on investment of 1.9x in less than six months. Revenues from new releases typically cover their development and marketing cost within three months post-launch. New opportunities are assessed, in part, on this basis.

tinyBuild worked on nearly twice as many games in FY22 as in FY21 and is set to release new titles *Punch Club 2*, *Hello Engineer* and *I am Future* as well as releasing *Potion Craft* on PlayStation and Nintendo Switch in H2 23, with a further nine titles announced for release in FY24 and FY25.

## **Revenue diversification**

Part of tinyBuild's organic growth strategy involves increasing the quality and diversity of its pipeline. This has assisted in diversifying the portfolio and decreasing the reliance of revenue from the *Hello Neighbor* franchise.

The games published have an emphasis on social engagement, artwork, gameplay and feel to futureproof titles from technological advances over time.



- Source: tinyBuild
- The portfolio has diversified significantly over the last five years, with revenue concentration decreasing even further in FY22.
- The top 3 titles represented 30% of revenues compared with over 75% in 2018. The top 3, 5 and 10 games tend to rotate, so it is not the same games contributing each year.

It is worthwhile noting that *Hello Neighbor* and other games in the *Hello Neighbor* franchise contributed c.60% of revenue in FY18 and FY19, so it is good to see decreased reliance on the franchise and increased diversification as the portfolio grows.





## **Competitive landscape**

The video games market is a highly competitive industry comprising big corporations producing AAA games through to independent development studios and publishers. At the top end of the market, the dominant developers and publishers include Nintendo, Sony, Microsoft, Electronic Arts, Epic Games, Sega, Roblox, Activision Blizzard, Ubisoft, Gameloft, Capcom, Take-Two Interactive, Square Enix, Tencent, Apple and Konami Games. According to Statista, in 2022, Nintendo, Sony and Microsoft accounted for 29% of market share in the global gaming market making a total of \$52.6bn in gaming revenues compared to \$131.4bn generated by the rest of the global gaming industry.

At the other end of the market are indie games developers, and this section is crowded. For example, in 2022 on the Steam platform alone around 44,000 game developers were responsible for almost 70,000 Steam games. However, the majority only release one game, with only around 500 developers releasing more than 10 games. Many of these developers, particularly those who only make one game, don't make much money and many use third-party publishers rather than doing everything themselves. As such, a vast number of these developers are not direct competition for tinyBuild. However, it is worth noting the importance of marketing games to audiences to attract attention given the range available to consumers. The biggest indie studios include Supergiant Games, InnerSloth LLC, Devolver Digital and Team17.

Despite the number of games producers competing for attention, there are more than 3.2 billion players globally as digital games continue to increase in popularity. Indie games continue to hold appeal. Often AAA game budgets are multi-million-dollar investments, so don't produce more experimental games due to the risk of not seeing a return on their investment. Indie games, which have more creative freedom, can develop innovative concepts and have opportunities to produce unique games.

Given the size and scope of the market, developers and publishers are creating content for varying demographics across different devices and platforms in a variety of genres. The main comparable competitors for tinyBuild are Team 17, Frontier Developments, Embracer Group, Devolver Games and Keyword Studios. A summary of each is provided on the following pages.





## **Summary of Competitors**

Company	Business Type	Top franchises	% of revenues from Own-IP	% of revenues from back-catalogue	Number of titles in portfolio
Devolver Digital Games	Publisher & Developer	Serious Sam, Shadow Warrior, Enter the Gungeon, Reigns, Hotline Miami (all own IP except for Hotline Miami)	Estimated to be <b>22%</b> (Based on 24 titles own-IP at end-FY22)	45%	109
Embracer Group	Holding company	The Lord of the Rings, The Hobbit, Tomb Raider, Deus Ex, Legacy of Kain, Thief, Risk of Rain, Star Trek	<b>61%</b> (for PC / Console games)	<b>53%</b> (for PC/Console games)	850+ owned or controlled franchises (across PC/console, mobile, tabletop games and entertainment & services)
Frontier Developments	Developer of self-published titles (Also publishes games developed by selected studios under its Frontier Foundry games label)	Elite Dangerous, Planet Coaster, Planet Zoo, Jurassic World Evolution, F1 Manager	Not disclosed but uses a mix of own-IP and licensed-IP	67%	16
Keyword Studios	Services	N/A	N/A	N/A	N/A
Team 17	Publisher & Developer	Worms, Hell Let Loose, Golf with your Friends, Simulator series, Overcooked	41%	76%	110+
tinyBuild	Developer - Publisher	Hello Neighbor, Streets of Rogue, Totally Reliable Adventure Park, Graveyard Keeper	77%	80%	80+

Source: Company information based on last set of annual R&A and Progressive Equity Research.

The key differentiators between tinyBuild and its competitors are the varying degrees of portfolio diversification and the share of revenues generated from own-IP versus third-party IP.

- Frontier Development currently has its own-IP but is centred on four main franchises. Frontier's business model is to develop, launch and nurture, and as such it relies on updates to each of its franchises to rekindle sales and grow revenues. There is a high concentration of risk should one of these core titles fail to produce the anticipated results. tinyBuild has a more diversified portfolio to reduce the risk on any single title. In FY22, Frontier Development reported that its operating profit had reduced to £1.5m (FY21: £19.9m) following the previously announced one-off non-cash accounting charge from the underperformance of the major *Elite Dangerous: Odyssey* expansion, which was released in May 2021.
- Embracer Group addresses a broader market generally, with 36% of revenue from PC/console games and 35% from tabletop games (FY22/23), which is not currently an area that tinyBuild operates in. Embracer Group reported a difficult fourth quarter for Q4 Jan Mar 23. Despite a net increase in sales by 79% to SEK 9,356 million in Q4 Jan March 23 (Q4 22: SEK 3,238), organic growth decreased -4%. The mobile games division was specifically impacted decreasing by -25% in Q4 23, with organic growth in this division decreasing -36% due to soft market conditions. The PC/Console Games segment performed better, growing by 27% organically and +66% in total to SEK 3,478 million during this same quarter (Q4 22: SEK 2,097). The main reasons for the decline in sales was attributed to tough year-on-year comparisons, lower ad prices and recent platform privacy changes. The company reported a challenging FY22/23 year adversely impacted by game delays, weaker consumer demand and lacklustre reception for certain notable releases. Additionally, one of their major strategic partnerships fell through. For FY 22/23 the company reported adjusted EBIT of SEK 6.4 billion compared





to previous forecasts of SEK 9.2-11.3 billion. Adjusted EBIT was impacted by a few impairments related to ongoing cancelled game development projects amounting to approximately SEK 100 million. The shortfall between actual and estimated adjusted EBIT in FY22/23 was attributed to pipeline shifts (40%), weaker ROI in the PC/Console Games segment (30%) and a softer gaming market and cost inflation factors (30%). The former points are company specific, but the latter points will have an impact on across the industry. To counter a worsening economy, on 13 June 2023, Embracer Group announced a restructuring program to transform the business from heavy-investment to a cash-flow generative business and to lower net debt to below SEK 10 billion by the end of the FY23/24. Part of this will include closing or divestment of some studios, terminating or pausing some ongoing game development projects and reducing third-party publishing to put a greater focus on internal IP.

- Team 17 has a diverse portfolio, but only 41% of total revenue comes from own-IP. This means there may be less potential to develop the IP in future, as well as less revenue coming through as profit because of third-party costs. On 28 March 2023, Debbie Bestwick announced on her intention to step down as CEO of Team 17. Debbie has been with the company for more than 30 years and will join the board as a non-executive director on 1 January 2024. Steve Bell has been named as her successor.
- Devolver Digital Games are equally diversified, although again its use of third-party publishers limits the upside. As at FY22, 45% of revenue came from the back-catalogue, which increases the risk for success of new titles. In contrast, tinyBuild's back-catalogue contributed to 80% of revenue in FY22. At the end of FY22 Devolver reassessed its balance sheet which resulted in impairments from underperforming released games, cancelled unreleased games, acquired IP and goodwill from acquisitions. The business also carried out a review of its pipeline, which led to four selective game cancellations and a reset of its publishing subsidiary Good Shepherd. The subsequent impairments resulted in a statutory net loss for the year of -\$91.5m. Devolver reported that some future spending earmarked for cancelled titles will be redirected to investment in games that it considers as having better commercial viability. The company had reported a weaker H1 22 with sales from new games slower than anticipated reflecting both a competitive release window and game-specific factors for certain titles. Trading recovered in H2 22 with two high-performing releases, Cult of the Lamb and Return to Monkey Island, but the ongoing cost impact of three underperforming titles and weaker than forecast sales volumes in December resulted in lower-than-expected performance for the year. As a result of this weaker performance, they anticipate reduced backcatalogue momentum in FY23. The company predict that negative global economic outlook and reduction in consumer spending will continue into 2023.



Devolver Digital Games			
Market Cap: £104.7m	<b>Games:</b> Enter the Gungeon, Shadow Warrior, Fall Guys, Cult of the Lamb, Return to Monkey Island, McPixel 3, Sludge Life 2		
Povonuo EV22: \$124 56m			

Revenue FY22: \$134.56m

### Overview:

Devolver Digital is a boutique indie games label, video games publisher and developer working with independent developers globally to produce premium games for PC, Console and mobile. They have partnered with over 70 developers to publish over 100 indie games, primarily through third-party publishing agreements. The company promote themselves as the "developers" publisher," putting the artist first, giving the developer a fair deal and not demanding IP or sequel rights. More recently, the Group has acquired standalone IP and long-term development partners, which has brought franchises in-house. The company had a back-catalogue of 109 titles which contributed 45% of revenue in FY22. The company listed on AIM in November 2021.

Frontier Developments			
Market Cap: £234.8m	Games:		
	Elite Dangerous, Planet Zoo, Planet Coaster, Jurassic World evolution 1&2, F1		
	Manager 2022 and 2023, Warhammer Age of Sigmar and Realms of Ruin.		
Revenue FY22: £114.03m			

#### Overview:

An independent developer and publisher of videogames across PC and console platforms. They internally develop and self-publish their own games across different genres using a mix of in-house and licensed IP with a focus on immersive and fun gameplay design with artistic quality. Previously they developed games for Microsoft, Sony, Atari, SEGA and Amazon using their in-house tools.

Their current model looks to build a portfolio of franchises using a blend of Frontier-owned IP (*Elite Dangerous, Planet Coaster and Planet Zoo*) and third-party IP (*Jurassic World Evolution 1&2 and F1 Manager Series*). Frontier Foundry is their games label for third-party publishing. Based in Cambridge, they have a team of over 800. The company listed on AIM in July 2013.

Team 17			
Market Cap: £482m	Games: A portfolio of 110+ games including the Worms franchise, The Escapists, Overcooked!, Moving Out, Hell Let Loose and Blasphemous.		
Revenue FY22: £137.4m	, , , , ,		

#### Overview:

A global games label, developer and publisher of AA and indie premium video games and educational entertainment 'edutainment' apps for children, working with leading brands including The Walt Disney Company, The LEGO Group and Penguin Books. The company also acquired astragon in 2022, which creates 'working' simulation games with IPs such as *Firefighter Police, Bus Simulator* titles and *Construction Simulator*.

The company has a portfolio of c.700 digital revenue lines. It employs 392 people across seven locations in four countries and works with global partners across platforms, distribution promotions, licensing and development studios. The company creates its own franchises, as well as working with third-party independent developers. As at FY22 its own-IP represented 41% of total revenue. The company listed on AIM in March 2018.



Embracer Group			
Market Cap: SEK 33.10bn	Games: PC/Console: Hot Wheels Unleashed, Goat Simulator 3, Star Trek Online, Evil Dead The Game,		
Revenue FY23: SEK 32.05bn	Neverwinter, Saints Row, Deep Rock Galactic, <u>Valheim,</u> Borderlands3, <b>Mobile:</b> Single City, Super Stylist. <b>Tabletop Games:</b> The Lord of the Rings: Heroes of Middle Earth, Ticket to Ride, Exploding Kittens		

#### Overview:

A group of creative and entrepreneurial businesses in PC, console, mobile and board games and other related media. The group has an extensive catalogue of 850+ owned or controlled franchises.

With a head office in Sweden, the group has a global presence through 12 operative groups: THQ Nordic, PLAION, Coffee Stain, Amplifier Game Invest, Saber Interactive, DECA Games, Gearbox Entertainment, Easybrain, Asmodee, Dark Horse, Freemode and Crystal Dynamics – Eidos. In FY23 the PC/Console Games division accounted for 36% of revenue, Tabletop Games 35%, Mobile Games 15% and Entertainment & Services 14%.

The group has 138 internal game development studios and more than 16,600 employees in over 40 countries. Embracer Group is listed on the Nasdaq Stockholm Main Market.

Keyword Studios				
Market Cap: £1.34bn	Games (across different studio services):			
	Batman Arkham Knight, Minecraft, Street Fighter, Mafia III, Halo 5, Origin, The			
	Escapist 2, Madden 17, NBA Live14, NFL Showdown, Company of Heroes, Mega			
Revenue FY22: €690.7m	Drive Classics,			
	The Walking Dead, Mortal Kombat X, Rise of the Tomb Raider, NBA2K18, Gigantic,			
Mass Effect Andromeda				

#### Overview:

Keyword Studios are a network of game development and art studios operating across four continents to deliver a full suite of production services to clients globally. They provide technical and creative solutions for the video games and entertainment industries including:

Create: (23 studios, 3,500 people across 42 cities)

Services include the creation of concept art, 2D and 3D asset production and animation, full and co-development of games across all major platform, porting and remastering and consulting services. Each studio maintains its own brand.

Globalize: (32 studios, 5,000 people across 27 cities)

Services include audio, testing and localization businesses encompassing all post-production services required by clients to get a game to launch. It assists global launches and opens new markets by making games accessible in languages from around the world.

Engage: (29 studio, 2,500 people across 23 cities)

A collective of studios that operate across the marketing and player experience spectrum to make sure that games captivate and engage players. It creates trailers and PR campaigns, as well as offering community management.

The company listed on AIM in July 2013.

Source: Company information and Progressive Equity Research. Market Cap figures correct as of 18 July 2023





## **Opportunities for growth**

The video games industry is a large, growing market and continues to attract new and diverse audiences, as well as engaging existing gamers in new ways. The competitive landscape ranges from large corporations publishing premium AAA titles right through to one-man independent developers creating free-to-play content. As discussed above, tinyBuild is well placed to take advantage of this market growth through organic growth and selective long-term M&A, although this is reduced in the short term as the company focuses on cash preservation.

**New titles.** tinyBuild already has a strong in-house developer presence as well as a good network of existing partnerships. Utilising these connections, tinyBuild plans to:

- Increase the quality and diversity of its pipeline to add new titles to the portfolio.
- Invest in and support acquired studios to publish new titles.
- Widen its appeal by publishing games in new genres and creating new IP.

**Multi-game and GaaS franchise model.** tinyBuild can build on key titles in its backcatalogue, and considers the long-term IP potential of new titles, to expand on the original game through sequels and spin-offs, add new content to existing titles, port titles to new platforms and add cross-play options to generate additional revenue through licensing agreements. This helps extend the life of the original title while also reaching new audiences to generate increased sales.

**Own-IP portfolio to maximise multimedia opportunities.** As demonstrated by the *Hello Neighbor* franchise, tinyBuild works to grow its gaming IP into alternative media formats such as books, graphic novels, TV series and merchandise. The use of merchandise will be more for marketing and customer engagement, producing modest revenues compared to the larger revenue potential of a TV series. Engagement across different media is common, particularly amongst Gen Z and Gen Alpha, and is a means of keeping audiences continually engaged in a specific IP.

**Use of influencers and social media.** Although not directly revenue generating, the strategic use of influencers and social media will assist in extending the reach of games to new audiences, as well as generating a buzz and helping to boost sales.



**Larger-budget games.** Historically tinyBuild has invested in creating games with a budget of \$500k. In FY22 the company proved it could deliver on larger-budget titles, launching three games with a budget of over \$1m. All three games have seen a return on investment, with an average return of 1.9x by the end of 2022. This opens new opportunities to deliver larger-scale projects and grow market share.

**Geographical footprint.** With over 40 development partners and more than 400 staff across five continents, tinyBuild has access to high-quality talent and key industry participants. A presence in a range of markets enables tinyBuild to focus its efforts on growing where opportunities arise. The company has a particular focus on emerging markets.



### Games pipeline H2 23



I am Future

#### Platforms: PC

A cozy apocalypse survival game with base-building, crafting, farming and automation features. Try and solve the mystery of the last days of humankind.



Hello Engineer

## Platforms: PC A multiplayer machinery-building Neighbor universe This is a user generated version. The title was initially released on

#### Potion Craft

Platforms: PC (Steam, COG, EGS) Xbox (Coming soon to PlayStation and

Nintendo Switch) . townsfolk.



### Street of Rogue 2

Platforms: PC, Consoles Set for early access launch in 2023, the sequel to *Streets of Rogue* will feature an open world game where you can fight, farm, drive, build, quest and live in this non-linear sandbox with a focus on player choice, freedom an anarchic fun.

## Due for release in H2 2023 - 2024.

Source: tinyBuild

The release schedule for FY23 is weighted towards the second half of the year. Some of the H2 23 new releases are detailed above. In H1 23, tinyBuild released Rhythm Sprout (PC), Farworld Pioneers (PC and consoles) and The Bookwalker (PC and consoles). The company also invested in new technologies, launching VR titles Hello Neighbor: Search and Rescue and Kill it with Fire VR.

Some of the titles recently announced for release in 2024 and 2025 are outlined in the chart below, which details the Wishlist ranking and number of followers on Steam. The Wishlist ranking does not detail how long each game has been listed on the platform, so newer announcements are ranked equally with titles that have been listed for a while. It is encouraging to see that some of the upcoming releases such as Ferocious, Street of Rogue 2 and Sand are ranked highly.

Sand is a game developed with the HOLOGRYPH team in Ukraine, the same people who made Secret Neighbor. Sand is a multiplayer shooter and emergent gameplay title set on a desolate planet. This is another of tinyBuild's higher-budget titles to be brought to the market.

## Progressive EQUITY RESEARCH

## Games pipeline FY24 and FY25 – Steam Wishlist ranking\*

Game	Release Date	Steam Wishlist Ranking (out of 2,313)	Number of followers
Broken Roads	Coming Soon	#173	12,875
Critter Cove	2023	#1,231	1,058
FEROCIOUS	To be announced	#145	14,378
Hello Engineer	2023	#1,116	1,982
I am Future	08-Aug-23	#164	11,646
Level Zero	To be announced	#334	5,973
Pigeon Simulator	To be announced	#698	5,063
RAWMEN	Coming Soon	#708	3,206
Sand	To be announced	#297	9,196
Stray Souls	2023	#526	3,686
Streets of Rogue 2	Coming Soon	#135	11,868



Source: Steam Wishlist (All figures correct as at 10 July 2023).

\*Note: The Wishlist ranking does not detail how long the game has been available on the platform.



## **M&A growth**

tinyBuild's strategy has to date included M&A, with 14 acquisitions completed since 2013 including aquihires and business combinations. In FY22, the company completed four acquisitions including Bossa Studio's IP and aquihires of Demagic, Scythe and Konfa Games. These are all partners that tinyBuild enjoys working with and that bring creative synergies to the business. Due to market conditions in FY22, the company took a prudent approach to M&A, spending \$4.2m compared with \$22.6m in FY21. Although, it has continued to invest strategically in companies that offer new IP, complementary publishers, development studios and additional service providers, this is now secondary to the company's focus on cash preservation in the short-term.

**Acquihire.** Rather than purchasing an entire business with departments that are surplus to requirements, tinyBuild has historically grown by 'acquihiring' development teams and relevant target IP via asset purchases. Typically, the acquihires consist of cash, royalty-based benefit programmes and option to helps align the tinyBuild and developer goals. To reduce the risk from acquihires, tinyBuild forms a relationship with the team to ensure there is a cultural fit. The average length of the prior relationship on transactions completed to date is 3.6 years. By gaining IP ownership of games, tinyBuild should enjoy longer-term value creation and improved profit margins.

The acquisitions of US-based publisher Versus Evil and development platform Red Cerberus, made in FY21, did not deliver as expected in FY22 and continued to underperform in H1 23. Versus Evil is an independent publishing label specialising in RPG and strategy titles, whilst Red Cerberus is a development platform that handles QA and testing needs across mobile, console, PC and VR akin to a mini version of competitor Keyword Studios. The latter was a strategic acquisition to provide tinyBuild with in-house testing capacity and improve porting facilities. tinyBuild are considering strategic options to best deliver the value of the businesses going forward.

## **Events business**

A further example of tinyBuild's strategic investment is video games industry conferencing company, DevGAMM, which primarily operates in Eastern Europe. tinyBuild first partnered with DevGAMM in 2018 and it is now a minority investment. The business holds conferences for video games professionals including developers, publishers, game designers, programmers, artists and business development managers. Although the events business is only a small contributor to revenue, it is a key part of tinyBuild's organic and M&A growth strategy:

- Network and pipeline growth. The conferences provide tinyBuild with the opportunity to view a lot of content before it becomes widely known and meet talented professionals. This assists with growing the pipeline. tinyBuild has signed over 30 titles discovered at DevGAMM and hired more than 50 people.
- Industry trends. DevGAMM benefits from industry insights and connections, which feed into tinyBuild's strategy.
- Industry reputation. Within the gaming industry, the DevGAMM connection positions tinyBuild as a thought leader. tinyBuild often engages attendees at these events to establish itself as an innovator and attract new partnerships.

**Impact of Covid and the Ukraine conflict.** tinyBuild adapted during Covid by moving events online. In FY21 events were a combination of online and offline, depending on Covid restrictions. During this period, tinyBuild was still able to attract over 8,000 attendees from around 1,800 companies and nearly 40 countries. Although it returned to hosting live events, the Ukraine conflict unfortunately meant that DevGAMM had to cancel events in Russia, Ukraine and Belarus in FY22. Due to the ongoing uncertainty, the business relocated the conferences to Western Europe, with events being held in Gdansk (Poland), Vilnius (Lithuania), London (UK) and Lisbon (Portugal).





# Key risks and challenges

Areas of concern	Management mitigation		
<b>Competitive market</b> The market is highly competitive and crowded with numerous existing games developers and publishers.	Strong industry relationships and engagement with the gaming community tinyBuild engages with its industry network, social media influencers and gamers at all levels of the process from idea conception to finished game to keep up to date with industry developments, trends and consumer preferences.		
Dependency on a relatively small number of games for a significant portion of revenue and profit	Ongoing efforts to diversify the portfolio and extend the life of existing titles tinyBuild is diversifying its portfolio by adding new titles that are		
A material portion of sales is generated from a relatively small number of popular titles. In FY22, revenue associated with the top 5 games accounted for approximately 45% of total revenue. If one of these games failed to achieve the anticipated results, or if the popularity of the title significantly declined, this would negatively impact the profitability of the business.	differentiated in terms of genre and demographics. In FY22, the company nearly doubled the titles it was working on. tinyBuild is also expanding the lifecycle of existing titles to launch on new platforms and technologies, as well as generating spin-offs to reach a wider audience and ensure they continue to contribute to sales.		
Concentrated customer and third-party platform base	Maintaining a good working relationship with all platforms		
A small number of third-party platforms distribute the games to players and account for a large portion of online distribution. Consumer access to games is controlled by these platforms, which includes Apple, Meta, Microsoft, Nintendo, Sony, Valve and Epic Games. In FY22 these platforms contributed 80% of the company's revenue. Any issues with a platform would reduce the ability of tinyBuild to distribute games to gamers. The fee structure / retail pricing of the third-party platforms may also impact the volume of the company's games purchased through these channels.	specific platform but continues to service the relationship with all platforms. The company works to establish relationships with new distribution partners, e.g., Meta and roblox. The decentralised model means that it can develop the same game for numerous platforms simultaneously, which allows for release across multiple platforms.		
Market growth, new developments and technological trends	Funding over a limited time-horizon at specific milestones		
A slowdown in the growth of the global video games market would impact demand for tinyBuild's products. The cost-of-living crisis, for example, may mean consumers spend less on gaming, which would negatively impact sales. Technological developments to keep up with market trends and competitors may also require significant investment.	tinyBuild is well connected within the industry, which helps keep it well-informed about trends and developments. When funding new projects, the company typically provides capital at specific milestones that coincide with key stages of development, while considering the technical viability. The company usually acquires the IP of a project and considers the budget using a data-driven approach to ensure that it evolves in line with current trends.		
War in Ukraine	Evacuation plans implemented and ongoing support		
tinyBuild has employees and independent contractors it works with living in areas affected by the conflict in Ukraine. In addition to endangering the lives of staff, the conflict may also impact operations if sanctions are imposed in Russia, for example making it impossible to send payments. Continued conflict could	Staff and families have been evacuated, and logistic and financial support provided to relocate Ukrainian people to West Ukraine or the EU. tinyBuild opened a new studio in Belgrade, Serbia for Russian staff.		



### Areas of concern

### Working with developers at early stage

Often the IP may only be an idea or concept at the point when tinyBuild starts working with developers. This adds a high degree of risk until the game has been tested with the target audience. The concept may require significant changes or need to be abandoned completely, which would mean the developer funding advances are not repaid and there is no return on the investment.

### Increasing importance of mobile gaming

There are lots of new entrants in the mobile games markets, and existing competitors are allocating more resources to developing and marketing mobile games. Games for mobile require relatively limited resources, time and expertise, which has resulted in many small companies and individuals crowding the space. This increases competition for consumers' attention, which could in turn impact tinyBuild's business.

# Reliance on external developers and employment status of independent contractors

Some of tinyBuild's games are developed by external developers. Therefore, agreements may be renegotiated on less favourable terms, they may lose access to key resources and may not have full control over the development process.

### **Overseas operations**

tinyBuild has operations in the Americas and Europe as well as contractors and partners across five continents, which are subject to different regulatory, fiscal and legal environments and trading rules. Failure to comply with the relevant rules and regulations could lead to legal action, fines and reputational damage. The imposition of sanctions by the US on contractors in some Eastern European countries may impact on the company's ability to do business.

# Management mitigation

### Funding over a limited time horizon considering feasibility

Funding is provided in stages, with the next payment only being made once a specific milestone has been reached. This helps to ensure that the project stays on track. The budget for a game is reviewed at regular intervals using a data-driven approach. All projects are funded over a limited time horizon and in consideration of the technical feasibility that the project will be completed.

#### Mobile game versions and alternative business models

tinyBuild is monitoring developments within the mobile gaming space. Industry trends suggest that more people are playing across multiple devices, although mobile is still the most popular way to play games representing 50% of the gaming industry. tinyBuild continues to experiment with mobile versions of its games. For example, *Secret Neighbor*, a spin-off of *Hello Neighbor*, launched on iOS in April 2021.

#### Competitive salaries and good communication

tinyBuild pays a competitive salary in each geography where it operates. Direct contact with developer teams is maintained to ensure that projects are on track and to mitigate any issues as they arise. In some instances, tinyBuild may acquire the development team, bringing it in-house, for example Demagic.

#### Close monitoring of geopolitical risks

tinyBuild continues to observe the legal environments and trading rules, and is alert to any sanctions that could impact how it conducts business. As well as monitoring geopolitical risk, the company may relocate development teams to other geographies to mitigate risk to staff and operations. A recent example of the company successfully responding to overseas risks is the relocation of Ukraine staff and the studio set up for Russian employees due to the ongoing conflict in Ukraine.

#### IT security breaches and cyber-security related attacks

Unavailability of tinyBuild's IT systems may have a significant impact on its ability to deliver new games and generate revenue. A cyber-attack or breach of systems could provide access to commercially sensitive information like the source code and game assets, as well as personal data. This may lead to games piracy, fraudulent activity or disclosure of personal information. There is a risk not only to tinyBuild's products, services and networks, but also to systems used by its consumers from undetected viruses, spyware or malware. This could be detrimental both financially and reputationally.

#### Policies in place to minimise risks

Given tinyBuild's dependency on its IT systems to meet its operational needs, it has a disaster recovery policy in place should the systems fail significantly. In addition to this, tinyBuild has implemented cyber-security programs, tools, technologies, processes and procedures to secure its data and systems. These also look to prevent and detect any unauthorised access to, or loss of, its data or the data of customers, consumers and employees.



## **Management team**



Alex Nichiporchik, CEO and Founder. Alex is a life-long gamer with over 18 years of games industry experience. Starting his career as a professional gamer, he went on to roles in journalism, game production and marketing. He has shipped over 20 titles as a producer, discovered key pillar titles and driven relationships with key influencers. Alex's gaming expertise means that he is able to understand exactly what people are talking about across the business.



**Giasone (Jaz) Salati, CFO.** Jaz has over 20 years of experience as an equity research analyst in the TMT space. He previously worked at Credit Suisse, Redburn and Macquarie and was ranked StarMine Analyst - #1 Stock Picker in 2019. Alongside his career in finance, Jaz worked on innovation and reorganisation for the CEOs of media and tech companies, more recently at Ascential (LSE: ASCL). Jaz read economics at La Sorbonne and has a master's degree in Finance from LBS.



**Michael Schauble, Chief Commercial Officer.** Michael has over 18 years of experience in the video games industry. He joined tinyBuild in August 2019 as senior VP of Business Development. Prior to this, he worked at Microsoft for four years helping to spearhead key initiatives such as Game Pass, Microsoft AR/VR and backwards compatibility programmes.



**Henrique Olifiers, Chairman.** Henrique is the CEO and co-founder of London-based game developer and publisher, Bossa Studios *(tinyBuild acquired Bossa's IP Catalogue during 2022).* He has 23 years of games industry experience, which includes working at video game developers Jagex and Playfish.



**Neil Catto, Non-Executive Director.** Neil was CFO of AIM-listed Boohoo Group Plc for 10 years, during which time the company grew from a market capitalisation of £560m to over £4bn. Neil is a qualified Chartered Accountant.



**Nick Van Dyk, Non-Executive Director.** Nick was co-President of Activisation Blizzard Studios from 2015 to 2019 and previously Senior Vice President at The Walt Disney Company. Nick has over 20 years of experience in the entertainment industry.



## **Financials**

## FY22 results

In FY22, tinyBuild had its most successful year to date with revenue up 21% to \$63m (FY21: \$52m). Own-IP accounted for 77% of group revenue, slightly lower than FY21 because of the consolidation of third-party publisher Versus Evil for a full year.

Adjusted EBITDA increased 10% to \$24.4m in FY22 (FY21: \$22.2m), largely driven by organic performance and the consolidation of lower-margin businesses Versus Evil and Red Cerberus. Operating profit increased 27% to \$15.9m (FY21: \$12.5m) as a result of lower exceptional charges and share-based compensation costs. An \$11.1m write-down relating to Versus Evil and Red Cerberus was offset by an equivalent decrease in contingent consideration of \$11.1m due to earn-out achievement being unlikely. Exceptional costs of \$1.7m in FY22 relate to the relocation of staff following the invasion of Ukraine.

At end-FY22, the company had net cash of \$26m and an undrawn \$35m revolving credit facility with Bank of America. The net cash position decreased from \$48.8m in FY21 due to accelerated investments in a larger number of bigger budget games (£1m+) as demonstrated by capitalised software development costs increasing to \$35.8m in FY22 (FY21: \$15.1m).

tinyBuild acquired three studios, DeMagic, Konfa Games and Scythe, as well as Bossa's IP for a total upfront cash payment of \$4.2m. After the reporting date, the group also acquired NotGames in March 2023 for an upfront consideration of \$1.5m plus maximum deferred consideration of \$4.2m, subject to meeting stretched financial targets.

## **Recent trading update**

**H1 23 performance materially below expectations.** On 29 June 2023, tinyBuild issued an H1 23 trading update materially behind expectations, with revenue and EBITDA downgraded for FY23 and FY24. Consensus revenue and EBITDA for FY23 dropped c.\$20m, primarily due to lower contribution from platform deals and the underperformance of Red Cerberus and Versus Evil. Platform deals generated >\$20m of FY22 revenue (>31.6% of group revenue) and the company does not expect significant improvement in relation to platform deals in the near term. This will continue to have an impact on revenue into FY24, which has been reflected in our estimates.

**Impairments.** The company announced potential asset impairments due to the reevaluation of some underperforming back-catalogue titles. This may also result in some targeted studio reorganisation.

**Directorate change.** It was announced that, after a short period of leave for personal reasons, Tony Assenza, CFO, had resigned from the company and the Board. He was replaced as CFO by Giasone (Jaz) Salati, previously Head of M&A and IR, with immediate effect. Additionally, Michael Schauble was appointed Chief Commercial Officer.

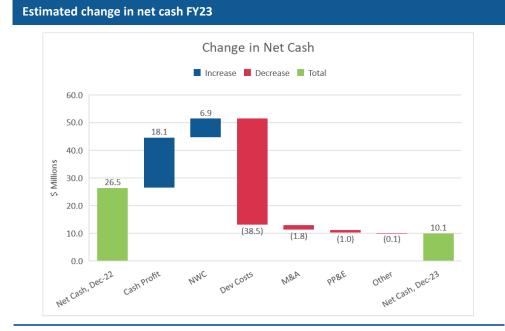
**Positive outlook.** The company reported that the back catalogue continues to perform well, including new platform launches from H1 23. The business is investing in new technologies and new larger-budget IP and announced a strong pipeline of upcoming titles for release in 2023 - 2025, including *I am Future, Hello Engineer, Critter Cove, FEROCIOUS, Level Zero* and *Sand*.



Following the trading update, the share price has dropped to the extent that the business is now roughly valued just over net cash. Although investors may be cautious until they see evidence of meeting financial guidance, the company advises it has a clear focus on cash generation and organic growth.

## Forecasts

- Revenue. Considering the recent impact of platform deals and underperformance of Red Cerberus and Versus Evil, we have set our forecasts for FY23 revenue at \$50.2m, \$13.1m below the peak achieved in FY22. We predict conservative growth for FY24E and FY25E as we wait to see the long-term effect of the contribution from platform deals, or confirmation this has stabilised. However, this may be offset by the contribution from larger titles that have higher revenue potential. Missed revenues from platform deals could also be offset by higher direct sales to the consumer.
- Adjusted EBITDA. Again, we remain conservative in our estimates, at \$5.2m for FY23 (FY22: \$24.4m). This is likely to remain broadly flat in FY24 due to higher amortisation from increased development costs in the year and the revenue mix that may see slightly higher royalty payments to developers. We believe the asset impairment may lead to only a small reduction in amortisation charges.
- Reduced capex. We have not predicted any M&A activity for the forecast period and kept investment in software development steady to reflect the control on spending while the company continues to invest to accelerate growth.
- Net cash. We forecast net cash of \$10.1m for FY23E, at the lower end of the guidance range, and look forward to the H1 23 results for confirmation of strong cash management. The company also has an undrawn revolving credit facility of \$35m with the Bank of America, which should provide an additional buffer should trading conditions weaken.



Source: Progressive Equity Research



## Financial Summary: tinyBuild

## Year end: December (\$m unless shown)

PROFIT & LOSS	2021	2022	2023E	2024E	2025E
Revenue	52.2	63.3	50.2	53.7	57.5
Adj EBITDA	22.2	24.4	5.2	5.7	7.0
Adj EBIT	20.5	19.6	0.5	1.1	2.3
Reported PBT	12.5	15.9	0.5	1.1	2.3
Fully Adj PBT	20.5	19.6	0.5	1.1	2.3
NOPAT	12.8	11.8	0.3	0.6	1.2
Reported EPS (c)	4.2	5.6	0.2	0.4	0.8
Fully Adj Dil EPS (c)	8.3	7.4	0.2	0.4	0.8
Dividend per share (c)	0.0	0.0	0.0	0.0	0.0
CASH FLOW & BALANCE SHEET	2021	2022	2023E	2024E	2025E
Operating cash flow	13.3	19.2	23.9	29.2	31.6
Free Cash flow	(24.4)	(21.9)	(16.4)	0.8	0.8
FCF per share (c)	0.0	0.0	0.0	0.0	0.0
Acquisitions	0.0	0.0	0.0	0.0	0.0
Disposals	0.0	0.0	0.0	0.0	0.0
Shares issued	47.0	0.0	0.0	0.0	0.0
Net cash flow	22.5	(22.3)	(16.4)	0.8	0.8
Overdrafts / borrowings	0.0	0.0	0.0	0.0	0.0
Cash & equivalents	48.8	26.5	10.1	10.9	11.7
Net (Debt)/Cash	48.8	26.5	10.1	10.9	11.7
NAV AND RETURNS	2021	2022	2023E	2024E	2025E
Net asset value	96.4	111.6	112.0	112.8	114.4
NAV/share (c)	0.0	0.1	0.1	0.1	0.1
Net Tangible Asset Value	(57.1)	(80.3)	(103.1)	(108.8)	(112.2)
NTAV/share (c)	0.0	0.0	(0.1)	(0.1)	(0.1)
Average equity	67.6	104.0	111.8	112.4	113.6
Post-tax ROE (%)	30.3%	18.9%	0.5%	1.0%	2.0%
METRICS	2021	2022	2023E	2024E	2025E
Revenue growth		21.4%	(20.7%)	7.0%	7.0%
Adj EBITDA growth		9.5%	(78.6%)	10.3%	21.2%
Adj EBIT growth		(4.2%)	(97.4%)	114.0%	114.0%
Adj PBT growth		(4.1%)	(97.2%)	101.9%	111.6%
Adj EPS growth		(11.0%)	(97.2%)	94.2%	107.2%
Dividend growth		N/A	N/A	N/A	N/A
Adj EBIT margins		31.0%	1.0%	2.0%	4.0%
VALUATION	2021	2022	2023E	2024E	2025E
EV/Sales (x)	0.2	0.1	0.2	0.2	0.2
EV/EBITDA (x)	0.4	0.4	1.7	1.5	1.3
EV/NOPAT (x)	0.7	0.7	30.8	15.3	7.2
PER (x)	2.1	2.3	83.9	43.2	20.8
Dividend yield	N/A	N/A	N/A	N/A	N/A
FCF yield	(0.1%)	(0.1%)	0.0%	0.0%	0.0%

Source: Company information and Progressive Equity Research estimates



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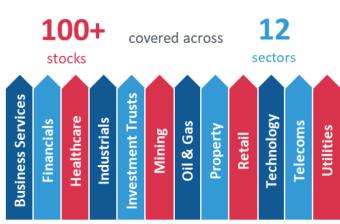
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## Breadth of coverage

## **Analyst calibre**

