



MARIJA ILIĆ

President of the Board

Exactly four years ago we presented a newly formed Serbian Games Association. Back then, we were only a bunch of enthusiasts trying to give structure to the existing local industry. I can remember that we were unsure where this idea could lead us, but were also convinced that if we get the right community support, we'll be able to deliver a significant impact on the whole ecosystem. We wanted to direct our efforts toward creating the best possible conditions for creating and publishing video games in Serbia. We also wanted to make sure that knowledge and experience are easily distributed between our members, by delivering various educational programs. Our main goal was to increase the competitiveness of our member companies on the global market. Luckily, our enthusiasm was recognized and supported by a number of companies, partners and friends, and today, we are happy to present what we have achieved together.

As a non-profit organisation, we're aware that it's very important that everything we do is for our members' benefit. So, in the period of SGA's work from its establishment until today, we have been focused on creating value for our members and partners, always having in mind that we need to justify their expectations.

This year, our focus is on increasing those values and the growth of the Association itself, as well as its international presence. We've already managed to provide a steady growth, which gave us the ability to increase the number of staff. A

structured and strategic approach also gave us direct insights into our members' needs, we have identified main areas of interest and this year our program focus will be on these.

Not only has our Association grown, but the whole local industry ecosystem landscape is changing year on year. Following the global industry trend, we have experienced a number of significant acquisitions that brought huge players into our ecosystem. Also, some of our members went public this year, which is extremely important for the entire gaming ecosystem and contributes to greater visibility of domestic studios and their games on the global market.

For the fourth time in a row we proudly present our annual report. This is where all these things we are proud of the descriptions are turned into numbers. I invite you to check them out and learn about all the amazing milestones our studios have achieved in the past year. What an amazing industry and what a great time to be a part of it!

I would also like to give a huge shoutout to all of our members, partners and friends. We thank you for all your help and support over the years, and also for recognizing SGA as a place of progress and development for all of us.

I can promise that the SGA will continue to surprise you by reaching new heights every year.

Marija ellic



GLANCE

Here is a short overview of the most important numbers that marked 2021 for the Serbian gaming industry



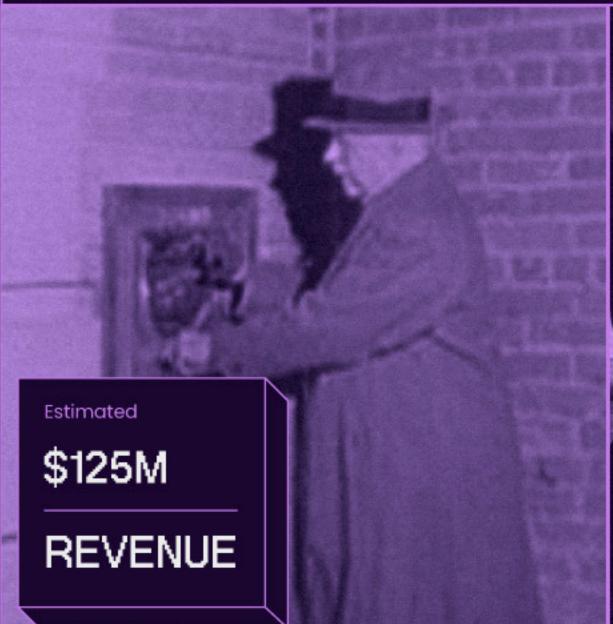




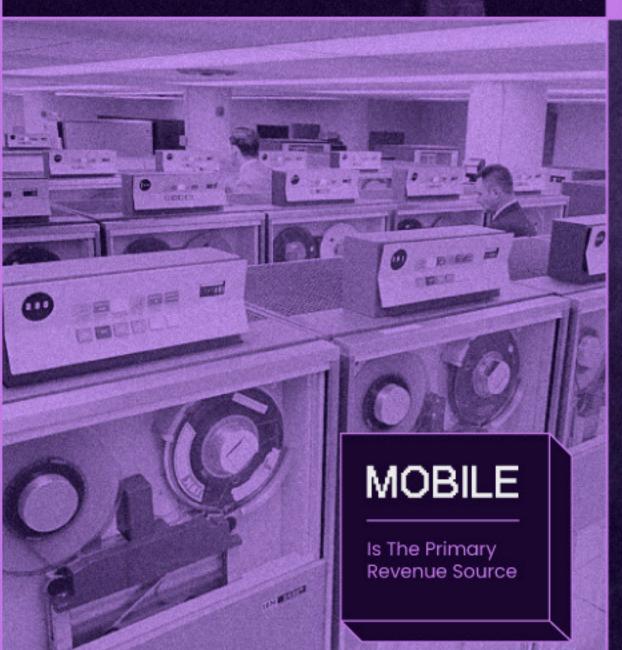










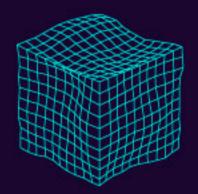




significant increase in the

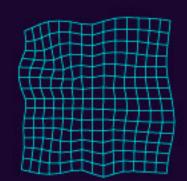
number of LLCs

2



Belgrade, Novi Sad and Niš remain the main hubs

3



20% of our members have offices outside of Serbia in addition to the local ones



COMPANY ACTIVITY

57%
Work on original IPs

11%

8% •

Art and video production

Outsourcing

6% •

5%

Developing tools and technologies Service provider

3%

7%

Education

Other

BUSINESS TYPE ENTITY

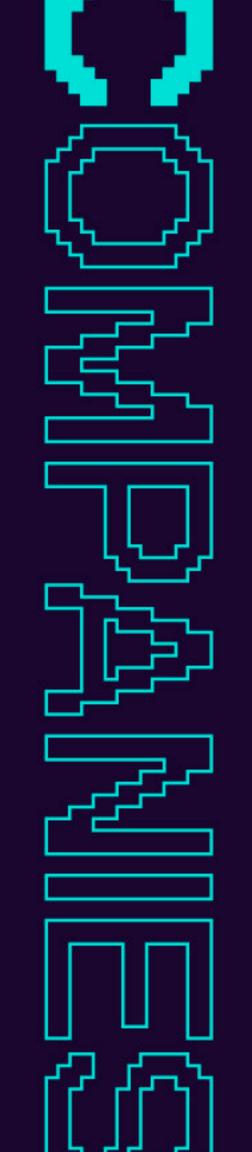
63%	LLC Flat-rate taxpayer		
24%			
13%	No entity		

For the past year, we've seen more teams from all over Serbia, and more specialised studios offering services related to the gaming industry. We're happy our ecosystem is maturing

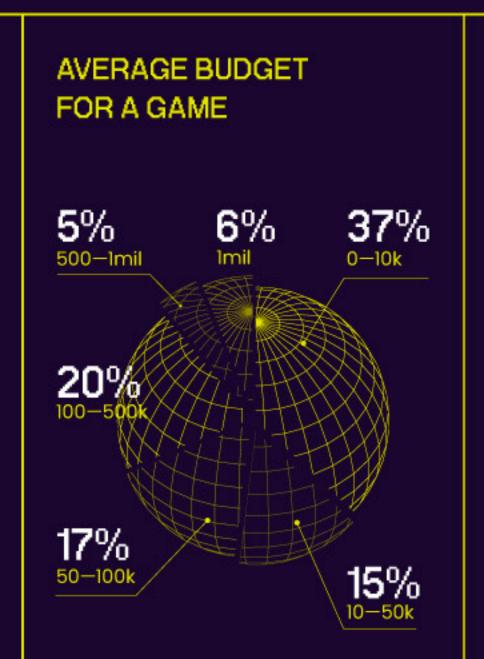


Estimated number of companie studios and indie teams:





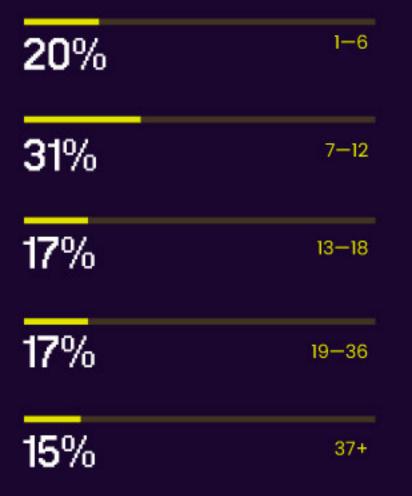
A typical Serbian game made in 2021: a casual or RPG mobile F2P title with ads monetization, developed in 12 months by a team of around 10 people, using Unity.



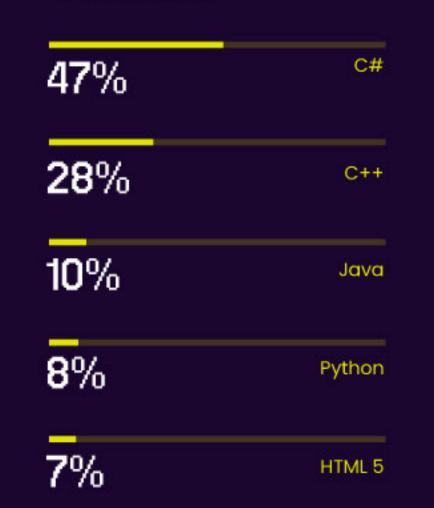
AVERAGE TEAM SIZE WORKING ON A GAME

56%	1-5
21%	6-10
10%	11-20
7 %	21-50
3%	51 d100
3%	100+

AVERAGE MONTHS SPENT IN DEVELOPMENT



PROGRAMMING LANGUAGES



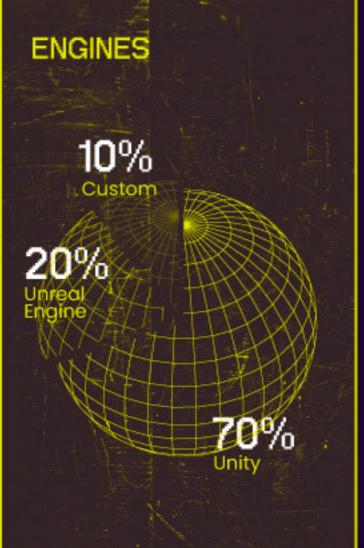


Games published 35 Currently in development 41

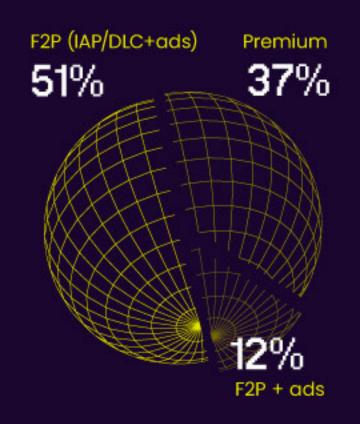
64% of games were self-published

3

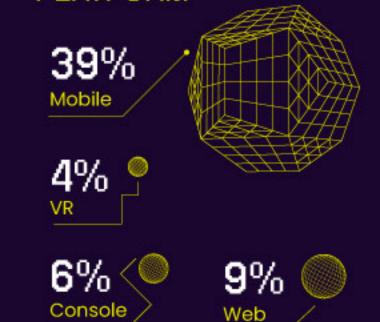
Most studios are currently developing one or two games



MONETIZATION MODEL



PLATFORM





GENRE

5%	Action
5%	Arcade
8%	Adventure
18%	Casual
15%	Simulation
5%	Puzzle
2%	FPS
4%	Sports
10%	RPG

19%	RPG

_	
207	Family
2%	and kids

4%	Strateg
- / U	

Other 13%

SERBIAN GAMES HAVE BEEN DOWNLOADED/PURCHASED MORE THAN 370 MILLION TIMES



With the coming of new big studios, major acquisitons and some of the best periods when it comes to revenue reported by our members, we predict a steady growth that will continue for years to come. Check out the TRENDS page for a more detailed view.









More than 2/3 of responedents generate 75%-100% of revenue outside of Serbia

Even though 30% of respondents stated they will actively pursue an investment in the previous report, only 16% actually received an investment

Only 30% of respondents raised funds is Serbia

A record 45% of teams will actively pursue investments in 2022 - most of them would like to raise 500k eur

ESTIMATED TOTAL REVENUE: 125MIL EUR

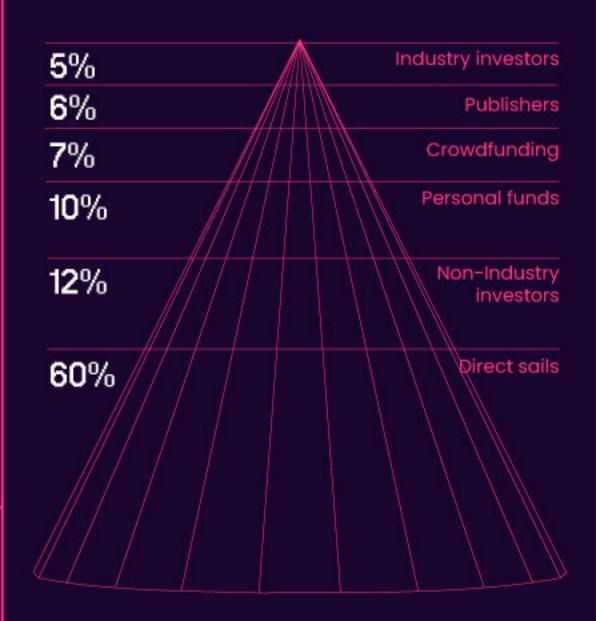


10

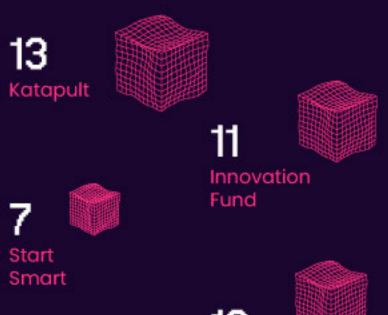
Creative Europe



MAIN FINANCING SOURCE



NUMBER OF TEAMS PLANNING TO APPLY FOR THESE FUNDS:

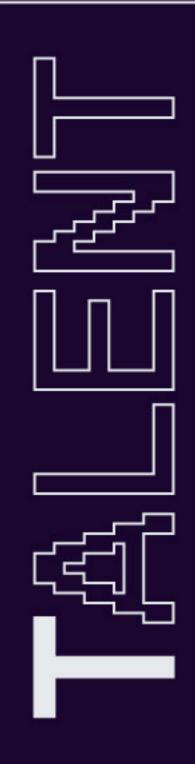


10 Epic Mega Grant

TOP 3 MARKETS PER REVENUE







More and more talented professionals are sought after. Combining education and internship opportunities with various initiatives aimed at helping them develop further is key to ensuring the scalability of some of the fastest growing teams and companies.





TOP 3 TALENT HARDEST TO HIRE

PRODUCERS

MONETIZATION SPECIALISTS

GAME DESIGNERS

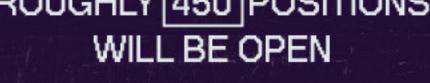
A RECORD OF 70% RESPONDENTS PLAN TO EXPAND TEAMS IN 2022

35% OF OUR MEMBERS EMPLOYED GRADUATES. HERE'S WHAT THEY SAY ABOUT THEM:

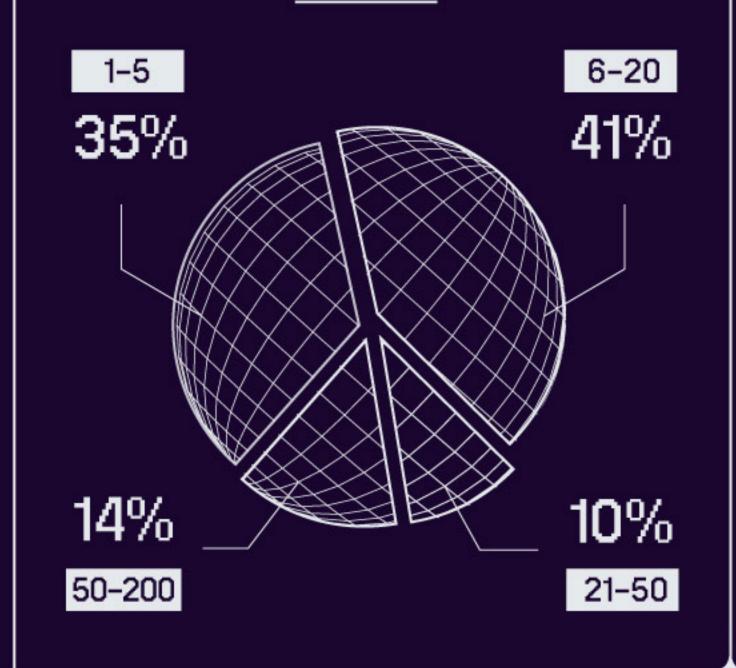
22%	We're completely satisfied
26%	They know theory, but lack practice
10%	They lack both theory and practice
9%	They expect high salaries
23%	They've never worked on their own projects
10%	They bring a fresh perspective

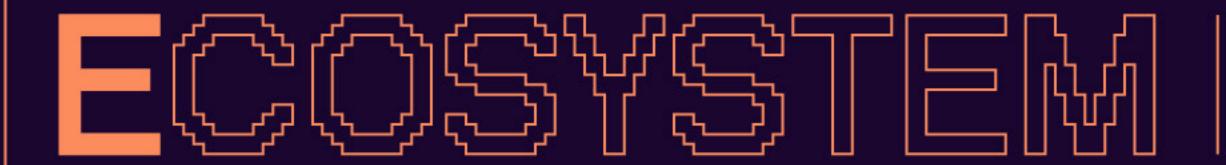
ROUGHLY 450 POSITIONS WILL BE OPEN

STUDIO SIZE



= 50





Similar hurdles seem to be in place this year as well. Decision makers should combine this info with the experience and best practices of other successful gaming industries in order to improve conditions in Serbia

VERY SATISFIED

23%

NEUTRAL

40%

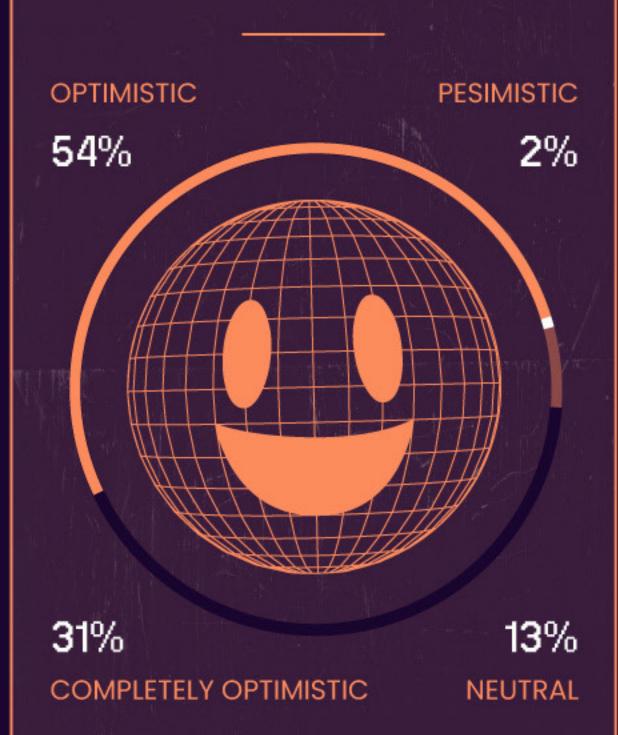












MAIN FACTORS THAT NEGATIVELY IMPACTED COMPANY GROWTH

HIGH TAXES	46%
FINDING APPROPRIATE TALENT	48%
LACK OF FUNDS	30%
COMPLEX RED TAPE	25%
HIGH LLC EXPENSES	21%
INAPPROPRIATE TAX INCENTIVES	36 %
CUSTOMS (DEV-KIT IMPORT VIRTUALLY IMPOSSIBLE) 20%	20%

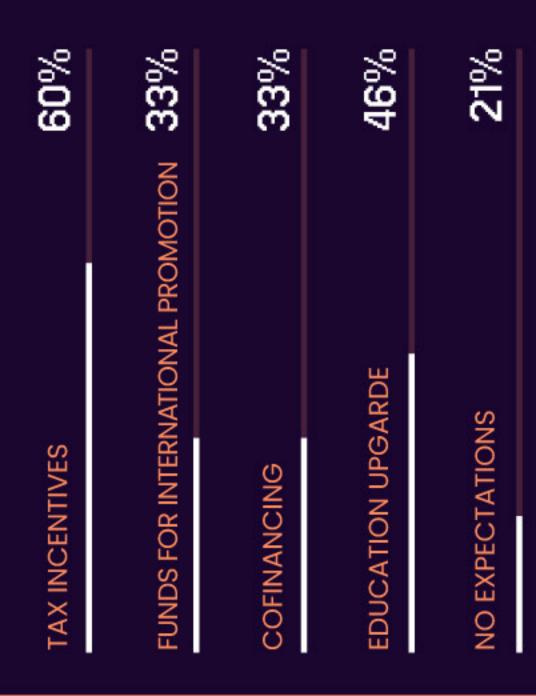
LEVEL OF CURRENT EXPECTED
STATE SUPPORT STATE SUPPORT

SATISFIED

12%

UNSATISFIED

25%



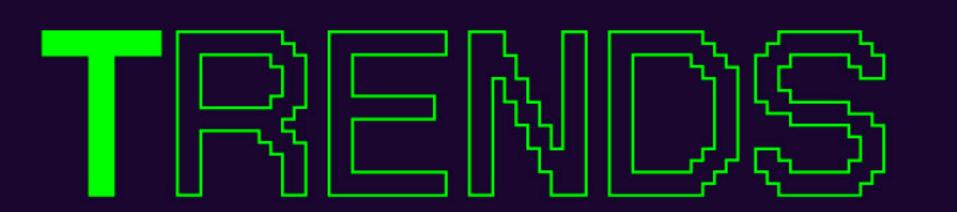
35%

OF RESPONDENTS STILL DON'T OFFER
EMPLOYEES FULL-TIME CONTRACTS DUE
TO "EXTREMELY HIGH TAXES"

25%

HAD TO OPEN PO BOXES OUTSIDE OF SERBIA

85% OF TEAMS ARE OPTIMISTIC ABOUT THE FUTURE



Here's a handy comparison of some of the main data over the years. Keeping track of the YoY changes is crucial to navigate future growth

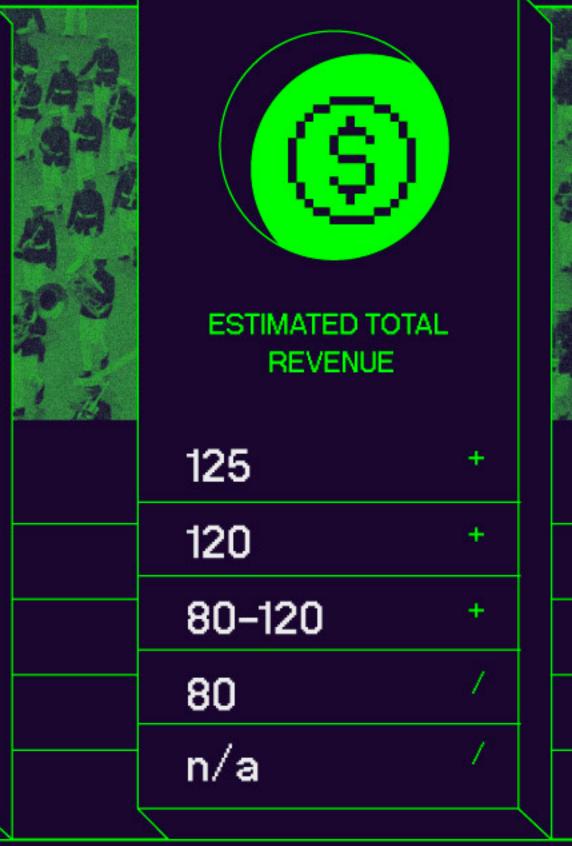




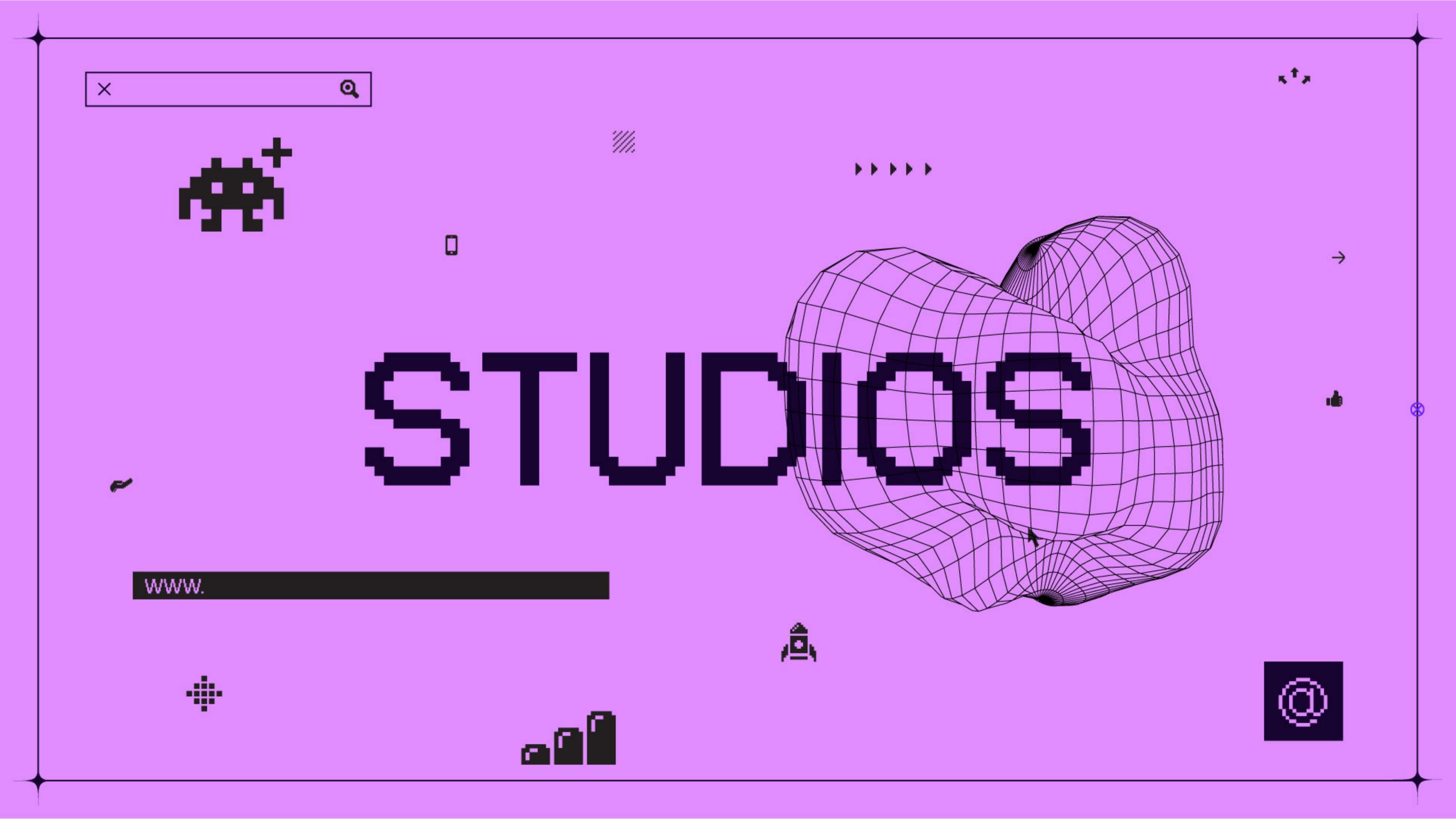
	0 - 20k	20k - 50k	50k - 100k	100k - 1m	1m - 5m	5m - 25m	25m - 50m	50m +
2021	19	4	4	17	3	5	2	1
2020	26	6	5	18	2	2	2	1
2019	19	6	8	18	4	4	n/a	n/a
2018	25	2	1	3	6	3	n/a	n/a
2017	24	3	4	2	5	2	n/a	n/a











LAYSTUDIOS



Playstudios Europe is a part of PLAYSTUDIOS, a public company and a leader in the field of social gaming. We are developing a revolutionary social gaming platform aimed at reshaping the way people play online games. Our flagship apps are consistently rated among the Top-20 Grossing apps in the Apple App Store in our category!

Besides Belgrade, PLAYSTUDIOS has game studios in the US, Israel, and Asia.

Playstudios Europe has opened its doors in Belgrade in 2021. and since then our team is constantly growing. Our team is mostly made of developers, creatives, and quality assurance professionals that are creating top-rated casual games in the world. We are working on the Pop! Slots and MGM Slots Live games and from this year, we are working on the new Tetris® mobile and we are excited to contribute to one of the most famous franchises in the world.

We are a dynamic and young-minded environment, blooming with talented engineers, game designers, and other leaders working together to change the face of social gaming!

TEAM OF: 140

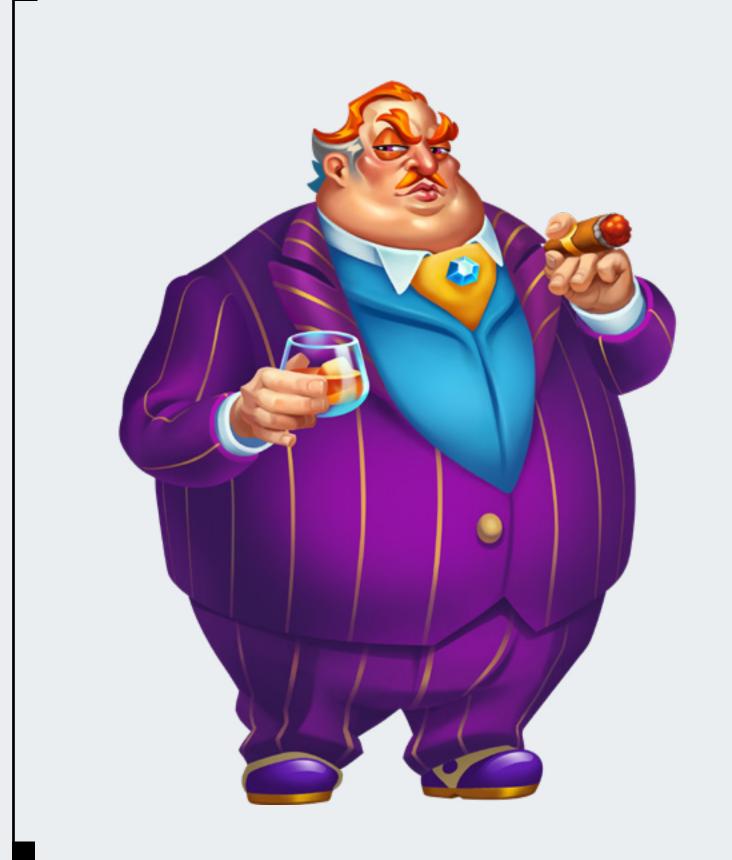
HIRING NEW TALENT

OPEN FOR MEDIA INQUIRIES





PLATFORM —MOBILE





13 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.playstudios.com Q

3LATERAL



3Lateral, part of Epic Games, is a Novi Sad based company blending state-of-the-art technologies, artistic vision and full-service solutions to bring digital humans to life in games, film and TV.

The company has pioneered both hardware and software technology that produce next-generation digital humans and fantastical creatures. 3Lateral's proprietary acquisition systems for capturing 3D and 4D data, combined with the team's experience processing human movement and emotion, has pushed the industry forward with believable, life-like characters. The company has made much of its technology available to creators with the launch of MetaHuman Creator, a free, cloud-based app that empowers anyone to create photorealistic digital humans in minutes, complete with hair and clothing. As of January 2022, more than one million characters have been produced with the MetaHuman Creator worldwide.

The company demonstrated its next-gen capabilities with the launch of Epic Games' technical demo 'The Matrix Awakens: An Unreal Engine Experience.' After scanning and capturing performances from Keanu Reeves and Carrie-Anne Moss in the company's Novi Sad studio, the 3Lateral team created the actors' lifelike digital doubles for the demo which led many to question: "how do you know what is real?"

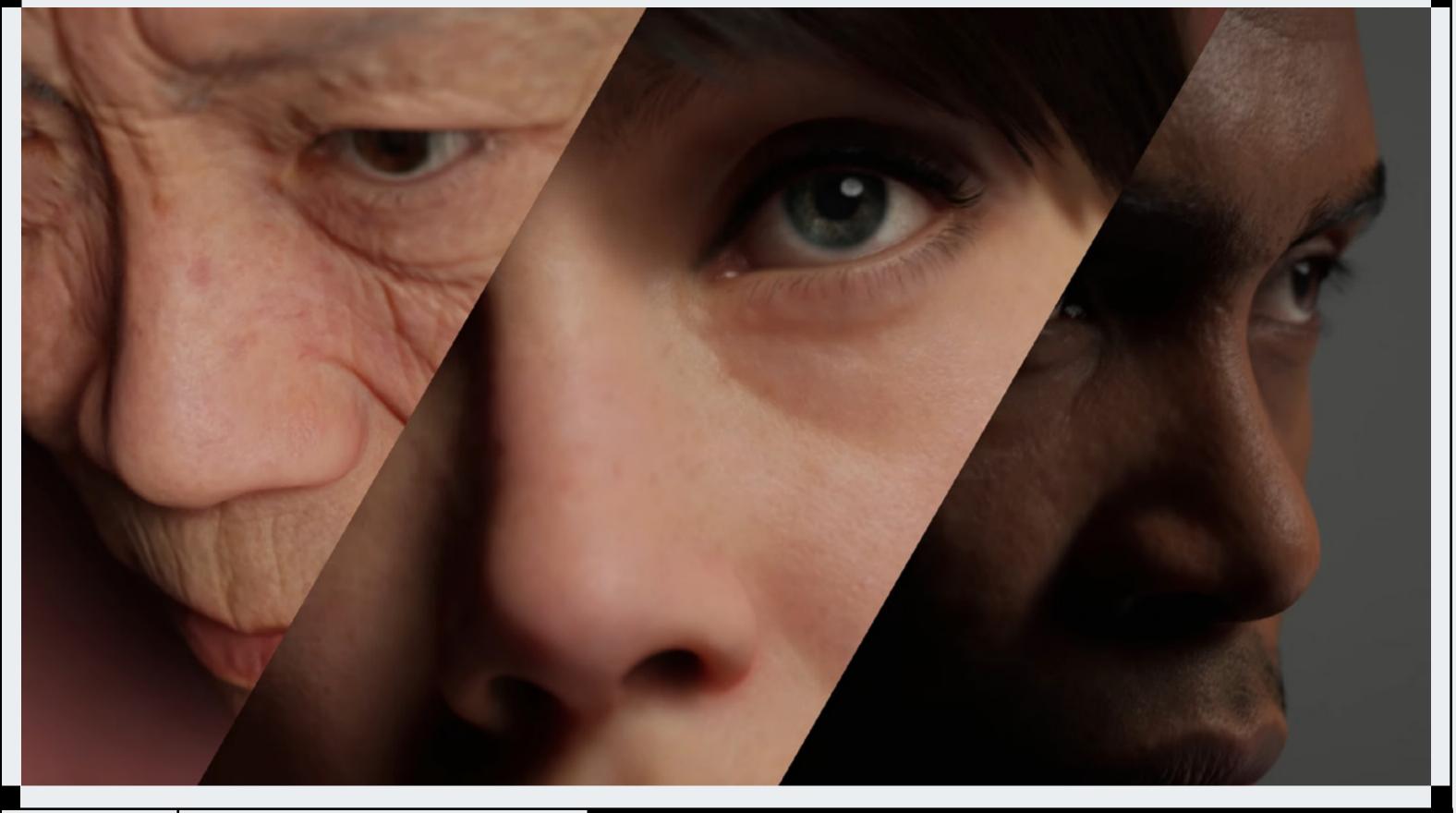
Within the ever-growing list of the successful AAA gaming projects, 3Lateral empowered characters have recently starred in Senua's Saga: Hellblade II, Resident Evil Village, and more projects yet to be released.

In 2024, 3Lateral plans to open the doors of their new campus, a cutting-edge workspace for the team to learn, create and innovate. The campus will also elevate the team's efforts to support the regional creators, researchers, and educators interested in Unreal Engine and digital human-related technologies.

3Lateral is welcoming new team members inspired by the challenge of recreating humans in digital form.

TEAM OF: 140+





14 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.3lateral.com

DIGITAL ARROW



WE ARE DIGITAL ARROW

Digital Arrow was founded by two passionate gamers in 2015 in Novi Sad, Serbia with the aim to establish a leader in high-quality game production in the region and set a new bar for quality game experiences.

Our team of talented, young professionals strives toward making the best quality scenery, gameplay, and buzz in games.

Digital Arrow is an independent game development company that produces high-quality games that are fit for the PC, Console, and VR platforms.

OUR COMPANY CULTURE & VALUES

We create a culture of partnership where we support young talents on their professional and personal development path. Knowledge-sharing, education, and collective improvement are at the top of our core values list.

Collaboration is in our DNA!

It guides our workspace design, the way we put together lean, flat teams, and how we think about the best talent. The toughest challenges won't be solved alone, so we take pride in working together.

We are a company that is dedicated to building a bridge between skilled, passionate talents and amazing interactive media projects.

We achieve this by building development strategies, respecting the organizational culture of well-being, and strengthening talents in the most effective ways.

The projects we are most proud of are InMomentum, Aquanox: Deep Descent, and the recently released Titan Quest: Eternal Embers. TEAM OF: 30

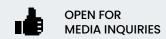
15 - STUDIOS





OPEN FOR INVESTMENTS







WORKING ON A NEW PROJECT PI

PLATFORM —PC

TITAN QUEST ETERNAL EMBERS

SERBIAN GAMING INDUSTRY REPORT 2022

FORTUNA



Fortuna Esports is the regional leader when it comes to esports. It handles event organization, studio and video production as well as TV and online streaming for international tournaments. Fortuna is the first regional broadcaster to acquire rights for premium esports content with the Riot Games' LoL Esports tournament circuit, Dota 2 The International and CS:GO Majors.

Along with premium esports programming, Fortuna's portfolio includes unique entertainment shows created for local audience as well as the biggest regional esports league – Esports Balkan League (EBL).

So far EBL has distributed over 220.000 EUR in prizes, featured three game titles (League of Legends, CS:GO and Dota 2) and through partnership with Riot Games provided our teams with an official path to international tournaments in Europe. Most importantly, EBL broadcasts gather an audience of around 500.000 esports fans every year.

Since June 2019, Fortuna is operating SK Esports a brand new 24/7 Sport Klub TV channel created through partnership with United Media. Its programming includes live broadcasts from the world's and region's largest tournaments, news from the world of gaming, game reviews, popular streamer's gameplay and entertainment shows. We are extremely proud that our studio yearly produces more than 200 live broadcasts, with over 1.000 hours of content.

TEAM OF: 20

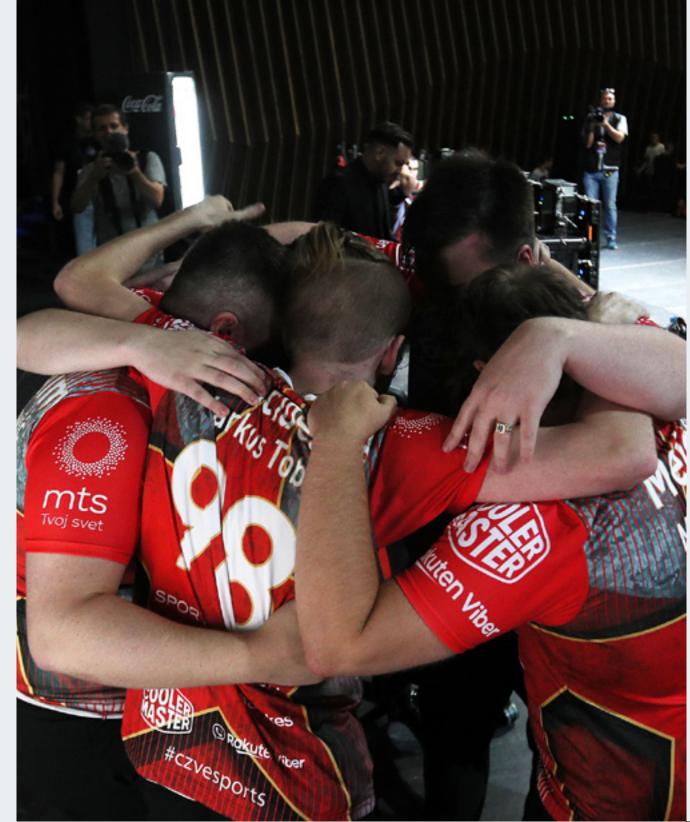


HIRING NEW TALENT



OPEN FOR MEDIA INQUIRIES





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SERBIAN GAMING INDUSTRY REPORT 2022

www.fortunaesports.org **Q**



Ubisoft is one of the leaders in entertainment, with a rich portfolio of well-known brands worldwide. We are committed to enriching players' lives with original & memorable entertainment experiences. Ubisoft Belgrade was established in 2016 and focuses on strengthening Ubisoft's presence on multiple platforms - PC, console, and Google Stadia. Our studio has contributed to multiple AAA titles, including Tom Clancy's Ghost Recon, Steep, The Crew 2, Tom Clancy's Rainbow Six, Riders Republic and Skull & Bones. Ubisoft is an equal opportunity employer that believes diverse backgrounds and perspectives are key to creating worlds where both players and teams can thrive and express themselves. If you are excited about solving game-changing challenges, cutting edge technologies, and pushing boundaries of entertainment, we invite you to join our journey and help us create the unknown.

TEAM OF: 174



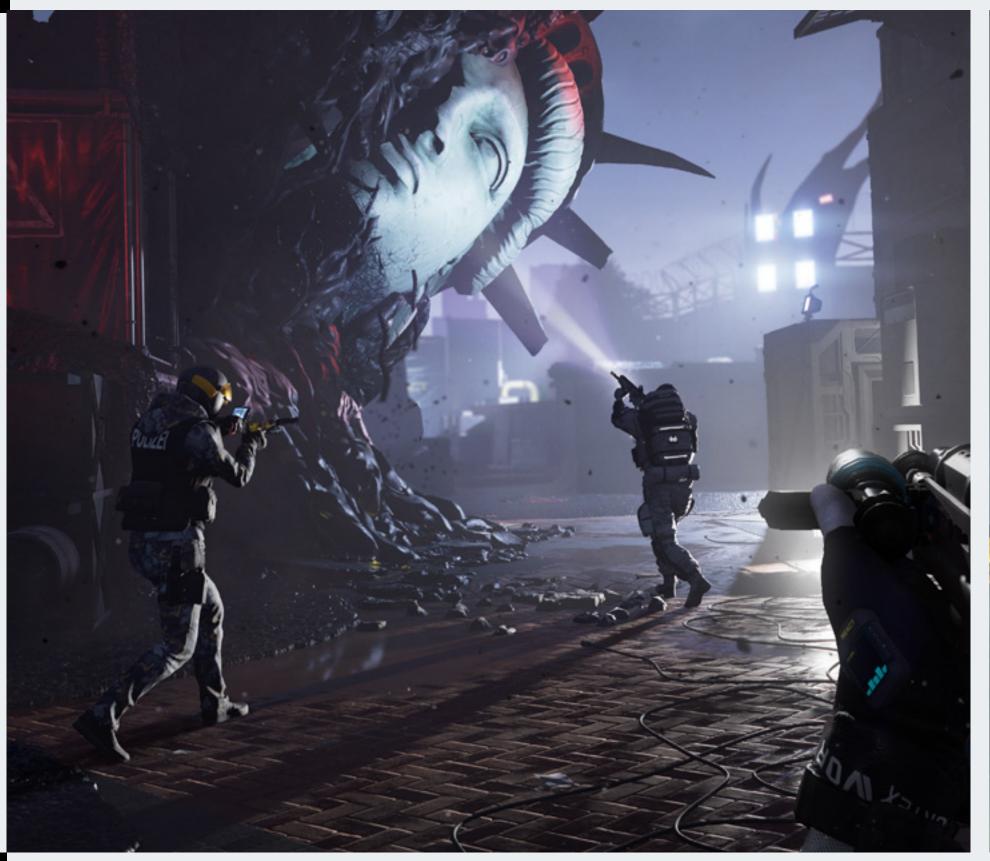
WORKING ON A NEW PROJECT







PLATFORM —PC

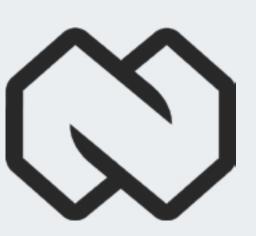




17 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.ubisoft.com



Nordeus was founded in 2010 in Belgrade. Fueled by the passion and creativity of more than 180 people, together they build games that bring the joy of winning to the lives of millions.

Football management is all about love and passion! But to become really successful, you also need to know your team, set winning tactics, and outsmart your competitors. Launched in 2010, Top Eleven lets you create and manage your football club and lead them to glory. Today with over 240M registered users, it is the world's most successful mobile football management game. Since then Nordeus has successfully launched Golden Boot, a free-kick flick game, and Heroic - Magic Duel, a fast-paced PvP.

In June 2021, Nordeus became a part of the Take-Two family, one of the most creative and innovative companies in the entertainment business, as they continue to put Serbia on the global map of gaming. Nordeus is one of the founding members of SGA and Digital Serbia Initiative, both of which help create a stimulating environment for creating video games and the development of other digital industries.

Nordeus Foundation has been set up in 2021 with an initial budget of \$3M, to help impact education within Serbia. Building on, and supporting, what other organizations and institutions have already achieved within education, Foundation wants to help cultivate creativity and innovation in schools even further by focusing on the quality of learning, and utilization of digital and technology.

TEAM OF: 180

HIRING NEW TALENT

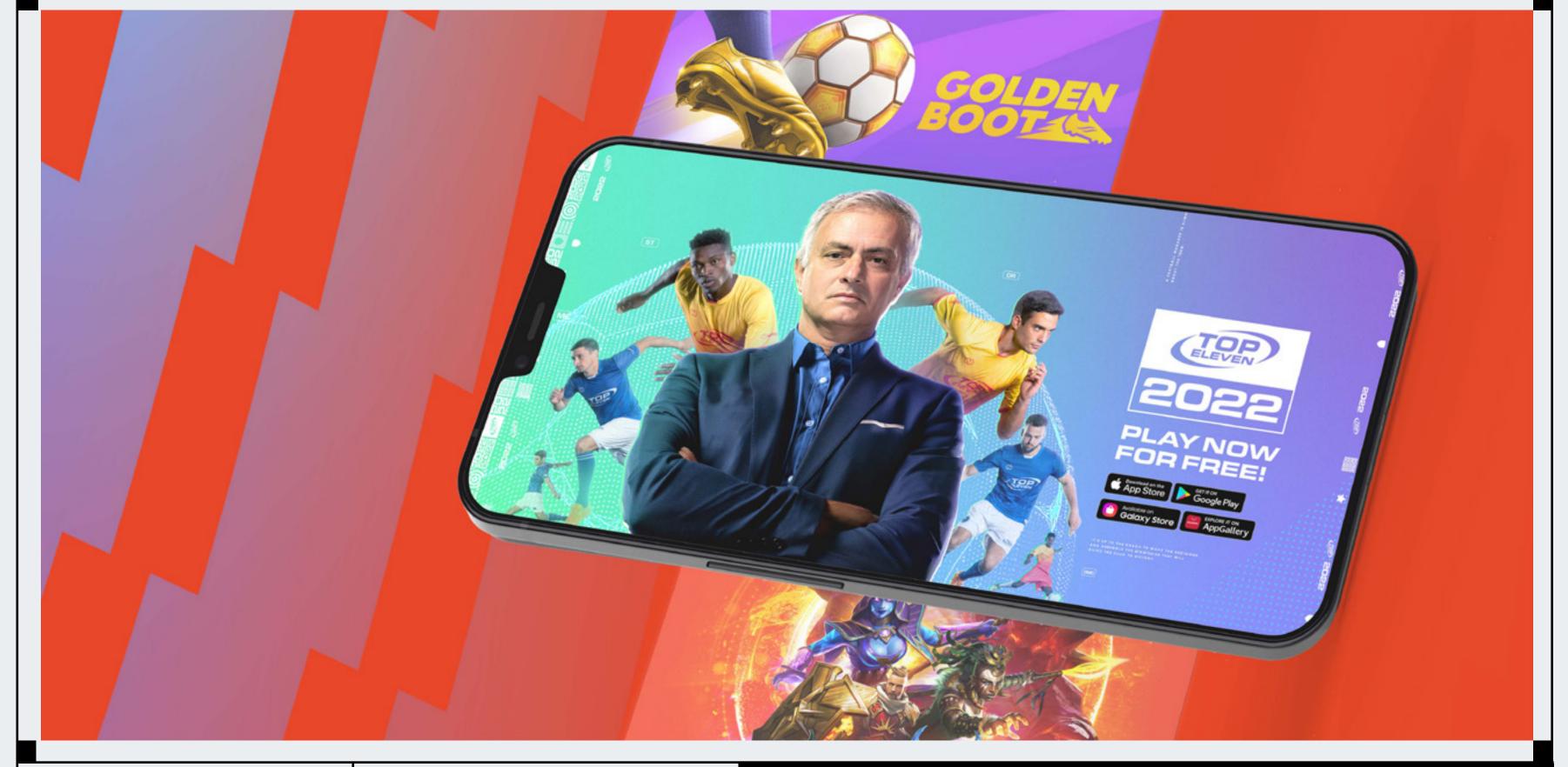
OPEN FOR MEDIA INQUIRIES



WORKING ON A NEW PROJECT



PLATFORM —MOBILE



18 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.nordeus.com Q

PEAK(SEL



Peaksel is a mobile development and publishing company, located in Nis, Serbia. The company was founded in 2012 and today has over 60 full-time employees. They manage a portfolio of over 200 apps and games that have been downloaded more than 500M times.Their portfolio of games includes various casual, virtual pet and logic puzzle games. In addition, the company has published a variety of music, entertainment and utility apps.

TEAM OF: 60





HIRING NEW TALENT







PLATFORM —PC / MOBILE



19 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.peaksel.com

PLAYRIX RS



Playrix RS is a casual F2P mobile games development studio from Novi Sad, Serbia. Playrix RS is a part of the global Playrix group - one of the world's largest casual mobile gaming companies and creators of Gardenscapes, Homescapes, as well as Township, Fishdom, Wildscapes, and Manor Matters. Playrix games have been in the Top 50 Grossing Apps on Google Play and App Store platforms since their appearance on the market. The total number of monthly active users exceeds 100 million! Playrix RS team employs more than 90 professionals who, with the support and knowledge of the most excellent experts in the gaming industry, top-industry tools and technologies, work every day to develop new and unique projects - mobile games of the highest quality. The value shared by all team members and an imperative in every segment of our work is quality. That is why Playrix RS nurtures team spirit, creativity, transparency, trust, professional and personal development, and responsibility.

TEAM OF: 100

40

HIRING NEW TALENT

OPEN MEDIA

OPEN FOR MEDIA INQUIRIES



PLATFORM
-MOBILE



20 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.playrix.rs

TWODESPERADOS



Two Desperados is an independent game development studio based in Belgrade.

Our vision is to design games and technology that put players at the centre of a cutting-edge gaming experience.

Back in 2010 when the studio was founded, we were a bunch of gaming enthusiasts with plenty of ideas that were tested again and again. Driven by our goal to make the best casual mobile games, we finally settled into the marble shooting universe with our titles Woka Woka and Viola's Quest. Since their launch, we have been constantly developing these games and we have managed to stay fun and engaging to over 30 millions of players worldwide. In 2022, we plan to launch two new titles.

Tech at core, fun at heart is our motto. We believe the future of gaming lies in technology, notably in artificial intelligence. Therefore, we invest heavily in the development of our in-house Al team, but also in collaboration with the scientific community.

TEAM OF: 80+

HIRING NEW TALENT

OPEN FOR MEDIA INQUIRIES



WORKING ON A NEW PROJECT



PLATFORM
-MOBILE



21 - STUDIOS

SERBIAN GAMING INDUSTRY REPORT 2022

www.twodesperados.com **Q**



Mad Head Games is an unconventional, awardwinning, and ever-growing development studio from Serbia, founded in 2011 by a group of experienced developers and friends. All of them were and continue to be passionate about making games, united around a singular vision of creating immersive, atmospheric, and fun titles - with attention to detail, unique style, and most importantly - heart! Ok, and a bit of madness, too... (It's not Calm Head Games!)

Their first big successes came with HOPA titles published by Big Fish Games. A range of titles came out in no time at all, defining them both as an innovator and quality benchmarks with the HOPA audience worldwide.

Since then, they have fully morphed from creators of casual games to creators of action games for PC and consoles. The action RPG Pagan Online, created through a partnership with Wargaming, is the studio's biggest project to date - but some exciting things are ahead, as they are developing two big projects. First is Scars Above, a challenging and immersive 3rd person Sci-Fi shooter inspired by modern action-adventure games. The second project is still unannounced - the only known info is that this game is based on a famous horror film IP.

Teaming up with Saber Interactive enables them to do a lot of cool stuff -they now have a huge battleship on their side, and they are ready to compete for gamer hearts worldwide!

TEAM OF: 143



HIRING NEW TALENT





WORKING ON A NEW PROJECT





WEBELINX GAMES



Vibrant offices in Niš, southern Serbia, are the HQ of Webelinx Games studio. We are a 100% bootstrapped, domestic-owned and independent mobile gaming studio. Founded in 2020. by the parent company Webelix, a successful mobile developer, as a crown of over a decade of mobile publishing experience.

Today, Webelinx Games count over 100+ employees, making us one of the largest independent gaming studios in the region, if not the largest. Webelinx Games repeated games success would not be possible without our fantastic team. Their creativity, ideas, and dedication are fuelling studios' explosive growth.

We take special satisfaction in people who have evolved together with us, into experts and main pillars of the company. With that in mind and our responsibility to the local community, we actively collaborate with local universities. We are proud for providing young talents a place to grow, an opportunity to work on globally popular games. And without the need to leave their hometown, friends, and family, for that.

We are publishing casual mobile games, interactive stories, hidden object games, escape rooms, and sports arcades. But we don't feel bound by any genre. As game ideas are coming from our team, only time will tell what is going to be the next hit game by Webelinx Games. So we are inviting You to join our team. So we can build and play that next gaming hit, together. To this day, our games, available in 21 languages, scored more than 2.5 billion downloads.

TEAM OF: 105



HIRING NEW TALENT



OPEN FOR MEDIA INQUIRIES

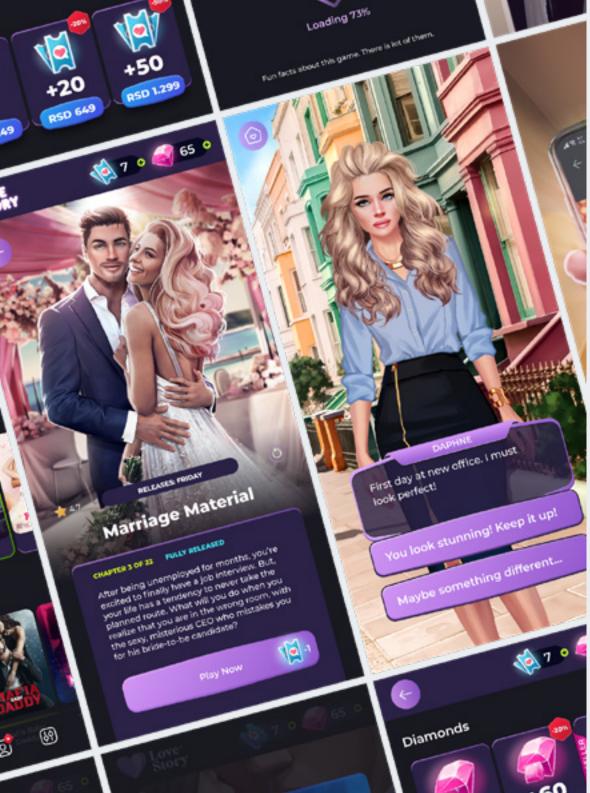


WORKING ON A NEW PROJECT



PLATFORM —MOBILE







Yboga studio was founded in mid-2016 in Belgrade with a focus on creating simulation and management games for mobile devices. Our first game - Dream Hospital has recorded over 8 million downloads up to date and is favored by its audience. The game is available on both iOS and Android platforms. We're regularly working on the Dream Hospital and updating it with new and fun features.

The studio is currently engaged in finalizing the new IP that will be released later this year. The new project will maintain some of the crowd-pleasing features that popularized Dream Hospital, but with a new twist. We're working on enriching world-building and creating individual and unique experiences. Also, the game will include an original storyline that will accompany the regular core gameplay. We hope that the new game will meet the success and love the Dream Hospital is receiving. The in-house technology that we've produced will enable us in creating innovative and exceptional games in the future. Our goal is to establish ourselves as a respectable game studio that creates authentic high-quality simulation games tor mobile.

TEAM OF: 9





TEAM OF: 35

HIRING NEW TALENT



WORKING ON A **NEW PROJECT**

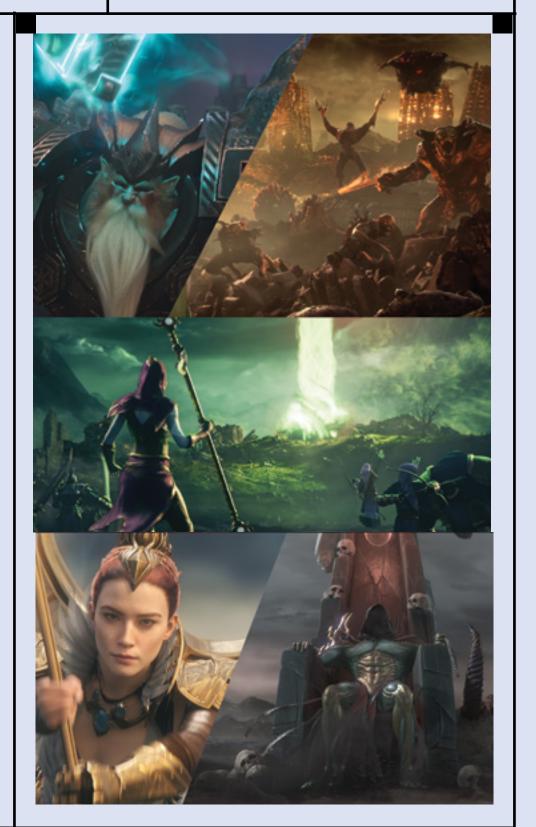


WE PROVIDE SERVICES

OBUNKER

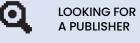
Bunker VFX studio was founded in 2014, in Belgrade, Serbia. From the very first year the studio has been focused on the production of high-end game trailers and cinematics. Since the very beginning the studio has started working intensively on the development of the working environment and pipeline suitable for this type of production. This particularly meant investing in experienced artists, creating unique internal pipeline tailored for game trailers and also investing in hardware and software required for this kind of production. The combination of great internal teamwork of 40 senior artists and trustful external collaboration resulted after a short period of time in making cinematic trailers for AAA games. List of our clients include Bethesda Softworks, Red Barrels, Electronic Arts, Zynga, THQ Nordic, Warner Bros Entertainment, Rovio Entertainment, Com2Us etc. Bunker continued with the development of the creative department, both responding to clients needs and offering various creative solutions in order to achieve exceptional quality in production.

Our mission is to design exceptional visual stories by cooperating closely with our clients. By carefully choosing the projects we work on, we thrive to deliver extraordinary visual content primarily in the field of game cinematics. Furthermore, we try to build strong, creative and long-lasting relationships with our clients that will distinguish our work from the rest.



TEAM OF: 33

OPEN FOR MEDIA INQUIRIES



WORKING ON A NEW PROJECT

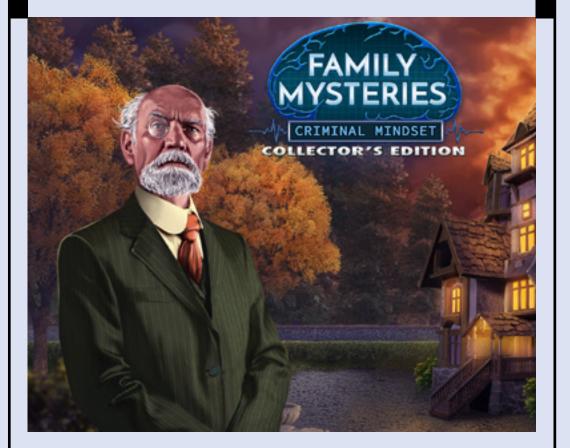
OPEN FOR INVESTMENTS



HIRING NEW TALENT



Brave Giant was founded in 2012 in Novi Sad, Serbia. We started as a small development studio with a team of 5. However, during the years we have grown, and now count 30 hard-working brave giants. Our growing team's singular aim has always been game development and creating premium quality video games for PC, Mac, IOS, Android, and Windows Store. The company is known for its engaging casual hidden-object puzzle adventure games of all genres. By gathering talented programmers and artists that have been dedicated to designing innovative worlds and vivid storylines, the studio has developed and published numerous games world-wide in more than 10 languages, across all relevant gaming markets. After years of consecutive successes, it is expanding its work to new gaming platforms and gaming forms. Thanks to building strong partnerships over the years, with the world's most recognized video game companies, Brave Giant has reached millions of satisfied players all over the globe, while delivering unique and exciting games that provide breathtaking gameplay. Our mission is to provide players with stimulating emotional, visual, and intellectual experiences through captivating immersive worlds that can be enjoyed by a variety of people. This year we are celebrating our 10th anniversary and we are looking for many more.





www.bunkervfx.com www.bravegiant.com 25 — STUDIOS SERBIAN GAMING INDUSTRY REPORT 2022

CRATER TRAINING CENTER

TEAM OF: 7

OPEN FOR INVESTMENTS



HIRING NEW TALENT



WE PROVIDE SERVICES



OPEN FOR



Crater Training Center offers premium education in visual effects, game art and digital graphics.

The school was founded by Crater Studio, Serbia's leading VFX studio for video postproduction that employs over 30 highlyskilled artists.

We are developing talents ready to kick off their careers in creative industries - and we're doing it through a variety of courses, events, and internship programs led by 20 lecturers and certified professionals. Beside individual courses, we provide industryspecific education programs accredited by the Ministry of Education.

As co-founders of the international CGA conference, we support the community through networking and knowledge exchange. Here we run CGAcademy, an educational platform for junior artists and other talent entering the industry.





TEAM OF: 8

OPEN FOR



Foxy Voxel is an independent game development studio founded in Novi Sad, Serbia, in 2019. The team consists of 8 seasoned game industry professionals that work on a medieval colony sim/city builder game for PC - Going Medieval.

Set in alternate post-apocalyptic medieval Europe, players get to guide a group of survivors while they re-settle areas reclaimed by nature. Their goal will be to construct a multi-story fortress in a land reclaimed by the wilderness, defend against raids and keep your villagers happy as the world will shape their personalities.

Going Medieval was released as an Early Access title on June 1st, 2021, on Epic Game Store, Steam, and GOG, and in its opening week, the game sold over 175 000 copies. Since then, Going Medieval receives frequent updates every few months while maintaining and expanding its community and keeping its Steam rating at "Very Positive".





TEAM OF: 40

WORKING ON A NEW PROJECT



HIRING NEW TALENT



PLATFORM

OPEN FOR MEDIA INQUIRIES



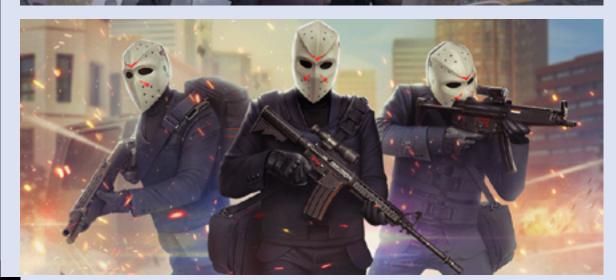
Sozap is a mobile games development studio with offices in Niš, Serbia and Nyköping, Sweden. What started as a small team of 10 developers and designers now counts to over 40 talented employees across both locations respectfully. Sozap houses over 23 million downloads in their games, most notable Armed Heist with it's 1 million strong monthly active users. And, with their new Legends of Libra run and gun game, they are trying to enter a more casual market.

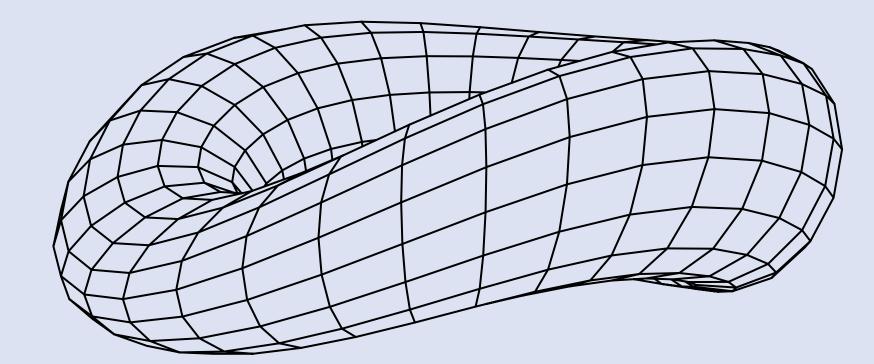
Last year, in 2021. after a successful IPO, Sozap had gone live on the Swedish NASDAQ stock market and became the first publicly traded gaming company in Serbia!

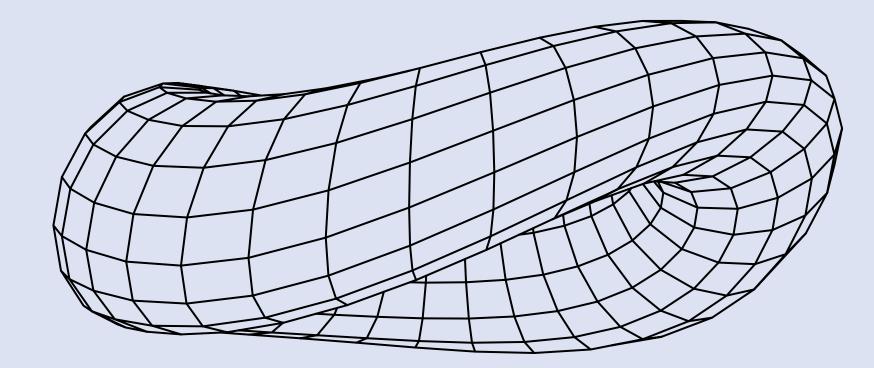
The main creative motive that drives the whole operation at Sozap is to create quality digital entertainment for all to enjoy.











PIXQUAKE

PixQuake

TEAM OF: 3

A NEW PROJECT

PixQuake is a game-developing studio from Belgrade, Serbia, creating casual games of various genres. We published our first game in 2011. Over the years, we've published 17 games in several languages.



www.pixquake.com

TRIA



TEAM OF: 8

OPEN FOR INVESTMENTS



OPEN FOR MEDIA INQUIRIES



WORKING ON A NEW PROJECT





We are a creative studio based in Belgrade and founded by a team of industry wizards with a love for games and interactive multimedia. Our job is to push your brand above the fold using innovation and creativity. The team will take the best parts of your game and combine them into an immersive experience in the form of Playable and Video Ads that will pull the user straight to the "Install" button.



www.tria.rs

ELBET





WORKING ON A NEW PROJECT





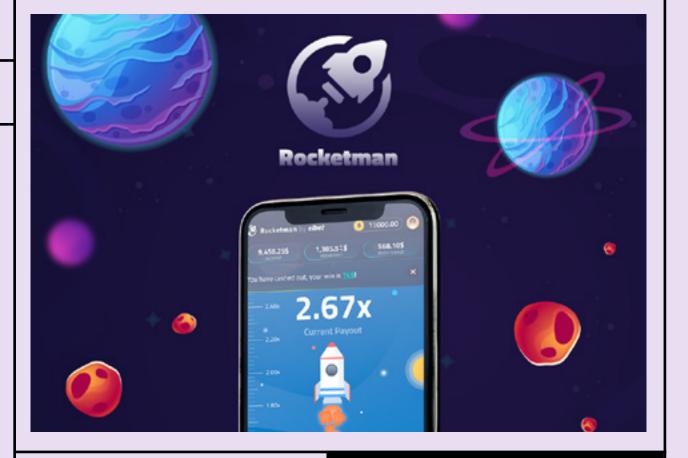
PLATFORM
—PC /MOBILE



TEAM

OF: 30

Elbet was founded in Belgrade, Serbia in 2002 as a technology company specializing in development of software solutions for gaming industry. Our extensive portfolio of virtual games includes number games, virtual sports and virtual casino games. We cooperate with 80+ operators on three continents, including 5 state lotteries.



www.elbet.com

SUPERVERSE



TEAM OF: 4



LOOKING FOR A PUBLISHER



OPEN FOR MEDIA INQUIRIES



With roots set deep in the 90's demo-scene, Superverse Industries grew through the rising of smartphones, nurturing technical expertise as well as pushing creative envelopes. We are now working, with the very same passion, on creating impressive interactive audio-visual experiences and games for PC, VR/Working on a new project, Platform - PCtake on old-school games, Superverse Industries is mixing classic gameplay with contemporary tech for hardened veterans and a new generation of players alike. And when working on the latest tech we strive to move beyond the limits of past creative bounds. The recently released arcade space shooter game SUPERVERSE in early access remains the primary focus of the company, with a new game title for mobile platforms in development.



www.indus3.org

SERBIAN GAMING INDUSTRY REPORT 2022

INGENIUOS STUDIO



TEAM

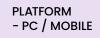
















Ingenious Studios is a team of game designers, artists, and developers, working passionately on something we all love - making games. We are a full-cycle game development studio with core strength in Unity development, and a deep understanding of gameplay, game art, and design. Our services include developing games from scratch based on the client's vision, as well as filling in some game development roles depending on the project's needs.



www.ingenious-studios.com

STYGIAN SOFTWARE



TEAM OF: 5





We're a small indie company based in Belgrade, Serbia. We make old school turn-based isometric RPGs.



www.stygiansoftware.com

SPRING ONION



TEAM OF: 20



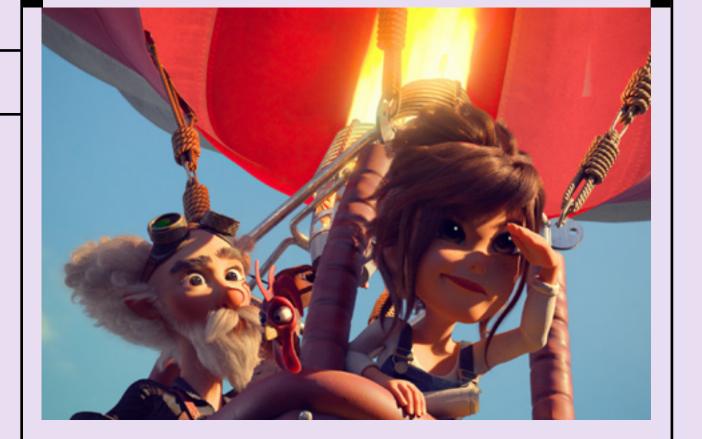
OPEN FOR MEDIA



WE DO OUTSOURCING



Spring Onion Studio specializes in 3D Animation, Game Art and Cinematic Production. Our game trailer and cinematic production pipeline cover a wide range of game marketing services - 3D art, concept art, character development, animation and game cinematics. The team consists of creative and technical minds who love being challenged by complex and original cinematic concepts.



www.springonionstudio.com

COFA GAMES

cofa cames

TEAM OF: 10

COFA Games is an independent studio from Belgrade working on Awakening of Heroes, an objective-based mobile MOBA game. With more than 1 million organic downloads, their game is getting promising feedback from beta players, especially about the unique characters and the innovations bringing to the conservative MOBA genre. Awakening of Heroes has been awarded multiple times including The most promising game at GDC pitch in San Francisco and The best multiplayer game at Casual Connect.



www.cofagames.com

GAME BIZ



TEAM OF: 7







At GameBiz, we provide a variety of services that enable game development studios to accomplish their growth goals. Our team has decades of experience in creating, publishing and monetizing video games. Most importantly, we know the right people in the industry, from East to West.



www.gamebizconsulting.com

DEMAGOG

demagog studlo.

TEAM OF: 20











Demagog Studio tells stories through video games and animation for a generation that will live to witness the end times.



www.demagogstudio.com

ALSET STUDIO

TEAM OF: 10



WORKING ON A NEW PROJECT



PLATFORM MOBILE

We are a game development studio. Founded in 2018, Alset Studio consists of professionals that have been working in the video game industry for many years. We are concept artists, 3d modelers, illustrators, designers, and programmers.



www.alsetstudio.com

HORA GAMES



TEAM OF: 10







Pioneers of the play-to-earning gaming genre with a focus on merging blockchain and gaming! We strive to bring a unique crypto gaming experience to your mobile device. With our first project, Crypto Idle Miner, we managed to bring the idea of earning while having fun to over 700 000 players across the globe. Our goal is to establish ourselves as one of the recognizable developers and publishers of casual mobile games.



www.horagames.com

TENDER TROUPE

TENDER TROUPE

TEAM OF: 1/







Tender Troupe develops and publishes games for the growing adult free-to-play niche. It is known for its unique and memorable Western-based art style, endearing character design, and fast paced, witty storylines. Their live games Booty Farm, Kink.inc, and Long Lost Lust are regularly visible on relevant top charts. They deliver highly visual live events weekly, making them some of the most content-rich titles available in the genre. Tender Troupe games are designed with a mature player in mind.



www.tendertroupe.com

QUBE

APARTEKO

àparteko

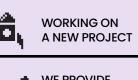
TEAM OF: 14



through a complete process from

business idea to high profitability.







OPEN FOR MEDIA INQUIRIES

Aparteko is a creative and highly professional company with many successful projects that have gone

UIRIES

www.aparteko.com

QUBE

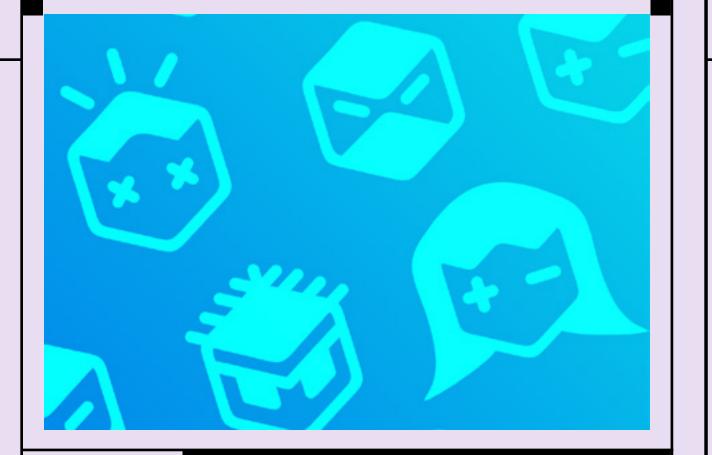






Qube is an art and development studio specializing in complete and engaging visual and game experiences. We create game assets for online, mobile and console games. Our team brings years of experience to the table to breathe life into your ideas. We are working with you from early concept stage to the final release and beyond. We have worked together with our clients to create the art for award winning mobile games, launched their websites and seen their

products make an impact on the market.



www.qube3dstudio.com

KERBER GAMES



TEAM OF: 4





Kerber Games is an indie board game design studio based in Serbia. We cherish humor, out of the box thinking, almost toxic attention to detail and creativity. Our team is currently on the quest of developing a brand new party game, Final Challenge!



www.kerbergames.com

SERBIAN GAMING INDUSTRY REPORT 2022

SUPERLATIVE



TEAM OF: 4





WORKING ON A NEW PROJECT

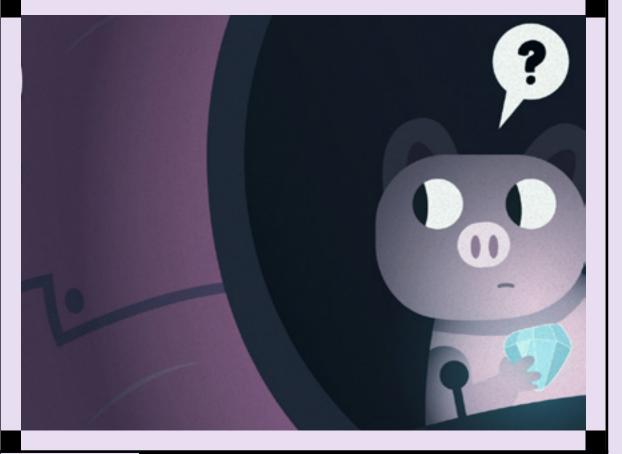




OPEN FOR INVESTMENTS

PLATFORM - PC / MOBILE

We are a digital products studio with a huge passion for gaming. That's why we've started messing around with the gaming industry and created our first, iOS exclusive, mobile game -Avoid Asteroid. We're currently exploring our next game idea and are looking for people that would like to join us for the ride!



www.superlative.digital

MIRACLE DOJO



TEAM OF: 15









We are aiming to create memorable gaming experiences that may leave a real impact on people's lives. Currently developing a PC Epic fantasy MMORPG game with P2E/NFT economy.



www.miracledojo.com

SLOTCRAFT



















₩E DO OUTSOURCING

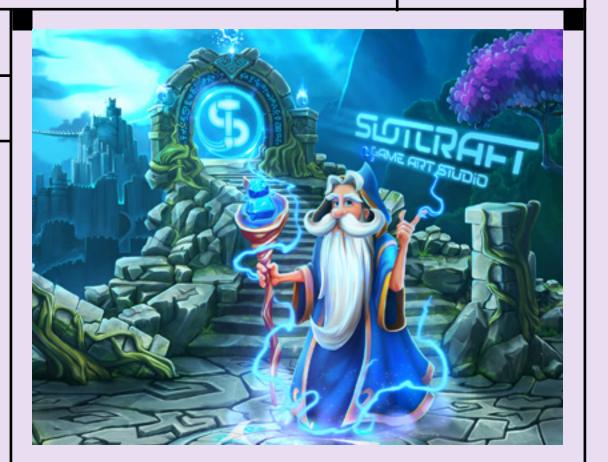








Slotcraft Studio is one small creative crew composed of experienced and professional artists, animators and designers, all gathered to passionately work on something that we love the most - GAME ART! Slotcraft is outsourcing game art studio that is giving visual identity to a lot of different type of games and bringing them to life for game providers worldwide. We are always hyped to create new games, it's always a new adventure to create new characters, environments, Ul's, logos and much much more.



www.theslotcraft.com

MAD MAGE GAMES

TEAM OF: 5

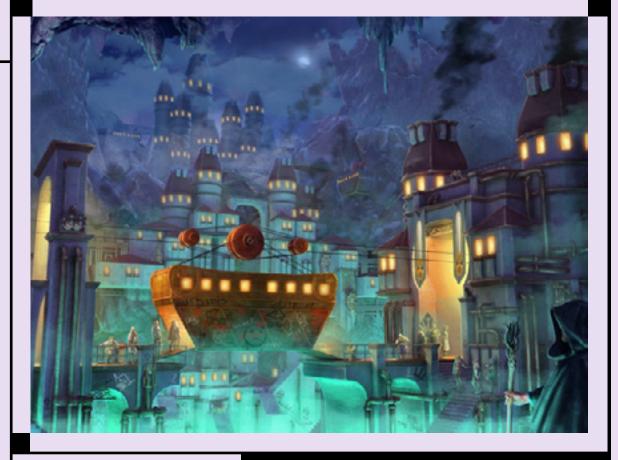








We are a small indie company based in Belgrade, Serbia. Our work is primarily oriented towards fantasy-roleplaying games. So far, we have launched a successful Kickstarter campaign and we took part in some of the leading accelerator program funds. Currently, our team is working on a new game engine for fantasy roleplaying.



www.madmagegames.com

CAPSULE GAME STUDIO

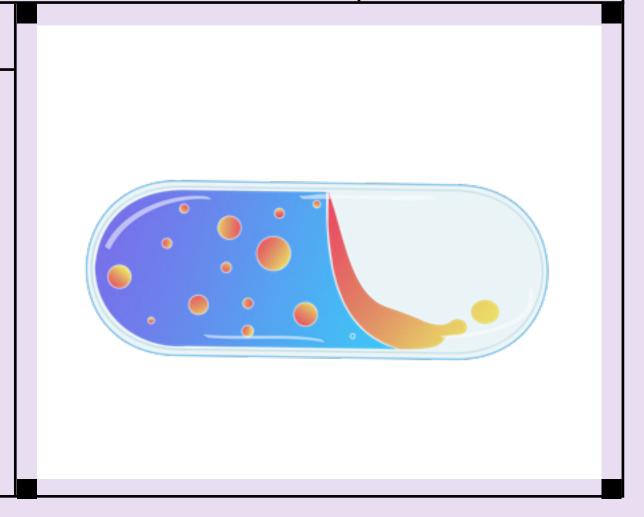


TEAM OF: 6



OPEN FOR INVESTMENTS

We are a team of enthusiastic young people. Our goal is to open a production studio for acquiring commercial opportunities in the exponential growth of technology we use in our lives. The fusion between art and technology will be our focal point, and the best market for that kind of company is in the gaming industry. Our team is in the development of its first marketable project, an upgraded version of the game of Ludo for both android and iOS mobile platforms and as a traditional board game.



PHOBOS



TEAM OF: 12

WORKING ON

A NEW PROJECT

PLATFORM

OPEN FOR INVESTMENTS

Phobos is an independent game development studio from Belgrade, working on its first project Cloudburst - a next-gen game developed in Unreal Engine. Cloudburst is a hybrid battleroyale/survival game, heavy with narrative-driven gameplay set in a dystopian alternate reality where players can fight each other for highly valued loot, or team up, gather resources, build shelters and, over time, develop communities of survivors and fight back against drone swarms and death-sowing robots of unknown origin.



www.cloudburstgame.com

DIGITAL ASSET TAILORS



TEAM OF: 8





WE PROVIDE SERVICES

Digital asset tailors has positioned itself as a studio whose works reach high-quality marks of the global market within the advertising, gaming, and film industry. DAT is primarily a boutique studio led by VFX artists Since 2012 we worked on projects for some of the global brands, like Adidas, Nike, Porsche, Oppo, and collaborated with some of the best VFX studios in Europe and beyond. Some of them include studios like: Woodblock, Sehsucht, Netflix, MPC, and many others. Our goal is to broaden our activity to a variety of industries and collaborate with talented artists from the region and beyond in creating amazing and inspiring projects.



www.digitalassettailors.com

CLICK TO PLAY



TEAM OF: 3





PLATFORM - PC

ClickToPlay Games is a small family team (with three members) currently working on a co-op psychological horror game - Voice of the Ghost. We have a strong passion toward building games with new and innovative mechanics using the latest technologies in gaming.



SERBIAN GAMING INDUSTRY REPORT 2022

DIGITAL RONIN



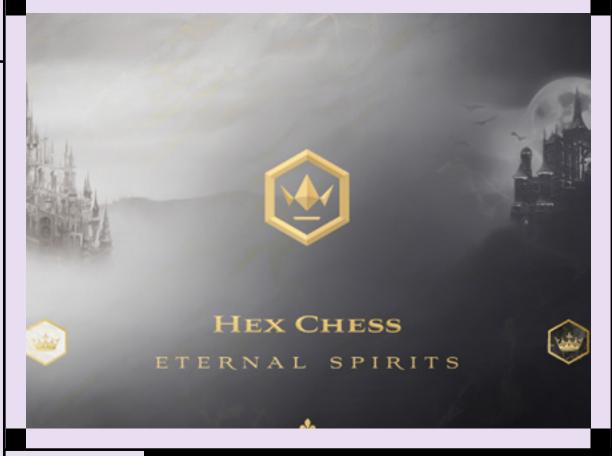
TEAM OF: 2



OPEN FOR INVESTMENTS

WORKING ON A NEW PROJECT

Digital Ronin is a small indie team from Belgrade, currently working on a fantasy board game based on chess mechanics. Our vision is to bring something creative, innovative, and fun to the gaming market.



www.digitalronln.wixsite.com

itcStudio

FLATHILL GAMES



TEAM OF: 9







MEDIA

Flat Hill Games is a small indie game development studio specialized in VR/AR games. We are a team of software engineers and artists passionate about games and gathered around VR/AR technology. The studio was founded in 2018 by experienced people from the game industry to create games exclusively for VR platforms. The company's first game Clash of Chefs VR started with early access in September 2018 and was published in September 2021 to all major VR platforms such as Oculus, Steam and Viveport with great success.



www.flathillgames.com

ITC STUDIO



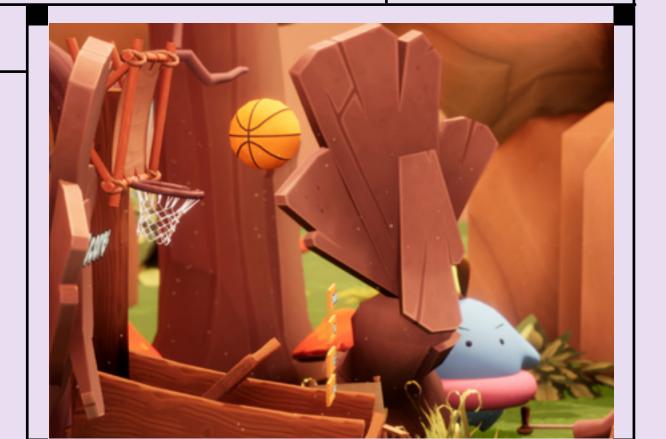


platform of the future.

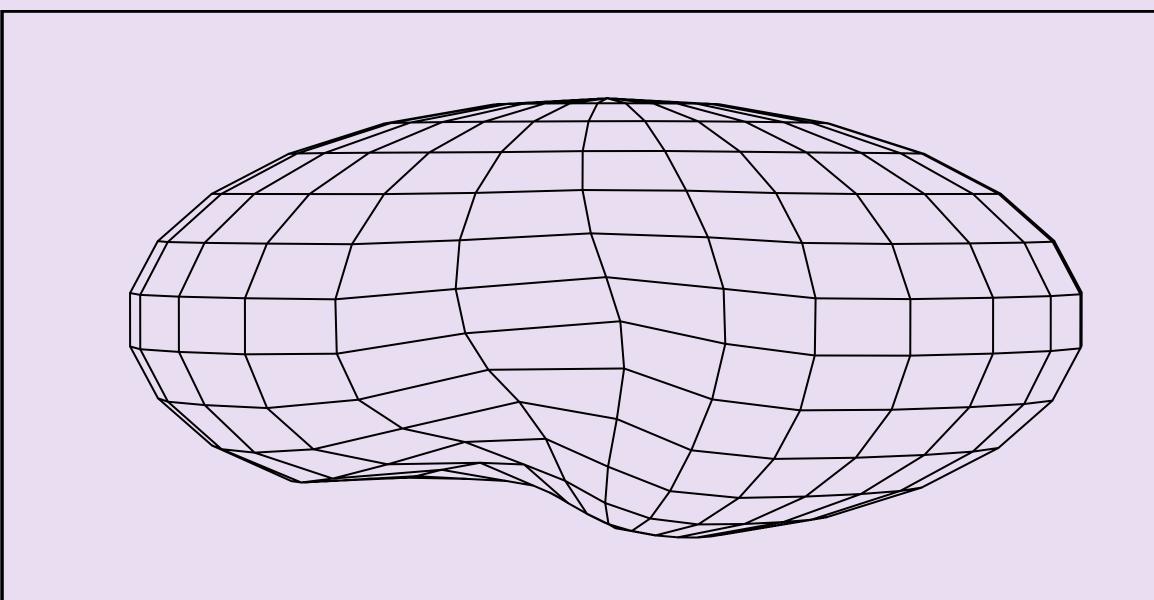
OPEN FOR INVESTMENTS

PLATFORM - PC

We are an Indie team conjured in Serbia trying to live the dream, creating games and hoping people will enjoy what we do. Our goal is to give our best to the VR gaming community and to try and have fun doing it of course! We are all very passionate about making games so we decided to help VR become the gaming



www.studio.itcentar.rs



SERBIAN GAMING INDUSTRY REPORT 2022

ESCAPE GAME SHOW

Escape Game Show is YouTube channel that covers PC Reviews for the Balkans (Serbia, Croatia, Macedonia, Bosnia and Herzegovina, Montenegro and Slovenia). We also support Developers and their projects.













www.youtube.com/c/EscapeGameShov

STAL PROJECT

StAl Project is a company for product design, 3D computer graphics and 3D game development with actual focus and specialization on car design projects and racing (auto-moto) video games.



TEAM OF: 4





stalprojectcompany.wixsite.com/stalprojectcompar





WORKING ON A NEW PROJECT

WE DO OUTSOURCING

WE PROVIDE SERVICES

WAVEFORM

STUDIO

Waveform Studio provides

services of music composition and

sound design for games and VR.

With over 8 years of experience in

the industry, Nikola Nikita Jeremic

and Waveform Studio have been

credited on numerous indie and

Gothic Armada 2, WH40K Chaos

Gate Daemonhunters, Hellpoint,

Graven, Turbo Overkill, and

many others.

AAA titles, which include Destiny 2,

Cyberpunk 2077, WH40K Battlefleet

TEAM OF: 1

www.nikolanikitajeremic.com

WAVEFORM STUDIO

TECTONIC **GAMES STUDIO**

In 2020 we have begun our journey to publish the very first commercial game as a studio in Serbia to steam. We are primarily focused on story driven PC games and are very close to finalizing the playable demo for SpellTome which is available on Steam, everyone is be able to wishlist the full game, with the final release coming soon.



WORKING ON A **NEW PROJECT**

TEAM OF: 6

LOOKING FOR A

FRAGILE

Indie game studio working

on combat racing game

SOFTWARE

OPEN FOR INVESTMENTS

OPEN FOR MEDIA INQUIRIES

tectonicgamesstudio.com

EXCIDIO - THE KAIJU GAME



TEAM OF: 1

PET PROJECT GAMES

We are Pet Project Games, a video game company founded in January 2020. Our team of seasoned developers all have 5 to 20 years of work experience in the gaming industry and have worked on multiple projects together. Our team's current goal is to deliver a fully immersive, uncompromising gaming experience tailored exclusively to core mature gamers. Our first project is set to be a coop sci-fi FPS title built on the Unreal Engine.



TEAM OF: 10





WORKING ON A NEW PROJECT



PLATFORM -PC

www.petprojectgames.com

AM-PM

Why AM-PM? Because every time is a great time for gaming. With several games published, AM-PM above all values good gameplay, followed by originality and experimenting with various mechanics.



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OPEN FOR INVESTMENTS,

PLATFORM —PC/MOBILE

www.instagram.com/am.pm.games

WE DO OUTSOURCING

TEAM OF: 6

LOOKING FOR A PUBLISHER

WORKING ON A NEW PROJECT

TEAM OF: 5

PLATFORM - PC

5

FRAGILE SOFTWARE

www.fragile-software.com

SERBIAN GAMING INDUSTRY REPORT 2022

OPEN FOR INVESTMENTS

PLATFORM

XXX

OPEN FOR MEDIA INQUIRIES









35 — STUDIOS

BOHEMIAN PULP

A small indie game dev studio working on story rich games.



TEAM OF: 4

OPEN FOR MEDIA

www.patreon.com/bohemian_pulp

FAT PUG STUDIO

One man development team, maker of Rick Henderson for PC, Xbox, PS4, PS5, Switch. Now making a spinoff of the game.



TEAM OF: 1

OPEN FOR INVESTMENTS



SOUTH GAMES



WORKING ON A NEW PROJECT

www.fatpugstudio.con

DISTILL GAMES

Distill Games was founded by game industry professionals and top talent from Belgrade art and tech companies to focus on mobile racing games. Our first game, Race Duels, is out on Google Play.



TEAM OF: ?

OPEN FOR INVESTMENTS

PLATFORM - MOBILE

www.distillgames.com

3GEN

3Gen is company behind "3Vial Engine" and "ImaGen"



TEAM OF:1



The studio offers outsourcing

services for different platforms

(Oculus Rift, HTC Vive, Hololens,

Google Cardboard, augmented

reality, mobile, PC). The studio

is also developing Ninja Rope -

an infinity side-scrolling game

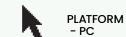
where the player needs to swing

through levels, avoid obstacles

and gather as many stars as

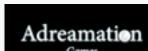
WORKING ON A NEW PROJECT

BABY BOTTLE



www.facebook.com/3GenApp

ADREAMATION



WORKING ON A NEW PROJECT

We cover each game development service to create and publish a video game.

development studio based in

STUDIO

SGS is a full-cycle game

Serbia.



WE DO OUTSOURCING

OPEN FOR INVESTMENTS

WE PROVIDE SERVICES

OPEN FOR MEDIA
INQUIRIES

TEAM OF: 6

PLATFORM - PC / MOBILE

southgamesstudio.com

DEXSOFT

Game studio located in Novi Sad. specialized in creation of high quality 3D models and game assets for video games and real time presentations. With over 10.000 published products, thousands of satisfied users and dedicated professional support, Dexsoft Games became the synonym for great quality and secure purchase.



OPEN FOR INVESTMENTS

WE PROVIDE SERVICES

HIRING NEW TALENT



TEAM OF: 2

DEXSOFT

PLATFORM - PC / MOBILE

www.dexsoft-games.com

OPEN FOR INVESTMENTS PLATFORM - PC / MOBILE

possible.



WE DO OUTSOURCING

TEAM OF: 1+

www.artstation.com/babybottlestudio

SERBIAN GAMING INDUSTRY REPORT 2022

Trying the impossible. Creating the best entertainment despite all odds and obstacles.

PLATFORM - PC TEAM OF: 10-15

fishingmaniacs.adreamation.com



LOOKING FOR A PUBLISHER

36 - STUDIOS

OPEN FOR MEDIA

BRANISLAV GAGIC

Branislav Gagić is a composer for video games and other media. He is passionate about taking his listeners on a musical journey, by creating tracks that inspire the imagination.



TEAM OF: 1

WE PROVIDE SERVICES



WORKING ON A NEW PROJECT

branislavgagic.com

MOONBURNT

Moonburnt Studio is an independent game development studio. In 2016 we raised over 40,000€ through a Kickstarter campaign for the development of "COLUMNAE: A Past Under Construction", a narrative-focused non-linear point & click adventure set in a post-apocalyptic steampunkish world.



TEAM OF: 2







moonburntstudio.con

DEVOTION STUDIOS

Devoted to make the best audio experience for your game, trailer, animated movie, commercial or song. Recent AAA experience: Outriders, People Can Fly unannounced project, Huxley and Irradiation.



TEAM OF: 10

www.facebook.com/DevotionStudiosBC

WE DO OUTSOURCING

WE PROVIDE SERVICES

WORKING ON A NEW PROJECT

TEAM OF: 40

HIRING NEW TALENT OPEN FOR INVESTMENTS

MARBLEIT

We're a team of 40+ passionate

business in different industries,

including gaming, AR, VR, web,

mobile, blockchain etc.

while silently cooking some of our

own experiences. Our work reaches

wide audiences in different worlds,

primarily creating solutions for other

technologists and gamers,



HARPOON

Providing game development and consulting services for companies looking to develop their games in Unity Game Engine.







garabandic.com

STICK AND ROPE

Stick&Rope is software development company, focused on gamification of promotion, education, web tools and gaming development in general. We are experts in WebGL, unity, 3D/2D art and UI/UX. We are outsourcing our services but working on a Web3 based game as well.



TEAM OF: 6









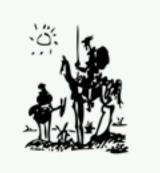


www.sticknrope.com

DON QUIXOTE

WE DO OUTSOURCING

Enjoy our movies. We produced over 25 short and some long fiction, documentaries and 3d animation movies. Studio Don Quixote was established to achieve the objectives in the field of gaming, cinema - the production of short and feature films; educate members through game/film workshops, to raise the level of film and gaming culture and for organizing festivals.



TEAM OF: 1+







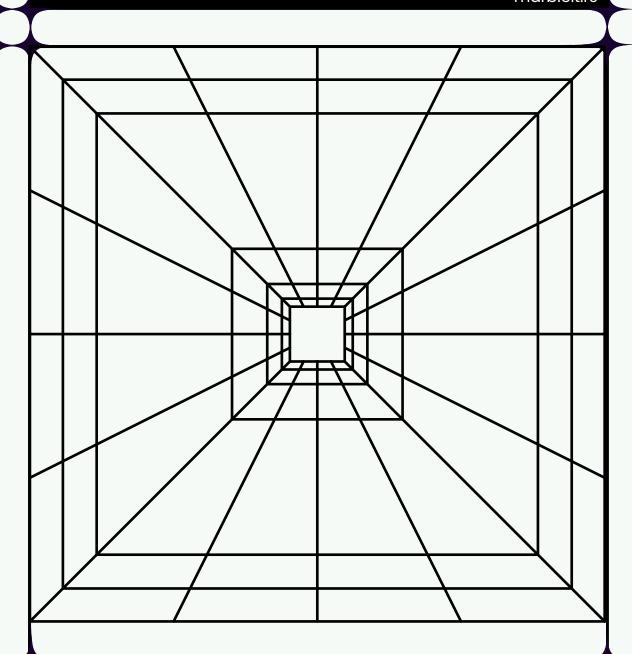






www.markokacanski.com

SERBIAN GAMING INDUSTRY REPORT 2022



OUR OTHER MEMBERS

bytekinematics	© cloudberrie	EUCLIDEAN	mogul	
whyttest	(ffi)	WULTICOIN	RH.	
THORIUM	GRAVITY	LICHENVALE	Matej & Co and of game development	lift
CONTROL	CRYPTIC CRYPTIC	Suprerie	BLACKSMITH GAMES STUDIO	Deutrix
ENYPH GAMES	ESÛTER	FLAT HILL	ILUSIO	INFINITE GALAXY
KUKURUS	PWN.RS		PRINCEPS	HERON
	RADIOACTIVE UNICORN	RAIGON	SOBAKAISTI	



Use of MetaHuman technologies in practice



In 2021, Epic Games and 3Lateral launched MetaHuman Creator, a free, cloud-based tool, that takes real-time digital human creation from weeks or even months to less than an hour—at an unprecedented standard of fidelity and realism.

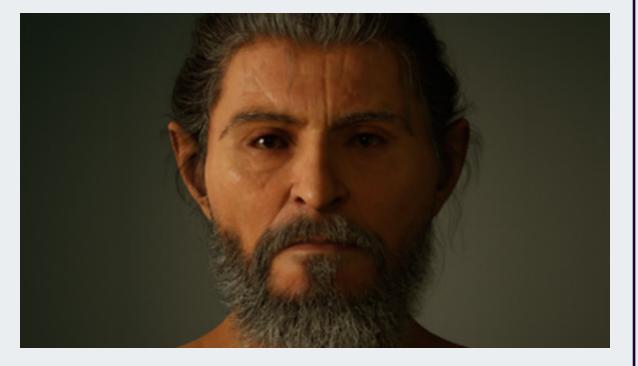
We were inspired by the games industry and developed MetaHuman Creator so teams of all sizes could bring their stories to life with high-quality digital humans. Since its release, over one million MetaHumans have been created, and we've been surprised as MetaHumans have been used in industries outside of games, including media and entertainment, education, medicine, science, architecture and more. We are humbled to see how MetaHumans are being used by creators in ways we couldn't have predicted before launching the tool to the community, and we're pleased to be a part of those amazing journeys.



* CINEMATOGRAPHY

THE MATRIX AWAKENS: AN UNREAL ENGINE 5 EXPERIENCE

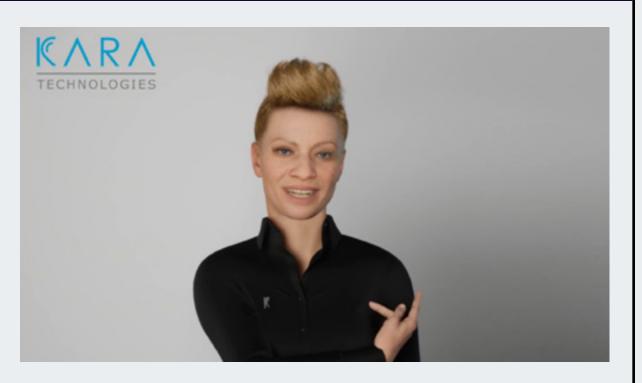
'The Matrix Awakens: An Unreal Engine 5 Experience,' is a boundary-pushing cinematic and open-world interactive tech demo that set new standards for the entertainment industry. IO, one of the main characters in the demo, is a MetaHuman, and stands side by side with digital doubles of Keanu Reeves and Carrie-Anne Moss – true testament of how MetaHumans can share the stage and hold their own with digital humans that are captured in studio. And to demonstrate the exciting new possibilities of populating immersive worlds with thousands of high-quality digital humans, 'The Matrix Awakens' demo features 35,000 simulated MetaHuman pedestrians that breathe life into the city environment.



* FORENSICS

REANIMATING A 10,000-YEAR-OLD FACE FROM LEPENSKI VIR

MetaHuman technology helped a team of researchers to piece together a digital replication of what a 10,000 year old prehistoric man looked like when he walked the earth. Using DNA analyses from the research team, 3Lateral team was able to set references for the prehistoric man's hair color, skin tone, wrinkles and eye color. MetaHuman technology combined with Unreal Engine, we were able to do more than just create a reference image of what he may have looked like – we were able to animate his facial features and estimate his expressions.



* LINGUISTICS

METAHUMAN AS A SIGN LANGUAGE AVATAR FOR CONTENT ACCESSIBILITY

The team at <u>Kara Technologies</u> has created an innovative solution for using technology to help build a better future for the accessibility community. Kara Technologies created MetaHumans and trained the digital humans to be sign language avatars. This novel application of MetaHuman technology brings Kara's vision to life, and helps their team grow closer to making real-time sign language available to a global community of users.

Gamification in the gaming industry



REBEKA POPOV
- HR Manager at
Digital Arrow



SINIŠA VUČKOVIĆ
- Art Director
at Digital Arrow

So remember these keywords: goals, rules, challenge, feedback, and start with identifying the basics.

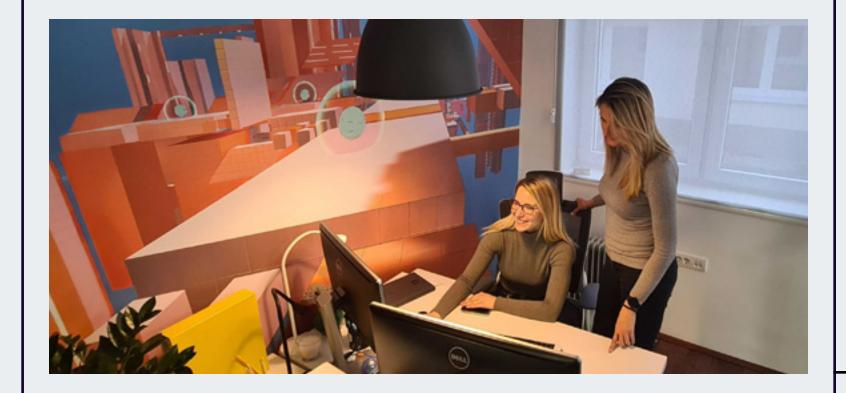
Gamification, in essence, is an employee-focused game design aimed towards people working in various fields, with a purpose to maximize human potential and well-being. It answers the question of how to engage employees by gamedesigning work. A well-designed game entices you to play the game because you enjoy the game.

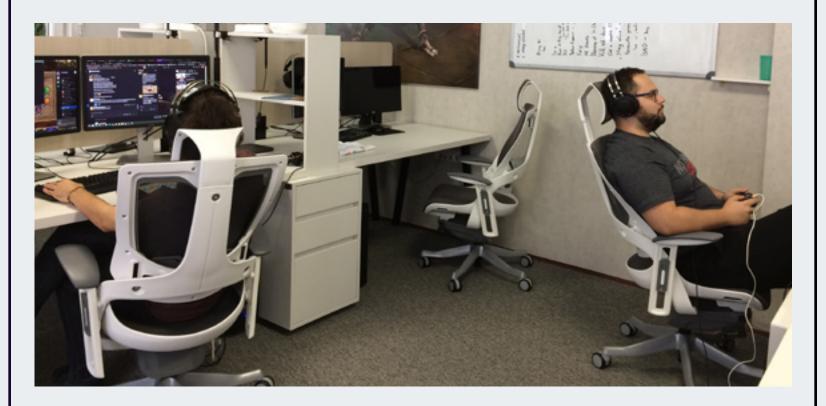
This method is an industry element of its own, stemming from a summary of trial and error experiments in management and leadership for the past two decades. Freshly interested people initially approach it with a mindset of reward, punishment, points, and leader-boards systems, which are neither good (micromanagement) nor sustainable (there's a cap where rewards become non-motivating). It is a practical approach that transforms an employee from a production line cog into an immersed, focused, and motivated team member with a sense of accomplishment and autonomy.

Insight into how these processes work helped us create an environment where we foster such a way of thinking, enabling employees a valuable insight in understanding themselves better and becoming aware of qualities that could have been subconscious otherwise.

There is no strict one-size-fits-all set of rules that one can use to achieve these goals. You got to know your audience, what kind of game they need, and suit it to your business. A point worth remembering is that gamification is a practical, in-the-field approach to everything you do as a manager and a leader, with a mindfulness to make mandated daily work into a positive experience. Imagine yourself designing a linear game with side quests out of mandated work. Such a game would have easily trackable progress, rules that create challenges, a clear goal and side quests working towards the said goal, and immediate feedback (so we always know how well we did or how close we were to beat the level).

So remember these keywords: goals, rules, challenge, feedback, and start with identifying the basics. Ask yourself, what is my standpoint, how do I want my employees to feel, and how do I achieve that drive? Do not take literal game elements as a





base (points, badges, leader-boards). That is not going to make your employees driven. Instead, enable your colleagues to find meaning in the work activities via positive experiences, so they can feel comfortable and capable of handling the workload. Finding meaning is a powerful drive, achieved through happiness, accomplishment, empowerment, group acceptance, and ownership over tasks. Triggering these drives creates motivation and a feeling of control that prevents burnout as a side effect! This way, we generate increased productivity, work quality, teamwork, and a healthy environment.

The success of gamification depends on the person performing it. That person is simultaneously a leader and a peer. So put your ego aside, create close personal relationships, show that we always better our shortcomings by working on them together.!

Cheers

New kid on the block that's here to stay



ALEKSANDAR
ANOKIĆ
- CMO and Head of
Esports at Fortuna
Esports

Even though one of our country's main exports is talent, when it comes to esports that can actually be a good thing. It also coincides with one of our main goals. Producing the next generation of esports players. This is at the very core of our philosophy, and Esports Balkan League (EBL) has been the regional leader in that, and all other regards, since its inception all the way back in 2017.



EBL IS ONLY THE FIRST STEP

If you were to take a deeper look at the European landscape of professional League of Legends, you'd find that all top tier competitions feature players from our region. Focusing solely on the criteria that they've actually played in the EBL, that number totals 69 in the current competition season.

Taking a look at the best leagues out there, our players currently top their standings in almost all of them. Spanish League's (LVP) Barça eSports features our three time champion Mihail "twohoyrz" Petkov, currently sitting and #2, while our very own Aljoša "Milica" Kovandžić is right behind as #4. If we swing by Germany (PRIME) we have Toni "Sacre" Sabalić leading the way at #1, while Andrei "Realistik" Ruse has been in top 3 in France for the better part of this season.

LEC, the highest possible tier of competition in Europe, is home to 7 of our most promising esports talents, and more than half of them are at the very top of the standings.

EBL is a structure that helps in the discovery and development of the next generation of talents, it's not the end game, it's a slingshot.



IT IS VERY EASY TO SEE IF YOU'RE DOING SOMETHING GOOD, JUST CHECK YOUR VIEWERSHIP NUMBERS.

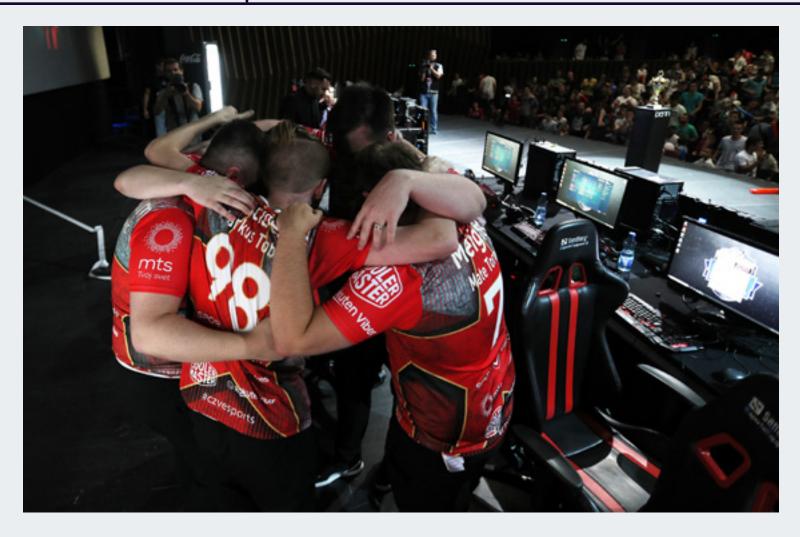
All that talent packs a lot of punch in terms of audience, entertainment and prestige. Everyone wants to know who is the next big thing. Last year (2021) brought in over 400.000 unique viewers that consumed well over half a million of hours watched. EBL also broke and set regional broadcast records for maximum concurrent viewers for an esports event, and it did it 3 times in a row. Each time being bested only by itself.

Given the fact that almost 90% of those hundreds of thousands of fans are aged between 13 and 30 years old, the media and commercial value of a well-executed event or broadcast is an order of magnitude larger when compared to other age groups. Reaching the unreachable, the ad-block generation, is one of esports superpowers.



THE KING IS BACK

While esports content is mostly consumed online, its in-person component is invaluable even though it is limited in scope. While arenas can "only" fit a few tens of thousands of fans and online streams can host millions, the effect live events have on viewers experience is very tangible. Last year also marked the long-awaited return such events, most notable of which was the CS:GO Major in Stockholm that featured 3 of our best players in



the grand finals. And the audience numbers backed that up. Our own broadcast engaged fans on an unprecedented level, with 132.000 unique viewers tuning in over 5 hours of show, peaking over 20.000 concurrent viewers at some points.

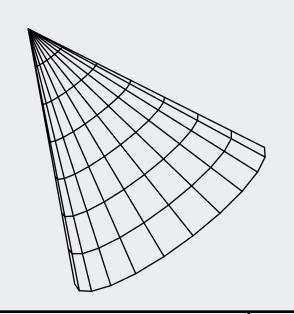
Last year marked several important milestones for regional esports broadcasts and has risen the bar higher than ever before. Esports might seem like the new kid on the block, but it is already embedded within the new generation of content consumers.

Unique art of R6E



MILOŠ VRANJEŠ - Associate Lead Artist, Ubisoft Belgrade

Every game you play is unique and has its own shiny art and special appeal. Usually most of that uniqueness isn't something that has been planned in the pre-production phase, however it is something that gradually evolves through iteration and sometimes from on-the-spot ideas. Ubisoft Belgrade has started working on art for Rainbow Six Extraction in 2019. We collaborated with Ubisoft Bucharest on 5 different maps and 2 unknown areas. Since the beginning, most of the art direction and major pipelines have already been in place and setup by art directors, creative directors, and other PO's.

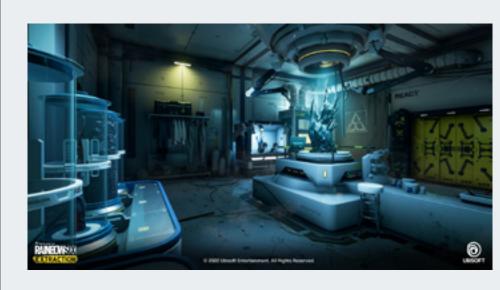




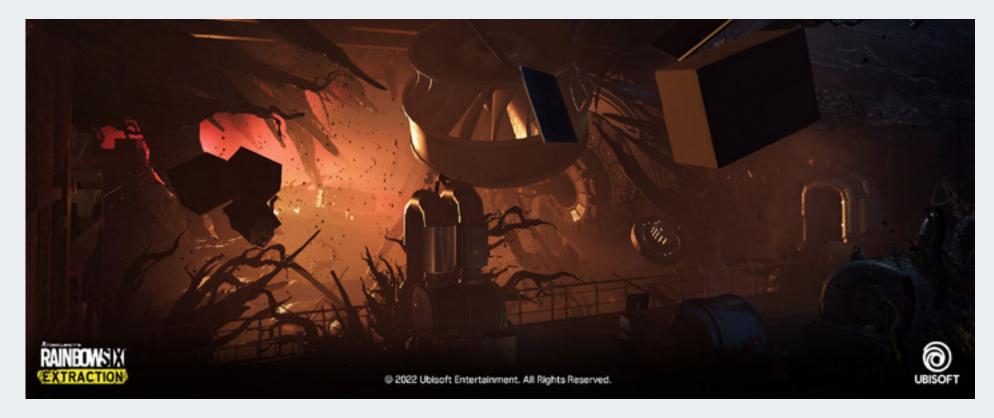
ART OF ITERATION

At the start, block-out phase done by level designers gives artists rough positions of main volumes for architecture, obstacles and general paths of movement. Here we come to the first set of iterations done by these two departments where communication is key. On each level there are a lot of discussions that ensure that visuals fit the metrics and gameplay and vice versa. For example, artist wishes to make an interesting composition which clashes with the block out and metrics. After discussions, the block-out and the composition are slightly altered to work together.

With the first pass on layout and visuals done in the level, lead artists, art and gameplay directors look at the work and give constructive or transformative feedback, which helps artists and level designers continue working or transforming their designs. On the art side this feedback covers thematic improvements by addressing issues with volumes, positions, compositions, details of the models and used materials/ textures. Now, the whole art is pushed to a new level, meeting the criteria where it can be considered as shippable. Don't get me wrong, there isn't just one round of feedback and check sessions. Lead artists pay close attention to implemented work and help others to push their art into the right direction with regular feedback on their work, they propose new ideas and discuss them to see if it's feasible and acwcomplishable in the given timeline. After all these feedback sessions, directors will see the art 2 or 3 more times before it gets the badge "shippable" or "done".







ART OF COURAGE

With all these iterations, feedback sessions and plans, what does it mean for the artist? Do artists have the freedom to do what they imagine? In my experience artistic freedom is cherished, and risks which improve the game art in new and bold ways are accepted with open arms. There are only two prerequisites for this freedom, and that is that timelines and main direction are respected.

I have to say that I'm proud of my team and their courage because this is how some of the unique art moments in Rainbow Six Extraction came to be. We managed to take initial guidelines and make something beautiful and weird. If you ever visit the Casino map, you will be able to see an alien version of "Creation of Adam" from Sistine Chapel, Massive Cthulhu like construct in the Police station, and a huge alien altar in the Museum, and these are just some of the examples.

So, my advice for artists is if you have time to try something new, do it, you might make something exciting and awe inspiring. As for leads, be the force which attracts innovation and free thinking. Leave coloring inside the lines to somebody else.

UBISOFT SERBIAN GAMING INDUSTRY REPORT 2022

Happiness as an ultimate KPI



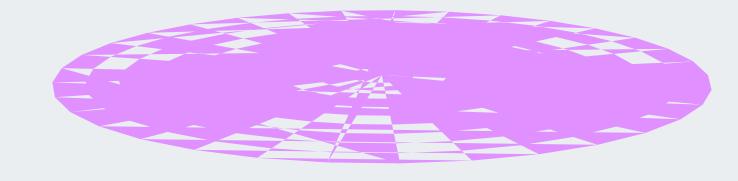
MARIJA STOŠIĆ
- Head of HR
at Peaksel

HAPPINESS = HAPPIN

Not too many concepts in business sound so corporate and frigid as engagement and KPI. It's easy to imagine that employees reflect on it as if the only thing an organization wants out of its people is to get them to be more productive.

Alternatively, happiness is a concept everyone can relate to. I don't want to slip into utilitarian ideology with this topic, claiming that the only reason an organization is built is to make people happy but I can confidently stand for happiness as the main, ultimate drive for all the processes and transformations we are making. If you try to think deeper, less in terms of your existing KPIs and more in terms of what those KPIs enable you to do or feel, you will eventually get to happiness, standing as an explanation for all your "whys". In the end, business results themselves are just trivial statistics if they don't lead us to happiness. Ok, judge me, it does sound a little artistic.

But, on the other hand, we know there are quite a few studies claiming that as human beings we perform significantly better in almost every respect when we are happier. "How to be happy" is everywhere and yet despite all of this attention, we seem to



find happiness at work a difficult goal for companies to pursue. Sounds like we're failing at utilizing its potential.

Becoming aware of this fact and wanting to change the trend, we started to measure happiness on a monthly basis and even though it is quite hard to get A/B tested data on this, our short surveys manage to capture the dynamic nature of our team experience of work. This data is easy to gather and we use it in order to identify the opportunities to take meaningful actions. And that's when we get to the most important part-action based on the feedback. I find that the best way of organizing HR processes is to do it by feeling the pulse of employees and let it shape what organization needs to focus on. Sticking to rigid procedures and conducting them just as a formality, without paying attention to employees' specific needs, will result only in unuseful administration.

Having happiness as one of our KPIs humanized our business goals and guided us to the factors that most affect employee happiness, further leading to greater

productivity: positive atmosphere and pleasant working environment, trust and autonomy, recognition and growth.

Consequently, those are the areas we put the greatest effort in terms of improvement actions.

To sum up, what this article suggests is that organizations should cultivate and track happiness – both for its own sake and for its side effects. In this fashion, I hope these lines will fire away the trend of taking into consideration the employee happiness as a relevant metric of success. At least that should be the situation in all creative industries, which produce happiness and fun for users and also use high end tools in order to track it. Thus, there is no justified explanation not to do so with our employees and effectively incorporate happiness and wellbeing into decision-making.

Playrix diaries or "How I found a home in the Serbian gaming industry"



ANNA ZANOZINA - Art Director at Playrix RS

I have been fond of drawing since childhood and I graduated an art school. Also, I am an architect by training. While I was studying at the university, I bought my first graphic tablet and started drawing digitally as a hobby. I've always loved drawing, but I didn't really like messing with natural materials. I never worked as an architect. I was so fascinated by digital drawing that right after graduation, I decided to start a career as a freelance illustrator. The profession of digital artist seemed to me much more interesting and creative. Art education gave me a fairly strong art base, which came in handy in my work. My first major project was a series of simple illustrations for a mobile game. I liked the job – somehow I immediately got attached to the game art and after six months I got a full time job in a local mobile game development studio.

PLAYRIX RS AS A PART OF BIG PLAYRIX FAMILY

Half a year ago I joined the Playrix RS studio as an art director. I have worked at Playrix before - for about 3 years in total on projects like Township and Wildscapes. Therefore, I was well aware of all the processes and advantages of working in Playrix when I accepted the offer. Working in such a large international company gives the artist, and indeed any other specialist, a unique opportunity to exchange experience with thousands of highly qualified specialists. In addition, thanks to the developed cultural code, you always feel like a part of a big family.

People in our studio are extremely friendly, responsive and professional. Our team is very creative and full of fresh ideas, it is very interesting to work with them, we have a lot to learn from each other - I believe we can make a great game together.

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My job here is to organize and lead the art team, to participate in defining the project art style, to provide feedbacks for the team and help them grow their hard skills. Also, I'm participating in the recruitment process and many other things.

The most exciting thing is a feeling that in Playrix RS I have the opportunity to grow professionally as an art director. Not every company can give such an opportunity to a senior specialist.

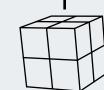
WORKING REMOTELY IS A FUTURE

Our company is located in Novi Sad, but I myself work remotely. I have a lot of remote work experience. Now I can't imagine how you can work in the office and stay productive and not lose concentration. In my opinion there are too many things in the office that might distract you, while at home you stay focused. Your energy is not spent on a trip from home to work and vice versa, and you do not depend on transport and don't suffer in traffic jams, so at home there is often a temptation to work longer because of that. Companies that have implemented remote work are focused on results, and not on the hours spent in the office, so I believe that they will win in the long run, because remote work is the future. All that helps in generating new ideas and staying productive.

LIFE AND WORK IN THE BALKANS

Originally I'm not from the Balkans but I live in Montenegro at the moment, I moved here 4 years ago. I like its warm climate and beautiful nature - I'm in love with sea and mountains. The Balkans as a whole are conveniently located, this is a big plus in terms of travelling across Europe. Also, people here are super friendly – this is another plus. Fortunately, Montenegro is very close to Serbia, so it is not difficult for me to travel here regularly for work purposes. I hope to get to know the Serbian community of artists and game developers better, thanks to my new work in Playrix RS. I'll be glad of any opportunity to exchange experience. The gaming industry in Serbia is quite developed and it continues to develop. I was surprised at how many big companies are there, both IT in general and game companies in particular. Young people who want to start a career in the gaming industry as well as experienced professionals have much more opportunities in Serbia than in many other European countries.

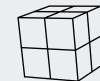
THE EVOLUTION OF GAMES AND GAME ART



That's why I think it is critical for every artist to improve and develop their skills and style. Following the industry, the quality of art and skills of our colleagues are constantly growing, so every artist studies all his life to keep up with the market. New genres of games are emerging.

My message to the future colleagues: Guys, do not stop there, reach new heights! You will achieve fantastic results with due diligence, but do not forget to rest - this is more important than it seems. I wish all my colleagues interesting projects and good luck!

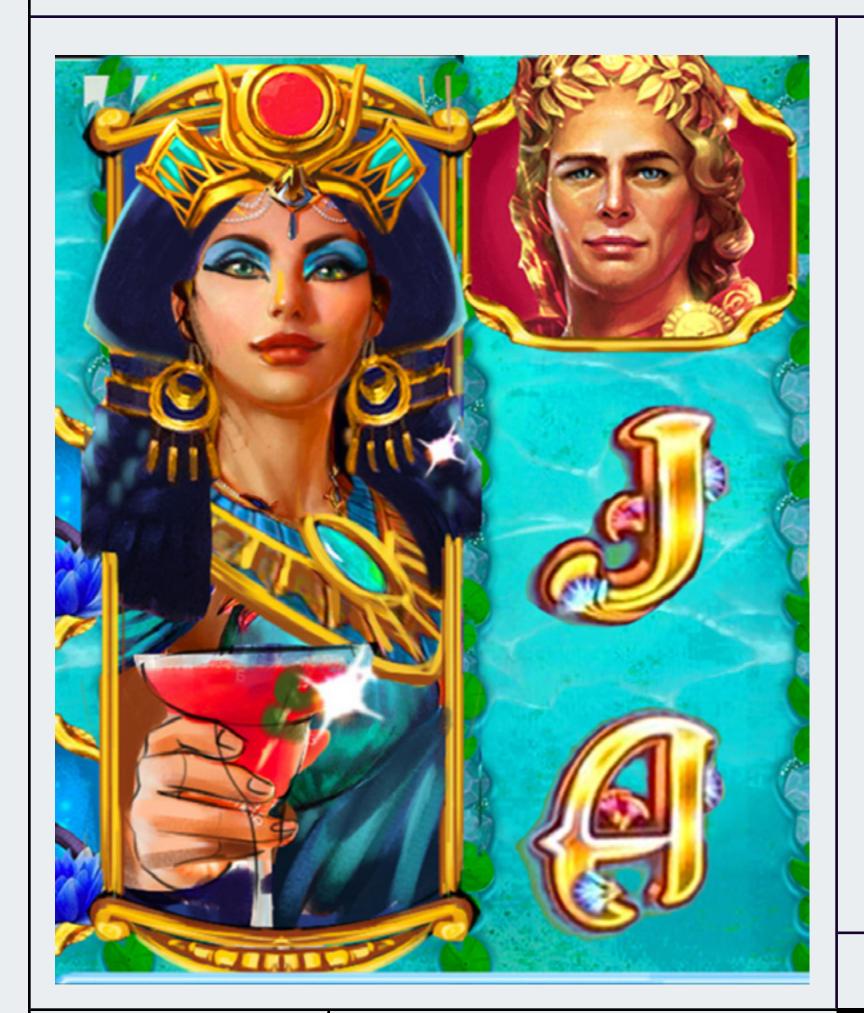
PLAYRIX RS SERBIAN GAMING INDUSTRY REPORT 2022



Story development in slot games



VLADIMIR
MATIĆ-KURILJOV
- Concept Artist
at Playstudios



What surprised me when I joined the Playstudios team was how the beginning stage of developing a slot game is similar to developing any other game - it needs a story. A testament to this is the popularity of games based on licenced IP, it helps engagement if the game features characters and stories players already know. But the popular option is to use characters and concepts that are in the public domain with an original twist to the story. This is not just a tactic used by slot games, but all the media - novels, comics, films; telling the same stories over again is just basic to stories themselves. The thing about slot games is that they have a very limited format to tell theirs - it has to be broken down into pieces which then inform the design of game components: symbols, backgrounds, music, mood and special game mechanics. It is up to the players to put the pieces of the story back together, relying on familiar elements, common tropes, cliches and other clues. Or maybe to come up with their original interpretation!

When development starts the main idea for the game is decided – a well-known character or concept from mythology, fairy tales or the broader pop-culture. Usually it's something that has been adapted to slots many times. But, there are countless ways to tell stories, and it is us concept artists, as trained visual communicators, who are tasked with figuring out fresh and creative takes. First step of the process is research and gathering references, to cover as much ground as possible. Then references are grouped to form different visions for the game, trying out different genres and settings. Like, is it more historically grounded or a fantastical take? Action or romance? For example, on a Cleopatra game, some of the options were:

- an action story with magic girl Cleopatra fighting it out with ancient gods
- a quest in a metaphysical netherrealm where Cleopatra seeks ascension to the Pantheon
- Cleopatra caught in a love triangle with Julius Caesar and Mark Anthony
- and finally, the queen enjoying a pleasure cruise down the Nile

Next step would be to build up visual materials, usually main character designs, and test them out, internally or externally, to figure out which ideas work and have the most appeal for the audience.

Sometimes finding creative solutions to unforeseen issues is what leads to interesting results. On a project based on the Puss in Boots fairy tale character it was decided that the game would be featured in the (virtual) New York Casino on our app, so the challenge was to somehow thematically link the game to New York City. The decision we came up with was to uproot the character from his European fairy tale origins and to move him to the gangster noir setting of the 1930s. This choice led to a completely different story where our hero was a costumed vigilante, fighting mobsters and stealing their loot.

This early ideation process is just a small phase in development, most of the actual work for concept artists is in iterating on ideas, making sure that everything clicks together stylistically and polishing the graphics, but the production cycle of slot games is usually mere months so we do get to have fun with story ideas somewhat often.

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From passion to profession: sustainable revenue growth in F2P



STRAHINJA DIVLJAN - Lead Business Analyst at Two Desperados

We all know that making good games requires creativity, passion and dedication but sooner or later money becomes an important factor too. As a studio grows, different challenges appear and at some point the question "did we earn more than the last month?" will become pertinent. When you reach a plateau and revenue cannot be increased any more, the only way to overcome this challenge is to go back to fundamentals.

When your game hits the revenue ceiling, the only way to proceed to the next level is by getting back to basicsstepping into the unknown by creating more fun content and mechanics.

Very often, small studios start developing games focused solely on fun without thinking about monetization. Monetization features are added prior to launch based on other games' ingame shops and rewarded ads. Fast forward, if you're lucky, your studio becomes profitable and you have a team of 10+ people. In that moment, revenue becomes very important for long term sustainability. Now, not only do you have pressure to be creative but also to optimise profits. This is usually where studios start paying more attention to monetization.



At this point, increasing revenue can be a tricky task. To some extent, the game economy can be pushed to yield more revenue. You can simply turn a knob a little bit more to the right and get an extra \$1000 dollars. If you keep turning, bit by bit, you will get to the ceilingand every game has its ceiling. In order to reach the next level of growth and secure a long term increase of revenue, a game needs to have a well thought-out

monetization model and good data infrastructure. Then, the game is ready for the next level.

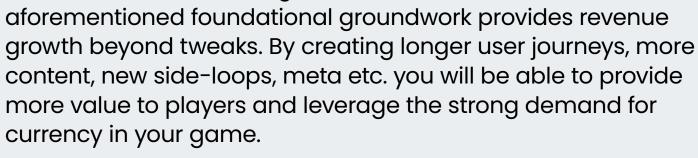
What does it mean to have a good monetization model? It means that monetization features must be an integral part of game design. First, a strong demand for purchasable items must be created by game designers. Second, purchasable items must provide real value to players. Third, the value that you provide must be well distributed throughout the user journey with a balanced split between IAP and rewarded video-ad taps.

Now, the data infrastructure becomes crucial. When the game is growing fast in the beginning of its life cycle, it is not that important to have precise data because tweaking includes big changes to the game that lead to big and visible results. But when you hit the ceiling, high quality data is important for three reasons: for the final stages of fine-tuning you need precise data in order to spot incremental impacts, precise data will help you discover less visible areas with the potential to be



unlocked and lastly if you start exploring AI (as we do at Two will be a must.

When your game hits the revenue ceiling, the only way to proceed to the next level is by getting back to basics-stepping into the unknown by creating more fun content and mechanics. For us, setting the



And revenue will follow the fun you provide to players. Profit should not be the primary driving force, if the goal is to create the best game in the world, but If done correctly, it becomes fuel for expanding the team and a safety net that can help studios dream bigger.

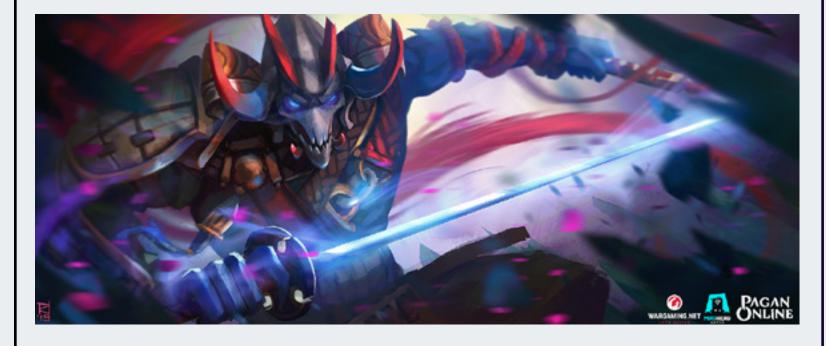
Desperados) then clean reliable data



TWO DESPERADOS SERBIAN GAMING INDUSTRY REPORT 2022 47 — EXPERT ARTICLES

Being a Gamer and Game developer

Game development has been around for quite some time now, an occupation that is a mixture of different fields and professions, joined together to make and produce one unified experience that is enjoyed by people all over the world. In short it could be described as a mix of technology and art, where technology is the backbone of the process and art is the thing that makes it a visual experience. One can't go without the other. You could make the most visually impressive game but if the technology is too outdated or not working properly, people wouldn't be able to enjoy it. But likewise, the technology and the gameplay could be flawless but with bad design choices or art choices it wouldn't be able to stand on its own. As a rapidly changing industry, with constant growth and change in new technologies, different ways to create and design games, it is important to stay ahead of the curve and keep up with it as a game developer. In order to be a better game developer, being a gamer is one of the tools you could have in your kit to help you make more interesting and impressive games. Some people may think, how can you develop games without playing games yourself already? It isn't as impossible as one may think, a lot of game developers aren't gamers themselves and



other times they've played only a few most popular games out there. Others have managed to work on developing certain games without even playing through them in the end, made possible by having separated departments that can work segregated and eventually unite **games**. their work into the final product. The prime example being the art

departments that could be outsourced entirely (3d, concept art, even animation) and don't even need to be in contact with the rest of the team that develops the full game to be able to produce the assets for it.

In order to be

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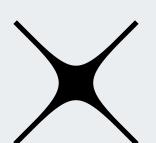
your kit to help

you make more

interesting and

impressive

So how does playing games help you become a better developer? Easy, it gives you the experience and inspiration of projects without having to directly work on them. Being a gamer while developing games gives you access to countless ideas and comparative values that you can use as a reference while working on your own game. Either be it a well composed scene, a feeling or a visual look; narrative experience or an interesting gameplay mechanic; or rather a plethora of elements to be used or avoided, as they have been seen too much in the past - Games offer an infinite pool of knowledge and ideas that you could apply in your own work. By playing games, through the eyes of a developer, you spot tiny details that make or break the experience and journey through the game. You learn to recognize certain elements that could be used to improve your own work or give you the spark of ideas that could help solve dilemmas or build upon the things you are already making.





PETRA NIKOLIĆ - Art Director at Mad Head games



PAGAN ONLINE

To me - as an Art Director, it is very important for me to play and experience old and current games, especially in the genre that my current project fits in. I've drawn countless inspirations from other developers that made me want to be better at my job, saw things that worked or didn't work, and tried to avoid making similar mistakes. Other times I would analyze things that I really enjoyed through my gameplay experience and tried to deduce what choices and steps the developers took to make such things happen. Then, when I applied similar principles to my own work, I ended up significantly enhancing my own creation. Other times I could easily give developers references or examples from other titles that could help improve their own work or build upon the things they have created.

In a rapidly changing and growing industry, it is important to have every edge possible to continue working and keep up with other developers and trends. The climb of the mountain, that is game development, is a long and vigorous journey. So, if we could achieve our own goals better or faster by picking the paths up that mountain that have already been paved and tested as right or wrong; and if it's just as fun as 'playing a game' – why wouldn't we?

MAD HEAD GAMES 48 — EXPERT ARTICLES SERBIAN GAMING INDUSTRY REPORT 2022

The right way to play the analytics game



NATAŠA IVANOVIĆ
- Head of
Analytics at
Webelinx Games

Gaming industry, expanding dynamically and with no limit in sight, offers great potential for business growth. Still, there are many internal and external factors that can influence one gaming company that need to be closely monitored. We are faced with important business decisions on a daily basis, yet rarely do we have all the necessary information to make those decisions.

We at Webelinx Games, recognized early on that the only way to achieve consistent growth is by understanding our users, their needs and how they fulfill those needs by engaging with our games. And that's only possible with a strong analytics team. After more than 15 years leading business analytics and strategy

In Webelinx
Games we went a
few steps further
and analytics is
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asset.

planning within telco, I've got the perfect opportunity to create and lead a new team in gaming, that was an inspiring challenge that fits my curious nature. The team now consists of four data analysts and engineers. They are smart, motivated and with a growth mindset, which makes them invaluable as a business partner in both product and marketing teams.

Many companies believe that analytics equals reporting and tracking basic metrics. Some of them will go step ahead and add mining on details of user behavior. In Webelinx Games we went a

few steps further and analytics is considered as a strong strategic asset. The analytics team is here to understand players and their preferences, but also the overall market and reasoning behind company business vision and strategy. Providing inputs on where focus should be, it enables full business potential to be reached. During last year, we made great progress and laid a healthy foundation for continuous growth of analytical capabilities that are incorporated into the business processes.

As we were building the analytics team and analytical capabilities within Webelinx Games, we were led by these three principles:

- DEFINE DATA AND ANALYTICS STRATEGY first of all, on top of fully understanding company strategy, get to know your internal business stakeholders better: don't ask only about their needs, but understand their challenges, priorities and expectations from analytics. Strategy developed with these insights in mind, together with assessment of data needed for building data pipeline, is the one that needs to be set up before any other step is taken forward.
- INCORPORATE ANALYTICS TEAM INTO ALL BUSINESS
 PROCESSES, from company strategy definition to the sprint planning. Analytics team should be seen as a business partner and the employee should see the value in data, using it in daily decision making. This is easier to say than to implement, since it is often a transformation of how everyday business is managed and how decisions are made, and that needs full leadership support.

■ BUILD A DATA SOLUTION THAT FITS THE PURPOSE, AND THEN GROW INCREMENTALLY. The business environment is under continuous and fast paced change, and analytics should follow, being agile and consequently highly adaptable. Building robust, non flexible solutions requiring substantial resources, is not effective for our industry. We are using tools off the shelf, preferring cloud SaaS solutions that fits our current needs enabling us to go into details, but still optimizing investments. Think smart and iterate:)

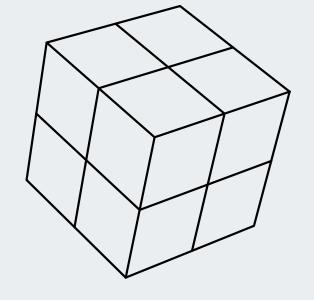
THINK SMART AND ITERATE

SMART AND ITERATE

THIN

ART AND ITERATE

ZWS



How Yboga optimised their pipeline with a custom framework



Interview with
BRANISLAV
VAJAGIĆ
- Lead Developer
at Yboga

Your first mobile title, Dream Hospital, was quite a success. You're working on a new project as we speak. You're also creating a framework for simulation games? Why did you choose this option?

Yes, we are making a framework specifically designed for simulation games. It is built on top of the Unity engine. You could say it's an engine within an engine. The point of the custom framework is to make our jobs easier in the future.

It sounds like a time-consuming way of doing things. How long did it take to make it fully functional?

Yes, it's time-consuming, but it'll payout in the long run. We're working on it since the release of Dream Hospital. The biggest breakthrough was within the last 10 months.

Presumably, you tweaked it between the first project and the current one. Do you plan to use it even after that?

Yes, of course. That is the main point of the framework. The plan is to make more games in the same/similar genre.

Do you think other teams could benefit from developing their engine or platform? Especially if we're talking about smaller, agile teams.

Well... Yes and no. It depends on their plan and the resources (including time as one of the most important resources). If they want to make more games in the same genre - then go for it. Otherwise, do not waste precious time.

Unity is a standard now in the mobile industry, but we heard from some team leads that students studying engineering and development don't like working with it, and it makes it harder to find employees. Apparently, the sentiment goes along the lines of: "I didn't study all this programming for nothing":) Any comments?

It's a matter of personal attitude. More than 60% of games are made in Unity. There is a big demand for Unity programmers. But like most things in life, you have to put in the work for it. I would say dedication is the most important key. Also, do they want to master one thing, or know bits and parts of many? In the words of fake Buddha quotes 'If one is master of one thing and understands one thing well, one has at the same time, insight into and understanding of many things.'

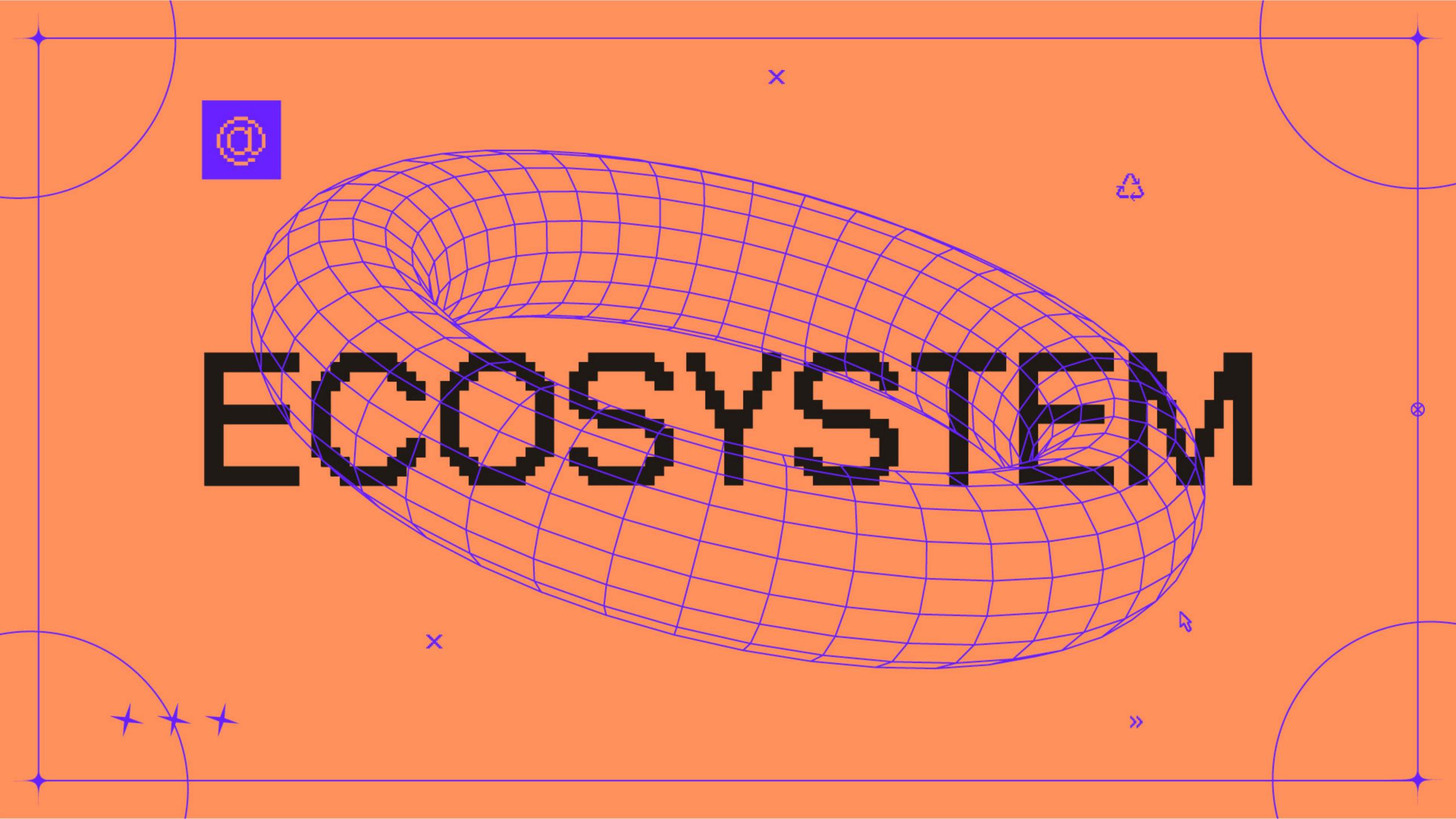
What is the future of programming for the gaming industry? If someone is, let's say 17 at the moment, they're passionate about both games and dev - what should they do in the next 2-5 years?

I would say it's pretty straightforward. The most important thing for a young and ambitious person is to find the field they are most interested in. And then make games. Use everything that could ease the work. Living in the internet era has made learning accessible. And they should always have in mind the old saying - Practice makes perfect.



And what about the future of Yboga? What are your plans? What will happen next?

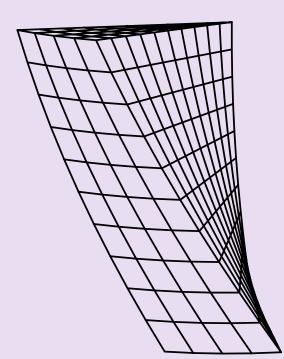
We want to enrich world-building and create individual and unique experiences. The plan is to include original storylines that will accompany and affect the regular core gameplay. The final goal is to have games where narrative and the player's choices have an impact on the game's progress. Expect some amazing new games in the future! Stay tuned!

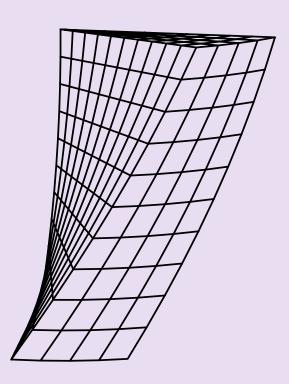


SUPERCLUSTER



LAZAR LEKIĆ
- Supercluster Manager
at Serbia Innovates





What is "Serbia Innovates" and who developed the project?

Serbia Innovates is an innovation cluster support project implemented by ICT Hub from Belgrade and with the support of USAID, aiming to develop the first Serbian innovation supercluster. The four most promising domains we identified are: High-Tech Agriculture & Food Production; Gaming Environment & VR; Web3 And Blockchain; Advanced Solutions In Medical Technology & Biotechnology.

How did gaming and VR become one of the top four key areas to work on?

Each of these four domains has a couple of key attributes: strengths within our innovation ecosystem to build on, the topic is globally relevant at the moment and there is a community ready to gather around the supercluster vision. Due to the great results achieved by Serbian companies and a vibrant community of actors with already established relationships and cooperation, gaming environment and VR, naturally stood out. It provides a strong starting point and significantly improves chances for success.

How does empowering the gaming ecosystem raise other actors in the IT and creative industries?

In addition to obviously creating more work for the IT sector as a whole, gaming is a highly multidisciplinary field that supports cross-sector cooperation. At the same time, gaming is a good example of how developing products creates more value than doing service-based projects. Whether it is considered to be a magnet for international talents and capital, a role model for other sectors, or simply an economic value generator, this domain is at the top of the game and with no doubt will remain leading the Serbian innovation ecosystem development for at least some time.

Are there any positive examples from the region or other states?

Superclusters, as organizations fostering cooperation of different stakeholder groups for the purpose of achieving technological leadership in a particular field, do not exist in the region. We can look at Canada, Norway, UK, or Israel to find some promising initiatives. Even still in an early stage, the concept has shown results. Serbia Innovates is quite unique since it's completely privately led, which creates certain challenges but at the same time leaves room to improve

the concept, experiment and pivot when needed in an agile way.

What are some of the main expected results of these collaborations?

Short-term KPIs depend on the specific cluster and will rely on the needs and ambitions of the cluster members.

We expect the initiative to result in a sustainable organization that will be the relevant and legitimate representative of the whole gaming community, providing support for companies to startup and scale their businesses, influencing the permanent improvement of the business environment and being a one-stop-shop for anyone interested in joining the industry or Serbian market.

And what about longterm goals?

Our ultimate goal is to support the whole domain to thrive towards technological leadership and global recognition of Serbia as an ecosystem that spawns not just the great products, but technologies and concepts that create the foundation for the next generation of gaming, entertainment, education and other industries – bringing value for organizations and society as a whole.

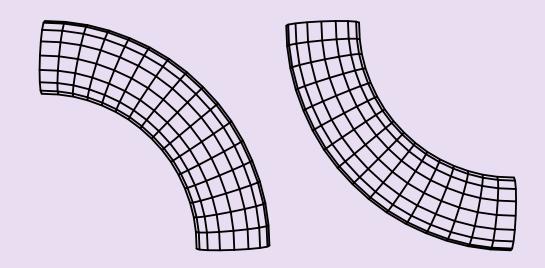
DELOITTE

HOW CAN TAX INCENTIVES AFFECT THE MATURITY OF THE GAME DEVELOPER INDUSTRY?



PAVLE KUTLESIC
- Senior Manager at
Deloitte Serbia

However, the fact is that it is up to the local industry to use all the tools available at its disposal, especially the growing portfolio of tax incentives, to steer the expansion of local practice.



The game developer industry in Serbia began by operating comfortably in the backdrop of the mainstream, paying little attention to the market as a whole and not really needing anything other than the freedom provided by "business as usual".

This changed in 2019, when the legislator first took serious note of the entire IT industry, including game developers and recognized their financial and cultural significance, as well as the societal impact they had made in Serbia in the cca. 10 years of expansion.

A landmark decision followed, to shift Serbia's focus from traditional economic drivers of manufacturing and agriculture onto innovative creative industries, through a tax incentive package aimed at supporting locally sourced creation of value, i.e., intellectual property.

While the first wave of measures included a significant number of incentives, its main stars were the IP Box and the R&D double deduction incentives. In a nutshell, these two incentives were aimed at opposite ends of the creative process, one allowing for a reduction in the tax burden during the development of an IP and the other during the exploitation of an IP.

Initially, the game developer industry didn't much like being dragged into the spotlight that resulted from this change in government policy. However, after this initial reticence faded, more and more companies started timidly exploring the various options provided by the incentive package, although still wary of the lack of practice and the uncertainty this brings.

However, the fact is that it is up to the local industry to use all the tools available at its disposal, especially the growing portfolio of tax incentives, to steer the expansion of local practice. Going even further, the industry needs to keep an eye on other markets and the incentives they offer, with a goal of identifying best practices which could be copied, e.g.:

- Incentives for development of games championing local cultural standards;
- Incentives with a cash-back element for small developers;
- Incentives for companies/individuals looking to invest funds into game developers, regardless of developer size or maturity.

The period between 2019 and 2022 has shown that this industry's success locally has been much more than a fluke of short-term market bubbles and convenient legal loopholes, while worldwide the game industry continued consolidating itself a major player (pun intended). This global success has not gone unnoticed as other, larger markets are also taking steps to support the development of videogames. In 2021 Italy, Belgium, Ireland and even Australia have been working on new tax incentives applicable to the industry, often spearheaded by industry wide associations.

Bearing in mind the increasing global competition and talent mobility, it is up to the local industry to champion its legitimacy and its interests, as it can no longer allow itself to stand by the sidelines while its fate is decided unilaterally by the legislator, other public authorities or by other industries seeking to appropriate its voice. Its growing success and the societal impact it continues to have oblige it to act as a spokesperson for gamers and non-gamers alike, because as that lady most recently said, with great power comes great responsibility.

A WAVE OF ACQUISITIONS WHAT DO THEY TELL US ABOUT THE FUTURE OF THE SERBIAN GAMING INDUSTRY?

The success of local studies to scale up and attract great buyers is a substantial motivation for all people in the industry to continue working

Several large acquisitions of local gaming companies marked the Serbian gaming scene in the last few years. The "season" has been opened by 3Lateral bought by Epic Games in early 2019. Then later that year Playrix bought Eipix and in 2020 Embracer bought Mad Head Games. In the end, Take-Two acquired

Nordeus in 2021 (we were lucky to work on 2 of 4 of these sales - for Epic Games and Take-Two).

It could be said that the sale of Nordeus marked the end of an era where the Serbian gaming scene was dominated by independent, local studios, and whose growth was catalyzed by Nordeus's huge success with Top Eleven, which has been launched back in 2010. Of course, large and successful local studios are still present on the stage, but the overall picture is far different than several years ago.

What led to these big sales in such a relatively short period of time? Above all, the existence of both supply and demand. Due to a great YoY growth of the gaming industry in the world, based mostly on the growth of mobile gaming additionally pushed by the pandemic, more and more money is being invested in the industry, and existing big players are expanding not only organically (through new games) but also through acquisitions. On the other hand, the Serbian gaming industry has been developing for years and has reached the level were a number of studios on the market were large enough and with recognizable titles or products for even the most ambitious customers.

How will these sales affect the local gaming ecosystem? Based on the experience of other

countries we might safely say – in a positive way. First of all, the success of local studies to scale up and attract great buyers is a substantial motivation for all people in the industry to continue working, but also for people outside the industry to seek happiness in gaming. In addition, big sales often encourage people who have worked in companies that are now sold to think about starting something of their own. Namely, often the most deserving employees gain a certain seed capital through sale bonuses, which encourages them to think about taking risks by starting something independently, and the moment of sale can often lead people to ask – now what, where to next?

Is this a guarantee of further rapid development of our gaming industry? Unfortunately - no. One of the biggest hurdles in Serbia is still the lack of entrepreneurial spirit and willingness to take risks. Statistics show that we are still lagging far behind the ecosystems we are emulating. In addition, although the mentioned sales were very large and represent a huge success considering



Ivan Nonković - Partner, Karanović&Partners

Big sales often encourage people who have worked in companies that are now sold to think about starting something of their own.

the overall level of development of our digital ecosystem and the economy in general, they were not "exits" in billions of dollars (as, for example, the sale of the Finnish Supercell to Chinese Tencent) and those where it could happen that after each sale dozens of people become millionaires, which would lead to

exponential growth and a huge number of new studios and subsequent investments.

Therefore, the risk is that everything will remain as it is – gaming will of course develop, existing studios will grow and new ones will emerge, but at the same or approximately the same speed as before (although this is a great dynamic that breaks many records). However, the current practice in which the Serbian IT industry, and especially gaming, is at the forefront in entrepreneurship and risk-taking certainly gives hope for an even brighter future.

PUTTING THE PIECES TOGETHER: THE COLORFUL PAST AND PROMISING FUTURE OF TETRIS® MOBILE



On a cool, June evening in 1984, a Soviet computer scientist named Alexey Pajitnov, fired up his Electronika 60, and ran, for the first time, one of the most elegant and successful video games ever developed. He wrote the game as a way to evaluate the computing power of new hardware that his Al research group would regularly receive. The game was a simplified

version of a popular mathematics puzzle called Pentominos, and the object was to combine shapes in a gapless line, which would then disappear from the screen. The name of the game came from the Greek word "tetra" meaning four, and tennis, his favorite sport. As you probably already guessed – Tetris® was born.

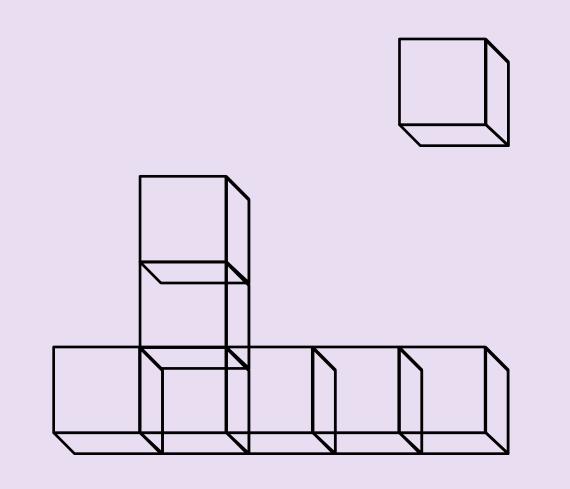
The simple game was brilliant. Even Pajitnov himself claims he was immediately "hooked". Falling "tetrominoes" (yes, this is an official name for a Tetris® piece) soon started winning the hearts and minds of people around the globe.

In the beginning, the game was circulated on floppy disks, and Pajitnov did not make any money from it (not that he intended to). His Electronika 60 had no graphical capabilities – and had less memory than today's calculator – so the original shapes were made from blocks of text. Pajitnov assigned a 16-year-old student named Vladim

Gerasimov (today an engineer at Google) to create a version for the IBM PC. This caused the game to spread like fire. A year later, Tetris® had an official launch in North America and Europe becoming a "software blockbuster," selling over two million copies.

A video game publisher, Henk Rogers, became a key to the success of Tetris®. Rogers has secured the Tetris® rights from Pajtinov and sold the license to Nintendo. This is how he convinced the Head of Nintendo: "'If you want little boys to buy your Game Boy, then include Mario. But if you want everyone to buy your Game Boy, then you should include Tetris®." And, he was right. Nintendo's Game Boy launched on a platform with one packed-in cartridge – Tetris® – with over 35 million copies sold. It is still considered by many – Pajitnov included – to be the best version of Tetris®.

So, what is the "secret sauce"? It is easy to learn, but hard to master. There are no fancy images, no memorable characters, and no narrative. The "nofrills" approach was a recipe for success:





- In 2002. Tetris® became an early leader in the emerging mobile game category
- In 2006. Tetris® for the iPod is launched and instantly becomes Apple's #1 downloaded game. Two years later, EA games released the version for iPhone and iPod Touch. Nintendo released a version for its Wii console.
- In 2014, Tetris® achieved more than 425 million paid mobile downloads, becoming the best-selling mobile game of all time.
- In the following years, the Tetris® story
 was made into a movie (coming soon to
 theater and streaming platforms), inspired
 an installation at the MET museum, won
 numerous awards, set a Guinness world
 record, and even become part of several
 scientific studies that identified the now
 famous Tetris® effect.
- In 2021, PLAYSTUDIOS assumed the exclusive global, multi-title mobile rights (excluding China) for the Tetris® game and are presently hard at work on the next exciting chapter of this iconic game franchise.

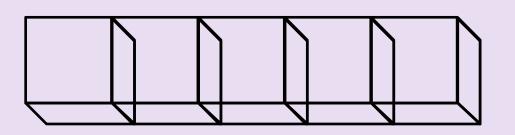
WE SPOKE WITH NIKOLA MITIC, GENERAL MANAGER AT PLAYSTUDIOS EUROPE TO LEARN WHAT'S IN STORE FOR THE FUTURE OF TETRIS® MOBILE.

What can you share about your plans for Tetris®?

As you know, in 2021, PLAYSTUDIOS was granted exclusive rights to develop and publish Tetris® for mobile devices. Strategically, Tetris® was a perfect fit for our company, and we are proud to have this iconic game in our portfolio. We will continue to operate and advance the current Tetris® mobile products, but we will also work on developing new and improved versions of the game that reflects current trends and player preferences.

How is the Belgrade team feeling about this exciting opportunity?

It is really a privilege to work on one of the most successful games in the world. Nevertheless, it makes us even more excited that the future of Tetris® will be shaped right here in Serbia. Working in close collaboration with our sister studio in Tel Aviv, we will be in charge of creating a completely new experience for Tetris® fans.





What changes can we expect to see in your new and improved version of Tetris®?

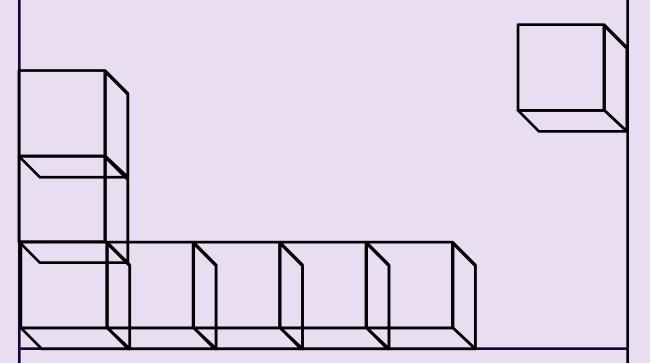
We plan to integrate the Tetris® experience with our unique playAWARDS platform. With the help of playAWARDS, our players have the opportunity to receive real-world rewards by playing our games. This loyalty program further affects satisfaction and increases retention of our players. Our team is creating a design that respects the game's rich history and brilliant core mechanics, and we will extend that experience by incorporating new features inspired by the leading formats within the broader casual games category.

Any final thoughts to share?

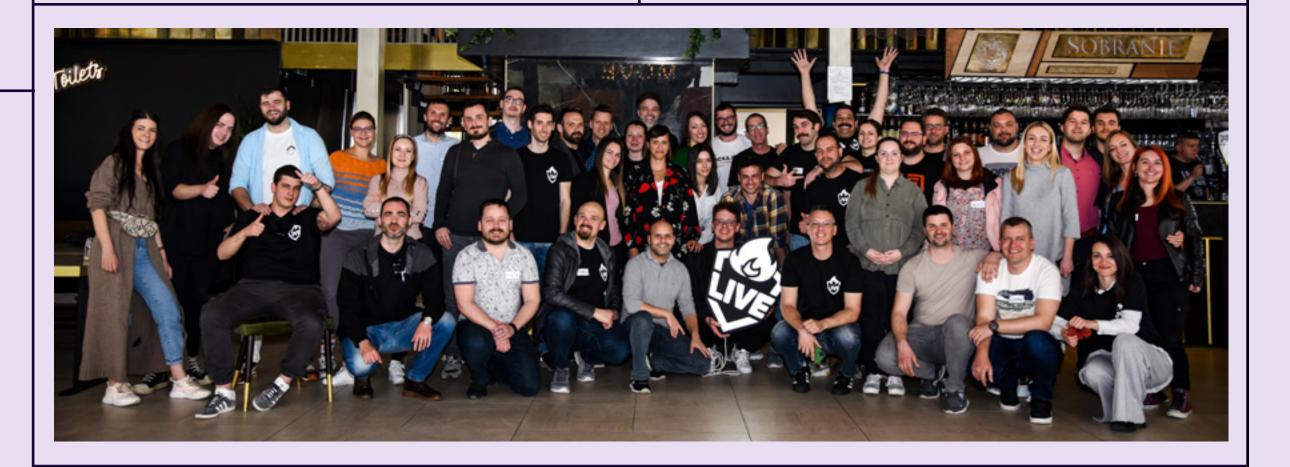
Just that we are so proud to work on such a successful game. The current Tetris® mobile app that N3twork introduced in 2020, has generated approximately 30 million downloads to date. That's a massive audience. It will be a really interesting challenge for our team - both technically and creatively. And we can't wait to see how our members will contribute to the rich history of one of the most famous games in the world.

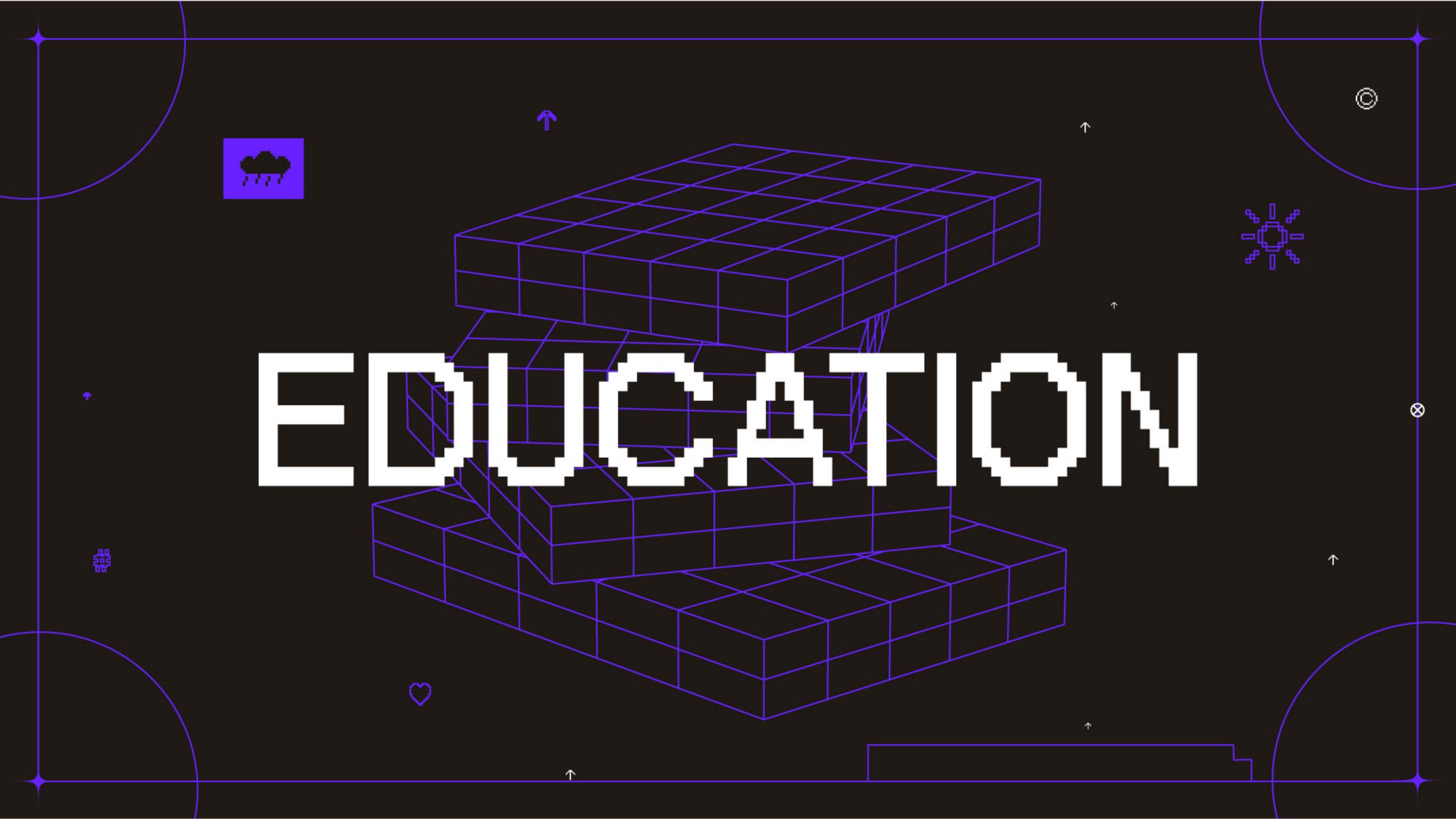
ABOUT PLAYSTUDIOS:

PLAYSTUDIOS, Inc. (Nasdaq: MYPS), creator of the groundbreaking playAWARDS loyalty platform, is a publisher and developer of award-winning mobile games, including the iconic Tetris® mobile app, POP! Slots, myVEGAS Slots, myVEGAS Blackjack, my KONAMI Slots, my VEGAS Bingo, and MGM Slots Live. The playAWARDS loyalty platform enables players to earn real-world rewards from more than 70 iconic hospitality, entertainment, and leisure brands across 15 countries and four continents. playAWARDS partners include MGM Resorts International, Wolfgang Puck, Norwegian Cruise Line, Resorts World, IHG, Bowlero, Gray Line Tours, and Hippodrome Casino, among others. Founded by a team of veteran gaming, hospitality, and technology entrepreneurs, PLAYSTUDIOS apps combine the best elements of popular casual games with compelling real-world benefits. To learn more about PLAYSTUDIOS, visit www. playstudios.com.



PLAYSTUDIOS maintains R&D teams and game studios in the US, Israel, Asia and Europe (Belgrade). Our office in Belgrade is a dynamic, young-minded, environment. We are a close-knit team of talented engineers, game designers, and other leaders working together to change the face of social gaming!



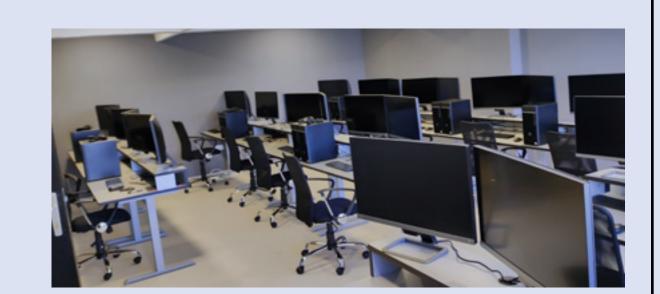


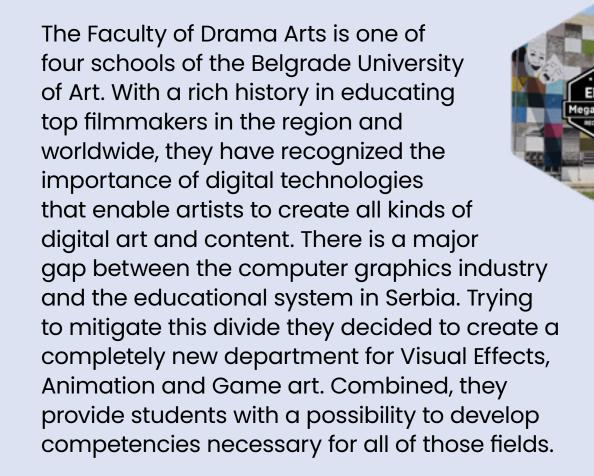
FOR VISUAL EFFECTS, ANIMATION AND GAME ART



DARKO SUBOTIN

- Assistant Professor
at the Faculty of
Dramatic Arts,
authorized lecturer
for Unreal Engine





The expanding game industry in Serbia requires new and fresh talent to join their teams and there is a big demand for educated professionals in this area.

FDU has connected with the most prominent IT companies, Epic Games 3Lateral, Nordeus, Mad Head Games, Take One, and the relevant communities like SGA (Serbian Gaming Association), StartIT and many others to help create a program that will be useful to the industry, but also to create artists that can enter the new digital age of art.

As a proof of the quality of the program, FDU has been supported by Epic games with their prestigious Megagrants funding program, which has helped to equip the classroom with the required high-end hardware that

will be able to follow the latest technological

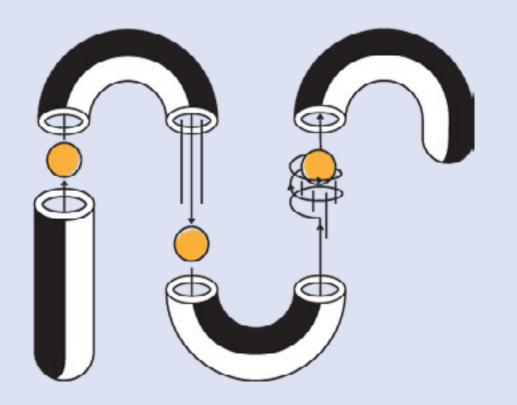
advancements.

The faculty has also realized the emerging trend of the fusion of separate industries within the computer graphics community through real time technologies which then creates an interconnected web of digital ecosystems. The faculty have decided to embrace Unreal Engine as their primary tool through which they will teach both

basic and advanced level game development, animation and film making.

The four-year curriculum provides a solid foundation, but also leaves students the flexibility to focus on their areas of interest. That is why the program is split into three modules (visual effect, animation, and game art), but only after the first year, so students can make an educated choice for their field of expertise. The faculty wanted the industry to be an active part of the education, as this helps bridge the gap between the students and the ecosystem that exists in the professional world. The companies will be offering masterclasses on advanced topics, internships which will be invaluable to students. Professionals will share their knowledge from the "trenches" of the industry, which helps the university to formulate their curriculum in a relevant manner.

Faculty of Dramatic Arts was able to bring together top professionals who are also educators, and with the support of their veteran professors in the field of film making, this program has the potential to enrich both their existing area of expertise, film production, and also that of the digital industry for games, animation and visual effects in Serbia and the region.





Future belongs to those who constantly grow their knowledge, creativity and technology. The gaming industry is a true intersection of the three, and its fast-paced growth and fierce global competition naturally selects such people and organizations. From this standpoint, it is easier to understand what the future holds and what skills and knowledge are needed for success.

The Nordeus Foundation was founded in April 2021 with a vision to give children in Serbia a better chance for success in the 21st century by supporting their education. It is the culmination of Nordeus' decade-long support to the community, mainly children and youth in the areas of health





and education. Some initiatives aimed to provide better start in life for children across Serbia, such as equipping maternity and neonatal wards, or supporting early childhood developmental centers, while some were aimed at creating a better environment and ecosystems like founding the Digital Serbia Initiative or Serbian Gaming Association.

Mission of the Nordeus Foundation is to be the catalyst for progress in education so that our children and society as a whole can seize the opportunity provided by the digital economy. We believe that by joining forces, connecting education and applied knowledge, and using the benefits of technology, we can together help each child discover their talents and reach their full potential.

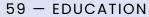
How do we plan to do this? Together with partnering organizations, we are building an educational environment for our children that encourages curiosity, creativity, critical thinking and problem solving. We cooperate with the best experts from both education and the economy. Combining this with multidisciplinary approach, project and team work, real life experience and

expertise, as well as an entrepreneurial way of thinking we bring the leading-edge knowledge and skills directly to schools, teachers and children. It empowers children to learn through experience, explore, innovate and create.

Talking about gaming, based on the experience and know-how gathered from the years of running Nordeus Hub, we are building an open educational platform that aims to provide better understanding of the gaming industry, careers, disciplines and experts within. We are helping children grasp how they can pursue their interests and realize their potential within the industry. While exploring the platform, they will acquire knowledge on the disciplines of their interest, progress and gain a clearer vision of their future education or employment.

Quality education does not begin or end in school. All of us create an education system - parents, neighbors, teachers, schools, companies, media, organizations and the community as a whole. Hence, giving the best possible chance for the healthy future of our children is the responsibility of all of us. We can only succeed in that if we all unite around this mission. If you feel the same, please reach out and let's make it happen!





WHERE CAN YOU STUDY GAMING--RELATED PROGRAMS IN SERBIA?

We're very happy to present an updated list of gaming-related education opportunities in Serbia. Since our last report, the list has expanded, thanks to tremendous and unified efforts of everyone involved in the ecosystem.



Faculty of Contemporary
Arts Belgrade,
Graphic Design
department

BA in Animation Illustration

BA in Animation, Illustration and Game Art



College of Vocational
Studies –
Belgrade Polytechnic
BA in Concept Art and
Character Design



University of Novi Sad,
Academy of Arts
BA in Video Game Design



Faculty of Dramatic Arts in Belgrade

BA in Dramaturgy; BA in Sound Recording and Design; Master in Digital Transformation of Media and Culture Visual effects, animation and game art, ba



Metropolitan University,
Faculty of Information
Technology

BA in Game Development;
Faculty of Digital Arts
BA in Design of Interactive
Media



Singidunum University,
Faculty of Media and
Communications
BA in Digital Arts
edia



University of Niš

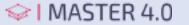
MA in Intelligent data analysis



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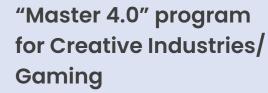
University of Belgrade,
Faculties of Organizational
Sciences and Electrical
Engineering

MA in Advanced IT in Digital Transformation



"Master 4.0" program for IT and Business

joint initiative of universities of Belgrade, Kragujevac and Niš



joint initiative of universities of Belgrade and Kragujevac



FEFA

MA, Business in Gaming



SAE Institute Belgrade

BA/BSc (Hons) Game Art
Animation



Crater Training Center

VFX Creation and Game Art Education



Faculty of Contemporary Arts

Animation, Illustration and Game Art



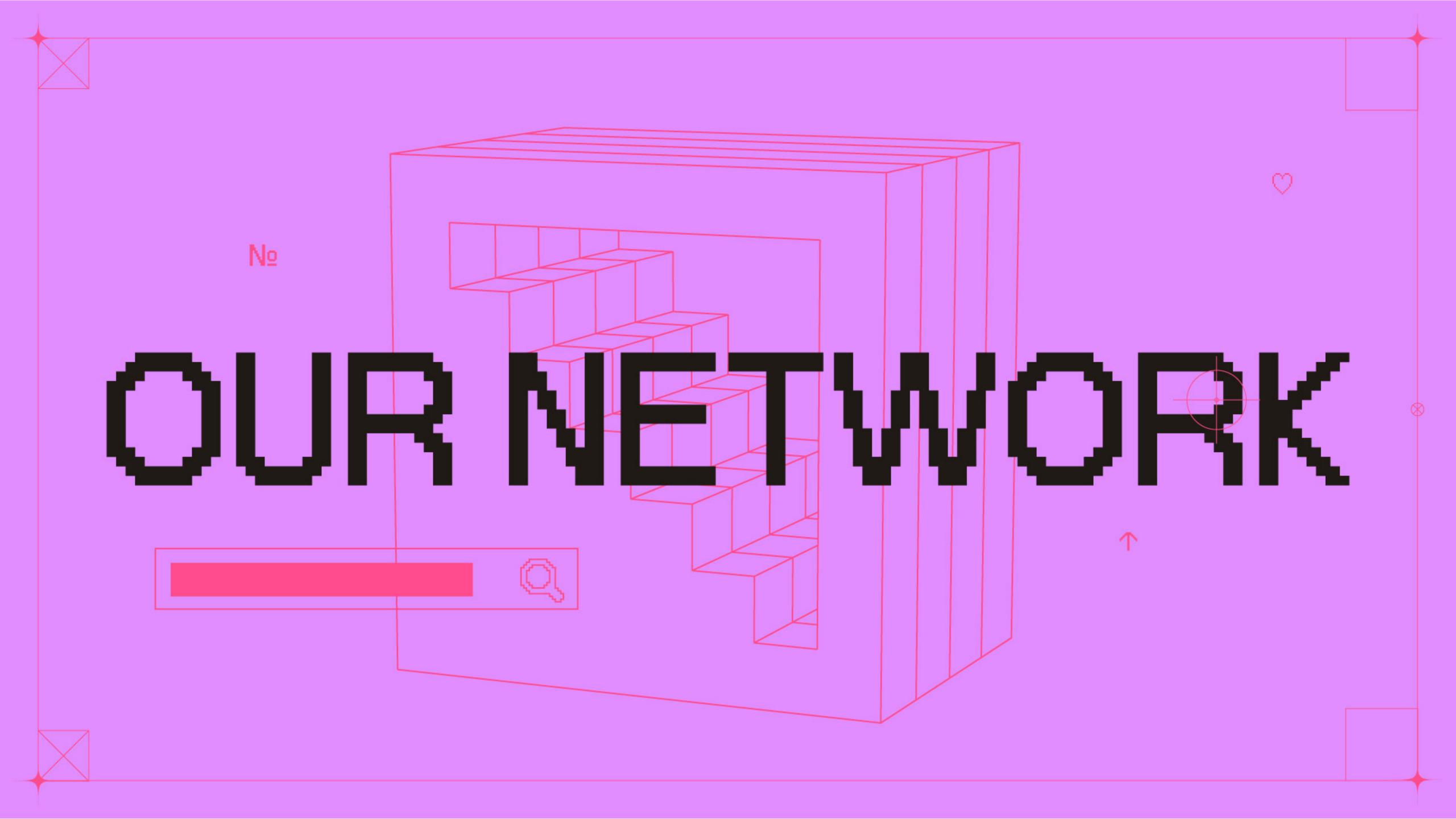
Faculty of Technical
Sciences

Sciences
Animation in Engineering



Faculty of Science, University of Kragujevac

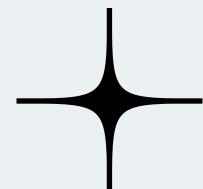
Studies of Informatics at the Institute of Mathematics and Informatics - MA



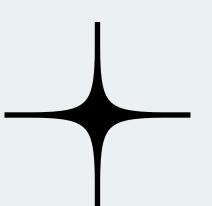
ALL OUR MEMBERS

3GEN 3LATERAL 4SAVE SOFT	# A	DIGITAL ARROW DIGITAL ASSET TAILORS DIGITAL RONIN DISTILL GAMES DON QUIXOTE		ILLUSIO INFINITE GALAXY INGENIUOS STUDIO ITC STUDIO	PEAKSEL PET PROJECT GAMES PHOBOS PIXQUAKE PLAYRIX RS	Р	TECTONIC GAMES STUDIO TENDER TROUPE THORIUM THREE SWORDS STUDIO THUNDER STRIKE
ADREAMATION ALSET STUDIO AM-PM APARTEKO		EL BET ENYPH ESCAPE GAME SHOW	E	KERBER GAMES KUKURU3	PLAYSTUDIOS EUROPE PRINCEPS PWNRS		TRIA TUMMY GAMES TWO DESPERADOS
BABY BOTTLE BLACKSMITH GAMES	В	ESOTER STUDIO ESOTERIC FORGE EUCLIDEAN STUDIOS		LICHENVALE LIFT KVIZ	QUBE	Q	UBISOFT ULTI COIN
BOHEMIAN PULP BOM SOLUTIONS BRANISALV GAGIC BRAVE GIANT	,	FAT PUG STUDIO	F	MAD HEAD GAMES MAD MAGE GAMES MARBLEIT	RADIOACTIVE UNICORN RAIGON REMOTE HUMAN		WAVEFORM STUDIO WEBELINX GAMES WHYTTEST
BUNKER VFX CAPSULE GAME STUDIO	С	FLAT HILL GAMES FORTUNA FOXY VOXEL FRAGILE SOFTWARE		MATEJ & CO. MEDIA 4 (ALI DEO INGSOFTWARE) MIRACLE DOJO MOGUL DIGITAL	SENSIBLE SHOUTING SLOTCRAFT SOBAKAISTI	S	YBOGA
CLOUDBERRIE CLICK TO PLAY COFA GAMES CRATER TRAINING CENTER CRYPTIC LEGENDS	,	GAME BIZ GRAVITY CODE	G	MOONBURNT MUNZESKY NORDEUS	SOUTH GAMES STUDIO SOZAP SPRING ONION STUDIO STAL PROJECT STARGAZER		
DEMAGOG DEUTRIX DEVOTION STUDIOS DEXSOFT	D	HAPTIQ HARPOON HERON GAMES HORA GAMES	H	ORAHARO	STICK AND ROPE STYGIAN SOFTWARE SUPERLATIVE SUPERVERSE SUPREMENEXUS		
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PARTNERS



Over the years, our network of partners and friends grew. Now we have a tight-knit community of companies, institutions, initiatives and other NGOs that help us reach our goals and visions faster. If gaming has taught us anything it's that combining largely different fields of expertise can result in an ecosystem that's more than the sum of its parts. We take this opportunity to thank everyone who continue to build something important and lasting with us.



UNREAL	Voodoo	karanovic/partners	Deloitte.	centili

PROGRAM PARTNERS



AMAZE.





DATA SCIENCE/ /CONFERENCE/



























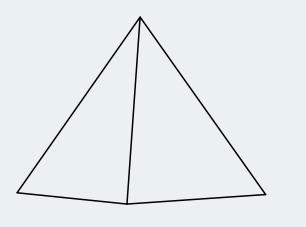












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FRIENDS







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