Esports Live Betting Integrity for NGCB

07/22

Bayes ESPORTS

Esports Live Betting Facts

70-80% of Esports Betting is Live	Esports brings unique challenges for betting and match integrity
Esports is very dynamic with frequent changes - permanent monitoring is crucial	Esports turnover growing with sustained rate of 50-100% YoY; integrity incidents grow even faster

An Esports Joint Venture With the World's Leading Sports Data Service

sportradar + **Bayes** ESPORTS

The Sports Technology Company

Leading sports technology company, at the intersection between sports, media and betting.

- Founded: 2001
- HQ: St. Gallen, Switzerland
- Employees: 2950 FTE + ~80K scouts
- Clients: 1,700+, 120+ countries
- Products and services: Live Match data, betting products, managed trading services, full service solution
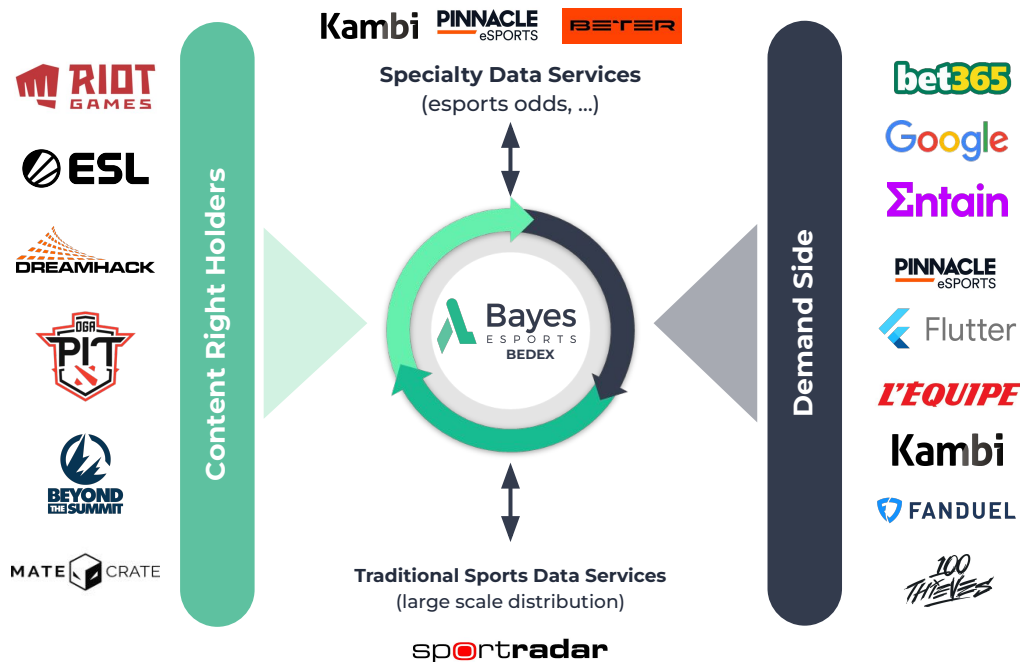
The World's Leading Esports Data Service

JV of former Dojo Madness and Sportradar, focussing exclusively on esports data services.

- Founded: 2019
- HQ: Berlin, Germany
- Employees: 45 FTE + 40 Freelancers
- Clients: 350+ data consumers; 100+ betting clients
- Products and services: Live Data, Team player portal

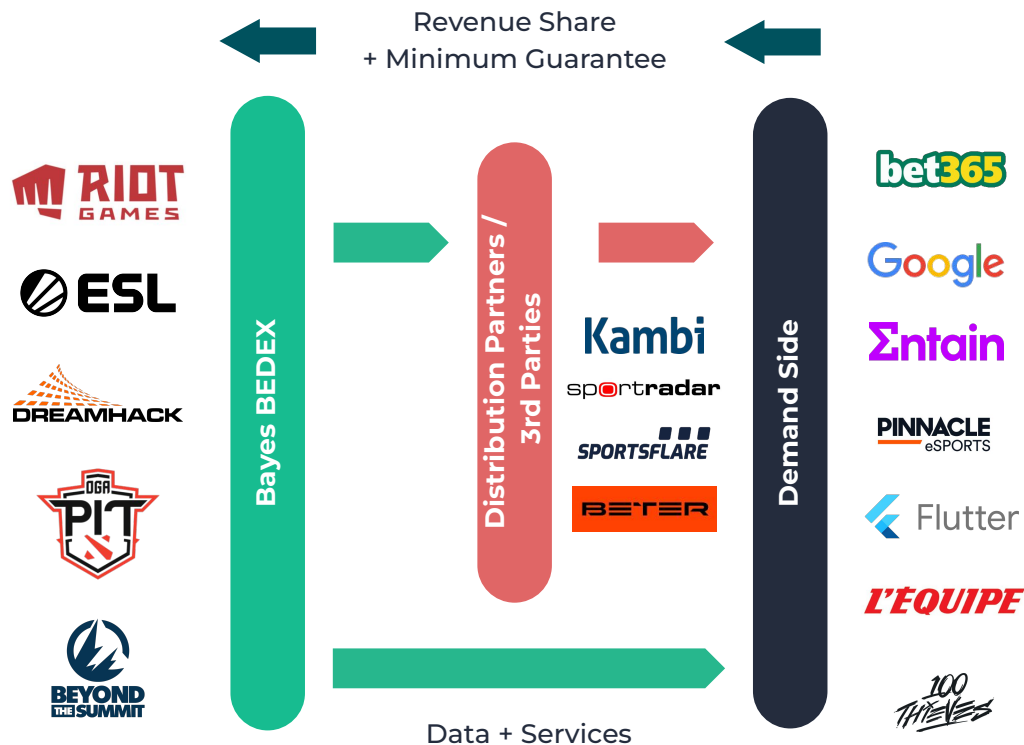# Bayes Esports is the Leading Data Service to the Digital Esports Ecosystem

Content Right Holders

RIOT GAMES
ESL
DREAMHACK
OGA PIT
BEYOND THE SUMMIT
MATE CRATE

Specialty Data Services
(esports odds, ...)

Kambi
PINNACLE eSPORTS
BETER

Traditional Sports Data Services
(large scale distribution)

sportradar

Demand Side

bet365
Google
Entain
PINNACLE eSPORTS
Flutter
L'EQUIPE
Kambi
FANDUEL
100 THIEVES

DESCRIPTION

Bayes Esports
Business model is centered around an open ecosystem and data distribution philosophy, with the primary goal to drive maximum value to content rights holders and the overall esports ecosystem.

BEDEX
Bayes Esports own industry leading data agnostic platform is the centerpiece of its data distribution strategy, as it allows the scaling of distribution to both B2C and B2B, while maintaining control over end points and data flows.

Bayes Esports Owns **Unique Strategic Content**, Which it Can **Distribute to the Market Directly** or **Monetize Via Distribution Partners**, All While **Never Giving Up Ownership** of this Strategic Content

Live In-Game Data Commercialisation & Distribution

Revenue Share + Minimum Guarantee

Bayes BEDEX

Distribution Partners / 3rd Parties

Demand Side

Data + Services

DESCRIPTION

- Bayes BEDEX proprietary live data infrastructure
- Proprietary data ingestion API and parser technology
- Most granular data model, including positional data for CS:GO
- 10,000 live matches exclusively licensed
- Revenue share model to both supply and demand side

Bayes ESPORTS

Historic Data for Teams and Community >> Teamplayer Data Portal

Riot Games and Bayes Esports have teamed up to develop a first-of-its-kind centralized hub. The League of Legends Esports Data Portal (LDP) provides **400 professional League of Legends Esports teams and the global partners** access to a variety of historic League of Leg easily through both UI and API.

Key Numbers

| Data of **95 Leagues** | **210+** Teams Live | **520+** Users | **2,500 GB** Of Total Data |

| Repository of **14,341 Scrim Games** | | Weekly Averaging **276 Games** |

Quote from John Knauss RIOT GAMES

"From the beginning, our mission has been to enable our professional teams, partners, and community to revolutionize esport. Working with Bayes to develop the underlying tech to bring this vision to life has been a fantastic opportunity, and we are looking forward to continuing to push and differentiate esports in the space."

Live In-Game Data + Live Trader Dashboard (LTD)

PARTNERS

ESL
OGA PIT
RIOT GAMES
DREAMHACK
BEYOND THE SUMMIT

TITLES

LEAGUE OF LEGENDS
CS:GO
DOTA 2

DESCRIPTION

Focused around offering client centric solutions that enable their use case in the best and easiest possible way.

High resolution in-game and historic data to power data visualization and statistics products.

Offering specialised data products, tools, and services to support a broad variety of data consumers in the esports ecosystem.

SELECT CLIENTS

bet365
FONBET
PINNACLE eSPORTS
GGBET
Kambi
188BET
BETER

Esports vs. Traditional Sports - Automated vs. Manual Data Collection

	Traditional Sports	Esports
Match events	**Few** Scores, Fouls, throw in, …	**Many** Scores, Kills, Objectives, cash/gold, …
Sport Complexity	**Low** Single events, often captures by one referee, match interruptions	**High** Multiple events simultaneously, match flow uninterrupted
Data Point Frequency	**Low** Few data points, event based	**Very High** 100+ data points/second
On Screen Visibility	**Full Visibility** Teams and playfield visibly	**Partial Visibility** Playfield and enemies hidden
Public Stream Delay	**Minimal** <15 sec.	**Significant** 45 sec - 10min
Data collection	**Manual/"Semi-Automated"** Manual, OCR	**Automated** API, Data stream parsers
Probability models	**Simple and stable** Rare changes to sports rules	**Complex and flexible** Games change frequently

DESCRIPTION

High quality data collection for esports titles is impossible to be performed without advanced technical solutions. Traditional data service providers historically struggle with esports data collection, as their processes and tools are outdated and unsuitable for the next generation of sports.

Official Data Collection and Bayes Market Positioning

	Other Providers	Bayes
Data collection	**Manual/"Semi-Automated"** OCR/Scraping of public sources	**Automated** Licensed from original source
Data Quality	**Low** Limited by scraping tech	**Very High** Resolution, accuracy, quality
Data Speed	**Delayed** Broadcast delay of <10 min.	**Undelayed** No delay
Data Rights	**None** No official license	**Official License** Rights to monetize & distribute
Reliability	**Very low** Dependent on public sources	**High** Ongoing improvement
Distribution Control	**Very low** No control for right holders	**High** Full control for rights holders
Integrity	**Low** Grey and black market possible	**High** Vetted clients, monitored data
Revenue Allocation	**None** No revenues shared	**Revenue Share** Shared with rights holders

DESCRIPTION

The Bayes business model is purposefully and exclusively relying on original data feeds and live in-game data for its data services.

Bayes' provides a strong data foundation to any digital business in the esports ecosystem and empowers its content rights partners by giving them control over their data flow and by driving scalable revenues.

Official Data Offerings Sanctioned for Betting

	LoL	CS:GO	Dota2	Rainbow 6	Call of Duty	PUBG	Rocket League
Game publisher	Riot	Valve	Valve	Ubisoft	Activision Blizzard	Krafton	Psyonix
Main league operator	Riot	ESL	ESL	Ubisoft	Activision Blizzard	Krafton	Psyonix
Offering	Yes	Yes	Yes	No	No	No	No
In discussion	-	-	-	Yes	Yes	Yes	No
Other league operators	ESL, BLAST, Beyond the Summit, Epic Esports Events, OGA, FACEIT, Relog Media, WePlay, Eden Esports						

70% of relevant pro league content

"Big 3" game titles
90% of global esports GGR

Note: Does not include eLeagues titles (FIFA 21, NBA2k, etc.) since data can be collected manual for those titles.

Match and Betting Integrity Partnership

sportradar

Long standing partner of Bayes, securing Riot and Activision Blizzard Pro Leagues.

Company

- JV sister company, independent entity
- EU based, global coverage
- 100+ integrity specialist
- 150+ partners globally
- Drawing from vast amount of betting transactions data pool and many years of experience

Services

Investigative service across top sports events worldwide. Combining multiple data and betting signals in the Universal Fraud Detection System (UFDS).

Bet monitoring and detection, intelligence & investigation, Integrity audits, anti doping, education & training

U.S.INTEGRITY

Co-developing the next generation of predictive integrity services based on Bayes match probability models.

- Portfolio sister company
- US based, global solution
- Close collaboration with US regulators
- Clients include college conferences, individual teams, professional leagues, and sportsbook operators
- Identify suspicious behavior by analyzing changes in betting data against a benchmark of normal betting activity

Data science based service. **Computing a multitude of internal and external signals to predict expected behaviour and detect suspicious behavior.**

Detecting fraud, match-fixing, game manipulation, and other unethical or illegal betting-related activity.

Partners

5 Measures for Safer Esports Betting

1

Official Data

Sportsbooks need to use non-delayed, official data for in-game predictions and resulting. Only approve events which provide such data to the industry. The TO/event needs to adhere to best practices regarding announcements and information sharing

2

Integrity Service

Events/organizers need to maintain an sufficiently staffed integrity service which monitors the betting markets and carries out investigations.

3

Technical Measures

Organizers and events need to implement IT best practices. This involves security, server and client access, deployment of Anti-Cheat solutions and IT security measures.

4

Organisat. Measures

Public broadcast and on venue video need to be delayed in line with industry best practises. Access and distribution to data need to be documented, restricted on a need to know-base and protected by proper agreements....
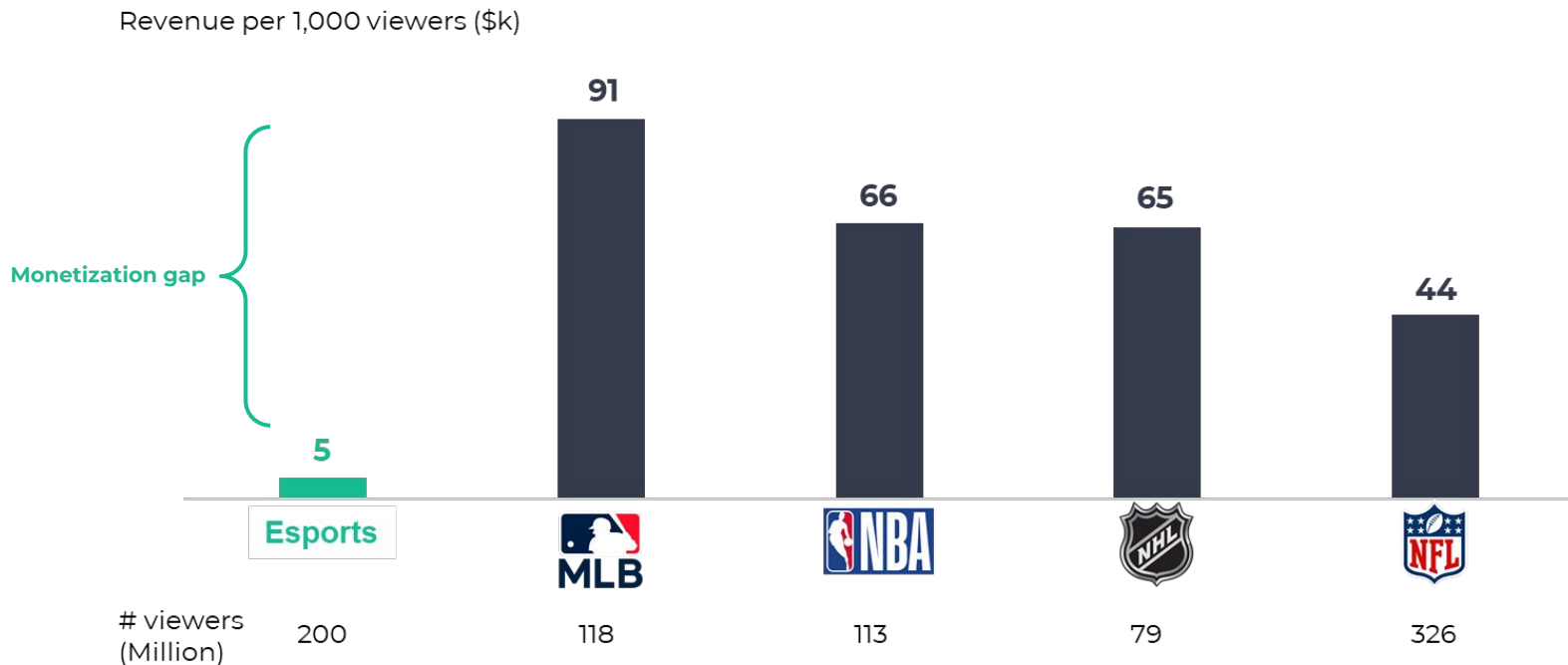
5

Legal Measure

All data distribution agreements need to contain a minimal set of requirements. This reaches from delay requirements to usage restrictions and technical protections measures.

Appendix

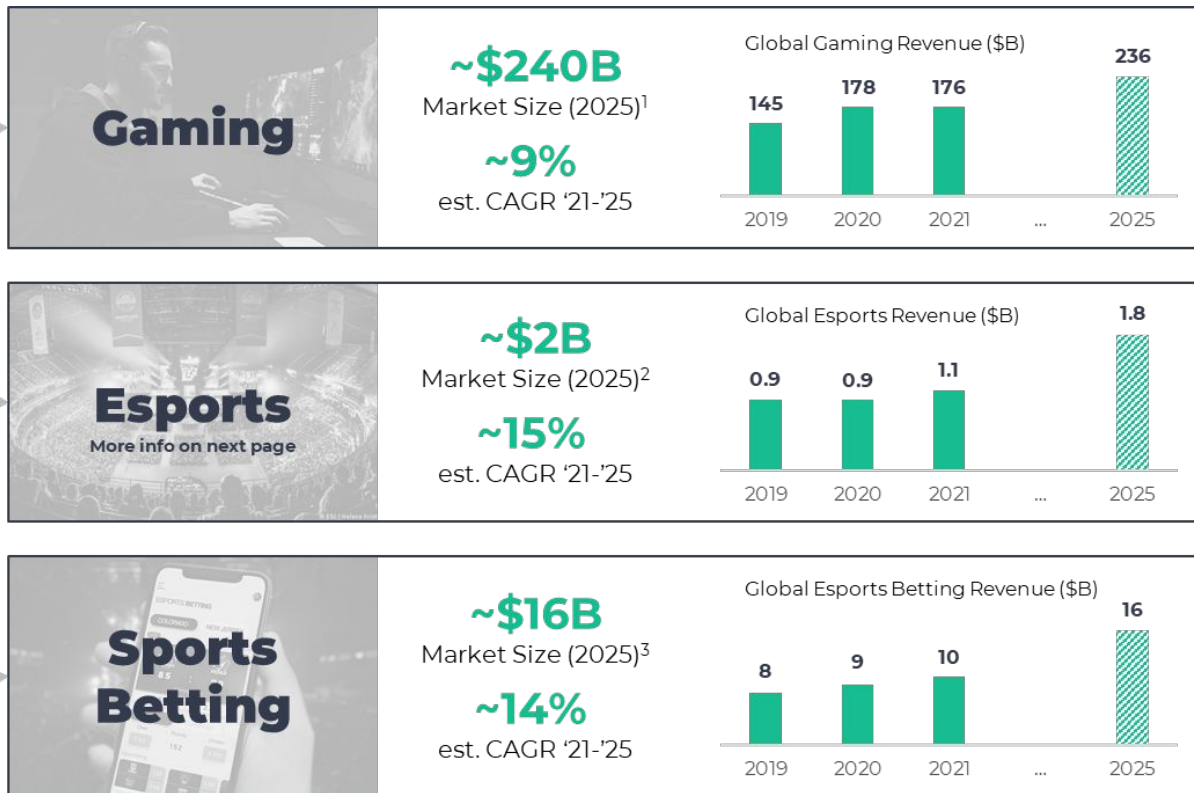# Monetization Benchmark and Esports Future Revenue Potential

Revenue per 1,000 viewers ($k)

Monetization gap

	Esports	MLB	NBA	NHL	NFL
Revenue per 1,000 viewers ($k)	5	91	66	65	44
# viewers (Million)	200	118	113	79	326

Source: Goldman Sachs

Bayes Operates at the Intersection of 3 Rapidly Expanding Global Markets

Bayes ESPORTS

Addressing ~$260B Global TAM Across Key Verticals

Gaming

~$240B Market Size (2025)[1]

~9% est. CAGR '21-'25

Global Gaming Revenue ($B)

2019	2020	2021	...	2025
145	178	176		236

Esports
More info on next page

~$2B Market Size (2025)[2]

~15% est. CAGR '21-'25

Global Esports Revenue ($B)

2019	2020	2021	...	2025
0.9	0.9	1.1		1.8

Sports Betting

~$16B Market Size (2025)[3]

~14% est. CAGR '21-'25

Global Esports Betting Revenue ($B)

2019	2020	2021	...	2025
8	9	10		16

Betting-relevant differences between esports and traditional sports

1) **Partial information**

In traditional sports all informations are available to both teams (e.g. the position of players and ball. In many esports there is a concept of "vision", so the teams have not knowledge of the position and state of all plates of the other team. The staff and viewers have access to a feed which e.g. includes positions of both teams; If a team gets by illegal measures access to confidential information it could impact the outcome of the match.

2) **Online and Offline tournaments**

Large esports tournament are played "**offline**". That means both teams sit in the same venue, there is are referees, computer hardware is verified and approved. Smaller and medium tournaments are often played "**online**". The player sit in a hotel room, apartment or even at home. Depending on the size their might be some anti-cheat measures (e.g. microphone or camera in the room) or none at all. Offline tournaments provide a good security against technical cheating and non-allowed access to informations. For Online tournaments it depends on the measures taken, but there a much higher risk.

Integrity risks and measures

Risk	Example	Measures Offline	Measures Online
Technical cheating	Installation of aiming bots or wall hacks; Exploit of bugs in the game client ("coaching bug CS:GO")	Certified hardware provided by the TO; Blocking of USB ports; security control of players and staff for objects; protected server setup; implementation of standard IT security policies and best practises; File integrity monitoring	For game server: Same as for Offline; For game client: Installation of Anti-cheat software Environment: Camera and microphone
Access to secret informations or outside support	Access to the "full" video feed for viewers; access to positional data of the other team; Outside coaching; Shout of informations from the audience on premise. Bribe staff of TO or bookmaker to leak sensitive data public or to a team.	AV broadcast is delayed by 45 seconds; AV screens on premise are delayed by 5-15 seconds; Refere is monitoring access to mobile phones; communication programs can't be used; team radio is monitored; Training and tight contracts for staff, broadcast partners and data providers.	AV broadcast is delayed up to 5 minutes. Training and tight contracts for staff, broadcast partners and data providers.
Identity fraud	Teams using players which are not allowed to play in their team or for important qualifier matches.	Player passports and identity checks on premise.	Online identity checks by video (not used at the moment)
Match fixing	Bribe players or team to play bad: Pre-agree on result; Bribe players to leak online informations (radaring)	Implement an integrity service to monitor betting markets; training for teams, players and staff; Contractual obligations for teams and players to cooperate; technical monitoring of game play to detect statistical anomalies.	

Bayes is Led by a Team of Seasoned Tech Professionals

Martin Dachselt, MD/CEO

Martin has over 20 years of top level management experience in tech startups. He served as CTO for Dojo Madness, Smartfrog and Delivery Hero and as VP Operations for Click&Buy. He is overseeing the daily operation and overall strategy of Bayes.

Amir Mirzaee, MD/COO

Amir has been active in tech business for over 15 years as founder, consultant, Business Development professional, and as the head of a family office. Most recently, he spent 6 years as the BD lead at Google and Waze, both in Germany as well as in the Silicon Valley.

Axel Fromberg, Senior Director Sales

Axel has been driving future initiatives within the Automotive/ E-Mobility and Energy/ SAAS sector for over 15 years in different Sales/ BD and leading functions. He was running sales business in Germany, EMEA and globally for e.g. BMW, Audi AG & Enel and is now leading the sales organisation within Bayes Esports.

Dr. Susanne Ardisson, Head of Strategic Communications

Susanne has been working as a Senior PR Consultant in international companies for over 15 years - with a strong focus on technology. Among her clients were listed companies as Readly, Delivery Hero and AVG technologies.

Bayes is Led by a Team of Seasoned Tech Professionals

André Schneider, Senior Director People Operations

Andre has 17 years of professional experience in the field of People & Culture. He has gained extensive experience at international companies such as IKEA and Red Bull. He was also involved in various M&A processes. Highlight was the HR support of cross-functional teams at the Olympic Games in Sochi and Rio.
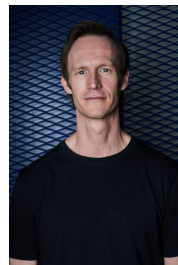
Christopher Bohlmann, Director Growth & Finance

Christopher has spent over 10 years in the investment industry, primarily within the Technology Investment Banking (TMT) team at J.P. Morgan in London and Frankfurt, and as an Investment Director for a family office. He has advised companies, startups, and high-net-worth individuals, and has now transitioned into a hybrid startup role within Bayes Esports.

Andreas Aschenberg, Director Operations

Andreas has been setting up and leading client support and operations teams in the startup world and gaming industry for more than 15 years.

He built the customer care teams at Frogster and most recently at Smartfrog from scratch.