

litepaper [ALPHA]



Asylum

entrypoint to the gaming metaverse

2022

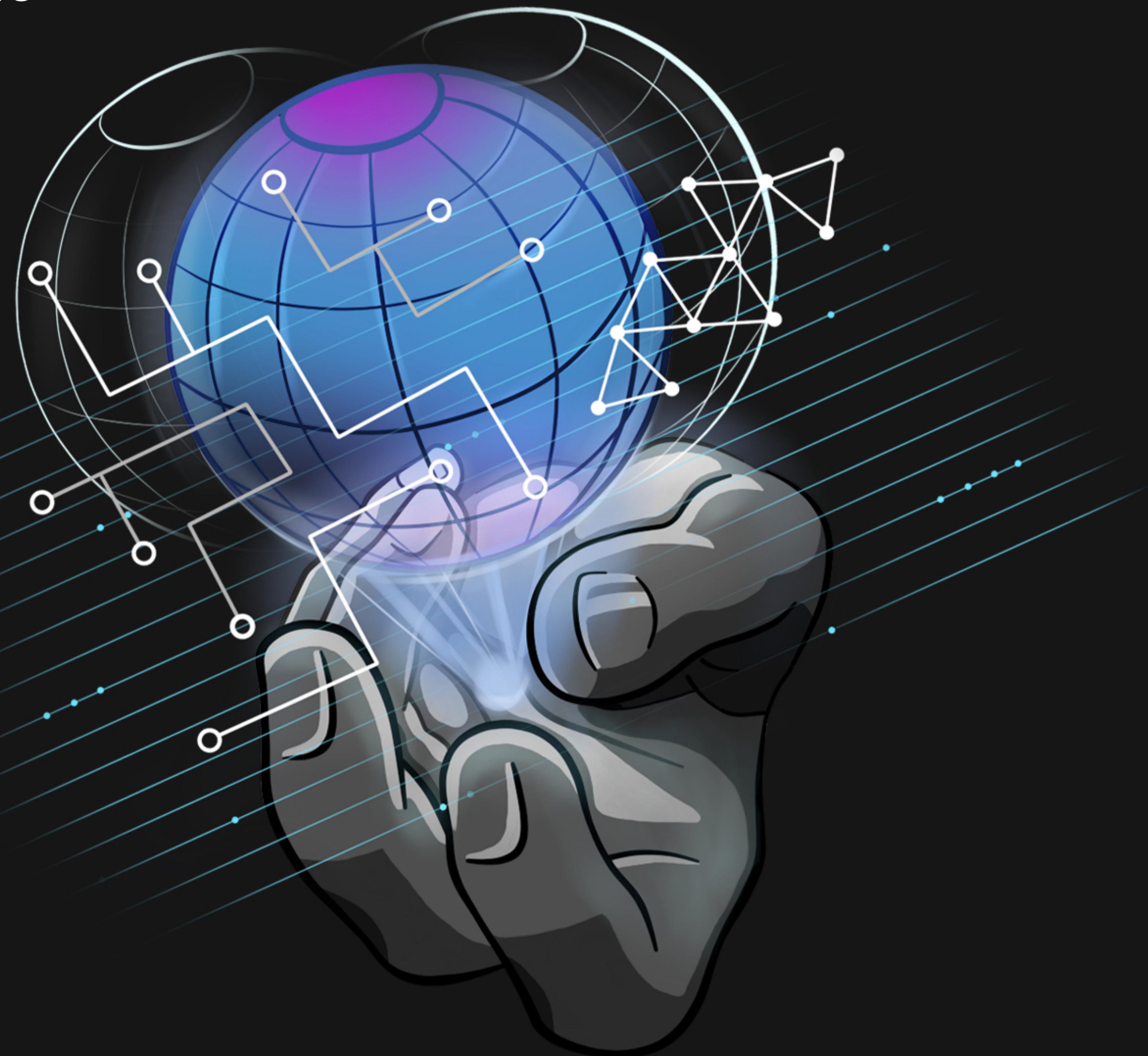
Intro

The metaverse gaming projects world has become a major blockchain industry trend in 2021 and is set to continue its growth in the next decade. Independent game developers, major game publishers, authors, artists, and gamers join the blockchain space to explore the possibilities of self-expression it provides.

We are creating Asylum to provide a platform for the next generation of gaming, **united into the single Metaverse**, where anyone has a place to play, study, work and express themselves.

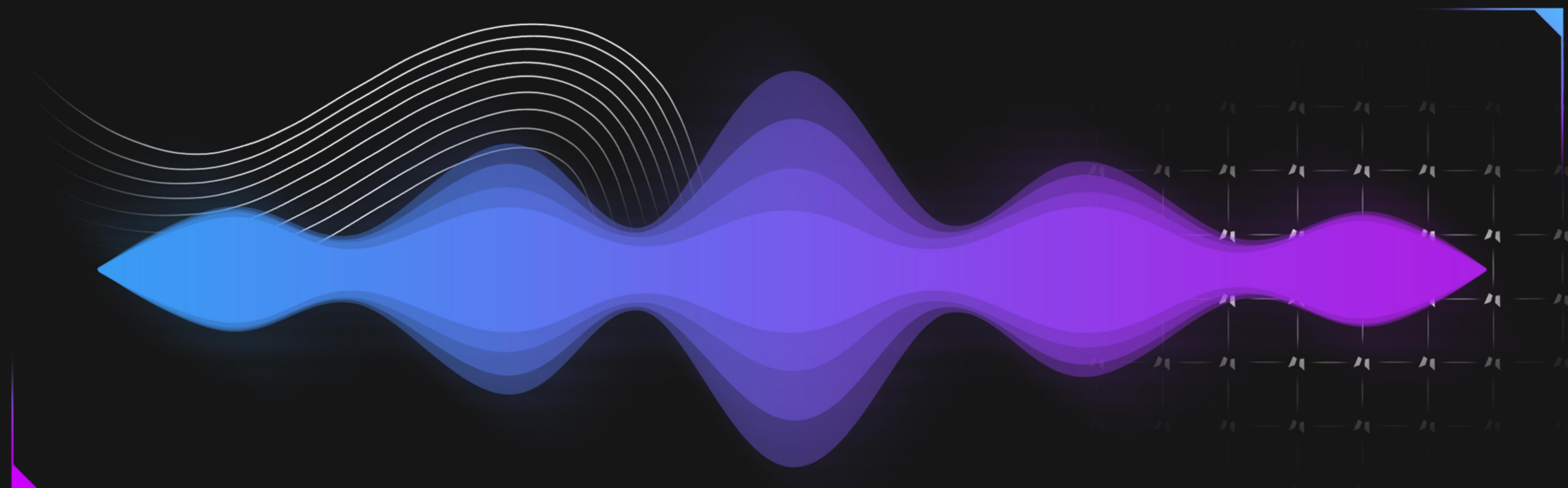
Whether you are a **Creator** or a **Player** -

we are building Asylum to empower you to become a part of the Metaverse.



Creators will be able to use their ideas and talents to build new worlds and games, monetize them, connect with (or extend) the existing games, re-use items and mechanics, and much more.

Players will open the true Metaverse, where all existing worlds, their content and characteristics are conceptually and economically interconnected. A blockchain-backed Metaverse will guarantee a transparent, fair, and permissionless economy with real ownership of all your assets.



Global problem definition

As it was said, metaverse gaming projects have become a major blockchain industry trend. There are a lot of reasons for it: gamers want more fun, content creators want more possibilities, and both of them want to monetize their efforts.

But does the current Metaverse market fit those needs?

View from the Players' side

Existing metaverse projects **enclose a Player in the borders** of its ecosystem. They are still just usual games. In the best case they look like a blockchain-based Minecraft. Gamers are excited by the idea of transitioning from the centralized backend to the real in-game assets ownership via NFTs, but these NFTs are still tightly bound to the game ecosystem and have no use-cases outside of it.

Players want to have a real metaverse - space without limits, where different worlds are connected to each other becoming a single place for limitless entertainment, so everybody will find his place in it.



View from the Creators' side

Freedom

For the Creators the **freedom of expression** is one of the main values. Whether you're a **game developer, designer or artist** - you want to build without limits and of course to make your efforts appreciative and monetized. And the Metaverse is about to become such a place.

As an example, in the current metaverse projects you can buy the land and place there something you've built. But such approach **limits a Creator** - he has to build in style of particular game, using particular tools, predefined mechanics and so on.

It's a first step, we cannot call it a creative freedom, which is expected from the true Metaverse.



Complexity

Another aspect is a complexity of development within the blockchain domain. **We are working with innovative technologies which are complicated by their own, not fully developed and quite immature**, so it is not a trivial task to create a blockchain-based game.

There is a high entry level and lack of experienced developers on the market for suitable technologies, so the creation of such games becomes too expensive.

Moreover, there is a boilerplate code that every blockchain game developer has to repeat, that can be standardized and moved outside of the game as an external solution.

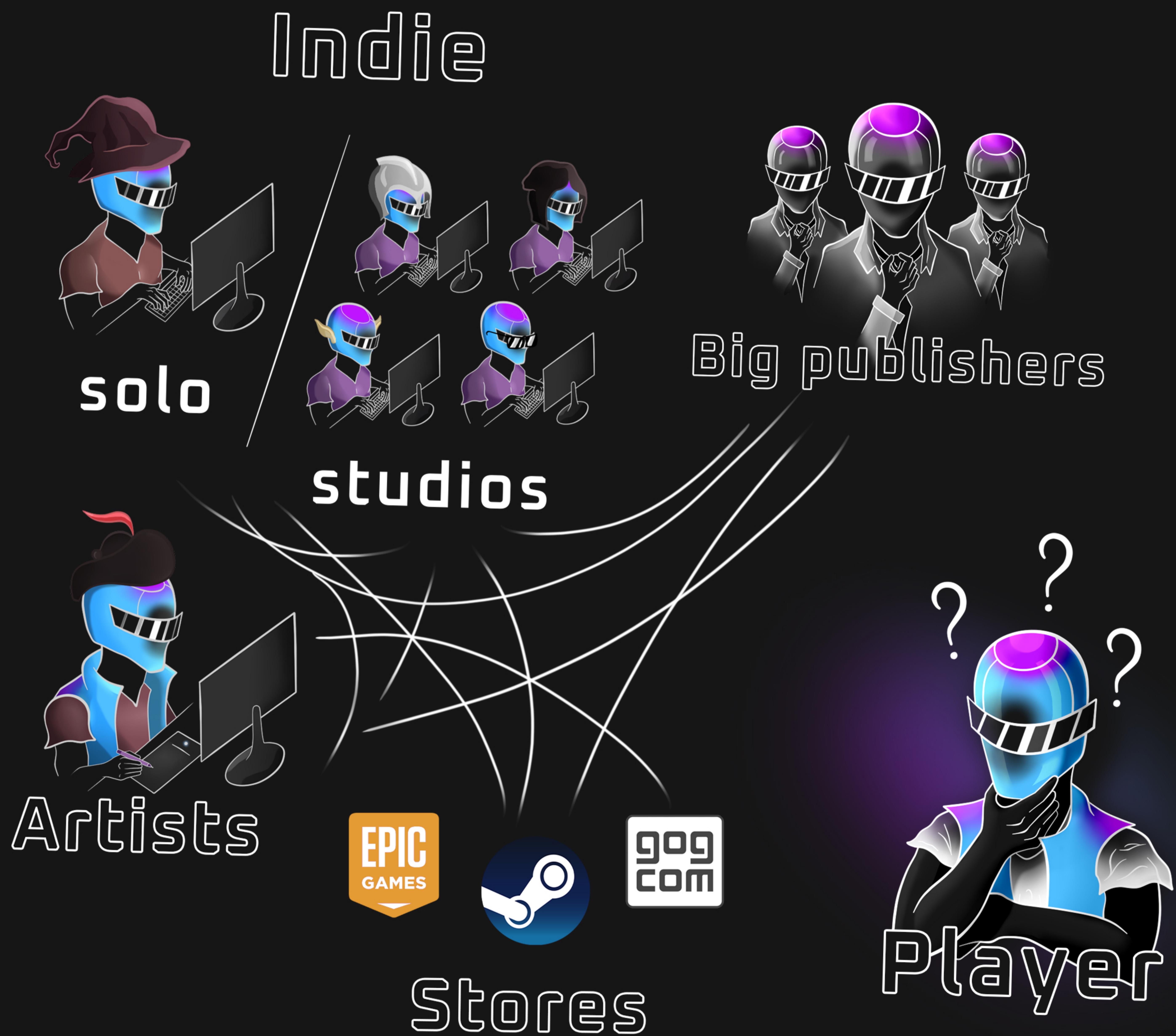
So, why do all these problems appear?

The transition to the Metaverse will be the next step for the entertainment industry.

But why are we all still not in the Metaverse if so many metaverse projects already exist?

Okay, actually, because we are trying to build the Metaverse, a completely new concept for us, using the same approaches that were used for the regular games and platforms. So it is not surprising that it has lead us to a similar structure: every project is separated from each other, has its own ecosystem, and often relies on centralized services.

But to build something new, we need to rebuild our thoughts and approaches.



True Metaverse

Definition

Metaverse - is the concept of the virtual space where a lot of people aspire to be in. Such references as "Ready Player One" give us an intuitive understanding of how the Metaverse should look like. We can picture it as a couple of main points:

FREEDOM - in the Metaverse, you can find (or build) everything you can imagine

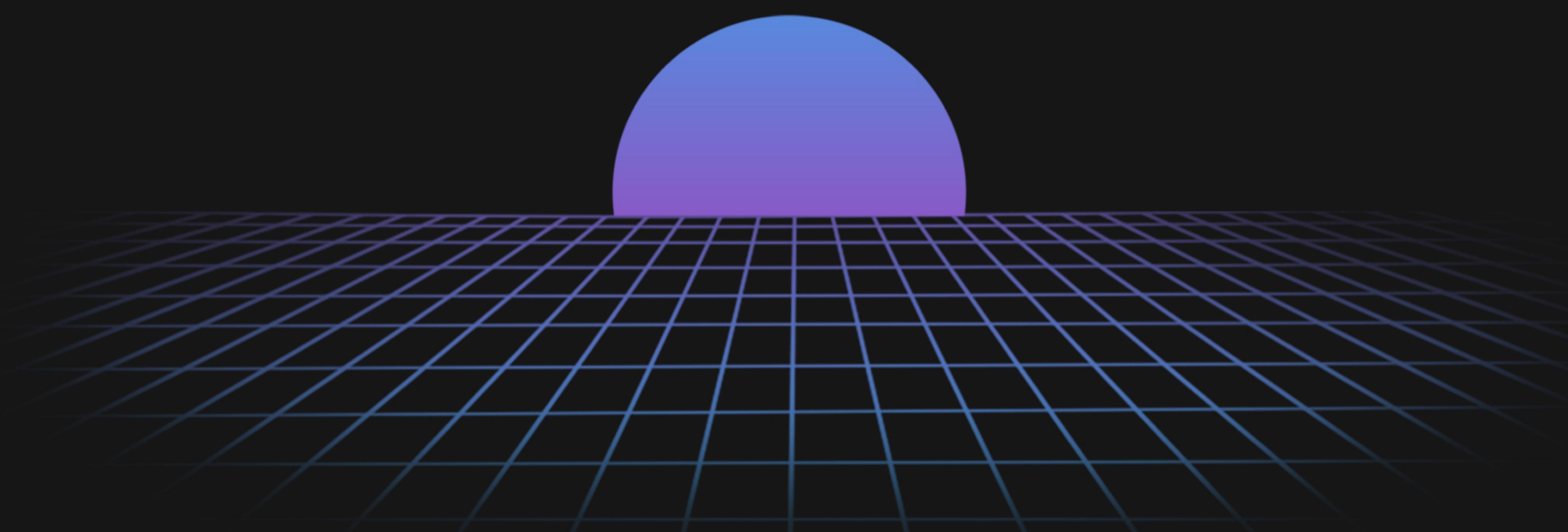
TRANSFERABILITY - things built in the Metaverse are open to all Metaverse elements (no boundaries except intentional)

FAIR and **SUSTAINABLE** - Metaverse has a working and sustainable economy (you can work in Metaverse to secure yourself in the real world)

PERMISSIONLESS - Metaverse is open to all people and become the place for the joint experience

Existing Metaverse projects are trying to satisfy these needs as end-to-end solutions, like huge sandbox-type games. The last two points most often are implemented more or less sufficiently. But with such an approach, it's almost impossible to implement the first two points.

The problem is concealed in the complexity - one closed solution can not include instruments and scenarios for everything. To achieve desired results we need a system that will **break the boundaries** to give a possibility for adding any number of new components. This is how we can create a Metaverse where only your imagination will be a limitation.



Why blockchain?

We see the blockchain as the future of the virtual economy and its benefits perfectly match the needs of the Metaverse economy. Let's consider the following points:

User always keeps his control

Unlike centralized systems, where the controlling authority has root control of users' assets and behavior, blockchain allows every user to be truly in full control. Wallet balance Metaverse profile, collection of NFTs, etc are fully controlled by user - there is no authority that can put any restrictions on the above.

Permissionless and open

All your activity on the blockchain is bonded only to your wallet address. No documents or any other verification of your real identity. And in the same time everything in the system is open - starting from the source code and up to transactions history, so you can personally verify everything in this space.

Unstoppable

Thanks to the decentralized architecture, the blockchain does not have a server which failure will lead to the failure of the whole system. Such systems are much more sustainable and share the responsibility of maintaining the system between its users - persons who have the most interest in keeping it stable.



Structure (blocks and layers)

Metaverse architecture should be highly composited and granulated to satisfy all requirements that we place on it. Let's picture it in the following terms:

Agnostic Block - the conceptual entity that is responsible for some particular scope and agnostic from other blocks. It can be a particular game, NFT standard, marketplace on-chain logic, bridge between chains, DAO logic, decentralized assets storage, etc.

Layer - a dedicated area for Blocks operating on the same level, having similar purposes and traits.

We're defining the 3 layers of the Metaverse, consisting of a set of various Blocks.

III Application layer

The responsibility of this layer is user experience and fun - **show the stunning picture, provide a convenient interface.**

It includes everything related to clients (games, apps) running within various platforms and interfaces (web browser, desktop, mobile, VR/AR).

II Protocol layer

The Interlayer between L1 and L3 is related to communication protocols, standards, concepts, and rules. It might include on-chain frameworks and client SDKs which implement these standards and protocols.

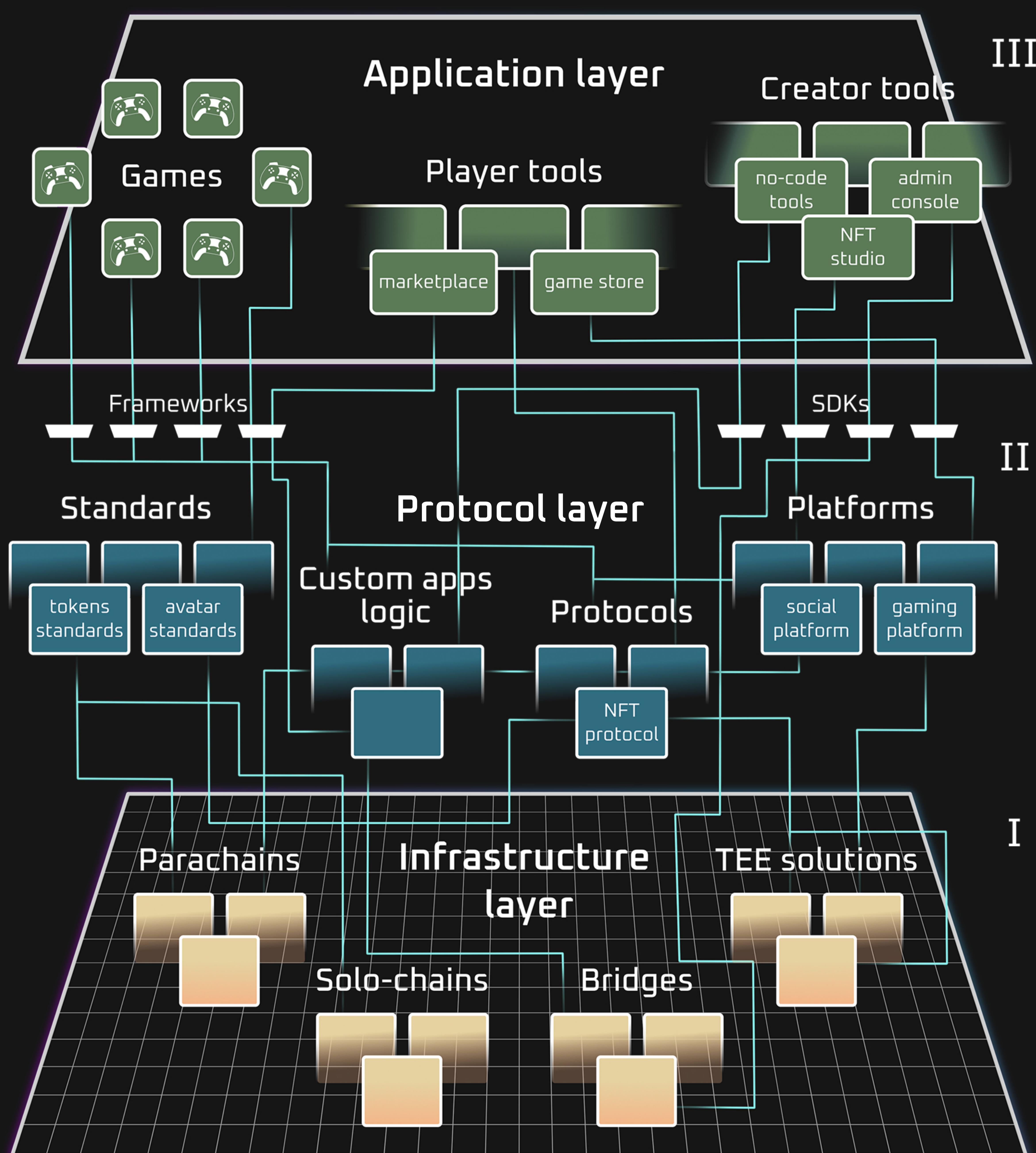
The responsibility of this layer is **interoperability**, ensuring a connection between different agnostic Blocks, and achieving a united system open for extension.

I Infrastructure layer

Responsible to provide all necessary infrastructure for the Protocol layer. Includes blockchains, bridges, decentralized storage, and blockchain-L2 solutions (e.g. sidechains, serving gaming backend).

Moreover, Blocks on this layer have to prevent single points of failure and centralized control. This layer is demanding to decentralization - the main pillar of the Metaverse.

Metaverse structure



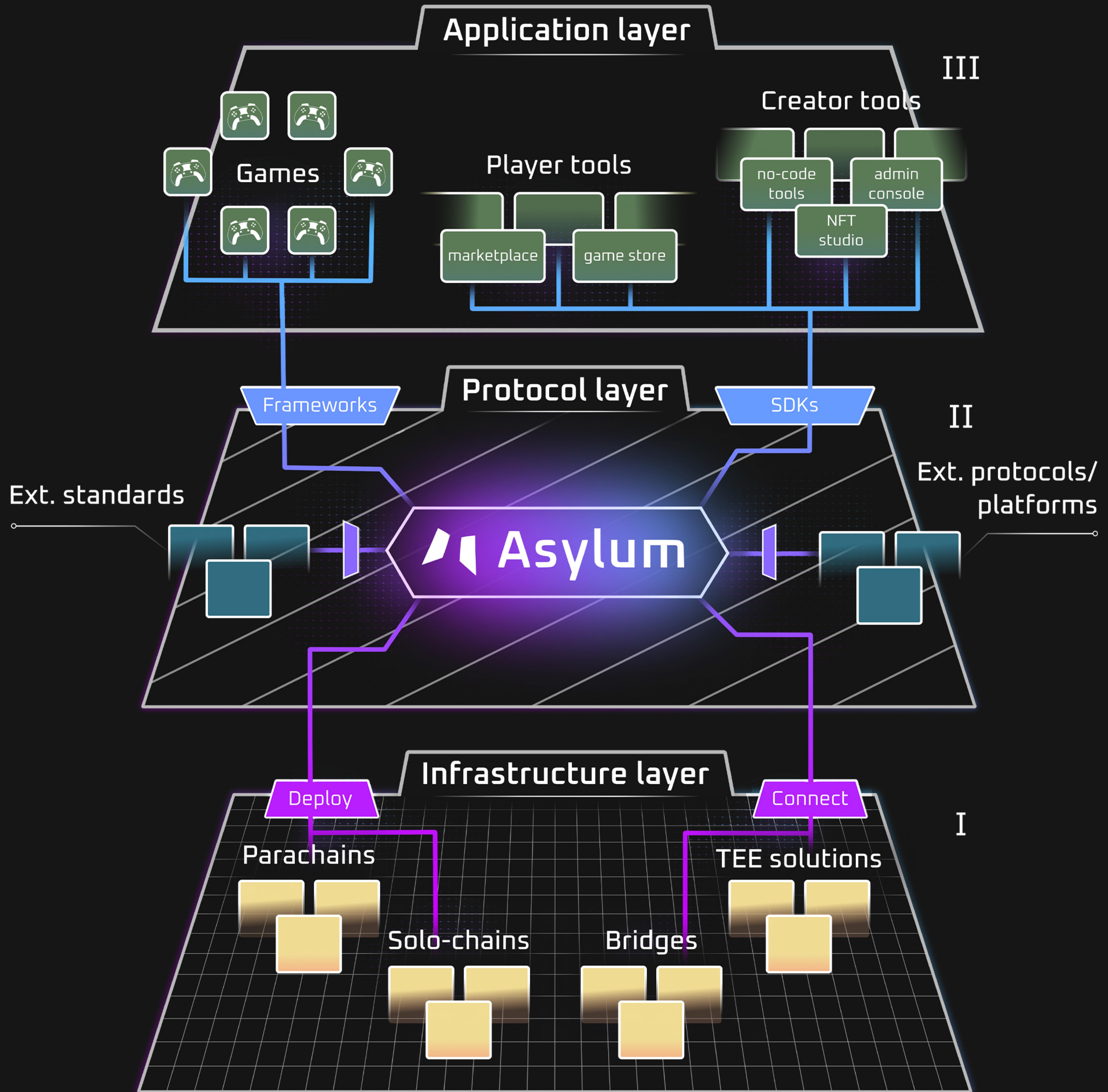
So, why do we need such separation?

Let's take as an example development of a new game. When you're using a monolith approach, building your custom solution on every layer it will be almost impossible to make it connected with other games or apps. Also, there are a lot of additional expenses, as you will definitely duplicate existing solutions.

But if you will separate your architecture into different agnostic Blocks on different Layers you will make your solution reusable.

Asylum - to unite them all

Asylum was founded to provide the basic **building Blocks** for the Metaverse. Here is our positioning in the Metaverse architecture -



Nowadays each project is building its own protocol to connect the Infrastructure layer with the Application layer (games). Such an approach makes interoperability between projects almost impossible. Asylum standards are built to **bring interoperability to the Protocol layer**.

Furthermore, Asylum builds basic Blocks on the Application layer, acting as a reference implementation of these standards and rules.

Solution components

Asylum standards

This part of the Asylum is the most important.

In the beginning, we considered Asylum as a blockchain game distribution platform but quickly realized that because of the immature ecosystem every gaming project in web3 tries to build it in its own way, which can lead to the impossibility of building interconnection between them. That is why we're starting with describing the **set of standards, rules, and definitions** that are completely **agnostic** from any tech aspects.

Initially, we are defining these three essential blocks:

In-game items standards /

In our conception **in-game item** can be represented as an NFT metadata followed by a certain standard. The main goal of the standard is to make every item independent of the concrete game. Storing various possible interpretations will give the ability to use them in different games. On the high level, it means that if two RPG games will use these standards you will be able to buy a single NFT artifact and use it in both games.



Avatar System / The same approach will be used for the player's identity – the **Avatar System**. Like the in-game items, Avatar will be compatible with different games.

Game Distribution System / The standard for the **Games Distribution System**. Using the developer's proof of ownership, and player's game access NFTs (so-called Tickets) we are creating a system similar to traditional game stores (Steam, Epic Game) but fully decentralized.

On-chain metaverse ecosystem

The standards themselves are a good first step, but they require an ecosystem to support operations with them. That's why the next component will be an on-chain ecosystem, split into a few agnostic Blocks.

Core Block implements Asylum standards: in-game item standard, Avatar System, Game Distribution System.

Economic Block consists of Marketplace and token swap protocol to unite the economy of individual games.

Gameplay Block includes solutions for repeatable gameplay patterns. This block is responsible for bringing interoperability in the context of gameplay.

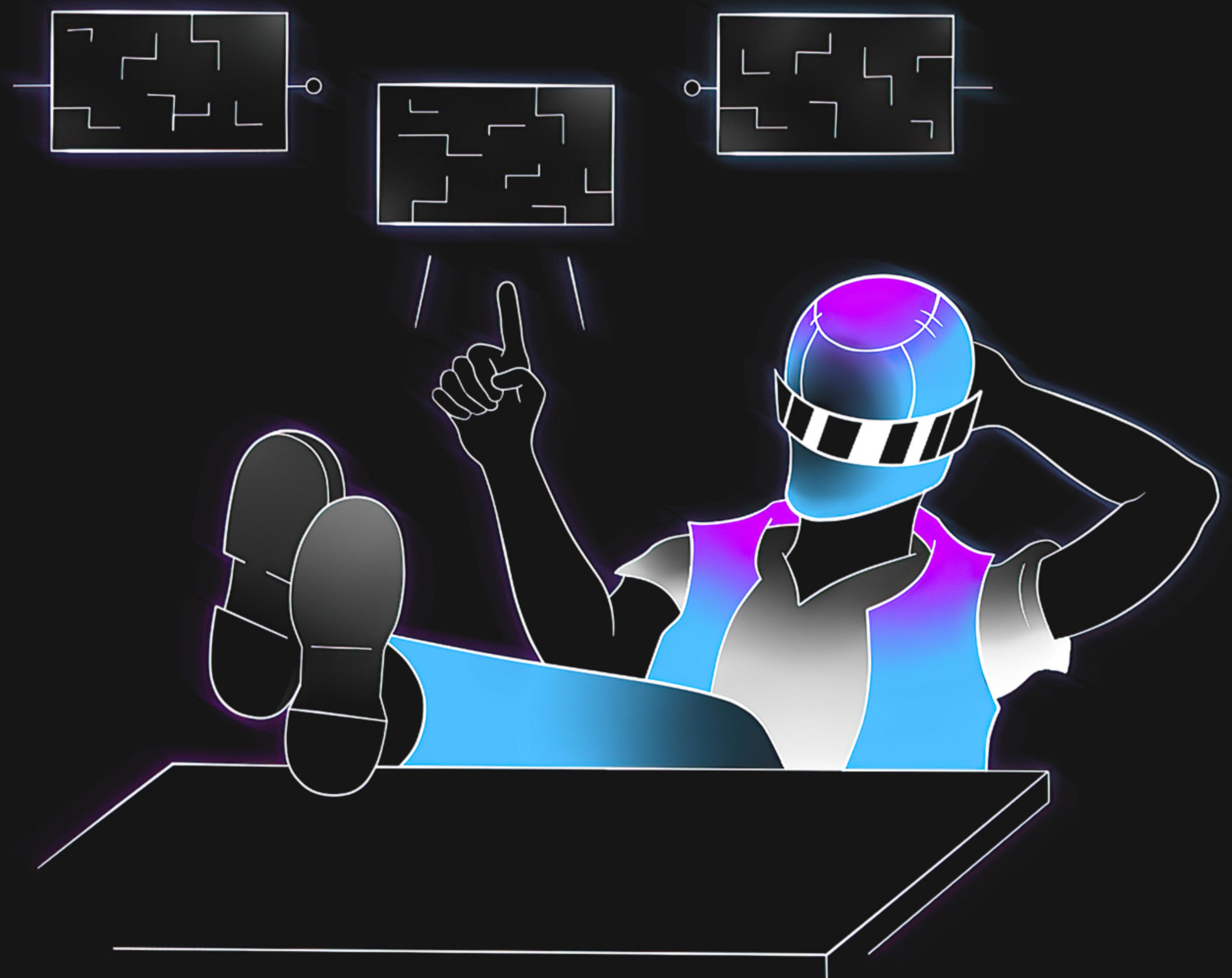
As an example, we provide on-chain infrastructure for creating custom smart-contracts between players. The possible application might be custom in-game quests.

Operating in the terms of protocols and standards Asylum ecosystem is conceived as a blockchain-agnostic solution. Such an approach gives vast flexibility to Creators fulfilling the main principles of Metaverse.

SDK for ecosystem integration

We will build an SDK that wraps ecosystem functionality into a clear interface and simplifies integration.

Initially, we will provide two possible options: SDK for game engine (Unity, UE) and agnostic JS connection library.



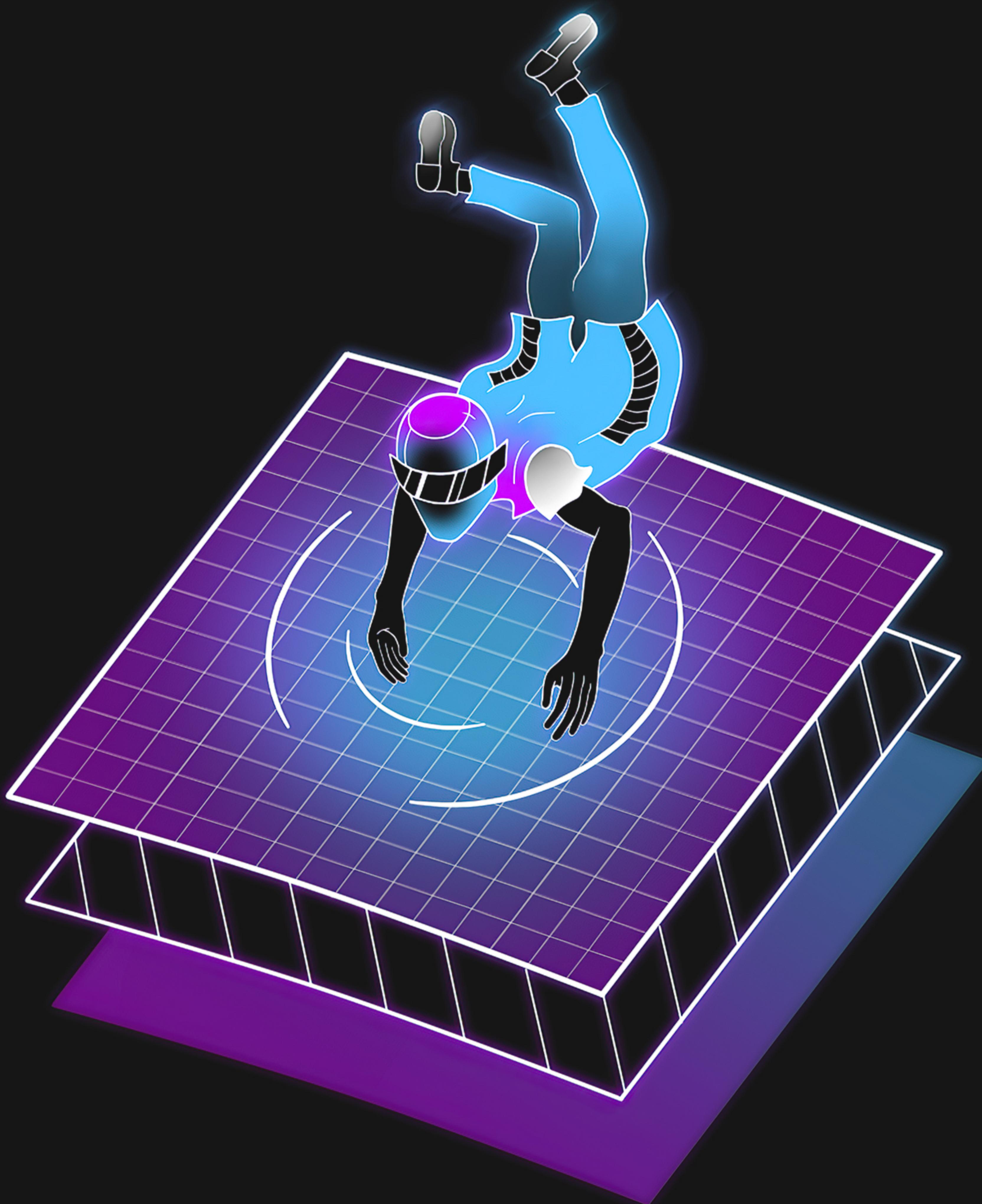
Application layer blocks

Sometimes it's easier to understand and operate with complex concepts in visual form. Asylum also takes responsibility for creating convenient interfaces on Application Layer, which, on the one hand, will help to avoid probable misuse of standards and, on the other hand, becomes the **entry point to the Metaverse**.

Creator tools / The initial tool for the Creators is "**Game Developers Console**" - a web application allowing **Creators** to set up the game in the Game Distribution System, configure in-game items and smoothly test them with different game clients.

Our vision for the future is to create granular tools for every kind of Creator in the Asylum (artists, game designers), adapting them for particular Creator needs.

Asylum App / Finally, we come to Asylum App - the main entrypoint to Metaverse for **Players**. In the Asylum App, Players will be able to browse existing games on the platform, buy them, play, manage their inventory, and use the marketplace - everything like on common gaming platforms but fully decentralized.



Economic

coming soon



Team

Asylum was founded by Illia, Maria, and a Supercolony which is a venture studio, responsible for the company building. In that role, Supercolony makes a significant contribution to Asylum's growth by taking the idea and helping to turn it into a successful product.

This is reflected in the structure of the team, where specialists from the Supercolony are also members of the Asylum team, extending the team's technical, marketing and financial expertise.

Illia Abrosimov | Founder, CEO

Illia is a developer since 2015, mostly working with game backend infrastructure (Ubisoft), but also involved in game engines and graphics. Have C#, C/C++, Rust, AWS in the stack.

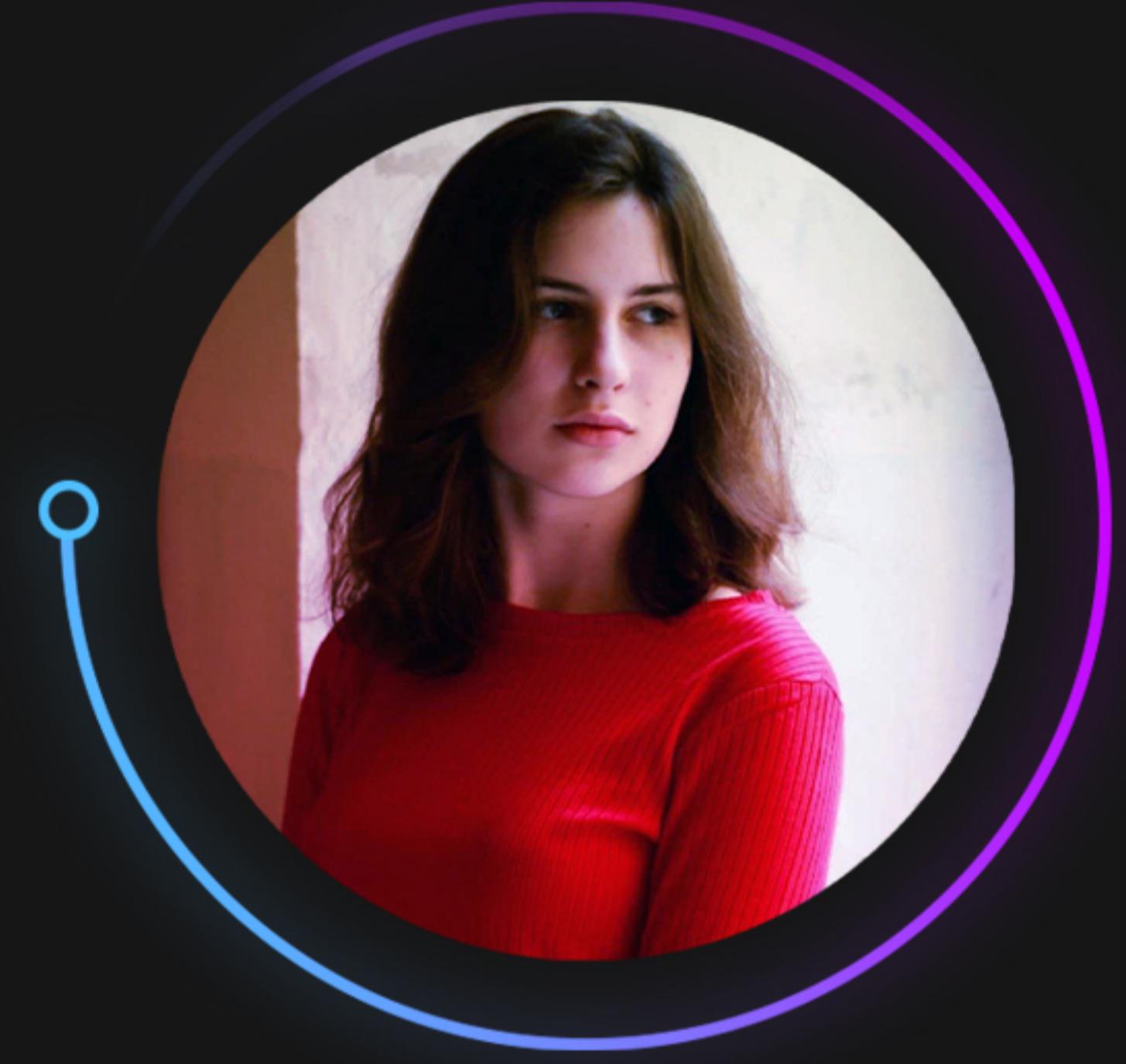
<https://www.linkedin.com/in/illia-abrosimov>



Maria Yaremenko | Co-founder, COO

Maria started working as a front-end developer. In 2019, Maria became interested in blockchain technology and transited to blockchain development in the Polkadot ecosystem. Maria has mentorship experience as a computer science tutor with a background in economics.

<https://www.linkedin.com/in/maria-yaremenko>



Supercolony | Co-founder

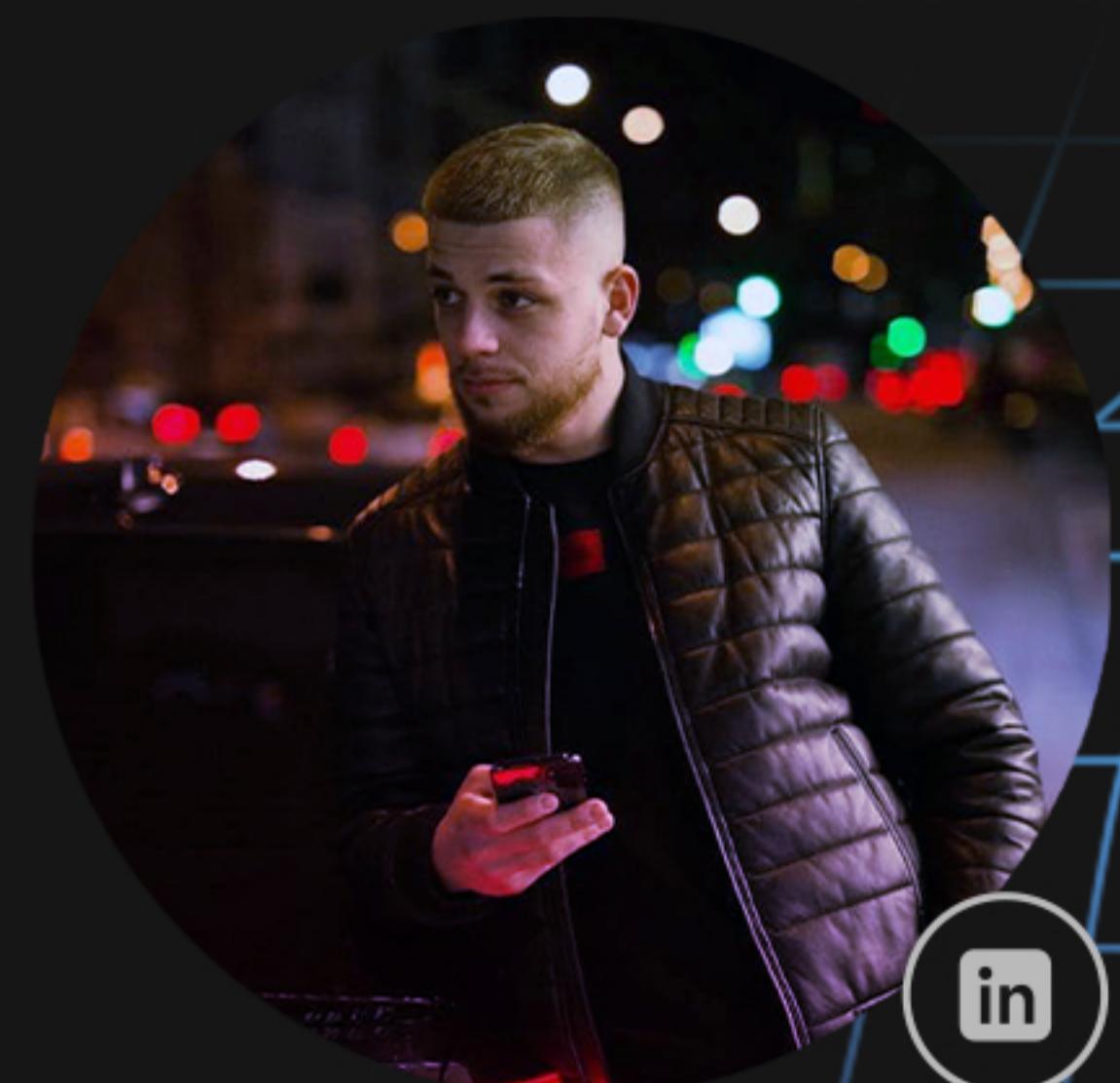
Supercolony is a venture studio, that create, fund and support Polkadot and cross-chain companies.

Supercolony believes in a free future; freedom, and innovation for the benefit of the people. It's a team of visionary founders and builders that choose to work at the edge of innovation.

At Asylum, Supercolony is responsible for company building.

<https://www.supercolony.net/>





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