holoride

ADDING THRILL TO EVERY RIDE

The blockchain-enhanced ecosystem
for immersive in-vehicle experiences

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Content

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01 Overview

holoride takes everyday journeys and transforms them into hyper-immersive experiences by combining car data, extended reality, and blockchain technology in the most intelligent way. The RIDE token will power holoride's partner network, enabling its participants to capture the value created.

References
(selection)

Audi	Ford	Mercedes-Benz	PORSCHE
Discovery	Disney	SCHELL GAMES	UNIVERSAL A COMCAST COMPANY

Awards
(selection)

TIME	TechCrunch	Aurea Award	awe	SXSW PITCH 2021 WINNER	SXSW PITCH 2021 WINNER
100 Best Inventions 2019	Best of CES 2019	Aurea Award Best Experience 2019	Best Location-Based Entertainment 2020	Winner Entertainment, Gaming & Content 2021	Best in Show 2021

Advisors
(selection)

Anthony and Joseph Russo
Directors, Marvel Avengers: Infinity War & Endgame

Palmer Luckey
Founder, Oculus VR (Facebook)

Dirk Ahlborn
Founder & Chairman, Hyperloop TT

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02 Introduction

holoride is leading a revolution that will change the mobility and media industries and their value chains forever. It is adding the contextual physical reality of the passenger to the equation and enabling the creation of an entirely new category of mass-market entertainment and media.

For the first time, holoride captures the physical movements of vehicles and their immediate environments and integrates them into fully immersive media that is being created or adapted in real-time – making the experience fully elastic. The friction between digital and physical experiences is eradicated, and transit time can finally be used in the most meaningful way, with reduced symptoms of motion sickness.

> The foundations of this revolution lie in holoride's platform for in-vehicle experiences, which connects real-time vehicle data to immersive media content and creates an ecosystem within which all contributors are fairly rewarded.

The project was initiated in 2015 within the Autonomous Driving and Digital Business units at Audi, and holoride spun out of the premium German car manufacturer in early 2019. The vision, then and now, is to develop the future of in-vehicle experiences, as an independent and manufacturer-agnostic tech venture, to make transit time count.

Seizing the opportunities offered by transparent and scalable blockchain-based systems, holoride uses a combination of proprietary IP, navigation data, and immersive media to provide an entire industry of content creators with innovative technology and a fair and decentralized platform. In contrast to traditional media, characterized by increasing monopolization, outdated compensation models, and a lack of innovation, holoride's business model allows all parties to fairly participate in this burgeoning mass market.

In a world where individual mobility and media consumption are growing in parallel, and growing closer together, the car is the next growth area for the media industry. By connecting vehicle data to immersive content and by integrating automotive data and a unitary marketplace for the entertainment industry, holoride opens up this market for an entire ecosystem of consumers, car manufacturers, mobility service providers, content creators, and all other parties that can collaboratively create a flourishing new in-vehicle hyper-reality. This multi-faceted and transparent platform becomes an entirely new market in itself.

03 Technology

holoride not only positions itself as a technological driver of innovation in the automotive and entertainment industries, but its platform brings together today's most cutting-edge technologies, uniting and connecting them to a core infrastructure for the next generation of in-car experiences.

With its portfolio of 75 exclusive patents and patent applications in the field of in-vehicle extended reality (XR), holoride GmbH, Germany, has built the technological foundations for a unique market position. Additionally, its projects with leading car manufacturers like Audi, Porsche, Mercedes-Benz, and Ford, and with content creators like Discovery Channel, Disney, and Universal Pictures, enabled holoride to make its first installments available to the public at the highest quality thresholds. holoride is positioned to advance its technology in close alignment with consumers and the needs of the most critical industry players from the very beginning.

To enable its motion- and location-aware experiences, holoride has developed a tech stack consisting of the following components:

holoride App

Application that runs on the personal XR device of passengers (e.g., VR headset, tablet, etc.). It connects the car with the vehicle localization software and content.

Vehicle Localization

Real-time synchronization of the car's motion, location, and route with the experience, its autonomous driving software modified for media use cases.

Elastic SDK

A toolset to design, test, and deliver holoride experiences with existing game engines, developed in close collaboration with leading games studios.

holoride Platform

Connecting car manufacturers with content creators and passengers, providing the necessary web services, tutorials, and documentation.

holoride now enhances its platform and content offering with **blockchain** technology, to ensure the integrity and **transparency** of usage data (e.g., for a fair usage-time-based compensation model for all ecosystem partners), increased **security** (e.g., to comply with automotive standards), and improved **experience** quality (e.g., personalization, rewards, etc.).

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04 Ecosystem

HOLORIDE APP & EXPERIENCES
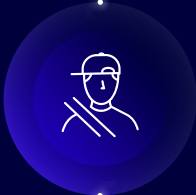Installed on personal
XR devices of passengers

VEHICLE LOCALIZATION
Real-time synchronization
of the car's motion, location,
and route with the experience

ELASTIC SDK
A toolset to design
holoride experiences within
existing game engines

CAR
MANUFACTURERS

PASSENGERS

CONTENT
CREATORS

SECURITY

EXPERIENCE

TRANSPARENCY

HOLORIDE PLATFORM
Enhanced by blockchain technology
Connecting car manufacturers and content
creators with passengers

05 Product

Enter the world of holoride

The enormous potential of holoride's proprietary technology lies in its vast range of applications: while it can serve as an enabler technology for different areas like attractions (e.g., theme parks) and experiential marketing (e.g., events), holoride intends to focus strongly on the transportation segment – especially on private passenger cars and "Transportation as a Service" (TaaS) offerings like Uber, Lyft, and DiDi. By enabling passenger cars for its new type of immersive Elastic Content, holoride taps into a huge market opportunity that will continue to grow with the rise of autonomous vehicles.

holoride's Elastic SDK offers content creators endless possibilities to create groundbreaking in-car experiences and applications. Initially focusing on the highly attractive **entertainment** market to offer unparalleled in-car gaming experiences and video streaming, the developer community might quickly expand holoride offerings into fields like **education,** including travel and tourism (e.g., interactive learning and exploring), **productivity** (e.g., comfortably working while on the go), **well-being** (e.g., relaxing experiences to unplug), or **marketing** (e.g., brand experiences and product promotion).

Besides the opportunity to license its technology to popular XR applications (e.g., BigScreen VR, RecRoom, etc.) to help them enter the mobility space (e.g., by providing them with a "holoride mode" that enables their applications for in-vehicle usage), holoride will initially be acting as a publisher in its own

right and plans to sell different types of content subscription packages ("passes") to users. The simplicity of subscription pricing will allow for easy access to the holoride world. For example, while a "watch pass" may enable you to enjoy your favorite streaming service – embedded in a motion-synchronized environment – a "play pass" might give users access to fully immersive, motion- and location-synchronized games and interactive experiences. However, to encourage trials and attract users, a "Free-to-Experience" entry offering is very likely.

The distribution of such "passes" can be direct-to-consumer (e.g., via a device store or the holoride website and app), part of a product bundle (e.g., sold with a personal device, application, or vehicle), or simply bookable on demand (e.g., offer an experience as an upgrade to a transportation service offering).

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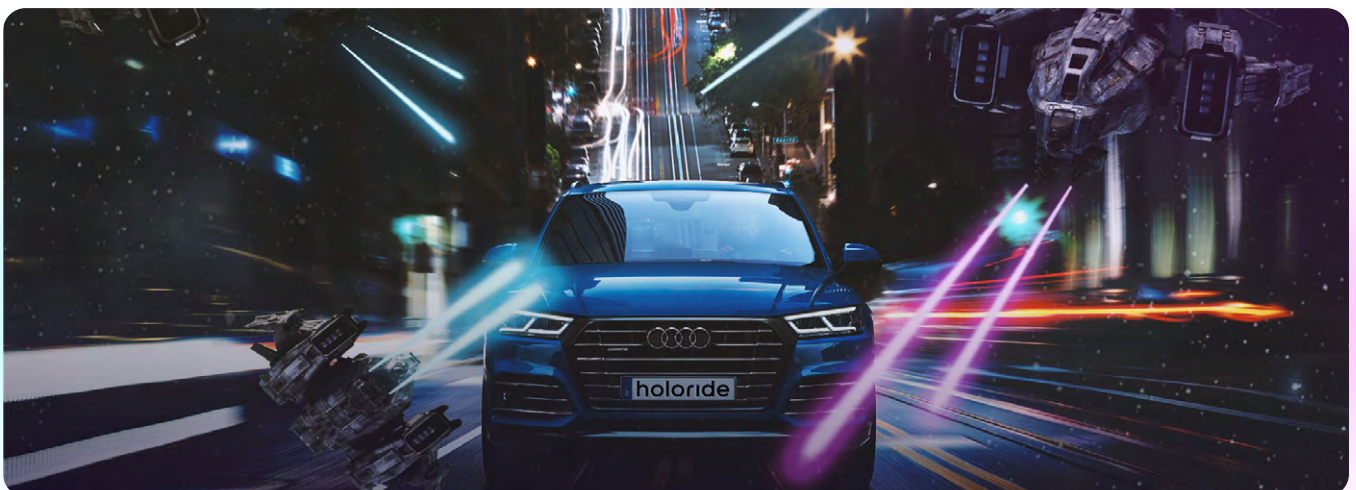
Individualization and ownership

A standard practice in the gaming industry is in-game purchases – personal upgrades or individualization offerings in the form of digital items. As players get more involved, these purchases generate additional revenue. In addition, unique in-game currencies are often created for these purchases to add value through enhanced functionalities, enable a universally and globally accepted in-game payment standard, or enable special discounts if players pre-purchase a specific credit – just to name a few.

holoride will emphasize similar mechanics in its experience ecosystem – by creating its own social currency. Social currencies are feature currencies that aim to foster a specific behavior of incentivizing virality, social interaction, and connectivity inside the experience. First, bringing new users via those who are already on the platform and, second, incentivizing interaction and connection between users that are already on the platform, to boost their engagement and retention (network effect).

To further boost the experience quality, holoride will allow for personalized avatars, vehicles, tools, skins, trophies, and more. For this, holoride will be utilizing non-fungible tokens (NFTs). While fungible items are anything that can substitute another item of the same category, NFTs are blockchain-based tokens that represent unique or rare digital assets. Thus, NFTs can enable users to truly own in-experience items and transfer their assets from one experience to another. In addition, users can sell their in-experience NFTs in holoride marketplaces (and potentially in the future also on third-party, external marketplaces).

Apart from revolutionizing in-experience ownership, NFTs will help holoride create a single digital identity for all its experiences. This means that they may enable users to move their skins, experience levels, and other in-game items across experiences (a.k.a. the holoverse), thus creating a more unified holoride passenger experience. As a result, on top of access to the (interactive) holoride content library (games, experiences), subscribers may receive access to additional features:

A **store**, allowing the purchase of the subscription and in-experience items, including limited NFT editions.

A customizable holoride **garage** or **cockpit**, allowing users to arrange and view the items they have collected.

A collectible **bulletin board**, powering the in-platform buying and selling of NFTs.

An NFT **auction hall**, where users can purchase or bid on exclusive limited NFTs for their favorite content.

The holoride platform is built to nudge end users toward a usage loop that encourages utilization of all its features. While holoride intends to keep users engaged in as many features as possible, participation in the RIDE and NFT ecosystems (see chapter 7) is entirely optional.

Driving change

holoride plans to establish a "Ride-to-Play-to-Earn"-cycle that incentivizes users' engagement with holoride experiences. To foster the transition to sustainable transportation, a ride in an electric car or the use of ride-sharing services can earn users extra benefits.

RIDE

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EARN

PLAY
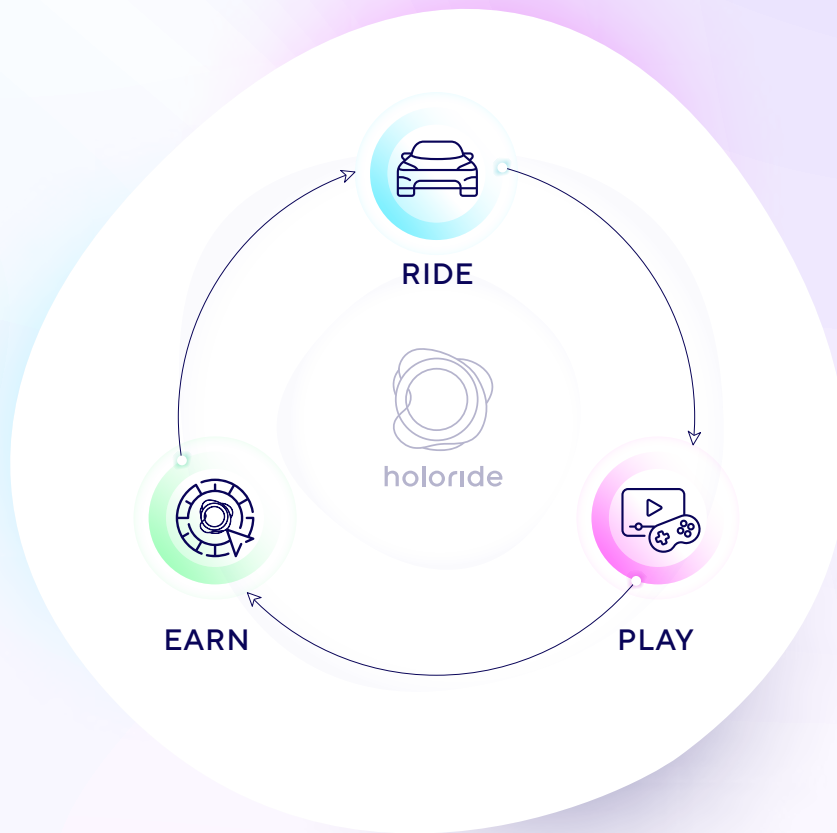
06 Economy

The holoride content and data economy is designed to create a sustainable environment that incentivizes the creation and consumption of in-car content, while also allowing the resulting metadata to be monetized.

Participants

Passengers will benefit from a radically new and immersive in-car experience. With the implementation of blockchain and NFTs, users of the holoride platform can customize their experience and trade items they have earned or bought on their rides. Furthermore, thanks to a user-friendly interface, they will not need to know that they are interacting with blockchain technology.

Content creators and media companies are empowered by holoride's Elastic SDK to quickly develop motion- and location-aware content for moving vehicles – eliminating tech and business complexity and providing the necessary commercial scale. Besides benefiting from new creative opportunities, they can reach a captive audience via the powerful automotive distribution channel. Thanks to the blockchain protocol, they can rely on a fair revenue-sharing model, which rewards their work based on passengers' engagement time and activities. Furthermore, they continue earning with each trade of digital items (NFTs) they have created. Moreover, content creators can gather support from their fanbase, who might stake tokens in return for creator-specific rewards such as NFTs, movie tickets, access to events, subscriptions to off-platform content, and so on.

Car manufacturers and mobility companies can enable the car for a broad spectrum of media use cases to delight their customers with a first-of-its-kind in-car experience. Extending the in-car experience to personal devices can monetize existing vehicle data and passengers' time. Since holoride simply adapts to the existing architecture and vehicle data, the implementation is fast and cost-efficient. Besides keeping control over the vehicles' data, car manufacturers will benefit from a transparent and immutable usage-based compensation that a blockchain-based protocol enables. Furthermore, car manufacturers can unlock new digital business models by using NFTs to sell virtual twins of real-life cars (e.g., re-using CGI data from car configurators), digital aftermarket items, or individualization offerings.

Extended Reality (XR) platforms will benefit from holoride enabling their devices (e.g., XR headsets) for in-car use – unlocking new use cases with a highly captive audience outside the home, business, and location-based entertainment segment.

Brands will indirectly monetize their products via product placements integrated with holoride experiences. In addition, they will be able to purchase metadata generated by holoride users, to target their audience in a more engaging manner.

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Business Model

The monthly revenue generated by a holoride subscription will be fairly distributed among the value-creating parties. The largest share will be dedicated to content creators as it is their work that brings the ecosystem to life. Car manufacturers will be compensated for providing real-time vehicle data to fuel holoride's applications, or TaaS providers for upselling via their booking applications. The remaining amounts will flow to holoride and additional ecosystem partners (e.g., XR device stores).

What differentiates holoride's revenue share model from other existing media platforms is a **usage-time-based compensation** model for its contributors. The utilization of blockchain technology with its immutable, transparent data storage heavily emphasizes the idea of this fair and creator-centric approach. Furthermore, the **tokenization of holoride's in-experience business** unlocks and accelerates additional revenue streams for all participants in the ecosystem.

For example, NFT trades could trigger a 5% transaction fee. The fee would then be split between holoride, the initial creator of the NFT, the XR app stores, and the car manufacturer in which the NFT was earned (if applicable). Proceeds from direct NFT sales could be taxed with a 15% transaction fee for holoride, with the rest of the proceeds going directly to the content creator. Furthermore, holoride will encourage the development of other ecosystem dApps that use RIDE or NFTs (e.g., marketplace, loyalty points, access to events with tokens, etc.) to increase the reach of its ecosystem and allow developers to come up with value-adding services.

holoride collects and stores immutable **data** that is currently not being collected and aggregated by an independent third party. Access to this data is valuable for car manufacturers (e.g., freely access holoride data that relates to their vehicles) and potentially for other third parties (e.g., access aggregate data to subscribe to all vehicle data collected). This data is generated by the holoride ecosystem, so its token will grant access and ensure that the value created is captured by its participants. holoride seeks to enable interested parties access via its token to these anonymized datasets, all of which adhere to the highest European General Data Protection Regulation (GDPR) standards.
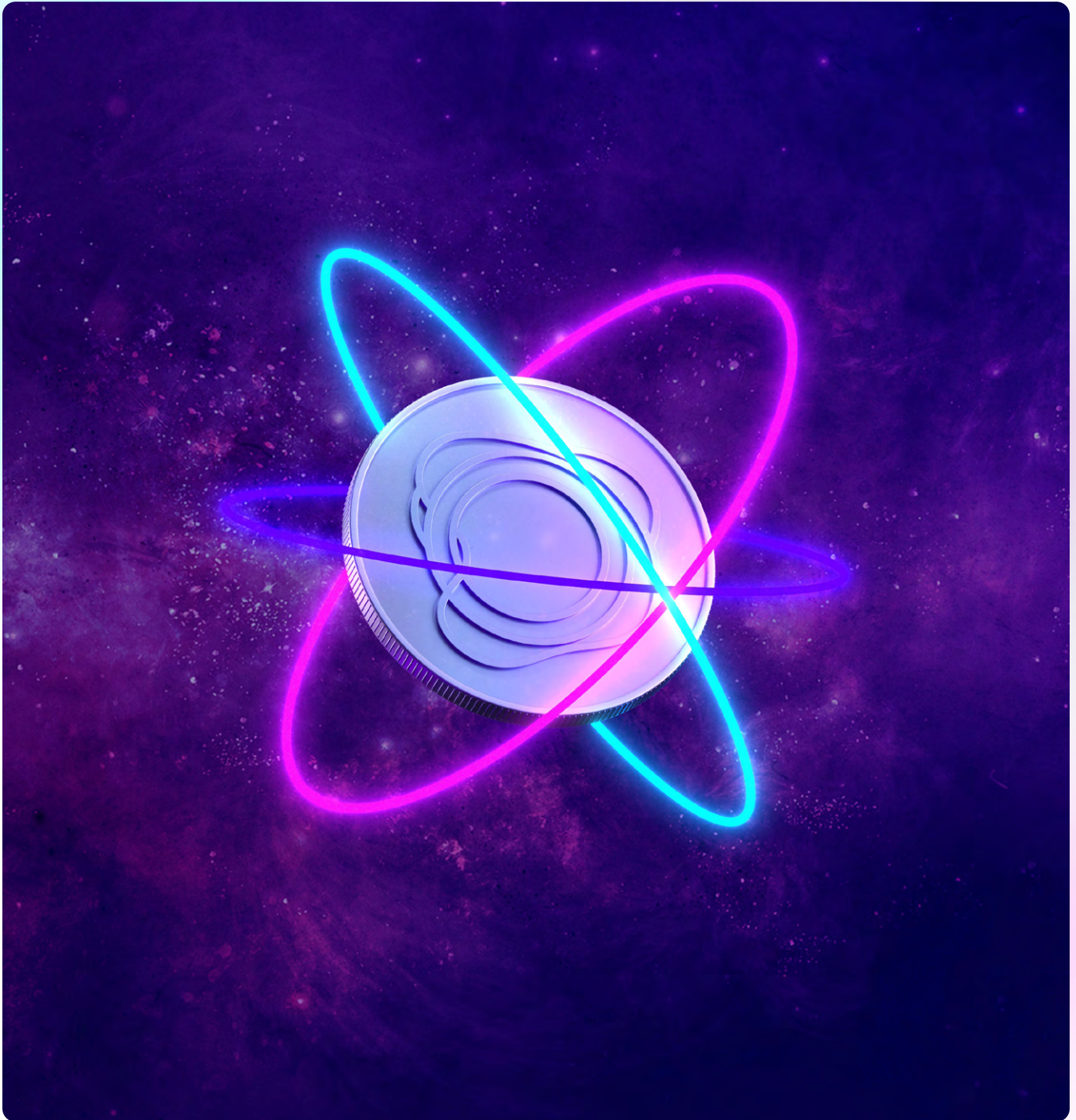
07 Token

holoride's token, RIDE, is being built on top of the proprietary core technology provided by holoride GmbH. The RIDE token is issued by holoride AG, Liechtenstein, and will supercharge holoride's in-experience economy by creating sustainable engagement value for passengers. Furthermore, the RIDE token will power holoride's partner network, enabling its participants to capture the value created.

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The RIDE token will be essential for building a vibrant and sustainable economy for the holoride ecosystem, connecting car manufacturers, content creators, brands, and passengers and enabling them to capture value along the way.

Utility

RIDE token use cases will be constantly expanded over the coming years. Here are some of its initial functionalities:

Ecosystem governance: RIDE token holders will be able to participate in the governance of the holoride platform and make important decisions about its feature development and content portfolio.

Community benefits: User subscriptions, digital items, upgrades, and brand placements will be purchasable in RIDE tokens with a discount from their Fiat[1] price. Moreover, RIDE token holders will be able to participate in special events and will be granted early access to content and rare collectibles.

Create, sell, and buy in-experience items: The holoride marketplace will enable users and content creators to mint unique NFTs based on their experiences in exchange for RIDE tokens. The resulting NFTs can then be bought and sold using RIDE.

Partner royalties: Content creators and car manufacturers may receive RIDE as part of user engagement with NFTs via transaction fees on the bulletin board (e.g., 5%, split equally between the original content creator, the car manufacturer the NFT was minted on, and holoride) or via direct sales of NFTs. holoride will ensure that balances can also be settled by burning RIDE and paying out the partners with Fiat currency.

Grant program: A certain percentage of holoride's revenue, Fiat purchases, smart contract royalties, etc., will be used each month to purchase RIDE tokens from the open market to deposit them in the holoride treasury to fund the sustainable development of the ecosystem via grants and other incentives.
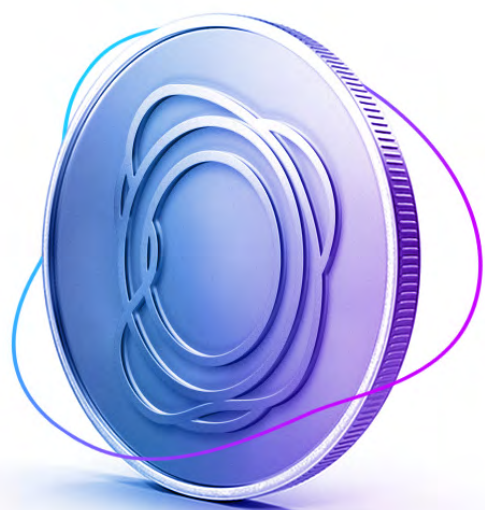
[1] Government-issued currency (e.g., USD, EUR, etc.)

08 Elrond

Network

To achieve this ambitious vision, the holoride RIDE token and the content economy will be implemented using the Elrond blockchain. Elrond is a technology ecosystem for the new internet. Its foundational layer is the Elrond internet-scale blockchain, a smart contracts execution platform ready to be integrated into any enterprise technology stack.

We have selected it for a few important reasons:

Security

Protected by $2.5bn+[1] in staked assets

Speed

15,000 tps with 6s latency

Costs

$0.001 per transaction

Ease-of-use

Standard toolkit usable by any programmer

Carbon-negative

Offsets more CO_2 than accountable for

User Experience

Internet-like interface, allowing for accessibility and mass adoption

[1] As of: October 2021

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ESDT[2] Token & NFTs

Typical blockchain implementations require a special smart contract to be created for each token, regardless if it is a regular (fungible) token or a unique (non-fungible) token.

The Elrond protocol integrates the smart contract component of tokens directly into the protocol. As a result, token creation and transferring on the Elrond network is fast and inexpensive.

Furthermore, tokens are directly attached to the accounts they belong to instead of residing in a third-party smart contract. This has powerful legal and psychological implications regarding ownership.

Another important innovation is the ability of an NFT creator, such as a production company or content creator, to continue receiving royalties for their creation each time it is resold. holoride token holders will add further utility to their holdings by leveraging their value on the open market, using the Elrond DeFi 2.0 module.

[2] Elrond Standard Digital Token – implemented directly into the Elrond protocol

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09 Roadmap

Q3 2021

C++ API Elrond SDK
(Made by Elrond) ✅

Q4 2021

RIDE Token Sale
and Token
Generation Event

Q1 2022

Infrastructure Planning	Software Integration Architecture

Q2 2022

PoC with Elrond Techstack	Blockchain Integration in holoride App	Blockchain Integration in Elastic SDK

Q3 2022

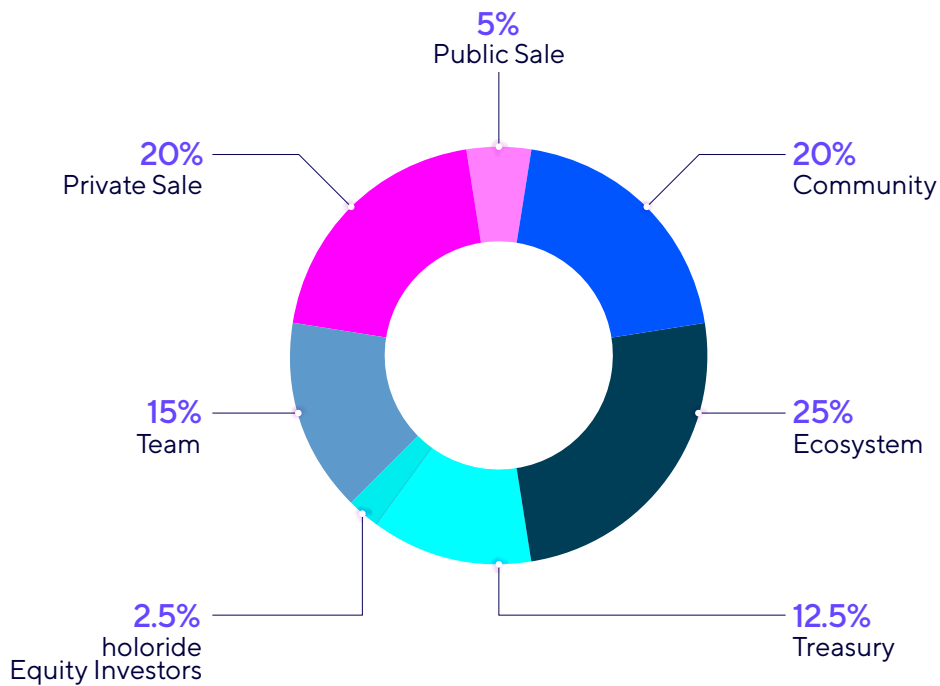| NFT Test Integration into holoride Experiences	Testing of Playtime-based Features with OEMs and holoride	Security Audits

Q4 2022

Product Launch

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10 Token Sale

In fall 2021, holoride will generate its RIDE token. A maximum of **1 billion tokens** will be created. RIDE will run natively on the Elrond blockchain and functions as a utility token.

Token distribution
(based on maximum supply)

5%
Public Sale

20%
Community

20%
Private Sale

25%
Ecosystem

15%
Team

12.5%
Treasury

2.5%
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Equity Investors

In a **Private Sale,** holoride plans to issue and sell up to **200 million tokens** (20%) to financial and strategic investors, particularly from the mobility, media, XR tech, and blockchain/crypto space.

In a **Public Sale,** which is yet to be approved and scheduled, holoride plans to issue and sell an additional **50 million tokens** (5%) to its fans, supporters, and believers.

The **Ecosystem** allocation (25%) is dedicated to the holoride ecosystem supporters, key partnerships, and growth opportunities – in particular developers, content creators, automotive manufacturers, mobility providers, operational supporters, or advisors and ambassadors.

The **Community** allocation (20%) is for early contributors from the blockchain/crypto community, including beta users, technical audits, code reviews,

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network stability, voting rewards, and liquidity. In other words, it is dedicated to helping holoride's experience/content offering become a decentralized, autonomous layer on top of its proprietary tech stack.

The **Treasury** allocation (15%) is a reserve to cover unexpected topics that might come up. Part of holoride's treasury is a contained allocation for holoride equity investors (a total of 2.5%) – pro rata to their equity shareholding in holoride GmbH.

The **Team** allocation (15%) ensures participation and influence for holoride's key partners in its blockchain- and NFT-based ecosystem. Furthermore, it incentivizes existing and future holoride team members by rewarding them for their dedication and perseverance to break new ground and deliver on holoride's grand vision.

Price

Investor Category	Purchase Price (1 RIDE token)	Raise Cap	Lock Period (months post TGE[3])	Vesting Period
Private (20%)	$0.02	$4,000,000	–	18 months (quarterly release)
Public (5%)	$0.04	$2,000,000	–	–

[3] TGE = Token Generation Event

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Unlock & Vesting Schedule

With its grand vision to make transit time count, holoride is playing an infinite game. Consequently, the lock periods and vesting schedules reflect long-term commitments and sustainable value creation for all partners involved in holoride's ecosystem. The vesting periods ensure aligned network economics and a close alignment with holoride's preliminary product launch schedule.

Token	Lock Period (months post TGE)	Vesting Period	Remarks
Public Sale	–	–	–
Private Sale	–	18 months (quarterly release)	5% at Token Generation Event (TGE) Five quarterly releases of 15% between months 3 and 15 20% in month 18
Advisors & Ambassadors (part of ecosystem & community allocations)	6 months	30 months (quarterly release)	Eight quarterly releases of 10% between months 6 and 27 20% in month 30
Team	12 months	36 months (quarterly release)	Eight quarterly releases of 10% between months 12 and 33 20% in month 36
holoride Equity Investors	12 months	36 months (quarterly release)	Eight quarterly releases of 10% between months 12 and 33 20% in month 36

11 Use of Funds

After deducting any applicable tax payments, setup costs, and fees, the following use of the private and public sale funds, by all holoride group companies, is envisioned for the 12–18 months after the Token Generation Event:

Approximately **70%**, the majority of the funds, is intended to be invested in **Content Creation** for the holoride platform, including team recruiting, work for hire, grants for indie studios, creatives, and artists – as well as licensing of beloved and well-known content IP from major (gaming) studios.

Approximately **12.5%** of the funds is intended to be used for **Development** to build the holoride platform and perform blockchain-related upgrades to the holoride tech stack, including team recruiting, infrastructure, and development grants.

Approximately **10%** of the funds is intended to be used for content-related **Marketing** activities – including continuous promotion and education of the holoride service. It will be used for various activities (ads, events, promotions, etc.) to help holoride become popular among passengers and attract active users to the platform.

Approximately **7.5%** of the funds will be kept in reserve for **Legal and Security Audits** or to cope with unexpected and administrative topics that might come up.

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12 Team

As of October 2021, the holoride team consists of more than 30 full-time employees (and growing) from 10 different nationalities. Previous employers include **Audi, Amazon, Apple, BMW, Byton, NIO**, and **XING**. The founding team consists of the following individuals:

Nils Wollny

CEO
& co-founder

Served as Managing Director of one of Europe's leading market listed digital agencies and Head of Digital Business at Audi. Nils was named "Rising Star 2020" by Automotive News Europe. Initiated holoride's blockchain endeavors.

Daniel Profendiner

Director Advanced Development
& co-founder

More than nine years of experience in programming and concept development for piloted driving and virtual technologies. Developer of algorithms for self driving cars and former Lead for Immersive Technologies at Audi.

Marcus Kühne

Director Intellectual Property
& co-founder

More than 18 years of experience in product marketing, development, and strategy at Audi. Marcus filed over 200 patents for infotainment and immersive tech applications. Founder of one of Germany's biggest VR communities.

13 Outlook

Traveling the metaverse

As holoride embarks on this exciting phase of its journey, it does so with the intention of not just disrupting and reimagining an existing category of in-car entertainment but creating an entirely new one.

A foundation has been established on incredibly innovative thinking that sits at the nexus of a range of cutting-edge technologies. The market is expected to take off with the ongoing expansion of ride-hailing services, private passenger cars with more advanced driving assistance systems, and autonomous vehicles.

The combination of mobility and motion with location-aware elastic media has the potential to define a new era of entertainment and take you places where no car has taken you before.

"ROADS? WHERE WE'RE GOING, WE DON'T NEED ROADS."

DOC BROWN
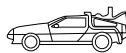
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Vaduz, Principality of Liechtenstein

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