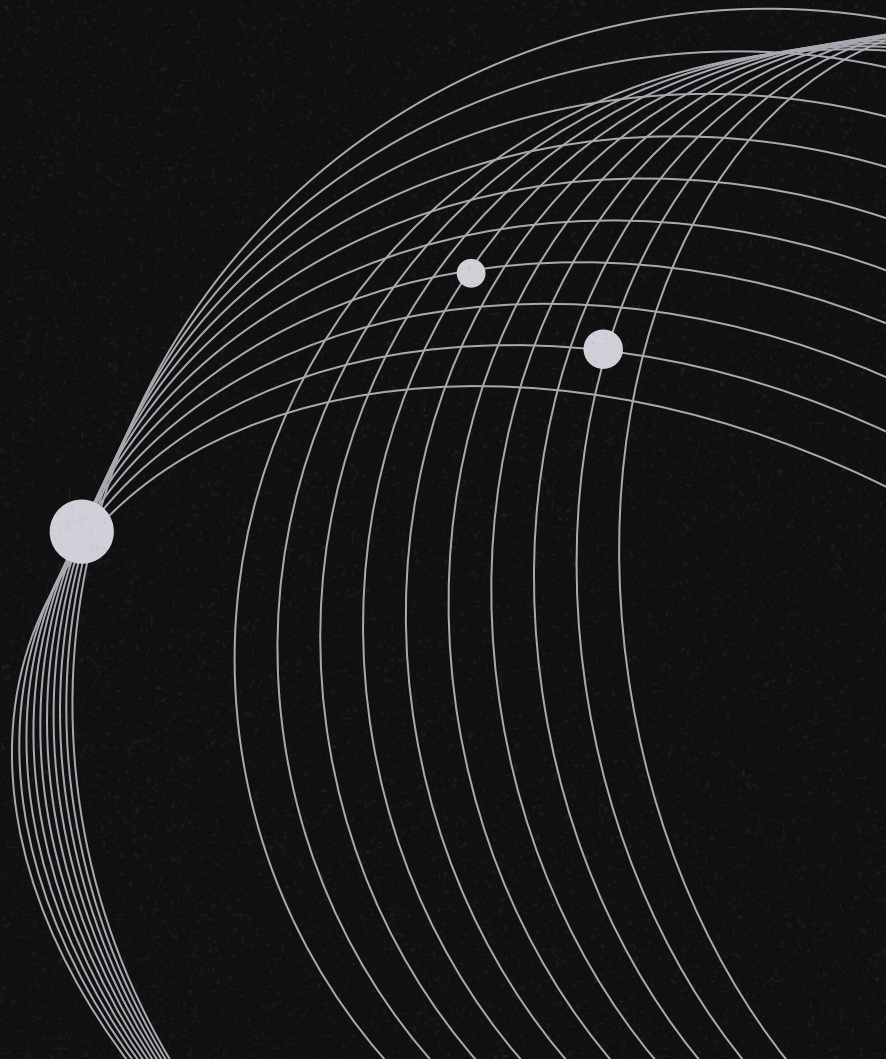




[ REPORT 2023 ]

# Regulated and Decentralized Finance.



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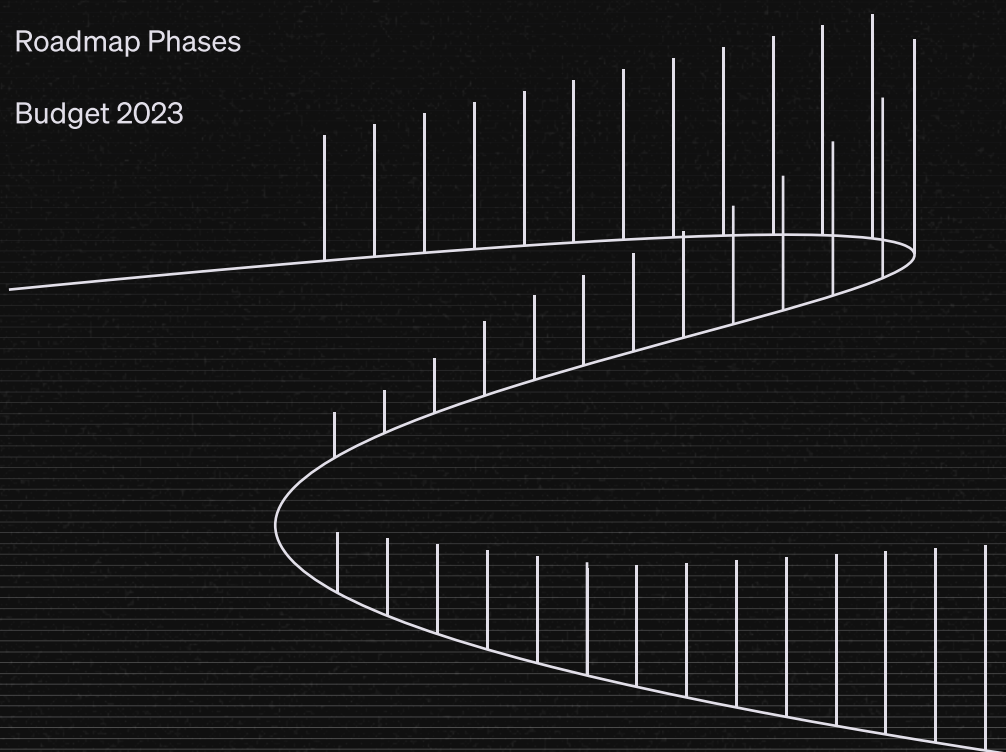
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# A Word from the CEO

It is with great pleasure that I welcome you to the Dusk Annual Report 2023. It has been an exciting year for us at Dusk. Since our last report we have worked hard to achieve our milestones, including the rebrand, launching our Rolling ITN Testnet, regularly updating the community on the development team's progress, and continuing to be present at conferences and events in the Netherlands and beyond.

We find ourselves in a strong position, evolving from a start-up to a mature, scale-up.

In many ways 2023 has been a year of maturity across the board in blockchain and cryptocurrencies, with the highly-anticipated Markets in Crypto Assets (MiCA) regulations coming into affect within the European Union, and, for the first time, acknowledging the existence of digital assets.

We are thrilled that the EU has taken these steps to regulate and therefore legitimize digital assets, blockchain, and cryptocurrencies. Myself and my co-founders anticipated this move back in 2017/18 when we founded Dusk.

The rebrand also gave us the opportunity to clarify our three key pillars; privacy, compliance, and bringing regulated assets to anybody's wallet. We believe that the future of finance is inclusive.

Thanks to our focus on privacy, through the use of zero-knowledge proof (ZKP) cryptography and our early focus on regulation, Dusk is well-positioned to deliver not only on our promises, but on the promises and hopes of cryptocurrencies more broadly.

We believe that finance should be inclusive. We believe that finance should be simple and accessible. Thanks to blockchain technology many arduous and complicated processes can be removed, creating benefits for institutions and individuals alike, and allow the world of finance to evolve and flourish.

We are thrilled to have multiple pilot programs in the works behind the scenes, and while we can't currently share too many details, we are pleased to see that our vision for finance and the role that blockchain can play is shared by important institutions and key players in traditional finance.

In this report we are happy to share more with you about wide-ranging topics, including our financials, events, marketing, development, and our updated roadmap. We strive for the maximum amount transparency possible, and hope that this report reflects the development of a company that is mature, clear in its vision and mission, and ready to execute.

Please enjoy this report, and thank you for your continued support.

[ Emanuele Francioni ]

# Dusk Privacy, Compliance, and RWA



Dusk strives to make finance easier and more inclusive. We want to make it easier for institutions, businesses, and users to transact, and to provide the infrastructure that will allow financial markets to evolve and flourish, providing opportunities for all. In order to do this we have had to build many of our own products from scratch, always ensuring to take into account the necessity of privacy and compliance in order to provide the foundations for regulated, real-world assets to be available to anyone through their digital wallet.

This report will go into more detail about all of these three points, but we also wanted to provide a brief overview of what we mean when we speak about them.

## Privacy

Privacy is of the utmost importance to Dusk. Privacy has long been a missing feature of blockchain and made it nearly impossible for institutions and businesses to tokenize their assets or for individuals to use cryptocurrencies in a meaningful way. Privacy solutions have focused on obscuring data rather than creating real solutions to preserve privacy in the real world.

Dusk's approach gives institutions an even higher level of privacy than they have in traditional finance, and does so in a way that is compliant with regulations and auditable.

Zero-knowledge proofs allow for above institutional-levels of privacy coupled with verifiable proof and authentication. This allows institutions and individuals to transact without having to share their personal or transaction details on a public ledger.

## Compliance

Dusk is built to comply with legislation, both at a protocol and application level by making it possible to programme and automate compliance. Taking a thoughtful and pioneering approach to creating a compliant blockchain, Dusk is compliant with EU regulations, including MiCA, MiFID II, and GDPR.

## Real World Assets

Dusk's mission is to make it possible to tokenize real-world, regulated assets. This has a number of benefits for institutions and individuals, including access to a unified, unfragmented liquidity layer, reducing market inefficiencies, drastically speeding up settlement times, opening up the possibility of innovative financial instruments that cannot be implemented in classical finance, and automating cumbersome and costly processes.

It also gives individuals the opportunity to interact with traditional real-world assets, like bonds and securities, with the same ease and autonomy with which they interact with digital assets on a blockchain.

# Mission

[ Empowering users to exert complete control over the assets they own ]

## Users

Who are these users? Technically speaking, every person or entity accessing Dusk can be classified as a user. More importantly, anybody with a specific wish to exert control over an asset they own, should be able to do so, whether you are an investor, developer, issuer or corporation.

## Assets

Any resource (tangible or intangible) that can be owned and used to produce positive economic value. [Tangible assets](#) are typically physical assets or property owned by a user, such as stocks, equipment or real estate.

An intangible asset is a resource without physical substance such as patents, trademarks and brand equity.

## Complete control

The possibility of disposing of assets as the owner pleases, that is how we would define complete control. Apart from reclaiming direct operability on an asset, or self custody, the owner should be able to withdraw, transfer, create, destroy, or sell it to someone else. Dusk specifically aims to provide this freedom to users.

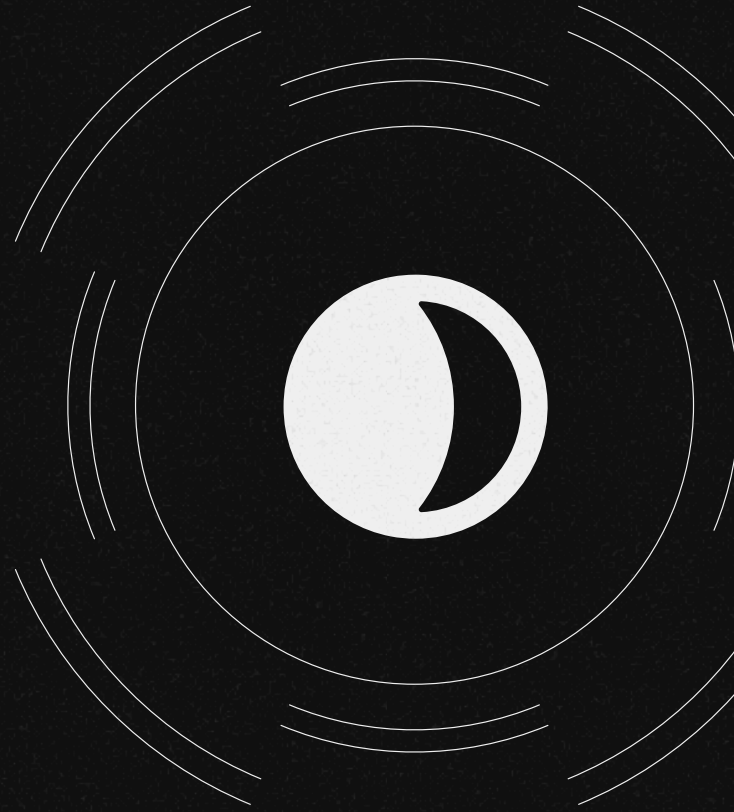
The freedom to create programmable assets that allow any holder to interact with it, in accordance with the assets' terms and conditions, shareholder agreements, articles of association, and applicable laws.

# Meet the new Dusk

Dusk is very excited to share our [new brand](#), after an extensive rebranding phase. Let us tell you about the journey, what's new, and explain why we decided on these features.

Our new look is the result of months of work, ideas, decisions, and man-hours. We worked with a top-tier branding agency, [Pony](#), and have spent countless hours refining how we want to present ourselves to our community, the broader crypto-space, and financial institutions and partners.

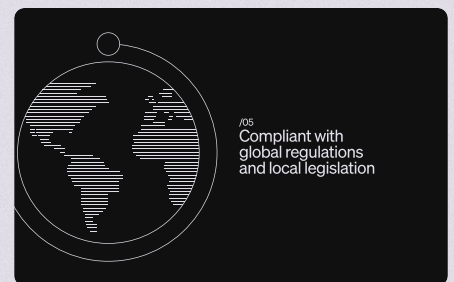
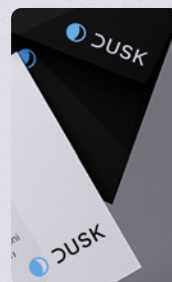
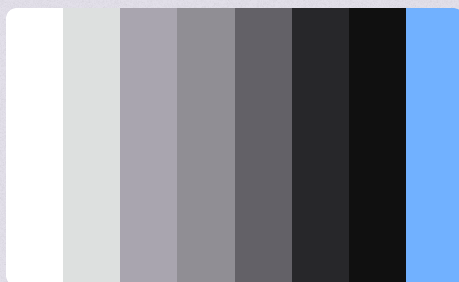
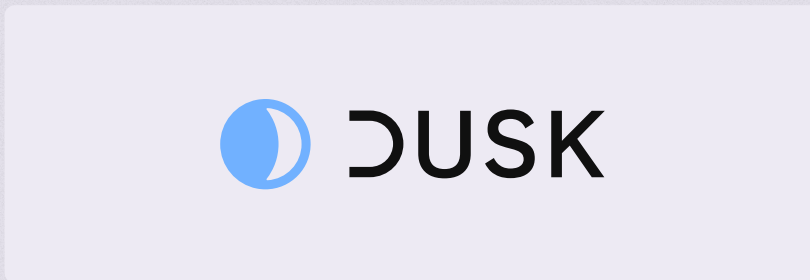
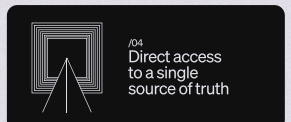
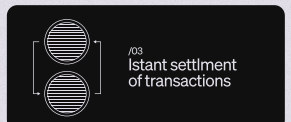
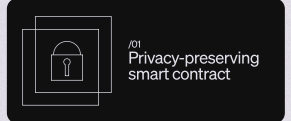
So, with no further ado, let's have a look at what our new look signifies.

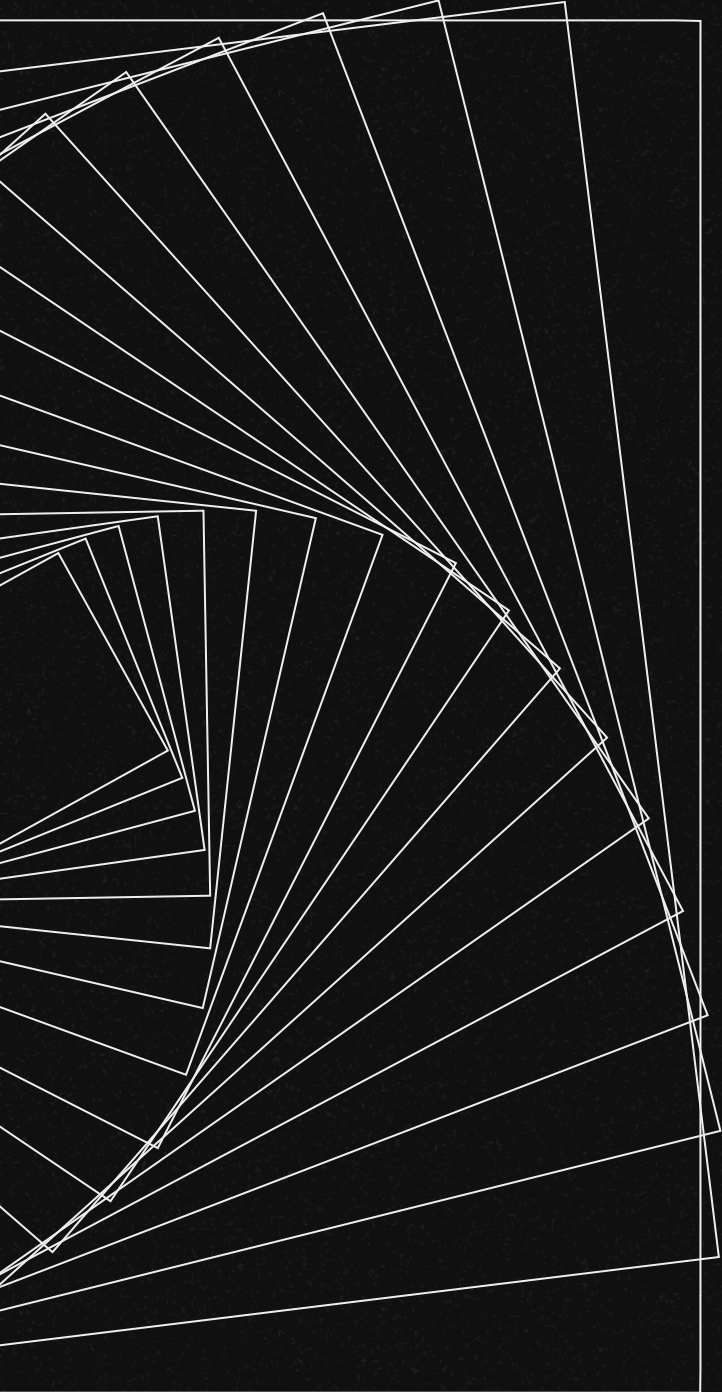


## Dusk

Regulated And  
Decentralized Finance

Our commitment  
to Privacy





## Rebranding journey

Firstly, the [rebranding](#) represents an evolution from being a start-up to a scale-up, and shows our maturity as a company as well as the scale and professionalism with which we work. Dusk was founded in 2018 and in that time we've worked tirelessly to create the technology to unite the worlds of crypto and real-world assets and to bring financial freedom and inclusion to everyone.

This has seen us invest heavily in research and development as the tools we needed did not yet exist. Our researchers and developers have been at the forefront of zero-knowledge proof (ZKP) research and are developing novel and innovative products like Piecrust, our ZKP virtual machine, and Citadel, our ZKP licensing tool, a perfect fit for KYC and digital identities.

Developing all of this infrastructure on our own has obviously been time-consuming, but ultimately worth it.

## Dropping the “Network”

The most obvious change is that we are going from being called “Dusk Network” to “Dusk”. A seemingly small change, but it points to the fact that we are not “just” a network and have a variety of products and tools for institutions, businesses, and users. So while we are building a blockchain, that's not all.

Welcome to the new Dusk:

[Regulated and Decentralized Finance.](#)

# The Internet of Assets Podcast



📶 Downloads: **5k**

★ Average retention rate: **65%**

🌐 Listened to in **36 Countries**

The "Internet of Assets" podcast was created to cater to the growing interest in blockchain and cryptocurrency. Our main goal is to make the world of blockchain and cryptocurrency less complex and more accessible by empowering listeners to have control over their assets.

Through interviews with top-notch guests from the DeFi and Crypto space the podcast is aimed at providing education on blockchain and cryptocurrencies. With advancements in these fields we understood the importance of filling the knowledge gap for both beginners and enthusiasts. Our podcast strives to be a platform that sheds light on the possibilities offered by blockchain technology. As a result we have successfully attracted a range of listeners from tech enthusiasts, to experienced finance professionals seeking to expand their understanding of the future of finance.

Our podcast "Internet of Assets" is currently ranked among the top 25% of tech podcasts in Europe in the segment technology.

Looking ahead we are continuously evolving our content expanding our guest lineup and reaching out to more potential listeners. We are enthusiastic about the future and confident that we can serve as a resource for those in exploring blockchain technology and cryptocurrency.

[ The podcast about the not-so distant future of finance. ]



# Dusk Social Media

## Social Media Platforms

 (formerly Twitter)

 LinkedIn


45k+ followers


- News
- X Spaces

12k+ followers

- Business News
- Newsletter

## Content platforms

 YouTube

 Apple Music

 Spotify

Go to our YouTube Channel to watch all the Internet of Assets Podcast Episodes, recordings of X Spaces and educational videos!

## Community platforms

 Telegram

 Reddit

 Discord

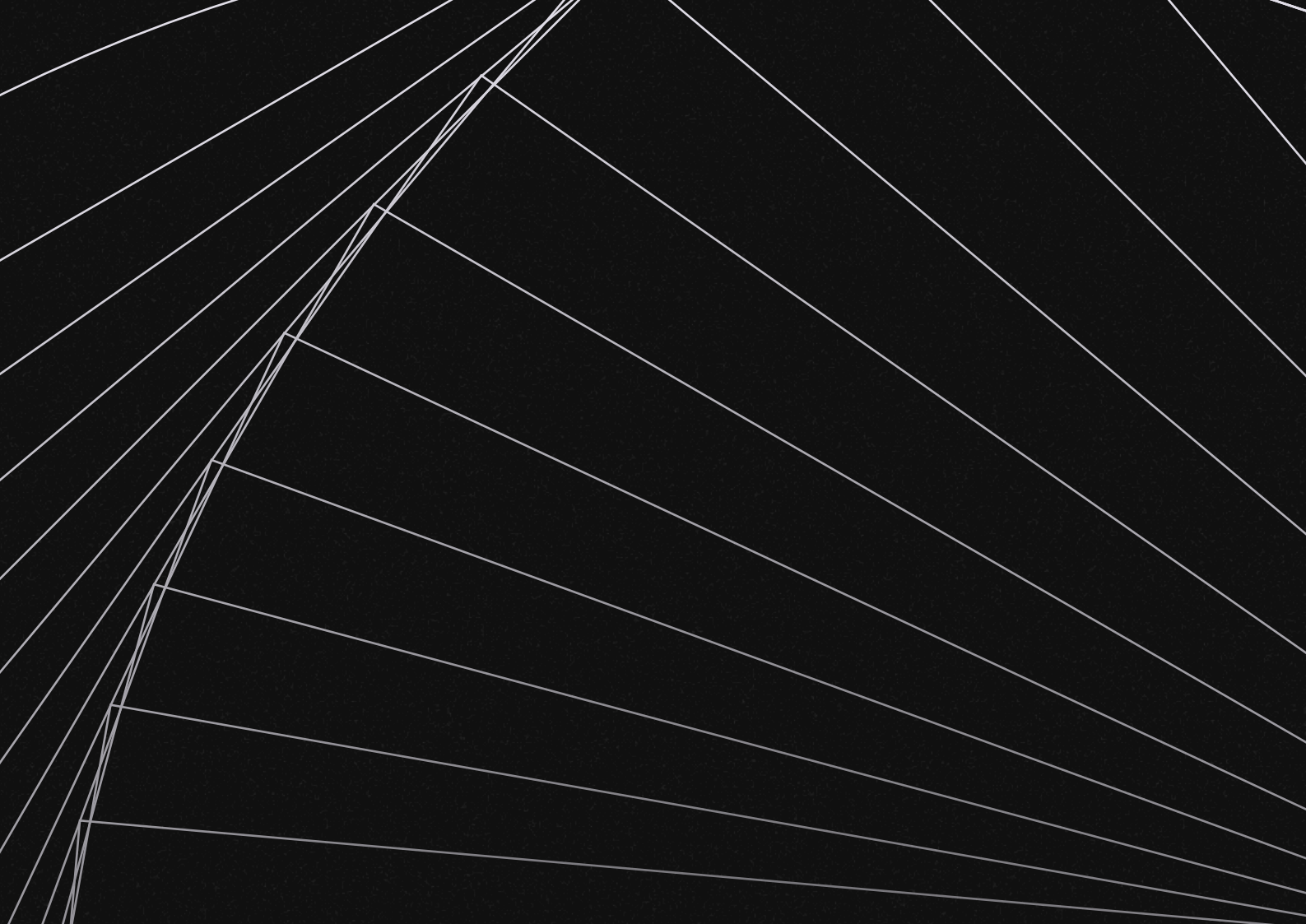
JOIN NOW

JOIN NOW

JOIN NOW

## News

Visit our [News page](#) or sign up to the [Monthly Dose of Dusk Newsletter](#) to check out all our blog articles, tech updates, and more



[ Piecrust is Dusk's new virtual machine - the piece of software responsible for executing transactions and smart contract calls, and maintaining what is called the "state". Transactions come in, a new state comes out. In this sense piecrust is the engine of the network, the beating heart that keeps it running and advancing into the future. ]

Eduardo Leegwater Simões | Software Engineer

# Highlights Recap

Let's take a look back at some of the highlights of the past year here at Dusk.

## The Launch of ITN

The launch of our Rolling Incentivized Testnet (ITN) in November 2022 and running until January 2023, was a huge success with participants from all over the world joining us to act as node provisioners to help us secure, test, and improve the network. Testnets are vital for blockchain development as they give the team and community the chance to use and test technology "out in the wild". So many community members participated that we were actually oversubscribed!

## Elliptic Curves Research Paper

In May our research team's groundbreaking work on [Elliptic Curve cryptography](#) was accepted by, and published in, the prestigious JOURNAL and has since been accepted to be featured in multiple cryptography conferences, including [SIAM AG23](#) and [Crypto23](#).

We are thrilled that our research team have been recognised for their important work, and are lucky to have some of the best in the business on our team.

Transactions executed:

# 9,028

Nodes created:

# 688

Blocks produced:

# 261,874



## Rebrand

In June, we unveiled our rebrand with a new website, a new look, and renewed enthusiasm. Gone is the purple, gone is the “Network”, and instead we have a clean, minimal, and mature brand to reflect our vision and goals. We shared our new look with investors and partners at a private dinner in Amsterdam, where CEO and co-founder Emanuele Francioni gave an inspiring speech, which you can view [here](#).



## Events

Throughout the last 12 months our team have attended and been key speakers at multiple events, from Vilnius Web3 Summit where Head of Business Development Ryan King spoke about regulation in crypto to ETH Dam where Emanuele Francioni and Chief of Staff Sabine De Witte spoke and hosted well-received panels. The research team attended international conferences in Spain, Israel, and the USA where they were invited to speak about research.

## Development highlights

Our development team has been hard at work shipping innovation after innovation. Piecrust is our ZKP Virtual Machine. The first of its kind and sure to be an industry leader in privacy and decentralized systems, Piecrust is a crucial component in creating a private, compliant blockchain.

## Outdid Investment

In a strategic move Dusk made its largest investment to date by investing \$50,000 in Outdid.io, a London-based startup. Outdid.io specializes in privacy-preserving identity verification using NFC and zero-knowledge proof technology. This investment aligns with Dusk’s focus on Know Your Customer (KYC) solutions. The goal of this investment is to accelerate the development of Outdid's technology, which allows companies to verify government-issued IDs without accessing users’ personal data. This enhances Dusk’s recently announced Citadel platform by providing advanced identity verification solutions that effectively combat fraud and ensure compliance, across various industries.

## DUSK KYC Solutions

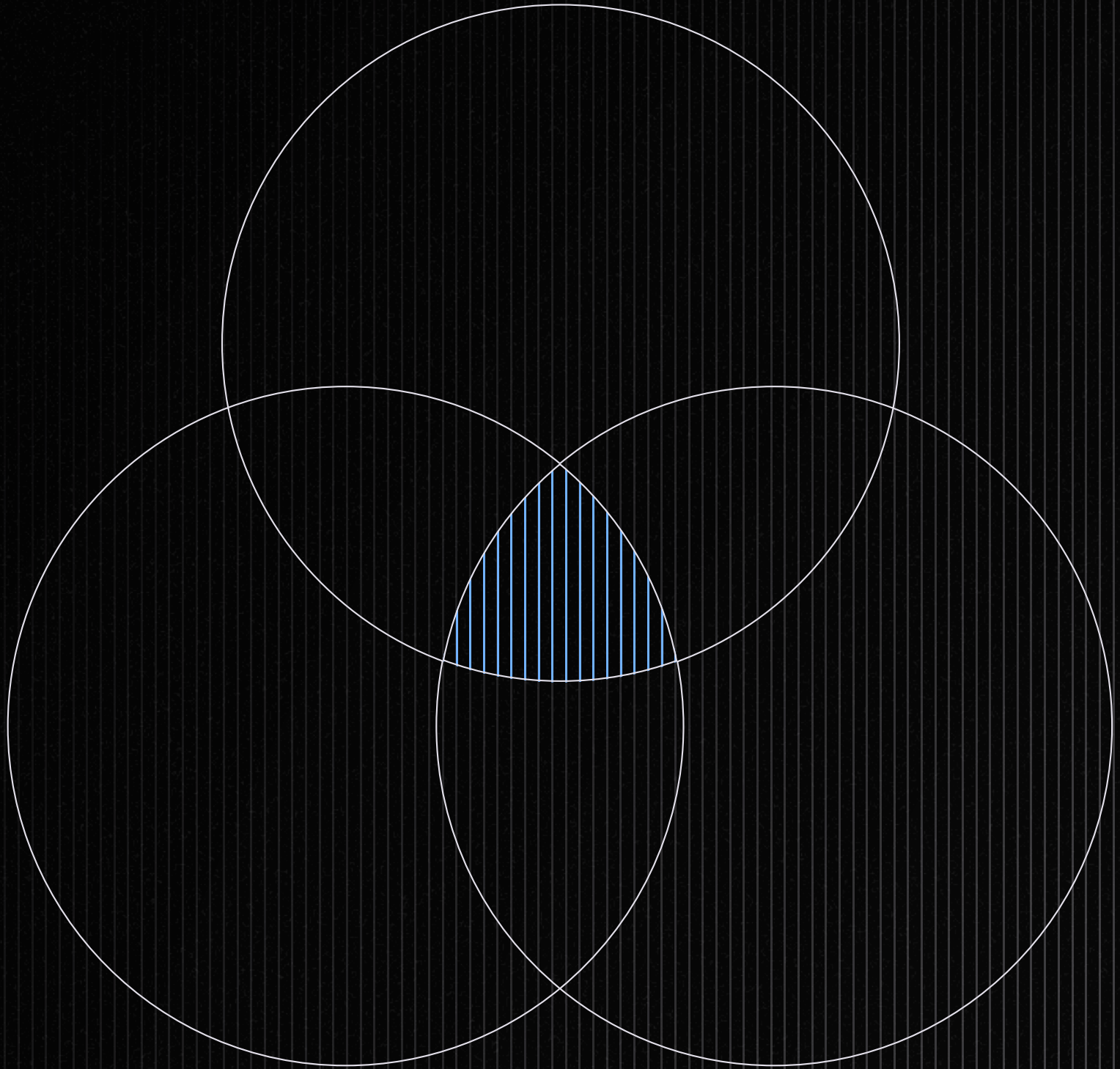
We are also thrilled with the development of Citadel, our decentralized, private licensing solution, as well as Shelter, its centralized version.

Citadel and Shelter are a key part of our infrastructure, making it possible to provide licenses for everything from the KYC/AML requirements that financial institutions must complete, to subscription services.

We are proud to not only be building a powerful blockchain, but to also build the supporting infrastructure that will make it possible for decentralized ledger technologies to be adopted en masse.

It’s not always easy to focus on what is really needed versus what is attention-grabbing, but we are committed to building the real solutions that businesses, institutions, and users need in order to be able to migrate their most important assets and personal information to the blockchain.

# The Three Pillars of Dusk



# Privacy

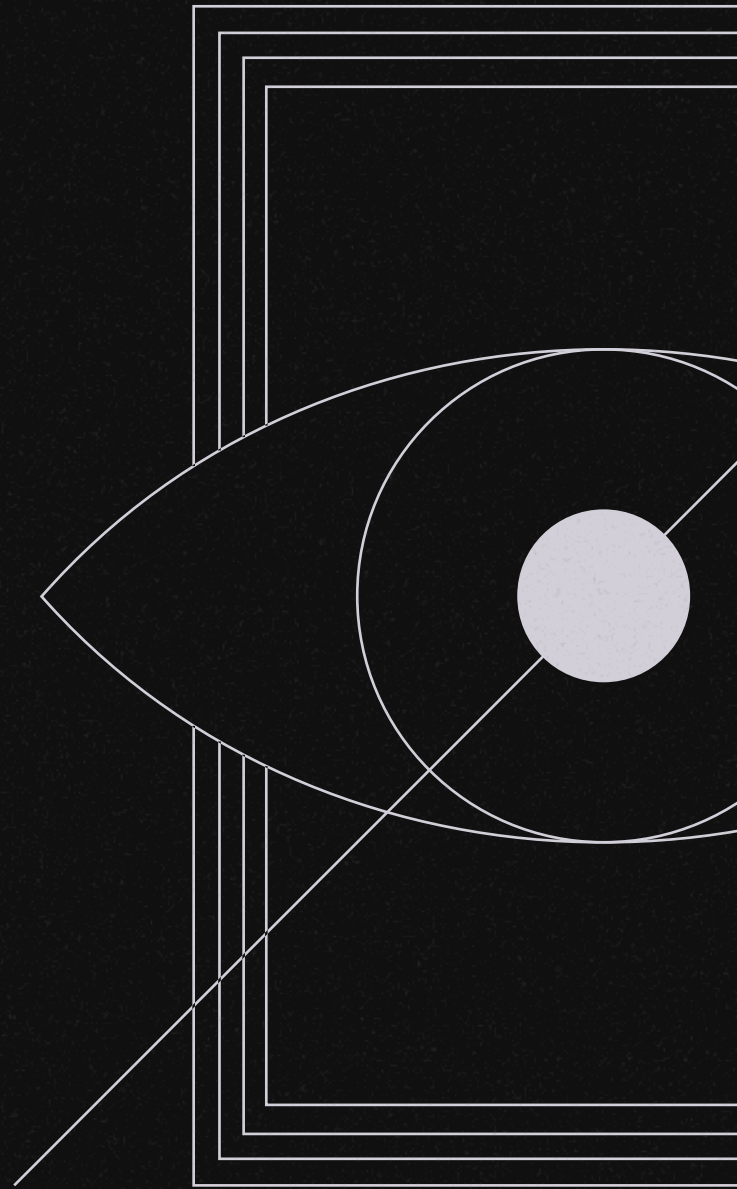
Privacy is one of the 3 pillars Dusk stands for. It is what we're best known for. We use zero-knowledge proof cryptography, specifically PLONK, to ensure that transactions are verifiable and correct while being private.

Whilst Dusk values privacy at the core of what we are building, Dusk is not a privacy project. It is a regulated finance company, with privacy by design implemented.

Privacy is a necessity, both in general for all people and to facilitate mass adoption. Institutions will never tokenize their assets if every move they make is public, and regular people would also be hesitant to use blockchain in a meaningful way if it meant every transaction they've ever made was public.

Our approach ensures privacy while providing the auditability that institutions require, and in many cases provides higher standards of privacy than institutions and users are used to (by removing the need for third parties we provide higher levels of privacy).

Our novel approach to privacy and focus on the real world means that users are not constantly leaking data and can practice selective disclosure. Our goal with privacy is to match and then improve upon what is currently available. You don't put your bank statements online for everyone to see right? So why should all transactions in alternative finance be public?



## Leading Privacy Alliance

Since privacy is such a big part of our identity, we became Founding Members of the [Leading Privacy Alliance](#) in August 2022. Together with HOPR and BlockWallet, the initiative focuses on educating the Web3 ecosystem, organizing events and collectively participating in lobbying efforts on the topic of privacy. The alliance welcomes new members who support this cause.

The launch event took place during DevCon Bogota in October 2022 and in April 2023 the first conference and hackathon were held in Istanbul.

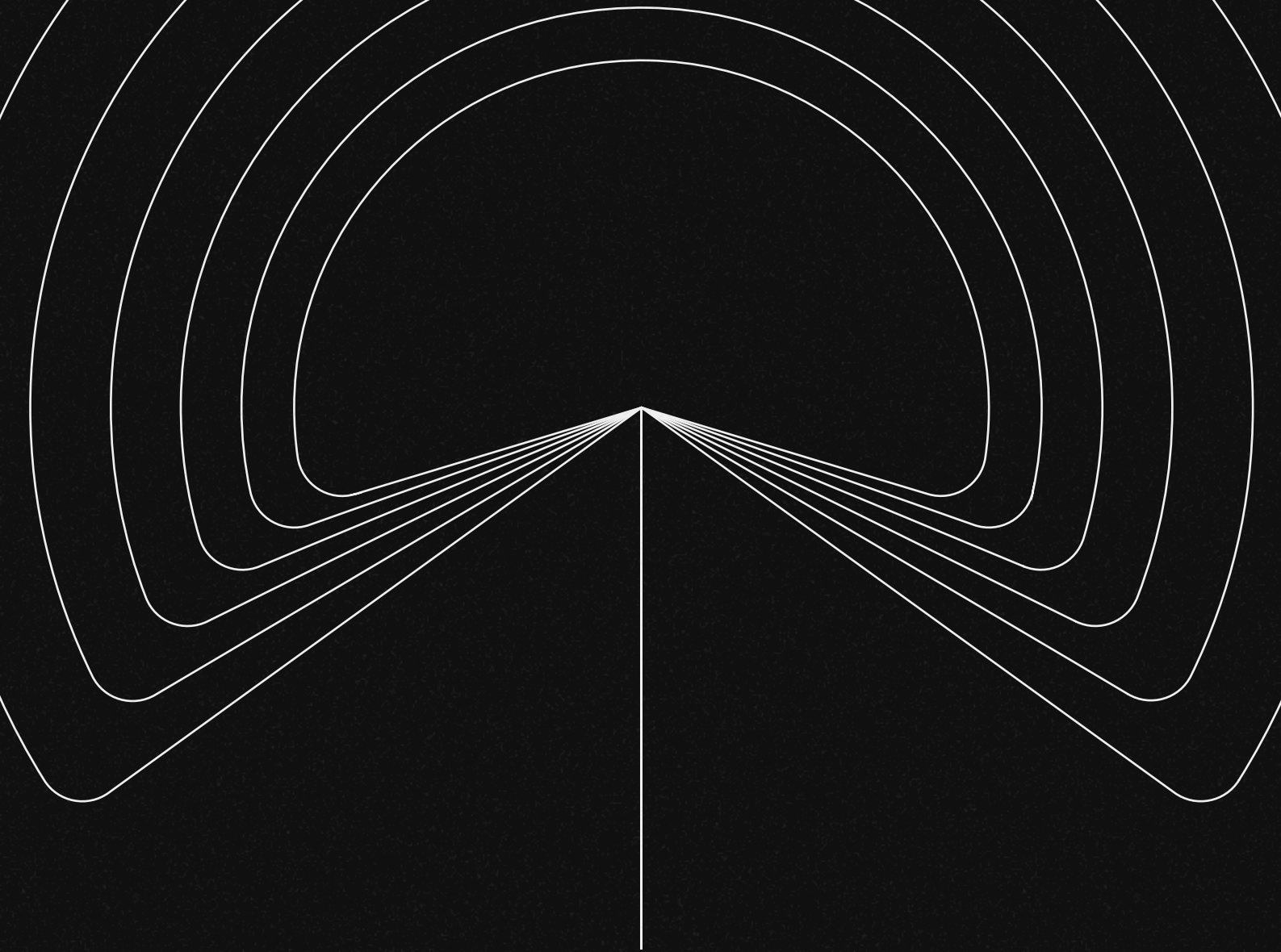
# Compliance

Compliance is one of Dusk's three core pillars, and 2023 has been a momentous year for issues of this nature here in the European Union. [The Markets in Crypto Assets Regulation \(MiCA\)](#), which has been being drafted, amended, discussed and debated for over three years, was finally passed in the period since our last report. It is not an over-exaggeration to say that this is the single most important piece of legislation ever passed in the history of blockchain technology, and has the potential to dramatically reshape the industry. For years the biggest single criticism leveled at the industry was that it was 'unregulated' - well, not any more. Rolled out in stages over 2023 and 2024, MiCA will create a strict regulatory regime around the issuance and governance of what it defines as '[Crypto Assets](#)', and on the activities of 'Crypto Asset Service Providers' (read: exchanges, brokerage firms, etc).

Many of the clauses in MiCA are designed to make sure that issuers and managers of crypto assets have enough funds to cover any losses concerned, and to ensure that the assets are built and structured in a transparent and understandable way, removing many of the risks currently associated with cryptocurrency. MiCA also goes some way to creating clear classifications of types of assets, such as breaking the concept of a 'stablecoin' into two categories - one backed by a single fiat currency, and another backed by anything else - and lays them alongside standard definitions of 'utility coins' and other coins. As well as helping to waylay the concerns of the EU's member states about euro-backed stablecoins, it creates an environment where adoption may finally be fully possible.

This is important as this puts the EU far ahead of other markets like the US where regulation remains vague and markets unstable. It offers the possibility for companies in the EU to build without needing to worry about their products being outlawed in the future. This is fantastic news for Dusk, which has always placed compliance as one of its core pillars. Since Dusk deals mostly in the tokenization of Real-World Assets (RWAs), Dusk's products were mostly already covered by European [regulations around financial assets](#), such as the Markets in Financial Instruments Directive II (MiFID II). Nevertheless, MiCA creates a stable environment around our entire industry, which is good for us, and goes a long way to bringing blockchain and cryptocurrency 'into the mainstream', making it easier for traditional financial firms to deal with us without risk, and opening up many more opportunities for real-life business cases outside of the blockchain sandbox.

Elsewhere in regulation, the message is less clear. For much of 2023 the European Union, seemingly under pressure from the United States, has been mulling a total ban on what are known as 'privacy-enhancing coins', i.e. cryptocurrencies which obfuscate or hide information about transactions. To be clear, Dusk is not a privacy coin, and so we are not concerned about this from a purely selfish point of view. Rather, as a company, privacy is one of our three core values. We believe in the right of individuals to have financial freedom and this is hard to maintain in a regime where privacy is impossible. Furthermore, we remain confused, since it appears to us that maintaining a complete transaction history on a public blockchain would be a clear breach of the General Data Protection Regulation (GDPR), and it is not entirely clear how these two regulatory approaches can co-exist within the EU. Dusk will continue to monitor the situation.



[ With the MiCA regulation becoming active in 2024, the playing field for innovative finance and tech like Dusk builds will change a lot. Combined with a more innovative approach within the European Union towards tokenisation and DLT, this is a very promising outlook. ]

Bas Kortenhoff | advisor



# Understanding Real-World Assets (RWAs)

Real-World Assets (RWAs) encompass an extensive array of both tangible and intangible assets that have value in the physical world.

This includes not only physical properties like real estate, infrastructure, and commodities such as gold and oil, but also financial instruments like bonds, equities, derivatives and even cash.

In addition, intangible assets are also considered RWAs, which range from intellectual properties such as patents, copyrights and trademarks, to more abstract concepts like a company's brand value, customer relationships, or even future cash flows.

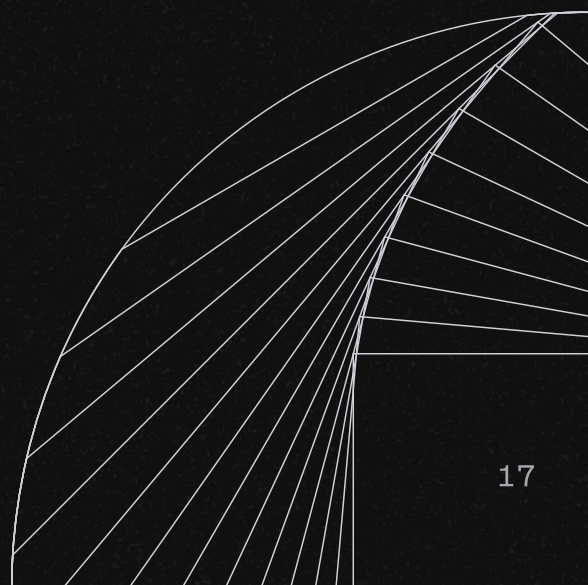
In the world of blockchain and Distributed Ledger Technology (DLT), RWAs also extend to any off-chain asset that has been tokenized and brought onto a blockchain. These can include tokenized versions of all aforementioned assets and can also include newer asset classes like carbon credits, or even tokenized art and collectibles, as highlighted in Binance's report on "[Real-World Assets: State of the Market](#)".

## Why are RWAs important?

RWAs play a vital role in the global economy. They are often used as collateral in the lending process, and supporting a vast number of business operations and transactions. Bank of America, in their 2023 report "[Beyond Crypto: Tokenization](#)", highlighted the importance of collateralizing these assets for economic growth, enabling businesses to secure loans and gain the benefits of digitization.

Many of these assets are characterized by their illiquidity, often tied up in large investments that are hard to divide or trade. By tokenizing these assets, we can make them more liquid, accessible, and tradeable, fundamentally transforming how we interact with them.

Tokenization enables the fractionalization of large assets, drastically reducing the ticket sizes for investment and making them more accessible to a wider range of investors. Moreover, when consolidated onto a public, permissionless DLT platform like Dusk, these assets become part of a larger, more liquid marketplace. This democratization of access to investment opportunities can lead to a significant influx of capital and liquidity into markets that were previously hard to reach.



## The Market Size of RWAs

Tokenizing RWAs presents a unique set of challenges that must be addressed to fully unlock the potential of this vast market. These challenges span a variety of areas, including legal and regulatory compliance, technological complexity, market acceptance, and the unique characteristics of each asset class.

1. **Legal and Regulatory Compliance:** This is arguably the most significant challenge. Tokenization involves translating legal rights to an asset into a digital token, and this process needs to adhere to the laws of the jurisdiction where the asset is located. Moreover, the global nature of blockchain platforms brings additional complexity as transactions may involve parties from different jurisdictions, each with their own set of rules and regulations.
2. **Technological Complexity:** Tokenizing a real-world asset involves a lot more than just creating a digital token. It requires an infrastructure that can manage the entire lifecycle of the token, including issuance, trading, settlement, redemption and voting. Furthermore, the technology needs to facilitate the enforcement of legal rights, compliance with regulatory requirements and the ability to handle disputes.
3. **Market Acceptance:** For tokenization to reach its full potential, it needs to be accepted by market participants, including investors, asset owners, regulators and intermediaries. While some parties may be quick to adopt new technologies, others may be hesitant due to concerns about security, privacy and the potential for fraud.
4. **Asset Specificity:** Each asset class has unique characteristics that need to be addressed in the tokenization process. For instance, real estate has physical properties and are subject to local property laws, whereas intangible assets like patents and copyrights are subject to intellectual property laws. Moreover, some assets, like arts and collectibles, may require expert appraisal and authentication to determine their value and validity. This also needs to be factored into the tokenization process.

These challenges present significant barriers to entry. However, they also represent opportunities for innovative platforms that can effectively address these issues. Dusk is uniquely positioned to overcome these challenges and unlock the vast potential of the RWA market with its compliant confidential securities contract, privacy features and self-sovereign identity protocol Citadel.

# Dusk Identity Solutions

A Digital Identity Solution that **cares** for its users.

Today's problems **proving who you are**

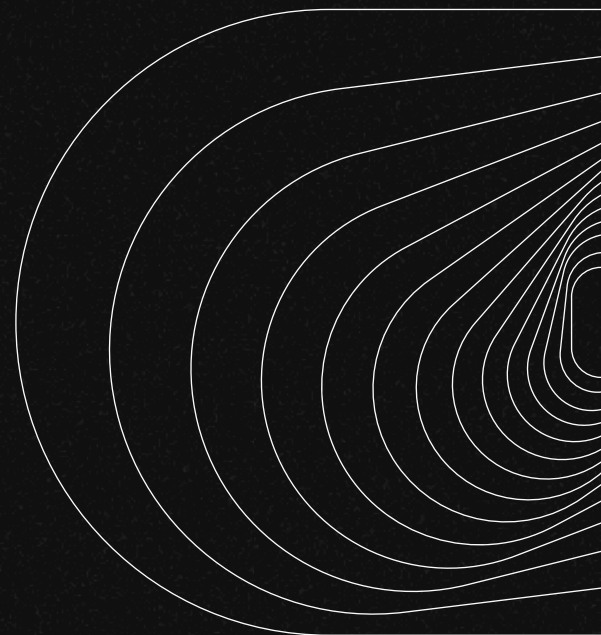
Every time you need to identify yourself in order to access a service or product, you are in fact sharing your personal information again and again with all these different companies. How often have you photocopied your passport to stay at a hotel? How many times have you taken a picture of it to gain access to some digital service? The mere fact that a digital copy of your passport lives in so many digital places is already risky business on its own, and including the possibility of malicious actors using your personal data or companies selling it to the highest bidder only adds to it. Different companies will keep your personal information and store it, which has a big impact on your privacy and puts you at risk of data leakage.

And it is not just the user that's unhappy with how things are organized today. For companies, identifying users online is mostly done by a process called KYC, or Know Your Customer. For customers to be eligible for a provided service, they must be vetted again, and again, making it the single most costly process for banks. Not only are companies required to KYC their customers for their services, they are also required to handle this personal information with the utmost care. In 2023, the GDPR Data Protection fines reached a record high of 1.6 Billion Euros, and we aren't even close to the year's end.

[[link](#)]

What if we told you it is possible to solve both in a single solution?

We are talking about a cost-effective solution that does not require KYC procedures to be performed again and again, but instead is reusable, and simultaneously protects sensitive user information, effectively giving the owners of personal data the power to choose what to share with whom. In other words, users don't face the risk of leaking sensitive data, and companies don't have to take care of sensitive user data and KYC them all the time, saving a lot of time and effort that can be redirected to creating additional value for their services.



## How does this work?

When you open a bank account, you need to go through a KYC verification procedure and share personal information with your bank. If you then decide to start trading stocks, you'll need to open another account with a brokerage service, where you will also have to perform KYC and Anti-Money Laundering (AML) checks. And if you decide to buy a house next and get a mortgage, you will be forced to go through the same processes again.

Instead, if you use Dusk, you would only store your personal data with one party, the license provider, that is only tasked with storing and verifying data. All other service providers like banks and brokers can opt to accept licenses from this provider.

And it gets even better. Users that want to become eligible for a service, don't have to show this license that holds their sensitive information at all. All they need to do is create a proof from this license, effectively proving to service providers that they match all legal requirements, without telling them who they are. Instead of showing Dutch citizenship and their birth date, users don't have to reveal this information for the service providers to verify that the user is indeed over 18 and a European citizen.

## What can Dusk DID Solutions do for your company?

### 1. Cost Savings

Proof of Identity through KYC processes are a serious cost driver. Through Dusk, companies can limit the amount of time and effort spend on it, as the initial check can be easily reused for many services.

### 2. Reduce Risk of Sensitive Data Storage

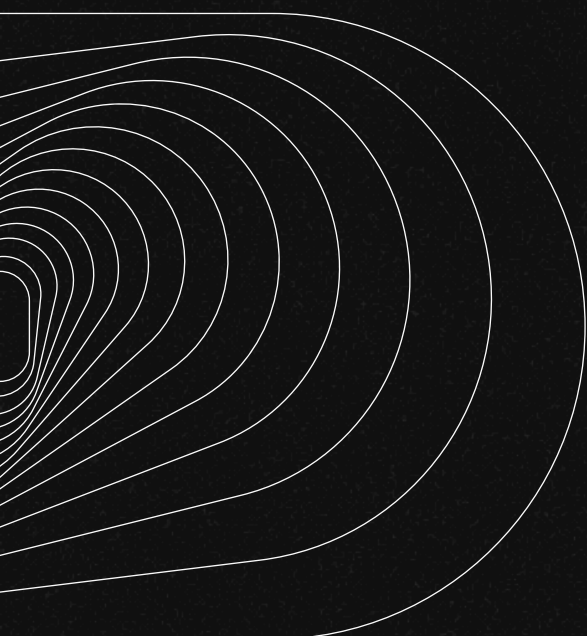
With Dusk's DID solutions, there is the possibility to not store any customer sensitive data while validating their Proof of Identity to reduce GDPR-compliance risk.

### 3. Remove Customer Friction

Ease the onboarding process for your customers, enabling them to access many services after their initial Proof of Identity. Remove friction and open up your services to a new group of customers that value their privacy.

## A solution for traditional and blockchain

Dusk's KYC solution can be integrated into existing web 2.0 and novel web 3.0 Infrastructures. For web 2.0 integrations, the steps included in the Citadel Protocol implementation are the same, with the main difference that there would be no blockchain with a License contract. Instead, these requests are performed on Dusk's- or local servers.



# Dusk Digital Share Registry

A Digital Share Registry Solution fit for the future.

## What is a shareholder registry?

A shareholder registry is a list of active owners of a company's shares, updated on an ongoing basis. The shareholder registry requires that every current shareholder is recorded.

The shareholder registry is fundamental to the examination of the ownership of a company.

Shareholder registry is a term used in Europe and other parts of the world, while the term used in the U.S. is Shareholder list.

## Today's problems with share registry

Shareholder registries are essentially records of all the individuals and entities that own shares in a particular company and are supposed to be updated on an ongoing basis. However, that can be a laborious process, and in the EU notaries were required to sign off whenever share ownership records changed.

Although the process has significantly improved in recent years, with notaries placed in a more supervisory position, there are still recurring problems in keeping track of who owns company equity. For smaller companies that aren't publicly listed, paying out dividends and organizing shareholder votes can be next to impossible, whereas for larger companies these corporate actions are expensive at best.

Also, as many smaller companies aren't publicly listed on exchanges, trades that take place in the secondary market happen privately. Cap table management breaks down because no one, not even the issuer, is made aware these trades have taken place.

Even when they are recorded, they usually use a different notary which makes it hard to create and maintain a single source of truth.

## What can Dusk DSR Solutions do for your company?

1. Cost Savings
2. Single source of truth
3. Ease corporate actions such as dividends or shareholder voting
4. Prepare for future tokenization and tap into a new investor pool

## A single source of truth

With the Dusk Digital Share Registry, there is no way for shareholders to sell their shares without updating the registry, giving the issuer the assurance of a single source of truth. Even better, as the record is kept on blockchain, the issuer can query the state of the registry at any given moment and be absolutely certain that it is accurate as any updates happen in real time.

## On the path towards tokenisation

Tokenisation – either a representative of paper equity or a fully digitalized security – creates significant cost efficiencies. When using Dusk's Digital Share Registry, you are set up to benefit from compliant tokenisation in the future.

## Tap into new investor pools

One of the key challenges brought up by small and medium enterprises is the difficulty in accessing new capital. Tokenisation can broaden the investor pool, allowing companies to raise funds from retail investors and institutions outside of their immediate network.

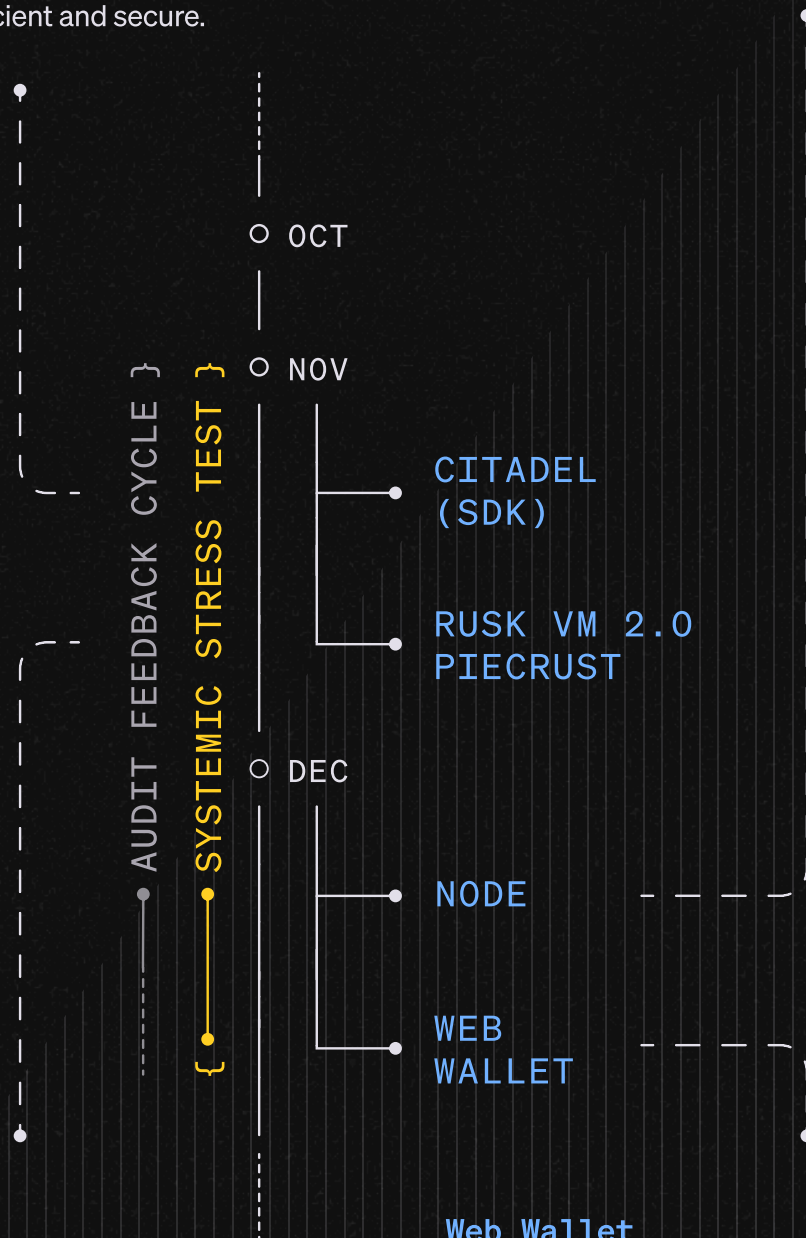
# Roadmap

## Citadel

Citadel is a privacy-preserving system built on the Dusk Network that revolutionizes digital asset and identity interactions. Our goal is to create a Software Development Kit (SDK) for developers to create a Citadel implementation. This means everyone will be able to use our KYC/AML solution to make their existing KYC procedure more efficient and secure.

## Node

The node is a vital piece of the Dusk network architecture, without which the network would not function. The node is considered done when it is fully implemented, protocol specs are well-defined, and it has APIs available for all relevant data.



## Piecrust

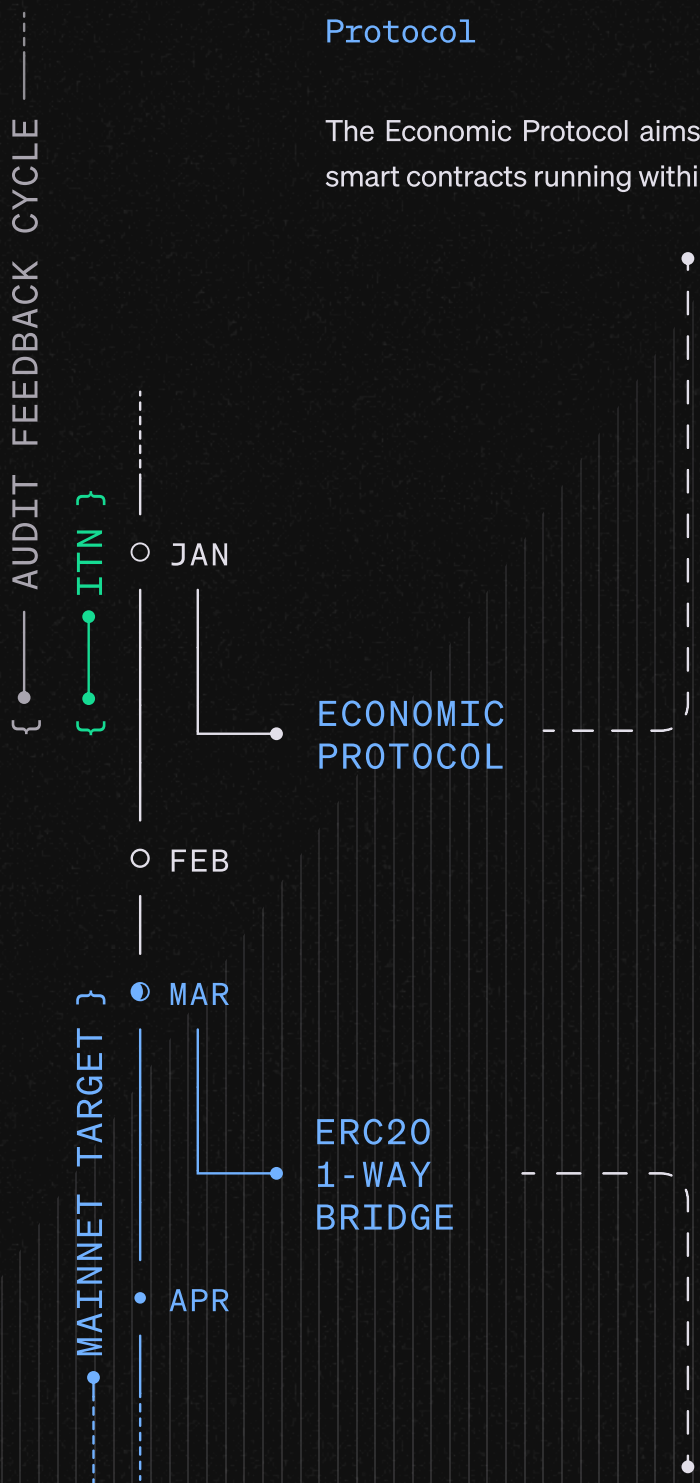
Piecrust is Dusk's homemade ZK-friendly virtual machine. It is the first ever virtual machine that allows people to build general purpose, ZK-enabled dApps.

## Web Wallet

The Web Wallet is the gateway for people to interact with the Dusk network, it allows users to access and transfer digital assets on the blockchain.


## Economic Protocol

The Economic Protocol aims to monetize services and smart contracts running within the Dusk ecosystem.



## ERC20 1-Way Bridge

The ERC20 one-way bridge aims to migrate ERC20 DUSK tokens from Ethereum and Binance Smart Chain to Dusk's native currency.



[ There can be NO compromise on security.  
This is why we put a lot of effort in  
protocol documentation (Phoenix, Succinct  
Attestation, Zedger), and both internal and  
external auditing. ]

Hein Dauven | Core Developer



# Roadmap Phases

## Network Testing and Auditing Feedback Cycle

### Systemic Stress Test

Stress testing is a technique to evaluate the performance, reliability, and stability of our network even under extreme conditions. It will help Dusk identify potential risks, bottlenecks, and failures that could affect the performance of the network. This is a controlled test environment. After our systemic stress test, we will open the network for the next iteration of our ITN, which allows us to test the protocol in an uncontrolled environment.

### ITN

The next iteration of our Incentivized Testnet (ITN) will bring a host of improvements, including enhanced speed and stability, a seamless integration with web wallets, and a shift from the Rusk VM to the more efficient Piecrust VM. ITN allows our community to contribute to the testing of our network and gives us valuable feedback on the ease of using Dusk. While specific details regarding participation and rewards are yet to be disclosed, this ITN marks a milestone on the path to the launch of Mainnet. These developments represent a significant leap forward in Dusk's journey toward a robust and feature-rich blockchain ecosystem.

### Auditing Feedback Cycle

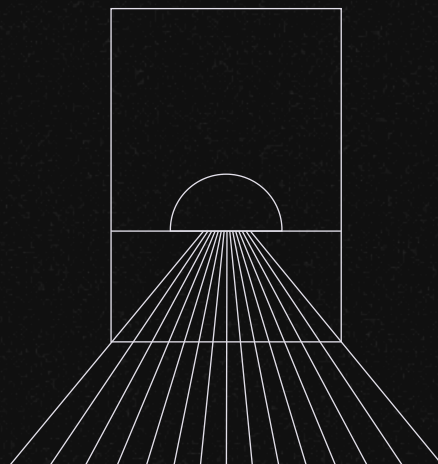
The auditing process is a vital step towards the launch of our Mainnet. We will do extensive internal and external auditing of the protocol. Dusk is primed to be the network for institutional issuance of securities, therefore it is important we can guarantee the needed level of security.

Once the internal audit has been done, all identified issues are documented and major concerns are addressed. An external auditing party will receive our documentation and finalize the auditing process.

Proper documentation is essential for optimizing (external) audits and reducing the time required for security assessments.

The following papers and documentation will be created:

- Phoenix whitepaper
- Protocol whitepaper
- Citadel whitepaper
- Zedger specifications
- Tokenomics and Economic Model



# Budget 2023

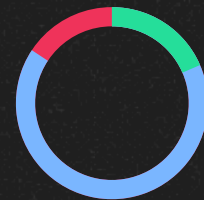
The assets held by Dusk as of June 30, 2023, had a total market value of USD 16.9 million. A large part of the asset portfolio is in DUSK (65.8%, compared to 50.3% last year). The DUSK token reserve stands at ~92 million tokens, which reflects a minimal decrease of 3.6 million tokens in the last year. Thanks to a positive market price effect, Dusk's net native token reserves actually grew by USD 0.4 million in value. As it stands, the company has no plans to sell any of its native token reserves on top of existing contractual agreements.

As far as fiat and stablecoins are concerned, Dusk has moved part of its stablecoin position into fiat reserves (+1.0 million), while most company expenses have been offset by stablecoins. Fiat positions are selected to align with our expected costs, currently reflected by 77% in EUR, and 23% in USD. In addition, Dusk's stablecoin and other position is well-balanced between USDC (31%) and USDT (58%) to minimize risks, while other (11%) investments are predominantly in BTC.

## [ Summarized Balance Sheet June 30 2023 ]

	<b>Total</b>	\$ 16,883,854
_____	<b>Fiat</b>	18.5 %
_____	<b>Dusk</b>	65.8 %
_____	<b>Stablecoin &amp; other</b>	25.4 %

\$ 16,883,854



## [ Budget Allocation Department ]

_____	<b>Tech</b>	55.4 %
_____	<b>Marketing</b>	18.5 %
_____	<b>BizDev</b>	10.7 %
_____	<b>Corporate</b>	15.4 %

55.4 %

18.5 %

10.7 %

15.4 %



Dusk is not depending on any of its native token reserves for continued development into 2025.

[ Receiving an investment was the natural way to form this partnership, align interest, and get mentorship access to Emanuele Francioni and their world-class team of ZK & privacy researchers. ]

Zvezdin Besarabov | co-founder | Outdid

# Partners and Exchanges

We are excited to work together with the industry's brightest minds to tap into the power of zero-knowledge and re-think privacy on a public network.  
Dare to join us?



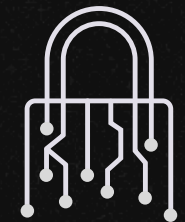
**NPEX**  
Geld voor Ambitie



 **Huobi**



**hopr**



# Disclaimer

Dusk is a trading name of Dusk Network B.V., a private company incorporated under the laws of the Netherlands with registered offices at Keurenplein 41 in Amsterdam, the Netherlands ("Dusk"). Dusk's core business is the development of a privacy blockchain for financial applications, amongst others but not limited thereto, the offering and trading of digitalized financial products.

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 DUSK

