the business blockchain

WHITEPAPER

edeXa AG

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Summary

This whitepaper provides detailed information about the edeXa Universe and how to use edeXa's EDX service token. The business model of edeXa is based on many years of experience developing business applications. This is described in detail on our website (www.edeXa.io). With its business blockchain Universe, edeXa fundamentally modernizes company processes, and applications while additionally making everyday business more accessible by automating processes through smart contracts. Our solution drastically increases transparency and security while creating interfaces to existing systems to provide seamless integration into business applications.

The digitization of business processes is a tightrope walk for companies. Finding an efficient balance between appropriate investment costs and maximum transparency and security is necessary. Blockchain technology makes everyday business easier by automating processes promptly using smart contracts. This need is precisely where edeXa's business blockchain comes in: We support companies in modernization projects with the simple integration of our services, which are individually tailored to existing systems, as well as supporting the new implementation of business applications that are individually adapted to the respective operational needs. This whitepaper describes the vision of edeXa and outlines the current problems faced by the business world. This whitepaper also provides an overview of the blockchain technology used and how edeXa uses it to address specific problems and improve business processes and security for companies.

Project Summary

As a company based in Liechtenstein, we can leverage our geographical advantage from one of the leading European countries in the Fintech and blockchain space to develop the latest technology standards for our clients around the globe. Thanks to a robust, secure and energy-efficient Business Blockchain, edeXa offers companies and public authorities an ecosystem that can build trust through secure and traceable processes. Intending to make blockchain technology easy for companies and organizations, edeXa provides numerous services and interfaces (APIs) available to customers. This accessibility allows existing or new applications to quickly and easily take advantage of blockchain to optimize business processes.

Internal and cross-company data processing and exchange with business partners and authorities have not yet been digitized to the greatest extent possible. Data sovereignty, privacy and ownership are core elements of digital development and can hinder and accelerate progress. That's edeXa develops innovative solutions in the interest of businesses. This is precisely where blockchain creates tremendous added value. With the help of blockchain, central intermediaries can be replaced by direct communication.

End-to-end digital processes via the blockchain result in numerous opportunities for automation. For example, machines send production data and orders via the blockchain. Blockchain technology is essential for this automation by providing a decentralized and secure transaction platform. This is important as companies only make sensitive information accessible to uninvolved third parties when necessary.

The blockchain and its associated applications are also open to external developers. edeXa offers developers and companies an interface and platform to write their own applications based on the edeXa blockchain. The edeXa customers can integrate these applications into their business or develop an application connected to the existing IT system. We also support companies in developing applications individually on behalf of our customers according to their own requirements. Organizations like startups or businesses also have the option of creating their own "sub blockchain" in order to run their applications on their own channel.

When edeXa was founded in October 2018, we did not start with a traditional Initial Coin. Offering (ICO) but instead conducted a Security Token Offering (STO) to fund the project. Unlike the hundreds of existing ICOs, very few companies offer a Security Token to their customers. By purchasing the edeXa Security Token (EDE), investors have a stake in edeXa in the form of a non-voting share.

edeXa has decided to generate a Service Token (Utility Token) as a reward mechanism for incentivizing active participation within our business blockchain Universe. In addition, it can also be used as a pay-and-benefit token for edeXa applications and services in the future.

Our vision

Our vision is to provide a leading business blockchain for enterprises and government agencies that is quick and easy to use. We believe that blockchain technology generates tremendous value in businesses. With edeXa Business Blockchain, we offer an ecosystem developed for the business world. Trust, security and transparency are important components in business processes, which can be automated and legally processed by the Blockchain.

The Business Blockchain from edeXa 'Universe'

To support existing business processes, a blockchain must be designed to handle thousands of transactions per second. In addition to exchanging small amounts of data, business-process transactions contain larger data packages (e.g., PDF documents), which are sensibly stored privately and off-chain.

Country-specific data protection regulations also require companies to store their data in the country of their place of business. For example, edeXa's off-chain solution allows all data to be stored on its own servers in the future. This way, all local data protection laws are in compliance.

In addition, the European Data Protection Regulation (EU-DSGVO) requires the right to delete personalized data, which again does not correspond to the basic idea of the blockchain since transactions cannot be deleted. Since only non-personalized and, most importantly, only hash and key values are stored in the edeXa Business Blockchain, this problem is not existent.

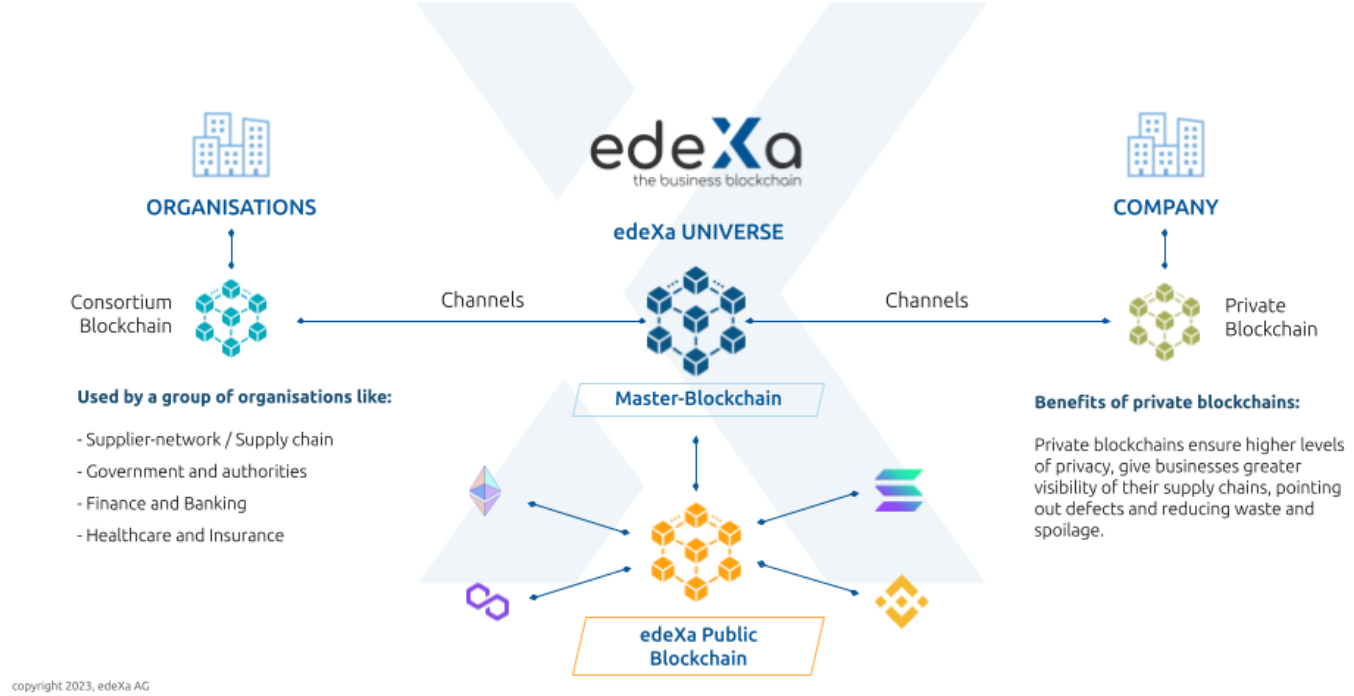
edeXa offers companies an innovative ecosystem that connects different providers via the blockchain with a unified information system, which is why our Business Blockchain "Universe" is so scalable. Proprietary, user-oriented applications are made available using process automation (workflows) and smart contracts. These applications can be used directly via the web-oriented edeXa application or via API gateway and SDKs.

Together, we accelerate business cases, increase efficiency along the entire business process, and significantly reduce process costs.

Our Blockchain Ecosystem

edeXa takes on a permissioned Blockchain approach, meaning only trusted and verified entities can participate in the ecosystem of infinite possibilities. It uses the most secure open-source Distributed ledger technology like hyperledger fabric at its core. Making it lightning-fast, and secure without compromising the privacy of its users. Organizations in the edeXa Universe create a consortium with other companies (galaxies) and data of transactions that happen in the consortium are only stored on the nodes participating in that consortium.

Overview of edeXa Universe Blockchain



edeXa Universe Model

edeXa Universe is the advanced, next-generation network for business blockchains. We enable innovative companies to use blockchain technology simply.
This section delves into the seamless integration of PERMISSIONED and PUBLIC Blockchain technologies, and how this unique fusion offers unparalleled adaptability and security. Detailed insights into the validation process through Proof of Authorities (POA) shed light on the robustness of the edeXa network.

Secure Model of the edeXa Universe

As our edeXa Universe will grow with more channels and organizations there is a need for having protocols in place which will make our universe secure and resistant to cyber-attacks or internal malfunctioning. The following topic provides an overview of the HLF core concepts, Which helps in creating a secure framework. The source of this content is from Hyperledger Fabric itself.

Identities

The different actors in the HLF blockchain network include peers, orderers, client applications, administrators and more. Each of these actors - active elements inside or outside a network able to consume services - has a digital identity encapsulated in an X.509 digital certificate issued by a Certificate Authority (CA). These identities matter because they determine the exact permissions over resources and access to information that actors have in a blockchain network.

Membership Service Providers

For an identity to be verifiable, it must come from a trusted authority. A membership service provider (MSP) is that trusted authority in Fabric. More specifically, an MSP is a component that defines the rules that govern the valid identities for an organization.The default MSP implementation in Fabric uses X.509 certificates issued by a Certificate Authority (CA) as identities, adopting a traditional Public Key Infrastructure (PKI) hierarchical model. Identities can be associated with roles within a MSP such as ‘client’ and ‘admin’ by utilizing Node OU roles.

Policies

In Hyperledger Fabric, policies are the mechanism for infrastructure management. Fabric policies represent how members come to an agreement on accepting or rejecting changes to the network, a channel, or a smart contract.

Policies are agreed to by the channel members when the channel is originally configured, but they can also be modified as the channel evolves.

For example, they describe the criteria for adding or removing members from a channel, change how blocks are formed, or specify the number of organizations required to endorse a smart contract. All of these actions are described by a policy which defines who can perform the action. Simply put, everything you want to do on a Fabric network is controlled by a policy. Once they are written, policies evaluate the collection of signatures attached to transactions and proposals and validate if the signatures fulfill the governance agreed to by the network. Policies can be used in Channel Policies, Channel Modification Policies, Access Control Lists, Chaincode Lifecycle Policies, and Chaincode Endorsement Policies.

Peers

Peers are a fundamental element of the network because they host ledgers and smart contracts. Peers have an identity of their own and are managed by an administrator of an organization.

Ordering service nodes

Ordering service nodes order transactions into blocks and then distribute blocks to connected peers for validation and commitment. Ordering service nodes have an identity of their own, and are managed by an administrator of an organization.

Transport Layer Security (TLS)

Fabric supports secure communication between nodes using Transport Layer Security (TLS). TLS communication can use both one-way (server only) and two-way (server and client) authentication.

Peer and ordering service node operations service

The peer and the orderer host an HTTP server that offers a RESTful "operations" API. This API is unrelated to the Fabric network services and is intended to be used by operators, not administrators or "users" of the network.

As the operations service is focused on operations and intentionally unrelated to the Fabric network, it does not use the Membership Services Provider for access control. Instead, the operations service relies entirely on mutual TLS with client certificate authentication.

Certificate management in edeXa Universe

In edeXa universe every entity gets a Digital Certificate issued to them by a trusted Certificate Authority. These digital certificates are used to sign the transactions. Entities with valid Digital Certificates can interact with the network successfully. All communication takes place over a secure TLS connection. As role-based access is granted on the digital signature, keeping that isolated from unauthorized access and providing high secured transactions.

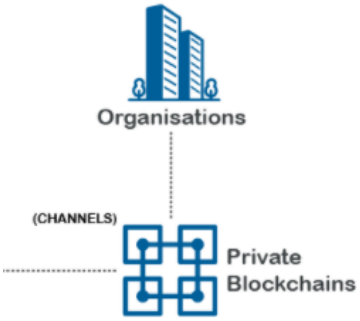
- TLS Certificates
- Fabric Digital signature Certs
- Fabric related Certs
- User Certs

Providing services in the edeXa Universe

We would like to explain the following points in a brief overview:

- Adding new Organizations to existing consortium.
- Private Data supported Chaincodes.
- Customers can create secure channels with other Customers.
- Customers can upload their own chaincode to channels
- API-based automated deployments for Channels and Chaincodes
- Creation of ERC-20 and NFT's (ERC-721) on edeXa Universe

Adding new Organization (ORG)

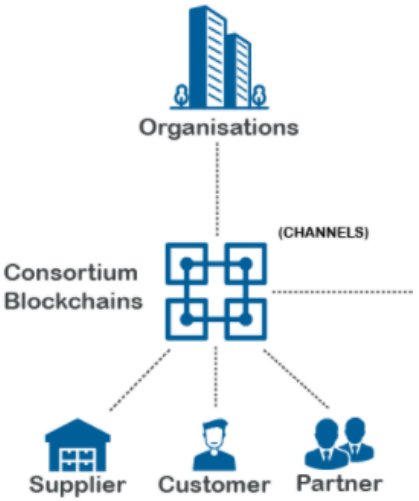


Universe deployment revolves around the ability to add a new organization to the edeXa Universe with a simple step.

We will provide an administration panel to make it easy to manage the needed configurations and to add organizations to a respective channel by easy steps.

Deployment of smart contracts within Universe (Implementation of user chaincodes with HLF)

As Universe ecosystem presents a broad exploration of possibilities Chaincode is a program, written in Go, node.js, or Java that implements a prescribed interface. A chaincode typically handles business logic and is considered as a "smart contract" in general blockchain terms.



Users can create custom channels for their own business model

Universe offers functionalities that will enable edeXa's clients to create their channels for a blockchain business of their choosing. Private channels in between users can offer an access-controlled private blockchain environment, similar to consortium blockchains.

These channels can be created with other users as well as internally where only that business is part of that channel. This functionality will further enable us to achieve the vision of private blockchains. Having the private channels will enable users to host their custom chaincodes and open new horizons for developers.

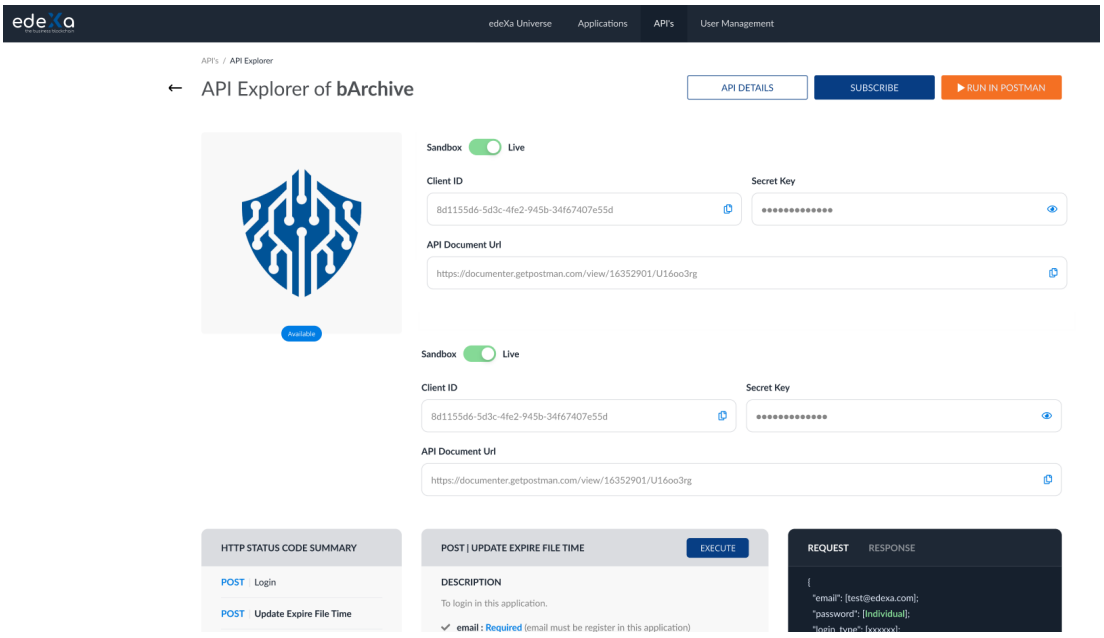
For edeXa Universe to offer endless possibilities in development and collaboration, it will be a feature offered to its clients that will enable users to develop and host their own custom smart-contract (chaincodes) on the private channels they created. This will put edeXa on the map as a company providing blockchain as a service provider. Startups can directly develop their chaincodes on top of edeXa's private channels instead of going through the hassle of deploying their network.

Users can have custom endorsement policies

Universe Endorsement Policies are responsible for defining who will validate the transactions coming to that particular chaincode. Currently, we have created a default OR-based endorsement policy applied to our legacy chaincodes. Users deploying custom chaincodes can choose their policies which will enable them to have consensus mechanisms.

API-based automated deployments for channels and chaincodes

We will provide APIs to manage channels, custom chain codes and services required for efficient use. Universe will also have an in-house developed platform enabling developers to carry out these tasks through UI as well as APIs that can be used inside the customer's applications. So they can have more control over their organization.



(Screenshot: API - Management Portal from the bArchive Application)

Users can upload chaincode supporting Private Data

As we move forward and provide powerful features, customers might want to deploy their custom private data-supported chain codes. These types of chaincodes use more cloud resources as compared to a normal chaincode hence they can be monetized aggressively.

Interoperability with other blockchain platforms

Interoperability with other blockchains is a target in future to provide solutions to our clients. We work on it to make it possible to connect other blockchain technology.

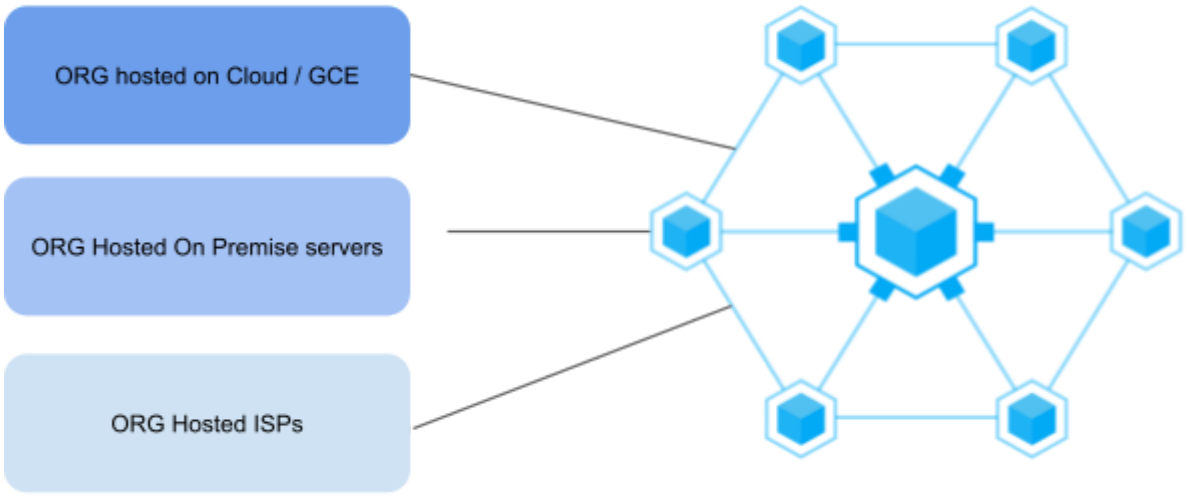
Create your own ERC-20 and ERC-721 token on edeXa Universe

To create a tokenized business we will provide our clients the ability to create their own fungible ERC-20 and non-fungible (NFT) ERC-721 tokens on edeXa Universe. Depending on the project size, edeXa will support such projects with the experience and resources as needed.

edeXa Universe Model

Infrastructure

edeXa Universe is a complex set of Kubernetes clusters hosted on Public, Private clouds, and ISP's. It is a multi-cluster environment where every cluster is controlled by its own control plane. This helps us to maintain decentralized structure and Security.

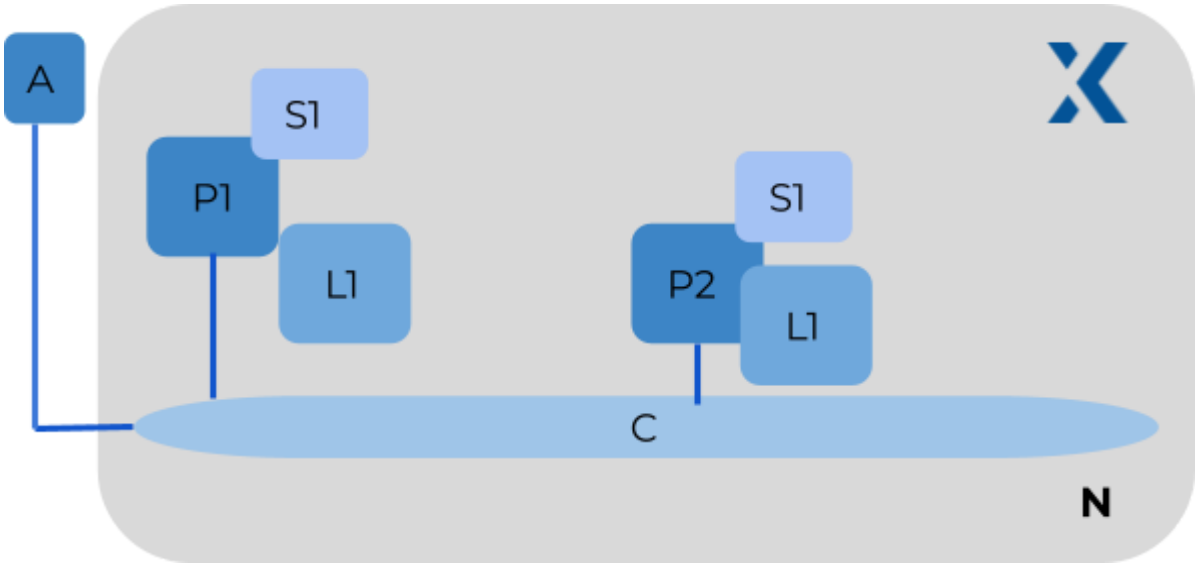


How will the edeXa Universe interact with other applications/services?

edeXa Universe provides APIs which can be used to interact with chain codes hosted by that customer. They run securely inside the Kubernetes cluster. Providing additional security and low latency.

Solution for Big Data in Universe

Now as per hyperledger fabric's design, one peer can host an unlimited number of channels and every channel has its own blockchain. So as per conventional practice, we will always have channels equal to the number of APIs we are providing. But this leads to the concentration of data. Let's consider the scenario where each organization has at least 3 peers. Out of those three peers, 2 will be used for processing transactions and one will be used for storing the blockchain data. We will talk about this architecture in detail.



N	Blockchain Network	L	Ledger
C	Channel	A	Application
P	Peer	PA --------- --------- -> C	Principal PA (e.g A, p1) Communicatio n via Channel C
S	Chaincode		

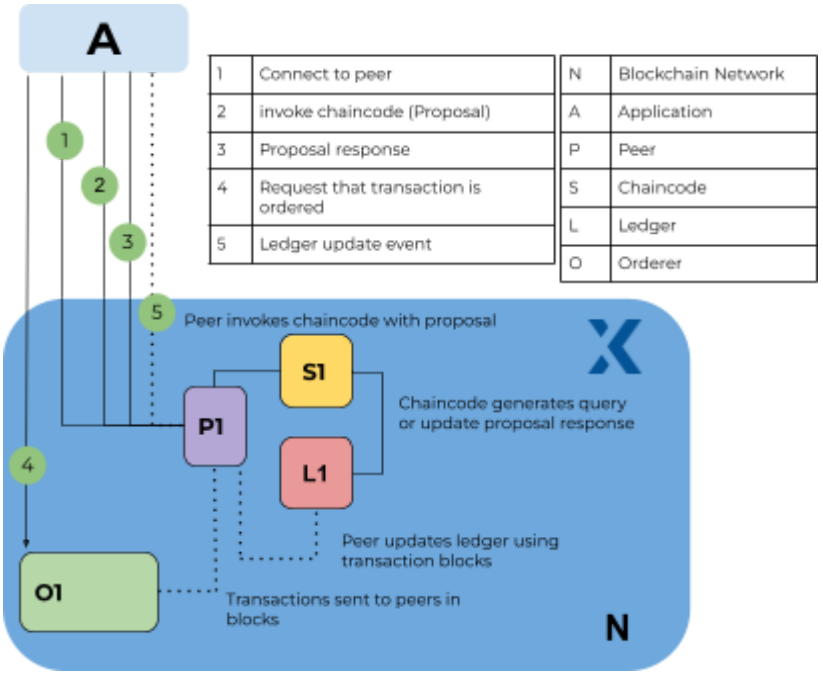
Within the Universe blockchain network, channels allow a specific group of peers and applications to speak with one another. In this case application A can use channel C to connect directly with peers P1 and P2. The channel can be thought of as a communication path between certain apps and peers. (Orderers are not shown in this graphic, but must be present in a functioning network). We can also see that channels are not the same as peers, and that it is more accurate to think of a channel as a logical structure built by a group of physical peers. It is critical to understand that peers provide the control point for access to and management of channels.

How will this work?

Instead of using one channel for every API's, we will be using multiple channels for one API. These channels will be created after a specific timeframe or after a certain number of transactions. All three peers will be part of those channels but the transaction processing will only be done on the peers.

Active Channels

Channels that are being used to process the transactions. In-active Channels: Channels that are not being used to process the transactions. For e.g. we will have channels as:



Peers, in conjunction with orderers, ensure that the ledger is kept up-to-date on every peer. In this example, application A connects to P1 and invokes chaincode S1 to query or update the ledger L1. P1 invokes S1 to generate a proposal response that contains a query result or a proposed ledger update. Application A receives the proposal response and, for queries, the process is now complete.
A creates a transaction out of all of the responses for updates, which it sends to O1 for ordering. O1 aggregates network transactions into blocks and distributes them to all peers, including P1. Before committing the transaction to L1, P1 verifies it. Once L1 is updated, P1 generates an event, received by A, to signify completion.

What makes the edeXa Universe so unique?

Universe used at core has one implementation of distributed ledger technology. This bring several benefits to mention as:

1) Identity management

To enable permissioned networks, Hyperledger Fabric provides a membership identity service that manages user IDs and authenticates all participants on the network. Access control lists can be used to provide additional layers of permission through authorization of specific network operations. For example, a specific user ID could be permitted to invoke a chaincode application, but be blocked from deploying new chaincode.

2) Privacy and confidentiality

Hyperledger Fabric enables competing business interests, and any groups that require private, confidential transactions, to coexist on the same permissioned network. Private channels are restricted messaging paths that can be used to provide transaction privacy and confidentiality for specific subsets of network members. All data, including transaction, member and channel information, on a channel are invisible and inaccessible to any network members not explicitly granted access to that channel.

3) Efficient processing

To provide concurrency and parallelism to the network, transaction execution is separated from transaction ordering and commitment. Executing transactions prior to ordering them enables each peer node to process multiple transactions simultaneously. This concurrent execution increases processing efficiency on each peer and accelerates delivery of transactions to the ordering service.

4) Chaincode Functionality

Chaincode applications encode logic that is invoked by specific types of transactions on the channel. Chaincode that defines parameters for a change of asset ownership, for example, ensures that all transactions that transfer ownership are subject to the same rules and requirements. System chaincode is distinguished as a chaincode that defines operating parameters for the entire channel.

Lifecycle and configuration system chaincode defines the rules for the channel; endorsement and validation system chaincode defines the requirements for endorsing and validating transactions.

5) Modular Design

Universe implements a modular architecture to provide functional choice to network designers. Specific algorithms for identity, ordering (consensus) and encryption, for example, can be plugged into any Hyperledger Fabric network.

6) Hybrid Brilliance

Our ecosystem boasts a pioneering hybrid architecture, combining the controlled environment of permissioned blockchains with the transparency of public blockchains. This fusion ensures adaptability, allowing businesses, organizations, and governments to tailor their blockchain experiences according to their specific requirements.

7) User-Centric Design

At edeXa, we understand the diverse needs of Businesses. That's why we've prioritized user-friendliness, offering an intuitive interface and straightforward functionalities. Whether you're a developer looking to innovate or a government entity seeking secure solutions, edeXa Universe simplifies the complexity of blockchain technology.

8) Business, Simplified

For companies, organizations, and government bodies, edeXa Universe provides a seamless platform to integrate blockchain solutions into existing operations. By bridging the gap between innovation and practicality, edeXa Universe empowers businesses to harness the benefits of blockchain technology without the complications.

Trusted Organizations as a part of the edeXa Universe

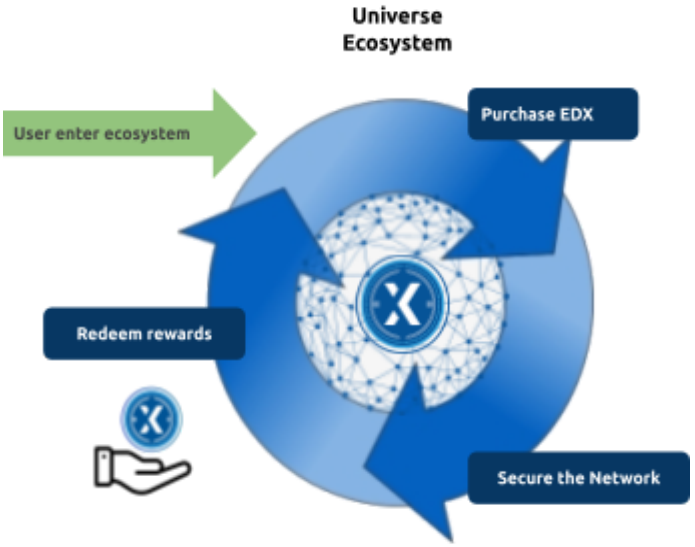
We offer trusted organizations to operate their own peers on the edeXa Univers business blockchain. The advantage is that such organizations take part in the consortium network of edeXa and have direct access to their own blockchain, which allows them to use their own and the edeXa business models and smart contracts.

We are thus offering companies and consortiums an innovative, high-performance and inexpensive business blockchain technology that can be used for a variety of applications from straightforward to highly complex business models. The focus is on large and medium-sized companies and consortiums, also for startups which provide professional solutions and have the usage of a consortium or a permissioned blockchain.

Reward system with edeXa Public Blockchain

The edeXa Business Blockchain network has implemented a unique rewards system to incentivize participation from Businesses to secure edeXa Public Blockchain. Unlike other blockchain projects, we do not rely on a proof of stake model. Instead, we use a PoA consensus mechanism to verify transactions on the network and add blocks to edeXa Public Blockchain. Businesses which are a part of our validation network, can earn rewards in the form of EDX tokens.

What are EDX rewards and how does it work?



The edeXa Public Blockchain ecosystem uses a unique consensus mechanism called Proof of Authority (PoA) to validate transactions and secure the network. PoA relies on a number of trusted Businesses validators, known as masternodes, to validate transactions and add them to the blockchain. These masternodes are selected based on their reputation, reliability, and technical expertise, and they are responsible for validating and confirming transactions on the network.

In order to earn EDX tokens as a masternode, the node must first be selected and approved by the edeXa network. Once selected, the masternode can begin validating transactions and earning rewards in the form of EDX tokens. It's important to note that masternodes in the edeXa ecosystem have an important role in maintaining the security and reliability of the network. As such, they are expected to meet certain standards of performance and reliability, and failing to do so can result in penalties or even removal from the network.

When Businesses receive the rewards as EDX, they can use them inside of edeXa ecosystem as:

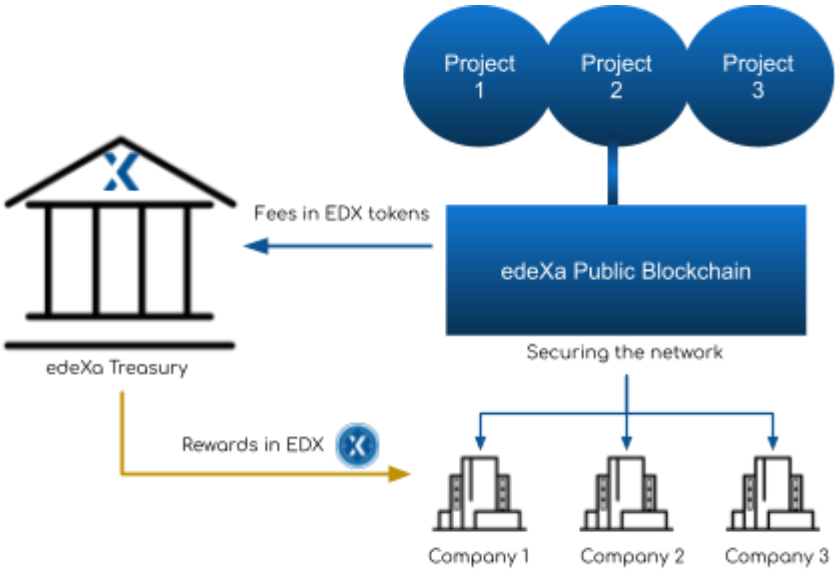
1. Access to Premium Services: Businesses can use EDX tokens to access premium services offered within the edeXa subscription plans, such as advanced Dapp tools, marketing insights, or customized whitelabel solutions.

2. Payment for Transactions: EDX tokens can be used as a means of payment for transactions conducted within the edeXa ecosystem, such as paying for the use of their own private ecosystem.

3. Rewarding Customers and Partners: Businesses can use EDX tokens to reward loyal customers and partners, incentivizing them to continue to work with the business and use the edeXa ecosystem.

4. Governance: EDX tokens can also be used as a means of governance within the edeXa ecosystem, allowing businesses to have a say in important decisions that affect the overall direction and development of the ecosystem.

5. Access to Prime Dapps Marketplace: Businesses can use EDX tokens to access the Prime Dapps Marketplace within the edeXa ecosystem, where they can launch and publish their own decentralized applications (Dapps). This allows businesses to reach a wider audience and improve their product offerings. By leveraging the power of blockchain technology, businesses can also enhance the security, transparency, and efficiency of their operations.



edeXa Dapps

(Decentralized applications)

In the dynamic realm of blockchain technology, edeXa Universe has redefined the landscape by offering a groundbreaking solution: the edeXa Web3 Connector. This innovative tool empowers Decentralized Applications (DApps) to seamlessly integrate into daily business processes, bringing forth substantial advancements.

Our ecosystem represents a journey, not just for users, but for businesses aspiring to streamline their operations. It's a space where users discover products tailored to their needs, providing a straightforward path for business growth. The Universe ecosystem offers essential building tools, all on a decentralized foundation, ensuring the security and integrity of every transaction.

Digital Twin

The EDX Digital Twin gives every object and every piece of information a unique digital identity. This allows proof of ownership and provenance to be displayed quickly and easily for evidentiary purposes.

Application examples:

- Registration and lifetime of IoT sensors
- Ownership of land and apartments
- Ownership of luxury goods
- Ownership of certificates and diplomas

Origin Data

With edeXa's blockchain solution, you can "hash" files and documents at any time to verify that they are originals. EDX - Origin Data can ensure and prove that the information has not been altered and that the document corresponds to the original.

Examples of use:

- Proof of originality of graphics, images, videos, and texts.
- Proof of inalterability of data for archiving systems
- Integration with ERP and numerous IT systems

Logistic and Tracking Data

Sensor data (e.g., IoT) is used to make processes efficient in the field of machine-to-machine automation. The stored log data is immutable and therefore trustworthy so that subsequent processes can be automated. Stakeholders can be sure that the data has not been manipulated.

Application examples:

- Tracking in logistics
- Monitoring and automation of machines in the area of support and maintenance
- Monitoring of cooling systems
- Automatic monitoring of contract details and automatic processing of insurance claims

Secure Messages

EDX Secured Messages allow you to send messages to customers and business partners securely. The edeXa Business Blockchain guarantees real-time delivery and enables read receipts. Our high level of encryption ensures that only you and your communication partners can read what is sent. Examples of use:

- Password transmission
- Registered mail
- Banks and trustees

Secure File Save

With Secured File Save, your documents are guaranteed to be safe and protected from changes and unwanted access. The data is stored encrypted in an off-chain, and the hash value is irrevocably and securely stored in the EDX Business Blockchain.

Examples of use:

- Storage of large log files
- Application for document management systems
- Archiving of invoices

Vault

The EDX Vault offers you the highest level of security for file and document encryption. Even before the data is transferred, the information is locally encrypted end-to-end and can never be read by outsiders. You can be confident in the security of your confidential and important data.

Application examples:

- Application for document management systems
- Secure archiving of documents, files and contracts
- Registered mail

DApps created in edeXa Marketplace

bYou

Zero Knowledge Proofs of the modern digital life for access, control, delegation and consent of identity and personal data. With bYou Dapp, users can securely verify and share credentials with edeXa Blockchain

Features for bYou Holders

- Connect with the credential issuer, such as a university or Employer
- Request your verified credentials
- Accept the credential into your wallet
- Get verified as an Authorized credential issuer
- Send verified credentials

Where can bYou be used?

Governments

The decentralized platform allows Industry to issue, modify and revoke registrations.

Health

Ensure all clinicians are qualified, registered and credentialed to deliver their scope of practice, Improving patient safety and reducing risk.

Corporate

Allows employees and contractors to capture, track and maintain their ongoing professional development.

Education

Authorized education providers include Universities, registered training organizations (RTOs) and other professional development providers.

bStamp

Creating a unique and universal fingerprint and records the momentum of process data. This decentralized application is providing three main power values to any business. With edeXa Universe at core, bStamp defines and replace trust with blockchain.

Recipients of documents can verify when the transaction file was electronically signed and combined with a validation tool of checking if the file was altered or modified.

1. Attribution
2. Accountability
3. Auditability
4. Validation

The digital verification process involves a content integrity check, while a timestamp also offers that benefit (knowing the document hasn't been changed since the signature was applied). secure, independent and portable proof of electronic record integrity. By using digital signature technology with edeXa bStamp.

bNFT

edeXa Universe has created the possibility of deployment of native assets NFTs. NFT applications bring the non-fungible tokens, this means the users can create the unique identifiers or attributes to a token to make it distinguishable from others.

Realize the value of creation:

- Converting any digital assets into an NFT
- ART-MINT creations and connect to other market places
- ERC-721 gateway to connect to other Blockchains Networks

This decentralized application provides the ability to create your own ERC-721 token in edeXa Universe.

The digital presentation of your assets can be:

- Arts
- Financial assets
- Gaming objects
- Tickets
- Collectible cards

edeXa Services

We offer our customers services that can be integrated into their existing processes. The services are equipped and implemented with appropriate smart contracts according to the customer's requirements. Our long-standing experience in business application and implementation guarantees a fast added value for your company.

The edeXa Token

The edeXa (EDX) token provides a reward mechanism for incentivizing our consensus process and as a customer transaction fee and benefit token which is used in the edeXa Universe Business Blockchain. In addition, we will offer various discounts and special conditions (benefits) to the EDX - holders in future, who aim to hold EDX tokens for an extended period of time.

Through the sale of EDX - tokens, the generated income will be primarily used for further development and whole operation of the edeXa Universe business blockchain. The listing on exchanges is intended to increase the attractiveness of the EDX Token and contribute to new participants in the entire edeXa ecosystem.

Token specification

Name:	edeXa
Token Ticker:	EDX
Typ:	Utility-token
Total number of tokens:	10,000,000,000
Token Supply on Exchanges:	5,000,000,000

Token distribution

Public on Exchanges:	50%
Management / Team / Advisors:	20%
Treasure / Reserve / Operation:	25%
Research & Development	5%

edeXa (EDX) Token Cross-Chain Compatible

- Etherium
- Polygon
- Binance smartChain
- Solana

The edeXa ERC-20 Token smart contract address can be found on different blockchain chains, providing users with accessibility and flexibility across various networks.

Core Team

Daniel Kohler, CEO
Is an innovation-driven entrepreneur and pursues the vision of a digital business world. With the edeXa Business Blockchain, a new technology era begins, creating new innovative solutions in digitalization.

Stefan Neyer, CTO
Leads the technological development of supply chain applications and blockchain. He has been developing complex and innovative business software solutions for over 20 years.

Andrew Polania, CIO
Is responsible for analyzing technologies and developing strategies and monitoring the company's IT processes. He studied Cisco technologies and has over 10 years of experience as an IT & network specialist. He speaks five languages and has excellent communication skills with our customers in different countries around the world.

Nibin Ninan, Manager
Is the technical manager in our subsidiary in India. He has several years of experience in software development and technology. Nibin has incredible technical knowledge and leads a team of specialized software developers.

Shubham Koli, CBO
Shubham as leader in the field of blockchain technology, plays a key role in developing decentralized applications using Hyperledger and other blockchains and is responsible for the blockchain development team.

Dinesh Rajpurohit, Team Leader
Is a local team leader and has many years of IT experience. He studies complex business requirements and develops effective solutions, starting from a theoretical model to debugging and deploying the software solution.

Martina Cassani, Investor Relations
Martina, our Investor Relations professional, offers exceptional service and support to our investors, proactively addressing inquiries and concerns to ensure timely and accurate information.

Office in Vaduz

Office in Ahmedabad

Our team is completed by our own in-house software developers in India as well as freelancers around the world.

Roadmap

2018	io-market AG founded the new subsidiary edeXa AG. The first proofs-of-concept were successfully implemented, and the project was released for the implementation phase. The first security token sale has taken place.
2019	The development of the edeXa Blockchain is running at full speed. The first blockchain services have been implemented in a pilot project for our customers.
2020	Further development of the Universe project that offers companies and public authorities one ecosystem that can be used for trust-building with secure and traceable processes. DApps APIs first release beta.
Q1-Q2 2021	edeXa Universe development came a cross to all major milestones in the field of DevOps, Blockchain, and APIs to achieve the project. Banji (part of DApps) goes live as a beta version. It enables every object and every piece of information to be assigned a unique digital identity by the EDX-Digital Twin. This allows proof of ownership and proof of origin to be presented quickly and easily for evidence purposes. This also applies to digital contracts using an e-signature.
Q3-Q4 2021	edeXa keeps on high speed the development of permissioned Blockchain, meaning only trusted and verified entities can participate in the ecosystem of infinite possibilities. Further Development of EDX token and reward system. Introducing bStamp part of DApps edeXa Universe blockchain. Only a few weeks after the release of Banji, the first major extension is already available. With bStamp, users can digitally sign or validate files on Universe projects.

Q1-Q2 2022	The entire Vision grows and the strategy covers great huge steps for the 2022 Market. The entry of the edeXa Universe with innovative business blockchain solutions will continue to improve and target marketing organizations that use our blockchain ecosystem for their own business model while the rewards system will take place for everyone.
Q3-Q4 2022	edeXa started to partner with potential agencies to strongly promote the vision worldwide. testnet network will be in operation to test speed and deployment of smart contacts in real time and bring Blockchain enthusiasts to build applications and increase Global demand for decentralization in digital areas. The Portal edeXa Universe will be focused to continue to work closely with powerful enterprises and bring onboard new business. edeXa brings the NFT for business to reality where users can create Unique identifiers or attributes for use cases, allowing to remove intermediaries and simplify transactions while EDX token will empower the edeXa Public Blockchain at core.
Q1-Q2 2023	Our primary focus lies in the meticulous launch of the testnet for the public blockchain edeXa, underscoring our commitment to ensuring a secure and audited environment. Concurrently, we are initiating the development and implementation of additional web3 applications in collaboration with our valued customers. Our overarching objective is to seamlessly integrate the edeXa Token across various chains, ensuring its robust functionality and safety protocols. By prioritizing these efforts, we are not only enhancing the security of our network but also paving the way for its successful deployment on mainnet. This strategic move not only fortifies our market presence but also serves as a crucial milestone in our company's exponential growth trajectory.

Q3-Q4 2023	edeXa is at the forefront of pioneering web3 customer projects, introducing innovative blockchain-based services, and extending its global footprint through strategic worldwide expansion efforts. Our primary focus remains on the meticulous deployment of the mainnet, marking a significant milestone in our journey. Concurrently, we are excited to officially launch the edeXa token across multiple prominent blockchains, including Polygon, Binance, and Ethereum. These expansions facilitate seamless interoperability, allowing the edeXa token to traverse different blockchain networks. This initiative not only broadens our token's accessibility but also reinforces our commitment to fostering a dynamic and interconnected blockchain ecosystem. The edeXa business blockchain continues to play a pivotal role in large enterprises, integrating seamlessly into various value chains, including logistics and supply chain management. Our dedication to constant improvement and ongoing development underscores our commitment to providing cutting-edge solutions in the ever-evolving blockchain landscape. We are resolute in our mission to empower businesses and drive innovation through the transformative potential of blockchain technology.
2024	In Q1-Q2 of 2024, edeXa is set to reinforce its commitment to the foundational principles of Business Blockchain. Our focus will be on establishing robust blockchain solutions tailored for governments, organizations, and businesses. This initiative is geared towards simplifying the adoption of blockchain technology across various sectors. By seamlessly integrating blockchain into their operations, businesses can enjoy the added layer of trust they seek in their transactions and data exchanges.

edeXa's unique approach lies in its hybrid ecosystem, which will play a pivotal role in this endeavor. This innovative approach combines the efficiency of blockchain technology with the flexibility of traditional systems, ensuring a seamless transition for businesses into the realm of decentralization. Our hybrid ecosystem is meticulously designed to address the diverse needs of businesses, offering them unparalleled scalability, security, and transparency.

Furthermore, as we continue our expansion efforts into new countries, our business blockchain willstands out as a market leader. It boasts a multitude of sustainable projects and ongoing business activities, reinforcing our position as a trusted partner in the blockchain landscape. Through our strategic initiatives and innovative solutions, we are shaping the future of decentralized business operations, one that is built on trust, efficiency, and transformative technology.

Legal and general risk information

edeXa Aktiengesellschaft is subject to Liechtenstein law. It is incorporated in the legal form of a stock corporation. edeXa is registered in the commercial register with the registration number FL-0002.593.297-0. The sole shareholder and holder is the parent company io-market AG. edeXa issues the Security Tokens as non-voting shares under Liechtenstein law. See further details in the corresponding whitepaper at www.edeXa.io. In all publications, unless otherwise stated, the German version applies in each case. A lawyer specialized in token sales supported edeXa AG in the company formation and implementation of the token sale.

Disclaimer

This whitepaper claims to clarify and explain all details and information truthfully to the best of our knowledge. However, structures, plans and agreements may change at any time after the publication of this whitepaper. We are always focused on keeping our documents and publications up to date. edeXa AG aims to make these changes available online in a revised and updated version in a timely manner. All investors, users and interested parties have free access to the information via our homepage and social networks. We recommend every stakeholder subscribe to our newsletter to be informed about changes in a timely manner.

General risk

In principle, shares, as well as tokens, offer excellent opportunities for the above-average market, sector and company-related price increases. However, investors must also consider the possibility of loss. Risk is always two-sided; where gains are possible, losses cannot be ruled out. Investments in cryptocurrencies are subject to the usual capital market risks in addition to technological risk. The value of a token and the resulting income are subject to fluctuations or may be eliminated altogether.

There is no guarantee that the invested amount will not lose value in the future. In extreme cases, there is also the risk of a total loss of the invested assets.

Exchange rate risk

More than standard (fiat) currencies, cryptocurrencies are subject to strong fluctuations. The volatility of all cryptocurrencies is many times higher than conventional (fiat) currencies, even intraday. In particular, significant losses (or gains) can occur when converting the investor's home currency into cryptocurrencies, as well as vice versa, due to the exchange rate change. Investors should pay particular attention to exchange rate risk when making decisions.

Forward-Looking

Statements Some statements in this whitepaper that relate to future business performance and future operations or developments may constitute forward-looking statements. These statements are often, but not exclusively, identified by terminology such as "estimate," "will," "expect," "want," "may," "seek," "intend," "plan," "believe," "seek to," and "predict" or similar expressions. These statements and remarks are based on current expectations and knowledge, some of which are also beyond our control. If some or more of the underlying expectations do not materialize, or if assumptions prove incorrect, actual outcomes, goals and projected results may vary materially from those expressed or implied by the forward-looking statement. This applies to both negative and positive deviations. edeXa cannot ensure and does not intend to update all forward-looking statements in a timely manner or to correct them in the event of developments that differ from those anticipated. For these reasons, forward-looking statements provide no guarantee whatsoever regarding the future performance and results of edeXa AG.

Trading platforms

Our EDX Token is intended to be independently traded on various secondary trading platforms in the future. Holders can freely convert, sell and trade the token without the consent or permission of edeXa AG.

The platforms (exchanges) provided by external parties for this purpose do not belong to edeXa AG. Secondary trading platforms can be very speculative. The market is still very young and in its early stages. An efficient and arbitrage-free secondary market cannot be guaranteed at all times. Investors should take this into account when making investments and decisions. The maximum supply of EDX tokens is set at 10 billion. The token contract allows for adjustments to the current

supply, ensuring flexibility and adaptability of the edeXa mainnet ecosystem and other mutichains.

Any changes to the total supply will be communicated transparently and in accordance with the token's governance framework. Stay informed about supply adjustments by referring to the latest updates and official communications.

Tax aspects

Both on the corporate side and for investors in many jurisdictions, the tax assessment and treatment of tokens is neither uniform nor stringent. Investors should consult their tax advisor or an expert on the tax treatment; edeXa cannot make any binding statements here. The tax treatment varies greatly between the individual jurisdictions so that adverse effects cannot be ruled out. There may be an obligation to file a tax return, pay an increased income tax or other withholding taxes. This description is exemplary and not conclusive. It is the responsibility of every investor to inform himself comprehensively in advance and, in case of doubt, to refrain from investing if there is any uncertainty about the local jurisdiction. The government in Liechtenstein is generally open to cryptocurrencies and token sales, as can also be seen from numerous media reports. The tax treatment has not yet been conclusively clarified in Liechtenstein, Switzerland, the European Union and worldwide and is subject to constant change as case law is just developing. This is not unusual in such a young market. Nevertheless, even edeXa cannot rule out the possibility that the tax treatment of the token in Liechtenstein will develop adversely for the company in the future.

Market risk and non-settlement

edeXa has strong partnerships and already has a successful partner at its side in io-market AG. Nevertheless, it cannot be ruled out that edeXa's innovative and novel products will not find targeted success in the market. A lack of interest in the market can lead to negative consequences for edeXa and the investors. Investors should be aware of the naturally increased risk of venture capital before investing money and should cope financially with a loss.

Espionage and hacking

The parent company of edeXa, io-market AG, has been a successful software solutions provider for many years. The need for high security standards and protection against cyber-attacks has always been part of everyday life. Nevertheless, there is no absolute security for any system. Both companies always update promptly according to the highest security requirements.

However, attackers can harm edeXa's business model on the one hand and target the token sale itself or the wallet on the other. edeXa will do everything in its power to ensure the best possible protection for the company and its investors.

Unknown

In science, there is the term "unknown unknowns," which means unknown unknowns. We cannot give an exhaustive list of risks because the technology and regulation are so new. Both technology and regulation and the market environment can change at any time. On the one hand, as a benefit, and on the other, to the detriment of investors. Blockchain technology is as modern and disruptive an idea as it is new and inexperienced. As usual with novel technologies and processes, all risks can never be listed or outlined. Thus, further risks may arise in the future that neither io-market nor edeXa could anticipate before.

Other risks

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Contacts

Contact for investors: invest@edexa.io

Media contact at: media@edeXa.io

Contact for cooperation partners at: cooperation@edeXa.io

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