

Quantoz Payments B.V.
EURD White Paper
 (Articles 51 to 53 of [MiCA regulation](#))

This white paper was notified to *De Autoriteit Financiële Markten (AFM)* on 2024-08-01.

Disclaimer

This e-money token ("**EMT**") white paper ("**White Paper**") has not been approved by any competent authority in any Member State of the European Union ("**EU**"). The issuer of the crypto-asset is solely responsible for the content of this White Paper.

 This White Paper complies with Title IV of Regulation (EU) 2023/1114 and to the best of the knowledge of the management body, the information presented in the White Paper is fair, clear and not misleading and the White Paper makes no omission likely to affect its import.

 The e-money token EURD ("**EURD**") issued by Quantoz Payments B.V. ("**Quantoz Payments**") is not covered by the investor compensation schemes under Directive 97/9/EC. EURD is not covered by the deposit guarantee schemes under Directive 2014/49/EU.

Executive Summary

- Warning in accordance with Article 51(6), second subparagraph of Regulation (EU) 2023/1114s
 This summary should be read as an introduction to the White Paper.
 The prospective holder should base any decision to purchase EURD on the content of the White Paper as a whole and not on this summary alone.
 The offer to the public of EURD does not constitute an offer or solicitation to purchase financial instruments and any such offer or solicitation can be made only by means of a prospectus or other offer documents pursuant to the applicable national law.
 This White Paper does not constitute a prospectus as referred to in Regulation (EU) 2017/1129 of the European Parliament and of the Council (36) or any other offer document pursuant to EU or national law.
 - Characteristics of the crypto-asset
 EURD is a euro-backed stablecoin issued by Quantoz Payments. It is classified as both electronic money and an electronic money token, designed to maintain a stable value equivalent to the euro. This stability is achieved through a pegging mechanism, with each EURD token fully backed by equivalent euro reserves. To ensure that the funds are segregated from Quantoz Payments's assets, the funds are held by Stichting Quantoz (hereafter Quantoz Foundation), a bankruptcy remote setup which will ensure that customer funds are fully ringfenced from any potential liquidation. Quantoz Payments and Quantoz Foundation are subject to prudential supervision by DNB, subject to the EMI license of Quantoz Payments.
 EURD is issued on the Algorand blockchain as a Algorand Standard Asset (ASA token).
 - Right of redemption
 Holders of the EURD e-money tokens have the right of redemption at any time and at par value, under the conditions that the holder signed up to create an account with Quantoz Payments and provided valid KYC/AML and bank details. Redemptions can only be done through Quantoz Payments by using the Quantoz Payments applications. The Quantoz Payments applications can be used at no costs.
 Quantoz Payments distinguishes between business users and consumer users. Business users are merchants that supply goods/services paid for by consumer users with EURD. Business users may redeem any amount in EURD for fiat money, including EURD not obtained by them directly from Quantoz Payments (but obtained from consumer users or other business users). Where consumers wish to redeem more EURD than they have acquired directly from Quantoz Payments, the redemption process may be subject to additional KYC and AML controls. Consumers will be notified by the Quantoz Payments applications when additional information, such as passport or source of funds declarations are required. Quantoz Payments may charge a fee to business users using the EURD service to maintain and improve the quality of the service, to ensure transparency, and to provide support to them for any questions they may have.
 The right of redemption, including its conditions and processes, is stated in the terms and conditions found on the Quantoz Payments website: <https://quantozpay.com/terms/> .
 - Key information about the offer and or admission to trading
 EURD is an e-money token (EMT) issued exclusively by Quantoz Payments. Pursuant to Article 48(2) MiCA, all EMTs representing the value of an official currency of a Member State of the European Union are automatically deemed to be offered to the public upon issuance. Therefore, EURD is always considered to be offered to the public, regardless of where a potential holder might purchase or receive it.
 There is a cap on the total amount of EURD available to the public of 10.55T EURD. The issue price of EURD is always set at a 1:1 ratio with the euro, meaning each EURD token is priced at one euro. Quantoz Payments does not charge fees for issuing and a fixed 1 euro fee for redeeming EURD to cover banking costs.
 The specific maximum acquiring, and redemption limits depend on the KYC, AML and financial information provided by the holder and are described in par 28 of our terms and conditions <https://quantozpay.com/terms/>

1 Information about Quantoz Payments B.V.

Issuer name	Quantoz Payments B.V.
Legal form	54M6 - Besloten Vennootschap
Registered address	Europalaan 100, 3526 KS Utrecht, The Netherlands
Registration date	2021-09-30
Company Registration number	84071745
LEI	7245008P1HPUPVM7XL94

Contact number	+31 30 2272621
Contact email address	contact@quantozpay.com
Response time (in days)	7 days
Parent Company	Quantoz N.V., having its registered office located at Europalaan 100, 3526 KS Utrecht,
Management	N. Haasnoot CEO (General Management, Finance, HR, Legal, Compliance) H. de Jong COO (Business Development, Marketing and Sales) G. Hendriks CTO (Technology, Systems and Operations) All members of the Quantoz Payments Management team and the Quantoz Payments have been non-objected and passed fit & proper assessments by the DNB. The shareh DNOs (declarations of no objection) granted by DNB.
Business Activity	Quantoz Payments issues EURD as electronic money tokens to users, being merchant consumers, in wallets on a public blockchain. This digitized money is pegged to fiat eur received by Quantoz Payments in exchange for the e-money tokens are safeguarded in the relevant requirements under MiCAR article 547. At least 30 % of the funds received deposited in separate accounts in credit institutions to meet anticipated redemptions. T funds received are invested in secure, low-risk assets that qualify as highly liquid financ with minimal market risk, credit risk and concentration risk and are denominated in eurc The funds are safeguarded through a bankruptcy-remote structure in the form of the Qt Foundation. Such a structure is common in the Netherlands for electronic money institu payment service providers. Reference is made to the DNB register, in which the Quant mentioned in relation to the registration of Quantoz Payments, with the following explar Quantoz is as escrow party related to Quantoz Payments and in that matter supervised Nederlandsche Bank". Quantoz Payments is focused on developing and providing secure, efficient, and comp financial solutions related to EURD. In addition to issuing electronic money tokens, the software enabling EURD holders to handle their EMTs. The European Economic Area is Quantoz Payments' principal market. The company's generating activities are derived from the interest generated by the asset-reserves back EURDs and from services to businesses using EURD. The company's success is currently particularly dependent on the adoption and utilizati Key customers of Quantoz Payments include financial institutions, entities operating wi assets and businesses improving their operations by using regulated programmable EM By leveraging advanced blockchain technology and robust security measures, Quantoz to position itself as a leader in the digital finance sector by being committed to innovati and regulatory compliance.
Parent Company Business Activity	Quantoz N.V. is the holding company for the three entities of the Quantoz group: Quantoz Technology BV, employs most of the staff and develops the NEXUS platform, between fiat money and public and private blockchains. Through NEXUS, Quantoz Tec partners can manage their custom token ecosystem without the need to deal with the te Quantoz Blockchain Services BV operates the blockchain platform NEXUS, developed Technology BV, as a SaaS to third parties. Quantoz Blockchain Services BV facilitates (intragroup) and external partners. Quantoz Payments BV, issuer of the EURD and providing a licensed e-money solution.
Conflict of interest disclosure	No conflicts of interests have been identified as of today in relation to the issuance of E
Issuance of other crypto-assets	No
Activities linked to other crypto-assets	No
Connection between the Issuer and the entity running the DLT	No
Newly Established	No
Financial conditions since registration	Quantoz Payments has consistently maintained a robust and regulatory-compliant rese issued by Quantoz Payments are fully backed by equivalent reserves held in regulated institutions, managed by the independent Quantoz Foundation. These reserves are kept Quantoz Payments' own funds to protect the assets of EURD holders, ensuring their se event of Quantoz Payments' insolvency. Quantoz Payments has maintained capital reserves ensuring robust backing for its org: EMT, despite being in its early stages, see the table below. Future revenue increases a to growing adoption of EURD and customer base expansion. Quantoz Payments BV - EUR x 1000 2021 Equity (Tier 1 capital): 502 Capital requirement: 350 2022 Equity (Tier 1 capital): 430 Capital requirement: 350 2023 Equity (Tier 1 capital): 592 Capital requirement: 350

	The company has ample liquidity and sufficient capital resources from its existing share financial statements detailing its performance reported to authorities without issues. Qu commitment to transparency, regulatory compliance, and sound financial practices has in the digital finance sector, particularly with e-money tokens. The company focuses on expansion, financial health, and stakeholder value.
Exemption from authorisation	No
Asset Token Authorisation	Electronic Money Institution license (EMI) License granted: 13 October 2023 License relation number: R186418
Authorisation authority	Dutch Central Bank (DNB)
Persons other than the issuer offering to the public or seeking admission to trading of the e-money token according to Article 51(1), second subparagraph, of Regulation (EU) 2023/1114	Currently, no third-party is authorized to offer EURD to the public. This situation may be changes in the future.

2 Information about EURD

2.1. Name

Quantoz EURD

2.2. Abbreviation

EURD

2.3. Characteristics

Token Type: Auxiliary Digital Token

Auxiliary Digital Token Mechanism: Algorand Standard Asset (ASA)

EURD classifies as a crypto-asset under Art. 3(1)(7) of MiCAR, more specifically the category of electronic money tokens or e-money tokens (EMTs).

EURD is a euro-backed regulated stablecoin issued by Quantoz Payments. Quantoz Payments is supervised by the Dutch Central Bank. EURD is fully backed by equivalent reserves in euros, managed by the independent Quantoz Foundation and is legally considered as electronic money and as an EMT.

EURD is programmable money and facilitates peer-to-peer payments among consumers, businesses, and devices, thereby enhancing financial inclusion and democratizing access to finance. It ensures efficient and compliant settlement of payments, meeting the requirements of emerging business models such as the Internet of Things, DeFi, and Web3.

The Quantoz Payments web portal provides business customers (and professional consumers) additional functions besides the standard payment functionality of the mobile App. Customers can add additional blockchain wallets ("whitelist self-managed blockchain accounts") and manage the private keys of these wallets themselves and create API keys for integration with the Quantoz Payments backend (for automation).

This comprehensive ecosystem ensures the seamless integration of EURD as a trusted and efficient means of digital payment, facilitating secure and compliant transactions for all participants.

EURD holders can always redeem their EMT at par value.

2.4. Partners

Design and development of EURD was done by subsidiaries of Quantoz NV.

The relevant business entities of Quantoz N.V. are:

- Quantoz Technology BV, employs most of the staff
- Quantoz Blockchain Services BV, providing the backend platform ("NEXUS") as a SaaS solution to its partners
- Quantoz Payments BV, issuer of the EURD and providing a licensed e-money solution

All business entities within the Quantoz NV group are ISO 27001 certified.

3 Information about the offer to the public of EURD and its admission to trading

3.1. Offer to the public

This White Paper concerns the offer to the public of EURD (OTPC).

3.2. Supply

Quantoz Payments has implemented a predefined cap of 1055000000000 (10.55T) tokens, representing the Euro M1 Money Supply in October 2023, on the number of EURD units available for public offering or trading. The EURD token has 2 decimal positions (cents). The circulation of EURD is directly linked to the euros held in reserve, ensuring a 1:1 backing ratio. At any moment, the number of EURD in circulation and its holders can be verified through the Algorand Explorer at <https://app.dappflow.org/explorer/asset/1221682136/transactions>, along with regular reserve attestations and public disclosures.

3.3. Trading platforms

Only Quantoz Payments issues and redeems EURD. There might be crypto asset service providers (CASP's) offering EURD in the future, but Quantoz Payments will only allow regulated EEA-based CASP's to offer EURD as payment method on their trading platform.

3.4. Jurisdiction

The use of EURD is subject to the laws of the Netherlands (the "**Applicable Laws**").

3.5. Competent Court

Any legal action or proceeding arising from using EURD shall be initiated before the court of Utrecht, the Netherlands.

4 Information on the rights and obligations attached to EURD

4.1. Holders' rights and obligations

Quantoz Payments distinguishes between business users and consumer users. Business users are merchants that supply goods/services paid for by consumer users with EURD. Both customer types undergo appropriate due diligence procedures to onboard into the EURD closed loop eco-system when they sign up with Quantoz Payments.

Customers can only fund their EURD account with transferring fiat euro from a euro bank account in their name. Both consumers and merchants can redeem EURD back to fiat euro, receiving the corresponding value in their registered bank accounts. Where consumers wish to redeem more EURD than they have acquired from Quantoz Payments, the redemption process may be subject to additional KYC and AML controls about which they will be informed through the Quantoz Payments applications. Business users may exchange any EURD back for fiat money. The Quantoz Payments applications can be used for redeeming EURDs.

Holders of the EURD e-money token have the following rights:

- Redemption at par value: holders retain the right to redeem their tokens for the equivalent value in fiat currency at any time. To initiate a redemption, holders can initiate the Redeem function in the Quantoz Payments applications.
- Use of the EURD mobile wallet app that provides personal account holders with a secure EURD wallet to fund, hold, redeem, receive and pay with EURD. The wallet app uses an Algorand blockchain account, of which the key is managed by Quantoz Payments.
- Businesses can onboard a business account with Quantoz Payments via the Quantoz Payments webpage <https://quantozpay.com/businesses/>.
- Use of the web portal of Quantoz Payments to add and manage additional wallets, of which the holder manages the private key themselves. Quantoz Payments does not pay the transaction fees of such wallets, and holders must take care of the Algorand blockchain transaction fee themselves.

New personal customers by default have the Tier1 daily and monthly transaction limits. Higher Tier levels with higher transaction limits may require the customer to provide additional compliance information. The information the customer needs to provide is communicated to the customer through the Quantoz Payments App. The daily and monthly limits of the different levels are available at the web page of Quantoz Payments (<https://quantozpay.com/terms/>)

- Businesses may redeem any amount in EURD for fiat money, including EURD not acquired directly from Quantoz Payments (but obtained from other customers). Where consumers wish to redeem more EURD than they have acquired from Quantoz Payments, the redemption process may be subject to additional controls. The following restrictions apply: Quantoz Payments accepts private customers with residence in the EEA, UK and Switzerland or businesses registered in the EEA, UK and Switzerland.
- Quantoz Payments exclusively accepts payments from IBAN in the name of the user; cash transactions are not allowed.
- Only fiat euro is accepted for funding; other fiat currencies are not accepted.
- Bank accounts from outside the Single Euro Payments Area (SEPA) are not accepted for transactions.

Holders of the EURD e-money token have the following obligations:

- They will hold and use EURD in compliance with this white paper and the applicable laws.
- They are not a restricted person, appearing on the OFAC, UN, EU or Dutch Sanction lists, and are not holding EURD on behalf of a restricted person.
- Only users with valid KYC/AML and verified bank details can redeem their EURD. Users are obliged to provide Quantoz Payments with adequate information in relation to Know Your Customer (KYC) and Anti-Money Laundering (AML) requirements.
- In addition, all EURD holders must comply with all applicable laws, including, but not limited to, the strict and absolute prohibition of the use of EURDs for money laundering, terrorist financing or any other financial crime.

For more details regarding the rights and obligations of EURD holders, please refer to <https://quantozpay.com/terms/>.

4.2. Amendments on rights and obligations

Quantoz Payments reserves the right to periodically amend these rights and obligations. EURD holders will be informed of such changes via updates to this white paper, the Redemption Policy on Quantoz' website, or any other valid communication channel.

The rights and obligations of EURD users may be subject to modification for example under the following conditions:

- Compliance with applicable laws and regulations: changes may occur to ensure adherence to the prevailing laws and regulations within the operational territory of Quantoz Payments.
- Improvement of services: modifications may be made to enhance the quality and efficiency of services provided to EURD users, ensuring a better user experience and satisfaction.
- Enhancing Security Measures: updates may be implemented to bolster security protocols, safeguarding user assets and data against evolving threats in the digital landscape.

Proposed changes will be announced to holders with a 30-day notice period, allowing them time to review and prepare for the updates. However, if changes are required by a legally binding request from a competent authority or deemed necessary by Quantoz Payments to meet regulatory, legal, or compliance obligations, they will take effect immediately. Such immediate modifications will be communicated promptly, just as with other changes.

4.3. Insolvency

Quantoz Payments is subject to prudential supervision by DNB and must continuously comply with requirements regarding the holding of regulatory capital.

In the event of the Quantoz Payments' insolvency, the equivalent value of the issued amount of EURD remains secure. The reason for this is that the funds received by Quantoz Payments in exchange for e-money tokens are safeguarded through Quantoz Foundation, a bankruptcy-remote structure with fully independent governance and operations. This means that a redemption request by holders of EURD can always be fulfilled in the event of insolvency of Quantoz Payments.

4.4. Recovery Plan

Quantoz Payments might take the following measurements to execute the recovery plan.

Restriction on Inflow of new customers

As part of the recovery plan, Quantoz Payments might limit the number of new customers. This will help Quantoz Payments manage its resources better and keep the operations stable during challenging times.

Limitation on customer volume

Quantoz Payments has the contractual right to limit the amount of funding its customers can do. This helps Quantoz Payments to

manage its financial responsibilities and reduce potential risks. Quantoz Payments is committed to quickly inform customers about any such limits to ensure transparency and support effective cooperation.

However, the recovery plan is still under development. This white paper will be updated to reflect the approved recovery plan, once regulatory authorization has been received.

4.5. Redemption Plan

Depending on the specific circumstances under which the redemption plan is triggered, Quantoz Payments may need to impose restrictions on the redemption of EURD. EURD holders will be notified of any such restrictions on the Quantoz Payments website.

The redemption plan is still under development. This white paper will be updated to reflect the approved redemption plan, once regulatory authorization has been received.

4.6. Complaint Submission Contact

Customers can file a complaint by sending an email to the following email address: support@quantozpay.com, with the word "complaint" in the subject. To handle complaints in the best possible way, the following information will be requested:

- Full name of the Customer
- The Customer Account Code provided by the Quantoz Payments
- E-mail address
- A description of the complaint

4.7. Complaint Handling Procedure

Upon receipt of a complaint the Staff involved with customer support will:

- Assess the information sent by the Customer and confirm receipt of the complaint by email and informs the Customer within which period the complaint will be dealt with (which timeframe will in principle be 15 working days from the date of receipt of the complaint, save in exceptional circumstances).
- The confirmation of receipt may – if applicable – comprise a request for additional information required to complete and commence handling the complaint. In such case the timeframe will commence after Quantoz Payments has received the additional information.
- The complaint will be analyzed by the Customer support desk and relevant departments of Quantoz Payments.
- Ultimately within 15 working days from the date of receipt of the complaint (or receipt of the additional information as applicable), inform the Customer of the outcome thereof, including possible compensation of damages incurred. This period may be extended up to 35 working days (in total) in exceptional circumstances which are not a result of an act or omission by Quantoz Payments, provided the Customer has been informed on the reasons for extension of the response period and agreed thereto.
- The Customer will be given the opportunity to respond to the outcome of the complaints process within 10 working days. In case such response requires additional research or analysis into the complaint, the complaint will be re-assessed taking into account the information provided by the Customer. Quantoz Payments will send a final response to the Customer within 10 working days after having received the Customer's response.
- The Customer will be informed that Quantoz Payments has finalized handling the complaint and that the complaints handling procedure will be closed. The Customer will also be informed about the possibility of initiating legal proceedings through a civil court.
- Close the complaint handling process and record the information and correspondence with respect to the complaint.

Quantoz Payments has a complaints procedure in place with a view to resolve complaints in an efficient, effective, and professional manner and to minimize complaints and claims. The complaints procedure is available on the Quantoz Payments's website: <https://quantozpay.com/complaints/>.

4.8. Dispute Resolution Mechanism

Quantoz Payments has a clear dispute resolution process for EURD holders. In the event of a dispute, holders should submit their concerns in writing via email or official channels. The dispute will be promptly acknowledged and documented by a designated team member and then thoroughly investigated with input from relevant departments.

Quantoz Payments's goal is to provide an initial response within ten business days outlining the steps being taken. If further investigation is required, holders will be kept informed of progress and timelines. If dissatisfied with the initial resolution, holders may escalate the matter to senior management for further review, ensuring higher level involvement for a fair outcome.

If internal efforts fail to resolve the issue, holders may seek external resolution through legal channels or alternative dispute resolution methods, such as arbitration or mediation, as set forth in Quantoz Payments' Terms and Conditions. Committed to transparency, fairness and efficiency, Quantoz Payments maintains detailed records of each dispute in order to improve service and address systemic issues. This structured approach ensures that all disputes are handled professionally and promptly, and that the rights and interests of EURD holders are protected.

4.9. Token Value Protection Schemes

The amount of issued EURD has a 1:1 correspondence with the fiat euro amounts and backed by a 102% reserve of which at least 30% is always deposited in a trusted bank account managed by the Quantoz Foundation. The remaining funds are invested in secure, low-risk assets that qualify as highly liquid financial instruments with minimal market risk, credit risk and concentration risk, in accordance with Article 38(1) of MiCAR and are denominated in euro.

In the event of insolvency or financial instability of Quantoz Payments, these reserves are specifically designated to meet EURD holders' redemption requests at par value, thereby protecting the value of the EURD. Regular certifications verify the adequacy of these reserves, increasing transparency and trust.

4.10. Jurisdiction

The use of EURD is subject to the laws of the Netherlands (the "Applicable Laws").

4.11. Competent Court

Any legal action or proceeding arising from using EURD shall be initiated before the court of Utrecht, the Netherlands.

5 Technology

5.1. Distributed Ledger Technology

The EURD e-money tokens of Quantoz Payments are issued on the Algorand blockchain.

5.2. Protocols and Technical Standards

Algorand Standard Asset tokens (ASA tokens).

5.3. Technology Used

EURD uses Quantoz Institutional-grade ISO 27001 certified and ISAE 3402 compliant NEXUS technology, a resilient cost-efficient SaaS infrastructure, developed by Quantoz Technology and managed by Quantoz Blockchain Services that has been in production since 2016. It has processed more than 1 million accounts, more than 10 million transactions with a transaction volume exceeding 5 billion euros. The NEXUS platform manages the execution of EURD transactions on the Algorand blockchain for Quantoz Payments applications.

NEXUS enables businesses to easily integrate blockchain infrastructure into their existing financial applications and to manage multiple tokens like tokenized assets and digital money, without the need to deal with the technical aspects involved. NEXUS manages customers, digital wallets and fiat- and blockchain transactions.

Using NEXUS, Quantoz Payments has defined a "virtual private payment network" (VPPN) for EURD, in an permissionless blockchain environment. A VPPN enables payments *only* between users that have signed up with Quantoz Payments and prevents that unknown users can hold EURD. This is to comply with EMD and is also known as a whitelisting of accounts.

Quantoz Payments' backend, web portal, APIs and mobile app are propriety applications of Quantoz Payments.

Personal EURD users can utilize the Quantoz Payments App for holding, storing, paying receiving, and redeeming EURD. Quantoz Payments manages the Apps' private keys.

5.4. Purchaser's technical requirements

For users to onboard with a personal account and start using the EURD, Quantoz Payments publishes a mobile EURD wallet app (on Android and iOS). This app provides a secure custodian EURD wallet to fund, hold, redeem, receive and pay with EURD. The user does not need to know anything about blockchain and does not need to own any cryptocurrency to pay the blockchain transaction fee as Quantoz Payments takes care of paying the blockchain fees through a dedicated wallet, owned and managed by Quantoz Payments.

To secure the wallet the user has a username (email address) and a password. The mobile device is whitelisted by Quantoz Payments. The wallet can be funded with EURD by making a euro bank transfer with the account code provided during sign-up as description. The user can convert the EURD back to euros on their bank account by creating a redemption/payout transaction in the wallet app.

The purpose of Quantoz Payments' mobile wallet app is to provide a simple EURD wallet for consumers and to enable professional users and businesses to securely login to their accounts in Quantoz Payments's web portal.

It is also possible to hold and control EURD tokens in self-managed blockchain accounts of which the user holds the private key. Self-managed EURD accounts enable the use of 3rd party applications or build new ones that unlock all features of the blockchain used, but users are responsible for managing the key and also must pay the blockchain transaction fee. Self-managed accounts can be created and whitelisted by users in the Quantoz Payments web portal.

5.5. Consensus Mechanism

The Algorand blockchain uses a decentralized Byzantine Agreement protocol that leverages pure proof of stake (Pure PoS).

The decentralized Byzantine Agreement protocol is a method for multiple computers (nodes) in a network to agree on a single truth, even if some nodes are faulty or malicious. Each node shares information and votes on the consensus. Through multiple rounds of communication and majority voting, honest nodes eventually converge on the same agreement, ensuring the system's reliability and security despite potential disruptions or false information from some participants. This means that it can tolerate malicious users, achieving consensus without a central authority, as long as a supermajority of the stake is in non-malicious hands. This protocol is very fast and requires minimal computational power per node, giving it the ability to finalize transactions efficiently.

More information about the consensus mechanism is available on the [Algorand website](#).

5.6. Incentive Mechanisms and Applicable Fees

The Algorand blockchain uses a decentralized Byzantine Agreement protocol that leverages Pure Proof of Stake (PPoS). In PPoS, users are randomly selected to propose and validate blocks based on their stake in the network. This ensures a decentralized and secure transaction validation process.

As for fees, Algorand employs a fee model that is designed to be low-cost and predictable. The standard transaction fee on the Algorand network is a fraction of Algos, the native cryptocurrency of the network, and it typically remains constant regardless of network congestion. The transaction fees of payments executed through the Quantoz Payments applications are covered by Quantoz Payments. For self-hosted accounts, or wallets, the user must pay the Algorand blockchain transaction fee (currently 0,001 Algo).

5.7. Use of own Distributed Ledger Technology

No

5.8. Audit

The EURD e-money tokens of Quantoz Payments are issued on the Algorand blockchain, a decentralized platform known for its high performance, security, and scalability. As part of Quantoz Payments's commitment to ensuring the integrity and reliability of its e-money system, a comprehensive audit of the Algorand blockchain technology was conducted. The audit verified that Algorand's layered architecture and cryptographic primitives ensure the confidentiality, integrity, and availability of transactions and data on the blockchain. A publication about this blockchain assessment is available on Quantoz Payments's website.

A more comprehensive risk analysis of the Algorand blockchain is provided in section 6.3.

Since 2020, Quantoz is an ISO/IEC 27001 certified company. As such an external audit for the NEXUS technology is performed every year. With this ISO certificate, Quantoz demonstrates that it has implemented an information security management system in which all processes and procedures have been carefully designed and tested according to the international ISO standards.

6 Risks

6.1 Issuer-Related Risks

Regulatory Risk

The legal and regulatory landscape surrounding e-money tokens is still evolving, potentially subjecting customers to uncertain or fluctuating rules and requirements. To mitigate this risk, Quantoz Payments is committed to maintaining transparent communication with relevant regulatory authorities and advisors, seeking guidance and clarification on evolving regulations. By closely monitoring regulatory changes, Quantoz Payments can stay informed about any new rules or requirements that may impact its operations. In addition, there is also a risk of potential regulatory arbitrage, wherein competitors may exploit differences in regulatory requirements across jurisdictions to gain a competitive advantage. This could pose challenges for Quantoz Payments in terms of maintaining a level playing field. To address this risk, Quantoz Payments will closely monitor regulatory developments in various jurisdictions and proactively engage with regulatory authorities to ensure compliance with the current regulations. Quantoz Payments will assess the regulatory frameworks to identify any potential gaps or inconsistencies that could be exploited by competitors and will take appropriate measures to mitigate such risks.

Quantoz Payments engages reputable independent legal counsel to seek advice and ensure continued compliance with applicable regulations.

Reputation Risk

There exists the potential for negative public perception or a loss of trust in Quantoz Payments or EURD itself, which could adversely affect its reputation and credibility. To mitigate this risk, Quantoz Payments maintains a robust governance framework and adheres to high ethical standards across all aspects of its business operations. This includes a commitment to transparency and full compliance with all relevant regulations, ensuring accountability and trustworthiness in its practices. Quantoz Payments engages reputable third-party auditors to conduct regular audits, verifying its adherence to industry standards and best practices. This not only adds credibility to the Issuer but also enhances its reputation in the eyes of stakeholders. Furthermore, Quantoz Payments recognizes the inherent risks associated with conducting business with customers or third parties engaged in money laundering or corrupt practices. Such associations can significantly damage Quantoz Payments' reputation and credibility. To mitigate this risk effectively, Quantoz Payments has implemented rigorous Know Your Customer (KYC) and Anti-Money Laundering (AML) rules and practices.

Compliance Risk

In the context of banking and financial services, compliance risk encompasses various regulatory requirements related to anti-money laundering (AML), know-your-customer (KYC) rules, counterterrorism financing (CTF), consumer protection laws, data privacy regulations, and other applicable statutes. To mitigate compliance risk, Quantoz Payments implements robust compliance programs, including regular monitoring, risk assessments, and the establishment of effective control mechanisms. Additionally, maintaining open communication with regulators, staying abreast of regulatory developments, and conducting periodic compliance audits are essential components of managing compliance risk effectively. When using public blockchains each transaction on a new block requires a small transaction fee in the native blockchain currency. The fees are collected by the mining/validator nodes. Based on the used decentralized protocol, in theory the mining of a new block could be done by a sanctioned entity. In that case these transaction fees are paid to a sanctioned entity. This risk is very low in a blockchain with good governing foundation and a consensus protocol using known validator nodes, especially when those nodes require whitelisting.

Counterparty Risk

Counterparty risk refers to the risk that one party in a financial transaction may default or fail to fulfil their obligations, leading to financial losses for the other party. If Quantoz Payments would become insolvent, the EURD backed fiat currency remains available in Quantoz Foundation. The Quantoz Foundation is exposed to banking risk for the fiat euro deposits held on the bank, wherein its operations rely on the bank's ability to meet its obligations. To mitigate such risk, the Issuer has accounts with multiple banks and conducts regular audits and thorough due diligence of its counterparties to assess their financial stability and risk profiles, ensuring engagement only with reliable and trustworthy entities. Professional legal advisors are also engaged to establish or review contractual agreements with counterparties, clearly outlining terms, conditions, and dispute resolution mechanisms in case of defaults or insolvencies. These measures form part of a comprehensive risk management framework established to identify, monitor, and mitigate counterparty risk, including the development of contingency plans for potential defaults or insolvencies.

Operational Risk

Quantoz Payments' efficient operation depends on strong internal processes and systems. Failures or disruptions, such as human errors, system breakdowns, or insufficient internal controls, could negatively impact the issuance and redemption of EURD tokens. Mitigation strategies include regular audits, comprehensive employee training programs, and the deployment of advanced internal control systems.

Environmental, Social, and Governance (ESG) Risk:

With the growing global focus on ESG factors, failing to uphold sustainable and ethical practices could harm Quantoz Payments' reputation and operations. This encompasses the environmental impact of blockchain activities, social responsibility, and governance standards. To address these risks, Quantoz Payments will adopt sustainable business practices, maintain transparency in governance, and actively engage in social responsibility initiatives.

6.2 Token-Related Risks

Liquidity Risk

Liquidity risk refers to the possibility that an e-money issuer may encounter difficulties in meeting its short-term financial obligations due to a lack of sufficient liquid assets or marketability of its assets. For an e-money issuer, liquidity risk primarily arises from the need to fulfill redemption requests from customers who want to convert their e-money tokens back into fiat currency. As Quantoz Payments holds the backed e-money in assets like Euro-backed bonds, in addition to funds that are deposited in separate accounts in credit institutions (amounting to at least 30% of the funds received, as required by MiCAR), there may be challenges in quickly liquidating these bonds to fulfill withdrawal requests from customers simultaneously. However, government bonds issued by stable governments in major currencies like the Euro are typically highly liquid and can be sold swiftly in active markets.

Treasury Risk

Treasury risk encompasses the potential for adverse financial impacts resulting from fluctuations in interest rates, foreign exchange rates, credit spreads, and other financial variables. For e-money issuers, treasury risk primarily relates to the management of their asset portfolios and exposure to various financial instruments. Given that Quantoz Payments is required to comply with MiCAR requirements regarding the safeguarding of funds received in exchange for e-money tokens, Quantoz Payments may only invest in secure, low-risk assets that qualify as highly liquid financial instruments with minimal market risk, credit risk and concentration risk and denominated in Euro. However, for instance, fluctuations in interest rates could impact the value of such financial instruments (including bonds), potentially resulting in situations where instruments will be sold at a loss. This risk is particularly pertinent during scenarios like a bank run, where customers seek to liquidate all of their EURD simultaneously. In such instances, Quantoz Payments may be forced to liquidate the relevant assets at a loss.

6.3 Technology-Related Risks

Reliance on third-party infrastructure

EURD relies on third-party blockchain networks and service providers to operate. Disruptions, outages, or security breaches in these third-party services could impact EURD's functionality and security. Forging strong partnerships with reputable third-party providers and developing contingency plans to address potential disruptions mitigates these risks.

Blockchain Risk

The most important risk Quantoz Payments is subject to is blockchain risk. Blockchain risk for an emoney issuer refers to the potential challenges, vulnerabilities, and uncertainties associated with utilizing blockchain technology in the issuance, management, and transfer of e-money tokens.

The blockchain risk consists of several components:

- **Operational availability:** As any technology application a blockchain could experience technical issues that disrupt availability. However, because of the distributed nature (preventing cyberattacks) and strict review process on the source code (preventing software bugs) blockchains in general show a very robust availability. In practice blockchain applications are typically more reliable than traditional banking applications (availability >> 99,9%).

- **Algorand blockchain hack:** Although the risk is very low, a hack of the Algorand blockchain would lead to a loss of trust in the Algorand foundation and its technology. It would also hinder Quantoz Payments's operations, but no information or value would get lost. The fiat money is in the trusted bank account of the Quantoz Foundation, and the user's balances and transactions are available in the Nexus system.
- **Discontinuation of service:** Theoretically a public blockchain could lose community support with decreasing development effort and foundation funding, and a decreasing number of validator nodes as result. The public blockchain consensus will no longer be reliable. Two possible exit scenarios could be to start running the blockchain privately (Quantoz Payments forks the public blockchain and starts running private blockchain nodes) or to migrate to an alternative blockchain (Quantoz Payments "burns" the tokens on the original blockchain and re-issues the tokens on the new blockchain). The transaction history remains available in the Nexus database of Quantoz Payments, independent of the used blockchain.
- **Risk of malicious use of software bugs:** The core code of the blockchain nodes is open source and follows a strict review process before being published for production. At the same time a bug in a blockchain can be very attractive for hackers and there will be continuous attempts to find weaknesses. As a result, blockchain applications are the best tested and best reviewed software in existence, and all stakeholders have incentives and means to check, prevent and fix vulnerabilities. Almost all known past blockchain exploits have not been on the core blockchain code, but in smart contract applications running on the core. Quantoz Payments uses no smart contracts for the EURD e-money token issuing and payment transactions but applies blockchains with native support for tokenized assets in the core code.
- **Risk of blockchain scalability and economics:** Public blockchains have a limitation on the maximum transaction throughput. When a blockchain is very popular it could reach its technical limits. This will result in rising transaction fee costs for getting transactions on the next blockchain block. This risk is mitigated by the fact that Quantoz Payments by default uses blockchains that have a high throughput to start with (hundreds/thousands of transactions per second without history of congestion). Furthermore, Quantoz Payments technically supports multiple blockchains and can decide to migrate to an alternative blockchain or sidechain.
- **Risk of stolen private keys:** When the private key of a customer account is stolen, it can be used to transfer the e-money tokens from that customer to other accounts. However, as Quantoz Payments only allows tokens to exist on addresses of known customers, and the tokens in itself do not represent a value (as the real value is safely stored on a trust bank account), the stolen tokens cannot "disappear" or being cashed-out outside of the supervision of Quantoz Payments.
- **Loss of keys by customers:** When consumers or merchants do manage their own keys, as they do with self-managed accounts, a loss of their private key can be handled by Quantoz Payments by closing their account and re-issuing their e-money tokens to a new account.
- **Loss of keys by Quantoz Payments:** Quantoz Payments has certified security and backup procedures in place. Keys are only accessible by security assigned personnel. Furthermore, Quantoz Payments uses deterministic key generation. Therefore, the original (offline held) seed codes can be used to reconstruct all private keys. Integrity and confidentiality of seed codes breached: The seed codes of the used primary keys are protected using the Azure key vault service. This provides extreme secure storage. When the integrity and confidentiality of the seed codes would still be breached, the consequences are limited and can be mitigated. Using the seed codes, a transaction of an internal customer account directly on the blockchain could be created. However, as all transactions would normally be created through Quantoz Payments, such an act is detectable.
- **Risk of privacy/GDPR breach:** Quantoz Payments only stores payment transactions and no transaction containing personal data of its users on the blockchain. On top of that, Algorand separates erasable from non-erasable data and guarantees the post-erasure integrity of a block by separately storing the hash of any erasable data. This makes Algorand a GDPR compliant blockchain protocol. Theoretically it is possible to use big data analytics to follow the transaction flows on public blockchains. By knowing their own blockchain account address and following their own transactions when interacting with other known customers, malicious customers of Quantoz Payments could in time map specific addresses on the blockchain with specific merchants and/or consumers. To prevent such analytics, Quantoz Payments has multiple options to enhance privacy.
- **Risk of 51% attack:** At all-time a "51%-attack" needs to be prevented where a single entity dominates the validation and can influence the addition (and rejection) of new transactions. This risk is small for the reputational blockchains with a well-established governing foundation, active and diverse user community and substantial transaction volume. In that case all blockchain participants and stakeholders are motivated to support the consensus model. During the last 10 years of blockchain applications no successful 51%-attack on such blockchain is known of.
- **Risk of double-spending/orphan transactions:** Some consensus models store confirmed transactions on the blockchain which are not immediately 100% firm, but theoretically could still be overruled (double-spending) in the next few blocks. As a result, the receiver of such transaction should wait up to an hour before being sure of owning the received tokens. This is not practical for an e-money payment system. Therefore Quantoz Payments only uses blockchains with a consensus model where transactions are final at first confirmation on a new block. With such models there is no risk of double-spending or orphan transactions.
- **Risk of token usage outside of the whitelisted customer community:** The e-money tokens of Quantoz Payments may only be owned or used by customers that are onboarded by Quantoz Payments through an appropriate customer due diligence procedure. Therefore, it should be not possible to send the e-money tokens to blockchain addresses that are not whitelisted by Quantoz Payments as being owned by a specific customer. To mitigate this risk Quantoz Payments uses blockchains that support such functionality on their core protocol level.
- **Risk of continued use of tokens by blacklisted customers:** The e-money tokens of Quantoz Payments may not be used from accounts of customers that have been blacklisted or followed the exit procedure. Therefore it should be possible for Quantoz Payments to freeze the e-money tokens on such accounts and preferably also to be able to clawback these tokens to the issuing account of Quantoz Payments itself. To mitigate this risk Quantoz Payments uses blockchains that support such functionality on their core protocol level.

The Algorand blockchain has an excellent reputation, with a 100% uptime since its launch. The use of the Algorand blockchain, combined with our robust risk mitigation measures, allows Quantoz Payments to minimize potential blockchain risks listed above.

6.4 Mitigation measures

To ensure all operations align with the highest standards of regulatory requirements, Quantoz Payments employs a rigorous framework known as Systematic Integrity Risk Analysis (**SIRA**), as required on the basis of its EMI license and in accordance with the guidelines set forth by DNB. SIRA is a comprehensive approach that enables Quantoz Payments to systematically identify, assess, and mitigate risks associated with various regulatory domains, including the Dutch Financial Supervision Act, the Dutch Anti-Money Laundering and Anti-Terrorist Financing Act, sanction laws, and the General Data Protection Regulation (GDPR). By utilizing SIRA, Quantoz Payments proactively addresses potential vulnerabilities, safeguarding both our operations and the interests of our stakeholders.

Regarding the different risks identified in Sections 6.1, 6.2 and 6.3, Quantoz Payments implements appropriate measures to mitigate this risks and protect EURD holders:

1. Mitigation measures concerning issuer-related risks

- In the event of Quantoz Payments's bankruptcy, EURD holders' rights are protected by law, ensuring that EURD reserves remain untouched by other creditors and will be refunded during bankruptcy proceedings.
- The company conducts extensive vendor assessments for third-party service providers per ISO 27001 standards.
- Despite market volatility, EURD redemptions are guaranteed according to the Redemption Policy.
- EURD holders retain their redemption rights even if the company incurs losses, with contingency plans in place for extreme situations.

- To combat AML/CFT risks, transactions are limited to known wallets, with the ability to freeze suspicious transactions as per legal requirements.
- Quantoz Payments also adheres to GDPR, ensuring the security and integrity of personal data against unauthorized access or damage.

2. Mitigation measures concerning EURD-related risks

- Quantoz Payments has outlined several key risks associated with the use of EURD.
- To ensure financial stability, our internal procedures aim to maintain reliability under all market conditions.
- In cases of under-collateralization, measures from the Quantoz Payments Recovery or Redemption Plan will be implemented to resolve any deficits, potentially by strengthening our capital position.
- A Redemption Policy addresses liquidity risks by ensuring prompt redemption, even under extreme demand and unfavorable market conditions.
- While Quantoz Payments cannot prevent scams, our terms specify no liability for losses due to fraud, though we can freeze affected EURD.
- Taxation risks are the responsibility of individual EURD holders, who should seek independent advice, as Quantoz Payments does not provide legal, tax, or accounting guidance.

3. Mitigation measures concerning technology-related risks

- Blockchain related Risks. While risks exist for all blockchain networks, the Algorand network is recognised for its high level of security. There is no smart contract risk.
- The NEXUS technology is developed and managed by subsidiaries of the Quantoz group with short communication channels.

7 Sustainability indicators in relation to environment-related adverse impacts

Quantoz Payments is committed to providing clear and detailed information on the environmental impacts of its operations. In the period October 23, 2023, the issuance date of the first EURD token, until June 1, 2024, the completion date of the Quantoz Payments MiCAR white paper, a total of 74 EURD transactions on the Algorand blockchain were recorded. These transactions resulted in a total energy consumption of 0,0418 kWh *) and a 49-gram CO2 emission.

*) The estimate for the electricity consumption per transaction for contemporary throughput of Algorand consensus is 0,000565 kWh/transaction, based on the total annualized electricity consumption and the total annualized number of transactions (<https://indices.carbon-ratings.com/>, <https://messari.io/project/algorand/quarterly-reports/q4-2023>).

Quantoz Payments' EURD token is available on the Algorand blockchain, which uses a Proof of Stake (PoS) consensus mechanism. The European Securities and Markets Authority (ESMA) has developed ten mandatory climate and other environmental indicators, proposed in their 2nd consultation package released on October 5, 2023. These indicators cover energy consumption, greenhouse gas (GHG) emissions, waste production, and natural resource usage. Because of the low number of EURD transactions no tangible data currently can be provided for these indicators. The information below outlines the methodology to derive these mandatory MiCAR sustainability indicators for future reference.

The indicators are categorized into four environmental domains:

1. Energy
2. GHG Emissions
3. Waste Production
4. Natural Resources

Energy Indicators

Indicator 1 – Energy Consumption

Definition: Total energy used (in kWh per year) for validating transactions and maintaining the integrity of the distributed ledger.

Methodology: The total energy consumption is driven by node devices. The number of validating nodes and their power demand are key metrics. Data on energy consumption is generated through real-world measurements using a reference hardware set.

Indicator 2 – Non-renewable Energy Consumption

Definition: Percentage of total energy used that comes from non-renewable sources.

Methodology: Use country-specific non-renewable energy percentages if data on the location of the network's nodes is available. Rely on the world average non-renewable energy percentage of 65% if no information on the regional distribution of the nodes in the network is present (<https://www.statista.com/statistics/263232/global-production-of-non-renewable-energy-resources/>).

Indicator 3 – Energy Intensity

Definition: Average energy used per validated transaction (in kWh).

Methodology: Calculation is based on the total annualized electricity consumption and the total annualized number of transactions (<https://indices.carbon-ratings.com/>, <https://messari.io/project/algorand/quarterly-reports/q4-2023>).

GHG Emissions Indicators

Indicator 4 – Scope 1 GHG Emissions

Definition: Direct GHG emissions (in tons of CO2e) for validating transactions and maintaining the ledger.

Methodology: Scope 1 emissions are those owned or controlled by validators. For PoS networks, these emissions are negligible as validators typically purchase their electricity.

Indicator 5 – Scope 2 GHG Emissions

Definition: Indirect GHG emissions from purchased electricity (in tons of CO2e).

Methodology: Use country-specific emission intensities to calculate a network-specific emission intensity if data on the location of the network's nodes is available. Rely on the world average emission intensity if no information on the regional distribution of the nodes in

the network is present.

Indicator 6 – GHG Intensity

Definition: Average GHG emissions per validated transaction (in kg CO₂e per transaction).

Methodology: Derived similarly to the energy intensity.

Waste Production Indicators

Indicator 7 – Generation of Waste Electrical and Electronic Equipment (WEEE)

Definition: Total WEEE generated (in tons per year).

Methodology: Based on hardware composition, weight of devices, and their depreciation time frame (assumed to be three years for PoS networks).

Indicator 8 – Non-recycled WEEE Ratio

Definition: Percentage of WEEE that is not recycled.

Methodology: Uses local recycling rates for WEEE based on the location of validators.

Indicator 9 – Generation of Hazardous Waste

Definition: Total hazardous waste generated (in tons per year).

Methodology: Builds on the WEEE data, using vendor reports on hazardous substances content.

Natural Resources Indicator

Indicator 10 – Impact of Equipment Use on Natural Resources

Definition: Description of the impact on natural resources during production, use, and disposal of DLT network node devices.

Methodology: Assesses water consumption and other natural resource impacts using energy consumption data, validator locations, and regional electricity water footprints.

The table below shows Climate and other environment-related indicators for EURD transactions for the period October 23, 2023, until June 1, 2024.

Type	Adverse Sustainability Indicator	Metric ²
Energy	Energy consumption	Total amount of energy used, expressed in kilowatt-hours (kWh) for the validation of transactions and the maintenance of the integrity of the Algorand distributed ledger 0,0418 kWh
	Non-renewable energy consumption	The average percentage of non-renewable energy sources electricity production in the world is 65%.
	Energy intensity	Average amount of energy used, in kWh, per validated transaction 0,000565
GHG emissions	Scope 1	Scope 1 GHG emissions, expressed in tons (t) carbon dioxide equivalent (CO ₂ e) for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions: 0
	Scope 2 – Purchased	Scope 2 GHG emissions, expressed in tCO ₂ e for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions (rounded to the 7th decimal place): 0,0000492
	GHG intensity	Average GHG emissions (scope 1 and scope 2) per validated transaction, expressed in kilogram (kg) CO ₂ e per transaction (Tx) (rounded to the 9th decimal place): 0,000665385
Waste production	Generation of waste electrical and electronic equipment (WEEE)	Total amount of WEEE generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in tons per calendar year (rounded to the 9th decimal place): 0,0000000888
	Non-recycled WEEE ratio	Share of the total amount of WEEE generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, not recycled per

		calendar year, expressed as a percentage (rounded to the decimal place): 51.95%
	Generation of hazardous waste	Total amount of hazardous waste generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in tons per calendar year (rounded to 13th decimal place): 0,00000000888000
Natural resources	Impact of the use of equipment on natural resources	Description of the impact on natural resources of the production, the use and the disposal of the devices of the blockchain network nodes: Natural resources may include water usage, fossil fuels, or critical raw materials. Water usage is relevant for data center operations directly for cooling and indirectly through electricity consumption which is not based on wind or solar. Consequently, electricity consumed which is not based on wind or solar may also cause water usage during the production and disposal of hardware. Similarly, fossil fuel usage is relevant for the production, use and the disposal of hardware when even electricity is used since electricity consumption from fossil fuels still accounts for over 60% of global electricity production. Critical raw materials are specifically relevant in the production of hardware as electrical and electronic equipment typically depend on technology metals that are classified as critical. Extensive data collection is required to quantify the impact on water usage, fossil fuel usage, and critical raw materials of the devices of blockchain network nodes. Thus, the impact on natural resources, such as water, fossil fuels, and critical raw materials of the production, the use and the disposal of the devices of the blockchain network nodes is influenced by the amount of energy consumed, by the type of sources used to generate electricity and by the amount of hardware required by the network. For instance, the annualized water consumption of the network amounts to 0,0041 kiloliters.