



e-Money whitepaper

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Executive Summary

e-Money is an electronic payment system and store of value operating in the financial services industry. The concept and technology is developed by Block Finance A/S, a Danish Fintech company who are innovating new technologies that bridge traditional financial services and distributed ledger technology.

The company vision is to create a level playing field, providing equal access to transparent financial services, on a global scale, while greatly reducing cost. To that end, e-Money intends to release a range of currency-backed stablecoins in a system that is fair and transparent, accessible for all, and with near-zero fees, instant settlements, and immediate finality. e-Money is not designed to act as a wholesale replacement for the existing financial system, but can instead be thought of as the layer two solution for traditional finance.

That solution will bring forth benefits in a number of areas within the financial services industry. For international banking customers, remittances is one such area where e-Money will offer significant benefits in both time and cost savings, reducing friction for the user and providing a superior experience.

For merchants, e-Money offers a payment processor that is easy to use, with less intermediaries, allowing for greater levels of transparency and incredibly low fees. Further, since payments are settled immediately, merchants can rest easy knowing that e-Money supports the ongoing liquidity of their business - an area in which current payment processors do not always pass muster.

The currency-backed stablecoins which e-Money will employ are a novel form of stablecoin entirely unique to the e-Money platform. The cryptocurrency industry is currently dominated by two types of stablecoin; collateralized stablecoins and algorithmic stablecoins. Despite recent and rapid growth in the market due to instability in both the cryptocurrency traditional markets, both types of stablecoins have weaknesses and pain points.

Algorithmic stablecoins are inherently unstable and inefficient, relying on over-collateralization to protect the system. At larger scales algorithmic stablecoins struggle for immediate liquidity. Meanwhile, in negative interest environments, e-Money predicts that collateralized stablecoins will not be viable

Executive Summary

term since, as the value of their reserve drops, they will be driven to take additional risks, to tap into their reserves, or to charge issuance redemption fees to cover the shortfall.

The currency-backed stablecoins created by e-Money are a further iteration on the concept of collateralized stablecoins. Crucially, however, e-Money's currency-backed stablecoins are interest-bearing, and have more in common with a bank deposit than hold-in-your-hand money. This innovative approach also gives e-Money's currency-backed stablecoins more resilience in the face of economic uncertainty.

The e-Money platform is built on the Cosmos Network, an ecosystem of independently sovereign, but interoperable parallel blockchains, which allows inter-blockchain communication through the Cosmos Hub. As part of this growing Internet of

Blockchains, e-Money will enjoy powerful networking effects offering a stable means of payment and store of value within the ecosystem.

The e-Money solution has already enjoyed considerable development, and having worked through five iterations of the testnet, the e-Money mainnet is now live. The ecosystem also has a working DEX in place in which every token can be immediately traded with zero execution fees on trades.

The team behind e-Money has considerable experience within the Finance, Technology, Banking, Marketing and Blockchain sectors. That team already contributes to Cosmos through Validator Network, a secure and highly available validator for the Cosmos Hub. Together, this experienced team of industry professionals is working to ensure that e-Money can fulfill its promise as the next generation of money.

Market Overview

International Money Transfers (Remittances)

Remittances are a longstanding point of friction for international banking customers. Costs of international money transfers remain stubbornly high while the transfers often take days to clear. There is also a general lack of transparency surrounding transfers, meaning customers are often in doubt as to how long any given payment may take to arrive at its destination. This places undue stress on both recipient and sender, especially when those sums are sent to family members to pay for vital goods and bills.

According to The World Bank, the international average cost of remittances was 6.79% of the value of each transaction¹. This means for a comparatively low value cash transaction of just \$300, the bank would take \$20.37 in fees. In the G8 countries it is a moderately lower 6.57%, at a cost of \$19.71 for the same transaction. Taking a broader view of the global market, remittances can rise to a prohibitively expensive 20% in some regions. In this instance only \$240 of the \$300 sent would reach the recipient.

Despite this, the remittance market continues to grow, as increasing numbers

of workers are seeking and finding work overseas. International migration reached 272 million in 2019, an increase of 51 million since 2010². Of those seeking work in other regions almost half (46.9%) were focused in North America and Northern, Southern and Western Europe³.

That pattern of increased migration is reflected in the remittances markets as in 2018 overall global remittances grew by 10% to reach a value of \$689 billion. Global remittances were \$613 billion in 2017, with the projected value of the market at \$750 billion by 2023⁴. It's not just migrants who are increasingly requiring international financial services either. Increasing numbers of remote workers and businesses both small and large are also accessing financial services across borders.

Although the market was strongest in North America and the EU, globalisation is an increasing factor in every part of the world. In 2018 the value of remittances grew in all regions, most notably in Europe and Central Asia (20%), South Asia (13.5%), Sub-Saharan Africa (9.8%), Latin America and the Caribbean (9.3%), the Middle East and North Africa (9.1%) and East Asia and the Pacific (6.6%)⁵.

¹ & ² <https://remittanceprices.worldbank.org/en>

⁶ <https://www.fool.com/investing/2019/05/16/better-buy-mastercard-vs-visa.aspx> ⁷

⁷ <https://www.frbsf.org/cash/publications/fed-notes/2019/june/2019-findings-from-the-diary-of-consumer-payment-choice/>

Market Overview

Payment Processing

At point of use payment processors are generally hassle-free for customers. For merchants, there is a different story. Beneath the surface, modern payment processors employ a complex architecture of technology infrastructure which involves multiple parties and processors.

The convoluted nature of this system adds additional hidden costs and expenditure for merchants, as each player in the process must receive their cut.

To make a successful card transaction at any store, the request must be sent from the cardholder to the merchant through the acquiring bank, then to the credit card network, and finally to the credit card issuing bank which makes the payment.

In some cases, this process is even more complex and more players become involved.

The precise cost of payment processors is difficult to know since there is a lack of transparency in the industry, but as a rough guide credit card fees are usually

between 1-3%, with merchant fees usually between 0.2%-0.3%. On top of this is a monthly service fee, transaction authorisation fees, the price of the payment processor machine, set up costs, a monthly PCI compliance charge and chargeback fees.

The cost of payment processing is also higher for certain industries such as gambling, and merchants with higher risk profiles endure additional costs. It is therefore of no surprise that a number of players in the payment processing sphere make considerable profits from processing considerable transaction volumes. In Q1 of 2019, Mastercard made profits of \$1.9 billion from \$3.9 billion revenues, while Visa posted profits of \$3 billion from \$5.5 billion revenue for the same quarter⁶.

These huge profits come among a wider trend of consumers moving further towards a cashless society. In 2019 consumers used cash in just 26% of transactions, down from 30% in 2017⁷. The trend towards cash-free payments is only expected to accelerate due to recent concerns about the cleanliness of handling cash money.

Market Overview

Stablecoins

The stablecoin market is still a relatively new but flourishing sector, which has enjoyed rapid growth due to continued volatility in the price of Bitcoin and other cryptocurrencies. In 2020 alone the aggregate market value of Ethereum-based stablecoins increased by 95.38% to reach \$6.25 billion⁸. Currently there are two types of stablecoin which dominate the market; collateralized stablecoins which are backed by real world assets, and algorithmic stablecoins which are not. Each of these are discussed here in turn.

Algorithmic Stablecoins

Algorithmic stablecoins are crypto-collateralized stablecoins which are pegged to a fiat currency. Collateralising a volatile asset such as cryptocurrency and pegging it to more stable assets such as fiat is a strategy which holds concomitant risk, a fact which algorithmic stablecoins often attempt to mitigate with over-collateralization.

This is the case with MakerDAO and Kava, which are at their core credit facilities that rely on an over-collateralization of crypto assets to support their peg. Others, such as Terra, rely on continued user adoption

and the capture of transaction fees to maintain a peg.

The main weaknesses of crypto collateralized stablecoins are:

1. They don't hold collateral in the form of the instrument they are pegged to, so they are constantly at risk, lacking the purchasing power required to support their peg.
2. Over-collateralisation is inherently ineffective, essentially acting as a bet that the value of the collateral will not decrease substantially.
3. They don't scale to global economies due to insufficient market liquidity. For instance, when a large company might require \$100 million equivalent for immediate delivery.
4. There is no frictionless way to move between fiat and token, inevitably incurring trading costs, crossing the spread and slippage.

In summary, algorithmic stablecoins require constant fuel in the form of collateral, or economic activity such as transaction fees to maintain their value and survive.

The e-Money Solution

Overview

e-Money is a fast, frictionless form of digital cash that can be used for payments, remittances and as a safe haven cryptocurrency during times of high market volatility. It is easily accessible, fair and transparent, low cost with instant settlement, and knows no borders. It is designed to act as an effective and flexible layer two solution for fiat.

The e-Money system is built by the team behind Validator ApS, the secure and highly available validator infrastructure for the Cosmos and IRIS networks, and is owned by Block Finance A/S, a Danish fintech closing the gap between traditional financial services and distributed ledger technology.

The company brings a new vision of what stablecoins can be and are capable of. e-Money is innovating with a new form of currency-backed stablecoins which it is bringing to the market. This system is characterised by being:

- Fully backed by bank deposits and government bonds.
- Multi currency, eventually supporting all major global currencies.

- Interest-bearing, both positive and negative interest rates.
- Capable of immediate finality and settlement.
- Near-zero transaction fees.
- Transparent through quarterly Ernst & Young audits to demonstrate proof of funds.

The e-Money premise is a superior payment method that is both local and global, and a highly liquid means of exchange for individual customers, for merchants, NGOs and multinational corporations alike. It is, quite simply, the next generation of money.

The e-Money Solution

Technology

Cosmos and Tendermint

e-Money is built on Cosmos, an ecosystem of independent but interoperable parallel blockchains. This allows for any Cosmos blockchain in the network to maintain individual sovereignty in a “sovereign zone”, while simultaneously communicating with other blockchains in the ecosystem. With Cosmos, blockchains are no longer siloed, which brings positive networking effects to each individual project within the entire ecosystem.

The Cosmos Hub is the connective tissue between the many sovereign zones of the Cosmos Network allowing for inter-blockchain communication (IBC). In essence, it can be thought of as a virtual transmission control protocol (TCP) for blockchain, which is why this is dubbed the Internet of Blockchains. A number of exciting projects are already built with Cosmos IBC including Binance Chain’s Decentralized Exchange (DEX) and IRISnet.

Cosmos is in turn built on Tendermint technology, which is an ultra fast Proof of Stake (PoS) blockchain engine. The reason that Tendermint PoS is ideally suited for the e-Money payments system is because:

1. **It provides immediate finality.**

This is opposed to probabilistic finality seen on Proof of Work (PoW) blockchains. Ensuring the finality of transactions is imperative for any serious payments solution as merchants will never adopt any payment system in which uncertainty prevails and transactions may be reversed.

2. **It allows for increased scalability.**

Tendermint allows thousands of transactions per second (TPS). Existing payment solutions already offer thousands of transactions per second, so to realistically compete at scale, any new payment system must be equally as good.

3. **It can be configured for immediate block creation.**

The immediate block creation allows payments to be processed in under 500 milliseconds. crypto asset.

The e-Money Solution

Validator ApS

The team behind e-Money run a secure and highly available validator service for Cosmos Hub and IRISnet's IRIS Hub. (<https://validator.network>) In addition to this, the e-Money team have used the validator service to help run and test successive e-Money testnets and to successfully launch the e-Money Mainnet.

Unlike a number of crypto projects which seek to raise funds before building the technology, e-Money has already put in considerable work to ensure that the infrastructure is in place, with more than 40 validators already securing the e-Money network.

e-Money DEX

e-Money also has a working decentralized exchange which boosts the utility of e-Money tokens and the usefulness of e-Money to the Cosmos infrastructure. The creation of the DEX is another example of e-Money's approach of building first, funding later. Advantages of the e-Money DEX are:

- No execution fees are paid on trades. The only fees that are paid on the DEX are transaction fees.

- Transaction fees can be paid in any token.
- There are no listing requirements to use the DEX. Any token is immediately tradable, including those transferred via other chains.
- Optimised for liquidity. A single token balance can be sold in multiple orders, with remaining orders being automatically adjusted on execution.
- Sophisticated order matching allows a single order to trade through multiple instruments. This ensures that trades always execute at the best possible price.
- On-demand block generation ensures transactions are quickly finalised.
- At present the DEX is controlled by command-line input, with the system slated for future upgrade to GUI for general ease of use.

The e-Money Solution

e-Money Sovereign Zone

The Cosmos Network consists of a number of interoperable sovereign zones. The e-Money sovereign zone is the payments ecosystem of currency-backed stablecoins that are issued by e-Money. It is designed to satisfy the demands of a number of users, including customers who have already become accustomed to card and mobile-based payments systems. For this reason the zone has to be easy to use, fast, and with incredibly low, negligible fees.

As opposed to other PoS networks where validators are paid for transactions, negligible fees are made possible on the e-Money network since validators are paid in commissions on staking rewards which are paid to them in currency-backed tokens. This ensures that for all parties in the e-Money zone the business model remains decoupled from transactions.

To give the best possible response times on the network, the consensus layer is configured for immediate block creation when a transaction is pending. In the event of no pending transactions, a heartbeat block is created every minute.

Centralization

The currency-backed tokens in the e-Money zone require a legal entity to operate and for this reason they are inherently centralized. This is in part due to the fact that bank relationships must be established and maintained to ensure continued compliance.

Consequently the company ultimately decides which chain accurately reflects the valid zone state, as this state is intimately tied to the bank reserve.

Jailing and slashing conditions

It is vitally important that the sovereign zone remains secure, available and responsive to ensure the efficacy of e-Money as a payment processor. For this reason the network will have a low tolerance for validators that are offline, since these cause an increase in consensus rounds and higher transaction times.

Where validators do not meet the requirements of the network, such as during down-time, they will lose a proportion of their rewards. This slashing of rewards will then be redistributed back

The e-Money Solution

to the validator set with the guilty party jailed - preventing them from re-entering the validator set for a set period. When their sentence is complete validators are welcome to send a transaction to rejoin and actively participate in the validator pool. Down-time slashing parameters will be set aggressively to ensure continued availability within short timeframes, e.g. 60 minutes.

Double-signing leads to slashing and tombstoning of the validator, who will then no longer be free to participate in the validator network. Proceeds from slashing activities are distributed to validators in the validator set.

Risk Mitigation Strategies

The e-Money stablecoin is built for robustness and to mitigate the uncertainties to which other stablecoins are prone. The in-built interest mechanism is an important factor in that strategy, eliminating a number of risks related to the economic circumstances of the fiat reserve. For instance, even in the event of another financial crisis central bank interest rates should not pose a serious threat to the stability of e-Money.

Anchoring tokens to the traditional financial system adds a degree of risk as banking relationships must be nurtured and maintained. Here, e-Money will seek to minimize this risk by establishing several banking relationships for each currency.

Credit risk towards banks holding deposits will be mitigated by placing part of the collateral into low-risk government bonds without exchange rate risk.

The company has spent considerable time and resources on clarifying its regulatory status within the EU. While the process has reached its conclusion, there is always a risk that lawmakers will change the way that crypto-currencies and blockchain technology are regulated. To mitigate this risk e-Money are retaining legal counsel and advisors who work at the forefront of EU financial regulation.

On the technology side, the Cosmos stack has proven its worth during audits, adversarial testnets and in production. Building on this stack, the company will expose any modifications to peer review audits.

Token

Token Overview

In order to best align incentives and expectations of token holders and participants within the e-Money zone the team will utilize two distinct token classes. The first token class are currency-backed stablecoins, a tokenized representation of fiat currencies.

The initial tranche of currencies supported by e-Money will focus on Western and Northern Europe, for example the eEUR for Euro, the eCHF for the Swiss Franc, and the eSEK for the Swedish Krona.

There will also be a staking token dubbed the Next Generation of Money (NGM) which will be a single token in a class of its own. NGM will secure the e-Money network by bonding with one or more validators. NGM will then be inflated by 10% per year. By staking NGM, holders of these bonded tokens will receive a pro-rata share of the newly minted NGM tokens.

A novel model will be applied for creating interest on the currency-backed tokens, while at the same time charging a markup. Two independent mechanisms affecting both the bank reserve and the currency-backed tokens will achieve this:

Bank reserve

Affected by interest on bank deposits, bonds as well as custody fees

Currency-backed tokens

Supply is increased through inflation, initially 1% per year

It is important to note that size of the bank reserve and the number of currency-backed tokens can vary independently of each other. The constant link between the two will be that proportional ownership of the currency-bank tokens will always represent the same proportion of the bank reserve. So for instance, someone who owns 5% of the currency-backed tokens can sell them to receive 5% of the bank reserve, whereas 10% of the currency-backed tokens can be sold for 10% of the bank reserve and so on.

Token

Token Classes

NGM Token Class

The NGM token is a staking and rewards token with users staking their NGM tokens to secure the e-Money network. The number of NGM tokens is continuously inflated at 10% per year. The inflated NGM supply is then distributed pro-rata as staking rewards, but only to accounts with bonded/staked tokens.

The simplicity of the e-Money staking model



A single staking token (NGM) is used to secure the e-Money network by bonding it with one or more validators.



The total supply of NGM tokens is continuously inflated. The inflation rate is variable and depends on the percentage of bonded tokens.



The inflated NGM supply is distributed pro-rata as staking rewards to accounts who bonded tokens.

This means a staked NGM token represents a proportional claim on inflated NGM. To illustrate this with an example, an entity staking 5% of total staked NGM tokens receives 5% of the newly minted NGM created as staking rewards.

The operations of the company will be solely funded by NGM token rewards, fully aligning the interests of the company and NGM token stakers. As previously stated, validators will also receive rewards through the same inflation mechanism meaning that the interests of all major players in the ecosystem will be aligned.

Identifier

NGM (“Next Generation of Money”)

Supply

100,000,000 initially.

Purpose

Staking and reward distribution

Rights

Staking rewards.

Provides no governance rights.

Trust anchor

Sovereign e-Money zone.

The entire business model of e-Money is highly transparent and easily understandable for all members of the network.

Token

e-Money Token Class

The e-Money ecosystem will be populated with multiple currency-backed tokens. Currency tokens will serve as the basic unit of exchange for e-Money, and will be the tokens that the bulk of its users will become most familiar with.

e-Money tokens will be used for payments, remittances, swift cash allocation and distribution throughout the network, and for the payment of any or all transaction fees. Each fiat currency which is supported by e-Money will have its own digital e-equivalent. Fiat currencies to be supported from launch include EUR, CHF, SEK, NOK and DKK with GBP, JPY and USD to follow later.

The ambition for e-Money is to support all major global currencies, where the properties of each token is similar to the following example based on the Euro:

Identifier

eEUR

Supply

Unlimited

Purpose

Tokenization of EUR held in bank deposits and bonds Used as a payment and fee token

Trust anchor

Sovereign e-Money zone

Over time, the supply of e-Money tokens will increase as the supply is inflated by 1% each year. The inflated supply of e-Money tokens will be used to buy back and burn NGM token in the on-chain market, thereby reducing the overall supply of NGM tokens.

The buy back and burn model



Multiple currency-backed stable coins, each using a dynamic peg that the underlying interest rate.



Total supply of each stablecoin is continuously inflated. The rate is variable and set per stablecoin, currently 1% per year



The increased supply for each stablecoin is used to buy NGM tokens in the on-chain market against each stablecoin

Token

Grants

To further the ambitions and goals of the e-Money project, grants will be offered from an Ecosystem Fund. 10% of the initial supply of NGM tokens are set aside for this purpose. These will be offered to qualified partners, and subject to vesting periods to ensure the integrity of the system. Applications will be considered on a continuous basis, and will be accepted based on their ability to further forward and promote the strategic vision of the business.

Partners in the following categories are eligible to receive grants:

- Validators for the e-Money zone.
- Wallet providers that commit to integrating current and future currency-backed tokens.

- Exchanges that commit to listing current and future currency-backed tokens.
- Applications using currency-backed tokens.

Project descriptions can be submitted to **partners@e-Money.com** to initiate the dialogue.

Use Cases

There are a huge number of potential use cases for the currency-backed tokens created by e-Money, indeed as many as the use cases for money itself. e-Money is useful not only as a means of exchange, and payment, but as a store of value too. These use cases given here are not intended as an exhaustive list, but as an illustration of a few customers which could be well served by e-Money's solution.

The global citizen

There is great deal of variance in the quality and delivery of financial services across the globe. Even within highly developed countries, where the financial sector is considerably more mature, access to a bank account is not always a given. For this reason there is great potential in offering network accounts which use currency-backed tokens as a faster, cheaper and globally accessible alternative to a traditional bank account.

With network accounts global citizens can reduce dependence on the traditional banking and payments infrastructure over time, as ecosystems such as e-Money on Cosmos grow and gain mainstream adoption.

In short, as a user,
...I get free and immediate access to a network savings account, so I can gain financial independence from traditional financial services.

...my tokens gain value with interest, so I can maintain my purchasing power.
...I can pay for services and transfer money immediately, at near-zero cost.
...I can use e-Money tokens as a store of value, knowing I can exchange them for fiat at any time.

Empowering local businesses

Startup costs for local businesses, such as the local coffee shop or corner store, can be greatly reduced by removing the need for credit card hardware and all of the associated acquirer relationships.

The fees charged per transaction by credit card companies impose a significant cost on businesses that eat into their margins. Minimum fees are also common practice in the industry, which makes smaller transactions unprofitable. In some circumstances, merchants are paying more money for the transaction than the value of the goods. This is not the case with e-Money, furthermore, as small businesses are typically strained for liquidity, they also benefit from immediate settlement of the network.

In short, as a merchant,
...I can start accepting payments in almost no time, so that I can focus on my business. ...my payments are settled immediately, so I don't need to be concerned about my liquidity.
...I can receive payment in e-Money tokens with near-zero costs, so that I can always remain competitive.

Use Cases

NGOs

NGOs are typically tasked with disbursing small amounts of money to a large number of recipients, often within a short period of time. The transparency inherent in blockchain technology, coupled with the low fees and immediate settlement offered by our service, make the platform ideally suited for NGOs.

In short, as an NGO,

...I can provide transparency to my operations by using blockchain technology, so that stakeholders can rest assured that funds are used entirely appropriately.

...I can reduce costs by paying with e-Money tokens, so that vital aid money is never eaten up by fees and goes where it can do the most benefit.

...I can avoid expensive and slow intermediaries, so that aid money can arrive quickly where needed.

...I can execute cheap bulk payments, so that I can distribute aid money as micro-payments.

Corporate settlement

Large corporations spend vast amounts on fees for payments between branches using the traditional banking infrastructure. Apart from reducing or even removing fees, corporations can greatly benefit from having funds immediately available to them improving their liquidity.

In short, as a corporate client,

...I can initiate immediately settled cross

border payments, so that I can optimize my business.

...I can handle payments between branches/offices on chain, so that I can greatly reduce costs.

...I can create payment-versus-payment transactions with other entities, to eliminate counterparty risk.

The Cosmos ecosystem

Our currency-backed tokens have the potential to scale with the Cosmos ecosystem, as the token model does not demand restrictions on the movement or use of the tokens across zones. Notably, the viability of the token model does not depend on ever-increasing transaction volumes or the capturing of transaction fees.

Combined with the permissionless access for new zones and services to Cosmos Hub, anyone is free to adopt e-Money's currency-backed stablecoins as a means of payment and store of value.

In short, as a Cosmos zone / service provider,

...I can receive payment in a price stable token, so that I can focus on my core business instead of payment rails and treasury management.

...I can partner with e-Money to receive parts of the dividends that are created, so that I can diversify my revenue streams.

Team

The e-Money vision is supported by a team of seasoned industry professionals, each of whom has accrued a wealth of relevant experience in their field.

Martin Dyring-Andersen **CEO & Founder**

Bringing 15+ years of experience within IT startups and algorithmic trading to the project, Martin is a passionate entrepreneur with a profound interest in and knowledge of implementing new technologies. He will be a key force in driving e-Money forward to help shape the transaction infrastructure of tomorrow.

Henrik Aasted Sørensen **CTO & Co-Founder**

With 15+ years of experience within financial infrastructures, Henrik is perfectly placed to help bring the e-Money vision to fruition. As a senior software engineer with a profound knowledge of building complex web applications in the financial sector, he will continue to steer the development of e-Money's technology stack. Already he has helped to ensure that e-Money has a considerable advantage in this area, launching with a range of technology support.

Frederik Köhler **CFO**

With over 15 years of banking experience with large financial institutions, including Jyske Bank, Industrial and Commercial Bank of China, BMTRUST, Kaupthing Bank Luxembourg and Danske Bank. His roles have included investment advisor, relationship management, FX trading and treasury, across the European region.

Shalini Wood **CMO**

Marketing professional with 15 years' extensive PR/ Communications, digital marketing and branding experience within global organizations and several Blockchain startups. She has worked for Fortune 100 global companies, such as Honeywell, Sheraton, Marriott, and a visiting faculty at HU Utrecht University of Applied Sciences, where she lectures and supervises research projects on how blockchain technology is transforming businesses worldwide.

Roadmap

Planned 2021

Q3/Q4

Stablecoin Centralised Exchange Listing

The currency-backed stablecoins will be listed on the first centralised exchange, enabling seamless exchange between e-Money currency-backed tokens and traditional crypto-currencies.

Q3

Credit Card Payments

In addition to bank transfers, users will be able to use their credit card when exchanging currency-backed stablecoins for fiat.

Q3

Network Integrations

The e-Money NGM token and stablecoins will become available on Polygon, Binance Smart Chain, & Avalanche C-chain and Elrond.

Q3

e-Money Mainnet upgrade

Mainnet upgrade will be performed to introduce IBC support and number of major improvements to the DEX.

Q3

Launch of NGM Liquidity Mining Program

A liquidity mining program will be launched for NGM/USDT on Uniswap, PancakeSwap and Pangolin.

Q3

Launch of eEUR Liquidity Mining Program

A liquidity mining program will be launched for eEUR/USDT on Uniswap, PancakeSwap and Pangolin.

Roadmap

Completed 2021

Complete rebranding and digital transformation

Leading design agency [Bürocratik](#) completes the rebranding & digital transformation work previously announced.

Second NGM Centralised Exchange Listing

The e-Money NGM staking token is listed on the [KuCoin](#) exchange.

Parterships announced

Avalanche, Royal Finance, MANTRA DAO, Starname, Elrond, Custodiex, Curate, Uniqlly, Fuse Network, Phoenix DAO, NFTTrade, DIFX, Blind Boxes

Uniswap v3 Migration

Uniswap NGM liquidity was migrated to an [NGM/USDT pool](#).

Q3

Ethereum Integration

The e-Money NGM token and stablecoins became available on the [Ethereum mainnet](#).

FEBRUARY

Cosmos IBC Launches

The long-awaited Cosmos IBC protocol launched enabling the Internet of Money.

NGM Centralised Exchange Listing

The e-Money NGM staking token is listed on the [AscendEx \(former BitMax\) exchange](#).

Roadmap

2020

e-Money Web Wallet

A non-custodial web wallet is launched at <https://wallet.e-money.com>. It supports signing using Ledger devices or through the Keplr browser extension.

e-Money Mainnet Upgrade

The planned mainnet upgrade completes successfully introducing NGM token transferability, updated token model, including a buyback and burn on NGM tokens and DEX update. [Read more](#)

Financial Supervisory Authority Authorisation

e-Money receives authorisation by the Danish Financial Supervisory Authority (Finanstilsynet) to exchange fiat and crypto currencies.

e-Money Partnerships

Sentinel , Desmos Network , Regen Network & [Onfido](#)

First Tokens Minted on Mainnet

The first fully backed EUR, CHF, SEK, NOK and DKK tokens are minted on the e-Money mainnet.

Certik Publishes Code Security Audit

The leading blockchain security company Certik conclude on a thorough security audit of the e-Money codebase. Read the [full report](#) here.

Ecosystem Fund Launches

The e-Money ecosystem fund is announced with a number of available grants. Qualified projects must drive adoption, e.g. wallet providers, exchanges and applications using e-Money tokens.

Mainnet Launch

The e-Money mainnet was successfully launched on March 25th, 2020 at 12:00 UTC with more than 30 validators joining within the first few hours. See the [launch announcement](#).

Roadmap

2019

Banking Relationship Established

After thorough research the first banking relationship is established, paving the way for EUR, CHF, SEK, NOK and DKK backed tokens.

e-Money Partnerships

e-Money partners with NFT ecosystem project Open Market & IRISnet: The foundation for next-generation dapps by offering a service-oriented infrastructure for the Cosmos Network.

Clarification of Regulatory Status

The regulatory status of our currency-backed stablecoins is further clarified through expert advice from DLA Piper offices in London and Copenhagen.

e-Money A/S is Established

EY is appointed as auditor for the Block Finance group of companies and can provide proof of funds for the currency-backed stablecoins.

The Internet of Blockchains Launches

The Internet of Blockchains, a.k.a. the Cosmos Network launches with the Cosmos Hub. The Cosmos Hub is a key component in fulfilling the e-Money vision of frictionless payments.

2018

EY Appointed as Auditor

EY is appointed as auditor for the Block Finance group of companies and can provide proof of funds for the currency-backed stablecoins.

Whitepaper Released

The plans for our interest bearing, currency-backed stablecoins are made public. In the context of payments, the whitepaper stresses the importance of offering an efficient way to transfer and exchange tokens quickly and with finality.

Roadmap

2017

Central Bank Meeting

A meeting is held with the central bank of Denmark (Nationalbanken) to discuss the implications of our planned activities. Among the topics are the effect of negative interest rates on fiat tokens.

Exploration of Regulatory Landscape

A collaboration with leading fintech lawyer Michael Camphausen is established and discussions with the Danish Financial Supervisory Authority (Finanstilsynet) commences.

Block Finance A/S is Established

Block Finance A/S, the parent company of e-Money A/S, is incorporated in Denmark as company number 38771698.

2016

Early Prototyping Begins

To test the viability of payments using currency-backed stablecoins, early prototyping begins using Tendermint technology and application code written in C++.

Glossary of Terms

TNGM

The NGM token or “next generation of money” is the staking token which serves the e-Money ecosystem. NGM token holders receive a proportional share of newly minted NGM tokens created by inflation of the overall supply.

Currency-backed stablecoin

A new form of collateralized stablecoin created specifically for e-Money. Currency-backed stablecoins are an innovative interest bearing stablecoins that overcome many of the problems inherent in other stablecoin designs.

Cosmos

A network of independent blockchains which can easily communicate with each other through the Cosmos Hub.

Sovereign zone

An independent blockchain within the Cosmos network.

Tendermint

The technology on which Cosmos, and by extension, e-Money is built.

IBC

Inter-blockchain communication.

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