the
thorium
network

The Thorium Network
LITE PAPER

January 2019

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THE THORIUM NETWORK

A blockchain energy solution for the world

Our White Paper is very comprehensive and contains all of the details related to The Thorium Network's research, findings, and business plan. We have prepared for you this Lite Paper that summarizes the key points and information from our White Paper in a concise form. It is important to note that this is an overview of the complete White Paper, and you may refer to the White Paper itself for more details and complete information before you contribute to the token sale.

ABOUT US

This project started as discussion in 2017 by people who believe in a future of clean energy, and a future of transparency and accountability.

The Thorium Network is a venture in pursuit of revolutionizing the world through the provision of clean, safe and cost-effective energy by the deployment of energy market sector and its transmission process on a dedicated permissioned blockchain.

The aim is to fully harness the power of blockchain innovation by utilizing its key properties such as: transparency, immutability, scalability and accessibility and serve as a replacement for the centralized energy marketplace as we know it is a business that will emerge and add trust among the parties with the evolution of blockchain and transactions being carried out on the distributed ledger.

By integrating sophisticated technologies such as Artificial Intelligence, Internet of Things (IoT),blockchain and Smart contracts, we provide a decentralized marketplace that has no analogs to date on the centralized Internet.

At the Thorium Network we envision a platform that caters to the needs of emerging economies by bringing together energy solutions and opportunities in a manner that supports current initiatives with the latest blockchain technology. We work to advance the community participation in our platform, their economic well-being and their role as social and resilience-builders.

Is it a ridiculous idea to think that you can't do anything about climate change?

No?

Then join us.

Energy Market Sector

The U.S. Energy Information Administration's recent International Energy Outlook 2017 (IEO2017) predicts that world energy consumption will grow by 28% between 2015 and 2040 (from 19 TW per year to 25 TW per year). Most of this growth is expected to come from countries where demand is driven by strong economic growth, particularly in Asia which accounts for more than 60% of the world's total increase in energy consumption over the same projected period.

The year 2015 saw the global threshold exceed 1 million Electric Vehicles (EV) on the road, with the total number closing at 1.26 million. To service this growing fleet, there was an estimated total of 1.45 million electric car charging points worldwide in 2015.

EVs are forecast to reach price parity with combustion engine cars by 2025, largely due to falling battery cost and increasing fuel density. The deployment scenarios for the stock of EVs range:

Between 2 to 20 million EVs in use worldwide by 2020;
Between 18 to 60 million by 2025;
Between 22 to 140 million by 2030.

In Australia, in the years between 2011 and 2016, more new privately owned power generating capacity was installed on residential roofs than what was built purposely for grid connections.

MOTIVATION

Blockchain Industry Overview

Research suggests that Investments and spending on Blockchain-based technology have topped beyond $1 billion and continued to grow. In 2018, the global blockchain technology market crossed USD one billion in size, and is forecast to rise to USD 6.5 billion U.S. Dollars by 2021, while, the global blockchain technology market size is expected to reach USD 7.59 billion by 2024, according to a new report by Grand View Research, Inc., registering a 37.2% CAGR during the forecast period. Increasing demand for this technology across financial services, consumer or industrial products, technology, media and telecom, healthcare, transportation, and public sectors is mainly responsible for market growth. It is here to be noted that this applies only specific to the blockchain technology itself, not cryptocurrencies, which according to some researchers are expected to reach even up to trillions of dollars in next decade (research by polymath).

INTRODUCTION TO THE THORIUM NETWORK

The modern world runs on energy. Once the industrial revolution hit, it became necessary to find new sources of energy to power a world increasingly run by the machine. Energy is the key to getting anything done in the world. Humans use electricity all the time. Just sitting still, your body produces around 100W of power and the world uses over 500 million terajoules of energy per year.

The Thorium Network is one such initiative with the aim to provide the world with a cost-effective, efficient and efficiently generated energy. Thorium energy can be implemented in many different ways, but only when the energy is extracted with a machine called a Molten Salt Burner (MSB) will it reach excellent efficiencies and safe, low cost and clean energy we are describing. The final physical process is a fissioning of massive nuclear particles, which makes some people compare it to old type nuclear power. However, it is very different in almost all parameters. It is like comparing the invention of the postal service and the mobile phone.

At the Thorium Network, we believe that blockchain is the answer to the current limitation in the production of fission based energy production. Our research suggests that blockchain has the potential to provide a new level of security, traceability, and accountability in energy production. Unlike traditional nuclear energy production where you need government and institutional trust, the Thorium Network will provide a "Trust-full" platform for energy production by offering transparency on blockchain technology. Moreover, energy from Thorium has the potential to solve most of the problems people typically associated with old nuclear, such as uncontrolled radioactive waste, productions of weapons, super expensive government programs and secrecy.

If you know anything about Thorium and energy production, you'll know that a properly configured Molten Salt Burner cannot be used for nuclear weapons production, cannot melt down or explode.

There is more than 1,000 years' supply of Thorium on the planet using MSB technology to generate power. A MSB can be used to burn existing spent nuclear fuel - a massive problem to existing, aging uranium-based power generators, with reducing space to store their waste safely - for 10,000 years.

Thorium is a proven technology but did not have the extra economic support of producing nuclear weapons materials when developed in the 1960's.

The world is now rapidly building technology to convert thorium into energy.

OUR VISION
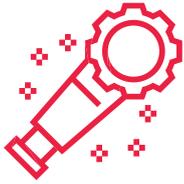
We believe in the essential value of decentralization, and through tokenization of Fuel and Energy, we are aiming to achieve maximum decentralization where the need for a mediating authority is always less, and where the community is close to the realization of their financial independence.

OUR MISSION
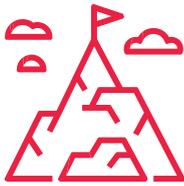
Our mission is providing the world with a clean energy solution by harnessing the power of Thorium element and allowing decentralization of the energy market sector through enabling distributed and transparent energy trade utilizing blockchain technology and the THN token.

OUR SOLUTIONS
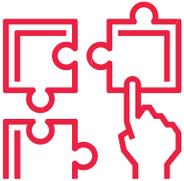
The Thorium Network is a peer-to-peer, transparent and interoperable services trading platform that supports the expanding demand for the fuel required for MSBs, with an exchangeable frictionless management token, called the Thorium Token. Some of the solutions that we aim to provide through TN project includes:

Peer to Peer Energy Trading

The Thorium Network will be a trading platform that allows consumers to sell or lease fuel to their peers in a trustless environment. It is a new component of the distributed economy that will enable consumers to realize the value of their investment in the network token by allowing them to monetize their fuel resources in much the same way as Uber and Airbnb allow people to monetize their cars and spare rooms.

The manufacturing supply chain

In the marketplace such as MSB, where attention to details is vital and so is traceability of every step involving in the fuel production, blockchain is the most effective solution. We aim to solve such problems arising from this complicated situation through blockchain by providing real-time access to data, and visibility across the entire energy production process.

Removing Third Parties and Middleman

A huge financial burden in the energy production is from the third-party companies that are over paid to provide research on the movement of energy. We remove this enormous expense through the creation of a decentralized transparent blockchain and a peer to peer medium of account: The Thorium Token. This drastically limits the involvement of intermediaries and lower the other commissions charged by intermediaries.

WORLD WIDE ACTIVITY

Some of the developments worldwide include:

- People's Republic of China which is investing USD 3.3 Billion to started in 2011 with a team of over 700 engineers;

- Russia's state owned Kurchatov institute and Rosatom. The Kurchatov institute did a lot of development work studying thorium in the 1970's;

- India is building a 300 MW reactor and commits to produce all of their energy from Thorium;

- Turkey announced in 2018 that it would build a reactor;

- Copenhagen Atomics;

- DFR Berlin;

- Elysium Industries;

- Flibe Energy;

- Hyperion Global Energy;

- Kairos Power;

- Moltex Energy;

- Seaborg;

- Terra Power;

- Terrestrial Energy;

- ThorCon Power.

BURNER TECHNOLOGY

While some support companies are emerging such as the consultants, Energy Process Developments, there is not such a list of developers of fuel supply chains. Fire needed wood. Steam required coal. Internal combustion required oil and turbines need gas. Supplying fuel has always been at least a big business as building the burners. China and perhaps India are expected to develop their fuel supply chains although only Rosatom has announced a clear intention to do so. The private startups in Europe and North America will not have the same economies of scale. The Thorium Network - a specialist fuel supply chain - is of great importance to them.

In summary, Thorium burnt in an MSB is the no-brainer for world energy production.

Using blockchain technology we will put the Thorium energy system into the public space, forever. Providing a marketplace for energy generation, fuel management, and transparency never before seen in such a closed and secret industry as nuclear.

Molten Salt Burner
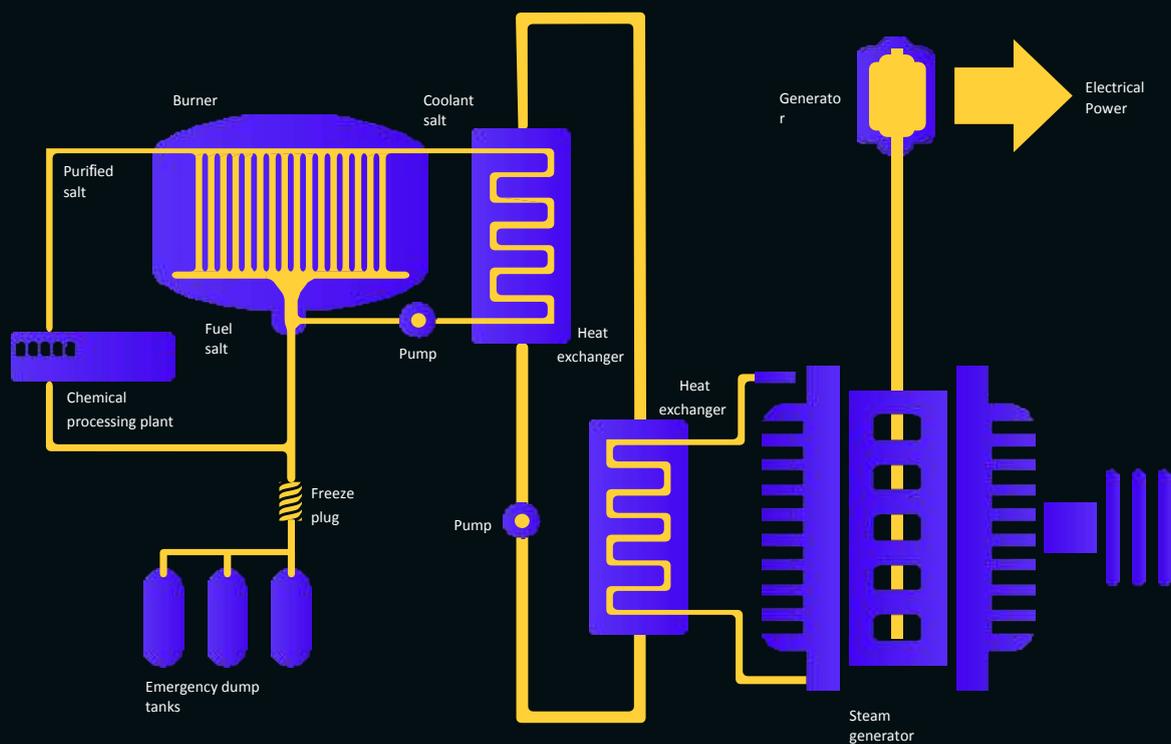
Traceability

Traceability of fuel supply to Molten Salt Burners throughout the course of its production is critical.

The Thorium Network's dedicated blockchain will provide advanced features that make it capable of providing a basis for complete traceability of all components, from manufacturer to end-user consumer, and the ability to identify precisely where safety in the supply chain may have broken-down.

WHY SUPPORT US?

SCALABILITY

Energy industry is a multi-trillion euro global market. By becoming an early adopter of blockchain technology, the Thorium Network will gain a significant advantage.

PIONEER

Energy production through MSB is the most efficient process. By globalizing this access to mass affluent, the Thorium Network will be the pioneer and industry leader.

SOPHISTICATED TECHNOLOGY

Usage of IoT, MSB, Big Data, Smart Contracts, and Blockchain technology will revolutionize the energy market place. The Thorium Network is the trailblazer for energy production management. By globalizing this access to mass affluent, we will be the pioneer and industry leader.

DECENTRALISATION & SELF REGULATION

Our business model allows self-regulation, where all financial activities will be recorded on a distributed incorruptible distributed ledger.

TEAM EXPERTISE

The Thorium Network team combines best of both worlds renowned professionals with years of industry experience and dedicated blockchain evangelists with a track record of successful projects.

INHERENT UTILITY

Unlike traditional crypto projects that struggle with utility, the Thorium Token will immediately have significant service in the multi-trillion euro energy marketplace giving it a real-life value and potential backing.

All transactional activities happening within the Thorium Network financial ecosystem will be recorded and done via our dedicated blockchain distributed ledger.

All rules set and agreed by all parties will be marked permanently in Smart Contracts which can never be altered, corrupted or hacked.
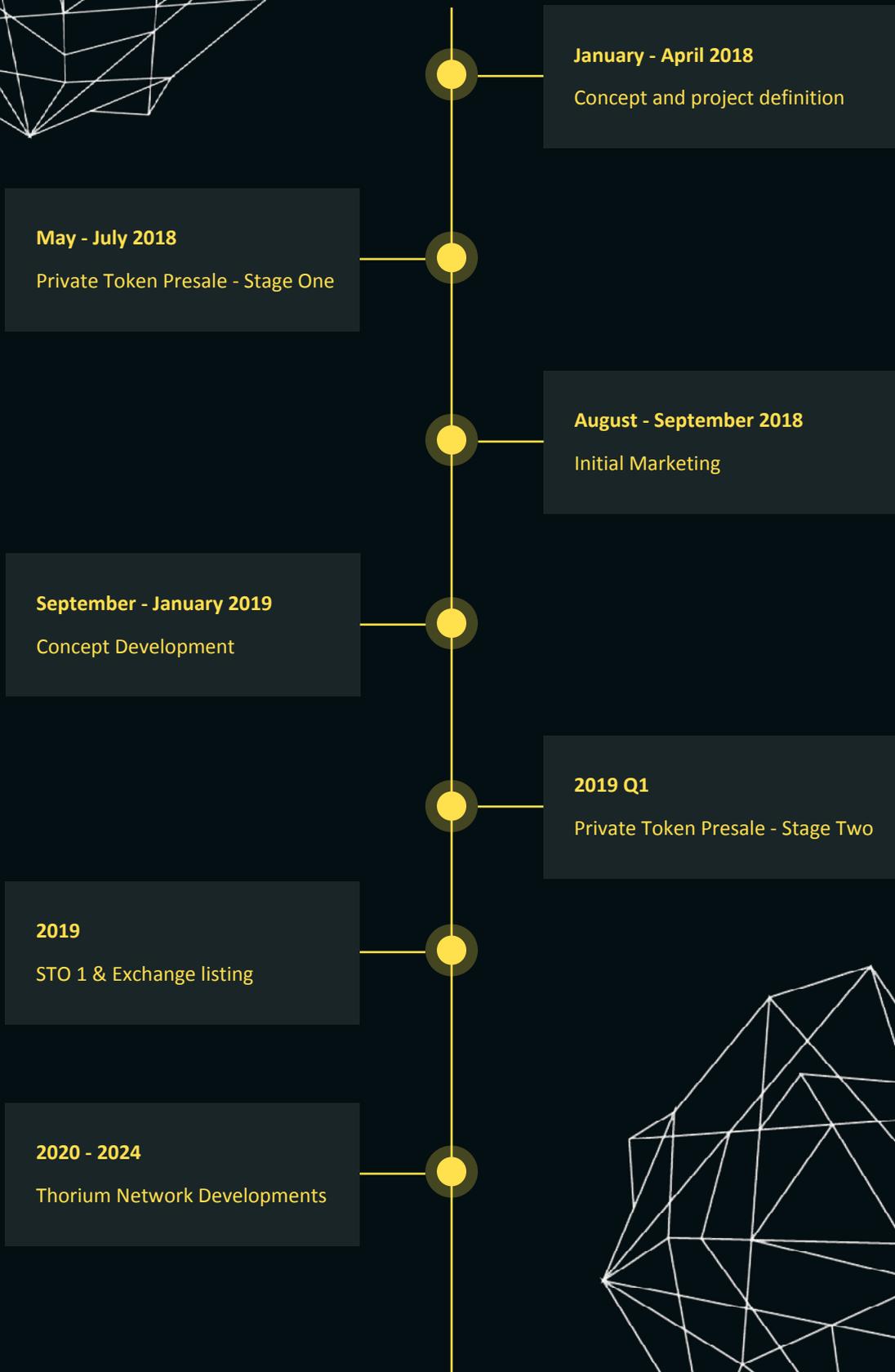
Furthermore, we aim to use blockchain in the following use cases:

- Peer to Peer Energy trading;

- Recording all activities in the manufacturing process;

- Creating an Immutable record of various steps involved in the fuel manufacturing supply chain process;

- Tracking ownership of fuel and its status through open, permissioned distributed ledger;

- Tracking the progress of fuel discovery from the conception of the idea through final approval.

CROWDSALE INFORMATION

- Token Crowdsale - Secure Token Offering: 2019;

- Duration: Two Stages, both open until complete;

- Coin symbol: Thorium TTN;

- Coin standard: Nihilo Algorithm PoS or equivalent native blockchain;

- Soft cap: 500,000/- Euro;

- Hard cap: 45,000,000/- Euro;

- Total token supply: 2,000,000,000;

- Available supply for crowdsale: 500,000,000;

- Token price: 0.75 Euro then 1.00 Euro.

Roadmap

January - April 2018

Concept and project definition

May - July 2018

Private Token Presale - Stage One

August - September 2018

Initial Marketing

September - January 2019

Concept Development

2019 Q1

Private Token Presale - Stage Two

2019

STO 1 & Exchange listing

2020 - 2024

Thorium Network Developments

TOKEN STRUCTURE AND TOKEN ECONOMICS

When burned thoroughly, only one tiny gram of Thorium will produce 24 MWh of energy. That's a lot of energy for such a small amount of fuel. That means that when energy is sold at 5 cents per kWh each gram of thorium is worth 1,200 Euro.

This is why our blockchain has a business case: every gram of thorium that is moved through the blockchain will produce 1,200 euros worth of energy.

It's the effort and investment required to obtain that energy where our blockchain solution gives value to every participant and community member, including the token holders.

This provides the backing and validity of the blockchain ecosystem value whereby each token will also be backed by an amount of thorium equivalent to the effort required to move the thorium from the mine to the burner where it produces energy.

We are targeting 0.15 grams of thorium to back every token in the Thorium Network.

The estimated value of thorium before processing into energy is 3 Euro per gram. So you can see there is a lot of room to benefit from a project that not only benefits the planet but works financially also.

Thorium asset blockchain is a next Generation open source solution with a token that reflects effort and work, and not just speculation.

Thorium is processed by the Thorium Network and is efficiently decentralized, because no "middle- man" or other central may control the operation of Thorium Network.

The Thorium Network is a 20 year ongoing project with a total of 2,000,000,000 tokens to be made available. The first crowdfunding round over 2019 will have available 500.000.000 tokens.

The Thorium Network Token Offering

800,000,000 Tokens available

300,000,000 Tokens for team

500,000,000 Tokens for crowdfunding

Private Token Presale - Stage One (Closed)

- 2,000,000 tokens
- Price per token: 0.25 €
- Minimum purchase : 1,000/- €
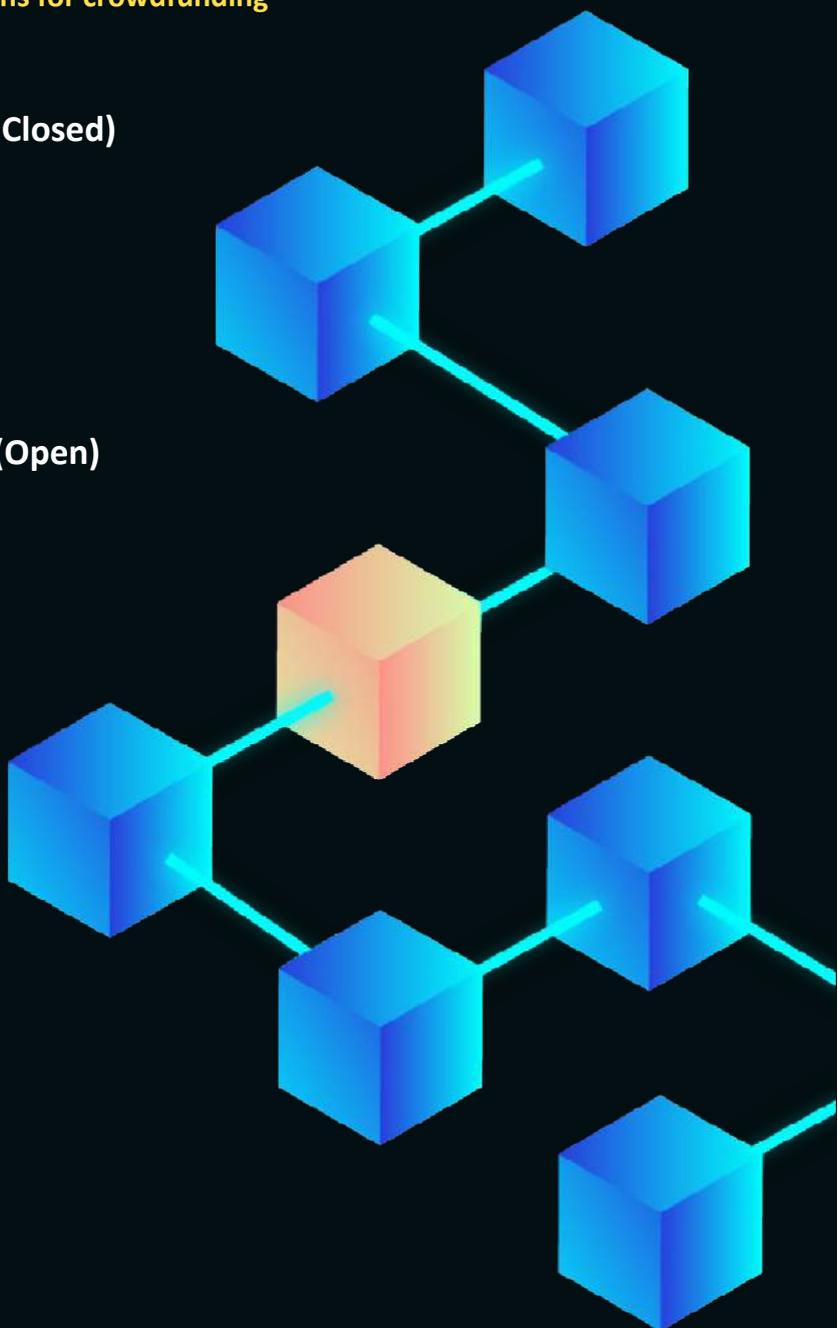
Private Token Presale - Stage Two (Open)

- 10.000.000 tokens
- Price per token: 0.50 €
- Minimum purchase : 5,000/- €

Stage 1 STO (To come)

- 150,000,000 tokens
- Price per token: 0.75 €
- Minimum purchase : 500/- €

Stage 2 STO (To come)

- 338,000,000 tokens
- Price per token: 1.00 €
- Minimum purchase : 500/- €

Once the STO starts, Thorium Network tokens will be sold in return for other with high ranking cryptocurrencies such as BTC, ETH, ORYX, DASH and MONERO.

From the total tokens allocated for the STO sale, 10% of tokens will be sold only with ORYX (OryxCoin) and will have a 10% discount.

All funds raised via ORYX during the ICO period will go in Thorium Treasury Fund (TTF).

ORYXCOIN - THE UTILITY COIN

ORYX offers liquidity for sellers and entry gate to buyers of tokens on the Thorium Network. It will serve as the utility coin used in the entire ecosystem.

Sellers and buyers will be trading in ORYX on Exchange Market Market products/services will have pair only in ORYX Dividends will be paid in ORYX.

Fiat to ORYX can be facilitated by OryxBank (for institutional buyers/sellers) or through normal exchange rate of BTC/ORYX on listed exchanges.

THORIUM TREASURY FUND

All tokens sold during the STO with ORYX will be held in the Thorium Treasury Fund - the TTF.

10% bonus will be allocated for ORYX purchases will be given from Team Token budget.

The TTF will manage all the dividends distribution to all Thorium Network token holders.

Other income sources for TTF are:

- Active status supplier fee;

- Every supplier and participant in the blockchain will need to go through an application process which will have a listing fee. Fee cost will be paid in ORYX;

- Special product request;

- Every special Thorium request will have a price that will be paid in ORYX;

- CO2 credits (OryxBank will do conversion in ORYX).

The TTF will have all funds in staking mode on the network.

Thorium Network Token buyback program.

All Thorium produced will be managed through ORYX via the Exchange Market.

Thorium Exchange commissions for each transaction will be sent in TTF (seller and buyer will have commission on each trade).

Dividends distribution

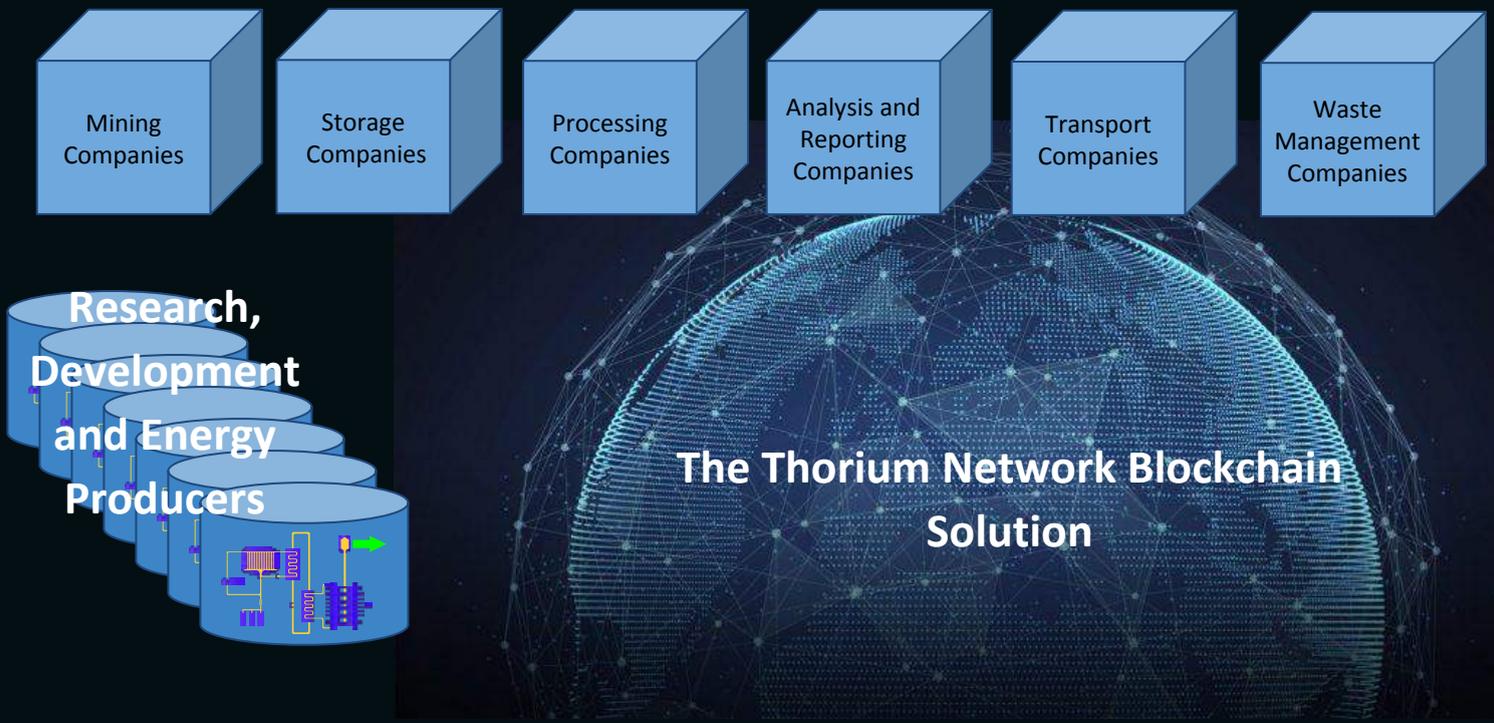Once a year dividends distribution will take place.

Distribution will be done in OryxCoin (ORYX), held in the TTF.

Supply Blockchain Participants

Blockchain Outcomes:
- High value isotopes - used in healthcare, and industry
- Low value waste - stored on site for <300 years
- Low cost energy less than 1 cent per kWh

Approved & Regulated Companies

| Mining Companies | Storage Companies | Processing Companies | Analysis and Reporting Companies | Transport Companies | Waste Management Companies |

Research, Development and Energy Producers

The Thorium Network Blockchain Solution
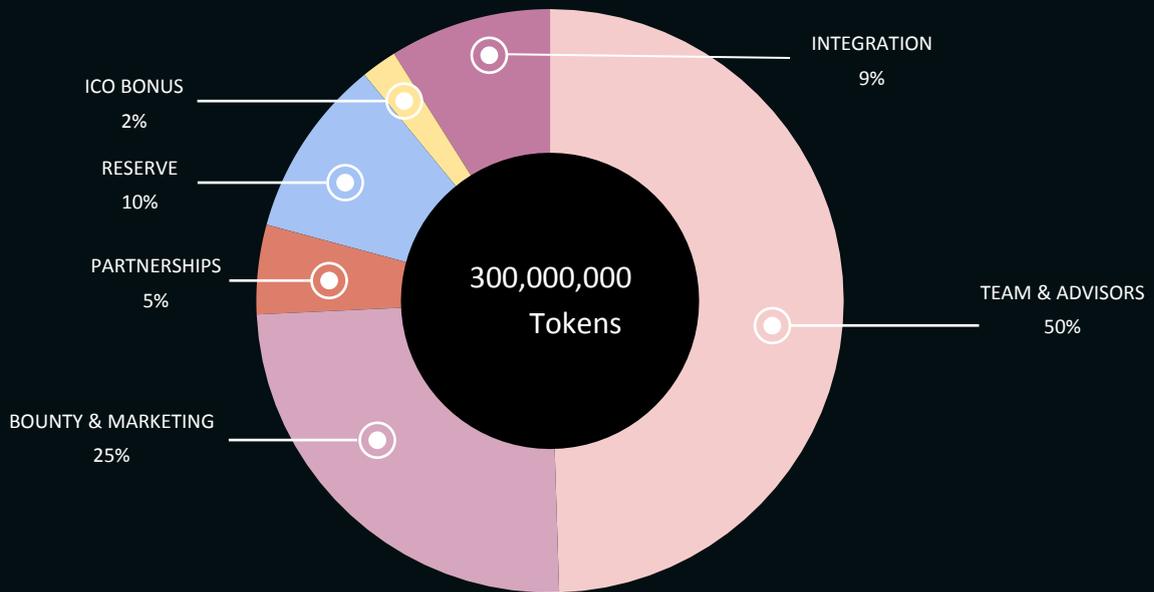
Thorium Exchange Market

- The Thorium Exchange will operate as the primary source of Thorium fuel supply source;
- Trade pair of Thorium will be ORYX;
- Sellers and buyers will have one public market where they would be able to sell and buy Thorium in a protected, public and secured environment;
- Every trade will be recorded in Thorium supply chain blockchain and will transfer ownership of goods through a smart contract;
- Sellers will have to show proof of stock before placing sell orders or fill buy orders on the exchange.

Market products

-   Thorium standard fuel grade;
-   Thorium custom grade;
-   Thorium lease;
-   Thorium custody (storage suppliers will be able to offer custody services; waste handling services, as approved storage facilities);
-   Other products and services (this will create a sub-related market trading on the Thorium Exchange).

Team Token Distribution

Team Token Distribution (300,000,000)

INTEGRATION
9%

ICO BONUS
2%

RESERVE
10%

PARTNERSHIPS
5%

300,000,000
Tokens

TEAM & ADVISORS
50%

BOUNTY & MARKETING
25%

Token Investment Plan

STO 1

- Security token blockchain, wallets and exchanges
- Supply blockchain
- Suppliers integration
- Exchange market trade engine

STO 2

- MSB suppliers blockchain
- Research and development activities

STO 3

- National network integrations
- World Thorium energy blockchain

STO 4

World center of Thorium energy integrated in key industries like auto, aviation, metal production, manufacturing

MEET THE LEADERSHIP TEAM

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PROJECT LEADER
LinkedIn

Ciprian Popa
BUSINESS STRATEGY AND BLOCKCHAIN EXPERT
LinkedIn

Chris Van Oosten
DIRECTOR DIGITAL PROJECTS PORT OF ROTTERDAM
LinkedIn

Jukka Multisilta
STRATEGY
LinkedIn

Pierre Tavares
COMMUNITY MANAGER
LinkedIn

Syd Ball
ORNL VETERAN
ORNL Link

Shermineh Saleh Esmati
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Alexey Safronov
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Bob Olson
SAVANNAH RIDGE VETERAN
Link

Kushi Upadhyaya
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LinkedIn

Anna Garkusha
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Hollis Hedrich
FINANCE AND THORIUM
EXPERT ADVISOR
LinkedIn

PROJECT GOVERNANCE

The blockchain will be distributed, so that no single node, person or company will own or control it. There will be a company (also known as the Thorium Network Company AG "TNC") set up to provide administration to the blockchain and be a useful legal central point for support, software development etc., hold most of the tokens for the developers, service providers, pre-ico contributors etc., before they are paid back, be the first node for the blockchain. The foundation members of the blockchain will be on the board of TNC if they wish.

The board of TNC is responsible for the correct execution of the project, that brings the Thorium Blockchain into a well functioning and trusted technology until the DAO is ready to take over.
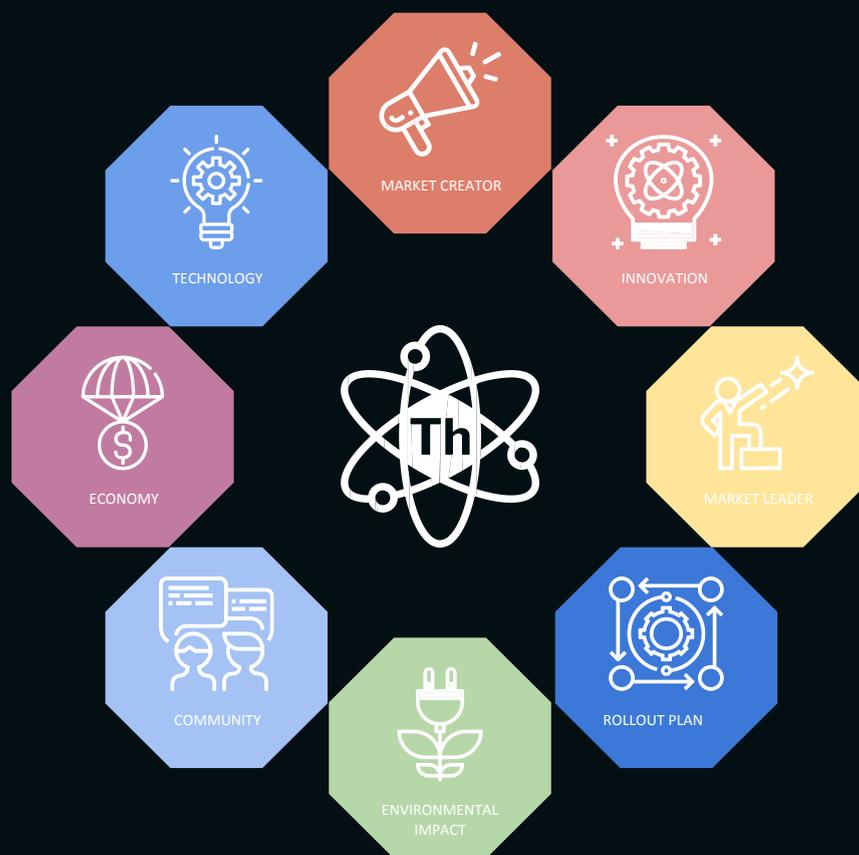
The blockchain operates as a DAO (decentralized autonomous organisation) and will be administered by itself (it's members). It will model after the Dash DAO and will handle the future development of the blockchain.

(Read how the Dash DAO works:
 https://www.dash.org/forum/threads/how-does-the-dash-dao-work.9560/)

We have a decentralized decision-making process now, then we'll have this centralizing with TNC for a period, then the Blockchain and DAO will take over, and the need for TNC will diminish over time. TNC may become a service provider to the Thorium Network and serve as a central point for those that want to connect into the Thorium Network.

SOCIAL MEDIA

Linkedin		linkedin.com/company/thoriumnetwork/
Bitcointalk		bitcointalk.org/index.php?topic=5044148
Telegram		t.me/ThoriumNetwork
Facebook		facebook.com/The.Thorium.Network
Email		Admin@MECi-Group.com