

# BREAKING DOWN THE BOUNDARIES BETWEEN THE WORLD OF BUSINESS AND BLOCKCHAIN







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used by the persons to whom it is made available solely for informational to maintain their AMRS on the Portal until the end of the ICO and will be purposes and may not be reproduced or used or distributed in whole or required to make undertakings to the Foundation if they remove their in part without the written consent of the Ammeris Blockchain Foundation AMRS from the marketplace thereafter. (the "Foundation"). Acceptance of this material constitutes an agreement to keep confidential amongst other matters all the information contained Potential buyers of AMRS are required to read the entire Whitepaper, the herein. This document does not constitute an offer, recommendation, or solicitation, and this document should not be viewed as a current or past to consult their advisors before deciding on whether to buy AMRS. recommendation, or as a solicitation of an offer to sell or purchase an interest or any other investment product.

The following document offers an overview of the Foundation, the Ammeris Group, the distributed Ammeris Platform (the "Platform"), which includes the Ammeris Blockchain, a publicly accessible and renewablespowered distributed ledger technology ("DLT"), the Ammeris Blockchain Stack ("ABS"), a technical solutions package that provides for build and deployment of decentralized applications ("dApps") onto the Platform, and Ammeris Coin ("AMRS"), a mineable crypto asset on the Platform, including the AMRS' anticipated function within the Platform. The information contained herein is not legally binding on the Foundation, its founders, directors, officers, advisors, or partners.

The AMRS on sale in the initial coin offering ("ICO"), if purchased, may contain a volatile and speculative value outside of the Platform. The AMRS may be a suitable purchase only for those participants/users who are able to understand the nuances of this document (the "Whitepaper"), including risks, and the presence of unforeseeable risks. The Foundation will not be required, nor does it currently intend to offer AMRS for any securities registered under any securities act or any other law or regulation, or register AMRS for resale under any securities act or any other law or regulation. Losses may occur and ICO participants, including the Foundation, the Platform and the AMRS, may lose their full value. No positive return on purchases can be guaranteed by this Whitepaper, the Foundation, its founders, directors, officers, advisors, or partners. This Whitepaper remains the property of the Ammeris Blockchain Foundation, all rights reserved.

The ICO is only made to, directed at, and may only be acted upon by, persons who qualify to the Whitepaper. Purchasers may pay for AMRS in U.S. dollars (USD), Canadian dollars (CAD), Bitcoin (BTC), and/or Ethereum (ETH). ICO participants will be provided with all the necessary informatio regarding opening and closing of the ICO, including their status, whether successful or not in the ICO via email and social media (Twitter, Facebook, and/or Telegram), including by way of the updating of individual accounts

The information contained herein is strictly confidential, is intended to be on the Ammeris Portal (the "Portal"). Purchasers of AMRS will be required

Ammeris ICO Terms of Sale, the Ammeris ICO Offering Memorandum and

Last modified: September 26, 2018.

#### **GROUP DETAILS**

AMMERIS (COLLECTIVELY) Ammeris Holdings Ltd., a British Virgin Islands limited company.

Ammeris Advisory Ltd. (to be formed), a Cayman Islands special economic zone company,

herein, "Advisory".

Ammeris Inc., a Canadian corporation, herein, "Development."

Ammeris Strategies Ltd. (to be formed), a Cayman Islands special economic zone company,

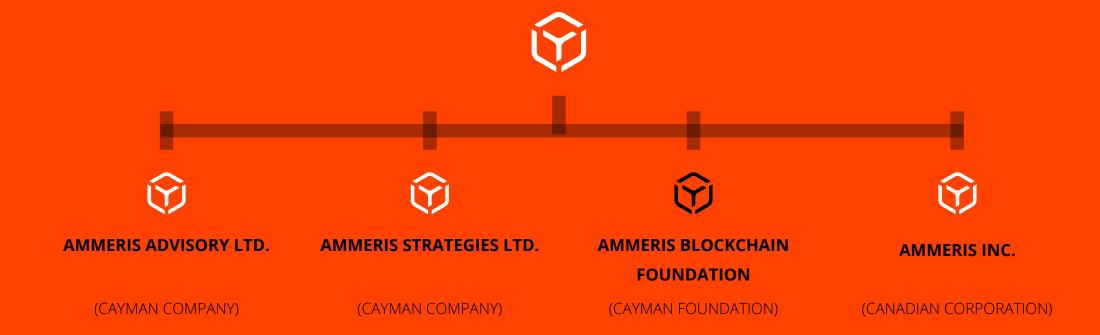
herein, "Strategies."

Ammeris Blockchain Foundation, a Cayman Islands exempted foundation company, herein, AMMERIS BLOCKCHAIN **FOUNDATION (ISSUER)** the "Issuer" or the "Foundation."

Ammeris Fund (to be formed), a Cayman Islands legal entity (to be decided), herein, the **FUND** 

"Fund."

REGISTERED **OFFICE OF** THE FOUNDATION Second Floor, Willow House, Cricket Square, PO Box 709, George Town, Grand Cayman, KY1-1107, Cayman Island



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#### **EXECUTIVE SUMMARY**



The Ammeris Blockchain Foundation (the "Foundation") has launched the Ammeris Platform (the "Platform") in a bid to break down the barriers between the world of business and blockchain.

The Platform offers a 100% renewables-powered token economy on the Ammeris Blockchain (the Platform's main database) that is complemented by a solution stack, the Ammeris Blockchain Stack (the "ABS" or the "Stack"), an enterprise-ready architecture for building, deploying and managing decentralized applications ("dApps") through a globally-distributed network of Foundationowned and/or accredited renewables-powered data centers.

The Platform is technology agnostic and addresses many of the environmental, technological, economic, and consensus issues associated with existing approaches to dApps through the provision of powerful tools to create sustainable, interoperable, scalable and commercially viable applications and services for the global blockchain and enterprise community.

This document covers:

- An overview of the Ammeris approach;
- A description of the challenges facing blockchain;
- A high-level overview of the state-of-the-art Ammeris Platform;
- Details of the monetary policy of the Ammeris Platform; and,
- Details of the Foundation, which will act as a governing body with standing committees and the issuer of the initial supply of Ammeris Coin ("AMRS") within the Ammeris Platform.

The Ammeris vision is one that champions clean,

interoperable, and open business interaction. By

launching the Ammeris Platform for dApps – one that

follows the principles of the decentralized economy

- the Foundation has been tasked with the mission

environmentally detrimental systems.

of overseeing and building away from inefficient and

By offering a sustainable, interoperable, and scalable solution that balances between the traditional trade-

offs of blockchain, such an endeavour will not only

interlinks people together with organizations,

businesses, and governments.

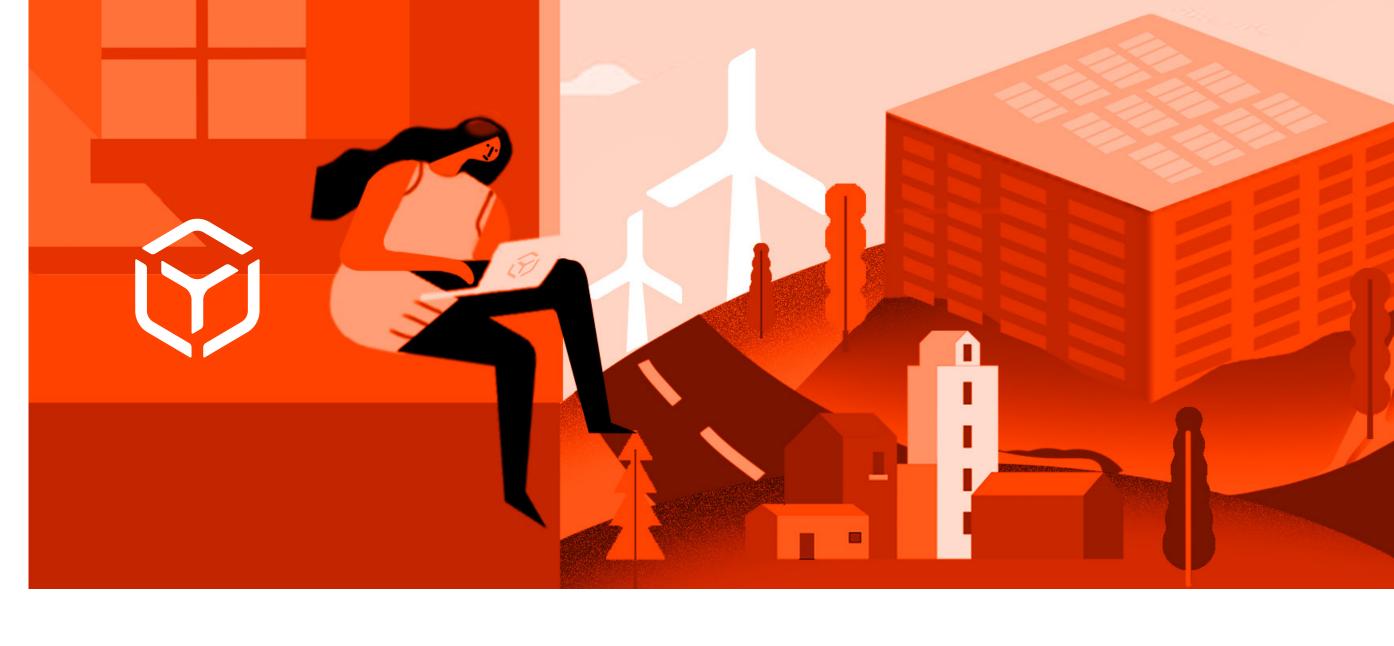
provide a commercially viable platform for the global

community, but also enrich the lives and livelihoods of

people around the world. This will allow for meaningful

and sustainable information technology that seamlessly

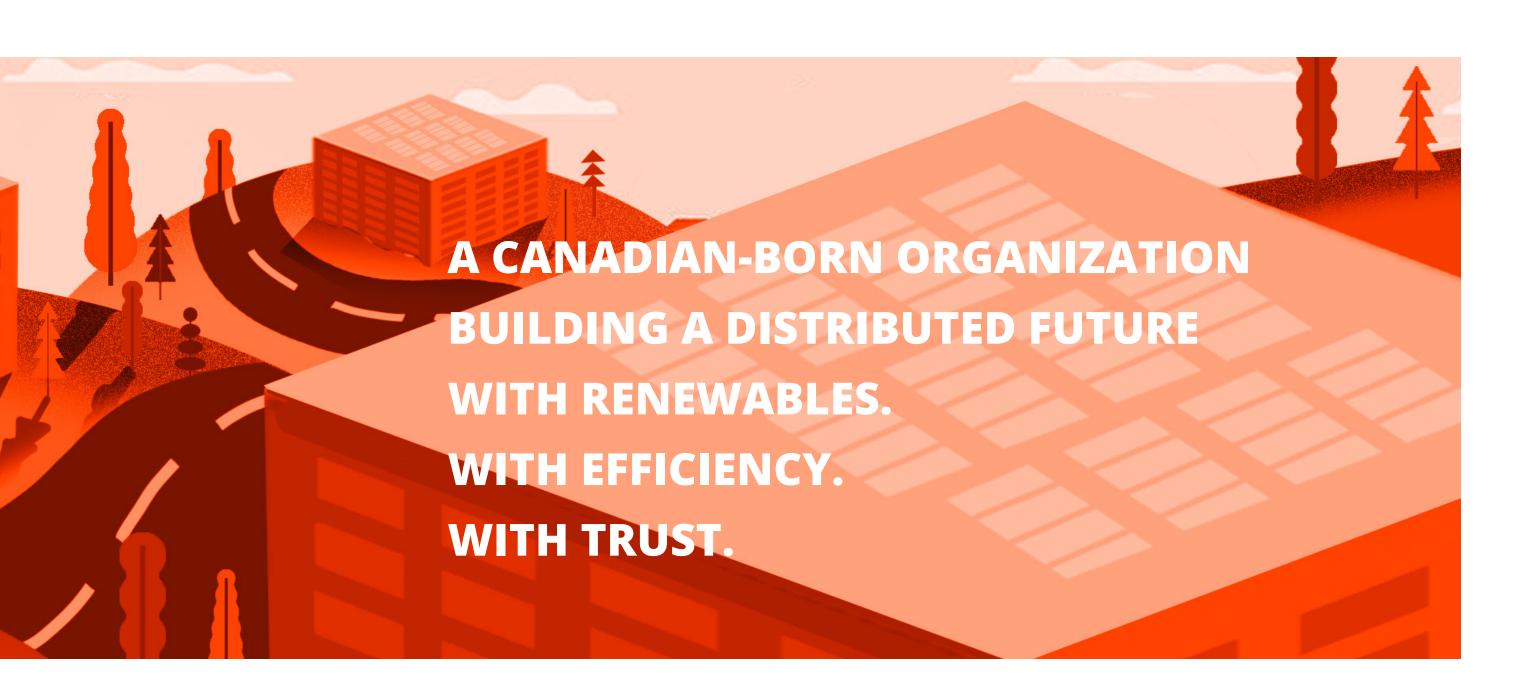




#### THE AMMERIS ICO

To ensure that the Platform is secure and economically viable for international organizations and businesses, it is governed by a proof-of-work ("PoW") protocol delegated by the Foundation and supported by a stakeable blockchainnative crypto asset (AMRS). AMRS will be available for staking by the public in exchange for the Ammeris Blockchain's block rewards through the Ammeris Portal (the "Portal" www.ammeris.com).

The Foundation will sell 25,000,000 AMRS in an initial coin offering ("ICO"), with additional AMRS slated to be mined in 100% green data centers (approximately 2,200,000 AMRS per annum) to support the Platform through effective monetary policy and passed onto stakeholders through the Portal. AMRS serves as the medium of exchange, reserve currency, and access/gas/fee token for the Platform. All Platform fees rewards Foundation and/or accredited data centers for processing transactions.

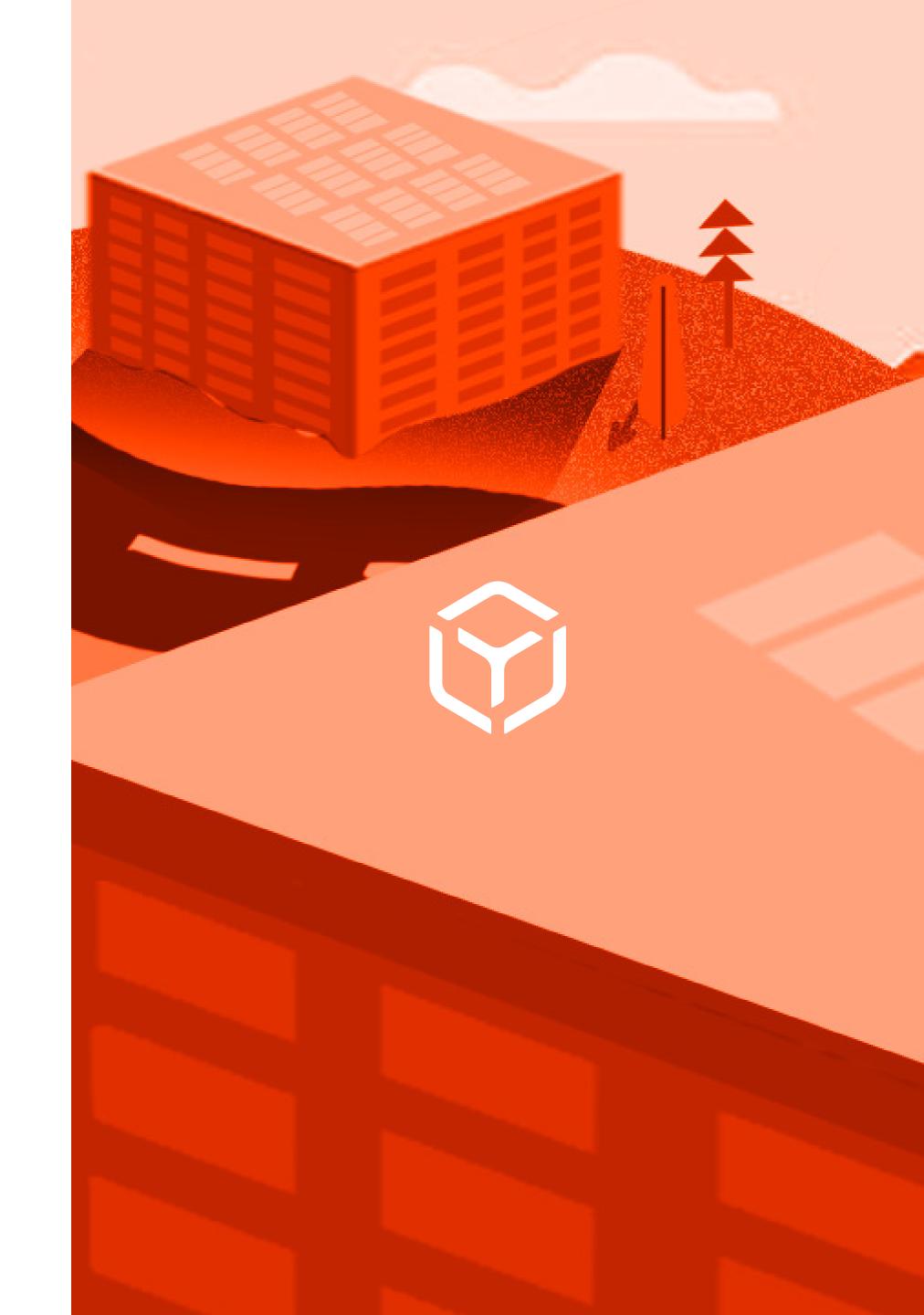


#### ABOUT AMMERIS

Ammeris is undertaking a quiet revolution that is enabling a level playing field for economic and sustainability goals, while building toward radical interconnectivity and user-controlled data ownership through the application of distributed ledger technology ("DLT") for the benefit of humans and the environment.

Born from a Canadian, clean-energy, and decentralized mindset, Ammeris has been founded by a group of entrepreneurs, technologists, and financiers that are passionate about sustainable solutions to interoperability and trust issues. Determined to illuminate a path forward using blockchain and wider decentralized technologies, Ammeris is pioneering industry-specific applications in healthcare, energy, insurance, entertainment, and capital markets.

Ammeris has established the Ammeris Blockchain Foundation, while through other entities operating forprofit development, advisory, and asset management divisions geared toward offering Ammeris Platform client onboarding and management services.



#### INTRODUCTION



#### **DID YOU KNOW?**

Ammeris is actively working with businesses and organizations looking to adopt the Ammeris Platform to enhance their operations.

Visit www.ammeris.com/services for more information.

#### 1.1 THE **PROBLEM**



The emergence of public blockchain has enabled new information, capital, and organizational models building trust through immutability and consensus, often in a highly innovative, equitable, and decentralized way. This has opened the possibility of a paradigm shift for a multitude of business applications and practices using advanced consensus mechanisms, smart contracts, virtual machines, data storage, and "tokenomics" (the design and application of token-based ecosystems). In effect, a new way of conducting global business activities has caught the imagination of entrepreneurs, technologists and financiers all over the world.

While they have unlocked significant innovation, many public infrastructure platforms are not commercially viable. Some of the current challenges include:

**INFRASTRUCTURE CONCERNS SUSTAINABILITY ISSUES CONSENSUS MODEL LIMITATIONS USER BACKLOGS DATA / PRIVACY PARADOXES** 



#### 1.2 VISION



Ammeris envisions the growth of an ecosystem that not only combats the trade-offs of using blockchain, but also facilitates harmonious interactions between individuals, governments, businesses, and cultures by employing robust technological architecture and financial innovation through crypto assets.

This will avail people and industries around the world with a meaningful and sustainable platform that enables responsible, transparent, and frictionless communication and business activity. Such an ecosystem must provide a platform that is:

## SUSTAINABLE COMMERCIALLY VIABLE APPLICATION-RELEVANT

#### 1.3 MISSION



To attain this vision, Ammeris founded the Foundation, a non-profit organization tasked with the mission of growing a global ecosystem that enables businesses, institutions, and government-related entities the ability to leverage decentralized technology in a way that is environmentally sustainable, fit-for-purpose, and champions interoperable and open interaction.

Three key principles guide the Foundation in pursuit of this mission:

SUSTAINABILITY
INTEROPERABILITY
SCALABILITY

#### **STRATEGY**



## 1.4.1 THE AMMERIS PLATFORM

To fulfill its mission, the Foundation is launching the publicly-accessible Ammeris Platform designed to host frictionless interconnectivity. The Platform is now onboarding and incubating businesses and organizations seeking to use a sustainable and long-term oriented network for their applications that is easy and cost efficient to use – creating the beginning steps of a global decentralized ecosystem.

#### THE AMMERIS BLOCKCHAIN

Within the Platform is the Ammeris Blockchain, one of the first iterations of the ABS. The Ammeris Blockchain serves as the main database of the Platform and is hosted by Foundation-owned and/or accredited data centers powered entirely by renewable sources of energy and secured by a PoW protocol delegated by the Foundation to combat network disruptions such as denial of service attacks. Some of the Ammeris Blockchain's features include:

**100% GREEN ENERGY** A sustainable network powered by 100% renewable

energy, sourced from multiple countries and technologies (e.g., hydropower, wind, and solar).

**DECENTRALIZED**A financially viable and stable distributed platform that is driven by incentive mechanisms which encourages

stakeholder participation and user growth.

CRYPTOGRAPHICALLY SECURE THROUGH POW

A byzantine fault tolerant protocol layer for applications seeking to follow the principles of the decentralized

economy.

GREEN TOKEN ECOSYSTEM

A tokenized platform that supports various token designs (asset-backed tokens, dApp tokens,

cryptocurrencies, hybrid tokens, etc.) through smart

contracts.

#### THE AMMERIS BLOCKCHAIN STACK

To ensure scalability and utility of the Platform, the ABS will provide build, deployment, and management capability for dApps through the provision of various onboarding tools, including segregated ledgers, through the Portal. The ABS builds upon the Enterprise Ethereum Architecture Stack ("EEAS") to ensure the Platform simultaneously addresses many of the challenges facing existing blockchain infrastructure platforms. The ABS functions will be exposed as "REST API" (Representational State Transfer Application Programming Interface), allowing any third-party application developer with minimum knowledge of DLT or blockchain infrastructure to create dApps with their technology of choice (e.g., J2EE, .NET, etc.). The Stack is composed of the following elegant and scalable features:

SEAMLESS

INTERCONNECTIVITY

A solution that fully leverages blockchain to enable seamless business interaction, improving efficiency and reducing integration and reconciliation costs through

horizontal expansion.

**VARIABLE CONSENSUS** 

**TEMPLATES** 

Which provides for various consensus models through PoST supported by a technology solution that ultimately enables all the advantages of blockchain for commercial

and social activity.

SCALABLE & INTUITIVE

**DESIGN** 

Which provides a stable and predictable environment for businesses to operate globally, with a design and infrastructure that delivers technical architecture that is easy to understand and resolves user/deployment

backlogs.

PRIVACY & DATA MANAGEMENT

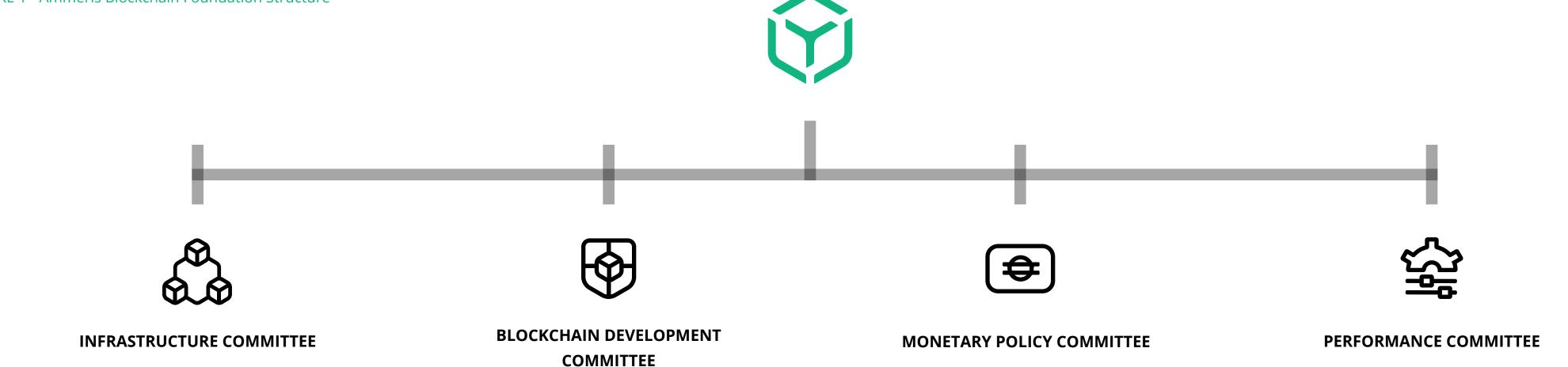
Which enables various levels of know-your-customer (KYC) and ownership functionalities, particularly through MOIaaS, to empower people to control their information, as well as resolve privacy and data storage

requirements through compartmentalization.

#### THE AMMERIS BLOCKCHAIN **FOUNDATION**







To ensure the survival and compatibility of the Platform with real-world applicability, the entire Platform shall be delegated by the Foundation; beyond the properties built directly into the Platform through the source code and consensus model, the Foundation is managed by the board of directors (the "Board"), which has delegated certain responsibilities to four standing committees designed to boost adoption and to ensure that the Platform grows in a way that is commercially viable, equitable, and sustainable. All standing committee charters and financial audits of the Foundation shall be published online at the end of each financial quarter. The Foundation and its standing committees are composed and organized as follows:

THE INFRASTRUCTURE COMMITTEE &



Which guides the node accreditation and operation process; establishes modular infrastructure designs; and, designates data and security standards.

THE BLOCKCHAIN **DEVELOPMENT** COMMITTEE



Which guides development of the Platform and related components; pioneers industry-specific consensus models (under PoST); and, introduces updates to the Ammeris Blockchain and Stack.

THE MONETARY POLICY



Which facilitates AMRS price stability and economic expansion; applications of tether instruments; and, encourages blockchain incentive mechanism stability.

THE PERFORMANCE COMMITTEE



Which formulates internal and external policies and procedures; executes research steering and innovation grants, and, generates corporate social responsibility policy.

#### THE AMMERIS COIN (AMRS)

To ensure the Ammeris Platform is secure and commercially viable, it will be supported by the stakeable Ammeris Blockchain-native Ammeris Coin. The Foundation has created 45,000,000 AMRS and has configured the Platform to produce approximately 2,200,000 AMRS per annum in the form of block rewards through the Portal. AMRS also acts as the main incentive mechanism for accredited data centers to support the Platform, with all users settling Platform fees using AMRS.

Staking AMRS will be available via the Portal, where AMRS account holders will be eligible to deposit AMRS into wallets. In return, Portal account holders shall receive a proportional deposit of the Ammeris Blockchain's block rewards based on the overall percentage of AMRS in circulation (to be determined at the end of each fiscal quarter) and the amount of AMRS deposited within the account. AMRS can also be described as a:



**RESERVE CURRENCY** 

As it acts as official tender within the Platform.

**ACCESS/FEE TOKEN** 

As it is critical to operating the Platform and serves as an integral component of the Platform's consensus mechanism that grants access to system functionalities paid to data centers.

**MEDIUM OF EXCHANGE** 

As it acts as the mechanism that enables participation on the Platform, including its token economy. It provides participants with the ability to transfer value and information in a predictable and secure environment on a global scale.

**MINEABLE COMMODITY** 

As it acts as a commodity reward for Portal account holders who help secure the Network.

**STORE OF NETWORK VALUE** 

As it provides participants with the ability to capture the value of the Platform as the digital asset that represents utility and work on the Network.

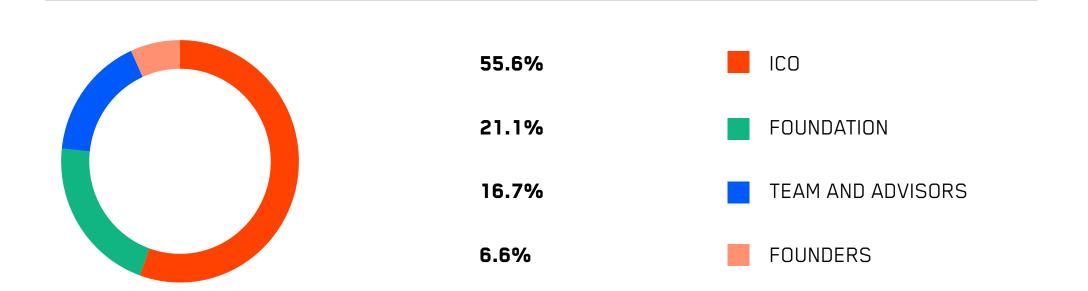
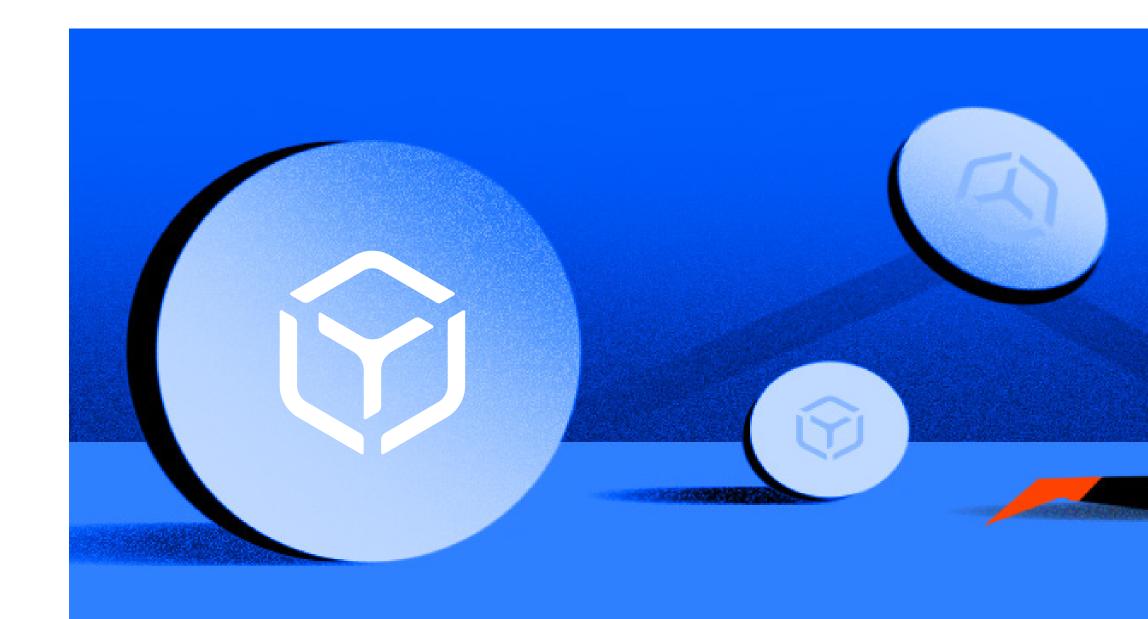


FIGURE 2 - Ammeris ICO Allocation



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	ICO	25,000,000	100%		\$10,062,500	
December	General sale	7,500,000	30.00 %	\$0.50	\$3,750,000	0.00%
November	Presale 2	7,500,000	30.00 %	\$0.43	\$3,187,500	15.00%
October	Presale 1	5,000,000	20.00 %	\$0.35	\$1,750,000	30.00 %
September	Private	5,000,000	20.00 %	\$0.28	\$1,375,000	45.00 %
YEAR / MONTH	ALLOCATION	COIN(S)	% OF SUPPLY (of ICO)	AVERAGE COIN PRICE	USD (estimated sale amount)	<b>DISCOUNT</b> (average discount)

ICO	25,000,000	55.56%	
Foundation	9,500,000	21.11 %	
<b>Team and Advisors</b>	7,500,000	16.67 %	
Founders	3,000,000	6.67 %	

45,000,000

100%



The Foundation will conduct an ICO according to the Monetary Policy Committee's directive to sell a portion of the initial supply of AMRS (25,000,000 AMRS) in exchange for the equivalent of US \$10,062,500 in fiat currency and/or cryptocurrencies. The proceeds of the ICO will permit the Foundation to engage in activities that will expand the operation, distribution, and adoption of the

Platform and fulfill development of the ABS, including financing the

Foundation's standing committees.



FIGURE 3 - Ammeris ICO Allocation (Table)

#### CHALLENGES FOR BLOCKCHAIN 2.0



Today, blockchain is heavily influenced by the success - or rather, failures - of the public Bitcoin and Ethereum networks. Their shortcomings have posed significant challenges for both private and public application developers attempting to deliver solutions for complex commercial environments seeking to follow the ethos of blockchain. The focus for many public blockchain platforms is to enable radical data redundancy, security, and the removal of centralized control to such an extent that key characteristics such as efficiency, scalability, sustainability, and even cost has been either ignored or relegated to the margins. As a result, many of these platforms are plagued by challenges preventing them from hosting the complexity of commerce.

#### **DID YOU KNOW?**

The Ammeris Platform will be operated by Foundation-owned and/or accredited data centers with strong corporate social responsibility programs, this includes the use of energy that is 100% renewable.

Visit www.ammeris.com/blockchain for more information.

## 2.1 CONSENSUS MODEL LIMITATIONS

In many cases, dApps require specifically-tailored consensus models where complex stakeholder arrangements are necessary; some require higher frequencies for payments, where database speeds for exchange or transaction throughput is a concern; many others require an emphasis on security and stability through important checks and balances; and/or they must abide by privacy and data storage regulations through compartmentalization. All of these requirements cannot be fulfilled by a platform that fails to deliver consensus flexibility.

Existing single-consensus networks such as Bitcoin have attempted to solve this by acting as a multi-purpose database, or have created a system with a set of development tools (i.e., smart contracts) of which can be tailored according to industry-specific applications, such as Ethereum. The Bitcoin method, which acts as a database has limited business utility, while the Ethereum method facilitates key characteristics important for constructing applications according to business logic.

The Ethereum platform has been, arguably, one of the most applicable innovations to emerge within the DLT industry. However, over the short lifespan of the public Ethereum network, it has become increasingly clear that the underpinning set of development tools building toward industry-specific applications cannot function optimally with its current trajectory. As a result, many applications have engaged in "forking" to host their own public or private blockchain networks, which has created an enormous variety of platforms and associated crypto assets to advertise the necessary ingredients for specific commercial settings.

## 2.2 INFRASTRUCTURE CONCERNS

Using crypto assets as an incentive on public networks has led to a unique mechanism whereby networks have stood-up extensive and secure global infrastructure with little centralized authority. This has given way to a new and extremely responsive data center business model where significant correlations exist between digital asset prices (which may be speculative) and mining participation, rather than a positive correlation between utility (i.e., use-case and commercial viability) and mining participation. While this has resulted in impenetrable byzantine fault tolerant systems, only a handful of dApps use these public networks or require this level of security.



FIGURE 4 - Bitcoin, Ethereum, Bitcoin Cash, Litecoin, and ZCash average hashrate (hash/s) per day in log chart - Source: BitInfoCharts, June 10, 2018

The increase of mining participation, coupled with rising difficulty rates, has led to fierce competition among digital infrastructure companies. This has contributed toward significant data redundancy without the necessary utility of this computational capacity and has added to the cost of transacting on public networks (see *Figure 5* and *Figure 6*). In 2017 alone, when the market capitalization for the entire asset class moved from US \$17 billion at the beginning of the year to a valuation of approximately US \$800 billion, the rapid increase in value of blockchain-native crypto assets led to the colossal rise of computational capacity in the mining industry, measurable by the hashrate sustaining the networks (see *Figure 4*). The hashrate of the Ethereum network in mid-June 2018 rose to 274,172.5 billion hashes per second. At the time of writing, 1 GH/s hashing was equivalent to roughly 36 Graphical Processing Units (GPU's) - there were roughly 10 million GPU's (or equivalent) powering the global Ethereum network.

Maintaining a constant set of computational capacity to support public networks has resulted in diminishing marginal returns for small-scale digital infrastructure players – a race to the bottom. As a result, this industry has become volatile and prone to cutting corners, which has moved sustainability and development initiatives down as a low priority to survive. Significant capital investment has gone to waste in the hands of disorganized, amateur, and/or short-sighted participants. This has led to little capital expenditures being allocated on significant technological/business development, sales, updates, and refinement to public network code as apposed to hardware investments.

Another issue facing public networks is the degree of centralisation of computing power with no apparent governance body. This poses as a threat to undercut the "security" and "decentralization" value propositions that public networks have come to rely on. For example, Ethereum is now dominated by 6 major pools (89% of hashrate), with two pools representing 51.4% of the network hashrate (significantly increasing the potential of attacks by more than 51%). In the event that the consensus models of these networks becomes subject to change (such as modifications to the transaction validation process, block rewards, etc.) for a variety of reasons (ecological, legal, and/or financial), many participants on the infrastructure side may become security threats as consensus volatility ensues. For example, the concentration of network hashrates in China could become a strategic threat to public networks should authorities in Beijing impose further restrictions on power consumption or ban the industry altogether, which could open the possibility of a 51% attack on current fault tolerant networks.



FIGURE 5 - Mining profitability (USD) per day 1 MHash/s in log chart - Source: BitinfoCharts, June 10, 2018

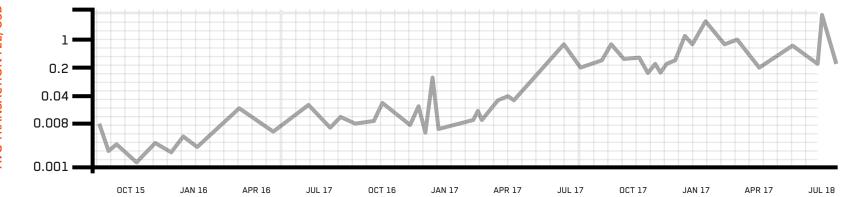
#### **USER BACKLOGS**

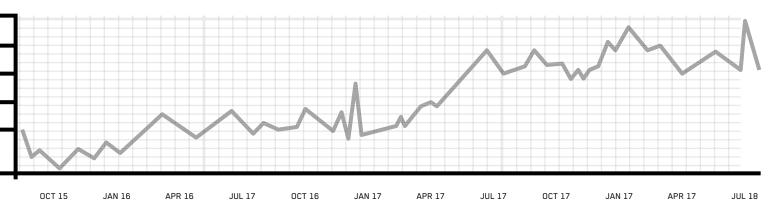
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## ammeris

FIGURE 6 - Ethereum average transaction fee historical data in log chart - Source: BitInfoCharts, July 27, 2018

Backlogs have also become an issue on public networks, especially for application-intensive networks such as Ethereum. Figure 7 depicts the severity of the outstanding transactions that have been plaguing the Ethereum network since last year. As well, transaction cost volatility continues to underpin Ethereum (see *Figure 6*), with select application activity causing significant instability in the potential commercial viability of the platform. Application developers and users will be hard-pressed to use a public Ethereum-enabled dApp given significant backlogs and increasingly volatile costs of deployment and transactions.





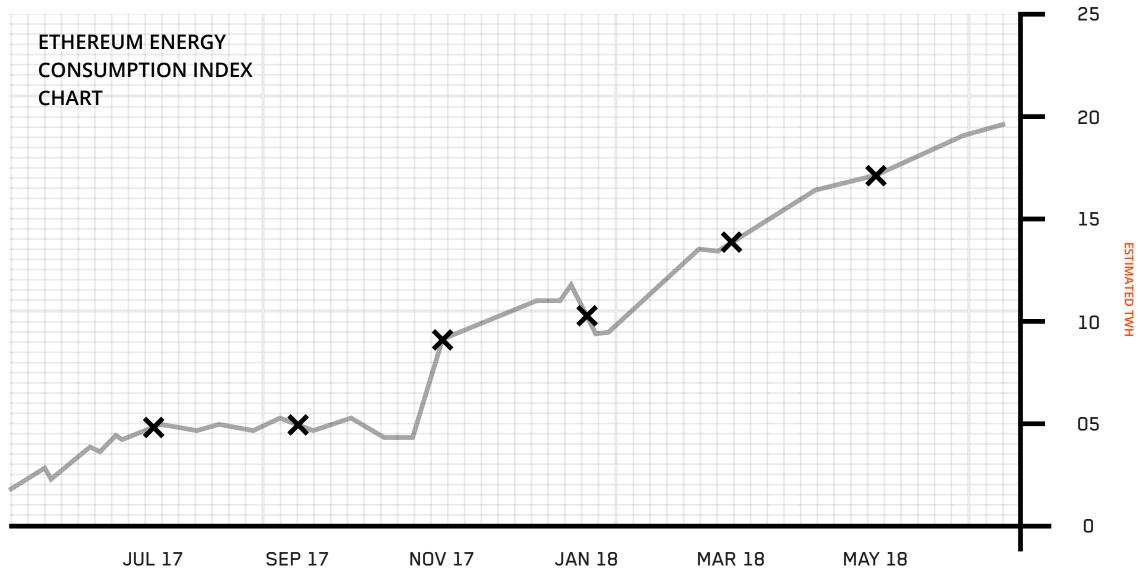
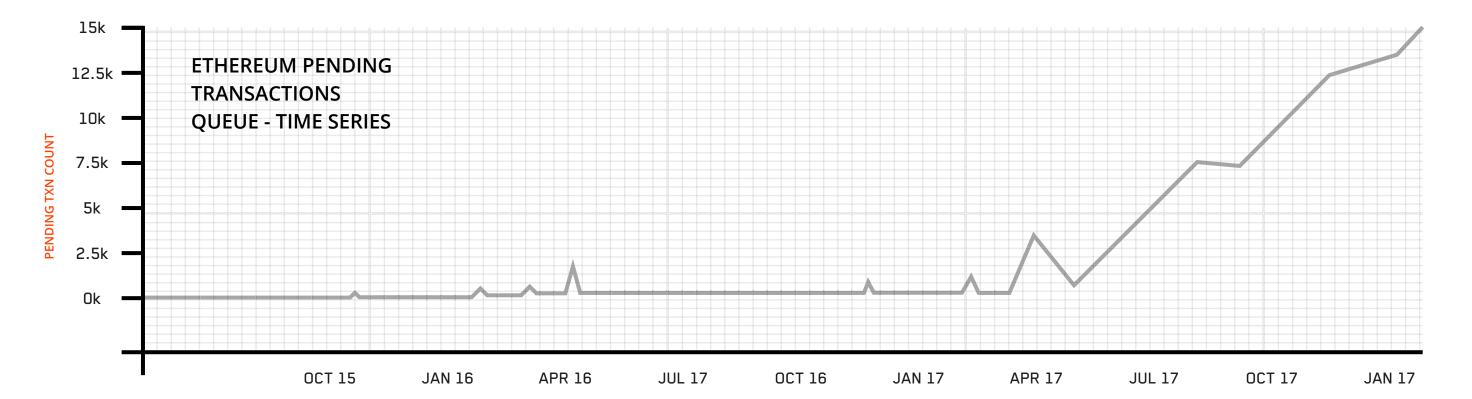


FIGURE 8 - Ethereum energy consumption index - Source Digiconomist, June 11, 2018

FIGURE 7 - Ethereum pending transactions queue - Source: Yahoo, Frank Chaparro for Business Insider, December 4, 2017



#### 2.4 **SUSTAINABILITY ISSUES**

The current electronic hardware used by miners is designed to operate under extreme stress-loads and to consume high amounts of energy. As a result, legitimate concerns surrounding the sustainability of the practice, or at least the configuration of the current dominant networks, exists. Both developed and developing economies continue to rely on carbon-based electricity rather than renewable energy. According to statistics generated by Bloomberg New Energy Finance, 75% of Bitcoin mining machines (consuming approximately 3,500 MW) are based in China, wherein miners are powered mainly by coalfired power plants. While coal-based electricity is available at very low prices per kilowatt hour (kWh), these market prices ignore environmental and human welfare costs alongside short and long-term externalities.

Using the latest information on the Bitcoin network alone, energy consumption has inexorably led to the consumption of 71 TWh per annum in 2018 thus far. For Bitcoin, this is equivalent to the energy consumption of Chile or Croatia and 35 thousand kilo-tons of carbon dioxide emitted into the atmosphere. This is the very definition of unsustainable, with other public blockchains such as Ethereum not far behind this trend (see Figure 8). China is now discouraging digital mining through tariff increases, given the amount of power these enterprises are consuming. Discussions between organized mining companies and provincial/state authorities in North America also suggest miners may soon face increased tariffs and steep challenges from regulators in Canada and the United States.

Furthermore, public networks like Ethereum suffer from data and privacy paradoxes; most companies around the world are very protective over the privacy and security of their information (data). To date, public networks have been transparent to the core and have stored all data on a public ledger. For many application use-cases, such radical transparency and data storage hinders adoption of blockchain and may even be unlawful. These platforms use transparency and a sole data storage method as a key feature of security to ensure transactions are not fraudulent or too large. While transparency is a key staple of what blockchain has to offer, it has largely neglected problems with data exposure and how that translates into adoption of the platforms more widely.

Significant pieces of legislation such as the European Union's General Data Protection Regulation ("GDPR") have increased blockchain development priorities to address privacy and data storage requirements. Most companies want their business processes and activities to be strictly visible only to authorized users. While private blockchain networks have already begun to apply robust privacy and data storage procedures, it is not clear how existing public or quasi-public blockchains that offer the potential for significant interconnectivity and usability will comply with legislation like the GDPR, to in turn align with how the community that supports them will respond to requests and proposals for change – without a relatively equipped governing body.



#### 3.0 THE AMMERIS PLATFORM



Ammeris follows a different strategy by charting a less extreme vision for blockchain that caters to the rationale that most blockchain users do not want their business exposed to unauthorized personnel. Our mission is to offer an efficient and harmonious business integration platform that seamlessly interlinks activity while allowing enterprises to adopt both public and private solutions. From our perspective, this requires a green, scalable, and high-performance platform to support serious business activities – not just simple money transfers.

The Ammeris Platform is designed to be technology agnostic in order to equip blockchain developers and users with a single interface that integrates commercially viable information methodologies (such as partitioning and segregation that are efficient and scalable), to providing users with both enterprise-level utility and the ability to deploy various token designs through smart contracts. This technology harnesses powerful decentralized architecture without drastically sacrificing performance, all while maintaining a balance between the traditional trade-offs of blockchain. Coupled with architectural efficiency, sustainability is the main inspiration of the Ammeris approach given that the Platform is a 100% renewables-powered system by way of permissioned data centers around the globe. Overall, this strategic direction will not only reduce carbon dioxide emissions that currently derive from the blockchain space, but also deliver a solution designed to attract developers, users, and stakeholders to a reliable, distributed, and byzantine fault tolerant network with a 99.9% uptime to process transactions.

The team at Ammeris believes this to be an obvious evolution of a revolution that dates back to Satoshi Nakamoto's breakthrough whitepaper. Start-ups, governments, and well-established companies that use the Platform will thus be in the vanguard of the next wave of blockchain innovation, on a network that aspires to comply with ISO/TC 307 blockchain standards (once the final protocol has been agreed upon). Through the continued promotion of efficient code and data center operations, the Platform shall stand as a competitive, fit-for-purpose, and pare-to-optimised force by way of its continued innovation – one that is open to the public and governed by a secure and fit-for-purpose PoW protocol.



#### **DID YOU KNOW?**

The hardware used to run the Ammeris Blockchain is super energy efficient. The way we've done this, is to permission the use of RISC and other low-energy components. This allows the Ammeris Platform to scale the number of nodes supporting the system and ensuring resilience through decentralization.

Visit www.ammeris.com/blockchain for more information.

#### 3.1

#### **ARCHITECTURAL PRINCIPLES**



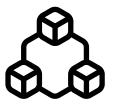
The Ammeris Platform has been designed in accordance to the following three principles:



3.1.1

## **USTAINABILITY**

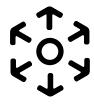
Sustainability is established through the creation of a secure and shared platform that reduces the need for reconciliation, wasteful interactions, and integrations; one that is powered by data centers using 100% renewable sources of energy to power redundancy. The primary objective of this principle is to support a second-order principle, that is, to reduce inefficiencies and waste in business processes as much as possible with fit-for-purpose consensus, leading to lower resource consumption as the ecosystem scales. This shall in effect reflect mutual respect for, and be to the benefit of, the environment and humans everywhere.



3.1.2

## INTEROPERABILIT

Established through the creation of an enhanced ecosystem that is technology agnostic and cryptographically secure by way of decentralized and resilient code, while remaining easy to adopt through carefully designed architecture that minimizes learning curves for industryspecific applications and interconnectivity. This requires not only an inclusive solution that also respects diversity and differences in culture, religion, and political/governance philosophies, but one that also supports and secures any compliance needs of dApps.



3.1.3

## **ABILIT**

Established through the creation of a general-purpose platform of which possesses the ability to scale both horizontally and vertically to support serious, sizable business transactions and volume. This way, developers may navigate the traditional trade-offs of blockchain and facilitate application provisions more easily, ranging from secure and immutable government systems, healthcare applications, fair entertainment platforms, to global capital and insurance markets in the form of a green token economy.

## 3.2 THE AMMERIS BLOCKCHAIN STACK (ABS)

The Ammeris Platform addresses current market failures in the operation of both private and public blockchains. Record keeping, by default, is transparent and open for public utilities (subject to international regulations and laws). Users and developers will be able to access and use the Platform through the Portal, settling gas and service fees using AMRS.

Ammeris has designed the ABS in understanding that large segments of consumers, businesses, and organizations are seeking to leverage the potential of blockchain and are willing to accept reasonable and transparent, but more centralised provisions, so long as any centralization facilitates the delivery of professional, accountable, and law-abiding business interaction.

The Platform in its entirety seeks to democratize blockchain technology and enable the average application developer to leverage the full advantages of DLT without requiring a deep understanding of core blockchain. To offset sustainability concerns of the Platform's main database, the Ammeris Blockchain is complemented by the ABS to extend functionality and to help reduce overload.

The ABS introduces a set of value-added capabilites on top of the Enterprise Ethereum Architecture Stack ("EEAS") from which it was first designed. This set of capabilities enables dApps to be developed with minimum knowledge of blockchain, and provides an efficient, fit-for-purpose platform to support business needs. The Stack delivers an architectural framework that governs the Ammeris Blockchain and all other functionalities, especially elements such as off-chain storage, permissioning, and interoperability of segregated ledgers – designed to offer a holistic solution for decentralized computing, including standardized transaction throughput and on-chain governance.

Specifically, the ABS caters to corporate business scenarios by leveraging the core strength of blockchain while extending these techniques to traditional (and in some cases, legacy) IT systems and use-cases. The Platform as a whole caters to different protocols, standards, and regulations to allow users the freedom to choose the business network they want to participate in; for example, Sharia compliant protocols for Islamic trade and finance. The ABS does not lock the Platform into limited consensus models or technologies, instead the architecture focuses on a set of value-added capabilities that delivers flexibility for application developers and end-customers. The solution is open-source wherever possible, and promotes the use of protocols that helps scale the overall Platform across the globe. The ABS is designed to leverage international standards to maximise interoperability and re-use code designed for other systems (especially the deep codebase designed for Ethereum).

FIGURE 9 - Ammeris Blockchain Stack - Source: Ammeris Yellowpaper, July 1, 2018

**Ammeris Foundation** 

Ammeris Application

Application Layer

Enterprise Ethereum

Yellow Paper

Public Ethereum

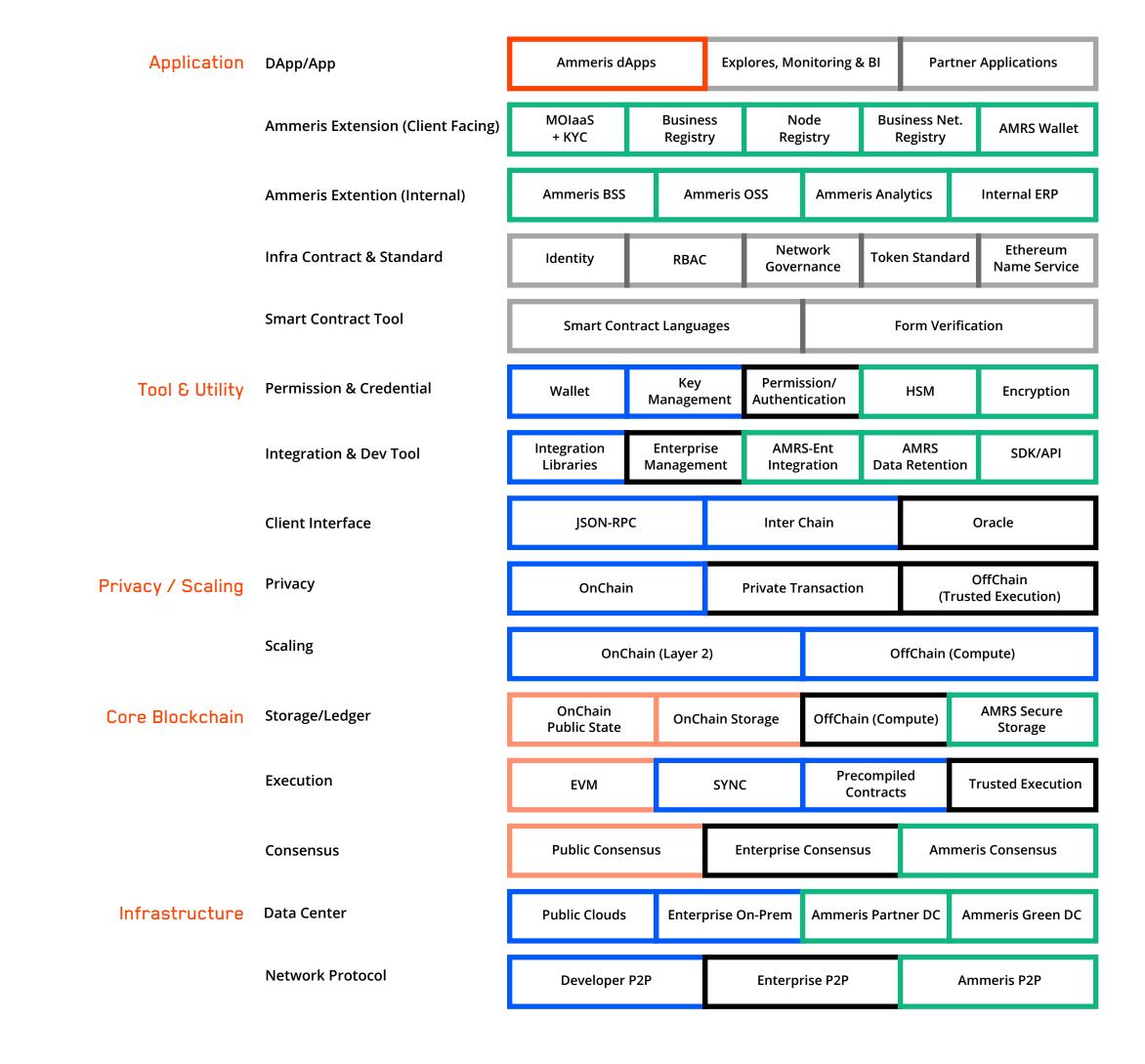
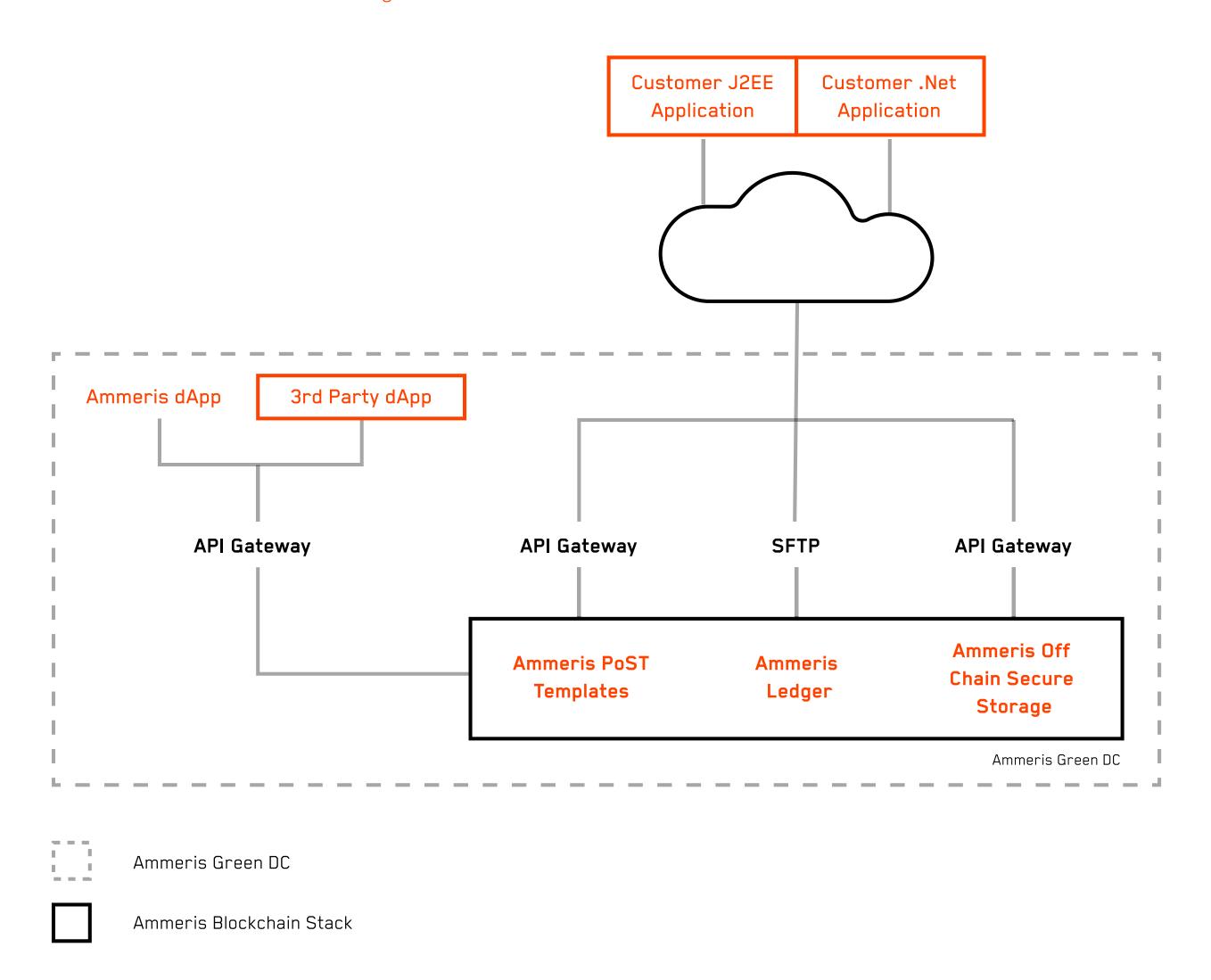


FIGURE 10 - Ammeris Blockchain Stack Usage Scenario



16

#### 3.2.1

## Post PROOF OF SOMETHING FRAMEWORK

The Platform is primarily distinguishable from other blockchain solutions in the marketplace due to its focus on sustainability, interoperability, and scalability, as defined in the architectural principles section. To achieve this, an important objective is to facilitate a catalogue of consensus protocols, providing developers and business leaders with the ability to select a protocol that complements other business models.

Ammeris has defined customizable consensus as the "proof of something" ("PoST") framework. PoST contributes a library of consensus models that will be known as "PoST Templates." Each PoST Template will consist of a set of business rules (e.g. how to connect, include parities for specific transaction, etc.) and compatible consensus models. Templates may also be chosen during the transaction initiation phase, to be fully dynamic for runtime and the capacity to provide flexibility to meet various business demands.

## USAGE SCENEARIO OF THE ABS

The Platform's functions will be exposed as REST API, allowing third-party application developers to create dApps with the technology of their choice (e.g., J2EE, or .NET), alongside minimal requirements to understand the blockchain infrastructure or the backend. DApps using the Ammeris API's to initiate (create) the ledger(s) and add entries into the ledger(s) can also access data through data integration points - typically, "SFTP" (SSH File Transfer Protocol). The security and access controls are enforced by the API Gateways or SFTP. Applications will either fully or partially reside in Foundation-owned data centers, accredited third-party data centers, on-site locations required by users, or in some cases, partner cloud data centers like AWS, Google, and/or Azure. Ammeris seeks to ensure energy sources used by accredited data centers, on-site users or partner cloud systems are renewable where possible.

#### COMMERCIAL TRADE NETWORK EXAMPLE



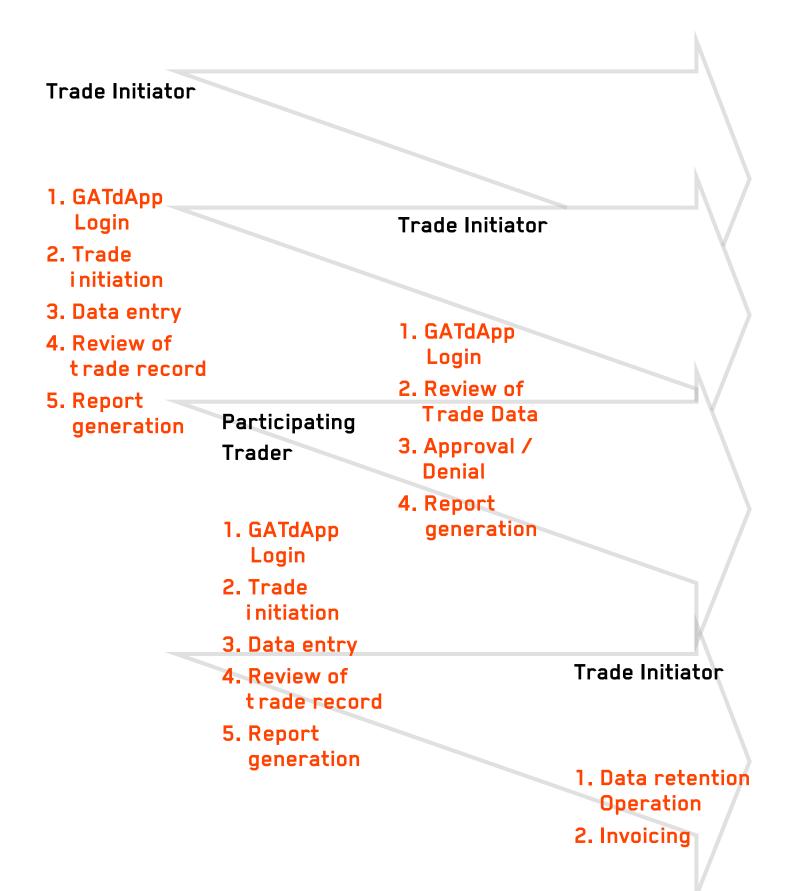
A good example of a use-case for the Platform can be identified in commercial arrangements between two or more companies participating in a business network that requires government validation to finalize trade arrangement(s). The benefits of using the Platform include:

- 1) The provision of immutable recordkeeping to ensure commercial transaction integrity;
- Certified business transactions are verified by anonymous third-parties, of which eliminates the risk of data entry manipulation using the network; and,
- A shared ledger(s) for seamless integration between multiple stakeholders, companies, and government authorities.

For such a trade network to exist, government authorities and trading companies must be registered on the Ammeris Platform and have at least one registered node on a ledger (a business trade network is established in advance). The Platform provides: a secure, shared ledger(s) between government authorities and trading companies; a specifically designed consensus template according to the required set of business rules for trade; and, a collection of trading companies that can contribute to the integrity of the given trade network according to the required professional and regulatory rules.

To access a trading network, a general trade application ("GATdApp") would be developed by Ammeris or a third-party, with the high-level use-case in *Figure 11*.

FIGURE 11 - Commercial Trade Network Example



### 3.2.4 CLINICAL TRIAL DATA EXAMPLE

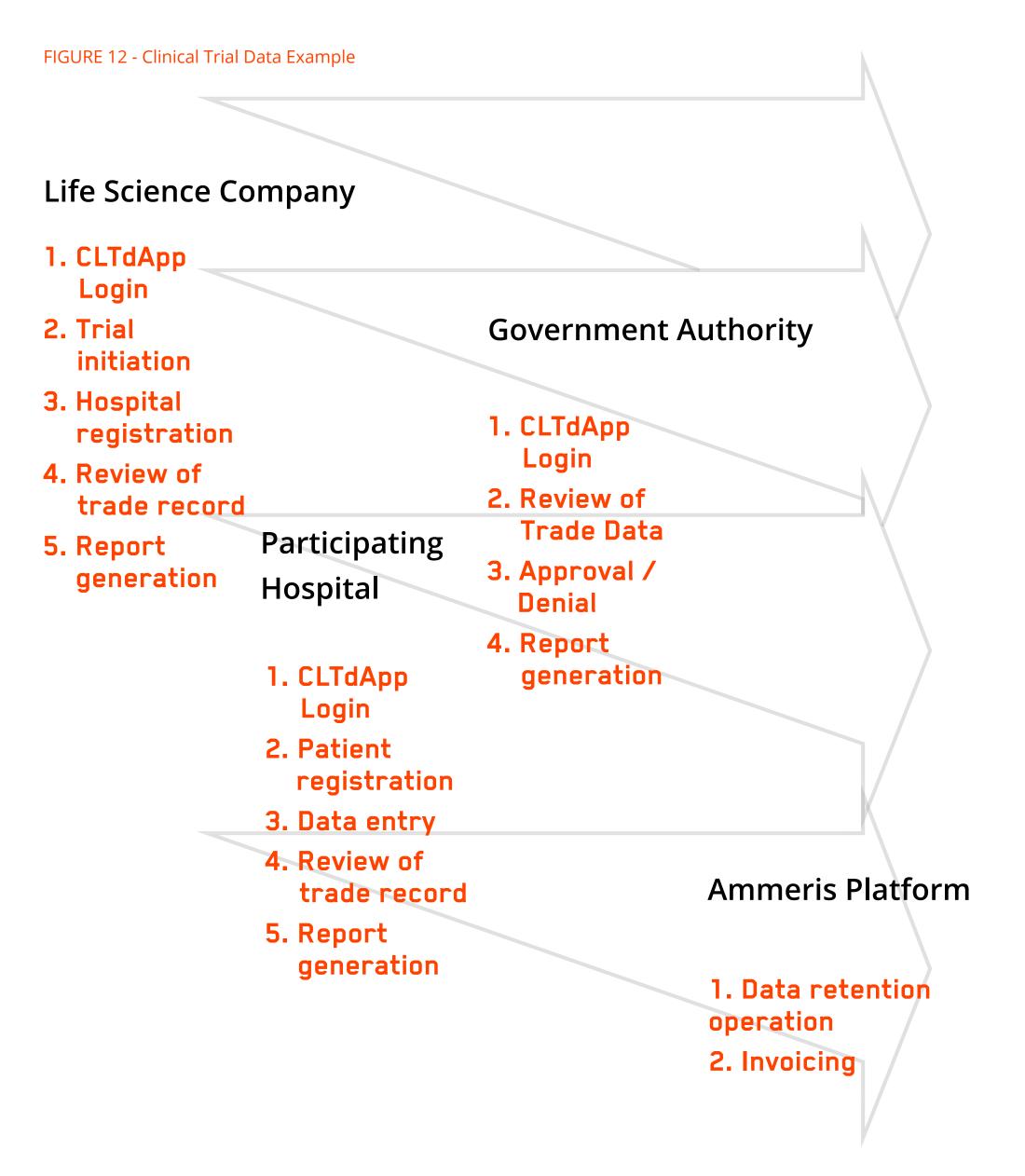
Another good example that suits the application of the Platform includes clinical trials done by clinical research centers. Biomedical or behavioral research studies, for example, on human participants are designed to answer specific questions about interventions, including new treatments (e.g., new vaccines, drugs, dietary choices, dietary supplements, and medical devices) and known interventions that warrant further study and comparison. Clinical trials generate data on safety and efficacy, and they are conducted only after they have received approval from health authorities/ethics committees in countries where approval of therapy is sought. Generally, authorities are responsible for vetting the riskbenefit ratio of the trial; their approval does not mean that the therapy is "safe" or effective, only that the trial may be conducted. Clinical trials for life science companies are used to prove the effectiveness of any new medical innovation to authorities. In such scenarios, byzantine fault tolerance levels of security are not required, as all users of the clinical trial network would be identified by name, albeit, patient identities are generally anonymized.

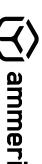
The benefits of using the Ammeris Platform include:

- 1) Immutable recordkeeping to ensure trial integrity; and,
- A shared ledger that simplifies integration between life science companies, government authorities (such as the FDA in the US), and participating hospitals or health centers.

For the clinical trial to take place on a blockchain, government authorities and life science companies would need to be registered on the Ammeris Platform and have at least one registered node in operation. The Platform would provide a secure and sharable record between government authorities and life science companies - a specially designed consensus model according to the rules for clinical trial scenarios. As well, the Platform would provide patient registries for participating hospitals to leverage for any trial record entries. In the event hospital operators have their own administration and patient registration system, the registries function would not be required.

To access or create a ledger for clinical trials, a clinical trial application ("CLTdApp") would need to be developed by Ammeris or third-party developers with the high-level usecase in *Figure 12*.





#### 3.3

#### **THE AMMERIS BLOCKCHAIN (MAIN-NET)**

Launched as an early iteration of the ABS, the technical solution architecture or source code of the Ammeris Blockchain is an Ethereum open-source protocol that makes up the main database on the Ammeris Platform. It is a hybrid network open to the public to use and explore, but permissioned for hosting purposes to ensure that the Network is green. Using nodes that are permissioned not only ensures that the technology is certified as renewables-powered, but also has other advantages - e.g., including the ability to introduce complex software improvements that nurture the ecosystem for enterprise utility and to ensure scalability. This technical solution architecture provides an immediate capability to serve users on the Platform, and serves as a blueprint to build out future functionality to be led by business demand. Fundamentally, the Ammeris Blockchain is:

- An abstract foundational layer or general-purpose blockchain for dApps (see Figure 14);
- Programming language for smart contracts and applications with variable rules and functions (see *Figure 13*);
- A Turing-complete network; and,
- A tool that ensures the simplicity, universality, modularity, and agility principles outlined in the original Ethereum design.

FIGURE 13 - Ammeris Blockchain transaction process

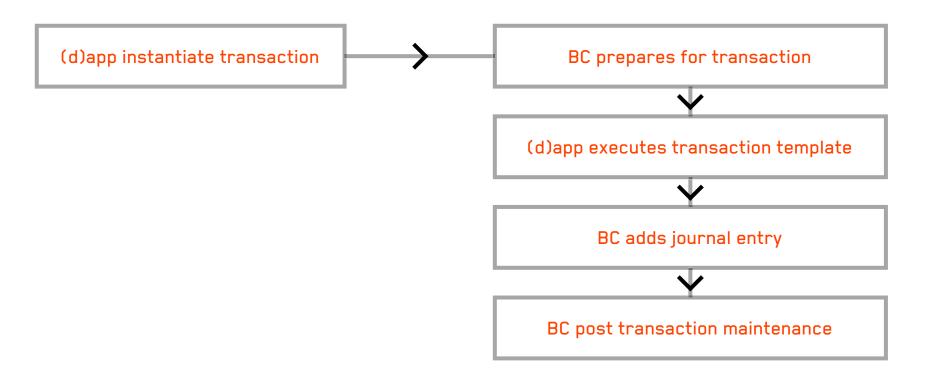
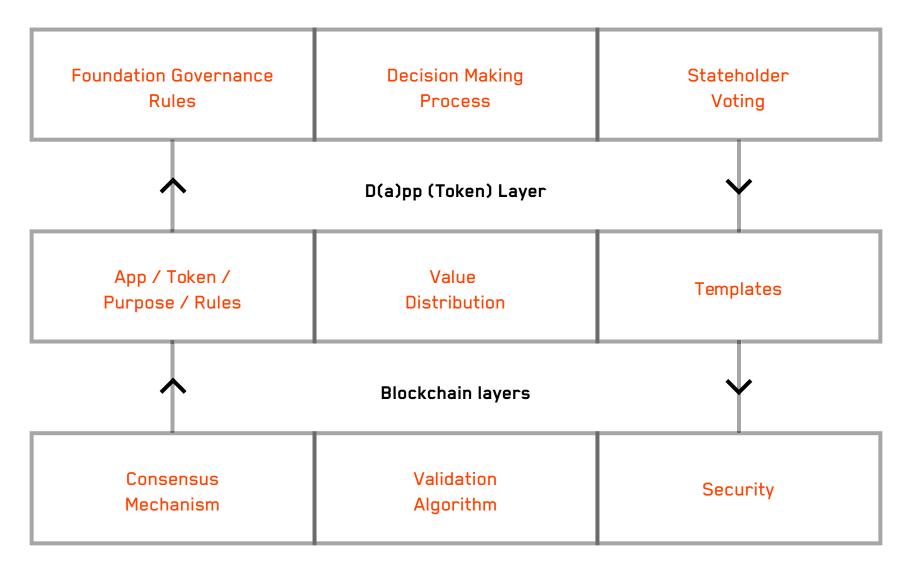


FIGURE 14 - Ammeris Blockchain Framework

#### Off-Chain Governance Layer



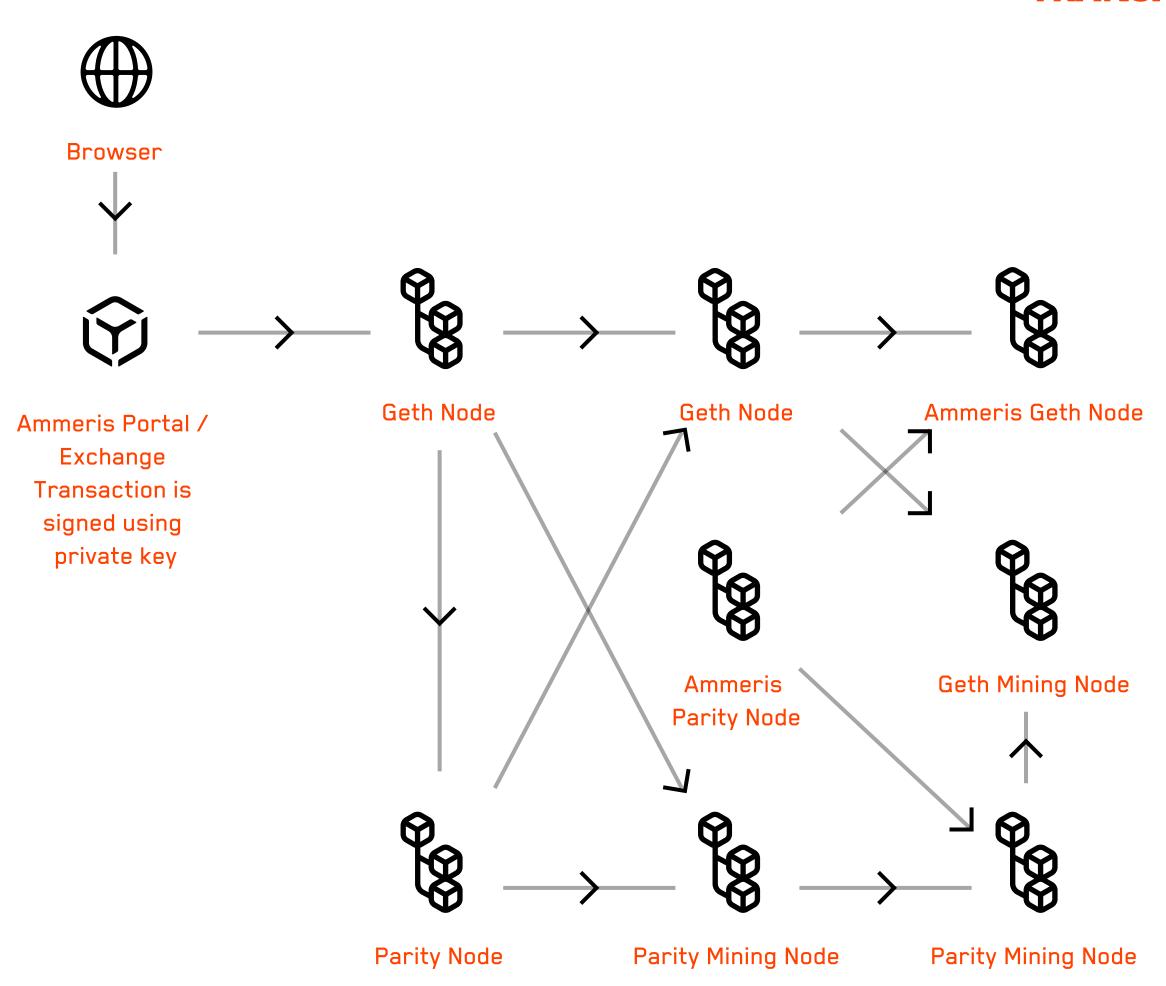
#### 3.3.1 **USER ONBOARDING**

Third-parties are encouraged to deploy projects on the Platform and interact with other technologies and protocols within the Ammeris ecosystem (e.g. dApps, smart contracts, and segregated ledgers). Due to the Ethereum base, the Network is compatible with existing innovations in governance techniques, smart contracts, and dApp development. However, the technical framework requires significantly less power than the public version of the technology to record and process transactions based on the technical intervals and physical architecture underpinning the mining activity.

FIGURE 15 - Ammeris Blockchain transaction lifecycle using Ammeris Portal

#### 3.3.2

#### **TRANSACTIONS**



Transactions are at the core of the Platform, which is designed to ensure that users only need to access the Portal or an Ammeris-enabled dApp for transactions. There is no need to operate a node, as the Portal or Ammeris dApps provide node functionality. The high-level process functions as follows (see *Figure 15*):

- 1) Transactions are signed and submitted to the local Ammeris geth node, with the local validating node accepting the signed transactions (given that it matches the local account address);
- 2) The signed transactions are broadcasted by the local validating node to accredited peer nodes who send it along the mesh;
- After the transaction is broadcasted to the Network, the local node will post an ID for verifying the status of the transaction (the ID is the hashed version of the signed data pack);
- 4) To track and verify the status of transactions, users can use the Portal to access the Ammeris parity node which is connected to the Network for easy viewing; and,
- 5) Once the transactions have been hashed into a block, the transaction is validated through the consensus model. The new block information is then sent to all nodes on the system for record-keeping.

#### **FEES / GAS**





All users of the Ammeris Blockchain – and by extension the Platform - must settle transactions with AMRS. For transactions to be accepted on the Platform, AMRS gas bids must be high enough for nodes to process them. Transactions are maintained in pools and are sorted by gas bids before they are evaluated, with higher gas price offers executed first. Depending on data center operation costs, some nodes may be configured to accept transactions with lower fees. This configuration should also help process transactions in periods of network stress. Ultimately, transactions will need to set appropriate gas offers. Nodes will only accept a set amount of transactions in the block, as gas limits are observed on the Ammeris Blockchain. Gas limits, block information, and private keys can all be viewed or created at any time through the Portal.

#### 3.3.4 **AMMERIS APPLICATION**

The application layer is where any business functions reside, including Ammeris-created applications designed for generic public use, or for specific clients; partner or enterprise applications leverage the Platform according to specific industries. Projects launching on the Platform must apply the technical standard for smart contracts colloquially known as the Ammeris Request for Comment 1 (ARC1). This standard includes considerations for: core protocol specifications, client API's, and contract standards. As the ecosystem expands and matures, other standards of ARC will be developed to ensure interoperability between Ammerisrelated blockchains and distributed systems. The Platform will deliver and host "test-net" environments where participants can establish communications without disrupting the main-net. Smart contracts generate automatic transactions and are growing in usage; therefore, the **AMMERIS ANALYTICS** hosting of a sandbox runtime environment will be essential for dApp and protocol developers.

**AMMERIS MOIaaS** 

**AMMERIS PORTAL** 

**AMMERIS NODE REGISTRY** 

**AMMERIS BUSINESS REGISTRY** 

**AMMERIS WALLET** 

A few of the applications to be developed on the Platform:

#### **PORTAL**

Ammeris will launch the Ammeris Portal to act as an interface linking users with the Ammeris Platform, this includes for testing, deploying, and staking AMRS purposes. As well, the Portal will allow users to access exchange functions for trading of AMRS against other crypto assets such as Bitcoin and Ethereum, or tokens deployed on the Ammeris Blockchain (see Figure 16). User will be able to deploy smart contracts as well as exchange tokens deployed on the network with AMRS.

#### **STAKING AMRS**

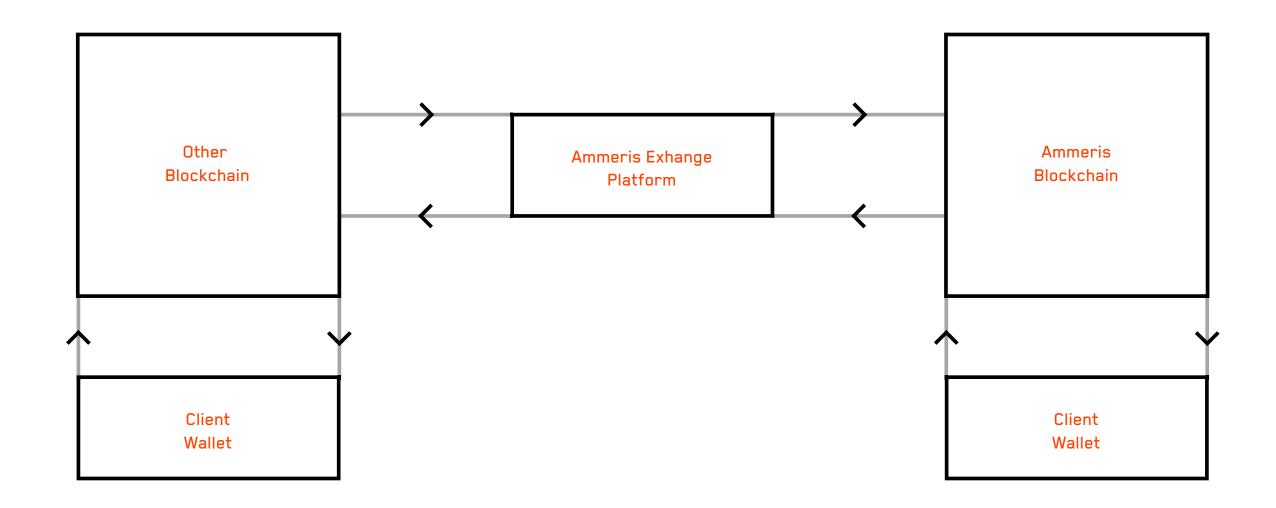
#### **EXCHANGE OF AMRS**

#### **DATA MANAGEMENT**

FIGURE 16 - Ammeris Portal exchange function framework

The Portal will grow over time as an interoperable exchange backend for other crypto assets on the Platform, particularly as project diversity increases and smart contract deployment accelerates. As an information interface, the Portal contains rates and statistics rendered in real-time through API access to any required database.

The Portal will also be useful as a data management platform for the exchange of information between parties, which organizations can use as per their use-cases to create and deploy functions on the Platform.



#### 3.3.4.2

#### MY OWN INFORMATION AS A SERVICE (MOIaaS)

In maintaining the fundamental belief that users and businesses should own their information, a key component on the Platform is My Own Information as a Service (MOlaaS). Many industries use the concept of "Customer Information" (e.g. CIF in banking), however, in most cases the term "customer" is used to describe businesses who own customer data, and does not take customer utility into account. As a result, Ammeris introduced MOlaaS whereby we position the traditional "customer" as the information owner. This way, owners of information on the Platform are able to retain full control of their own data, and decide with whom they want to share the information, including to what degree. Information owners include individuals, business organizations, governments, and institutions. This serves for the betterment of society and the planet by enabling information ownership and handing the right to information back to the individuals/organizations to whom it belongs. This will also enable the radical re-distribution of information ownership to address existing data ownership imbalances where users own their data and can decide who can access it. Such an ecosystem returns the "economic rent" currently earned by mega corporations back to the community.

A few examples of MOIaaS data includes:

- 1) Entity name, title, address;
- Entity documentation received from any authority; and,
- 3) Entity-verifiable records (e.g. academic records, passport, drivers license, etc.).

#### 3.3.4.3

#### KYC (KNOW-YOUR-CUSTOMER)

Related to MOlaaS, the Platform has also prioritized know-your-customer (KYC) functionality, with the initial implementation of this module focusing on basic KYC support for the Portal. However, the longer-term goal is to provide a fully-featured module that has the capacity to allow users to store their own information securely in a decentralized environment, while maintaining control for sharing or access granting based on various levels of configuration. The second release of the Ammeris KYC will provide an Ammeris Platform-native technology that provides an API for customers to leverage Ammeris KYC for their own applications. Through the provision of a decentralized KYC utility, businesses, governments, and other clients will be able to seamlessly onboard, enroll, and authenticate transactions, whilst complying with international standards such as the GDPR - including the right to be forgotten.

#### 3.4

#### PHYSICAL ARCHITECTURE

The Platform also provides physical architecture solutions for two common limitations for regular business activity on current blockchain platforms:

#### 3.4.1

#### **SECURE DATA STORE**

Hashing is the primary means blockchains use to encode data. Hash is a "one-way" encryption: hashed data cannot be converted back to meaningful information, but data can be rehashed to compare with the old data for validation. As well, blockchain size can be a limitation to storing large amounts of information, especially digital media. The Platform's secure data store is an off-chain solution to address these limitations. It will provide users with the capability to compartmentalize according to regulatory requirements as well, specifically in verticals such as healthcare/life science, finance, and government. Where necessary, the Platform will provide HIPPA, PCI-DSS, and GDPR compliance/certified data stores to support dApp development and users.

#### 3.4.2

#### **HARDWARE**

To firmly support the energy conservation goals of the Platform, the hardware that has been selected to support the physical architecture is purpose made for efficiency and throughput, namely, reduced instruction set computer ("RISC") servers. RISC servers are designed to perform smaller types of instructions at speed. Without any other background activities running and a complete focus on storage and input/output ("IO") needs, they can operate a blockchain for less than the power needed of a standard light bulb. The goal in general is not to acheive a high amount of computing power, but rather attaining a distributed and fast IO. While the blockchain is supported by horizontally scalable software, the growth path of the component architecture of the ABS also involves vertical scaling into higher capabilities for storage, memory, and computing.

In preparing for the initial projects to be launched on the Platform, the physical architecture aims to cater to high web server and database requirements. Where many providers and services offer a blend of memory, storage, and computation, this can be very inefficient for blockchain applications which can often have specific needs from one core area. Rather than offering a full suite of needs to clients who may only require high levels of one or the other, the Platform aims to de-couple the service of storage needs. This allows the Platform to offer select servers, networking gear, etc., that would provide the most scaling and efficiency depending on the offering.

#### **INCENTIVE MECHANISM** (TOKENOMICS)



The Platform will sustain its operations and growth through mining participation conducted by Foundationowned and/or accredited third-party data centers. The incentive to maintain Ammeris data centers is directly correlated with the Ammeris Blockchain-native token. AMRS. AMRS is both critical to the operation and serves as an integral component of the Platform's consensus mechanism. It grants access for smart contract deployment, is used for gas fee settlement, and allows AMRS owners to contribute to the Platform through staking.

Using the Token Classification Framework compiled by Untitled Inc. (www.untitled-inc.com), AMRS is classified as a blockchain-native token governed by the technology layer of the Ammeris Blockchain. AMRS is designed to act as a private currency that spurs the token economy and financial viability of the Platform. As a minable asset, it is designed to act as an access token, a method to enable gas payments, and to approve transaction throughput. AMRS rewards data centers for their work in sustaining the network. Thus, the underpinning value of the AMRS reflects the value and work conducted on the Platform.

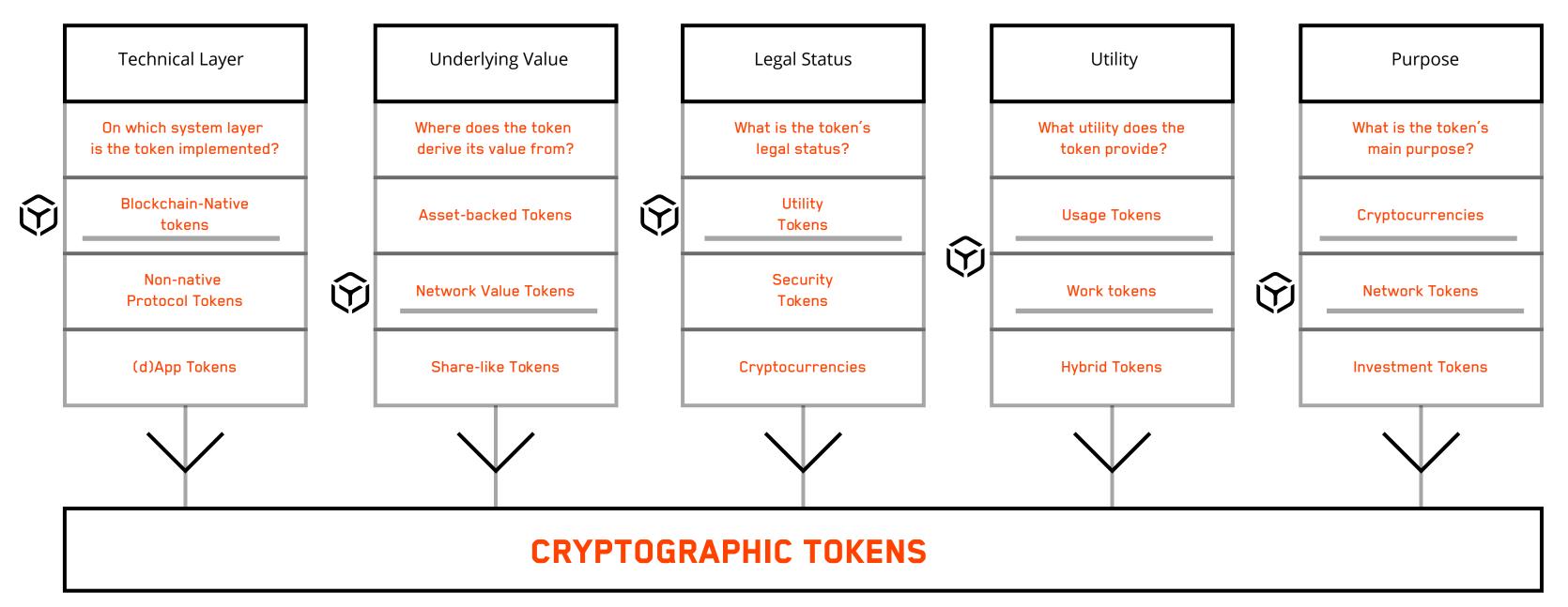


FIGURE 17 - Token classification framework - Source: Untitled Inc. Thomas Euler, January 18, 2018

Using the Untitled Inc. rubric, we can define AMRS as:

PURPOSE | A cryptocurrency and network token;

UTILITY | A hybrid token that is used for both work and usage;

STATUS | A utility token;

UNDERLYING VALUE | A network value token; and,

TECHNICAL LAYER | A blockchain-native token.

AMRS is both a passive and active token: it plays the important role of money in the system, and acts as the unit of account and medium of exchange on the Platform. AMRS may also be a good store of value - but only if it trades and/or stakes in a predictable way. Due to the functionality of the AMRS endowed within smart contracts and the Portal (i.e., staking), it blurs the lines between active and passive tokens.

To facilitate easy circulation, each AMRS is divisible to 18 decimal places (which is a crypto standard), enabling AMRS to be used for small transactions while remaining applicable in all Ammeris ecosystem transaction use-cases: it is fungible (e.g. AMRS are homogenous by design) and transferable within the Platform. The degree to which they are transferable off-chain will be a function of the economic demand for the digital asset in other ecosystems. The Platform on which it is situated is designed to ensure AMRS (and other tokens deployed on the Platform) transfers are possible and do not require centralized intermediary or escrow services.

#### **MONETARY POLICY**

3.5.2

STAKING AMRS

The monetary policy of the Platform is governed by the
Ammeris Blockchain's PoW protocol and is the ideal model
for a blockchain-native token as the money supply will
closer resemble the anticipated growth characteristics of
the entire ecosystem. This shall aid in creating liquidity
(through a market where there are buyers and sellers)
to build a low friction system. AMRS is limited by supply
growth in a way that is attractive to buyers (e.g. miners
and speculators) and sellers (e.g. users of the system) but

is a circular model where AMRS will circulate similarly to

The supply of AMRS can be projected over more than 100 years of data center activity, as per the tokenomics model embedded within the consensus protocol (see *Figure 18*). As with any other coin or token, there will be a natural erosion in the monetary base (system participants lose their private key, send tokens to the incorrect address and

other leakages from the pool). The monetary policy has been designed to consider this phenomena by creating a more stable single digit monetary expansion per annum after an initial monetary expansion that begins to curtail immediately. Having a predictable monetary policy enables trust and confidence – an essential aspect of any ecosystem.

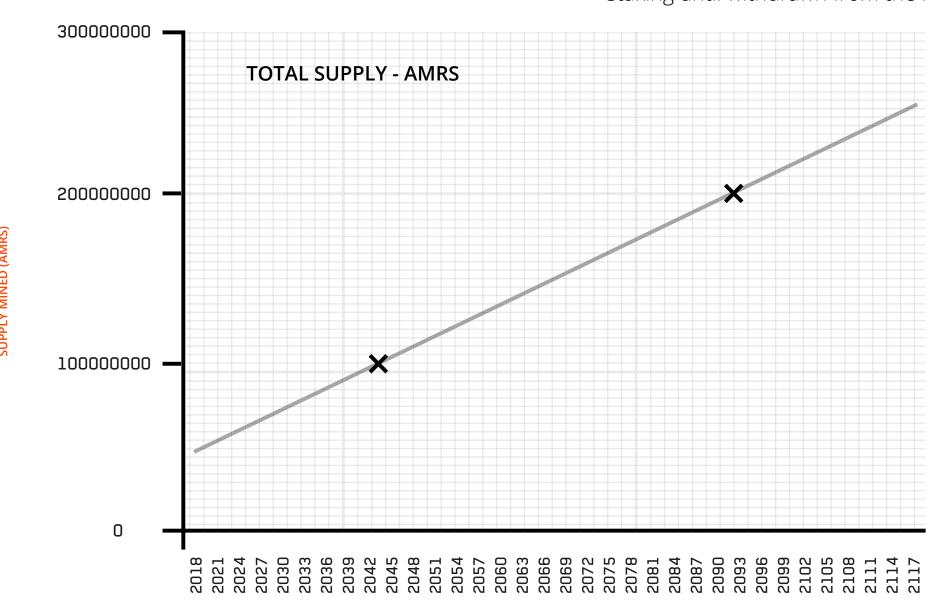
The Ammeris Platform will be operated by Foundation-owned and/or accredited data centers, but staking with AMRS will be available to the public. Staking AMRS will be available via the Portal, where AMRS holders will be able to deposit their AMRS into wallets, and in return, receive a proportional allocation of the Ammeris Blockchain block rewards based on 1) the overall percentage of AMRS in circulation and 2) the stake in the Portal wallet. By default, all AMRS issued through the Portal will be subject to staking until withdrawn from the Portal.

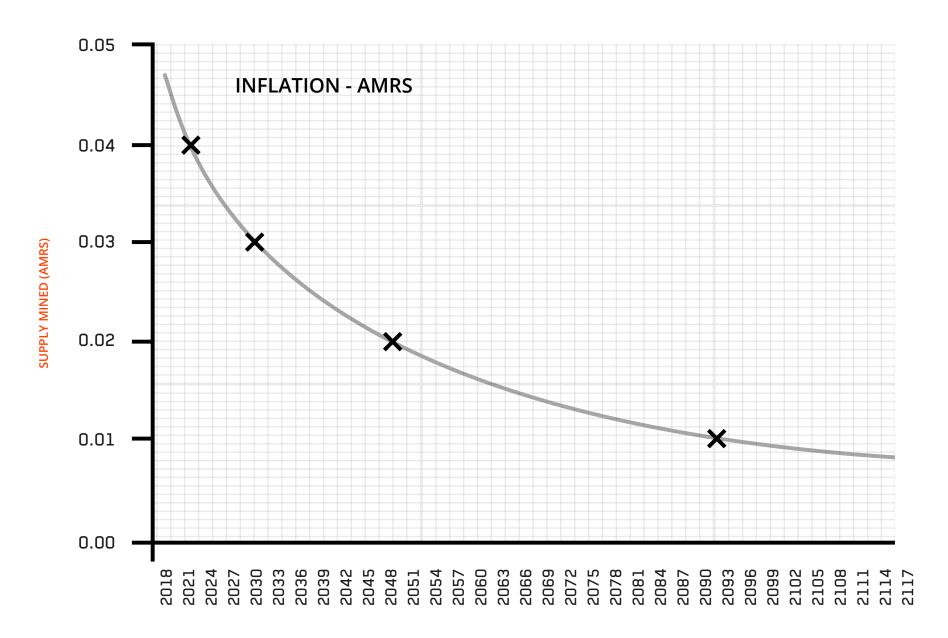
**Micro staking:** Rather than enforcing minimum staking requirements, which would incentivize only major AMRS holders, the Portal staking mechanism is open to any AMRS stakeholders (no minimum stake) through their wallets on their respective Portal accounts.

**Payouts:** Staking payouts are settled quartely, calculated according to each Portal wallet's deposit/withdrawl time stamp and balance. Quarters are calculated based on the

fiscal calandar.

**Unclaimed stakes:** Each AMRS represents a unique staking opportunity on the Portal based on the overall percentage of AMRS in circulation. Any unclaimed stake position will automatically credit the Foundation.





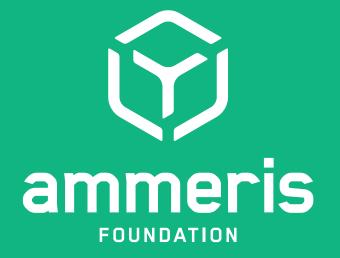
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## 4.0 AMMERIS BLOCKCHAIN FOUNDATION



The Foundation is an essential plank for the Platform's strategic and governance approach: it is ultimately mandated to boost adoption and ensure growth in a way that is decentralized, equitable, and sustainable for its community members, users, and supporters.

To accomplish this goal, the Foundation will be internally organized and managed by the Board which has delegated certain responsibilities to the four standing committees responsible for crafting policies, procedures, and directives according to the Foundation's by-laws. The by-laws and the committee charters are published online and available for viewing at www. ammeris.com. All committee members will have a specific role to play, from overseeing various accreditation, compliance, and investment issues, to ensuring that the Ammeris project is on the right path in overseeing correct mission outcomes.



#### **DID YOU KNOW?**

The Foundation publishes all committee meeting minutes, charters, financial audits, and directives online at www.ammeris.com/foundation at the end of each fiscal quarter.

Visit www.ammeris.com/foundation for more information.





THE BLOCKCHAIN DEVELOPMENT COMMITTEE

THE MONETARY POLICY COMMITTEE

THE PERFORMANCE COMMITTEE

The existence of such a governance body increases the odds for the Platform to be upgraded through improved and more efficient consensus delivery among the Platform's community, with imbedded, hard-coded protocols to deliver professional and transparent governance for all stakeholders. By way of dialogue with the decentralized community (including but not limited to data centers, developers, smart contract issuers, etc.), economists, and sustainability experts, the Foundation will serve to effectively guide development and refine its charted course. The Foundation and its committees will be financed by proceeds of the ICO (see Section 5). To combat unsustainable trends in the blockchain space, the Foundation shall be committed to: building-out efficient, green-powered digital infrastructure (data centers); investing in blockchain research and development

aimed toward sharding, partitioning, and segregation practices; educating and promoting the utility of DLT; and, embarking on a discovery process of sustainable innovation via application of the Platform.

The Foundation seeks to continuously raise Ammeris' level of professionalism to meet operational expectations and world-class standards. For example, the Blockchain will be mandated to meet ISO/TC 307 provisions once they are finalized by the relevant committees of the International Organization for Standardization (ISO).



#### 4.1 **INFRASTRUCTURE** COMMITTEE



A committee on infrastructure has been created and mandated to continuously review and draft policies, procedures, and directives related to the digital infrastructure and hosting of the ABS and Blockchain. This includes:

**DATA CENTER MANAGEMENT** 

PHYSICAL INSPECTIONS

**DUE DILIGENCE** 

**DATA CENTER STANDARDS** 

**IMPACT PLANNING** 

RENEWABLE ENERGY SOURCES

At the heart of the committee is a commitment to ensure all Platform nodes are accredited according to the rules set-out in the *Ammeris Node Regulations* - a directive that must be followed by Ammeris data center operators, of which will be enforced by the Foundation.

The committee will launch an accreditation process according to this committee directive on the Ammeris website (www.ammeris.com) to qualify data centers for "Ammeris Permissioned Node" status. The accreditation process will involve a physical inspection, a due diligence process, and the entering into of a formal agreement with the Foundation regarding the operator's commitment to supporting the Platform (according to the regulations set forth by the Foundation).

The Foundation shall develop a protocol to automate the terms and process for accredited access, while creating an efficient and minimally disruptive procedure with the involvement of regional ambassadors. This will serve to optimize processing and reduce wait times for those seeking to apply their clean computational power to assist and support the expansion of the Platform. The committee will organize accreditation, modular configurations, standards for data centers, and process agreements pertaining to node status.

#### 4.2 **BLOCKCHAIN DEVELOPMENT COMMITTEE**



A committee on blockchain development has been created and mandated to periodically review the scalability, resilience, performance, and viability of the technologies that underpin the Ammeris decentralized ecosystem. This includes:

**DEVELOPMENT OF THE ABS** 

**BLOCKCHAIN SUSTAINABILITY** 

**GLOBAL STANDARDS** 

**CONSENSUS MODEL (PoST) DEVELOPMENT** 

**DECENTRALIZED APPLICATIONS** 

**COMMERICIAL VIABILITY** 

This committee is tasked with ensuring that the Platform is able to work and comply with significant legislation such as the GDPR, while adequately aligning itself with the terms and conditions of deployment onto the Platform (if any). Ensuring architectural innovation is a significant component of the committee's work, including the assurance of efficiency, distribution, security, and resilience of the Platform.

The committee shall devise a process to ensure all platform stakeholder views are considered, all while developing policies and directives that support the longterm trajectory of the ABS as well as meeting ISO/TC 307 standards once they are finalized by the International Organization for Standardization.

The committee understands that users gravitate toward data and privacy-friendly platforms that do not hinder the abilities of data to be hosted in specific jurisdictions, and that the delivery of technical architecture and incentive mechanisms addressing user and deployment backlogs should be prioritized. Innovation is at the center-piece of the committee, which will look to update protocols that foster trust between all participants, while ensuring that the system is endowed with technology that is distributed and secure.

#### 4.3

#### PERFORMANCE COMMITTEE



A committee on performance has been created and mandated to develop research, investment, and performance-related programs related to the Platform, including the planning and execution of two blockchain centers of excellence. This includes:

INTERNAL GOVERNANCE BUILDING

**INNOVATION CENTERS** 

RESEARCH AND DEVELOPMENT

**INVESTMENTS** 

**CORPORATE SOCIAL RESPONSIBILITY** 

ACCREDITATION AND STANDARDS

This committee shall explore strategic research opportunities while allocating budgets toward funding research and development on innovation in areas such as data management, trade, healthcare, carbon credits, government, social enterprise, and economy tokenization. In the grand scheme, the Foundation shall strive to support many stages of research, prototyping, and development of technology.

Investing in students, graduates, and other innovative minds wishing to develop an enterprise or technology is at the core of the Foundation's raison d'etre. Funding innovators, incubating test projects, and helping implement growth strategies is a major part of its mission, along with offering immediate use-cases, active partnerships, and revenue streams for those generating clean power or designing next-level data management solutions. The Foundation will actively promote partnerships and programs which explore innovative ways of producing cheaper renewable power, create better hardware efficiency, and upgrading to the design architecture of the Platform.

### 4.4 MONETARY POLICY COMMITTEE



A committee on monetary policy has been created and mandated to design policies and directives to safeguard the financial viability and stability of the Platform, primarily through the AMRS. This includes:

**OPEN MARKET OPERATIONS** 

**MARKET MAKING** 

**AMRS LIQUIDITY** 

**TOKENOMICS** 

**EXCHANGE MECHANISMS** 

**TOKENIZATION POLICY** 

The economic and long-term viability of the Platform through the AMRS is of ultimate importance, which is why the committee will serve to design policies and directives that safeguard the financial stability of the Ammeris ecosystem through policy that will deliver price support.

In terms of monetary policy tools, the committee has designed instruments that will be used to encourage market demand for AMRS. AMRS should be limited by supply growth in a way that is attractive to buyers and sellers; an example of a policy would include the splitting of AMRS or performing open-market operations – a formal requirement to buy and/or sell AMRS, reserve AMRS, and in extreme situations, destroy AMRS.

The committee will also consider the necessary factors and influences of a single-digit monetary expansion per annum to encourage trust and confidence in the Ammeris ecosystem.

#### 4.5 **CONTRACTING OF SERVICES**

The Foundation has been organizationally configured to be staffed lightly into small committee groups to tailor policies and directives, including a Board that will appoint committee chairs and members, and pass important decisions according to the Foundation's by-laws (including achieving solutions to decision-making impasses).

As a result, the Foundation will be supported by a group of Ammeris affiliates. These affiliated entities will offer advisory, development services, along with asset management for the Foundation, but also for organizations looking to commercialize their technology on the Ammeris Platform and participate in its green token economy.

Ultimately, both public and private enterprises around the world will be able to responsibly and easily receive consultation on their projects, refine their use-cases, and securely deploy on the Platform with support from technical staff, networking professionals, developers, and business development analysts and consultants. Depending on the project, Ammeris collaborates with participants from the moment they begin, right through until post-deployment operations (all services rendered by Ammeris affiliated entities are provided in exchange for AMRS).



#### 4.5.1

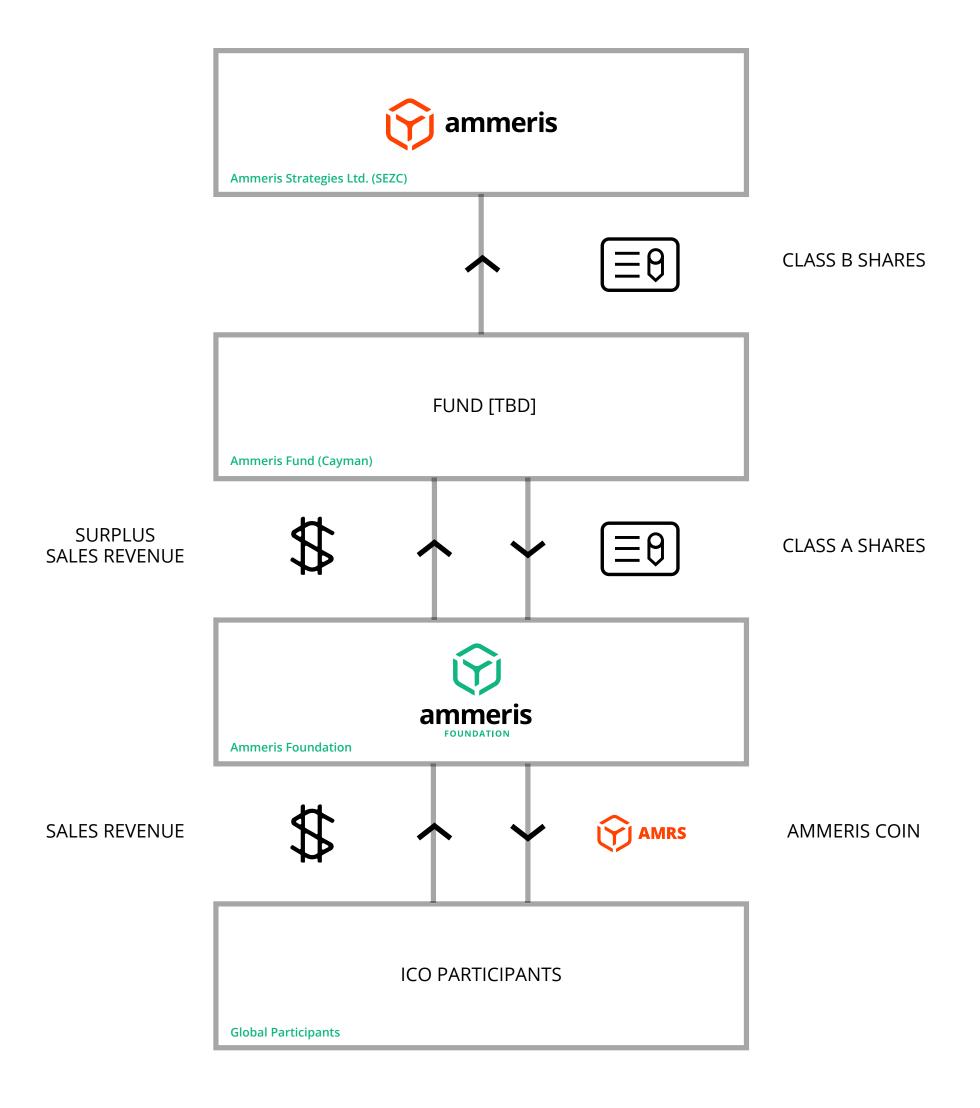
#### **INVESTMENT AND ASSET MANAGEMENT**

Proceeds of the ICO which are not immediately required by the Foundation will be transfered to the Fund, in return for an equity interest in the Fund. The Fund will be formed as soon as possible following the closing of the ICO. The Fund is designed as a single investor investment vehicle. The Fund will invest in projects and assets designed to support and further the aims of the Foundation and to the extent profits and returns are generated by the Fund, these may be distributed to the Foundation for direct investment into the Platform, the ABS, and associated operational structures of the Foundation.

Management of the Fund shall be provided by Ammeris Strategies ("Strategies"), a Cayman Islandbased company directed by professionals with experience in capital markets, algorithmic trading, monetary policy, and treasury management expertise.

The Foundation will hold Class A shares the Fund. Strategies will execute various initiatives on the Foundation's behalf. It will also provide the Foundation with treasury management services and investment guidance. As the Fund's manager, Strategies will also incubate projects that are engaged with the Platform in the business of token generation events ("TGE's") by way of offering services – all of which will add appeal of deploying onto the Ammeris Platform.

FIGURE 19 - Ammeris treasury and investment management structure



#### **DEVELOPMENT**

Support to the Foundation will be carried out by Ammeris Inc., a Canadian-based company, staffed by professionals experienced in security architecture, coding, data networking, cyber security, and energy development, specializing in systems development.

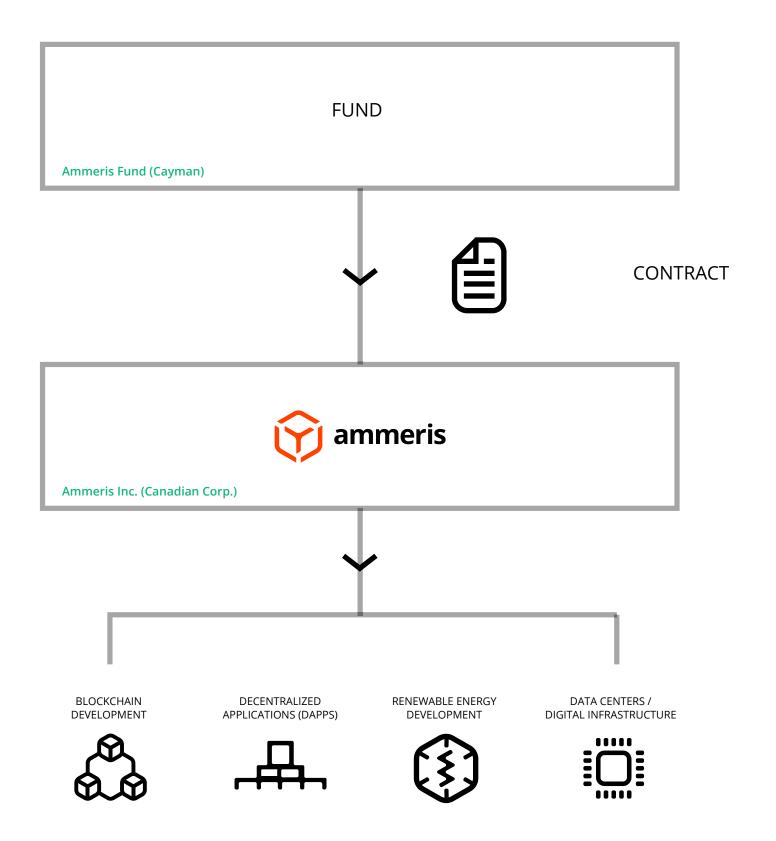
Ammeris Inc. has demonstrated proficiency in technical development and deployment capabilities by launching the Ammeris Blockchain and the Ammeris Portal.

The Foundation will contract with Ammeris Inc. to further develop the ABS in support of the Blockchain Development and Infrastructure committees' initiatives, and shall offer global enterprises full-stack solutions that include the cost of development, electricity, hardware, and maintenance. Businesses and organizations deployed on the Ammeris Platform will be able to derive support from the Ammeris Inc's technical expertise.

Ammeris Inc. will also help boost energy and computational goals on the Platform, specifically, by assisting the Infrastructure Committee's initiatives. The Canadian regulatory, energy, and economic climate presents the earliest opportunities for the development of a sustainable platform powered by renewable energy assets. Ammeris Inc. has thus partnered with companies with access to low-cost renewable energy supply to support the Foundation in particular, as the availability and cost of electricity is crucial to the profitability, sustainability, and growth of digital infrastructure operators.

Initially, hydropower in Canada shall provide the Foundation, thus, the Platform with predictable energy supply and globally competitive pricing. Other energy sources such as geothermal, wind and solar, supported with advances in battery storage technology, will help the Platform roll-out across Canada to Iceland, Norway, Scotland, and other competitive electricity markets that reach minimum standards for internet speed.

FIGURE 20 - Ammeris technical, energy and infrastructure development structure



4.5.3

#### **ADVISORY**

Advisory and blockchain adoption services for the Platform will be led by Ammeris Advisory, which is staffed by experts in information technology, finance, business development, tokenomics, and communication, specializing in systems design. Ammeris Advisory will be tasked with compiling a marketing and communications team to engage in research, while hosting open houses across specific cities in Asia, Europe, North America and the Middle East, to build and execute an effective public relations campaign.

The Ammeris website will host all the necessary information about the Foundation's public activities, however, Ammeris Advisory shall engage in social media on the Foundation's behalf as part of the Foundation's public engagement campaign. Ammeris Advisory will also provide services to companies and organizations that seek to deploy their projects onto the Platform with the Foundation's support.

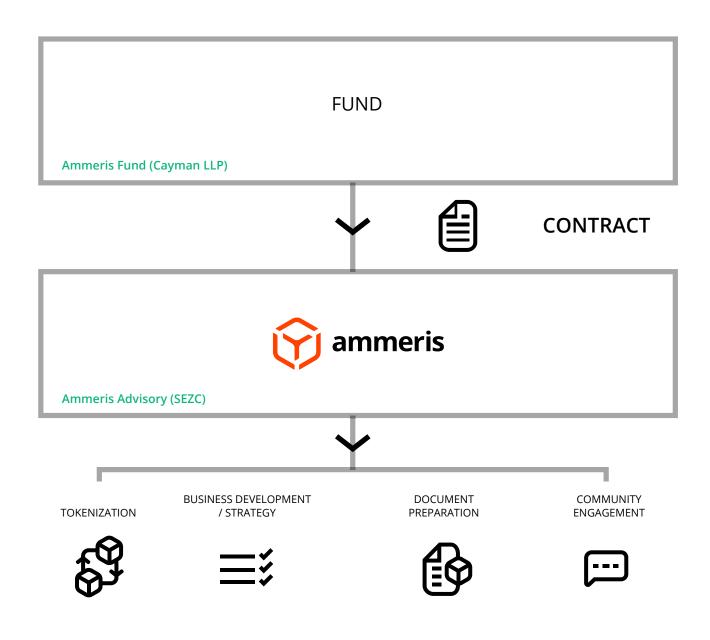
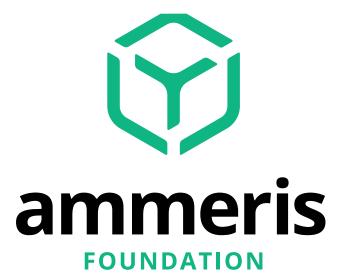


FIGURE 21 - Ammeris advisory structure

## 5.0 AMMERIS COIN OFFERING (ICO)



#### **DID YOU KNOW?**

To become an accredited data center supporting the Ammeris Platform, operators must demonstrate a strong commitment to the financial stability of the Ammeris Blockchain -- the main blockchain database on the system. To do this, the Foundation requires operators to enroll into the "Permissioned Node" program, which requires the operator to "stake" AMRS.

Visit www.ammeris.com/foundation for more information.



As part of its initial steps toward launching the Platform, the Foundation will conduct an ICO according to the Monetary Policy Committee's directive to sell AMRS. Together, the Blockchain Development and Monetary Policy committees have configured the Platform to issue a supply of approximately 2,190,390 AMRS each year. This rewards both accredited data centers and stakeholders while enabling the Network's growth through monetary expansion.

The Foundation has created approximately 45,000,000 of the Portal.

AMRS and intends on selling 25,000,000 AMRS in exchange for the equivalent of US \$10,062,500 in fiat currency and/or crypto assets during the ICO.

The revenue generated from the ICO will enable the Foundation to engage in activities that will expand the operation, distribution, development and adoption of the Platform, including financing the standing committees of the Foundation, all while stimulating the efficiency and efficiency and efficiency and development and de

The Foundation has planned effective promotional campaigns, technical investment opportunities, and the sourcing of the necessary service provisions for the development of the ABS. Such an endeavour will help place the Platform, and the technology in general, on a cleaner and more professional industry

path, in a way that is both equitable and sustainable for local and global communities.

The Foundation will receive the sale revenue and contract Strategies to perform the role of treasury management and to carry out investments through the Fund (see Ammeris Blockchain Foundation section on "Contracting of Service"). Following the completion of the ICO, it is intended that AMRS will be exchangelisted in 2019 and made available for public trading with fiat currency and cryptocurrency pairing outside of the Portal.

The Foundation intends to maintain 8% of the revenue for reserve while allocating 92% toward budgetary spending, including investment in the Fund (see Sale Model and Use of Proceeds). Budgets will also be allocated toward funding research and development programs exploring innovation in renewable energy production, blockchain efficiency and development, hardware efficiency and development, various decentralized technology architectures, and will work with various partners on innovation in areas such as data management, trade, healthcare, carbon credits, government, as well as social enterprise and economy tokenization.

YEAR / MONTH	ALLOCATION	COIN(S)	% OF SUPPLY (of ICO)	AVERAGE COIN PRICE	USD (estimated sale amount)	<b>DISCOUNT</b> (average discount)
September	Private	5,000,000	20.00 %	\$0.28	\$1,375,000	45.00 %
October	Presale 1	5,000,000	20.00 %	\$0.35	\$1,750,000	30.00 %
November	Presale 2	7,500,000	30.00 %	\$0.43	\$3,187,500	15.00%
December	General sale	7,500,000	30.00 %	\$0.50	\$3,750,000	0.00%
	ICO	25,000,000	100%		\$10,062,500	
	ICO	25,000,000	55.56%			

21.11 %

16.67 %

6.67 %

100%

5.1
CONVERGENCE
PLAN

Foundation

Founders

**Team and Advisors** 

The Ammeris ICO is limited by the Foundation's convergence plan, which is a set of internal compliance, marketing, and operational conditions that must be met. The Foundation will not carry out the ICO without the ability for its team to carry out its operational strategy following the sale of AMRS. For this reason, the Foundation's committees will routinely review the ability to execute the organization's operations in any way, including regulatory and technological challenges.

9,500,000

7,500,000

3,000,000

45,000,000

To purchase AMRS during the ICO, and to receive AMRS, participants must use the Ammeris Portal or have an Ammeris-ready mobile wallet. Ammeris reserves the right to prescribe additional wallet specifications and requirements. In the event the Foundation terminates the ICO or does not accept some participants' purchases, any funds tendered will be promptly returned net of the outgoing fees charged by the banking institutions or blockchain networks (i.e., gas fees).



#### **SALE MODEL**



The Foundation will transfer the net revenue after expenses and reserves from the ICO to the Fund, which will, in exchange issue the Fund's only Class A shares to the Foundation. Expense reimbursement pertaining to the ICO shall be transferred by the Foundation directly to the applicable service providers, including auditors, legal counsel, consultants, and advisors. Other expenses related to the ICO, including technological, marketing, and asset management on behalf of the Foundation shall be paid out of the ICO proceeds.

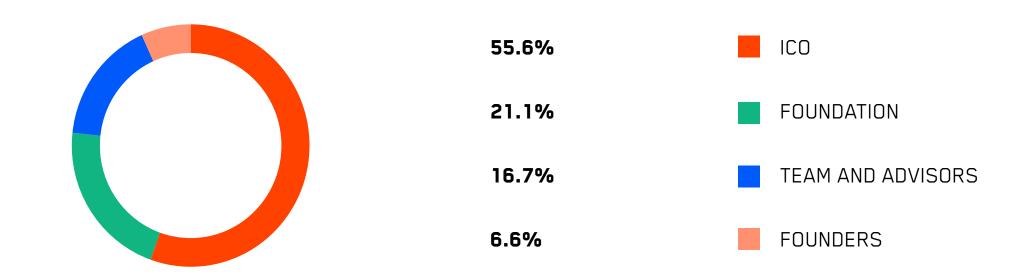
There will be a total of 45,000,000 AMRS available within the entire Ammeris Platform upon the commencement of the ICO. Only 55.6% of this supply will be available for purchase during the ICO period, as the remaining portion will be held by the Ammeris Foundation in reserve (21.1%), allocated to team and advisor members (16.7%) (with a twelve [12] month vesting period, and quarterly cliffs), and by the founders (6.7%) (subject to a thirty six [36] month vesting period, with quarterly cliffs).

The AMRS deployed after the ICO will be accompanied by an emission design that will ensure a controlled deployment of AMRS, as various steps of the Foundation's operations are launched. Together with the convergence plan, the emissions design ensures the Foundations' core team focus on project management and execution, in conjunction with the sale of AMRS. The Foundation will use the net proceeds after legal, marketing, accounting, technological, and administrative expenses toward operations.

Features of the sale model include:

- 1) A maximum of 25,000,000 AMRS will be sold during the ICO;
- The Foundation will reserve 9,500,000 AMRS, team and advisors will be collectively awarded 7,500,000 AMRS, and founders will be collectively awarded 3,000,000 AMRS following the sucessful completion of the ICO;
- 3) AMRS is a mineable cryptocurrency;
- 4) All AMRS issued will be auditable by third parties;
- The hard cap for the ICO is set at US \$10,062,500 (or fiat/cryptocurrency equivalent);
- 6) Approximately 2,190,390 AMRS will be mined each year by accredited data centers; and,
- 7) All AMRS sales in the ICO and going forward will be accepted in U.S. dollars, Canadian dollars, Ethereum, and Bitcoin.





#### 5.3 **USE OF PROCEEDS**

The Foundation will use 43% of the total ICO revenue on platform development, testing, implementation, and adoption, excluding the acquisition of infrastructure, data center-related costs, and renewable energy-related spending. As well, 30% of total ICO revenue will be used to operate various administrative functions, committees, and overall governance, including the building-out of robust governance procedures. The remaining portions will be dedicated toward reserve, compliance,

marketing, and investment-specific spending. In particular, the Foundation will engage in investment and grant spending in research and development, renewable energy, digital infrastructure, and will establish at least two blockchain centers of excellence.

Following a successful ICO of AMRS by the Foundation, Ammeris Fund LLP, a Cayman Islands exempted limited liability partnership (the "Fund"), an evergreen fund with a professional investment strategy, will carry out asset management based on technical and algorithmic strategies in digital assets, including actively managing alternative digital coins and tokens, cryptocurrencies,

including derivatives in the aforementioned classes, managed by Ammeris Strategies SEZC Ltd. ("Strategies"), a Cayman Islands special economic zone company with proprietary algorithmic technology. The Fund will issue the sole Class A shares in the Fund to the Foundation in exchange for a portion of the revenue (after reserves and expenses) of the ICO. Strategies will receive Class B shares in the Fund, which carry an interest paid quarterly on the Net Asset Value ("NAV") of the Fund.

The Foundation may redeem the Class A shares after a period of 6 months from the date of the

contribution to the Fund according to the NAV of the Fund at that time, or as the Foundation so deems necessary upon receipt of information regarding regulatory concerns because of the possession or ownership status of the Class A shares. Strategies and the Fund, in which all or a portion of the ICO proceeds will be managed, are not required to register or be regulated as a mutual fund under the Mutual Funds Law of the Cayman Islands. There is no investment compensation scheme available in the Cayman Islands.

## 5.4 PARTICIPANTS AND IDENTITY

The public ICO ("General Sale") will be available in the global marketplace, and accessible by anyone with an Internet connection. The Foundation will follow applicable KYC, Anti-Money Laundering (AML), and Counter Terrorism Financing (CTF) rules, including verification of identity and the verification of the source of funds exchanged with the Foundation for AMRS. Original passport or national/provincial/state identification cards that are certified by a public authority (i.e., a notary public, law enforcement or a government official) will be required. Two original documents as evidence (i.e., utility bill or bank statement or duly certified copies of) will also be part of the identification requirements.

Corporate applicants may be required to produce a certified copy of a Certificate of Incorporation (and any name change) and of a Memorandum and Articles of Association or Corporate by-laws (or local equivalent), and of the names and residential and business addresses of all directors and beneficial owners. ICO participants should review and understand any AMRS purchase agreements prescribed to the ICO, and are required to agree to the terms and conditions set therein. ICO participants will not include those participants in any jurisdiction where the sale and offer of AMRS is not permitted. Participants must demonstrate that they have authorization to purchase AMRS and follow AML and KYC processes.

Maximum Raised (\$10,062,500)		
\$4,003,868.75		
\$2,777,250		
\$125,000		
\$213,750		
\$2,137,631.25		
\$805,000		
\$10,062,500		

## 5.5 METHOD OF PAYMENT

In the General Sale, minimum purchase per individual in the ICO at any given time is a value of US \$100 worth of AMRS. Purchases will be made available on the Ammeris website (www.ammeris.com) using crypto assets until sold out. Participants will also be able to purchase AMRS on third party platforms. The Foundation reserves the right to decline sale of any amount of AMRS.

Qualified ICO participants may purchase all AMRS available in the ICO until sold out or the closing date of the ICO. In terms of determining the equivalent of digital currency to the U.S. dollar, the exchange rate for any payments made by Bitcoin or Ethereum will be determined by the Foundation at the time of purchase. Payments for any AMRS are due upon agreement of your online purchase contract. Any AMRS not sold in the ICO will be held in reserve by the Foundation for future sale or distribution.

#### 6.0 ROADMAP



Since inception, the Foundation and its core team have sought guidance and have engaged with legal, accounting, finance, and regulatory advisors on the development of the ICO model and the governance of the Fund and the Foundation. The Foundation newly formed with a ready-to-be-executed marketing and ICO plan that will help grow the Ammeris Platform. Following the end of the ICO, the Foundation expects to be in stage two operations within one month. AMRS holders should expect the ability to use AMRS on the Platform after the ICO has been completed in November 2018.

#### 2018

FEBRUARY  Ammeris Inc. founded in Canada. Project charter launched Ammeris development catalogue launched (Ammeris Inc.) Website (www.ammeris.com) launched	APRIL Core team established Branding material preparation launched Ammeris advisory catalogue launched (Ammeris Inc.)	JUNE Ammeris group structure created (Ammeris Holdings Ltd. founded in BVI) Ammeris Blockchain Stack designed Engagement with professional service providers (legal, accounting, etc.) Agreement signed with hydro-powered data center
JULY Agreement signed with first blockchain client Whitepaper draft completed	AUGUST  Agreement signed with second blockchain client Ammeris Blockchain Foundation founded Whitepaper (version 1) published Community engagement launched	SEPTEMBER  "Permissioned Node" whitelist launch Yellowpaper draft to be completed Private ICO round begins
OCTOBER  Ammeris Portal (beta) launch Yellowpaper (version 1) to be published Presale ICO round 1 begins Ammeris Fund to be created	NOVEMBER  Mobile wallet (beta) application launch Presale ICO round 2 begins Ammeris Platform launch (Ammeris Blockchain genesis)	<b>DECEMBER</b> Public ICO round begins
2019  Post-ICO roadmap begins AMRS exchange listing PoST to be launched MOlaaS to be launched	Other:	

## 7.0 OFFICE, REGIONAL OFFICES, AND DATA CENTERS

#### **HEAD OFFICE**

HQ - Grand Cayman Cayman Islands

Administration
Office
Board Meetings
Committee Meetings
Storage

#### PROPOSED REGIONAL OFFICES

The regional offices will be operated by Ammeris Advisory

North American Regional Representative Offices

Liaising

Incubation

Hackathons Ambassadorial **HALIFAX** 

NAPLES

#### **Asian Regional Representative Offices**

Liaising

Hackathons Ambassadorial

HONG KONG

Incubation

BANGKOK

#### Middle Eastern Regional Representative Offices

Liaising Hackathons

Hackathons Ambassadorial Incubation **ABU DHABI** 

#### **European Regional Representative Offices**

Liaising

Hackathons Ambassadorial

LONDON

Incubation

MONACO

#### **DATA CENTERS**

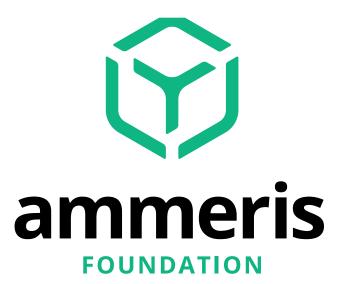
Initial data centers will be operated by Ammeris Inc.

#### Data Center - Truro, Nova Scotia, Canada

Hardware and networking facility
Power generation units
Security infrastructure
Blockchain infrastructure

#### Data Center - Wabush, Newfoundland and Labrador, Canada

Hardware and networking facility Power generation units Security infrastructure Blockchain infrastructure







Paul Mears

#### CO-FOUNDER AND CHAIR

Paul is a Founding Board Member and Chair of Ammeris, serving as Chair of the Board at the Ammeris Blockchain Foundation.

He is an experienced leader in business, serial entrepreneur, and financial professional, who has held several senior operational and finance roles in a range of publicly and privately-owned companies located in London, New York, Amsterdam, Vancouver, Hong Kong, and Monaco. Paul's previous technology experience includes Modex Tech, Vinci, and serving as Advisor to Humaniq, Howdoo, Autobay, and SID.

Paul is a UK Chartered Accountant who started his career in the entrepreneurial services division at EY London before progressing into various commercial finance management roles. Over the last five years, Paul has become a serial seed investor focusing on biotech, medical devices, fintech, and technology along with its applications. He brings invaluable experience as a business angel in over 20 companies, and specializes in tokenomics, DLT consensus models, community engagement, and strategic advisory at Ammeris.

Paul holds a Bachelor of Science in pure mathematics from Loughborough University of Technology.

"The Ammeris Blockchain addresses a big hole in the decentralized economy, not in the future, but right now. If the market continues to ignore the laws of physics, there will be no blockchain, just a footnote in history alongside references to the Easter Islands."



Erik Fertsman

CO-FOUNDER AND MANAGING DIRECTOR Erik is a Founding Board Member and is Chief Executive Officer at Ammeris, serving as the Managing Director of the Ammeris Blockchain Foundation.

Erik is an entrepreneur and analyst with executive experience and a fundamental background in political science. He first entered the world of entrepreneurship in 2011, then discovered digital assets and blockchain technology in 2013, from which point he became an investor and trader in the asset class. He has previous management experience as Managing Director of Agency Imports.

Erik brings with him 10 years of business, finance, government, economics, capital markets, and project management knowledge. Erik's experience in the digital asset space taught him to navigate volatility in the blockchain/crypto industry, and his comprehensive understanding of institutions and ability to engage people has equipped him to translate the benefits (and faults) of blockchain-based technologies to leaders in both business and government realms. He specializes in tokenomics, DLT consensus models, and is responsible for strategic ideas, innovation, and practicing the qualities of transformational leadership at Ammeris.

Erik holds a Bachelor of Arts degree in political science and is completing his dissertation for a Master of Arts degree in political science at Dalhousie University.

"The team at Ammeris created the Ammeris Blockchain understanding the necessity and principles of decentralized systems. To ensure these systems continue to exist for the benefit of humankind, we must build and expand these sustainable and innovative types of trusted marketplaces. The Ammeris Blockchain and the ABS provides that today and will continue to do so into the foreseeable future."

#### **CORE TEAM**



**Matthew Pickup** 

CO-FOUNDER AND CHAIR OF THE INFRASTRUCTURE COMMITTEE

Matthew is a Founding Board Member and Director of Development at Ammeris, serving as Chair of the Infrastructure Committee at the Ammeris Blockchain Foundation.

Matthew is an experienced founder and builder in decentralized technology and renewable energy. With a strong background in cleantech and social enterprise, he was recently part of OpenHydro's tidal energy project in Nova Scotia's Bay of Fundy - the first interconnected in-stream array deployed on the world's strongest tides - and co-founded a crypto mining club in Halifax. He previously worked as VP for venture development studio BlockCrushr Labs.

Matthew's early career included work in accounting, banking, not-for-profit, and government, before diving into the world of entrepreneurship, renewable energy, and information technology. Through founding his first consultancy, Fosch Capital, Matthew has worked with over 100 companies - single handily raising tens of millions of dollars in non-dilutive funding for clientele. He is responsible for technology and energy development at Ammeris, including complex data center design. Matthew also assisted in both internal and external projects with fundraising strategies through both traditional and innovative methodologies.

Matthew holds a commerce degree from Dalhousie University.



**Ethan Gilmore** 

CHAIR OF MONETARY POLICY COMMITTEE Ethan is a Partner at Ammeris and serves as Chair of the Monetary Policy Committee at the Ammeris Blockchain Foundation.

Ethan started his career in 2003 in the alternative investment space and has worked across the hedge fund, private equity, investment banking, renewable energy and media and technology sectors.

Ethan has been deeply involved in the blockchain space since 2015 and has spoken at such institutions as the Harvard Business School Club of New York, the National Security Institute, the Harvard Business School Club of Philadelphia, Digital Hollywood, Viacom, the Young President's Organization, Princeton University (Frick Laboratory, Envision Conference), The New School, Silicon Beach, Jefferies and many others about distributed ledger technologies and their applications across various verticals.

Ethan is a magna cum laude graduate of the University of California, Los Angeles.

"Renewable sources of clean energy are key infrastructure pieces upon which the Ammeris Blockchain is built. At the intersection of decentralized data systems and affordable clean power generation, sits a future that is more sustainable for our planet and brighter in opportunity for its inhabitants."

"Too many blockchain projects have demonstrated a lack of transparency, misunderstanding of the rules, and possess insufficient technology to be fit-for-purpose. Ammeris is already ahead of 95% of the projects out there by having a strong team and technology, following the rules, and seeking success through transparency."



Raphael Hukai

CHAIR OF THE BLOCKCHAIN DEVELOPMENT COMMITTEE

Raphael is Director of Technology at Ammeris, serving as Chair of the Blockchain Development Committee at the Ammeris Blockchain Foundation.

Raphael Hukai is a former CIO (Equity Bank Group) and experienced executive consultant/architect at IBM. Raphael has deep industry experience in financial services, as well as airline, retail/eCommerce and life sciences. After 16 years with IBM, Raphael became specialized in helping banks setup IT vision and strategy, manage adoption of new technologies, establish overarching architecture and governance, along with improvements to the quality assurance of IT programs.

With near 30 years of professional and leadership experience, Raphael has developed unique capabilities of translating technology into practical and actionable business value, then packaging it for different C-Level stakeholders and other audiences. With deep focus on fundamentals of value-chain analysis, he has become predisposed to helping blockchain technology providers position their innovation into the sweet spot of the marketplace. He believes clear vision with solid execution brings success to business.



Cassie Hill

CHAIR OF THE PERFORMANCE COMMITTEE

Cassie is Director of Performance at Ammeris, serving as the Chair of the Performance Committee at the Ammeris Blockchain Foundation.

Cassie is an experienced researcher and analyst in government, technology, and bioethics, with a specific focus on healthcare systems management and privacy. Her passion for blockchain-based solutions originated from exploring approaches to current issues in Canadian provincial healthcare. She previously worked in Performance and Development with EMC Inc. (a subsidiary of Emergency Health Services in Nova Scotia), and as a Research Supervisor with Public Health Ontario.

Cassie's nuanced and intuitive understanding of blockchain technology's real-world application, coupled with a research and management background has led her to explore solutions from the perspective of various stakeholders. Cassie is a skilled communicator and is able to translate complex blockchain solutions to both users and practitioners. She is responsible for performance and research at Ammeris, and for supporting external projects with various analytical frameworks and refinement approaches.

Cassie holds a Bachelor of Arts degree in political science from Saint Mary's University, and is currently completing a Master of Health Administration degree at Dalhousie University.

"Public blockchains are inefficient and unsustainable, thus we have introduced the Ammeris Solution Stack. Importantly, we will begin to see a shift toward the onboarding of real use-cases that make sense for the blockchain, the right power, computing resources, and sources gravitating to support the network, and a change in mindset from governments, institutional players, and international organizations."

"The Ammeris Blockchain Foundation has embarked on the ambitious journey of creating governance for a complex ecosystem – one that is nearly organic in nature. For this reason, we've entered a strategy of transformational leadership that will help all stakeholders understand the rules of the game, without stifling the innovation, simplicity, universality, modularity, and agility principles set out in the Ammeris Blockchain design."

#### **CORE TEAM**



lan Gimour

HEAD OF BUSINESS DEVELOPMENT Ian Gimour is Head of Advisory at Ammeris, serving as Head of Business Development at the Ammeris Blockchain Foundation.

Before joining Ammeris, Ian worked with firms such as IBM and PwC in their financial services teams in the Middle East. Ian's resume of clients includes HSBC, Bank of America and BNP Paribas Fortis as well as six years with Deutsche Bank in London and New York.

With more than 20 years of professional experience in finance and technology, Ian is responsible for tokenomics, DLT consensus models, and growth strategies at Ammeris. He delivers professional services for start-ups, established organizations, and corporate clients looking to transform their technology and operations to integrate with new industrial paradigms including distributed ledgers, crypto assets, and energy economics.

Ian holds a Bachelor degree in economics from Loughborough University of Technology.



**Bob Sorensen** 

HEAD OF OPERATIONS

Bob is Partner at Ammeris and serves as Head of Operations at the Ammeris Blockchain Foundation.

Bob is a corporate advisor with a strong entrepreneurial spirit. He is currently based in the United Arab Emirates ("UAE") having worked for PwC. He is active in the blockchain space in the UAE and is engaged with family offices seeking investment in this vertical. At PwC, Bob rolled out large projects such as VAT implementation, development and implementation of strategic initiatives such as the Global Manufacturing and Industrialization Summit (GMIS), as well as advisory to some of the largest sovereign wealth funds in the region.

Bob started his career in the Telecommunications industry, working for giants as Lucent Technologies, Orange, Tele2 and some inspiring niche players. He has a track record of 20+ years of professional and consulting experience in various industries and each type of business; from multinational to government organizations, as well as new ventures/startups. His expertise lie in getting complex projects off the ground and delivered. He has a passion for digital technology developments and deployment wherein it adds value to the client/community/organization/ecosystem.

Bob holds a dual BBA, an MA from Radboud University, and MBA candidate with the University of Birmingham.

"The team at Ammeris provides a strategic advantage for the Ammeris Blockchain: by helping clients join the network, thus enhancing the utility of AMRS. Organizations will naturally gravitate towards the platform if they have a blockchain use-case, a social conscience and want to join a vibrant decentralized economy where they can extract value or have their utility tokens easily exchanged for other useful tokens, goods or services."

"We are standing at a turning point of enabling an innovative, inclusive, and sustainable solution for the decentralized market: Ammeris Blockchain is developed on the notion that in order to make a notable difference in the current - destructive - market mining dynamics we have to act upon it. Our first onboarding clients already experience the benefits of Ammeris Blockchain, are you ready to turn?"

#### **CORE ADVISORS**





MANAGING
PARTNER,
COLLAS CRILL

Alan is Managing Partner at Collas Crill in Cayman and is Legal Counsel to the Ammeris Blockchain Foundation.

Collas Crill in Cayman enjoy a spread of expertise and significant depth of knowledge.





Kevin Sayers, Ph.D.

PROFESSOR, CAPITAL UNIVERSITY Kevin is the Strategic Marketing Advisor to the Ammeris Blockchain Foundation.

Kevin is a professor of education at Capital University in Columbus, Ohio, USA, teaching undergraduate and graduate-level coursework in education and research methods while maintaining an active research agenda in the study of education policy. Previously, as Executive Vice President, Kevin led a division that integrated Capital University's planning, strategy, advancement, marketing, and strategic enrollment management functions into one organizational structure. Throughout his career, Kevin developed and implemented important efforts in measuring organizational effectiveness. He is also actively engaged in technology issues in higher education – contributing to his entry into the cryptocurrency/blockchain sector in early 2013.

Kevin earned his Bachelor of Music from the Dana School of Music at Youngstown State University, his master's degree in education policy from Penn State University, and his doctorate in higher education from Boston College.



Marin Zvonarevic

SENIOR ASSOCIATE, CAPER D.O.O Marin is Senior Associate at CAPER d.o.o and is the Finance and Blockchain Advisor to the Ammeris Blockchain Foundation.

Marin is a financial consultant and valuation professional focused on mergers and acquisitions, along with capital markets transactions. He brings over six years of working experience at leading investment banks and boutiques across Europe, advising corporates, private equities, and governments. Over the past few years, he has become increasingly enthusiastic about blockchain technologies, initially as an investor and cryptocurrency miner, then later becoming a partner at Spero Research, Bermuda Capital, and Coinbar Group. His expertise and areas of interest focus on blockchain protocols, PoW mechanisms, tokenomics, budgeting and funding strategies. Combining his knowledge in finance, mathematics, investments and technology, Marin delivers a well-rounded and unique combination of skills to established and startup blockchain companies.

Marin holds a cum laude Master of Science degree in Quantitative Investment Finance from University of St. Andrews, Scotland. He speaks fluently English, German, Italian and Croatian.



Peter Kristensen

PARTNER, C6 ADVISORS Peter is Partner at C6 Advisors AG, Co-Founder of ICOSofa and JOINto, and is Business Advisor to the Ammeris Blockchain Foundation.

Peter has an accumulated financial markets experience of over 30 years as a Fund and ICO Advisor. His career began with a small Danish bank in 1986 and by the mid 1990's he was working for Saxo Bank. He was then seconded to Synthesis Bank, now Saxo Bank Switzerland, to establish their presence in the online trading world before leaving in 2006 to establish JP Fund Services with other business partners.

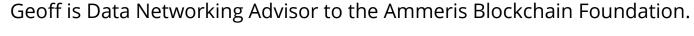
Peter's capital markets background sets him apart from many other fund services executives, with a bias towards solution finding, his experience is key in helping investment managers find the right balance of trading counterparts and technology. This expertise has made him a highly sought-after advisor for Blockchain solutions and ICO's. He is currently an active advisor for Modex, X8 Currency, Covesting, and several other startup companies.

Peter is based in Florida and runs the North American operations as well as continuing working with his significant European network and clientele.



**Geoff Sullivan** 

#### HEAD OF MARKETING, JUNIPER NETWORKS



Geoff is a seasoned technologist and marketer who specializes in cloud infrastructure, networking and telecommunications. Geoff is currently the Head of Marketing for Juniper Network's business in Canada, the Caribbean and Latin America, where he leads a team of marketers focused on growing Juniper's enterprise and service provider business by evangelising cloud networking and automation. Geoff also co-founded the Crypto Noob Club, a crypto mining cooperative for beginners and is an active participant in several open source communities like Tungsten Fabric - a Linux Foundation project focused on software defined networking where he is a community ambassador. Geoff is Data Networking Advisor at the Ammeris Blockchain Foundation.

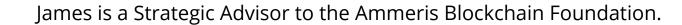
Geoff began his career in technology sales, and as his interest in technology grew, he invested thousands of hours in learning the technical side of the business. In 2013, he joined Cloud-A, Canada's first OpenStack-powered public cloud, where he was instrumental in growing the business 300% YoY. Geoff later went on to lead a Cloud Infrastructure consulting practice where he worked with Tier 1 service providers to virtualize their networks in preparation for 5G and IoT workloads.

Geoff holds a Commerce degree from Saint Mary's University, is a Certified Scrummaster and a level 2 certified Pragmatic Marketer.



**James Hewitt** 

#### STRATEGIC ADVISOR, C SUITE



James is a dedicated professional and "global citizen" within the global financial service industry, working in both sectoral and consultancy roles totalling more than 26 years working between sovereign wealth funds (SWF), their subsidiaries, investment banks, private family organizations, and stock exchanges across the United States, United Kingdom, Europe, and Aisa (Hong Kong, Singapore, Tokyo). More recently, James has focused on the Middle East and North Africa (MENA) region.

He is a transformation, risk, and change agent with specialized functional expertise in helping C-Suite strategize, adapt, and restructure with focus on cost savings and modernization to enhance revenues. James is a strong relationship builder across the C Suite community and a trusted advisor based on him personal commitment to client objectives. He has an ability to deploy relevant industry knowledge and has a strong commercial focus on generating improved returns on investments.

James has managed numerous post-deal integration projects, seeking to align synergies and generate higher rates of return for new organizations with a common strategy and goal.



**Grayson Swan** 

VP OF OPERATIONS, ONE WIND

#### Grayson is Renewable Energy Advisor to the Ammeris Blockchain Foundation.

Grayson provides technical and in-depth knowledge in renewable energy construction and operations as part of his advisory role with Ammeris. He is currently VP of Operations for One Wind, a renewable energy service provider, and has experience in thermal power generation, natural gas production, and wind turbine manufacturing.

As a professional mechanical engineer, Grayson has been involved in renewable energy project construction and operations throughout North America – equipping him with a wealth of technical experience and effective but personable management expertise. Prior to joining One Wind, Grayson was responsible for service supervision, resource planning and client liaison at a wind turbine original equipment manufacturer, and previously worked as a thermal plant engineer.



**Robert Fathers** 

#### FOUNDER AND CEO

Robert is the Founder and CEO of Travalian, and is E-commerce Advisor to the Ammeris Blockchain Foundation.

Robert's career began by way of investigating the World Wide Web (WWW) in the 1990 as part of a group helping to develop the use of images on wiki. As one of the first pioneers of the Internet, he worked closely with the small online community working, developing, and expanding the WWW. Robert worked in the UK developing the CGI program for the UK travel directory for hotels for the Hospitality Association with Bristol University and Bell Labs, followed by the first Internet company in Europe to float on the European Stock Market as Travel-UK PLC in 1996.

Robert has developed new technologies in matching systems, and he has created an online centralized database for private and governmental investment organizations. This company was bought by Angel Bourse PLC for its technology, and has gone on to float on the Nasdaq. Robert also worked on developing the first centralized database for the import and export of commodities, and has founded and served as CEO of Singles Limited - which later became known as Datech Limited - and World Dating Partners, which at the time created an impact on whitelabeling practices and niche marketing.

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