Whitepaper

Contents

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1 Abstract

Thank you for taking the time to read the Kali Health Whitepaper. This paper is the result of collaboration between doctors, allied health professionals, blockchain specialists, academics and business advisors.

> Kali Health intends to collaborate with the sustainability of the healthcare ecosystem through the use of technologies such as blockchain to transform the patient into the CEO of their own health and creating a collaborative environment for continuity of care.

Kali Health's mission is to reduce intermediaries in the health chain and promote health care, enabling patients to have autonomy over their care, empowering health professionals and reducing costs and optimizing processes. of the health industry. To do so, it uses technologies and platforms such as IASIS, a healthcare continuity platform developed by us.

The platform has healthcare interoperability solutions built on blockchain promoting a digital healthcare wallet for the patient, an application for the patient establishing a channel for continuity of care, an EMR solution for healthcare professionals to empower doctors, nurses, nursing technicians and other health professionals to monitor the lines of care and monitoring of treatments, in addition to the management of health insurers, health management of employees, among others.

Kali Health Whitepaper will outline the vision of Kali and the current issues in healthcare, as well as give a brief summary of the technical solution used and Kali's vision on a sustainable healthcare ecosystem including initiating a Decentralized Autonomous Organization to promote collaboration in the health ecosystem and investment in health care projects primarily in vulnerability zones.

2 Our Purpose

Thank you for taking the time to read our Whitepaper. This has been a culmination of hard work and dedication from all of the team here at Kali and we would like to proudly share our vision with you all.

After more than 2 years of a pandemic, we live in another world. A world where inequality grows dramatically and with it, the difficulties in funding global health. The world has more than $3.5 trillion in annual health waste and as the population ages, the costs are likely to grow.

After working on one of the largest healthcare interoperability projects in the world using blockchain (Brazil's National Health Data Network with more than 1.5 billion records), we have advanced in structuring a decentralized digital healthcare portfolio using concepts such as DID, Zero Knowledge Proof, Hyperledger Indy and FIPS 140-2, NSTIC and eIDAS compliant Digital Identity frameworks and in the structuring of a dual blockchain model using Hyperledger Fabric in a permissioned structure and DeFi Tokens.

Finally we are initiators of a sustainable healthcare DAO (Decentralized Autonomous Organisation) which aims to reduce health waste, eliminate intermediaries and generate a Treasury to finance sustainable health projects around the world by reducing health waste spending for the less fortunate and for communities in need of healthcare.

We want to improve people's health by providing more quality of life and well-being, anywhere, on a path to longevity.

But we believe that this ecosystem should be a legacy to all mankind. We are only the initiators of this sustainable healthcare ecosystem focused on continuity of patient care and lifelong wellness. We will be promoting the creation of a community with the ones that believe that healthcare should be a right to everybody. We believe in:
- Making the citizen CEO of your own health
- Facilitating the exchange of information between healthcare providers - interoperability
- Reducing waste and healthcare costs
- Focus on prevention and continuity of care
- Increasing the quality of people's life
- Promoting healthcare to every people on the planet

3 Executive summary

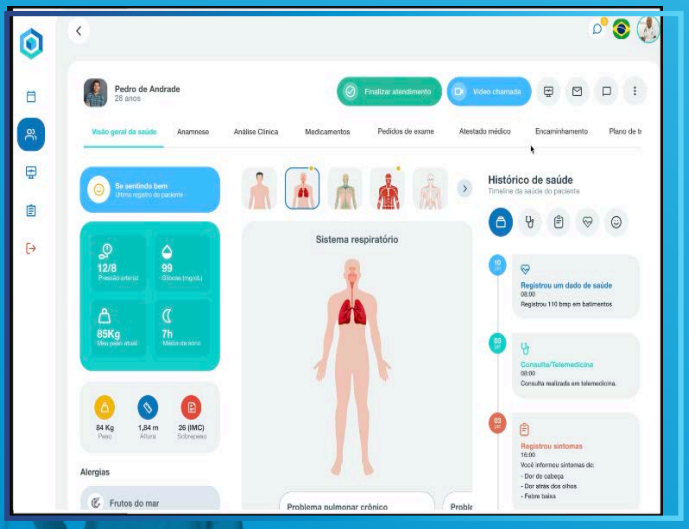
We are initiators of a sustainable healthcare ecosystem in blockchain that enables continuity of care to patients in a secure, fast and transparent way. We are promoting collaboration between healthcare professionals, healthcare industry and patients to promote real healthcare.

Kali Health will enable users to give conditional access to different healthcare agents such as doctors, hospitals, laboratories, pharmacists and insurers to interact as they see it.

Each interaction with their medical data is auditable, transparent and secure, and will be recorded as a transaction on our IASIS DOMO platform distributed ledger. During this process, the patient's privacy is protected at all times. IASIS DOMO is built on the permission-based Hyperledger Fabric architecture which allows varying access levels; users control who can view their records, how much they see and for what length of time.

By empowering users, we can build the future of healthcare together. Kali Health will be a ecosystem that connects patients, healthcare professionals, health insurance companies, hospitals, pharmaceutical industry and other players on a patient centric approach. Kali Health Group owns IASIS Platform which contains three applications to work alongside the platform: a patient app with health digital wallet, an Electronic Medical Record application including a doctor-to-patient telemedicine application, a continuity of care application to monitor patients and a gamified healthcare model based on Web3 and DeFi tokens

The EMR and Continuity of Care applications will enable users to monitor their health including consult a real doctor remotely or in our Phygital Digital Health Center.



The Gamified Healthcare model enables users to negotiate terms with third parties for alternative uses or applications of their personal health data. For example, putting forward their data to be used in medical research or in benefit of his care. It is intended that Kali and others will contribute many more applications to the platform - helping bring value to all stakeholders.

Kali's platform will be powered by **"$KALI" tokens**. We are issuing 1 million tokens, which will be distributed at a rate up to 1 token to $0.01 USD. These will be offered in a crowd selling process commonly known as an "IDO" or "Initial DEX Offering."

4 Healthcare or Sickcare?

4.1 Expectations of Healthcare Users

In today's world, users expect an instantaneous and seamless flow of data. Many industries have adopted, or are beginning to adopt necessary technologies to guarantee their users' expectation for instant information. Unfortunately, the healthcare industry has lagged behind. Legacy systems are burdensome, slow, often vulnerable and have little role for the patient.

4.2 Fragmented Health Services

Health data contained in legacy systems is siloed and difficul to share with others because of varying formats and standards. In short, the current healthcare data landscape is fragmented and ill-suitedto the instantaneous needs of modern users. As a result of this, stakeholders are incentivised to keep their own records, and no single version of the truth exists.

4.3 Lack of Patient Centricity (passive user)

The relationship between healthcare professionals and patients has long been a paternalistic one. In recent times, however, there has been a significant shift of authorit .

> **Medicine is being democratised and patients are more empowered.**

It is now considered reasonable to seek a second opinion and patients are expected to contribute to decisions made about their treatment choices.

Even in single-payer system like the UK's National Health Service (NHS), patients have the right to choose where and when they receive their care. Thus, with patient mobility comes the need for information mobility. In order to be provided with the best care patients not only can, but must have control over their own data.

4.4 Ill-informed Clinical Decision Making (data driven decision making risk of fatalities)

Clinicians rely upon investigations and tests to make informed decisions about a patient's diagnosis and possible treatment plan. Traditionally, an investigation or test should only be requested and arranged if this is going to lead to a different possible diagnosis or alternative treatment plan. Unfortunately, even when the results of an investigation or test have returned, these are rarely shared widely with all of the health professionals involved in the patient's care and are normally isolated, or siloed, at the institution which requested them originally.

The patient's quality of care suffers as a result of this. Other institutions are not aware of a patient's complete history and in turn, this could lead to incorrect decision making, delays, and unnecessary costs for the patient or health institution. In the worst case, these medical errors can be fatal.

Research at the American Johns Hopkins Hospital by Makary et al, 2016 concluded that medical errors are the third leading cause of death in the United States and that *"most errors represent systemic problems, including poorly coordinated care."*

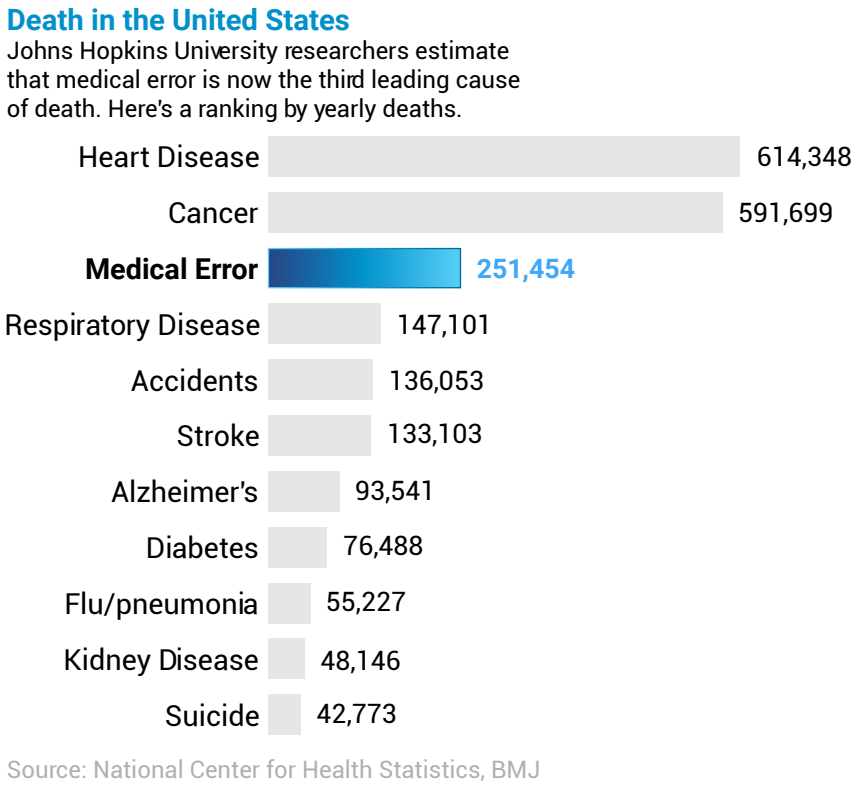


Figure 1: Table showing yearly death rate as per Johns Hopkins University research in 2016

4.5 Security Risks to Patient Data

At present, electronic health records (EHR) are stored on centralised databases in which medical data remains largely non-portable. Centralization increases the security risk footprint, and requires trust in a single authority. Moreover, centralised databases cannot ensure security and data integrity, regardless of de-identification and controlled access requirements. Centralised health databases are legally a requirement and necessity in most countries worldwide and therefore require an added layer of technology to improve their portability and security.

As cybercrime around the world is on the rise, healthcare systems are no exception as shown by recent high profile ransomware hacking. In fact, the healthcare industry has more data breaches than any other sector and medical records are being stolen and passed on.

"Your medical information is worth 10 times more than your credit card number on the black market."

Figure 2: Technology News, Reuters, September 24th 2014

Data security is paramount due to the increased sensitivity of medical data. This was highlighted in early 2017 when a cyber attack struck healthcare institutions around the globe. This highlighted to the public the vulnerability of our healthcare systems to potential threats and a sober warning regarding the inadequacies of the current infrastructure.

Many have tried to overcome this issue, and it is high on the agenda of governments and a source of frustration for both doctors and patients. A significant component of the challenge focuses on data security.

4.6 Lack of Transparency

4.61 Increasing Costs

For patients and professionals, the present system is incredibly slow, inflexi le and woefully opaque. These problems are equally visible throughout the claims process. When a patient needs services (from a provider such as a general practice, a pharmacy or nursing home), health plans are used to determine how much of the cost they will pay. In order to determine this cost, the health plan must validate services received from the provider against the agreement the patient and health plan have, and then share their findings with the provider. This only occurs if the provider is "in-network" with a health plan. For a provider to be considered in-network, a complex agreement needs to be negotiated which adds a significant expense to the provider's administration costs. One part of these costs are Billing and Insurance Related (BIR) costs which include activities such as maintaining benefits databases and keeping records of services delivered. BIR costs are projected to reach $315 billion dollars by 2018 and take up to 3.8 hours for the average physician to navigate.

On average, this whole process takes between one to two weeks if done electronically and takes three to fi e weeks by paper. Moreover, this process is rife with places for miscommunication and misunderstanding to occur. For care to actually take place, multiple people need to check multiple archaic agreements against multiple records. The result is an inefficient an opaque process that leaves stakeholders and, ultimately patients feeling confused and sceptical.

4.62 Insurance Fraud

Whether you have employer-sponsored health insurance or you purchase your own insurance policy, health care fraud inevitably translates into higher premiums and out-of-pocket expenses for consumers, as well as reduced benefits and coverage. For employers, this increases the cost of providing insurance benefits to employees, which then increases the overall cost of doing business. Moreover, the reality for many patients is that the increased expense as a result of fraud, could mean the difference between affording health insurance or not.

Fraud by design dictates that false information be represented as fact. A common healthcare fraud involves perpetrators who take advantage of patients, by entering into their health record false diagnoses of conditions they do not have, or of exaggerating conditions they actually do have. This is done so that fraudulent insurance claims can be submitted for payment.

"The total cost of insurance fraud is estimated to be more than $40 billion per year."

FBI.gov

Unless this discovery is made early on, these false or exaggerated diagnoses become part of the patient's documented medical history within the health insurer's records if not in other databases as well.

4.63 Record Tampering

Medical records are to be considered not only as medical documents, but also as legal documents. To pass off a rewritten record as contemporaneous is a criminal offence and any retrospective changes have to be clearly marked, dated and signed, and the reason for such changes clearly documented.

Altering existing medical records, removing records, or adding false records puts a healthcare professional at risk of medicolegal repercussions. Disclosure of authentic and original clinical notes is essential when a claim is brought up, and failure to do so can make a claim indefensible.

4.7 Healthcare or Sickcare?

Healthcare costs are on the rise around the globe as societies struggle to deal with ageing pop-ulations and the rising chronic disease burden. Current models of care delivery, particularly in places like the US and UK, are unsustainable. One trend combating increased costs has been the rise in digital health services. The value of the global digital health market was valued at $221 billion US dollars in 2021. According to American Medical Association, annual wasteful spending on healthcare in US represents almost $1 Trillion. Worldwide it represents 40% of annual health spending (up to $3.5T).

Digital health solutions such as Telemedicine, preventive and personalized medicine will be critical for driving efficiency and reducing costs. The scope of Digital Health covers referrals, second opinions, education, follow-up care, monitoring, di-agnostics and treatments across numerous specialities.

Examples include Telecardiology, Teleradiology, Telepathology, Telepsychiatry, Teledermatology, Phygital Healthcare Solution and others. Clearly there is a large market, and benefits include:

- Improved quality of care
- More time for doctor-patient interactions
- Improved access to consultation
- Reduced costs

The market is currently dominated by North America and Europe though highest growth is expected in India, China, and Japan in the next few years.
There are several challenges to full implementation:

> In many parts of the world, health care delivery is shifting from a 'sickness service' to a more preventive health or 'health and well-being service'. Many healthcare providers are also realizing the importance of involving patients as care partners and finding ways to transfer more ownership of care outcomes to patients themselves.
>
> **Prof James Yip. Group Chief Medical Information Officer of NUHS Chief Data Advisor of the Ministry of Health, Singapore**

Digitisation promises much potential, but adding an additional silo without incorporating the information does not add value. In order to succeed, systems, devices, and data need to be seamlessly integrated.

Privacy and security law issues must consider the management of data in non-traditionalformats (for example, audio and/or video) and the sharing of data responsibilities encountered.

To minimize the privacy/security risk of digial healthcare solutions, providers require reliable methods for verifying and authenticating the identities of the patient and practitioners. Blockchain solutions are a great tool to overcome these issues.

5 IASIS Platform and continuity of care

5.1 Dual Blockchain: IASIS Domo & Kali Tokens

Our solutions are built using a dual blockchain structure. The first blockchain controls access to health records and is built using Hyperledger Fabric. The second blockchain is powered by an ERC20 token on Ethereum and underlies all the applications and services for our platform.

5.2 Hyperledger Fabric

The Hyperledger blockchain network is permission-based and **used by healthcare industry players such as hospitals, health insurance companies, governments among others.** Hyperledger Fabric is a platform for distributed ledger solutions underpinned by a modular architecture delivering high degrees of confidentialit , resilience, flexibility and scalability.

Medical information is often highly sensitive, in both a social and legal sense, so a closed blockchain such as Hyperledger Fabric helps to retain the necessary privacy required for such an application.

5.3 Health Digital Wallet and Digital Twin

An Health Wallet allows you to keep all of your medical card information in one location, accessible at times when you need it most. Gone are the days of keeping several physical cards on you at all times in preparation for medical events. Your data is secure, accessible only by your device.

The concept of digital twin in the healthcare industry was originally proposed and first used in product or equipment prognostics. With a digital twin, lives can be improved in terms of medical health, sports and education by taking a more data-driven approach to healthcare. The availability of technologies makes it possible to build personalized models for patients, continuously adjustable based on tracked health and lifestyle parameters. This can ultimately lead to a virtual patient, with detailed description of the healthy state of an individual patient and not only on previous records. Furthermore, the digital twin enables individual's records to be compared to the population in order to easier find patterns with great detail.

5.4 IASIS as a Continuity of Care Platform

Using blockchain technology Smart Contracts, and our cryp-tocurrency IASIS provides the infrastructue for digital health applications and services to be built. These applications and services will be seamlessly powered by user's health data. Anyone will be able to connect on or use IASIS platform and we hope to foster a thriving ecosystem to provide value, reduce costs, and ultimately improve peoples lives.

5.5 Anywhere healthcare

HHealth care comes from the concept of the patient seeking health from the doctor or hospital. This hospital-centric model dispenses with reactive health care where primary care and the active search for prevention are not encouraged. On the other hand, the patient-centered model seeks to empower the patient, monitor the journey and the continuity of health care. In this model, the search for health services is encouraged, especially in primary care and prevention. To make this happen, we created a concept of health anywhere with the promotion of Care Hubs and back office health monitoring teams.

6 A sustainable healthcare ecosystem

6.1 Issues on healthcare financing model

Financial challenges are the most pressing concern for hospital CEOs, according to an annual survey from the American College of Healthcare Executives (ACHE). Specifically, some of these financial challenges include: Maintaining Financial Health and Flexibility, Increasing Outpatient Care, Increasing Costs and Insurance Reimbursement.

With healthcare spending on an upward trajectory and pressure from patients, insurers, and governments to clamp down on costs, savvy financial management is paramount to the healthcare sector's success. Everyone stands to benefit from a financially sound healthcare system equipped to weather the disruption and uncertainty to be expected in the next decade.

6.2 Inequalities on healthcare in the world

The construction of a more equitable world has been the aspiration of different political movements which understand that reducing inequalities in the various spheres of human life is essential and guarantees the existence and sustainability of human society. Health inequalities expose one of the facets of inequalities that are prevalent among human beings, the cruel and damaging effects on one's own existence, which is reflected in the immense differences in life expectancy or the burden of disease and suffering.

The evidence of the importance of social determinants in explaining health inequalities is compelling. However, although there are clear academic and political arguments that favor the implementation of actions to redress the determinants of health inequalities, policies to mitigate these inequalities have been scarcely implemented as part of the public policies of national governments, and still less to alleviate inequalities between nations. There are several reasons for this lack of political motivation; however, some aspects have been recurrent in the literature regarding health inequalities.

6.3 Differences on healthcare spending

The world faces the economic impact of a global recession originating from the COVID-19 pandemic, with falling gross domestic product, high unemployment, lost household income and disrupted health care delivery. The developed and fast-growing economies can count on macroeconomic and fiscal stabilizers, and on access to financial markets to recover quicker to pre-pandemic macroeconomic figures. But the outlook seems much less favourable for the lower income economies, which depend on commodity exports, trade or tourism, and whose vulnerable populations live already under survival conditions

Domestic health spending, including both public and private financing sources, was on average US$ 34 per capita in lower income countries, ranging from US$ 12 to US$ 64 Domestic health spending was 4.4% of GDP in the 32 lower income countries, almost the same as in 2000..Average government spending on health in lower income countries was only US$ 9 per capita in 2018—1.2% of GDP. Almost two-thirds of the 32 lower income countries spent less than US$ 10 on health per capita (from domestic sources) in 2018.

On average, half of total health spending went to primary health care (PHC) in 2018. Many high income countries spent more than US$ 1,000 per person on PHC, while several countries spent less than US$ 20. Income is not the only determinant. Within countries of similar incomes there were large differences in PHC spending.

"While low income countries health spending was on average $34 per capita, in high income countries, health spending was on average $3313 per capita in 2018."

WHO

6.4 Needs on a sustainable healthcare financing model

COVID-19 raised alarms on the sustainability and future trajectory of many economic and social developments. Progress on access to essential services and financial protection are likely to be set back unless deliberate responses to the shock address the underlying weaknesses of societies and health systems. Experience shows that public spending on social sectors is key to progress towards SDGs. How much and on what functions governments spend on health will directly affect progress towards universal health coverage. COVID-19 has shown starkly that countries have underinvested in health systems, both for preparedness and for ensuring the whole population access to services without provoking fear of financial hardship. They must reverse that underinvestment to build trust in the government and strengthen the social contract. UHC is essential to achieving the health, economic, and social equity and cohesion SDGs

The specific macro-fiscal impact of COVID-19 on health spending remains uncertain. Even so, targeted and deliberate policies will be needed to counteract demands on financing systems and protect vulnerable populations. Careful monitoring of spending patterns, disbursements, service coverage and financial protection indicators will be critical for calibrating policy actions with a focus on allocating spending to promote progress towards health security on the way to universal health coverage.

Individually and collectively, countries need to chart courses to a new horizon, progressing on six recommendations for a new health financing compact in a COVID-19 world:

- Secure domestic public spending on health as both a societal and an economic priority;
- Find common goods for health as step zero of universal health coverage at country level;
- Invest in global common goods for health to enable global health security;
- Prioritize public funding to ensure equity of access and financial protection through a primary health care approach;
- Increase the level of aid to lower income countries, but adjust aid modalities;
- Fund national institutions for transparent and inclusive tracking of health spending at both country and global levels

WHO

6.5 Blockchain and decentralized financing

Blockchain technology can reduce transaction costs, generate distributed trust, and empower decentralized platforms, potentially becoming a new foundation for decentralized business models. In the financial industry, blockchain technology allows for the rise of decentralized financial services, which tend to be more decentralized, innovative, interoperable, borderless, and transparent. Empowered by blockchain technology, decentralized financial services have the potential to broaden financial inclusion, facilitate open access, encourage permissionless innovation, and create new opportunities for entrepreneurs and innovators. As a new area of financial technology, decentralized finance may reshape the structure of modern finance and create a new landscape for entrepreneurship and innovation, showcasing the promises and challenges of decentralized business models.

6.6 Decentralized Autonomous Organizations

DAOs are self-managed organizations that are defined by a transparent set of rules encoded as a computer program. The unique aspect of a DAO is that they reduce the need for managers or traditional hierarchies, as the rules are embedded into the code, allowing the organization to function independently from the organization's members.

When blockchain technologies and cryptocurrencies were being developed, their creators focused on the potential benefits of transparency and decentralized cooperation. Those aspects were critical to ensuring that a certain level of independence and neutrality was maintained, and that the interests of the whole group were prioritized, rather than just those of a small group of powerful interests. The format also helped prevent manipulation and allowed for actions to be taken in real time, rather than at the slower pace of traditional business.

But if you can run a global financial platform through a collective, why not an organization? The prospect is both interesting and innovative; and much like blockchain and decentralized systems, the notion of a decentralized independent organization can help us re-think how we organize ourselves to better enable impactful results.

It is possible to have a rich, connected experience without a central operator: enabling markets to set pricing and quality, and enabling the participants whose labour and choices support the experience to profit directly. This is one benefit of a DAO.

6.6 DAOs as a new sustainable financing model

The purpose of any DAO is to manage and govern its protocol in perpetuity. One of the most important functions of DAO is naturally to capitalize in such a way that not only ensures that your ongoing operations can continue, but also invests in the future growth and success of the protocol.

To be fully operational, a DAO needs a set of rules according to which it will operate.

Those rules are encoded in a smart contract, which permits trusted transactions and agreements to be carried out among disparate, anonymous parties without the need for a central authority, legal system, or external enforcement mechanism. At its early stage, Trinity DAO still would require central management and execution, but as the protocol approaches maturity and stability, the final vision would be for an autonomous organization led by the community. In this early stage, Trinity DAO plans to have an executive team of experienced, capable individuals helming the project, while taking the communal input of its community for direction of the project.

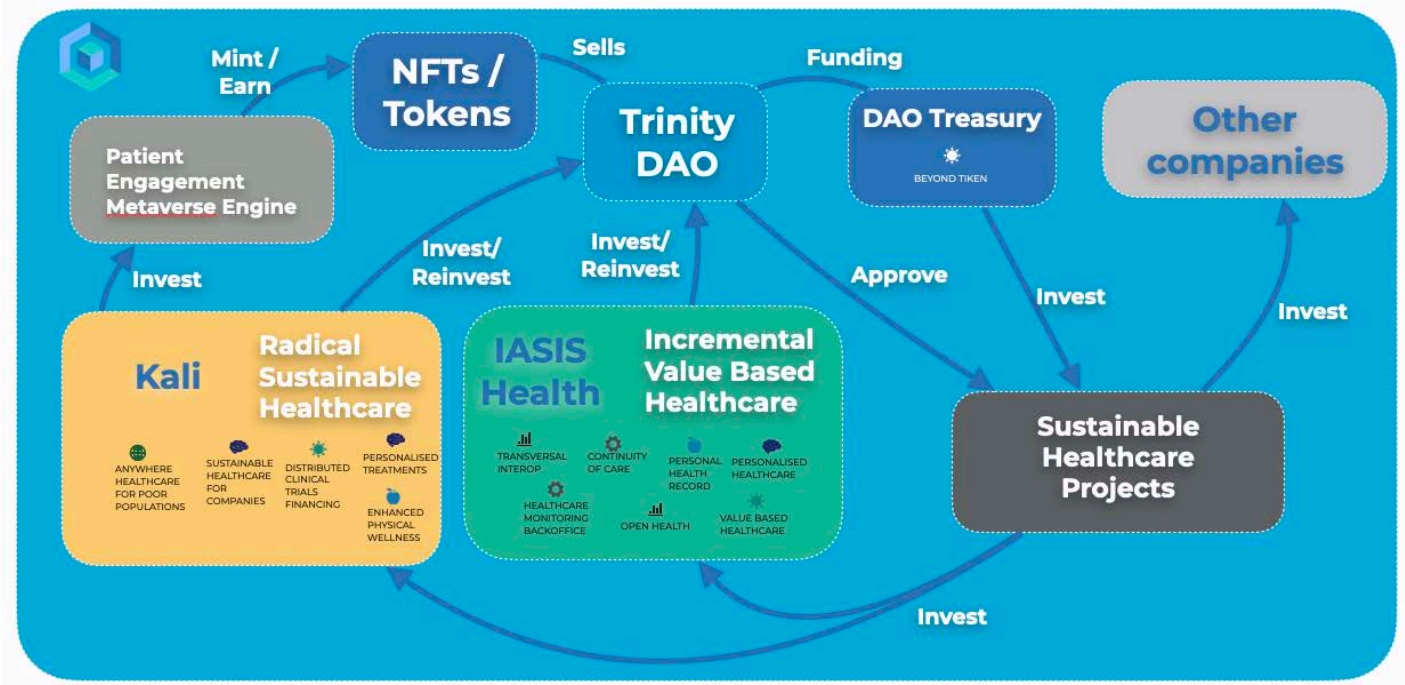
When a DAO is fully operational, the decisions on how the protocol develops and how the treasury is used are made via an autonomous crowdsourced approach. DAO stakeholders can write proposals regarding implementations and stakeholders would then vote on the proposal. For a proposal to be passed, the majority of stakeholders needs to vote in favor of it.

6.7 Trinity DAO: Sustainable Healthcare Ecosystem

Faced with the scenario of a post-pandemic world where social inequality has increased and the population is aging, health costs tend to grow unsustainably. Traditional health financing models based on governments, companies, health insurers or by the citizen themselves, come up against the lack of control over health data, the formation of silos, the inadequate management of health resources and the unbridled costs of the various intermediaries. of the care chain as well as the lack of primary care and continuity of care.

Blockchain and Web3 have designed a new model for managing decentralized data from finance to healthcare. The traditional difficulty in data interoperability in healthcare silos models can be overcome through the use of blockchain, empowering the patient with the delivery of a digital healthcare wallet to him. This movement opens up a range of new possibilities for care and monitoring and navigation in the patient's care journey.

The more modern models of DeFi 3.0 and the use of DAOs allow the structuring of new health financing models by bringing patients and health professionals closer together, eliminating intermediaries and structuring new models of patient engagement in care in health through a series of incentive and reward techniques. The structuring of a DAO's Treasury as a funding structure for the application of health projects is a new way of using resources from waste reduction in the health chain as well as in the application of resources in a more intelligent way for patient care. If we could save 10% of the more than 3.5 trillion dollars spent on health waste every year, we would be able to care for the health of more than 100 million people with the same health spending in high-income countries like USA, Norway or Denmark.



7 Our values, goals and objectives

7.1 Our values

The patient care journey passes through several points during life. Currently, this journey only happens through the action of the patient, in most cases when he is sick. In this model, health care is reactive, complex and more expensive. In addition, health data for improved care is scattered across silos without any interest from each of the players in sharing this data. However, the patient is entitled to have this information in order to enhance their care. In addition, much of the citizen's health information is not recorded in any system and in some cases only on the smartphone through the use of wearables, for example.
To be able to support this journey of building a sustainable health ecosystem, we have to adopt some premises that allow us to have the necessary legitimacy to promote, in an impartial and collaborative way, the creation of this environment. These assumptions are denoted by our values, expressed next:

We are Purpose driven
Our mission drives our actions

We are Agnostic
We don't have any investors interested in maintaining the status quo of healthcare silos

We are Healthcare insurgents:
We are rethinking healthcare from the patient perspective leaving from hospital-centric vision to patient-centric vision.

We drive our company by a Futures-Back strategy
All our products were designed using futurism techniques. Our roadmap is based on visions of possible and probable futures using the futures studies cone and the 3-wave future design.

We are Redesigning Healthcare:
We believe on enhancing healthcare by reducing intermediaries, focusing on patient care and continuity of patient care

7.2 Our Massive Transformative Purpose

We want to improve people's health by providing more quality of life and well-being, anywhere, on a path to longevity

7.3 Goals and objectives

Our mission connects with the need for a world with less health waste, inequities and more just. Within this vision, we position ourselves as a sustainable health ecosystem with a mission to engage the patient, facilitate interoperability between systems, empower health professionals in the continuity of care and enable proactive, preventive and sustainable health thinking. Our main objectives and goals are as follows:

Break sickcare logic: Engaging patients, empowering professionals, connecting the ecosystem and focusing on primary care

Empower healthcare professionals: Doctors as patient's health manager: using healthcare avatars, distributed timelines and explainable artificial intelligence

Build lifelong wellness: Value based healthcare in practise: primary care + continuity of care + healthcare monitoring.

Boost construction of a path to longevity: Distributed patient's timeline as source to personalisation

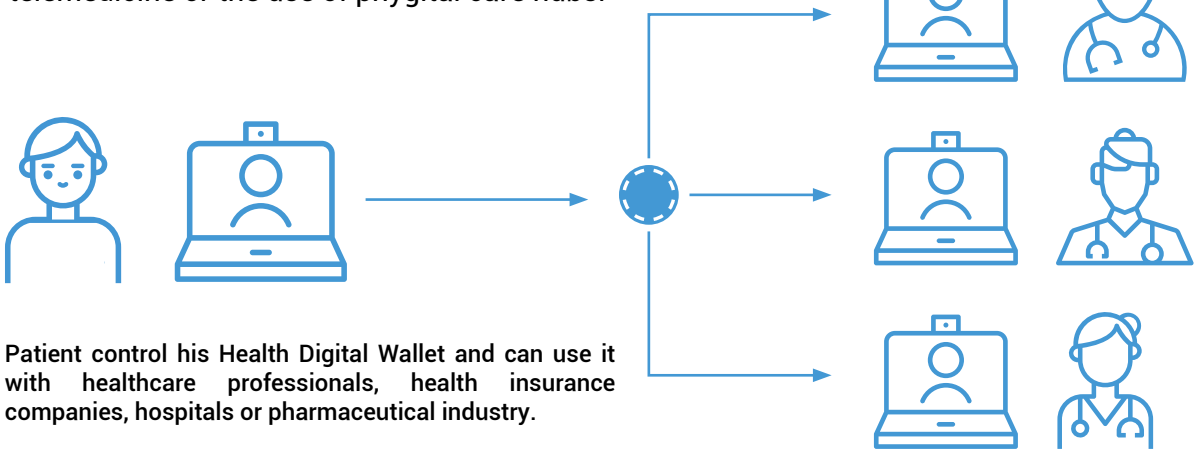
8 Kali Token and Token Utilities

8.1 $KALI Token

Tokens are the mechanisms used to encourage the performance of a series of activities by players in the ecosystem. Each of the players will be able to materialize gains or forms of viability with the use of $KALI tokens as examples below:

8.2 Healthcare continuity of care

Actions in the patient's journey to continuity of care allow patients to engage in their health care, to have easier access to health professionals, such as telemedicine or the use of phygital care hubs.



Patient control his Health Digital Wallet and can use it with healthcare professionals, health insurance companies, hospitals or pharmaceutical industry.

IASIS Platform not only provides this established and successful format of consultation, but will accommodate the doctor by enabling them to interact live with the patient's records during the consultation. Patients would grant access to their records during the Telemedicine consultations and beyond his healthcare, allowing for a more in-depth, informative, and valuable experience for both the patient and doctor.

Through their health data, the patient becomes a protagonist in the continued health care. It allows the Health Monitoring Backoffice the necessary condition to carry out the navigation of care by nurses and follow-up of the patient's health.

8.21 Patient Benefit

From the patient's perspective, the access to doctors and seeking consultation time is massively reduced by removing the need to physically attend the doctor's practice. There are many simple ailments that are currently managed over the telephone, but by providing a Telemedicine component we can improve the patients experience by facilitating a visual consultation which would be more in-depth and beneficial o both the doctor and the patient.

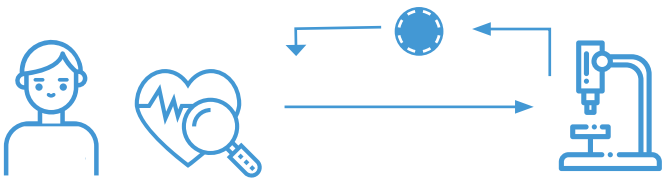
8.22 Clinician Benefit

To attend a doctor's appointment requires a patient to cancel their work in advance or take their child out of school for the appointment. There is then the waiting time at the clinic in order to see the doctor, often times for a simple request. Telemedicine provides the patient with the opportunity to select a specific time to conduct the consultation at their convenience, encouraging patient choice and freedom. Further, patients are able to choose which doctor they would like to conduct their consultation with offering greater choice and building a relationship between that doctor and patient, whereas perhaps logistically it would not have been possible beforehand if they were based in different cities.

The doctor also reaps many benefits from utilising telemedicine by providing the clinician with a flexible working pattern allowing them to conduct consultations from any location with adequate internet connectivity. **Kali Health** will provide the doctor access to the patient's health record (with the patient's permission) during the telemedicine consultation. This will also give the clinician the added confidence during the consultation that they are being provided with all of the information they require to suggest appropriate investigations and organise a treatment plan.

8.3 Health Data Marketplace Control

Patients should have control over their health records, and they should also benefit from the potential value that they possess. **IASIS Platform** connect research institutions with users who are willing to have their health data used in studies in a health data marketplace. Users will be given clear information as to how their data is being used and what data will be required. In many cases anonymised data will be per-missible, ensuring the privacy of everyone involved.



Patient grants access of personal health data to researchers in return for incentivisation with $KALI tokens

In return, participants will be compensated in **$KALI tokens**. Patients will be given the ability to unlock the monetary value that their health data holds, they will be more engaged with their health conditions and the next generation of cutting-edge medicine will be empowered.

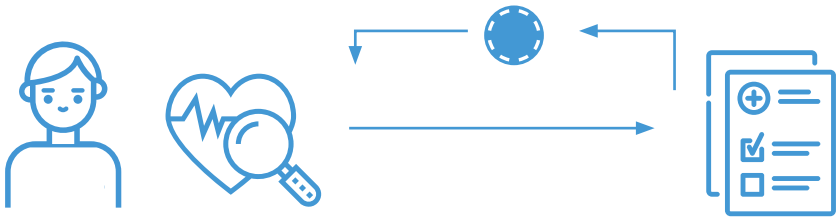
Pharmaceutical and research companies will also benefit from the changes brought in by **Kali Health**. They will be able to seek out patients who have opted into being contacted by researchers so that these institutions can interact directly with the patient. By doing so, companies will no longer need to approach a hospital or clinic and can go straight to the people whose information will be used. Not only will this increase efficien , but it is a more transparent process that strikes a rela-tionship which is symbiotic and sustainable.

There would be a few broad categories of data leasing agreements though more are likely to evolve over time. Here are a few we envision:

- One time leasing. Institutions will use APIs provided by **Kali Health** to pull relevant data from participants from our servers.
- Longitudinal studies. Institutions that need to see data over a period of time will be able to ask users to stream their data. Example: how many steps users have walked per day or what their heart rate looked like today.
- Collated data. **Kali Health** would combine normally disparate data sources and provide easy access to these data sources with user consent.
- Ongoing anonymised data offerings. Users could opt in to have their data anonymised and labelled as accessible to research institutions interested in it. Institutions would have the ability to filter broad categories (e.g. 40-50 year old, 25+ BMI, male) and users would be paid every time their data is accessed.

8.4 Potential Insurance Integration

Users could allow health insurers access to their health records. In turn, insurers could rest assured that the information they are making decisions upon is trusted, verifiable and patients could be rewarded for their transparency in the form of lower premiums. Moreover, patients could pledge to a set of health goals with their



Patient grants access to personal health data to insurance companies in return for incentivisation with $KALI tokens

insurer and be rewarded as they hit milestones associated with those goals. Regular weight and blood pressure measurement uploads, proof of therapy compliance and attendance at a gym might incentivise rewards from health insurers with lower premiums or rewarding users with $KALI Tokens.

8.5 Powering Kali Health and IASIS Platform

Users will be able to pay for a variety of other applications and services that have been developed on **Kali Health**'s platform. Integrations with a plethora of different healthcare sectors are possible and the above is only the beginning of the revolution that is coming.

9 Kali DAO

9.1 DAO Overview

The Kali Decentralized Autonomous Organization (Kali DAO) is an experiment by Kali Health to democratize and decentralize healthcare access. We believe it has the potential to accelerate our mission by increasing transparency to the public and seeking input into criticai decisions, particularly around the use of donor funds, from those working on the front lines.

How will this be achieved? Kali DAO is leveraging blockchain-solutions that engage communities and organizations in a collective decision-making role by utilizing ERC-20 governance tokens to exercise cooperative input and control over a healthcare treasury. As a collective experiment, this project will run from September 2022 through September 2023, at which time its operational successes, shortcomings and impacts will be assessed, and the continued tenure of the project evaluated.

9.2 Governing strategy

Kali DAO will comprise two primary governing bodies, the DAO Committee and the DAO Community. The DAO Committee will initially be made up of only by Kali Health and partners and the DAO Community of both Kali Health, partners, organizations and donors. The DAO Committee is primarily responsible for safeguarding the fiduciary interests of the DAO and stewarding the decentralization of governance power. The DAO Community is primarily responsible for grant-making decisions and advancing self-governance.

DAO COMMITTEE	DAO COMMUNITY
• Kali Health plus 2-5 Kali Health-appointed organizations. • Keyholders of multi-sig wallet. • ERC20 TrinityToken for voting transparency on Snapshot platform. Tokens are non-transferable. • 1 TrinityToken = 1 Voting Weight.	• Membership limited to grantees & donors • ERC20 TrinityGovToken for voting on Snapshot platform. Tokens are non-transferable. • Organizations reapplying for grants relinquish/burn TrinityGovToken. • Mixed methods voting strategy for selecting organizations, allocating funds and governance decisions.

9 Kali DAO

9.3 How to participate

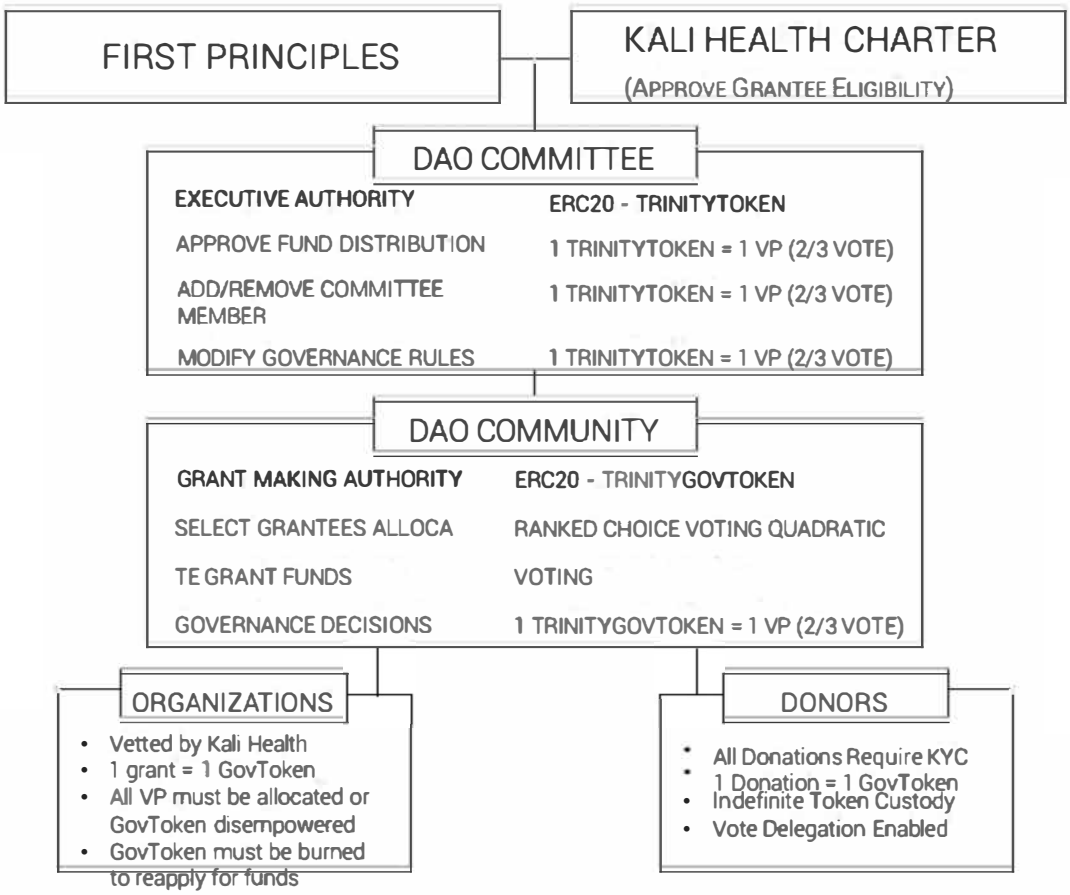
Donate Make a tax deductible donation to the Kali DAO Treasury and receive DAO governance tokens

Fund Receive funding from Trinity DAO accompanied by a DAO governance token

Govern Vote on giving preferences and the direct distribution of funds to healthcare projects. Grantees become decision-makers for future grants.

Grow Engage on- and offline with the Kali Health community and propagate healthcare culture.

9.4 Trinity DAO Architecture



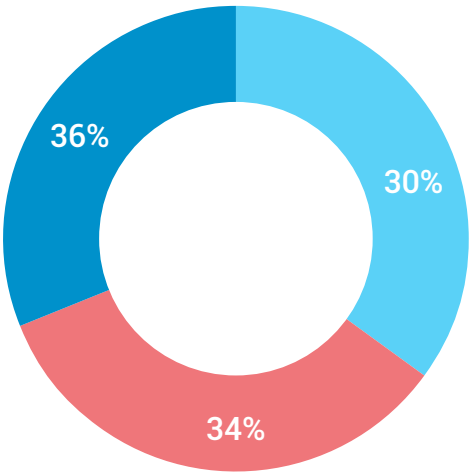
10 Token Economics

Kali Health's IDO will be a capped emission of **1 million tokens (1,000,000) .** Kali Health will be issuing a max of **1 billion (1,000,000,000) ERC20 tokens**, called $KALI Tokens, to create a new blockchain based healthcare ecosystem.

These tokens will be offered in a Crowdsale to allow participants to purchase $KALI Tokens early as well as contribute and support the further development of Kali Health. Starting on 1st October, 2022, participants will have the ability to contribute and receive $KALI Tokens in exchange in any of these Decentralized Exchanges: Binance, Uniswap.or PancakeSwap.

During the IDO $KALI Tokens will be distributed at an exchange rate of 1 token = $0.001 equivalent in MATIC and offered before this date at a discount in a pre-sale.

1 million tokens issued



community development
crowdsale
retained by the company

Of these **1 million tokens...**

- **30%** will be offered in the pre-sale and crowdsale to investors.
- **34%** will be retained by the company, team, advisors, founders and future employees. Within this 34%...
  - **10%** reverted to DAO Trasury.
  - **8%** vesting to devs and contributors
  - **6%** reserved to token burn
  - Founders: **10%**
- **36%** will be retained for community development. Kali Health will use these tokens to help grow an ecosystem on its blockchain by educating others, supporting node holders, bringing partners onto its platform, incentives to patients, conducting pilots, and sponsoring industry leading events. This will vest over 4 years.

11 Route to market

The identified actors that will require initial onboarding include:

- Patients / Service Users
- Clinicians
- Non-Profit Node Services
- Research Institutes / Pharma

Expert patients have expressed great interest in the benefits of owning and managing their own health records. We are working with several disease-specific organisations to onboard experienced healthcare users to test the collation of data processes, alongside the user interface.

Kali Health will run several community campaigns running, on a variety of platforms to raise awareness of the project and the benefits of blockchain for healthcare users.

Communication platforms include:

- Global Events
- International Press Releases
- Sponsored Meetups
- Telegram
- Email Campaigns
- LinkedIn
- Reddit
- Twitter
- Bitcoin Chat
- LINE
- WeChat
- Kakao Talk

Communication to users is focused on safety and security of patient data. Education on blockchain technology is seen as a priority, to raise awareness, gain trust and influence adoption of Kali Health. Innovators and early adopters will be the primary target market for system trials. Influential users that witness the benefits of Kali Health will be the main catalysts for further patient onboarding.
As we continue with awareness and onboarding campaigns, Kali Health will offer a service where it will request healthcare records for consenting users. Our legal team are working with system developers to build API integration compliant with various international regulations. We acknowledge that some countries may have barriers to the decentralization of data and we are working with others to negotiate these barriers.

The data migration process would require a user to complete a short form of consent, highlighting the providers they wish to obtain records from who they had previously visited.

Physical documents will be scanned and mined for information which will then be encrypted and uploaded to data lakes. Electronic records will be standardised, encrypted and uploaded.

Kali Health is approaching clinicians individually and at an organisational level. This multilevel approach will allow for forward-thinking health providers to test the Kali Health platform throughout their service but does not exclude innovative autonomous healthcare professionals. We will work alongside clinicians to test the pilot with consenting patients and assist providers with patient-targeted marketing material to improve user adoption.

11 Route to market

The key incentives for clinical onboarding include:

Cost savings: Decreased need for repeat diagnostics, decreased administrative costs for record retrieval/ transportation, decreased risk of errors associated with inaccurate or unobtainable medical records.

Increased revenue: Access to global patients when completing chargeable telemedicine consultations complete with simultaneous up-to-date healthcare records.

Non-profit organisations with the required compliance documents and experience in handling sensitive data, will have the opportunity to partner with Kali Health. Organisations will be incentivised to act as secure nodes for holding encrypted health data.

The key incentives for node onboarding include:

Financial incentivisation: $KALI Tokens will be used to support the maintenance of the node as well as incentivise the hospital, university and/or non-profit organisation to continue acting as a node.

Public relations opportunity: To be a node for Kali Health and part of an international community of healthcare providers. An opportunity to be a leader in the future of healthcare and become involved in blockchain technology.

Research Institutes / Pharma

Kali Health is currently in discussion with several large pharmaceutical and health research organisations. These organisations will have the ability to request data from cohorts of users on Kali Health's platform, and with their consent, use their health records for research.

11.1 Looking forward

Kali Health has ambitious goals for the future.

We want to improve people's health by providing more quality of life and well-being, anywhere, on a path to longevity.

We're looking for driven people or organizations to help us realize that vision. If you're interested in joining our team or in building on our platform then please reach out to contact@iasis.tech

kalihealth

12 $KALI Token Legal and Crowdsale

12.1 General Information

The **$KALI** Token does not have the legal qualification of a security, since it does not give any rights to dividends or interests. The sale of $KALI Tokens is final and non-refundable. **$KALI** Tokens are not shares and do not give any right to participate to the general meeting of Kali Health Group. $KALI Token cannot have a performance or a particular value outside the Kali Health Group network. $KALI Token shall therefore not be used or purchased for speculative or in-vestment purposes. The purchaser of $KALI Token is aware that national securities laws, which ensure that investors are sold investments that include all the proper disclosures and are subject to regulatory scrutiny for the investors' protection, are not ap-plicable.

Anyone purchasing $KALI Token expressly ac-knowledges and represents that she/he has carefully reviewed this whitepaper and fully understands the risks, costs and benefits associated with the purchase of $KALI Token.

12.2 General Knowledge

The purchaser of $KALI Token undertakes that she/he understands and has significant experience of cryp-tocurrencies, blockchain systems and services, and that she/he fully understands the risks associated with the crowdsale as well as the mechanism related to the use of cryptocurrencies (incl. storage).

Kali Health Group shall not be responsible for any loss of $KALI Token or situations making it impossible to access $KALI Tokens, which may result from any actions or omissions of the user or any person un-dertaking to acquire $KALI Tokens, as well as in case of hacker attacks.

12.3 Risks

Acquiring **$KALI** Token and storing them involves various risks, in particular the risk that Kali Health Group may not be able to launch its operations and develop its blockchain and provide the services promised. Therefore, and prior to acquiring $KALI Tokens, any user should carefully consider the risks, costs and benefits of acquiring $KALI Token in the context of the crowdsale and, if necessary, obtain any independent advice in this regard.

Any interested person who is not in the position to accept or to understand the risks associated with the activity (incl. the risks related to the non-de-velopment of the **Kali Health** platform) or any other risks as indicated in the Terms & Conditions of the crowdsale should not acquire **$KALI** Tokens.

12.4 Disclaimer

This whitepaper shall not and cannot be considered as an invitation to enter into an investment. It does not constitute or relate in any way nor should be considered as an offering of securities in any ju-risdiction. The whitepaper does not include nor contain any information or indication that might be considered as a recommendation or that might be used to base any investment decision. This document does not constitute an offer or an in-vitation to sell shares, securities or rights belonging to Kali Health Group or any related or associated company. The $KALI Token is just a utility token which can be used only on the Kali Health Group platform and is not intended to be used as an investment.

The offering of $KALI Token on a trading platform is done in order to allow the use of the Kali Health Group platform and not for speculative purposes. The offering of $KALI Token on a trading platform is not

12 $KALI Token Legal and Crowdsale

changing the legal qualification of the token, which remains a simple means for the use of the Kali Health Group platform and is not a security.

Kali Health Group is not to be considered as advisor in any legal, tax or fina cial matters. Any information in the whitepaper is given for general information purpose only and Kali Health Group does not provide with any warranty as to the accuracy and completeness of this information. Given the lack of crypto-token qualifications in most countries, each buyer is strongly advised to carry out a legal and tax analysis concerning the purchase and ownership of Kali Health's Tokens according to their nationality and place of residence.

Kali Health Group today is not a financial intermediary according to Swiss Law and is not required to obtain any authorization for Anti-Money Laundering purpose. This qualification may change in case Kali Health Group will offer services which are to be considered as qualifying a financial intermediation activity. In this case, the use of Kali Health Group services may require the positive conclusion of an AML/KYC identification p ocess.

$KALI Tokens confer no direct or indirect right to Kali Health Group's capital or income, nor does it confer any governance right within Kali Health Group; a $KALI Token is not proof of ownership or a right of control over Kali Health Group and does not grant the con-trolling individual any asset or share in Kali Health Group, or in the Kali Health Group network. A $KALI Token does not grant any right to participate in control over Kali Health Group's management or decision-making set-up, or over the Kali Health Group network and governance to the purchasers.

Regulatory authorities are carefully scrutinizing businesses and operations associated with cryptocurrencies in the world. In that respect, regulatory measures, investigations or actions may impact Kali Health Group's business and even limit or prevent it from de-veloping its operations in the future. Any person undertaking to acquire $KALI Token must be aware of the Kali Health Group business model, the whitepaper or Terms & Conditions may change or need to be modified because of new regulatory and compliance re-quirements from any applicable laws in any jurisdictions.

12.0 $KALI Token Legal and Crowdsale

In such a case, purchasers and anyone undertaking to acquire $KALI Token acknowledge and understand that neither Kali Health Group nor any of its affiliate shall be held liable for any direct or indirect loss or damage caused by such changes.

Kali Health Group will do its utmost to launch its operations and develop the Kali Health Group platform. Anyone undertaking to acquire $KALI Token acknowledges and understands that Kali Health Group does not provide any guarantee that it will manage to achieve it. On concluding the Commercial Operation, these tokens will be issued by a technical process referred to as a «Blockchain». This is an open source IT protocol over which the Company has no rights or liability in terms of its development and operation.

The token distribution mechanism will be controlled by a Smart Contract; this involves a computer program that can be executed on the Ethereum network or on a blockchain network that is compatible with Smart Contract programming language. They acknowledge and understand therefore that Kali Health Group (incl. its bodies and employees) assumes no liability or respon-sibility for any loss or damage that would result from or relate to the incapacity to use $KALI Tokens, except in case of intentional misconduct or gross negligence.

$KALI Tokens is based on the Ethereum protocol. Therefore, any malfunction, unplanned function or unexpected operation of the Ethereum protocol may cause the Kali Health Group network or Kali Health Group to malfunction or operate in a way that is not expected. Ether, the native Ethereum Protocol account unit may itself lose value in a similar way to $KALI Tokens, and also in other ways.

12.5 Representation and warranties

By participating in the crowdsale, the purchaser agrees to the above and in particular, they represent and warrant that they:

- have read carefully the Terms & Conditions attached to the whitepaper; agree to their full contents and accept to be legally bound by them;
- are authorised and have full power to purchase $KALI Token according to the laws that apply in their jurisdiction of domicile;
- are not a U.S. citizen, resident or entity (a "U.S. Person") nor are they purchasing Kali Health Group or signing on behalf of a U.S. Person;
- are not resident in China or South Korea and nor are they purchasing $KALI Token or signing on behalf of a Chinese or South Korean resident;
- live in a jurisdiction which allows Kali Health Group to sell $KALI Token through a crowdsale without requiring any local authorization and are in compliance with the local, state, and national laws and regulations when purchasing, selling and/or using Kali Health;
- are familiar with all related regulations in the specific jurisdiction in which they are based and that purchasing cryptographic tokens in that jurisdiction is not prohibited, restricted or subject to additional conditions of any kind;
- will not use the crowdsale for any illegal activity, including but not limited to money laundering and the financing of terrorism;
- have sufficien knowledge about the nature of the cryptographic tokens and have significant experience with, and functional understanding of, the usage and intricacies of dealing with cryptographic tokens and currencies and blockchain-based systems and services;
- purchase $KALI Token because they wish to have access to the Kali Health Group platform;
- are not purchasing $KALI Token for the purpose of speculative investment or usage.

12.6 Governing law – Arbitration

The Client acknowledges and accepts that the Kali Health Group ICO operation is taking place within a Swiss legal environment that is still under development. The Parties agree to seek an amicable settlement prior to bringing any legal action. All disputes arising with the with papers provided, shall be resolved by arbitration in accordance with the Swiss Rules of International Arbitration of the Swiss Chambers of Commerce in force on the date when the Notice of Arbitration is submitted in accordance with these Rules. The arbitration panel shall consist of one arbitrator only. The seat of the arbitration shall be Lugano, Switzerland. The arbitral proceedings shall be conducted in English.

$KALI Tokens will not be listed on any regulated stock exchange, such as SIX Swiss Exchange, or SIX. These Terms have been prepared without regard to the legal standards for prospectuses under art. 1156 or art. 652a of the Swiss Code of Obligations or the legal standards for facilitated prospectuses under art. 5 of the Collective Investment Schemes Act ("CISA") or art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange in Switzerland.

Neither these Terms nor any other material relating to the Offer, Kali Health Group or $KALI Tokens will be or have been filed with or approved by any Swiss regulatory authority. Specificall , these Terms will not be filed with, and the Offer of $KALI Tokens will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA). Furthermore, the Offer of $KALI Tokens has not been and will not be authorised under the CISA. Thus, the protection which is given to purchasers of interests or units in collective in-vestment schemes under the CISA does not extend to purchasers of $KALI Tokens.