



ABSTRACT

DON'T JOKE WITH YOUR HEALTH.

Health is wealth. Our health is regarded as our greatest asset. However, due to the world's fragmented healthcare system in specialized medicine and complexities in system design and deliverables, we are often forced to trade it away.

Many healthcare systems are slow and inefficient; they favor some to the exclusion of others. There is a lack of transparency around the right specialists, the misdiagnosis rate is high, and the best medical care isn't centralised in one place due to sub-specialization. Similarly, there is limited physical access to some of the most proficient medical practitioners in the world.

INTRODUCTION

There are challenges around a lack of technology or a lack of access to technology, poor communication, lack of standardization, and case-relevant information exchange. These issues have effect on patient-to-doctor, patient-to-patient communication, the knowledge transfer between medical practitioners and better research for future treatment discoveries.

Highlighted below are the most pressing challenges that every patient faces, in life threatening conditions:

- patients don't benefit from the expertise available around the world
- there is increase in demand for the unification of the healthcare experience, data and security.
- every case could help others through coordinated research.

In line with this, Earthmedz has been created to be an agent of this change. Earthmedz is a patient-led and doctor-guided cooperative focused on life threatening diseases. Its aim is to source the best methodologies for delivering improved health outcomes for patients, and also to ensure that these are accessible to patients all over the world.

Earthmedz is empowering everyone, everywhere with knowledge and access to the best medical care in specialized medicine.

With Earthmedz, patients, medical practitioners and the entire health ecosystem are connected directly with one another; a direct link from a patient in one country to the right specialist in another, delivering the right diagnoses and the right patient. Every step of the healthcare experience supported and made available to everyone through an integrated medical ecosystem of healthcare providers.

THE PROBLEM

No doubt, the provision of Healthcare as far as specialized medicine is concerned, is fragmented all around the world. There are numerous challenges impacting on healthcare excellence globally, some of which are:

- it is fragmented
- there is limited access to the right medical care due to a shortage of specialists or in some cases, a lack of medical investment. Some countries face more complex conditions than others, creating an unequal weight in medical care.
- there is a growing global wave of sub-specialties in healthcare which means that the right expertise isn't available everywhere.
- there is a lack of transparency around the right specialists and a lack of evidence-based evaluation metrics.
- there is a lack of collaboration and transfer of knowledge between medical practitioners, with the exception of Central Europe, US, Canada and Japan.
- there is increased patient awareness around misdiagnosis - the figures are staggering as around 20% of patients around the world are misdiagnosed, even more worryingly 44% of cancer patients are misdiagnosed.

IMPROVING EFFICIENCY THROUGH INTEROPERABILITY AND STANDARDISATION.

The quest for quality and efficiency in healthcare revolves round experience, dedication, quality, honesty and feedback. The experience of a patient, doctor, hospital or any other entity (either pharmaceutical, insurance companies or research institutions) is based on the quality determined by the simplicity,

effectiveness, exactness and resolution of every task performed or piece of information analyzed.

Numerous feedback loops are necessary - it is important to ask questions, find solutions, analyze information and improve future outcomes. However, current methods and practices are just too slow and too inefficient.

For instance, patients dying from cancer cannot wait 10 years until the specialists find a solution or a way out. They cannot wait for approval from interest groups regulators and governments.

Similarly, we also need to provide doctors and patients with a platform whereby they can be smarter and question their choices and their ideas. Indeed, there can be no improvement if we blindly follow the system.

Presently, the lack of standardization presents the biggest obstacle in the interoperability of the system across the individual and the organizational level. It doesn't matter if this is on a local, regional or global scale, as each entity uses different platforms and most of the data is not yet digitized and accessible.

This is impacting on medical research outcomes owing to the fact that there is limited access to raw population health data coupled with inconsistent rules and permissions for accessing patient data. Similarly, there is the problem of varying data standards which reduce interoperability as a consequence of non-compatibility between systems.

There is also the issue of privacy and security such as confidentiality of protected health information and protecting personal data from hacking attacks, as well as fraud and abuse or rather, misuse of this information.

EARTHMEDZ AS THE SOLUTION

Earthmedz is a decentralized patient- and doctor-driven cooperative which focuses on life-threatening or rare diseases. It is tailored to support the unification of healthcare to ensure the provision of the best medical care to everyone, everywhere.

Earthmedz is designed to incorporate an ecosystem of healthcare related services led by the whole community of patients, world leading doctors and specialists, caretakers and all those interested in contributing to radically improved health outcomes.

OUR VISION

The Four cardinal points of the Earthmedz vision can be highlighted thus:

- **to empower patients** by providing them with knowledge and access to the right expertise worldwide.
- **to help patients access expertise** from across the globe in a decentralized healthcare system that assures better treatment provision.
- **to support the unification of healthcare experiences** for better data collection and improved global research.
- **to support better data security** within healthcare.

INFORMATION AND KNOWLEDGE ARE KEYS IN UNLOCKING THE RIGHT DECISIONS IN HEALTHCARE.

Earthmedz is focused on bringing transparency and equality to healthcare. We intend to achieve this by supporting and funding projects that map world

leading specialists in life-threatening and rare conditions per country, thereby empowering patients as they can find the right specialists. Simultaneously, we will be creating a network of collaborating doctor specialists that are sharing knowledge and providing every patient with access to the right information before any health decisions are taken.

We also envisaged that a decentralized healthcare ecosystem is necessary to access and execute better treatment provision. While accessing the right medical knowledge is the first step in the fight, the second step is to be able to access the healthcare providers on time and in an easy and simple way. As such, a vertically integrated healthcare services ecosystem is vital for the execution of patient treatment and exceptional medical care provision. The Earthmedz ecosystem will comprise of hospitals, healthcare centers, diagnostic labs, pharmacies, insurance organisations, research institutions, patient organisations and other relevant stakeholders that could benefit from the ecosystem.

ETD TOKEN: UNLIMITED ACCESS TO QUALITY HEALTHCARE.

Earthmedz is set to introduce a common currency within the ecosystem that will be called ETD token. ETD token will be used as a utility coin, engagement reward coin and subsidized payment method for transactions within the ecosystem.

ETD token will unlock access to the ecosystem and will command quality specialist care. ETD token will have different utilities based on the partner joining the ecosystem.

BLOCKCHAIN: THE ROAD TO RECOVERY FOR AN ECOSYSTEM THAT BATTLES WITH A LACK OF STANDARDISATION.

Advancements in the health sector have impacted on people throughout the world and continued work into improving the quality of health must become an international effort of vital importance for all.

Healthcare quality improvements have always occurred as a consequence of a series of seemingly unrelated developments, including innovation in healthcare financing, care delivery and workforce diversity. At the same time, emerging diseases have provided the stimulus for much of the activity, and overcoming a disease has removed many barriers. For instance, overcoming yellow fever facilitated the construction of the Panama Canal in the early 1900s.

Learning from history, healthcare has always benefited from embracing change, incorporating it into the system and challenging diseases one at a time.

Today, blockchain is the change agent that can make all the difference in almost every field and detail of the system as a whole, drastically improving its simplicity, security and efficiency.

With blockchain, we can turn healthcare into an interconnected ecosystem, where standardization of processes, data and services propels its efficiency and a place where information is embedded in digital code. This code is stored in transparent, shared databases where they are securely protected from deletion, tampering, and revision.

This kind of healthcare means that every agreement, every process, every task and every transaction would have a digital record and signature that could be identified, validated, stored and shared. Individuals, organizations, machines and

algorithms would freely transact and interact with one another with little friction. This is the immense potential of blockchain.

Connected world-leading specialists and hospitals can benefit from the knowledge, experience and infrastructure that reside around the world. Connected patient data can contribute to better outcomes for patients (everyone benefits from sharing information) and research organizations can benefit from access to data within a secure and independent plug & play system that is available to all participants.

Here are the Blockchain specific applications to enhance the Earthmedz ecosystem:

- Increased interoperability of digital patient health records is required between systems to foster easier data sharing and better data research. Each party has a record linked to the original record that is registered to the blockchain. This way, everyone who has the appropriate role and responsibility can append information to the record and avoid issues such as inconsistent or duplicate records.
- Better control over data both for doctors and patients via data integrity and immutability. Each event on the blockchain has a unique hash corresponding to the contents of a record. This means users can verify if the contents of the record have been changed or not and only authorized users may access record information.
- Better data security and storage (ETD Vault) due to a peer-to-peer decentralized storage system holding shredded and encrypted data on dispersed servers connected with Ethereum blockchain. Users such as hospitals, clinics and others will have the opportunity to customize the storage of data according to geo location regulatory requirements and

through the use of smart contracts that showcase where the data is stored and by whom it's stored.

ECOSYSTEM

PURPOSE OF THE TOKEN BASED ON ETHEREUM BLOCKCHAIN

Our ETD tokens are an atomic unit of value for exchange within the Earthmedz ecosystem and will be issued on the public Ethereum blockchain as an ERC20 tokens.

Envisioned as a general purpose cryptocurrency for use in specialized healthcare-related services, ETD tokens will be used for all transactions within the Earthmedz ecosystem - a decentralized network built on the Ethereum blockchain.

The ERC20 token interface allows for the deployment of a standard token that is compatible with the existing infrastructure of the Ethereum ecosystem, such as development tools, wallets, and exchanges.

The main purpose of the Earthmedz ecosystem is to provide the required infrastructure to connect patients to medical service providers using one currency and method of payment to ensure the process remains seamless and accessible.

The Ethereum blockchain is currently the most relevant programmable blockchain platform allowing for the deployment of smart contracts which form the main component of the Earthmedz network. Ethereum's ability to securely store and run trustless smart contracts enables complex issuance rules for cryptocurrencies, digital financial contracts and automated incentive structures.

These advanced features and the active ecosystem make Ethereum a natural fit for the creation of ETD tokens. Ethereum smart contracts are programs run on a blockchain with unique attributes compared to other forms of software. The program itself is recorded on the blockchain, which gives it characteristics like

permanence, censorship resistance and irreversibility. What this means in essence, is that any line written in the smart contract will always be present and cannot be modified at a later stage.

As the number of users and service providers within the decentralized Earthmedz network grow, a variety of new services can be expected. Service providers joining the service can use the services of other member organizations, combining offerings and solutions to develop new methodologies and practices that are currently not available or possible. Thus, the more the service providers, the more options.

We envision anything from centralized medical service providers like hospitals, clinics and diagnostic centers, to decentralized patient-to-patient or doctor-to-doctor communities, decentralized medical record keeping, web-based educational institutions, specialized AI (artificial intelligence) companies and other services aiming to improve positive outcomes in specialized medicine.

ETD VAULT – CUSTOMISED PRIVATE STORAGE ON A PUBLIC BLOCKCHAIN

Today, data is probably the most valuable asset. At Earthmedz, we are conscious of data security and so are our clients. We are dealing with patient's personal information and medical records and as such, data security is a delicate matter. Legislation enforces the appropriate use of medical data. Furthermore, hospitals and clinics demand the best storage solutions on the market.

Earthmedz is here to meet these demands when it comes to data storage and security. In Earthmedz, our storage system will run on a decentralised public blockchain network, data on the other hand, will be stored on private storage servers owned by hospitals and clinics.

The ETD Vault will be based on open source software developed for project Storj.io.

Storj.io is blockchain-based, end-to-end encrypted, distributed object storage, where only the uploader has access to uploaded data. It uses peer-to-peer technology to enable fast, high availability and cheap storage service. This is how it works; Storj users can provide storage and rent out their excess hard drive space in exchange for a reward. These users are referred to as farmers. Users allocate a portion of their available hard drive space and specify a folder on their drive to store network data.

Storj's system is designed in a way that each file is shredded, encrypted and stored on a distributed network of private computers. It is encrypted by uploader's key that is kept secret even to the Storj platform.

This space stores small encrypted shards of Storj users' files. This means that no farmer holds the entire file that a user uploaded, and because the file is encrypted it's unlikely that the farmer could read it anyway.

The first step of Earthmedz's mission is to create a blockchain environment for storing medical records and Storj is the ideal tool to achieving the first step towards this goal. We have created a platform where medical records will be securely stored on a peer-to-peer network and blockchain will serve as management layer assuring of data integrity and immutability.

In order to fully comply with Earthmedz platform functionality an adapter layer for integration will need to be developed. An interface that will allow patients, data uploaders, to securely share a data access key with a respective doctor or on the Earthmedz platform. Moreover, the interface will enable patients to easily anonymise parts of the data and share it with other Earthmedz platform users or for medical research.

TOKENIZING THE SPECIALISED HEALTH INDUSTRY

The health industry is one of the largest sectors of our economy. With the ETD token we will tokenize all the health services, transactions and products within specialized medicine. ETD token will enable all users, patients, health service providers and other members of the medical community to operate, exchange and work together.

Earthmedz has an innovative crypto-economic structure which is intended to promote the use of our ETD token as a common healthcare currency. This economic structure is designed to create a natural incentive for owners of other healthcare related services to adopt Earthmedz and become partners in the Earthmedz ecosystem.

ETD token is designed to be a multi-layer utility token within this economy that can not only be purchased, but also earned and used as a reward for participation in the development of the ecosystem and contributions to better health outcomes, especially through data upload for better research.

ETD token is based on Ethereum blockchain which is currently the industry standard for issuing custom digital assets and smart contracts, but its utility is however, adjusted for the healthcare ecosystem within specialised medicine. ETD token's utility will evolve with the entrance of new partners to the system and it has the opportunity to disrupt one of the largest and most important industries in the world; i.e. healthcare.

Given the ecosystem is open to healthcare-related stakeholders ranging from hospitals and labs, to patient organizations, there is a tremendous potential for ETD token to be adopted and for the ecosystem to have a direct impact on quality of life

when it comes down to finding the right specialists and being able to access healthcare-related services in a simple, transparent and secure way.

ETD TOKEN UTILITY DESCRIPTION

Apart from being the preferred currency used to access services within the Earthmedz health Network, ETD token can also be regarded as a store of value intended to reward early adopters and patients and service providers as the Earthmedz Network grows.

ETD tokens are set to become a personal key to a unique network for specialized medicine stored on the user's Ethereum wallet. General token utilities are the following:

- Subsidized payment currency. ETD token will be used as a subsidized payment currency for the ecosystem. Generally, ETD token will be a subsidized currency of choice for any health related services or products in specialized medicine within the ecosystem such as paying for specialist consultations, diagnostics, treatments and universal health insurance.

ETD token will be used to pay for the services available within the Earthmedz ecosystem.

Service providers will be paid with ETD token and the research labs will pay for data with the tokens.

- ETD token will be used as an Engagement reward coin
- Similarly, they will be used as Research coin
- Also, ETD token will be used as storage coin
- It will also be used as Access coin for providers

WHO CAN HOLD THE COINS

PATIENTS

Patients who are registered users and active users of the Earthmedz Network will play the main role in the evolution and growth of the Earthmedz Network and the services it provides. By holding ETD token, patients will be able to:

- rate service providers as well as approve new service providers that are afterwards automatically accepted into the Earthmedz network. Please note that initially, this governance rule power will be centralised in the hands of Earthmedz, and later it will be gradually passed on to patient users as network adoption grows. The goal of Earthmedz is to create a network for specialized medicine that revolves around the needs of the patient and the quality of the services it provides.
- have access to the anonymised uploaded research data about the disease or any data they are interested in so that they can freely contribute to any new findings or discoveries.
- vote on the disease list to be further developed within the ecosystem.

DOCTORS

By holding the coins, doctors will have access to the anonymised uploaded research data about the disease, or any data they are interested in, so that they can freely contribute to any new findings or discoveries. Active users earning and holding coins would also have a privilege access to other services being offered in the ecosystem.

OTHER PARTNERS & STAKEHOLDERS

The Earthmedz Network also welcomes any services that can bring value to specialized medicine patients. These services may include, but is not limited to, hospitals, clinics, pharmacies, diagnostic centers, patient organizations, insurances, hospice homes, patient care, educational facilities, community groups and more.

Joining the Earthmedz Network as a homogenous service provider as opposed to one of the world-leading specialists featured on the website is subject to a one-time onboarding membership fee payment. When becoming a member, service providers will receive ETD tokens as proof of membership, effectively becoming stakeholders in the network.

Furthermore, to provide their services to patients, the service providers must hold a certain unit of ETD tokens on their registered ethereum wallet account. The Earthmedz Foundation will initially decide the inclusion of a provider into the network. In the future, there will be a decentralized algorithm judging the eligibility of health service providers based on excellence and customer service as voted by patients.

CROWDSALE INCENTIVES

By contributing to our crowdsale initiative, users are also contributing to better knowledge, transparency, understanding into life-threatening diseases, access to specialists around the world, and an ecosystem that surrounds it all. Participation provides patients with an immediate control over their treatment and makes the best medical care accessible for everyone, everywhere virtually and it is all supported by blockchain.

All participants in the Earthmedz crowdsale will receive the option to vote which diseases will be listed on the platform:

- voting power depends on ETD tokens owned at time of voting

- voting available only to contributing Ethereum wallet addresses

Contributors above a certain amount of ETD tokens will also be awarded with permanent health access premium accounts.

ETD TOKEN INFO

- Token name: **ETD**
- Total Volume: **200Million ETD**
- Tokens on public offering: **150Million ETD**
- Blockchain: **Ethereum (ERC-20)**
- Currency Accepted: **ETH & BTC**
- ETD total supply is two hundred million (200,000,000).
- 150 million token will be allocated into our Public sale.
- 16 million token will be reserved for the team and our advisors
- 14 million token will be allocated into our Airdrop & Bounty program
- 20 million token will be in the Company reserve
- Soft Cap: \$3M
- Hard Cap: \$20M

Public sale will be in four stages:

- Stage 1: 1 ETD = \$0.12 for the 1st 40 million token
- Stage 2: 1 ETD = \$0.13 for the 2nd 40 million token
- Stage 3: 1 ETD = \$0.14 for the 3rd 40 million token
- Stage 4: 1 ETD = \$0.15 for the last 30 million token

Sales will last for 4 weeks or when Hard cap is reached.

During our public sale, users stand a chance of getting a 10% bonus when their referred user(s) make a purchase of ETD token.

All unsold tokens during ICO will be locked for two years and reserved for community growth.

MEET OUR TEAM

James Smith. CEO

James Smith is an established and highly skilled financial advisor and business man. He obtained a Bachelor degree in Business Management and Commerce from the University of Queensland and a Masters in Business from the same Institution. His remarkable skills in leadership, marketing, information systems, innovation, entrepreneurship, sustainability and supply chain management have earned him numerous accolades for his quality Services.

He's a member of Financial Services Institute of Australasia (FINSIA) and a founding member of Jones Holdings, Rockhampton. James Smith's passion is built by the drive to create successful entrepreneurs.

Ryan L. Anderson. Co-founder

Dr Ryan Anderson is an established and highly skilled physician with over fifteen years of experience in Ophthalmic surgery with special interest in corneal transplant, laser refractive procedure and cataract surgery. He holds a degree in Bachelor of Vision Science/Master of Optometry from Queensland University of Technology. He's a registered member of the Optometry board of Australia. He's a founding member of Precision HAMIK group, chief of Ophthalmology at Alpha Hospital Queensland. In addition to his surgical practice, he's a member of Vision Health International.

Mark Hughes. Project Manager

Diligent project manager offering a proven record of success leading all phases of diverse technology projects; BS, MBA, PMP and computer programming and business finance experience.

Business strategist; plan and manage multimillion-dollar projects aligning business goals with technology solutions to drive process improvements, competitive advantage and bottom-line gains.

Excellent communicator; leverage technical, business and financial acumen to communicate effectively with client executives and their respective teams.

Expert in agile and waterfall project management methodologies and also known for ability to produce high-quality deliverables that meets or exceeds timeline and budgetary targets.

SKILLS SUMMARY

Project Management:

- Custom Software Development
- Database Design
- Systems Engineering
- System Migrations/Integrations
- Enterprise wide Implementations

IT Project Lifecycle:

- Requirements Analysis
- ROI Analysis
- Costing & Budgeting
- Project Scheduling
- Testing/QA/Rollout/Support

Value-Added Leadership:

- Cross-Functional Supervision

- Team Building & Mentoring
- Client Relations & Presentations
- Business & IT Planning
- Vendor Management

CAREER PROGRESSION:

- HADDEN GROUPS
- Senior Project Manager, 2009 to Present
- FARD CONSULTING Manager, 2007 to 2009

EDUCATION & CREDENTIALS:

- BS in CIS. University Of Melbourne (Melbourne, AU)
- MBA in Project Management. University Of Technology Sydney (UTS) (Sydney, AU)
- Project Management Professional (PMP), Project Management Institute (PMI)

Amelia Wilson. Digital Marketer

Amelia Wilson is originally from Wodonga, Victoria. She received her Bachelor degree of Commerce in Marketing from the University of Melbourne. Amelia's interests are identifying goods and services, positioning organizations strategically in market and determining the best way to reach and satisfy customers' desire. Her drive for excellence created the platform for her vast knowledge in digital marketing. For about a decade, she has been advising and advertising numerous projects on social platforms

Adrian Benjamin. Technical Lead

Adrian Benjamin is an experienced IT team leader, he possesses excellent leadership skills and a highly analytical focus, with vast knowledge on crypto currency, sound communication skills and good ability to multitask allow for skilled delivery of IT solutions.

SKILLS/EXPERIENCE:

- Led IT Team across a variety of projects.
- Collaborated with IT Project Managers to develop focused plans and solutions.
- Managed systems installations and implementations.
- Ensured deadlines are successfully met.
- Involved individual IT team members in decision-making process through meetings.
- Addressed identified problem areas and devised approach methodologies.
- Supervised an IT team of 50 people.
- Led IT team across a broad range of technology projects.
- Worked with individual IT project managers to ensure goals were aligned.

EDUCATION AND CREDENTIALS

- BS in Information Technology, Singapore University of Science and Technology (SUTD), (Singapore).
- Four years of progressively responsible positions in IT Team Leader roles.

CAREER PROGRESSION

- TAD Technologies - Technical Lead, 2014 to Present
- EKMA Tech Solutions- Tech Supervisor 2013 to 2014

Tim D. Shaw. Adviser

He is an internationally recognized leader in the impact of technology on healthcare and translation of evidence into practice and policy. He works at the

interface between quality improvement, professional development and implementation science to ensure the rapid and sustained uptake of innovation. Over the last 5 years CI Shaw has been CI on over 20 grants and consultancies totaling over \$4M.

He leads implementation science across two Translational Cancer Research Centers which combines the full spectrum of his translational research experience from basic research through to application of evidence into practice.

He is Chair of the Evidence to Practice working party, Sydney Catalyst Translational Cancer Research Centre and CIA on the Sydney Catalyst flagship research project 'Closing the Evidence Practice Gap in Lung Cancer'. He is leading the development of the Data Innovation Lab in Cancer in Johnson's Hospital focused on the downstream use of EMR data for performance improvement.

He has an active international program working with Partners Healthcare and the Dana Farber Cancer Institute.

He began his career as a biomedical research scientist. He then took non-academic leadership roles in developing a number of substantial professional health education and quality improvement programs in Australia and internationally, ultimately setting up the successful Centre for Innovation in Professional Health Education and Research at the University of Sydney. He spent 12 months as an invited Visiting Professor at Harvard Medical School.

Tim works closely with a wide range of government organizations and industry groups including the Clinical Excellence Commission, eHealth NSW, the Cancer Institute NSW. These grants include investigation of the impact of a variety of interventions on behavior and patient outcomes including audit and feedback and targeted use of new technologies. He also oversees an active consultancy program working with governments, professional colleges and service providers. This has included the Development of innovative approaches to using adverse event data to improve outcomes in collaboration with national and international partners and the development of substantial learning programs such as the development of the Cancer Learning Knowledge portal for the Cancer Australia.

CONCLUSION

The time has come for the best medical care to be made available to anyone anywhere. The waiting is over, this is the moment that healthcare needs to become decentralized, standardized, effective and user-friendly by making specialized medicine is accessible to everyone, everywhere around the world.

This is the moment when we break the barriers of healthcare fragmentation and lack of transparency. This is the moment when every patient is empowered to have access to the right specialists, empowered to know everything and find the right doctor. When they can navigate the complexities of a life-threatening disease and have a control over their treatment, irrespective of their location.

Using the blockchain technology, Earthmedz is here with an everlasting solution. Blockchain is the tech security solution that can help healthcare democratize data by allowing digital information to be distributed far and beyond. Through a decentralized approach, it has the potential of securing data that can be accessed and engaged while helping us to deliver better health outcomes for all. Be a part of the change, support our vision.