Abstract

With the ever-increasing popularity of blockchain technology, the cryptocurrency market has become saturated with solutions mainly focused on global payment systems. Blockchain technology is unencumbered as it permeates almost every industry making it possible to offer solutions beyond payment processing, asset tokenization (RWA), gaming, cloud storage, supply chain management, and insurance, amongst other uses. Meico aims to revive the manufacturing sector of developing economies (Africa) by focusing on value addition to bolster gross domestic product (GDP). Africa is the second largest and most populous continent after Asia, constituting about 18% of the world's population. However, in terms of GDP, Africa takes less than 3% of the world's total GDP, which is a cause for concern when we look at GDP per capita as a measure of living standards.

Africa has five regions, east, southern, central, west, and north producing and exporting a multitude of raw materials (minerals, agricultural produce) to various parts of the world. Consequentially, a more significant imbalance exists between Africa and the rest of the world in economic development (industrialisation). The opportunity for Africa to rise and become a strong participant in the global economy lies majorly in value addition.

What the developed world has achieved can be replicated on the African continent. The continent has a plethora of resources, which means untapped potential for Africa and the rest of the world. Adopting a culture of value addition by focusing on various strategic industrial sectors, Meico will facilitate the establishment of new businesses and revamp the already existing manufacturing sector. New technologies coming out of the continent are to be supported and given space to thrive. There are myriad problems on the African continent, and a constellation of solutions to these problems also exists. *The ultimate goal of Meico is to achieve a near-total economic self-sufficiency for the African continent.*

What is Meico?

Meico is an institutional grade layer zero (L0) blockchain designed to host various layer one (L1) blockchains. It has a high level of decentralisation, scalability, security, and censorship resistance. These L1s allow developers to build and launch Decentralised Applications (DApps) that are not tethered to the underlying protocols of their host blockchain.

Meico, proposed in 2022 and established in 2025, aims at building from the ground up a blockchain platform upon which African economies can accelerate economic growth. To stimulate a radical rethink much needed for the industrialisation of Africa, a fundamentally different course leveraging the fusion of blockchain technology with creativity and ingenuity would be established.

What makes Meico Chain unique?

Meico chain as a permissioned hybrid blockchain network employing the Stellar Consensus Protocol (Federated Byzantine Agreement), organisations developing on the network are at liberty to control what data can be accessed publicly and what will not be opened publicly. A fixed supply is also guaranteed as the chain does not use a reward system for validators.

The platform uses a dual token system comprising two native coins Meico and Meico stablecoin. Unlike most stablecoin initiatives that are governed by the host chain's underlying protocols, Meico stablecoin is a native of its network, making it possible to transact without the requirement of gas fees, ultimately making it convenient as opposed to the case whereby two parties to a transaction are required to load their wallets with gas fees before transacting. A fixed percentage fee on stablecoin transactions substitutes gas fees, making it convenient to transact in any mercantile activity so also eliminating the tedious activity of funding wallets with gas fees for transactions to sail through. Sending Meico stable coin peer-to-peer will be as easy as sending USD using traditional payment gateways like PayPal, Mastercard, etc. Meico, the utility coin of the Meico chain will be used to finance activities of the entire ecosystem including governance while the Meico stable coin will be most suitable for remittances, medium of exchange, trading of tokenized assets, and store of value.

Meico Ecosystem

The platform will operate on a dual token system, Meico native coin and a stablecoin. The stablecoin will be a more efficient basis for remittances, payments on the Meico B2B platform, and trading of tokenized equity on centralised exchanges. Coupled with the blockchain will be an exchange platform to facilitate free participation in the crypto space. Point-of-sale machines and debit cards are to be introduced. A freight arm will be incorporated to expedite the movement of goods, which will resultantly heighten intra-Africa trade volumes. An institute will be established for research and development, nurturing new innovations, and technical training. There is a need to bring together creative minds strewn all over the continent to come up with tools, techniques, methods, and systems to solve problems and achieve continental industrial objectives. Tokenization of equities (RWA) of nascent innovation companies becomes imperative as it would streamline access to capital before those companies can self-fund. With tokenization, strict entry restrictions and expensive barriers to entry that are common in traditional markets would also be eliminated, paving the way for a new breed of investors who can easily access tokens on crypto markets.

B2B Platform

Currently, B2B platforms on the continent lack adequate infrastructure to facilitate the smooth movement of merchandise. In some instances, distribution channels and interconnectedness between and amongst territories are absent as opposed to the case of other continents. Meico acts as an intermediary between buyers and sellers, simplifying procurement and sales between and amongst businesses. The Meico B2B marketplace is designed to boost intra-continental trade through its distribution networks, infrastructure, and crypto payment railway.

Exchange Platform

Centralized crypto exchange platforms usually operate under the rules and obligations of different jurisdictions within which they do business. Meico will comply with the regulations of various African countries to offer crypto products to the market. The goal is to ensure that everyone on the African continent has access to cryptocurrency markets regardless of cultural differences, race, and geographical location. Tokenized assets and equities would be accessible to almost everyone.

Shipping company

Reduction of transit times for goods shipped across borders is paramount for economic growth. Adequate shipping infrastructure is important for the production and distribution of goods across the entire continent. Meico shipping will significantly reduce costs and time associated with shipping. Trade volumes will substantially increase and open more channels of distribution. DePINs for freight services will incentivize providers of shipping infrastructure to offer reliable services at affordable prices to streamline the movement of goods across the continent. Meico's goal is to ensure that goods are delivered just in time.

Research Institute

The world is facing a new wave of technological changes which require every country to adapt to those changes. Africa is lagging far behind other continents despite being bestowed with abundant minerals, good climatic conditions, vast fertile arable lands, and many other free gifts of nature. Impairment of knowledge and skills accumulated over the past decades elicits the establishment of a research institute to mainly focus on transforming existing inventions into practical processes and products that have real-world utility. Meico will establish a research institute that will equip thousands of people with knowledge and skills that are fundamental to the development of new technologies on the continent. Innovations spawned by embarking on this path would create employment opportunities and ensure that all resources are used to their full potential. A near-total economic self-sufficiency would be achieved on a continental level.

Meico Pay

An online money transfer application offers a secure payment gateway to users and consumers on the B2B platform. Meico Pay will provide fiat on-ramps and off-ramps, making it possible and easy for users to move money from fiat to crypto and crypto to fiat. The minuscule fees and convenience provided facilitate the mass adoption of cryptocurrencies.

DePINs for renewable energy

Powering the African industrial sector's heavy machinery requires vast amounts of energy. Energy has undoubtedly become the determining factor in the modern-day industrial revolution. Fossil fuels and other sources of energy have proven to be harmful to our environment hence the need for greener and more cost-efficient sources of energy. The world is moving toward more environmentally friendly energy sources. *The development of Africa's industrial sector has a profound impact on the energy demand.*

Meico's plan for generating power for Africa's industries does not merely focus on generating green energy but also *cost-effective energy with an incredible capacity to power the entire industry*. Meico achieves this by incentivizing providers of new infrastructure for generating green energy through Decentralised Physical Infrastructure Networks (DePINs). The burgeoning demand for energy in Africa will not come from the growth of the manufacturing sector alone but from the rapid growth of artificial intelligence (AI) and the adoption of electric vehicles (EVs). The overall goal is to *significantly lower the cost of energy* to encourage massive production in the entire continent and the adoption of technologies that consume huge amounts of energy.

Meico energy DePIN devices will be manufactured and distributed across the entire continent to encourage the early adoption of the latest inventions in green energy generation. Through DePINs, power generation is no longer centralized. No single entity or corporation owns and manages the power generation infrastructure. Users of Meico DePIN devices are rewarded in DePIN tokens for contributing and managing power generation plants. More investment opportunities will be created in the energy production sector by Distributed Energy Resources for efficient power management.

Every African country has laws governing the generation of power. We are willing to work hand-in-glove with each governing body on the African terrain to ensure that regulatory challenges stemming from this new technology do not slow down the expansion of energy generation.

Energy is vital in both the manufacturing and services sectors of African economies. The final costs of production are substantially constituted by the cost of energy, which resultantly drives the costs upwards and, in the end, the final costs are shoved down the consumers' throats. The digital economy in Africa can grow to match other big economies if energy is prioritised in economic development. In Africa, full utilisation of AI, IoT, Fintech Applications, Blockchain, and other digital economy space applications largely depends on affordable and constantly available electricity. Meico's Distributed Energy Resources will ensure that green, inexpensive, and readily available energy is generated to power Africa's heavy industrial machinery, services sector, digital economy space, and general home use.

Why the emphasis on manufacturing?

Economic growth achieved from the continued expansion of the manufacturing sector differs diametrically from the growth that comes merely from the expansion of the services sector. Manufacturing drives economies to greater heights as exemplified by the economic growth of Great Britain, America & China. There is no way these countries could have achieved sustained economic growth at a mesmerizing rate with their significant focus on services only. In Africa, a contradictory logic is at play with priority on the services sector, probably due to the low capital outlay required to set up businesses that offer services only. Shifting focus to manufacturing now becomes imperative to achieve sustainable economic growth as opposed to a huge concentration on the services sector resulting in economies of diminishing returns. Meico has contrived a financial alchemy to steer Africa toward achieving *near-total economic self-sufficiency*. Drift from the services sector-focused approach to a culture of manufacturing will yield tremendous results in the long run, resulting in more employment opportunities, more investment opportunities, substantial infrastructural development, a substantial decrease in imports, and betterment of people's lives.

Why tokenization?

Tokenization benefits those purchasing tokenized assets and those issuing them. Individuals purchasing these assets have easy access to financial products compared to traditional finance whereby one must go through a tedious process to get accepted into the financial system. Individuals have control over their assets, and have the right to self-custody, making it possible to store their assets in wallets of their choice and keep private keys. Moreover, they can use those assets as collateral and transfer them anytime when a change of ownership is needed. Tokenization gives the owner the ability and freedom to do what they want with their tokenized assets, giving them easy and faster transferability with 24/7 availability. Several asset tokenization benefits accrue to the institutions issuing. Token issuers benefit from a large investor base as sell of fractionalized assets becomes possible. Institutions also benefit from decreased administration costs by leveraging smart contract execution. Tokenization markedly enhances issuers' liquidity and transparency to investors. Considering all these benefits Meico endeavours to provide asset tokenisation suite to African institutions and individuals on a grander scale.

Why blend different ideas?

Rapid economic growth is imperative as the continent lags too far behind the rest of the world on economic development. Meico builds a robust body of ideas and methodologies to catalyse the entire development process. Meico's objectives find their origins in expediting transaction processing for instant settlement, making haste the movement of goods, making it quick and easy to access products on a single marketplace, accelerating innovations uptake through research, and speeding up the process of accessing capital to new innovations through tokenization.

Meico Ecosystem-Table 1.1

B2B	 Market Creation - Serves as a ready marketplace for a wide range of products such as agricultural produce, new technological innovations, clothing, etc Distribution Channels - Provides an interconnected distribution network via efficient shipping methods. Cryptocurrency proliferation - People can explore the advantages of cryptocurrency via the use of crypto payment terminals.
Research Institute	Research and development.Nurturing new tech innovations
	Technical training
Meico Pay	Offers a secure payment gateway to consumers on the B2B platform coupled with minuscule transaction fees.
	 Instant settlement with a predictable fee structure Remittances made easy.
Meico Freight	Offers the much-needed underlying infrastructure for the success of B2B platforms of the African terrain.
	Streamlining the movement of goods across borders
	Reduction of costs and time prioritised.
Meico Exchange	Free participation in the crypto space.
	 Offering new products to marginalised territories on a global scale.
	 Access and trading of tokenized assets and equities made easy.