INATBA REPORT

Blockchain for Sustainable Impact: Unveiling Latin America's Innovations

Exploring Diverse Projects, Driving Collaboration, and Nurturing a Greener Future

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SOCIAL IMPACT AND SUSTAINABILITY WORKING GROUP,
LACCHAIN
& POSITIVEBLOCKCHAIN

INATBA
International Association for Trusted Blockchain Applications

LACCHAIN

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Executive Summary

This report is the result of a collaboration between INATBA Social Impact and Sustainability Working Group members Blockchain.com, ClimateCoin, IOTA, and NYALA, the INATBA Governmental Advisory Board member LACChain, and PositiveBlockchain. This comprehensive report explores the endeavors shaping the landscape of sustainability, conservation, and social impact in Latin America (LATAM) and the Caribbean. This report shall underscore the imperative of acquiring a comprehensive understanding of initiatives and projects within the Latin America region, in light of the extant challenges stemming from constrained information dissemination. While language barriers pose obstacles, we emphasize that technology and collaboration can overcome these hindrances. The global and transnational nature of blockchain technology stresses the necessity for enhanced cooperation across regions and cultures, enabling the attainment of global-scale solutions.

Engagement with sustainability and conservation in LATAM can hold profound significance. The vast expanse of the Amazon, tropical forests, and other rich biodiverse ecosystems highlights the region's pivotal role in global biodiversity and climate resilience. The biodiversity research published by Swiftest established that Latin America hosts five of the world's most biodiverse countries. While serving as a repository of invaluable natural resources, LATAM's development economy can offer a fertile ground for innovative solutions that can promote financial empowerment, inclusion, and uplift local communities.

The Amazonas, tropical forests, and biodiverse ecosystems establish LATAM as a key stakeholder in sustainability discussions. Beyond its role as a biodiversity hotspot, LATAM's developing economies can provide a unique space to test and implement sustainability solutions, potentially fostering financial empowerment and inclusion among its people. The region's potential can extend beyond environmental conservation, shaping a future that unites economic growth, social progress, and ecological balance. We showcase projects from various LATAM countries, curated from the PositiveBlockchain and LACChain databases. The list provided is not exhaustive, recognizing the vast universe of initiatives deserving attention.

At the end we can observe that sustainability, social impact, and conservation concerns can bind humanity together. The solutions to these shared challenges do not need to be confined by geographic divisions. Instead, the vision of globalization and cross-border cooperation may be pursued. Technologies like blockchain offer the chance to enact these principles and create an interconnected world. By bringing together collaboration across various regions and cultures, we have the opportunity to shape a future driven by a shared vision that goes beyond borders, and advocates for the improvement of human well-being.

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List of Abbreviations

ACUCRIP	Association of Cryptocurrency and Blockchain Users
AEO	Authorized Economic Operators
BHP	Blockchain Hurricane Protection
CBDCs	Central Bank Digital Currencies
CREAD	Climate Resilience Execution Agency
CXC	Caribbean Examinations Council
DAO	Decentralized Autonomous Organization
DeFi	Decentralized Finance
DiD	Decentralized Identities
DCSLL	Dominica Co-operative Societies League Ltd
ECCU	Eastern Caribbean Currency Union
EVM	Ethereum Virtual Machine
GDP	Gross Domestic Product
IDB	Inter-American Development Bank Group
ICO	Initial coin offering
IMF	International Monetary Fund
IMG	International Medical Group
KYC	Know your Customer
LATAM	Latin America
NFTs	Non Fungible Tokens
PASIA	AI Startup Acceleration Program
QTS	Qualified TimeStamp
ReFi	Regenerative Finance
SaaS	Software as a service
SSI	Self-sovereign identities
UWI	University of the West Indies
VCs	Verifiable Credentials

Introduction

In today's rapidly evolving digital landscape, the significance of understanding the regional dynamics of emerging technologies cannot be understated. This report serves as an exploration into the world of blockchain projects in the LATAM region, shedding light on the strides being made, the challenges faced, and the transformative potential of these initiatives.

Blockchain technology, with its global and transnational nature can offer an example of how interconnected our world can become. The decentralized nature of blockchain inherently transcends borders, aligning perfectly with the concept of a borderless digital economy. To fully harness its potential and achieve global scalability, it's imperative to foster collaboration across regions and cultures.

The LATAM region stands at the crossroads of innovation and development, presenting unique opportunities and challenges that set it apart from other global regions. According to Maria Savona, one sector that has had many challenges in the past in LATAM is the agricultural sector. Leveraging this sector in a meaningful way through more research and innovation could offer the opportunity for increase in development in LATAM. However, one of the key obstacles to comprehensive information sharing across regions is the language barrier. While language might hinder the exchange of knowledge, it does not need to be a permanent barrier. Technology can bridge this gap, providing avenues for collaboration and information dissemination that surpass geographical and linguistic boundaries.

LATAM holds a pivotal role as a key player and stakeholder when addressing sustainability concerns on a global scale. The region's vast natural resources, including the Amazon rainforest, the Andes and the variety of different unique ecosystems, contribute significantly to the planet's overall ecological balance. The Amazon rainforest, often referred to as the "lungs of the Earth," plays a critical role in regulating climate patterns and carbon sequestration. The preservation of these ecosystems is not only vital for local biodiversity but also has far-reaching implications for global climate stability.

However, LATAM's significance in the sustainability dialogue goes beyond its ecological importance. The region's status as an emerging player in the global economy, combined with its developmental challenges, presents a unique opportunity to drive innovative solutions. As countries in the region continue to transition toward more developed economies, there is a growing need to balance economic growth with environmental stewardship. Blockchain technology emerges as a potential catalyst in achieving this equilibrium.

LATAM's combination of ecological richness and developmental potential creates a fertile ground for testing and implementing sustainable solutions. Leveraging blockchain's transparency and traceability, the region can effectively monitor and manage its valuable natural resources, ensuring responsible practices. Additionally, blockchain-powered initiatives can empower local communities by providing verifiable records of resource utilization, enabling fair compensation, and fostering financial empowerment.

In essence, LATAM's role in the sustainability narrative is two-fold: safeguarding irreplaceable ecological treasures and harnessing emerging technologies like blockchain to find novel pathways toward both environmental conservation and financial inclusion. As the world grapples with interconnected challenges, LATAM stands poised to contribute to a more sustainable future while reaping the benefits of technology-enabled progress.

By delving into the projects, challenges, and advancements within the LATAM blockchain landscape, we intend to showcase the significance of shared knowledge and collaboration in the journey towards technological transformation. Through this report, we aim to highlight not only the achievements of these projects but also the necessity of global collective effort in building a truly interconnected and inclusive digital future.

Disclaimer: *While we have strived to include a comprehensive overview of blockchain projects across the LATAM region in this report, it is important to note that our information is derived primarily from the PositiveBlockchain and the LACChain databases. Regrettably, we did not find available information about projects from specific countries such as Belize, Bolivia, Chile, Costa Rica, Cuba, Ecuador, French Guiana, Guyana, Haiti, Jamaica, Nicaragua, Panama, Paraguay, Suriname, and Venezuela within these databases. We encourage entities and individuals operating in these countries to consider contributing their projects' details to the PositiveBlockchain database or contacting INATBA through email to social-impact-wg-cochair@inatba.org.*

We are committed to fostering a broader understanding of blockchain's impact on sustainability and innovation in the LATAM region and welcome your collaboration to enhance the scope of this report.

Guidance When Reading This Report

This report is the result of a collaboration between INATBA Social Impact and Sustainability Working Group members Blockchain.com, ClimateCoin, IOTA, and NYALA, the INATBA Governmental Advisory Board member LACChain, and PositiveBlockchain. The report is further enriched by the insights and feedback of the INATBA Academic Advisory Board. The methodology employed in producing this report presents a comprehensive and informative mapping of sustainability, conservation, and social impact projects in the LATAM region.

The selection of projects featured in this report is designed to provide an insightful overview rather than an exhaustive list. The projects showcased are drawn from the databases of LACChain and PositiveBlockchain, serving as focal points of collaboration. By aggregating information from these databases, we offer a snapshot of the diverse initiatives shaping the region's sustainable landscape.

The authors of this report meticulously reviewed information available in the databases and supplemented this with data accessible through public sources on the internet. This approach ensures a holistic understanding of each project's scope, impact, and objectives. The utilization of both proprietary and publicly available information guarantees that the insights presented in this report are comprehensive and well-rounded.

A crucial aspect of our methodology involved reaching out to projects featured in the LACChain database. A survey, comprising a set of interview questions, was dispatched to 17 projects with three 3 projects providing their valuable insights, these responses form an integral part of this report. By incorporating the perspective of these projects, we enrich the report with firsthand accounts and viewpoints from those on the ground, actively working towards sustainability and social impact in the region.

In essence, this report is an example of collaborative efforts, data aggregation and direct engagement with project stakeholders. **The combination of diverse insights, mostly qualitative, results in an overview of blockchain initiatives driving positive change across the LATAM region.**

Overview of the LATAM Ecosystem

In the LATAM region, several blockchain projects have emerged, each with unique objectives and areas of focus. It's important to note that our analysis draws from the LACChain and PositiveBlockchain databases, and consequently, the projects described here predominantly utilize the LACChain blockchain for their initiatives. These projects span a wide spectrum of domains, including financial inclusion, supply chain traceability, education, environmental sustainability, and digital identity. Some initiatives, like Motiv, Mi Primer Bitcoin, and fAIrLAC Certificates, aim to educate and empower individuals by imparting knowledge about blockchain and cryptocurrencies. Additionally, projects such as Terrasos, Biotoken, and Carbon credit auction address pressing environmental concerns through carbon offset programs, conservation financing, and enhanced transparency. Several projects promote circular economies, as evident in initiatives like Bitcoin Beach and Plasticoin, which incentivize sustainability and stimulate local economic growth.

Furthermore, there are projects like Safe Islands and the RedCLARA Diploma project that have integrated blockchain technology to streamline processes related to health certificates and academic credential verification, providing efficiency gains and data integrity. Collectively, these diverse projects exemplify how blockchain technology is being strategically employed across Latin America to confront societal challenges, spur innovation, and drive positive change. The prevalent use of the LACChain network underscores its central role in supporting and facilitating many of these endeavors within the region's blockchain landscape.

Name	Country(s)	Blockchain	Goal	Main Topic
Acucrip	Guatemala	Not specified	To foster awareness and utilization of blockchain, cryptocurrencies, and ledger technologies in Central America while countering deceptive practices in the crypto space	Crypto and blockchain education
Adra Hostel	Guatemala	Bitcoin	To improve revenue streams for a hostel and stimulate the local economy through bitcoin adoption	Local economy stimulation
Agape Hands	Peru	Celo	Addressing financial exclusion and promoting economic growth, by providing unconditional basic income and enabling access to and use of cryptocurrencies for both individuals and local merchants	Financial inclusion
Agros	Peru	LACChain network	Providing rural producer organizations with blockchain-based digital identities and enabling them to participate in the global digital economy, particularly by linking farmers with financial institutions for credit access	Digital identities, financial inclusion
Agrotoken	Argentina, Brazil	Not specified (Tokenization platform)	Tokenize grains into digital assets, enable easy investment in agriculture, lower minimum investment amount, create an	Agricultural tokenization and Investment

			ecosystem for farmers, merchants, blockchain validators, and investors	
Bart.digital	Brazil	Not specified	Enhance the efficiency and transparency of financial transactions within the agricultural sector by leveraging blockchain technology	Agricultural finance
Biotoken - The value of a sustainable activity	Argentina	Ethereum	Democratize and internationalize the CO2e offset market, convert reduction, avoidance, and sequestration of CO2e into digital assets, neutralize 150 gigatonnes of CO2e emissions	Carbon offset and blockchain
Bitcoin Beach	El Salvador	Bitcoin Lightning Network	To establish a Bitcoin circular economy in El Zonte, providing a blueprint for similar initiatives in the region and beyond. This includes distributing allowances in Bitcoin to the local population, offering educational programs, and using community custody wallets	Circular economy, financial inclusion
Bitcoin Lake	Guatemala	Bitcoin	To provide an alternative financial system, improve financial inclusivity, and reduce payment fees for tourists, ultimately boosting the local economy	Financial inclusion
Cadena	Colombia, Mexico, Peru, Chile	LACChain network	Streamline cross-border trade	Supply chain optimization
Cambiatus	Brazil and Costa	Not specified	Empower new organizations and	Community

	Rica		communities through social/local currencies	empowerment
Capateza	Argentina	Not specified	Implement blockchain-based traceability in the Agri-Food-Tech sector, provide consumers with validated product histories, reshape consumers' understanding of food products	Blockchain-based traceability in the Agri-Food-Tech Sector
Carbon credit auction	Argentina	LACChain network	Reduce and compensate greenhouse gas emissions by allowing companies to offset their emissions through verified carbon units (UCVs) traded in an electronic auction on LACChain's blockchain networks	Carbon emission reduction and compensation program
Caribbean Examinations Council	Jamaica, Barbados, Trinidad and Tobago	LACChain network	To reduce the issuance time of academic diplomas, digitize their issuance for digital wallets, and enable real-time electronic verification of diplomas among entities in the Caribbean countries	Blockchain-based digital diploma issuance and verification
Cherito Café	El Salvador	Bitcoin Lightning Network	To support coffee farmers by using traditional Mayan methods and biodynamic farming practices while enabling direct trade and automatic distribution of payments	Sustainable agriculture, direct trade
Colmena Argentina	Argentina	Not specified	Transform the management of recyclable waste by creating a digital, decentralized platform that connects waste generators,	Recycling and waste management

			collectors, and the recycling industry. The project also introduces an economic incentive in the form of the JellyCoin (JYC) cryptocurrency to reward users for recycling materials	
Colony - DAO OGs.	Cayman Islands	Ethereum	To reinvent traditional organizational structures by transitioning from rigid hierarchies to more fluid, network-based models using DAO	DAOs
Coopecan	Peru	LACChain network	Implementing a traceability system for alpaca fibre production to demonstrate origin, animal breeding, and resource use, facilitating access to new markets and increasing income for cooperatives and partners	Supply chain traceability
Coopsol Ltda	Argentina	LACChain network	Improve the traceability and transparency of organic honey production using blockchain technology. This aims to open up new high-value market opportunities and integrate other decentralized solutions like NFTs and self-sovereign digital identity	Organic production and traceability
CREAD parametric insurance	Dominica	LACChain network	To develop a parametric insurance product using blockchain technology to help individuals, farms, and MSMEs manage climate risks, particularly those related to storms, and provide transparent and	Climate resilience, parametric insurance.

			prompt payouts	
DIDI - Digital Identities for Inclusion	Argentina	LACChain network	Provide digital identity and access to credit through digital wallets to vulnerable populations in Barrio 31, Buenos Aires, Argentina, with a focus on small producers previously excluded from traditional financial systems	Financial inclusion, digital identity, and access to credit
EthicHub	Mexico, Brazil, Honduras, Colombia, Ecuador	Ethereum ,xDai (Gnosis) & Celo	Facilitate financial inclusion for unbanked farmers through crowdlending	Financial inclusion
fAIrLAC Certificates	Mexico	LACChain network	Promoting responsible and ethical adoption of Artificial Intelligence for social good	Entrepreneurship acceleration - economic empowerment
Fundación Mi Sangre: Ni1+	Colombia	LACChain network	To combat gender-based violence by providing a discreet and secure tool for victims to gather audio and video evidence	Gender-based violence, evidence gathering, blockchain for data integrity.
LACPass	Argentina, Belize, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Panama, Paraguay, Peru, Suriname, Uruguay	LACChain network	Reduce gaps in digital health for Latin American and Caribbean populations, focus on digital vaccination certificates, and enhance cross-border health interoperability	Digital health and vaccination certificates

Mi Primer Bitcoin	El Salvador	Bitcoin	To provide education and training on Bitcoin and cryptocurrency, particularly in the context of El Salvador's adoption of Bitcoin as legal tender	Crypto and blockchain education
Motiv	Peru	Bitcoin Lightning Network	Empowering individuals to break the cycle of dependency and vulnerability through education, Bitcoin adoption, and skills development	Socioeconomic empowerment and circular economies
Originalmy	Brazil	Ethereum-based	To provide identity verification, document authentication, and digital signing solutions using blockchain technology	Digital identities and document authentication
Os City	Mexico	LACChain network	Fostering the adoption of decentralized digital identities for government operations	Smart cities and urban development
Plasticoin	Uruguay	Not specified	Promoting responsible plastic waste management and fostering a circular economy by creating a virtual ecological currency, "Plasticoin," incentivizing plastic recycling through rewards	Circular economy
PlataformaVerde (GreenPlat)	Brazil	LACChain Network	Empower the creation of new organizations through Social Currencies created on Blockchain, fostering cooperation and benefiting both providers and users of products and services	Social/Local currencies
PledgeCamp	Cayman Islands	Ethereum	To democratize crowdfunding by utilizing	Crowdfunding

			blockchain technology to increase transparency, reduce fees, and broaden access to funding opportunities	
RedCLARA Diploma project	Brazil, Chile, Colombia, Ecuador, Mexico	LACChain Network	Digitize academic credentials, enable mutual recognition of diplomas, enhance verification, combat fake certifications, establish trust in credential issuers, ensure compatibility with other trust registries, create a sustainable business model	Verifiable credentials for academic certificate
Safe Islands	Dominican Republic	LACChain network	To automate the issuance and verification of certificates for the diagnosis of respiratory viruses, including SARS-CoV-2, using blockchain technology to support the tourism sector and facilitate international travel	Health certificates
Stamping	Peru	LACChain network	Streamline and enhance the employment verification process, combat informality and corruption in the labor force, and provide job seekers with credible and easily shareable records of their qualifications	Employment certificates
Tan Tan	Mexico	LACChain Network	Providing self-sovereign digital identity services, including EduTech and FinTech services, for universities and students	Digital Identities, Crypto and blockchain education
Terrasos	Colombia	Polygon	To create a mechanism for financing	Biodiversity

			biodiversity conservation projects using blockchain technology and digital tokens, addressing funding gaps and fostering transparency in the nature finance sector	conservation financing
UWI	Jamaica, Barbados, and Trinidad and Tobago	LACChain Network	To address the challenges associated with issuing, printing, distributing, and verifying academic certificates, with a focus on immutability, validation, and certification of academic credentials	Verifiable credentials for academic certificate

The Latin American blockchain ecosystem, as showcased through the diverse range of projects detailed in this report, represents a dynamic intersection of technological innovation, sustainability, and social impact. While our analysis primarily draws from the LACChain and PositiveBlockchain databases, it is evident that blockchain technology is rapidly gaining traction in the region, offering unique solutions to multifaceted challenges. One of the standout features of this ecosystem is its commitment to financial inclusion, with projects like Agape Hands, EthicHub, and fAIrLAC Certificates striving to empower marginalized communities by providing access to financial services and economic opportunities. This commitment aligns with the region's broader goals of reducing inequality and promoting economic growth.

In parallel, the Latin American blockchain landscape demonstrates a strong emphasis on environmental sustainability and circular economies. Initiatives like Bitcoin Beach, Plasticoin, and Terrasos exemplify how blockchain can incentivize sustainable practices, promote local economic growth, and support conservation efforts. These projects not only seem to contribute to the preservation of the region's ecological treasures but also serve as global examples of harnessing technology for environmental stewardship. Moreover, blockchain's role in education and digital identity is pronounced, with projects like Mi Primer Bitcoin, Tan Tan, and RedCLARA Diploma project fostering blockchain education and enhancing the trust and verification of academic credentials. This aspect can not only facilitate knowledge dissemination but can also bolster the region's human capital, a critical driver of sustainable development.

As the Latin American blockchain ecosystem continues to evolve, the significance of the LACChain network as a foundational infrastructure for many of these projects becomes clearer. Its role in supporting cross-border trade, financial inclusion, and digital identity initiatives underscores its strategic importance in the region's technological landscape. However, it's crucial to acknowledge that while we've strived to offer a comprehensive overview, there may be projects in countries not covered by our databases. We encourage entities and individuals operating in these areas to contribute their project details to ensure a more holistic understanding of the region's blockchain endeavors.

The following table provides an insightful overview of these projects, categorized into distinct focus areas, providing some light on the innovative strides being made in the region's blockchain technology adoption and application.

Main Topic	Project	%
Blockchain and Crypto Education & Community Empowerment	Acucrip Adra Hostel Bart.digital Biotoken - The value of a sustainable activity Bitcoin Lake Cambiatus	25%

	Colony - DAO OGs Mi Primer Bitcoin Os City	
Digital Identities and Certificates	Agros Tan Tan RedCLARA Diploma project Safe Islands Stamping PlataformaVerde (GreenPlat) Mi Primer Bitcoin Caribbean Examinations Council	20%
Environmental Sustainability & Circular Economy	Bitcoin Beach Plasticoin Colmena Argentina Colony - DAO OGs Cherito Café Terrasos	17%
Financial Inclusion	Agape Hands EthicHub fAIrLAC Certificates DIDI - Digital Identities for Inclusion CREAD parametric insurance Motiv Originalmy PledgeCamp UWI	25%
Supply Chain and Trade	Cadena Capateza Coopecan Coopsol Ltda	13%

In-Depth Review of the LATAM Ecosystem

In the forthcoming chapter, we will present a selection of projects from various countries across Latin America, as curated from the PositiveBlockchain and LACChain databases. It is important to note that this selection is not exhaustive and does not intend to overshadow other noteworthy initiatives in the region. Rather, these projects offer a snapshot of the diverse efforts underway that leverage blockchain technology for sustainability and positive impact.

The collaboration between PositiveBlockchain, LACChain, INATBA, and their associated members: Blockchain.com, ClimateCoin, IOTA, and NYALA—has been instrumental in compiling this collection. While there are undoubtedly many more projects deserving attention, we present the projects featured in this chapter as a result of the voluntary contributions of the report's authors. The partnership among these entities has enabled us to shine a light on the innovative strides being made in Latin America's sustainability landscape. It is our hope that this chapter serves as a catalyst for further exploration, collaboration, and knowledge-sharing among stakeholders in pursuit of a more sustainable future.

Broadly present in LATAM

The compilation of projects under this section reflects initiatives that operate beyond the confines of a single country within the LATAM region. These projects exhibit an expanded reach either due to their establishment with headquarters in multiple countries or through the deployment of their operations across various nations. By extending their influence across borders, these projects can serve as an example for the collaborative nature of regional efforts and the capacity to create a more interconnected and inclusive ecosystem across the diverse landscape of Latin America.

1. CADENA

More information:
https://blogs.iadb.org/integration-trade/en/blockchain-trade-safer/
https://www.lacchain.net/projects/CADENA

Proyecto Cadena is a blockchain solution that claims to facilitate real-time information exchange among the customs administrations of the Pacific Alliance nations (Colombia, Mexico, Peru, Chile), spearheaded by the INT department. Acknowledged by the World Customs Organization (WCO) as a pioneering blockchain initiative, it offers the opportunity to reduce information exchange times from one month to instantaneous, enhancing efficiency and bolstering security. Moreover, additional customs authorities in Latin America and the Caribbean, such as Costa Rica, Bolivia, Ecuador, and Guatemala, are in the process of integrating into this solution.

The concept of Authorized Economic Operators (AEOs), introduced by the World Customs Organization in 2005, seems to be central to this system. These are trusted and secure entities that receive expedited treatment in international trade. To enable this system to function effectively, customs administrations must share their lists of AEOs with their counterparts, facilitating mutual recognition arrangements (MRAs). These MRAs, which currently number 60 with 40 more under negotiation, streamline cross-border trade. However, the challenge lies in the dynamic nature of AEO lists, necessitating frequent updates. Traditionally, this information exchange occurred through monthly Excel files sent via email, which had inherent security risks and often resulted in delayed communication.

To address these challenges, the Inter-American Development Bank's Integration and Trade Sector, in partnership with AEO program officers and IT specialists from Colombia, Mexico, Peru, and Chile, and LACChain, initiated the blockchain-based CADENA project in 2019. CADENA employs blockchain technology to establish secure, real-time, and immutable data sharing, ensuring that AEO statuses and updates are immediately accessible. This innovation significantly reduces bureaucracy, enhances transparency, and builds trust in cross-border trade operations. Although challenges remain, LACChain, a blockchain alliance launched by the IDB LAB and key technology partners, is poised to facilitate the widespread adoption of blockchain-based information exchanges among customs administrations in Latin America and beyond, ultimately expediting goods processing and bolstering border security, as well as achieve global interoperability with customs office around the world.

2. Cambiatus

cambiatus	**More information:** https://www.cambiatus.com/

Cambiatus is an open source platform to empower the creation of new organizations, through Social Currencies created on the Blockchain. New types of organizations are emerging, in which providers and users of products and services benefit and work together. Imagine that these organizations are enhanced cooperatives that use social currencies and technologies like blockchain to organize and achieve their common social and environmental goals.

Cambiatus works with civil society organizations, companies or groups that have a strong network of stakeholders, a team with management and promotion skills, clear objectives and are aligned with their main areas of work, and that have experience or are open to digital solutions. Today, six communities and more than 9,000 people are building their economic resilience, building on abundance and transforming their realities, thanks to their own complementary currencies created with the Cambiatus technology and methodology. In Latin America, several communities have been established in countries such as Brazil and Costa Rica.

3. EthicHub

	**More information:** https://www.ethichub.com/en

EthicHub is a Regenerative Finance-ReFi protocol that focuses on the integration of Decentralized Finance - DeFi with the real-world economy, addressing financial inclusion for unbanked farmers. Launched in June 2018, EthicHub's crowdlending platform has facilitated over $3 million in microloans to more than 600 families across Mexico, Brazil, Honduras, Colombia, and Ecuador. The protocol leverages blockchain and innovative crowd-collateral to secure loans, creating a de-risking mechanism that reduces perceived risk for investors while promoting impact investing.

EthicHub's approach involves the community purchasing $Ethix tokens and staking them on behalf of unbanked farmers, establishing a trustworthy environment for impact investing. In the event of a loan default, the compensation system ensures repayment of both principal and interest, setting a default benchmark of less than 3%. EthicHub aims to extend its benefits to new markets and continents, contributing to the mission of financial inclusion and global agricultural resilience.

EthicHub's vision aligns with the quest to bridge the gap between traditional finance and the unbanked population, particularly smallholder farmers who lack access to affordable credit. The project showcases the transformative potential of blockchain technology, enabling investors to support farmers, break the cycle of poverty, and stimulate real-world impact. Through its innovative model, EthicHub aims to build a more balanced world while offering a secure and rewarding investment opportunity that transcends geographical boundaries and financial inequalities.

4. LACPass

	**More information:** https://racsel.org/en/rpglacpass/

The Regional Public Good (RPG) "Digital Transformation in Health to Mitigate the Effects of COVID-19 in Latin America and the Caribbean" (RG-T3769) or LACPASS project, is a multi-country initiative within the framework of RACSEL (American Cooperation Network on eHealth) and sponsored by the IDB (Inter-American Development Bank), which aims to reduce gaps in digital health for all people in the Latin American and Caribbean region.

LACPASS has the following strategic partners: PAHO (Pan American Health Organization) and HL7 (Health Level 7). Other supporting entities: LACChain (Global Alliance for the Development of Blockchain in Latin America and the Caribbean), IHE (Integrating the Healthcare Enterprise) and CENS (National Center for Health Information Systems) in its role as coordinator. Currently participating in this project are: Argentina, Belice, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Panamá, Paraguay, Peru, Suriname and Uruguay.

In its first phase, the project advanced in the implementation of the digital vaccination certificate for the countries of Latin America and the Caribbean. Within this project, the countries participating in the project agree on and adopt the international interoperability standards already defined by the EU and those being defined by the World Health Organization, so that their inhabitants can carry a valid digital vaccination document, which can be cryptographically verified by whoever may require it. LACPASS is beginning its second phase, where the evolution of COVID certificates towards DDCC will continue and the IPS (International patient summary) profile will be enhanced to strengthen the region in terms of cross-border health interoperability.

5. RedCLARA Diploma project

Red CLARA	**More information:** https://dspace2.redclara.net/server/api/core/bitstreams/12c8b77e-936f-4732-b54f-8aecd5951b7e/content https://github.com/lacchain/vc-repository/blob/main/examples/lacchain_redclara_diploma.json

The RedCLARA Diploma project represents a blockchain-based initiative in Latin America, specifically designed to revolutionize the issuance and verification of digital diplomas. It seems to have emerged as a critical enabler for various processes, including employment inclusion, academic mobility, and ongoing education. This innovative project unites National Research and Education Networks (RNIEs) across Latin America in a federated regional verification system, all powered by the robust LACChain blockchain network.

During its initial pilot phase, this project brought together national networks and institutions from Brazil, Chile, Colombia, Ecuador, and Mexico, along with the technical support of LACNet and coordination by RedCLARA. It has focused on addressing significant challenges in the academic credentialing landscape, such as facilitating mutual recognition of diplomas across borders, ensuring secure and real-time verification, combating the proliferation of fake certifications, establishing trust in credential issuers, and enabling compatibility with other trust registries.

At its core, the project leverages blockchain technology's Self-Sovereign Identity (SSI) layer within the LACChain network, allowing participating entities to seamlessly manage the lifecycle of verifiable digital academic diplomas. The outcome is a

system that empowers graduates to present and share their credentials using digital wallets, modernizing academic credential verification. By facilitating compatibility between different entities and establishing a robust Trust Registry, the Diploma Project seems to not only have streamlined academic processes but also contributed to the creation of a sustainable business model for RNIEs and academic institutions.

The successful implementation of this project can present a significant step in the digitization of academic credentials, with the potential to greatly impact around 7 million students in Latin America. The primary goal is to enhance the interoperability of academic credentials, creating a skilled and certified workforce that can access employment opportunities without geographical constraints. This innovative use of blockchain technology reduces barriers like document apostilles and prevents credential forgeries, illustrating its capacity to drive positive social change by empowering education and employment prospects in the region.

Argentina

Argentina, a South American nation, spans a significant portion of the southern continent. As the world's eighth-largest country, it has vast landscapes including expansive plains, deserts, tundra, and forests, alongside mountains, rivers, icebergs and an extensive ocean shoreline.

Argentina's estimated GDP stands at 621.83 billion US dollars, resulting in a per capita GDP of 13.3 thousand US dollars. The country maintains an unemployment rate of 7.4% within its total labor force. Over the past 42 years, consumer price inflation has been a major problem in the country. Notably, the inflation rate for 2022 was calculated at 94.8%. From 1980 to 2022, the average annual inflation rate measured 206.2%. By June 2023, the year-over-year inflation rate soared to 115.6%.

As Argentina holds a 40 billion euros debt with the IMF, since 2018, consequently, the IMF has prohibited all banks from providing cryptocurrency services on Argentine soil. The country is presently engaged in negotiations for a new agreement with the IMF, with stipulations encompassing more regulations on the cryptocurrency industry.

Argentina’s blockchain space has been growing steadily, being not home to several leading global blockchain enterprises, including the renown OpenZeppelin and Decentraland. This adoption is reflected in jobs being created in the sector. According to a LinkedIn report, positions within the cryptocurrency industry experienced a 395% surge in 2021, compared to the broader technology sector, which saw a growth of 95%.

Crypto stablecoins such as USDT and DAI are steadily gaining traction through informal forex and crypto exchanges dispersed throughout the country.

1. Agrotoken

agrotoken	**More information:** agrotoken.com/en/ www.accenture.com/hu-en/case-studies/banking/agrotoken-stablecoin

Argentina-based start-up Agrotoken proposes a new financial option to the multi-trillion-dollar agribusiness sector by letting farmers convert tons of bean crops into a commodity-backed stablecoin that can be spent with merchants and investors.

Agrotoken allows its clients to tokenize grains into digital assets, to save or exchange for supplies, services and other assets. These tokens are always backed with grains. Since launching its tokenization platform, Agrotoken has scaled from 1,000 tons of soy to 30,000 in a few months, and currently also has tokenized corn & wheat in Argentina, and expanded to the Brazil market, tokenizing soy and corn beans.

The tokenization of the grains should enable access to a wider public that would like to invest in Agro, by lowering the minimum investment amount, and making it easily accessible to users around the globe.

They offer their services both online and mobile, allowing the tokenization of their grains fully online. Agrotoken creates a wallet for their users that allows them to immediately start using their tokens in exchange for related products and services.

Combining technology, finance, cryptoeconomics and agribusiness, they aim to create an ecosystem for farmers, merchants, blockchain validators, and investors can all participate in this industry.

2. Biotoken - The value of a sustainable activity

Biotoken	**More information:** biotoken.world/en/

Biotoken is a blockchain mobile platform that promotes carbon dioxide offset from the atmosphere. This platform allows users to convert the reduction, avoidance, and sequestration of CO2e into a digital asset (TCOE token). They have established a marketplace connecting CO2-negative/neutral entities with CO2-positive counterparts seeking offset opportunities. Their mission is to democratize and internationalize the CO2e offset market.

Within the Biotoken Project, a finite total of 1,500,000 Biotokens exists, with the purpose of neutralizing 150 gigatonnes of CO2e emissions. This crafted scarcity aims to ensure the tokens' value remains impervious to potential disruption stemming from an unlimited influx of supply. Employing cryptography, and smartphone

security, these digital files are certified through blockchain technology, in this case using Ethereum blockchain.

3. Capateza

capazeta	**More information:** capazeta.com

Capazeta, a startup in the Agri-Food-Tech sector leveraging a blockchain-based traceability platform.

Capazeta's approach involves a white-label platform, which in term is tailored to the specific needs of stakeholders. With the guidance of experienced consultants, the company collaborates with Fast-Moving Consumer Goods (FMCG) industry participants to design strategies for implementing traceability from field to consumer. The white-label solution integrates seamlessly with existing information systems through customized APIs, ensuring compatibility with their clients existing infrastructure.

By using Capazeta's platform, brands enable end consumers to access validated product histories, ranging from origin to the retail shelf, via a QR code added to the product label. This feature provides consumers with authenticated data and insights into the product's journey.

Capazeta provides a consumer interface, accessed through the QR code scanning, facilitating easy engagement with the available product information. Capazeta connects consumers with the journey of the products they scan. Aiming to reshape consumers' understanding of food products.

4. Carbon credit auction

CO2RDOBA CLÚSTER CARBONO CERO	**More information:** https://prensa.cba.gov.ar/gobierno/cordoba-presento-una-experiencia-inedita-para-reducir-la-huella-de-carbono/

The Province of Córdoba, Argentina, through the Ministry of Public Services, launched a pilot test "Program for the Reduction and Compensation of Greenhouse Gas Emissions (GEI)", where companies can offset their carbon emissions.

This is an action to value reductions and their subsequent use or compensation by different actors within the Ministry of Public Services. The objective is to generate a

platform for enhancing small and medium-scale emission reductions that, today, cannot be validated through different international standards, mainly due to associated costs.

It will work as follows: on the one hand, companies that comply with different mitigation initiatives will have verified carbon units (UCVs) available to be offered in an electronic auction, and on the other hand, companies that cannot further reduce their emissions, they can compensate them by paying for these verified carbon units and receiving for such payment a unique and non-transferable certificate issued on LACChain's blockchain networks, allowing traceability and promoting the generation of sustainable projects.

This idea supports the environment while generating policies that reduce greenhouse gasses, and the growth of sustainable industries is encouraged. It should be noted that various actors, both government and civil society and the business sector, participate in the initiative in defining parameters for the valuation of displaced carbon units from different mitigation projects carried out in the Province of Córdoba.

5. Colmena Argentina

	**More information:** www.linkedin.com/company/colmenaproject/posts positiveblockchain.io/database/proyecto-colmena https://www.colmenaproject.io/en

Colmena is a platform based on blockchain technology that helps establish a direct connection between recyclable material generators, collectors and the recycling industry. Colmena seeks to transform the way recyclable waste is managed, proposing a collaborative, digital and decentralized management alternative that allows households, companies and institutions to separate from their waste the materials requested by industries, register them on the platform and transport them to a determined point, with the option of coordinating with a third party the door-to-door pickup.

The Colmena Argentina project is completed by the JellyCoin (JYC) and the factory. The JellyCoin (JYC) cryptocurrency is the economic incentive proposed by the project. The Colmena Platform assigns different values in JYC to different types of recyclable materials: paper, cardboard, glass, plastic and aluminum. JYC, is in turn paired to argentine peso. The Factory is composed of collecting points and recycling centers with a system to manage the materials received. From an electronic weighing system, automated and linked to the software system, a payment system in JellyCoin to reward users for bringing the recycling materials, but also statistics and metrics.

Colmena actively contributes to the fulfillment of several SDGs in the People, Planet, and Prosperity axes. By promoting source separation of recyclable material, its

digitization and collaborative transportation, as well as an economic reward for participants in the form of digital currencies, Colmena claims to be reducing carbon emissions into the atmosphere, preventing and eradicating open dumpsites; increasing the output of recycling industries, and fostering the circular economy. Moreover, professionalizing the work of collectors and achieving their social and financial inclusion.

6. Coopsol Ltda.

	**More information:** http://www.mielwayra.com.ar/

Coopsol Ltda. is an Argentine apicultural cooperative based in Santiago del Estero, founded in 1989. With over three decades of experience, it focuses on generating local development through organic honey production.

It partners with the Consorcio Bio del Norte Wayra, forming the largest organic honey value chain in Argentina, and collaborates with the Association of Organic Producers of the North (APONA). Operating under the brand Wayra, it's the exclusive Latin American honey with the #Fairtrade certification.

Wayra is also the pioneering honey brand to integrate Blockchain technology for traceability. Improving monitoring, reporting and verification systems with blockchain technology allow them to open new high-value market niches and integrate other decentralized solutions such as NFT and self-sovereign digital identity.

7. DIDI – Digital Identities for Inclusion

DIDI Identidad Digital para la Inclusión	**More information:** https://didi.org.ar/quienes-somos/

DIDI – Digital Identities for Inclusion is a project implemented by Decodes (Bitcoin Argentina) IDB Lab, LACChain, IOV Labs (RSK Smart Contracts + RIF), NEC Argentina, Alianza Blockchain Iberoamérica, Azure, Programa Semillas, Accenture Argentina, Blockchain Federal Argentina y Wicklow Capital.

In the domain of financial inclusion, this project commenced in 2016 with its design phase spanning 2018 to 2019 and development occurring in 2020. Categorized under social investment, it leverages Distributed Ledger Technology (DLT) and Self-Sovereign Identity (SSI). With a remarkable potential impact benefiting 500

individuals in Barrio 31, the initiative extended further by supporting 35 beekeeping producers in Barrio Chaco. Impressively, the project holds a gender-disaggregated distribution of 83% women and 17% men. Its clientele encompasses producers and insurance providers, paving the way for social and financial inclusion. Notably, this completed venture sets the foundation for potential future applications in the realm of insurance.

DIDI represents a blockchain-driven initiative designed to address the needs of vulnerable populations in Barrio 31, Buenos Aires, Argentina, by providing digital identity and credit access through digital wallets. By collaborating with microfinance institutions integrated into a blockchain network and digital wallet ecosystem, wallet users gain the capability to request and manage tokenized money issued by these microfinance entities. The initiative's primary objective is to extend financial inclusion to small producers who were previously excluded from traditional financial systems. It focuses on creating a digital identity fortified with verifiable credentials to ascertain the financial standing of the productive system, thereby enabling access to products, goods, and services.

The application streamlines the collection of funds by a designated group leader, distributing funds weekly to participants while documenting fund issuance, participant compliance, and payment of contributions. Additionally, it generates credentials reflecting participants' financial behavior.

Brazil

Brazil is the largest country in South America and the fifth largest country in the world by area and population. With a total population of over 212 million people, Brazil is a diverse country with a rich culture and history. It is also a major economic power, with one of the largest GDP in the world.

Brazil's economy is based on a variety of industries, including agriculture, mining, manufacturing, and services. The country is a major exporter of agricultural products, such as soybeans, coffee, and sugar. Brazil also has a significant mining sector, producing minerals such as iron ore, bauxite, and copper. The country's manufacturing sector produces a wide range of goods, including automobiles, electronics, and textiles. The services sector is the largest sector of the Brazilian economy, accounting for over 70% of GDP.

As a member of the G20, the World Trade Organization, the United Nations, and founding member of the Mercosur trade bloc, Brazil is a major regional power and plays an important role in Latin American and global affairs.

It is also one of the leading countries in the world in terms of cryptocurrency adoption. According to a 2023 report by Chainalysis, Brazil is ranked ninth in the world in terms of cryptocurrency transaction volume. It is home to a large and growing population of crypto users, with 10 million people owning cryptocurrency. Cryptocurrency regulation, which was voted on in the Brazilian congress late last year, has now come into effect as president Lula da Silva signed a decree making the central bank the primary supervisor of the crypto economy in Brazil. While

crypto firms might face increased scrutiny and costs, a robust regulatory framework could boost consumer confidence and lead to greater market penetration.

In addition to its economic and political importance, Brazil is also a popular tourist destination.

1. Bart.digital

	More information: https://www.bartdigital.com.br

Bart Digital is a Brazilian fintech company that uses blockchain technology to digitalize and automate financial processes in the agricultural sector. The company's main product is a platform called Ativus, which allows users to create, manage, and trade digital agricultural assets, such as electronic promissory notes (CPRs) and warehouse receipts (WRS). Since its foundation in 2016, it has since become one of the leading providers of digital financial solutions for the agricultural sector in Brazil.

Bart Digital's platform leverages blockchain technology to improve the efficiency and transparency of financial transactions in the agricultural sector. It provides visibility into all aspects of financial transactions, from initiation to completion, which can help to reduce fraud and corruption. It also reduces costs associated with financial transactions - such as bank fees and transaction fees - and also helps to reduce the risks associated with financial transactions, such as the risk of fraud and the risk of non-payment.

2. PlataformaVerde (GreenPlat)

	More information: https://greenplat.com/en/ https://www.linkedin.com/company/greenplat/about/

Plataforma Verde is a blockchain-based waste-management Software as a service - SaaS that helps companies track their waste from origin to destination and reach zero landfill. Founded in 2016 in Sao Paolo, companies use the platform developed by GreenPlat to track their waste from origin to destination, manage legal documents, bills, and invoices, and access an on-time dashboard with reports, graphics, and indexes. The platform is a valuable tool for companies that are looking

to improve their waste management practices and reduce their environmental impact.

Plataforma Verde's platform is used by a variety of industries, including retailers and waste management companies, to track a variety of waste streams, including solid waste, liquid waste, and hazardous waste.

Plataforma Verde's blockchain-based waste management platform offers several key advantages. It ensures transparency and accountability by creating a transparent and auditable record of waste management processes, reducing the risk of fraud and corruption. Additionally, it helps companies cut waste management costs through optimized collection and disposal routes, while simultaneously enhancing their environmental performance by minimizing their waste footprint. By aiding compliance with environmental regulations, the platform further supports companies in improving customer satisfaction through efficient waste management practices. Ultimately, Plataforma Verde provides a competitive edge by showcasing a commitment to environmental sustainability.

In addition to the above, Plataforma Verde is also helping to accelerate the transition to a circular economy by providing a platform for companies to track and manage their waste streams more efficiently. This is helping to reduce the amount of waste that goes to landfills and incinerators, and to increase the amount of waste that is recycled and reused.

3. Originalmy

	**More information:** https://originalmy.com

OriginalMy is a Brazilian company that uses blockchain technology to provide solutions for identity verification, document authentication, and digital signing. The company was founded in 2015 and is headquartered in São Paulo, Brazil.

OriginalMy's blockchain platform allows users to create and manage digital identities, which can be used to verify their identity online and to sign documents electronically. The platform also allows users to authenticate digital documents and to create tamper-proof records of transactions. It is currently used by a variety of organizations, including banks, government agencies, and businesses.

Based on the Ethereum blockchain, OriginalMy's blockchain platform uses smart contracts to automate the verification and signing processes and tokenization to represent digital identities and digital documents on the blockchain. A number of companies and organizations have partnered with Originalmy, including

Mastercard, IBM, Microsoft, Banco do Brasil, Itaú Unibanco and Brazilian government agencies

Caribbean Countries

The Caribbean Countries, often referred to as the Caribbean region or the Caribbean islands, consist of a diverse group of island nations and territories situated in the Caribbean Sea and the surrounding area. This region is known for its stunning natural beauty, rich cultural heritage, and vibrant economies.

The Caribbean Countries encompass different nations and territories. Jamaica, situated in the Greater Antilles, is known for its beaches, reggae music, and lively culture, with tourism driving its economy. Sharing Hispaniola with the Dominican Republic, Haiti boasts a unique cultural identity amidst socio-economic challenges. Cuba, the Caribbean's largest island, carries a distinct political and cultural landscape shaped by its revolutionary history. The Dominican Republic, also sharing Hispaniola, is a known tourist spot featuring exquisite beaches and a fusion of Spanish, indigenous, and African influences. Trinidad and Tobago, twin islands, have a history of multiculturalism and are renowned for their vibrant Carnival celebrations. Barbados, a compact island with services, manufacturing, and agriculture being one of their most significant sectors.. Puerto Rico, an unincorporated U.S. territory, displays a blend of Spanish and American influences due to its distinctive status. The Bahamas, an archipelago, hace predominantly market economy that is dependent on tourism and international financial services. Saint Lucia is also known for its tourism sector and as one of the major banana producers. Antigua and Barbuda, composed of two major islands, have seen tourism become the dominant economic sector, effectively supplanting agriculture, which was once the primary driver of their economy. Collectively, these nations and territories paint a diverse tapestry of cultures, landscapes, and histories within the Caribbean region.

These countries share a history of colonization, slavery, and trade, which have shaped their cultures and economies. Past economic foundations relied on the plantation economy. Tourism and agriculture are often important sectors. For Caribbean economies, regional and international trade relationships have been of importance for economic development. The Caribbean region also faces challenges such as vulnerability to natural disasters, economic inequality, lack of natural resources and health issues. While each country has its unique characteristics, they collectively form the Caribbean region, offering a blend of cultural diversity, stunning landscapes, and a mix of historical and modern influences.

The islands of Bermuda, Barbados, The Bahamas and the Cayman Islands (The projects in the Cayman Islands are added in a separated section) have been early innovators by pioneering regulatory frameworks for digital asset businesses blockchain and crypto-currencies some of them as early as 2018. This together with favorable tax regimes has attracted blockchain investments and supported many global Initial Coin Offerings. Also in the area of Central Banks Digital Coins, the Caribbean has been an early mover. Three CBDCs have been launched in the Caribbean region: the Bahamas' Sand Dollar, Jamaica's Jam-Dex and the Eastern

Caribbean Central Bank DCash in seven of its eight member states. The later has been announced in 2017 and introduced in March 2021 but has not seen wide adoption yet.

1. Caribbean Examinations Council

CARIBBEAN EXAMINATIONS COUNCIL	**More information:** https://www.cxc.org/cxc-to-issue-e-certificates-across-the-region/ https://www.lacchain.net/projects/Blockcerts-Caribe?lang=en

The project Blockcerts in the Caribbean (Jamaica, Barbados, Trinidad and Tobago) is an initiative led by the division Labor Markets (LMK) that leverages blockchain technology for the issuance and management of digital diplomas in the Caribbean using blockchain and digital wallets.

In collaboration with Izertis, the IDB is working with the Caribbean Examinations Council (CXC), responsible for the issuance of diplomas in 16 countries of the Caribbean, to enable digital issuance, management, and verification of digital diplomas.

Blockcerts Caribe's goal is to reduce the issuance time of academic diplomas , digitize its issuance enabling users to carry their degrees in a digital wallet and enable electronic verification in real-time among entities of the Caribbean countries.

The benefits of the project encompass several key aspects, including the integration of the CXC (Caribbean Examination Council) solution with the LACChain network, the design of digital diplomas to ensure standard compliance, the creation and testing of the application's usability within the student community, and the subsequent promotion of adoption and usage of these certificates. This endeavor leverages Self-Sovereign Identity standards like Decentralized Identities (DIDs) and Verifiable Credentials (VCs) to facilitate a seamless and secure implementation.

2. UWI

UWI	**More information:** https://www.open.uwi.edu/media/news/uwi-open-campus-issues-first-set-verifiable-credentials https://lacchain.medium.com/certificando-estudios-con-la-tecnolog%C3%ADa-blockchain-en-am%C3%A9rica-latina-y-el-caribe-655376fe141a

The education sector has been positively impacted by blockchain technology and its potential for inclusion. For over 70 years, the University of the West Indies (UWI) has provided services and leadership to the Caribbean region and the rest of the world. UWI has evolved from being a London-based university established in Jamaica with 33 medical students in 1948 to becoming an internationally recognized regional university with nearly 50,000 students and five campuses.

Like UWI, many educational institutions in Latin America and the Caribbean today face various challenges, including the costs of issuing, printing, and distributing academic certificates, as well as the costs of maintaining and verifying these certificates.

With the use of blockchain technology, a solution arrives to address these needs by certifying the validity of studies in a distributed and immutable database, providing a higher level of trust through the use of digital wallets.

The University, in collaboration with World Data, an information technology, engineering, and consulting group dedicated to developing solutions using blockchain technology, is working on the implementation of Verifiable Credentials (VCs), a proposal that would not only solve the problems of immutability, validation, and certification that universities currently face regarding the certificates they issue but also brings a series of additional advantages derived from blockchain technology's characteristics such as immutability and transparency.

In this regard, through the use of the LACChain blockchain network, the global alliance led by the innovation laboratory of the Inter-American Development Bank Group (IDB Lab), and the REM ID wallet developed by World Data, the University of the West Indies (UWI) in the Caribbean is a pioneer in issuing 2,000 digital certificates with a potential for more than 50,000. Furthermore, there are plans to expand this capacity to the rest of Latin America, allowing greater mobility and validity of studies, as well as enabling students' participation in local and global initiatives through the use of digital credentials.

Blockchain technology and the associated digital wallet offer several key advantages in the realm of academic credentials. Firstly, the immutability of academic certificates is guaranteed by storing cryptographic proof on a decentralized blockchain network, rendering any alterations impossible. Secondly, transparency is ensured as the digital wallet provides clear visibility of credentials, allowing for validation of certificate existence and authenticity, both in terms of the certificate itself and its issuer. Thirdly, portability is a significant benefit, facilitated by mobile apps like REM ID, which empower individuals to conveniently store, share, and carry their academic certificates. Finally, a reduction in certification costs is achieved through the ability to easily verify the validity of academic documents via cryptographic proofs on the LACChain blockchain, offering a more cost-effective and efficient alternative to traditional certification processes.

These benefits contribute to enhancing the reliability, accessibility, and security of academic credentials, while also reducing administrative burdens and costs associated with traditional certification processes.

Cayman Islands

The Cayman Islands is a British Overseas Territory located in the western Caribbean Sea. Situated south of Cuba and northwest of Jamaica, the islands consist of three main land masses: Grand Cayman, Cayman Brac, and Little Cayman. With a total land area of approximately 264 square kilometers, the Cayman Islands have a population of around 70,000 inhabitants. The capital city is George Town, which is located on Grand Cayman and serves as the financial hub of the territory.

The Cayman Islands economy is largely driven by its status as a major international financial centre. Its economy relies heavily on offshore financial services, tourism, and real estate. The territory's GDP per capita is one of the highest in the world, presumably due to its financial industry. The Cayman Islands can be an beneficial location for international companies and investors looking for favorable financial conditions, given a number of factors such as the absence of direct taxation, political stability, and a well-developed financial infrastructure.

The Cayman Islands have displayed a growing attention in the blockchain and cryptocurrency ecosystem, particularly within their financial services sector. They have been exploring blockchain's potential to enhance the efficiency and security of financial operations.

1. Colony – DAO OGs.

COLONY	**More information:** https://colony.io **Colony's white paper:** https://colony.io/whitepaper.pdf

The DAO OGs project, initiated since 2014, represents a progressive exploration of DAOs within the context of blockchain and cryptocurrency. In contrast to the hype-driven tendencies of the ICO era, the creators of Colony took a deliberate approach to address the complexities of building a robust infrastructure for the future of human organization. The result is a comprehensive framework for DAOs that is decentralized, trustless, and open source.

This endeavor seeks to reinvent traditional organizational structures by transitioning from rigid hierarchies to more fluid, network-based models. Colony aims to disrupt the traditional management paradigm, replacing it with a software-driven approach that enforces business rules in a more efficient manner. By replacing cumbersome document-based rules with software-enforced protocols, Colony intends to streamline resource management, authority distribution, and financial transactions. This evolution could potentially blur the lines between traditional companies, platforms, workers, and users. New paradigms of occupation and income might emerge, ranging from conventional team-based structures to community-driven models, akin to collaborative platforms like Wikipedia. The idea is that in some cases, users might not even perceive their activities as "work" but rather as meaningful

engagement with applications or games, which could lead to earnings and influence over the app's functionality.

In essence, the project, embodied by Colony, represents a forward-thinking exploration of DAOs as a means to reshape and rejuvenate traditional organizational structures, leveraging blockchain technology and principles from complex adaptive systems to pave the way for new paradigms of collaboration, resource management, and income distribution.

Utilizing blockchain technology and decentralized autonomous organization (DAO) principles, Colony's approach empowers diverse participation and reduces barriers to entry, enabling equitable involvement for marginalized groups. By reimagining organizational structures, Colony is fostering innovation, promoting inclusivity, and catalyzing new paradigms for economic engagement, making profound strides in social impact.

2. PledgeCamp

PLEDGECAMP	**More information:** https://pledgecamp.com/ **PledgeCamp white paper:** https://pledgecamp.com/pledgecamp_whitepaper_v2-3_en_0f8711818fc465805ff3f1ac117e1638.pdf

Pledgecamp is an innovative crowdfunding platform that leverages blockchain technology to enhance security and accountability. It provides backers with a decentralised escrow mechanism to safeguard their funds, while creators receive comprehensive project support and lower platform fees. Users of the platform can earn token rewards as they contribute to its success. Pledgecamp's team, comprising crowdfunding experts who have raised millions on platforms like Kickstarter, introduces a Vendor Network for hiring services and a Knowledge Center for crowdfunding research, establishing a two-token economy with Pledge Coins and Camp Shares. This ecosystem aims to align incentives among participants and democratize fundraising by shifting financial control away from exclusive entities.

Pledgecamp's social impact lies in its transformative potential within the crowdfunding landscape. Traditional funding systems can be exclusionary and centralized, favoring specific regions and genders. Pledgecamp's decentralized approach and blockchain integration address these issues by enabling wider participation and inclusivity. It caters to regions disregarded by traditional venture capitalists, channelling funding to non-coastal areas. By bringing financial control to a more democratic level, Pledgecamp embodies a shift towards a fairer, more equitable approach to fundraising, with the potential to unlock previously untapped resources for global development.

Colombia

Colombia, a diverse nation situated in the northwestern corner of South America, boasts a rich tapestry of landscape, culture, and economic prospects. Nestled between the Caribbean Sea and the Pacific Ocean, Colombia's location grants it a unique blend of coastal beauty and lush mountain landscapes, spanning from the Amazon rainforest to the Andes mountains, that splits into three when entering the Colombian territory.

With a steadily growing population of over 51 million inhabitants, Colombia holds the title of one of South America's most populous countries. The economy, measured by its Gross Domestic Product (GDP), showcases a mix of sectors, such as agriculture, forestry, fisheries, services and industry. Over the years, Colombia has embarked on a journey of economic diversification, aiming to reduce its dependence on commodities and foster innovation in various sectors.

Colombia's blockchain community is a dynamic and rapidly growing ecosystem that is playing a pivotal role in shaping the country's technological landscape. Several blockchain-focused communities such as the Colombia Blockchain Association have sprouted across Colombia, creating platforms for collaboration, knowledge sharing, and innovation. These communities organize meetups, workshops, conferences, and hackathons to bring together individuals who are passionate about blockchain technology. It is with no surprise that the Ethereum Community Conference in 2022 happened in Bogotá, its capital city.

Furthermore, universities and research institutions in Colombia have recognized the importance of blockchain education. They are offering courses, seminars, and workshops to equip students with the necessary skills to engage with this cutting-edge technology. This educational initiative ensures a steady influx of talent into the blockchain workforce, contributing to the growth and sustainability of the community. Some universities in Colombia that offer courses, workshops, or research opportunities related to blockchain and distributed ledger technology are the Universidad de los Andes, Universidad Nacional de Colombia, and Pontificia Universidad Javeriana.

1. Fundación Mi Sangre: Ni1+

NI1+ **The evidence backs you**	**More information:** https://fundacionmisangre.org/ **More information about:** https://lacnet.lacchain.net/ni1-eng/

Gender-based violence remains a grave concern worldwide, with alarming statistics revealing that a significant number of women face violence at the hands of their partners or ex-partners. In response to this pressing issue, Ni1+ was developed to

provide a discreet solution for victims to gather audio and video evidence of violent incidents.

Ni1+ is an application implemented in collaboration with IDB Lab, Fundación Mi Sangre, NoSoloSoftware, Lifechain and LACChain. The application is designed to address the pervasive issue of gender-based violence, particularly among women. This app serves as a powerful tool to combat impunity and promote justice by leveraging advanced technologies, notably blockchain and Qualified Timestamp-QTS mechanisms.

The application operates covertly, featuring an inconspicuous interface that users can manually activate to record audio and video. These recordings are then automatically stored in a secure cloud environment, safeguarding the evidence from potential tampering or destruction. However, what sets Ni1+ apart is its utilization of blockchain and QTS to ensure the integrity and immutability of the collected evidence.

The blockchain is an integral component of Ni1+ success. By storing recorded files within a blockchain framework, the application guarantees the authenticity of evidence, making it admissible in legal proceedings. This innovative approach enhances the credibility of the evidence, addressing the challenge of dismissed cases due to lack of substantial proof.

Moreover, Ni1+ prioritizes user consent and data security. The recorded evidence remains inaccessible and unshareable until explicit permission is granted by the user. This proactive approach ensures that victims maintain control over their data and evidence, fostering a sense of empowerment in an often vulnerable situation.

In essence, Ni1+ combines technological innovation with social responsibility to provide a tangible solution for victims of gender-based violence. By harnessing the power of blockchain, the app not only enables victims to gather credible evidence but also plays a crucial role in holding perpetrators accountable for their actions. Through its innovative approach, Ni1+is contributing to the ongoing fight against gender-based violence and paving the way for a more just and secure society.

2. Terrasos

TERRASOS	**More information:** https://en.terrasos.co/

Terrasos, a groundbreaking initiative based in Colombia, is at the forefront of the Finance for Nature sector. Established in 2022, the project is driven by one goal: to create a mechanism for financing biodiversity conservation projects by leveraging the power of digital tokens and blockchain technology. This innovative approach aims to bridge the gap between custodians of natural landscapes and the nature

finance sector, providing a tangible solution to the challenge of funding vital conservation efforts.

In a nutshell, Terrasos is dedicated to the development of a high-integrity protocol that utilizes blockchain technology, particularly the Polygon network, to facilitate the issuance and trading of Conservation Tokens. These tokens represent contributions to specific biodiversity conservation projects, ensuring traceability and transparency in transactions. The project's foundation is rooted in the realization that conventional funding sources often fall short in supporting conservation initiatives, and thus, blockchain technology can revolutionize the way such projects are financed.

The inspiration behind Terrasos is driven by the urgent need to address the dwindling resources available for biodiversity conservation projects. Traditional funding mechanisms struggle to keep pace, leaving many initiatives unsupported. Terrasos seeks to rectify this by introducing a new paradigm, where digital tokens backed by a high-integrity protocol guarantee a direct and substantial positive impact on the environment.

The core philosophy of Terrasos centers on the potency of blockchain technology. This decentralized ledger technology not only ensures transparency and accountability in transactions but also empowers the creation of digital assets with verifiable origins. The ability to trace contributions and ownership creates a foundation of trust, fostering a sense of shared responsibility among stakeholders.

Terrasos' primary partners are the custodians of the lands and territories that stand as critical conservation areas. These partners, often private landowners or communities, collaborate closely with Terrasos to develop and implement projects that resonate with the ethos of the initiative. Additionally, Terrasos collaborates with key industry players like XM, a subsidiary of a prominent Latin American energy provider, who contributes to the development of the registration platform.

The project's impact is profound and far-reaching. By introducing Voluntary Biodiversity Credits, Terrasos provides a solution for the conservation of areas that may not fit into conventional compensation projects or large-scale initiatives. This novel approach engages not only project owners but also individuals and businesses, spreading the mantle of conservation across society. It encourages broader participation and a change in mindset, as more people recognize the value of safeguarding biodiversity and actively contribute to the cause.

Terrasos primarily impacts the biodiversity conservation landscape in three key areas. Firstly, it focuses on Biodiversity Conservation Financing, pioneering a mechanism that leverages digital tokens to fund conservation projects. Secondly, Terrasos addresses the significant challenge of bridging Funding Gaps that often hinder the support of biodiversity conservation initiatives, providing a sustainable solution. Lastly, the project introduces the innovative concept of Conservation Tokens, representing contributions to conservation efforts, thereby creating a transparent and accountable system for supporting critical environmental preservation endeavors.

Education and awareness stand as significant challenges for Terrasos. Balancing environmental and technological aspects requires continuous efforts in communication, design, and marketing. The project envisions a future where biodiversity tokens and contributions to conservation projects are seamlessly integrated into everyday life, creating a positive impact on both society and the environment.

As Terrasos advances, its impact can be measured through various indicators, including the expansion of preserved and restored areas, acquisition of voluntary credits, and the adoption of blockchain technology. The initiative's commitment to engagement is evident through its involvement of local communities, particularly women and rural populations, and its dedication to knowledge sharing through open access resources.

In its journey to revolutionize conservation financing, Terrasos underscores the significance of collaboration, innovation, and blockchain technology. By taking conservation beyond traditional boundaries and making it a shared responsibility, Terrasos is paving the way for a sustainable future where environmental well-being takes centre stage.

Dominica

Dominica is an island country in the Caribbean. The capital, Roseau, is located on the western side of the island. It is geographically situated as part of the Windward Islands chain in the Lesser Antilles archipelago in the Caribbean Sea. Dominica's closest neighbors are two constituent territories of the European Union, the overseas departments of France, Guadeloupe to the northwest and Martinique to the south-southeast.

Dominica's currency is the East Caribbean Dollar. The country was near a financial crisis in 2003 and 2004, but Dominica's economy grew by 3.5% in 2005 and 4.0% in 2006, following a decade of poor performance. Growth in 2006 was attributed to gains in tourism, construction, offshore and other services, and some sub-sectors of the banana industry.

Agriculture, and especially bananas, once dominated Dominica's economy, and nearly one-third of the labour force worked in agriculture in the early 2000s. This sector, however, is highly vulnerable to weather conditions and to external events affecting commodity prices. In 2007, Hurricane Dean caused significant damage to the agricultural sector as well as the country's infrastructure, especially roads.

1. CREAD parametric insurance

Climate Resilience Execution Agency for Dominica	**More information:** https://www.creadominica.org/initiatives-1

The Commonwealth of Dominica's Climate Resilience Execution Agency (CREAD) is a statutory government organization that directs and coordinates strategic activities across sectors with the aim of making Dominica the first climate resilient nation in the world. Miss Baron is the CEO of CREAD, and she is in charge of assisting in the execution of Dominica's Climate Resilient Recovery Plan, the accomplishment of resilience goals, and the completion of significant capital projects. To lead the climate resiliency mission in Dominica, CREAD's mission is to organize and coordinate strategic activities across all sectors of the nation.

CREAD is developing the Blockchain Hurricane Protection (BHP) parametric insurance product to help individuals, farms, and MSMEs manage climate risks, particularly those related to storms. BHP offers rewards based on planned triggering events rather than damage assessments, which is how it differs from typical insurance. This speeds up the process and may make it more inexpensive; also, blockchain technology ensures transparency and prompt payouts. The Dominica Co-operative Societies League Ltd (DCSLL), a reputable Dominican credit union institution, has created a mobile wallet through which users can access the goods. Payouts are automatically processed and given within three days of a qualifying occurrence once a policy has been acquired and recorded on the blockchain.

CREAD, the Blockchain & Climate Institute, Global Parametrics, and Diagon Consulting Ltd. are working together on the creation of BHP. Small island countries like Dominica can greatly benefit from this novel method since it offers a transparent, cost-effective, and effective means of reducing the economic effects of natural disasters and ensuring prompt financial assistance when it is most required.

Dominican Republic / Republica Dominicana

The Dominican Republic is well-known not just for its stunning beaches and resorts, but also for its advantageous tax climate for income generated abroad, which may draw especially the attention of international investment. Similar to the Caribbean countries Bahamas, Cayman Islands, and Bermuda, it may be a favourable country for crypto investments. Furthermore, there are no particular regulations in Dominica that control or restrict bitcoin trading or use, and individuals are expected to invest at their own risk. However, the Monetary Board and the Central Bank of the Dominican Republic reiterated that local regulated financial institutions are not permitted to invest in or conduct transactions with virtual currency.

Central Bank Digital Currencies (CBDC) have piqued the Dominican Republic's interest. As a member of the Eastern Caribbean Central Bank (ECCB) it launched in partnership with Bitt, a Barbados-based fintech firm, a pilot program. This scheme

explored the use of a digital version of the EC dollar (DXCD) for various financial transactions, from consumer-business to peer-to-peer, all facilitated through smart devices. However, there were some challenges, including technical issues and a lack of understanding among participants.

The Dominican Republic passed the Virtual Asset Business Bill in 2022, with the goal of boosting economic growth and fostering digital innovation. The TRON Protocol was designated as the country's national blockchain infrastructure under this legislation. The bill, like a few other nations in the Organization of Eastern Caribbean States (OECS), seeks to harmonise the Eastern Caribbean Currency Union (ECCU). With the implementation of this policy, Bitcoin exchanges in the country must receive a licence from the Financial Services Commission and adhere to KYC and AML regulations. The country's tax benefits are also appealing, with no capital gains tax on Bitcoin trading profits, and certain tokens like NFTs and stablecoins, are accepted for public payments, including taxes. The Dominican Republic's tax structure is progressive and based on income slabs, with significant advantages for offshore businesses.

1. Safe Islands

SAFE ISLANDS 	**More information:** https://crf.iadb.org/en/2020-2023-level3-drilldown-excel.xlsx?is_3_1=1 (information under construction)

The evolution of the COVID-19 pandemic has demonstrated that it is very difficult to control the virus transmission in densely populated and highly mobile areas. In the Dominican Republic, restrictions for the health safety of foreign visitors increased the demand for respiratory virus diagnostic tests, overwhelming the logistical capacity of laboratories, airports, and airlines, the latter of which must verify the validity of the issued certificates. Despite a visitor's interest in taking a tourism trip, the barriers and associated costs of making the journey have a negative impact on their intention and, therefore, on the destination's economy.

In this regard, and with the aim of supporting the tourism sector, a project was developed to create and adapt a solution based on blockchain technology that allows for the automation of the issuance and verification of certificates for the diagnosis of Influenza A (Flu A), Influenza B (Flu B), Respiratory Syncytial Virus (RSV), and SARS-CoV-2. The PANEL RESP PCR test will be used, carried out by Reference Laboratories and International Medical Group (IMG) Hospital.

The LACChain network infrastructure enables the secure implementation of the issuance, sending, receiving, and verification of Digital Certificates (verifiable credentials) for the tests. Once the PANEL RESP PCR test or another valuable test for ensuring health safety is conducted, authorized laboratories will generate and sign the digital certificate with the test result. This digital certificate will be sent to the patient's digital wallet, ensuring individual privacy of use. Upon receiving the digital certificate, the user can access it at any time, present it, download and print it for

verification by a third party. It will contain certain elements and data for user identification, the date and time of the test, facilitating tracking, traceability, and infection control.

The acceptance and international expansion of these certificates will mark a significant milestone for the advancement of a globally recognized digital passport and will be a significant contribution to the recovery of the tourism sector.

El Salvador

El Salvador, officially the Republic of El Salvador, is a country in Central America, bordered on the northeast by Honduras, on the northwest by Guatemala, and on the south by the Pacific Ocean. El Salvador's capital and largest city is San Salvador.

El Salvador is a lower middle income country ranked 101 of the major economies according to GDP, and has the third largest economy in Central America. Some of the largest industries in El Salvador include agriculture (among others coffee, cotton, corn (maize), and sugarcane), tourism, and manufacturing, among others.

Challenges persist for El Salvador, such as the need to advance reforms for fiscal sustainability. El Salvador could be an ideal candidate for blockchain adoption. Indeed more than half its citizens rely exclusively on cash; some 70 percent of households have no bank account and nearly 90 percent do not use mobile banking.

In this context the country's adoption of Bitcoin by the Legislative Assembly in 2021 has captured a lot of global attention. The first-of-its-kind law has been promoted by Nayib Bukele, the president of El Salvador, who claimed that it would improve the economy by making banking easier for Salvadorans or could boost foreign investment. Half the nation's households downloaded the app when the bitcoin law went into effect. To roll-out its plans, the government introduced the Chivo Wallet in September 2021 along with incentives to get households to download and use it. This included $30 in free bitcoin with each download, which is nearly 1 percent of average annual per capita income, and large discounts on gasoline paid for in bitcoin. Since the start however, very few households have joined the early movers. The adoption, although bold, has been criticized both internationally and within El Salvador, due to the volatility of bitcoin, its environmental impact, and lack of transparency regarding the government's fiscal policy.

1. Bitcoin Beach

bitcoin beach ¡El futuro está aquí!	**More information:** https://www.bitcoinbeach.com

First bitcoin circular economy in Latin America; it was established in 2019 out of Hope House, an existing charity based in the surf town of El Zonte, through an anonymous donation in bitcoin that required its spending in bitcoin, without converting it back into the US dollar. The project is cited by the government of El Salvador as one of the inspirations to adopt bitcoin as legal tender and has become a blueprint for various bitcoin circular economies in the region and beyond, such as Bitcoin Lake in Guatemala (see below), Bitcoin Jungle in Costa Rica, Praia Bitcoin in Brazil and Bitcoin Ekasi in South Africa.

During the Covid lockdown restrictions, allowances in bitcoin were distributed to the local population through the Bitcoin Lightning Network. For this purpose, and since the majority of the population does not have bank accounts, the community uses its own 'community custody' bitcoin wallet, Blink (formerly Bitcoin Beach Wallet), which was developed by Galoy.

Blink features not only a bitcoin-denominated balance but also Stablesats, a synthetic US dollar balance, which allows users to avoid bitcoin's price volatility while sending or accepting payments over the Lightning Network. Furthermore, the project offers language and computer classes as well as surf and swim lessons to children of the area.

2. Cherito Café

PRODUCED IN EL SALVADOR Cherito 1974 SPECIALTY COFFEE ROASTERS	**More information:** https://www.tierrabendita.net/en

Producer of coffee and other agricultural products as well as director of a cooperative of coffee farmers that is using traditional mayan methods and biodynamic farming while enabling direct trade through the Lightning Network, with payments being automatically distributed among different wallets, including royalties being paid out directly to producers.

3. Mi Primer Bitcoin

Mi Primer Bitcoin	**More information:** https://miprimerbitcoin.io/en/my-first-bitcoin/

Bitcoin educational initiative, founded in 2021 in light of the introduction of bitcoin as legal tender in the country, as public education about the subject appeared to be lacking. It has developed a ten-week diploma program in collaboration with a public school. The underlying workbook has been published on Github, and has already been translated into several other languages. The curriculum is now also used in other bitcoin circular economies as well as to educate public school teachers to enable them to teach the program in their local schools. Since its launch, the initiative has taught over 25,000 students.

Guatemala

Guatemala is home to a diverse landscape of mountainous highlands, dense rainforests, and a long stretch of coastline along the Pacific Ocean. It is bordered by Mexico to the north and west, Belize to the northeast, Honduras to the east, El Salvador to the southeast, and the Pacific Ocean to the south. The nation hosts a significant indigenous population, with over 20 Mayan ethnic groups.

The country has a mixed economy, with agriculture, manufacturing, and services sectors contributing to its GDP. Key agricultural products include coffee, bananas, and vegetables. Despite having the largest economy in Central America, more than half of the population lacks access to banking, and the nation has one of the highest income disparities in Latin America.

Blockchain technology has been emerging in Guatemala as a potential solution to various societal and economic challenges and there's a strong contingency of blockchain startups in Guatemala, particularly in Guatemala City. As the technology gains traction globally, local tech entrepreneurs are seeking to harness its potential for various applications, from payments to remittance solutions.

1. Acucrip.com (the Central American Association of Cryptocurrency and Blockchain Users)

ACUCRIP	**More information:** https://www.acucrip.com/

Founded in 2014, the Central American Association of Cryptocurrency and Blockchain Users (ACUCRIP) is a non-profit organization dedicated to fostering awareness and utilization of the vast potential encapsulated in blockchain, cryptocurrencies, ledger technologies, and other digital assets throughout Central America.

A driving force behind ACUCRIP's establishment as an authoritative body is its commitment to demystifying the technology, emphasizing its benefits to both the Central American and global economies.

Simultaneously, ACUCRIP is resolute in its stance against deceptive practices, actively countering international and domestic schemes that misuse the names of blockchain, bitcoin, and other cryptocurrencies, luring unsuspecting individuals with overblown promises typical of pyramid schemes.

ACUCRIP's overarching mission is to cultivate a community of cryptocurrency enthusiasts. By creating this official platform, ACUCRIP aims to champion the concerns and requirements of businesses, individuals, and general users of these digital innovations. Furthermore, they are dedicated to equipping the community with the knowledge and tools necessary to navigate and embrace the forthcoming technological evolutions in the space.

2. Adra Hostel

	**More information:** https://adrahostel.com/

Adra Hostel, situated in Antigua, is popular amongst digital nomads. It began accepting bitcoin for its services - by integrating bitcoin into their business model, to bolster revenue streams and stimulate the local economy.

According to the owners, embracing bitcoin has enabled their staff to have personal wallets to receive tips and provides an affordable alternative for sending and receiving funds as many of the employees have relatives in the U.S.

3. Bitcoin Lake

	**More information:** https://bitcoinlake.notion.site/Bitcoin-Lake-Businesses-e87de6a35f3a44bcaaa39347b203f9f4

Lake Atitlan, Guatemala, sees tourism accounting for approximately 60–80% of its economic activities. Still, a staggering 74% of its population lives in poverty, with 34% in extreme conditions.

A vast majority of Lake Atitlan's enterprises are unbanked and don't entertain credit card payments. The few that do get hit with bank charges ranging from 4.5% to 7%.

“Bitcoin Lake” is a community-driven project to promote Bitcoin adoption around Lake Atitlan in Guatemala. The goal of such initiatives is usually to provide an alternative financial system, especially in areas where traditional banking services are limited or costly to foster local economies, improve financial inclusivity, and reduce payments fees for tourists, and in turn boost the local economy.

The project educates businesses on managing their cryptocurrency—whether they choose to retain or liquidate it via Lake Atitlan’s local bitcoin ATM.

Mexico

Mexico is a country rich in cultural heritage. It has 35 sites inscribed on the UNESCO World Heritage List, of which 27 are cultural, 2 mixed and 6 natural, ranking as the country with more inscribed sites in Latin America and in the seventh place worldwide. With a population of over 128 million inhabitants, Mexico's population is diverse, with various ethnic groups, including indigenous American Indians. The majority of the population today are mestizos, a result of the blending of indigenous and European ancestries. Besides a diverse population Mexico encompasses a variety of ecosystems such as arid deserts and scrublands, tropical rainforests, temperate forests and grasslands, mangrove swamps, alpine ecosystems, and coral reefs. Mexico ranks among the emerging economies exhibiting a proclivity for foreign direct investment, holding the position as the ninth-largest recipient of FDI worldwide and is the second largest economy in Latin America.

Mexico appears to be increasingly asserting itself as a pivotal player in the global blockchain arena. According to most recent outcomes presented in Chainalysis 2023 Geography of Cryptocurrency Report Mexico ranks 16 in the 2023 Global Crypto Adoption Index Top 20.

As any other country however Mexico faces social challenges. Efforts are made to address the social challenges through innovations including blockchain technology. One of the social challenges in Mexico that can be met by harnessing blockchain are for example financial inclusion and access to services such as education and health. By using for example blockchain-based digital identities, individuals without traditional identification documents can securely prove their identity and access banking services or any other services. This can empower marginalised communities and enable them to participate in the economy. To provide a better picture about the role of blockchain in Mexico some blockchain based projects in Mexico addressing the social good are being presented below.

1. fAIrLAC Certificates

fAIr LAC	**More information:** https://fairlac.iadb.org/en/emprendimiento/reconocimiento

Its objective is to harness the responsible and ethical adoption of Artificial Intelligence for social good. This is achieved by bringing together academia, civil society, the public sector, and the private sector to develop capabilities, amplify the social impact of AI, and leverage technology's potential for more efficient social services.

The aim of the Entrepreneurship component in fAIr LAC is to transform society by addressing some of the most important challenges through the use of Artificial Intelligence, within one of the most dynamic entrepreneurship ecosystems in Latin America.

In this case, certificates were awarded to participants of the AI Startup Acceleration Program (PASIA). The AI Startup Acceleration Program (PASIA) seeks to enhance the skills of entrepreneurs and their startups, enabling them to transform society by solving complex challenges with innovative solutions using ethical and responsible AI. These solutions focus on priority verticals, including health, education, environment, and the digital transformation of government. The program's objective is to accelerate startups within the region's entrepreneurship and innovation ecosystem.

2. Os City

OS CITY	**More information:** https://www.os.city/

Os City founded in 2016 is a technology company that focuses on creating innovative solutions for smart cities and urban development. They offer a platform and tools designed to help cities and municipalities improve their operations and services by leveraging data and technology.

To address the challenges in the Latin American public sector OS.City's is using blockchain technology. Through the application of blockchain to government operations Os CIty is aiming to bring transparency, security, and efficiency to various public sector functions.

More specifically their overarching purpose is to radically transform governments by fostering the adoption of decentralised digital identities. This vision aligns with the

global trend towards digital transformation in the public sector and the importance of secure, decentralized identity solutions in today's digital age.

3. Tan Tan

	**More information:** https://tantan.solutions/

The digital identity created in Tan Tan - using the LACChain Network Blockchain - allows users to create and hold their SSI to identify themselves both in physical life and in digital environments. Tan Tan Solutions developed a unique platform to provide self-sovereign digital identity services including EduTech with university certificates emission and FinTech services to improve the current physical payment processes. The digital credential allows universities to grant students a myriad of advantages since they never will lose the credential which translates into savings both time in replenishment procedures.

By creating a digital vault universities create a virtuous circle of security and functionalities for the student who will allow him to identify himself in a smart as well as making digital payments both in the University as in the whole city through the use of Tan Tan digital wallet.

Multiple services and tracking in the same platform that integrates to the daily life of the student and continues in his professional life as a graduate credential. The digital credentials have been developed to introduce several technological advancements. This includes the use of biometric security for credential generation, employing artificial intelligence for identification authenticity verification, and validating student data while confirming institutional affiliation. Furthermore, it establishes and consolidates a sense of belonging by creating a unified identity. Notably, it generates a distinctive dynamic and encrypted QR code with a time window, ensuring enhanced security and control.

Additionally, the system verifies individual authenticity, manages access, and facilitates registration for various events such as meetings, assemblies, congresses, and conferences. Moreover, it streamlines payment processes for institution-organized services and events like forums and congresses. The utilization process of Tan Tan's wallet involves initiating agreements with institutions, sharing a database, utilizing identifiers for identity verification, and issuing or revoking credentials. Users can access the application directly, while administrative roles within each institution use a management platform.

Peru

Peru, a nation known for its history of the Inca Empire and its natural landscapes, is situated on the western coast of South America. With a GDP of approximately $264 billion and a population of over 34 million people, Peru's economy has traditionally been driven by industries such as services, mining, manufacturing amongst others. The country's diverse geography, ranging from the Andes Mountains to the Amazon Rainforest, contributes to its unique cultural and ecological diversity.

In recent years, Peru has demonstrated a growing interest in adopting emerging technologies. While not as prominent in the blockchain, cryptocurrency and AI sectors as some other nations, Peru has shown a willingness to explore the potential of these technologies. The Peruvian government and private sector have initiated discussions and pilot projects to harness blockchain and AI for various applications, including supply chain management, financial services and agriculture.

1. Agros

AGROS	**More information:** https://agros.tech/

Agros is providing rural producer organizations with blockchain-based digital identities, enabling them to participate in the global digital economy. The issuance and management of the digital identities is provided in collaboration with LACChain, using the LACChain blockchain network.

This integration has enabled the issuance of verifiable credentials to validated producers, fostering trust and supporting Agros' mission to enable rural producers to showcase their work globally. The company focuses on three categories of information: personal, production, and economic, gathered through a WhatsApp bot and via telephone, as well as biometric integration strengthening the KYC process. They have expert advisors guiding farmers to ease adoption and minimize friction.

Blockchain-based solution ensures data credibility and immutability, linking farmers with financial institutions to facilitate credit access. Their monitoring system employs monthly crop pictures to assess health, alerting producers about issues and adding value to production.

Agros collaborates with fintech partners in Peru and Spain, catering to farmers without bank accounts. The company identifies interested farmers, teams with agri-stores and distributors, and facilitates wallet-based trade. Physical cards with QR codes enable in-store payments, and Agros intends to franchise its evolving technology to established agricultural entities supporting local farmers.

2. Agape Hands

	**More information:** https://agapehands.org/ https://medium.com/impactmarket/transforming-lives-in-the-heart-of-the-peruvian-andes-blockchain-powered-financial-inclusion-9f899f6ffcdd

ImpactMarket, Ammer Group, and the Celo Foundation linked with local NGO, Agape Hands, to address financial exclusion and spur economic growth in the mountainous region of Tarma, Peru. The 3-month project represents the convergence of technology, ancient traditions, and a vision for a better future.

Beyond empowering underprivileged individuals with unconditional basic income, one of the focuses of this pilot project is expanding possibilities to access, manage, and use cryptocurrencies on a daily basis while promoting local economic development.

Notably, this initiative extends its reach beyond beneficiaries to local merchants. Two entrepreneurs will be trained to embrace digital transactions, receiving Ammer's point of sale systems and accessing the Ammer App to accept crypto payments. Additionally, these merchants will have the opportunity to access microcredit through impactMarket, further catalyzing their business growth. At the end of the three months, beneficiaries will also be able to apply for loans. This is aligned with impactMarket efforts to broaden its microcredit services to new geographical realms, paving the way for scalability and community empowerment.

3. Coopecan

	**More information:** https://www.coopecan.pe/

Implementation of a traceability system for the production, processing, and marketing of alpaca fibre. This initiative enables the cooperative to demonstrate the origin of the fibre, the characteristics of animal breeding, and the use of natural resources in the production areas (water and soil). This traceability system facilitates access to new markets, increasing the income of the cooperative and the participating partners in the different activities of the production chain.

An application has been created for generating digital identities for technical and healthcare employees, enabling them to issue certificates (verifiable credentials VCs) associated with producers. This allows them to demonstrate regulatory compliance in real-time. Furthermore, the credentials issued by COOPECAN serve to demonstrate income and/or accounts receivable, as well as to establish an ecological scoring that allows them to participate in social and/or development programs.

4. Motive

MOTIV	**More information:** https://motiv.ngo/

Motiv, established in 2019 in Peru, is a project at the intersection of the socioeconomic and health/wellness sectors. Motiv utilizes blockchain, particularly bitcoin on the Lightning Network, as a catalyst for change. The project's core goal is to break the cycle of dependency and vulnerability by providing education, tools, and bitcoin, enabling individuals to attain self-sufficiency and independence.

The project focuses on delivering comprehensive education, equipping people with practical skills, and integrating bitcoin as a means of financial liberation.

Motiv's initiative began with a significant impact on remote Andean communities facing high mortality rates. This project not only addressed this issue but also adapted to the challenges posed by the pandemic. The individuals served by Motiv typically belong to the lower end of the socioeconomic spectrum, with limited access to banking, education, and employment opportunities. Lockdowns further exacerbated their vulnerabilities, leaving them without means of survival.

Bitcoin offers a secure means of transaction for underprivileged individuals, even in areas marked by crime and violence. Its capabilities enable remote transactions and business activities, providing a lifeline during crises. By introducing financial independence and communication freedom, Motiv empowers its beneficiaries to break free from poverty and dependence.

Motiv's impact is wide-ranging. The project empowers individuals through education and mentorship, equipping them with skills to enhance their lives and establish sustainable livelihoods. By integrating Bitcoin into communities, Motiv fosters economic growth and self-reliance through innovative circular economies. Moreover, Motiv's efforts uplift vulnerable women and children, protecting them from physical violence and creating safer environments with brighter prospects. Through these initiatives, communities that were once crime-ridden and devoid of hope are transformed into hubs of progress and change, driven by the visible improvements inspired by Motiv's programs.

As Motiv continues its work, its impact is evaluated based on the progress individuals make along the "Ownership Path," from education and skill development

to empowerment and advancement. Although challenges in raising awareness persist, the project's commitment to education and community involvement remains unwavering. Motiv envisions a future where the democratization and empowerment brought about by blockchain and Bitcoin reshape societies, liberating individuals from vulnerability and dependency.

5. Stamping

STAMPING.IO	**More information:** https://stamping.io/

Stamping, founded in 2020 in Peru, aims at driving transformation in the Government sector through its project. Operating at the intersection of technology and employment, Stamping leverages the LACChain blockchain network to streamline and enhance the employment verification process. The project's cornerstone is the Single Work Certificate, an initiative issued by the Ministry of Labor and Employment Promotion, which has the potential to reshape how individuals and businesses engage in the hiring process.

The Single Work Certificate addresses the challenges associated with obtaining accurate and comprehensive information about job candidates. It consolidates essential data, including personal information, criminal records, educational history, and work experience, into a single document. By digitizing this process and utilizing blockchain technology, Stamping revolutionizes the way job applicants present their qualifications and facilitates efficient and reliable information exchange between candidates and employers.

The inspiration for this project arises from the widespread difficulties faced by individuals seeking employment, particularly those with limited qualifications or facing high turnover rates. Additionally, the project seeks to combat the issues of informality and corruption prevalent in Peru and across Latin America, fostering transparency and accountability.

Blockchain technology is central to Stamping's mission. By utilizing the LACChain blockchain network and Ethereum’s EVM, the project provides trust and immutability to the Single Work Certificate. The blockchain serves as a reliable third party, ensuring the integrity of the information contained in the certificate. With the support of LACchain and the Ministry of Labor and Employment Promotion, the technology's capabilities are harnessed to create an accessible and secure digital record of an individual's qualifications and history.

The project empowers job seekers, particularly those with limited access to formal employment opportunities, by providing them with a credible and easily shareable record of their qualifications.

Employers also benefit from a streamlined and more accurate candidate assessment process facilitated by Stamping, leading to improved efficiency in hiring suitable candidates. Lastly, Stamping plays a crucial role in combating informality in the labor force, which is a pressing issue in Peru and Latin America. By promoting

the use of formal employment certificates, the project contributes to reducing the prevalence of informal work arrangements, thereby fostering more stable and secure employment practices in the region.

As Stamping evolves, its impact is measured by the number of individuals requesting the Single Work Certificate each month. The project is not only transforming the employment landscape but also fostering a culture of transparency, trust, and accountability in labor interactions.

Stamping's journey is poised to continue shaping the employment landscape in Peru and beyond. By harnessing the power of blockchain to create efficient, reliable, and secure labor records, the project addresses critical issues in the hiring process, enhances job opportunities, and contributes to the formalization of employment.

Uruguay

Uruguay is situated between Brazil to the north and Argentina to the west, with the Atlantic Ocean bordering its southern coast. It is the second-smallest country in South America after Suriname.

Uruguay is witnessing a burgeoning interest in cryptocurrencies, with numerous exchange companies contemplating establishing bases or regional hubs in the country to facilitate a diverse range of crypto services. This momentum was bolstered in 2022 when the executive branch proposed a revolutionary cryptocurrency bill to the parliament. This legislation envisages appointing the Central Bank as the chief regulator of digital assets and introducing the Superintendence of Financial Services to supervise virtual asset service providers, thereby delineating a transparent legal structure for crypto activities in the country.

Notably, cryptocurrencies have started to be accepted in real estate transactions, indicating an uptick in their societal acceptance. Uruguay XXI, the national agency for the promotion of investments, is fostering the growth of blockchain technology through initiatives like the Blockchain Summit Global.

Of note, Tether initiated bitcoin mining operations in Uruguay in May 2023, leveraging the country's remarkable reliance on renewable energy sources, predominantly wind and hydropower, for over 98% of its electricity production. Tether's CTO, Paolo Ardoino, highlighted the company's steadfast commitment to sustainable practices, ensuring reduced environmental impacts while maintaining the security and stability of the Bitcoin network.

1. Plasticoin

PLASTICOIN EL VALOR DE RECICLAR	**More information:** https://www.plasticoin.com.uy/

The "Plasticoin" project, initiated in 2020 in Uruguay, seeks to intertwine the concepts of recycling and cryptocurrency to foster a circular economy and promote responsible plastic waste management. At the heart of this project is the creation of a virtual ecological currency, also named "Plasticoin", which aims to incentivize individuals to recycle plastic waste and reduce its irresponsible disposal, especially concerning the preservation of Uruguay's beaches.

Users participating in the project can accumulate "plasticoins" in their digital wallets by handing over their plastic waste to 15 designated collection centers situated in Montevideo and Maldonado. These accumulated "plasticoins" can later be exchanged for discounts or benefits at over 157 affiliated companies recognized for their sustainability efforts. These benefits range from discounts on surf lessons, coffee, restaurant starters, haircuts, and potentially even urban public transport in the future. The project has 6,505 registered users and have collected 69,296kg worth of plastic.

Conclusions

This report highlights the potential impact of blockchain technology in Latin America and the Caribbean. In today's global landscape, where significant challenges persist, blockchain's cross-border capabilities can drive substantial change. Understanding the blockchain developments in Latin America is vital, given the region's diverse cultures, ongoing economic shifts, and pressing social and environmental issues.

Despite language barriers that have hindered information sharing, technology is breaking down these obstacles. Through these remarkable projects, we witness collaboration across different regions, fostering innovation. These initiatives exemplify how technology, including blockchain, can contribute to environmental protection and positive transformation.

Latin America holds a pivotal role in the global sustainability endeavor. It encompasses the Amazon rainforest and other ecologically significant areas, serving as poignant reminders of the importance of planetary stewardship amid pressing environmental challenges. Simultaneously, Latin America experiences substantial economic growth, offering a unique opportunity to explore innovative ways to generate income while promoting environmental and community well-being.

Blockchain extends its impact beyond the environment, also addressing social issues such as gender-based violence. These projects offer hope to those in need by enabling secure evidence collection, thereby potentially reshaping the dynamics of justice.

The cross-border capacity of blockchain underscores the necessity for increased collaboration between regions. Sharing knowledge and resources allows us to collectively address shared challenges, aligning with the United Nations' vision for a more sustainable world. The showcased projects in this report represent only the inception of the remarkable potential that technology offers.

Moving forward, fostering collaboration, inclusivity, and the adoption of transformative technologies like blockchain are paramount. The partnerships between PositiveBlockchain, LACChain, and INATBA Social Impact and Sustainability Working Group members, including Blockchain.com, Climatecoin, IOTA, and Nyala, exemplify the formidable outcomes of collective effort. Regardless of our origins, we all play a crucial role in advancing a better world.

Empowered by fresh ideas and innovation, Latin America's future appears promising. Through the utilization of blockchain technology, we lay the foundation for a more equitable and sustainable world.

In our pursuit of a sustainable future, connecting with people worldwide becomes vital, as we jointly confront common challenges and collectively strive for a brighter future through cooperation, innovative solutions, and an unwavering commitment to improving the lives of all.

ANNEX 1: Empowering the Region: An overview of LACChain

LACCHAIN	**More information:** https://www.lacchain.net/home

Founded in 2019, LACChain embarked on a mission to accelerate the growth of the blockchain ecosystem across Latin America and the Caribbean. Its trajectory has been marked by achievements, underpinned by collaborations with public and private sectors alike. Anchored by the IDB Lab, LACChain has thrived on the collective spirit of more than 65 partners, uniting global entities, governments, enterprises, academia, startups, and NGOs.

LACChain, a key actor in the production of this report and a member of the governmental advisory board of INATBA. It stands as a leader of transformative change within the Latin American and Caribbean region. LACChain's initiatives are emblematic of the profound impact that blockchain technology can wield in shaping inclusive, sustainable societies.

Enabling infrastructure as a regional public good, LACChain has harnessed the potential of blockchain technology to bring about tangible societal changes. Its innovative applications span a broad spectrum - from agricultural traceability to financial inclusion, healthcare, education, and essential services. With over 80 solutions deployed, LACChain has touched the lives of more than 8 million vulnerable individuals in 17 countries across the region.

LACChain has many use cases of impactful initiatives, among them:

- **Financial Inclusion:** LACChain's applications enable secure cross-border payments and efficient KYC procedures. This has led to enhanced accessibility to financial services for unbanked and underbanked populations.
- **Agricultural Traceability:** By digitizing certification processes and traceability of agricultural products, LACChain has empowered local farmers to access broader markets, ensure food safety, and boost export potential.
- **Healthcare:** LACChain's blockchain-based solutions have facilitated the issuance of health certificates for immunization and COVID-19 test certificates. These advancements have streamlined healthcare processes and played a crucial role in pandemic management.
- **Education:** LACChain's involvement in secure academic credentialing ensures that individuals have access to tamper-proof educational records, facilitating skill development and workforce integration.
- **Transparent Procurement:** A platform enabled on the LACChain blockchain networks has promoted transparency and efficiency in the allocation of resources, reducing corruption risks and enhancing public trust.

Central to LACChain's vision is the realization of Web 3.0, a paradigm shift in digital interactions. This new era envisions decentralized digital wallets, tokenized assets, and verifiable credentials, creating a more inclusive and accessible digital landscape. LACChain's infrastructure, comprising the LACChain blockchain networks orchestrated by LACNet, paves the way for this transformative evolution by adhering to the LACChain Framework for Permissioned Public Blockchain Networks.

In the journey towards widespread adoption of blockchain technology, LACChain has faced multifaceted challenges. Overcoming misconceptions about blockchain's complexity, environmental concerns, and its linkage solely to cryptocurrencies has been a persistent endeavor. Yet, LACChain remains resolute in raising awareness and fostering understanding about the broader applications of blockchain for societal advancement.

LACChain's dedication to real-world impact is manifested in its meticulous measurement system. The technical team of LACChain is currently working to have an updated version of a public impact dashboard. It will offer real-time insight into its projects' performance, providing verifiable data to guide decision-making and amplify societal benefits. Additionally, LACChain continues to forge connections, hosting events, workshops, and webinars, nurturing collaboration among stakeholders and empowering them with blockchain knowledge.

As LACChain looks ahead, it envisions a landscape where blockchain technology is a driver of empowerment and inclusivity. By fostering large-scale solutions and nurturing innovative endeavors, LACChain is poised to create a resilient digital economy that transcends boundaries and empowers communities. Its resounding impact on social transformation echoes the potential of blockchain technology to shape a brighter future for Latin America and the Caribbean.

ANNEX 2: The Voice of the Projects

Continuing our exploration of groundbreaking blockchain projects in Latin America, this chapter takes a distinct approach. While the previous chapter presented an overview of various initiatives, this segment gives the projects themselves the opportunity to speak. In a call that resonated across the region, we invited 17 projects to participate in a survey and interview process. The intent was to provide a platform for these projects to articulate their visions, missions, and impacts.

Within this chapter, we represent the voices of three exceptional projects that responded to our invitation. Each project showcases a unique blend of innovation, dedication, and commitment to addressing critical challenges in their respective fields. Their insights not only provide insights on their specific solutions but also offer a window into the broader landscape of blockchain's projects in the Latin American region.

By featuring the responses from Motiv, Stamping and Terrasos this chapter explores the essence of these projects in their own words. Their perspectives underscore the diverse ways in which blockchain technology is making an impact, spanning from conservation and socioeconomic empowerment to governmental processes and employment verification. The approaches presented here reflect the proactive engagement of these projects in shaping the region's technological and sustainable future.

With the input provided by the projects we gain valuable insights into their motivations, challenges, and aspirations. These accounts enrich our understanding of how blockchain technology is harnessed to create tangible, positive change in Latin America. The following pages carry the voices of the projects that eagerly shared their stories, inviting us to see the world through their innovative lenses.

1. Interview with Motiv

MOTIV	**More information:** https://motiv.ngo/

Question	**Motiv Answer**
In which country are the headquarters of the project	Peru
In which sector is the project primarily operating	Socioeconomic and health/wellness
In which year was the project founded	2019
In a nutshell, what is your	Dependencies cause vulnerabilities. Motiv uses

project about?	education, equipping and Bitcoin to break dependencies, eliminating vulnerabilities and allowing people to earn their way to self-sufficiency and independence. Our processes result in saving children's lives, preventing disease and deformities, creating Bitcoin Circular Economies, saving women and children from physical violence and transforming crime ridden hopeless communities into healthy communities full of hope based on evident change.
Which Blockchain Technology are you using (which protocol are you mostly using)?	Bitcoin, and primarily on the Lightning Network.
What inspired you to create your project? (Please specify what motivates you to do this project and what was the social/environmental situation you wanted to address)	We at Motiv are inspired to secure the ability for anyone and everyone to exercise their basic human rights to Life, Safety, Liberty, Personal Property, to the extent that they cannot be forced or coerced into anything less than beneficial to them and their family's future. Initially, we began because there was a 5% mortality rate annually in remote Andean Peru. We solved this problem where we were active, but the pandemic's lockdowns created many more problems. The people we serve are at the very bottom of the socioeconomic scale, are usually parents with children they cannot feed or adequately care for. They cannot bank due to not having requirements to bank, nor can they attain gainful employment for the same reasons, as well as having no education nor vocational skills. During the lockdowns not only could these people not work, they couldn't even effectively beg or steal, to survive. The places they normally would get supplies from were closed and/or empty. Churches and NGO's even closed shop and the Governments were completely unable to assist. Motiv's portfolio of programs, applied to individuals in a community and supported through our Comprehensive Centers, create a Circular Bitcoin Economy. These Circular Bitcoin Economies are initially fed by scholarship education, but soon the vocational and entrepreneurial program graduates

	start business ventures. As more and more needs are met, the circular economy grows, while still being fed by the Comprehensive Center's programs as a sort of Economic Generator Motor.
Why are you passionate about blockchain technology?	We require blockchain because of its democratization, open access, immutability and non-manipulable traits. The people we serve are struggling to achieve basic survival for themselves and their children. They live in crime ridden areas where human trafficking of every kind is actively going on all around them. Without the ability to bank, their cash would be stolen if not used immediately. They cannot save, nor carry money with them in many cases. With Bitcoin, they can transact with stores from a distance. When they are robbed, they lose their phone but not their Bitcoin. They learn intuitively, much more about currency and transacting than they have ever known, just through the use of their wallet. In some regions, Bitcoin has connected economically isolated people to broader regional economies which has absolutely changed the prospects of survival of not only the people, but of indigenous cultures. It should be listed as a human right to have full sovereignty over your money and communication. People in our programs now have that available to them.
In what way is blockchain technology important for your project? Please explain	We require blockchain because of its democratization, open access, immutability and non-manipulable traits. The people we serve are struggling to achieve basic survival for themselves and their children. They live in crime ridden areas where human trafficking of every kind is actively going on all around them. Without the ability to bank, their cash would be stolen if not used immediately. They cannot save, nor carry money with them in many cases. With Bitcoin, they can transact with stores from a distance. When they are robbed, they lose their phone but not their Bitcoin. They learn intuitively, much more about currency and transacting than they have ever known, just through the use of their wallet. In some regions, Bitcoin has connected

	economically isolated people to broader regional economies which has absolutely changed the prospects of survival of not only the people, but of indigenous cultures. It should be listed as a human right to have full sovereignty over your money and communication. People in our programs now have that available to them.
What would you say is the biggest challenge you face?	Awareness of our operation is still quite low outside of the 16 communities we operate in. We need a lot more press coverage. We are not great at PR or Marketing ourselves. Along with very low global awareness.
Who are your main partners?	We don't have any formal partners. We are working on several corporate relationships outside of Blockchain/Bitcoin that our organization will be able through the normal way we operate in communities, bring benefit to a corporation and in turn receive funding to sustain or even grow.
What are you most excited about when you consider the future?	We are most excited about how democratization of access to truth, control of one's personal property, a greater ability to combat centralized powers that prey on the vulnerabilities so prevalent in the masses and so on, will empower billions of people to take back control of their lives and fulfill their chosen purpose on their chosen path through this life.
Can you tell us a little bit about how your project is making a change in society?	1. We educate, equip and empower people to lift themselves out of extreme vulnerability which has resulted in lost lives, human trafficking and systemic violence with no real recourse or ability to escape. As stated above, this is done through education and mentorship, but it would not be possible without Bitcoin and the Lightning Network. 2. Our programs only take hold if we roll them out to a community through a comprehensive center. This community approach has the effect of numerous people achieving greater and greater successes, so more people in the community get onboard. This also works against negative tendencies of jealousy of a neighbor doing better than you, and we very actively promote helping all people in their community out, because each individual is stronger,

	the stronger everyone in a community is. 3. We have inspired hope where there was none, and backed it up with very visible evidence over the past several years. Where many young girls in these communities capped their hopes at becoming pregnant by men who would pay child support (sadly this is predominantly their view of how they can best live) now mothers are running successful micro and small businesses out of their home, attending educational classes, are able to feed and clothe and get proper care for their children. Recently a group of mothers addressed two executives from a Crypto exchange while we were showing them our operation. The moms actually revealed over and over how they are most excited about the relief of hopelessness because now they can be much more kind and understanding to their children. In hopelessness many of the mothers take out frustrations on their children and I was amazed to hear this confession of how it used to be, and how it is now. 4. Our vocational education movement has taken flight and is gaining its own momentum. In the rural Andes, we taught indigenous Quechua women their ancestral craft of weaving, and provided a loom. The course also taught how to operate their business on Bitcoin, remotely transacting, purchasing materials through our Bitcoin run network of businesses, etc. Before these women completed our course they were showing the women of a neighboring village and were setting up pop-up markets to sell their wares. In another instance, a widower who had lost his shoe repair business due to his wife's death and his teenage son becoming very suicidal, our programs relocated his equipment to the remote squatter town he lives in, set him up as a vocational "on-the-job-training" center and he makes 95% of all of the shoes we use in our life saving steps programs. This is also now a great economic generator for our Circular Bitcoin Economy in this town! 5. In the jungle outside of Tarapoto, the local Motiv Comprehensive Center began purifying drinking water for local residents due to the massive problem the public water has with parasites. This

	program was integrated into the vocational programs and operates as a Bitcoin run business. It has grown, has official certification of purity, produces jobs and income, and is growing. It now has a delivery service and is preparing to meet greater demand from the city of Tarapoto, with a reverse osmosis purification system. In short, this prevents parasites, creates jobs, is profitable and is growing. The property it is housed on presently has been lended to the local school to use for early primary school classes because the local public school doesn't have the room for this. This use is at no charge to the public school, and it promotes the Motiv program.
How do you measure your impact?	Through the unbelievable challenges of the pandemic in Peru, we refined a system that follows a strategy of what we call our "Ownership Path" that has worked well now for a few years. On the Ownership Path we narrow people from the least engaged, to the most engaged. First, we have our "Observers," who are those that have been helped through a Motiv event or program and connect that to the Motiv brand. Est 150,000 people Next would be our "Followers." These people have received meals or shoes or have had another tangible need met. In a given year, this is roughly 15,000 to 20,000 people. Next we have "Event Participant." These people are testing out their learning opportunities and program options. Maybe they have attended an occasional event or a class or sent their children to a catalyst event such as an afterschool program or sports event. In a given year, this should be between 7,500 and 15,000 people. Next we have our "Engaged Program Participants" which are program graduates that are no longer dependent on outside aid or charity for survival and are living self-sustaining lives, or better! These people are in the phase where they are actively helping us with community building, to varying extents. They remain connected to Motiv through our Comprehensive Centers without incentive other

	than some guidance and advice. They are in the community recruiting, inviting and advocating for others to Observe, Follow and Participate. We have roughly 500 people in this category. Lastly, we have our "Ambassador/Owner" category. Ambassador/Owner people are critical for us.
How do you engage the population in your project?	In practice, we follow our 5E methodology. First we EDUCATE them in what they need. Then we EQUIP them so they may be able to apply their newly acquired knowledge/know-how. Then we EMPOWER them to get out and lift themselves out of dependency on aid, into self sufficiency. The empowerment phase is a tough one that can take a long time. It is the retraining of their mindsets and oftentimes belief systems into a shape that allows them to break free from deeply ingrained survival mode and a belief that they are not truly capable. When they have that tackled, they are EMANCIPATED from the control of others and experience a level of freedom and self direction for them and their families they have likely never known. The last phase is ELEVATE, where they are conditioned from the very beginning to show the other people in your community how to do the same for themselves. This breaks some heavy cultural tendencies, but if they do not do this they will ultimately fall back to where they were when they stumbled. If they have elevated the others around them, they will most likely be caught and supported back up when they stumble or fall, by the community they helped elevate. We operate in most places through "Comprehensive Centers" which are distributed across Peru in municipalities in various regions. These centers are educational hubs, offering education in solutions to specific problems faced in that specific area. They are a community hub where classes, guidance and mentorship takes place. Other areas, such as the remote Andes, operate differently due to geographic constraints. There, the primary hub is in Cusco, but the villages are served by us going to them and by setting up gatherings and/or events.
Do you perform any educational or awareness-raising actions	As previously stated, we are very education based. When it comes to technology though, we must meet our program participants where they are at.

(especially in regards to the technology and how users can engage with it) ?	Zero notion of what money really is. Zero experiencing with any sort of banking. Zero experience with technology or the political/ideological traits of Bitcoin. We teach them how to use the wallet of their choosing. The Blink wallet by Galoy has many very helpful features for the people we deal with in Peru. Its on Lightening Network, has a pin map for places that accept BTC, is translated into Spanish and handles Sats to Peruvian Soles calculations. They also love the send payment to pin on map option. Our ability to teach them the finer qualities of Bitcoin, comes after they have bought in on, and experienced the benefits of, being independent, free and self sustaining. It's really not until them that they can see the great values of BTC.
Do you engage in policy around Web3 and blockchain with your local authorities?	Yes
If you could ask or say something to the blockchain ecosystem in the EU, what would that be?	Blockchain and it's crowning achievement, Bitcoin, are NOT just for the wealthy or the traders or those stacking sats for a rainy day in the future. This immutable interference free currency and financial and communications system is necessary for the masses to have any chance at liberty, freedom, self-direction, etc. Accountability for the few that hold power and control is far too unappreciated.
Do you have information about the number of people that you impact with your project?	Yes
If "yes" how many women are you impacting with your project?	Our estimate in Peru is 150,000 people.
if “yes” how many people in rural areas are benefiting from your project?	It really depends on what you mean by rural. If by rural you mean distant agricultural areas, that would probably be 20,000. If rural would include squatter/slum unincorporated areas surrounding a city like Lima, then it would maybe be 135,000
"yes" do you work with minority groups? If so with	This too depends on what you are referring to by Minority. Everyone we work with is a minority as it's

which groups and could you please provide an estimated number of people?	defined in the US. We work with many indigenous peoples of the Amazon, Quechuan people of the Andes and then many mixed background people in the coastal region. Our people are at the very bottom of the socioeconomic scale, often requiring begging or crime or worse, to keep their children fed. In that sense, all of our people are in one set of minority people or another.

2. Interview with Stamping

STAMPING.IO	**More information:** https://stamping.io/

Question	**Motiv Answer**
In which country are the headquarters of the project	Peru
In which sector is the project primarily operating	Government
In which year was the project founded	2020
In a nutshell, what is your project about?	The Single Work Certificate (previously called youth certi and adult certi) is issued by the Ministry of Labor and Employment Promotion. This single document certifies: Personal information such as name and surname, date of birth, address and ID number. Certificate of police and judicial records. These are provided by the National Police of Peru and by the Judiciary respectively. Educational Trajectory: provides information on the institutions in which the academic training of the postulator is registered. As well as the educational level reached. Criminal record certificate: issued by the National Penitentiary Institute. Formal work experience: shows the information of the institutions with which the person has had a work relationship. As well as the duration of said

	period. This certificate. The Unique Labor Certificate concentrates all the labor information that a company needs to know about a candidate. In this way, the personnel selection processes are streamlined. This suits both employers and applicants. In the same way, the verification provided by the MTPE gives it added value for companies. What does it find? The guarantee that all documents contain true information. As this procedure is free, this constitutes an advantage for the employee and a facility around his employability.
Which Blockchain Technology are you using (which protocol are you mostly using)?	Ethereum Virtual Machine (EVM) using the LACChain blockchain network.
What inspired you to create your project? (Please specify what motivates you to do this project and what was the social/environmental situation you wanted to address)	People face difficulties in obtaining jobs, particularly those with high turnover rates, low specialization requirements, and minimal educational qualifications. Additionally, Peru (68.3%) and Latin America witness high levels of formal employment. However, the process of hiring individuals can be time-consuming and costly due to the laborious and informal reference verification process.
Why are you passionate about blockchain technology?	We really believe in the power of blockchain technology to combat informality and corruption (the real pandemic in Latin America) while enabling the straightforward and accurate demonstration of information integrity.
In what way is blockchain technology important for your project? Please explain	The blockchain acts as a trusted third party, providing legitimacy to the unique labor certificate through immutability, timestamping, and stamping. It certifies the certificate's existence within a block of the LACchain, ensuring a guarantee for both the issuer and receiver. Moreover, all this information can be easily accessed by scanning a QR code signed by the Ministry of Labor and Employment Promotion on the blockchain of the Inter-American Development Bank's (IDB) LACchain

What would you say is the biggest challenge you face?	Society at large doesn't trust in the inherent strengths of blockchain as a reliable third party and doesn't recognize that this technology can be utilized for more than just cryptocurrencies.
Who are your main partners?	The Ministry of Labor and Employment Promotion and LACChain
What are you most excited about when you consider the future?	By promoting the use of this certificate, companies can better and more economically assess their prospective employees, while citizens can gain access to more formal job opportunities by being able to present their employment, educational, and legal records using a simple QR code stored on their mobile phones. It is worth noting that informal work comprises 60% of the current labor force in Peru.
Can you tell us a little bit about how your project is making a change in society?	Informal work in Peru is 68.3% of the existing labor force https://es.statista.com/grafico/24764/nivel-de-informalidad-laboral-en-latinoamerica/
How do you measure your impact?	The number of people to request the certification per month
How do you engage the population in your project?	Through the official website of the Ministry of Labor and Employment Promotion and its institutional advertising
Do you perform any educational or awareness-raising actions (especially in regards to the technology and how users can engage with it) ?	The technology used in the single labor certificate is very intuitive, and most users are digital natives or have a family member or friend with this experience.
Do you engage in policy around Web3 and blockchain with your local authorities?	Yes
If you could ask or say something to the blockchain ecosystem in the EU, what would that be?	Being Blockchain a decentralized network, have initiatives such as Alastria considered integrating with semi-permitted networks such as Lacchain of the IDB?
Do you have information about the number of people that you impact	No

with your project?	
If "yes" how many women are you impacting with your project?	More than 2 million citizens off productive age
if “yes” how many people in rural areas are benefiting from your project?	Less than 5000 , because informal jobs are the rule in the rural areas, and the young people migrate to the city
"yes" do you work with minority groups? If so with which groups and could you please provide an estimated number of people?	Definitely to people with fewer opportunities to get a job, due to lack of experience and schooling

3. Interview with Terrasos

TERRASOS	**More information:** https://en.terrasos.co/

Question	**Terrasos Answer**
In which country are the headquarters of the project	Colombia
In which sector is the project primarily operating	Finance for nature
In which year was the project founded	2022
In a nutshell, what is your project about?	Our project aims to develop a mechanism for financing biodiversity conservation projects through the use of digital tokens.
Which Blockchain Technology are you using (which protocol are you mostly using)?	Polygon
What inspired you to create your project? (Please specify	Biodiversity or Ecosystem conservation projects often struggle to find funding mechanisms,

what motivates you to do this project and what was the social/environmental situation you wanted to address)	especially because of the significant gap between custodians and the nature finance sector. Biodiversity tokens or Conservation tokens have emerged as a solution to represent positive contributions to a specific project. Blockchain usage is seen as a way to ensure traceability and transparency in the ledger. However, several problems arise from the use of these tokens since the mere utilization of blockchain technology does not guarantee that the actions taken are genuinely contributing to the preservation of biodiversity. These tokens must be backed by a high-integrity protocol that guarantees a tangible and substantial positive impact on the actual territory.
Why are you passionate about blockchain technology?	Terrasos' focuses on environmental projects with financial, legal and technical guarantees . Blockchain technology allows information to be distributed, immutable and consensual, which means there is only one source of “true” information linked with the previous one. Decentralized ledger technologies allow the existence of digital assets that can be traced to their origin. Currently, our ledger is public and that generates trust in all the stakeholders involved.
In what way is blockchain technology important for your project? Please explain	Decentralized ledger technologies allow the existence of digital assets that can be traced to their origin. Our biggest reason to use blockchain is to allow traceability and transparency in transactions. However, making biocredits a tradeable digital asset is also appealing because it could dynamize the market and boost investments into biodiversity conservation projects.
What would you say is the biggest challenge you face?	Educating stakeholders regarding the whole model both the environmental and the technological aspects is time consuming and requires continuous efforts on communication, design and marketing. This seems to be the biggest challenge in the long term and will be more complex as the tokens are developed.
Who are your main partners?	Our main partners are the landowners and communities that own and custody the territories. Terrasos has primarily worked with private landowners but expects to develop projects on sites where a community or cooperative owns the land. Another key partner has been XM, a subsidiary of

	one of the biggest energy providers in latinamerica who have been developing the registration platform.
What are you most excited about when you consider the future?	Token adoption worldwide, digital assets and contributions to biodiversity conservation projects being part of everyday life.
Can you tell us a little bit about how your project is making a change in society?	Terrasos has pioneered a Protocol for the Issuance of Voluntary Biodiversity Credits. These credits serve as a solution to address the preservation of areas that are unable to be incorporated into compensation projects or are considered unsuitable for carbon or other large-scale initiatives, due to their size or unique characteristics. What sets these voluntary credits apart is that they not only benefit project owners but also actively engage the private sector, encouraging individuals to contribute towards conservation efforts. The introduction of voluntary biodiversity credits is encouraging greater participation from individuals, including both private citizens and businesses. This heightened involvement is shifting the responsibility of conservation from solely government and non-profit organizations to a broader segment of society. As more people recognize the value of preserving biodiversity, they actively contribute and become stakeholders in conservation efforts. Additionally, by making it easier for individuals and businesses to contribute to biodiversity preservation, it promotes a sense of responsibility and stewardship for the natural world. This change in mindset is crucial for building a sustainable future, where environmental considerations are ingrained in daily decisions and actions.
How do you measure your impact?	The impact can be measured through several key indicators. For instance, the number of hectares undergoing preservation/restoration processes provides a tangible measure of the expansion of conservation efforts. As more areas are protected or restored, it demonstrates the increasing recognition and commitment to biodiversity conservation. Another important factor is the acquisition of voluntary credits. Tracking the number of credits purchased by businesses and individuals reflects the growing engagement and financial investment in biodiversity preservation.

	Additionally, the adoption of blockchain technology and the expansion of tokenization play a significant role in measuring the impacts. As more projects migrate to blockchain platforms, it enhances transparency, traceability, and accountability in the management of biodiversity credits. The tokenization of these credits enables fractional ownership and trading, attracting a broader range of investors and expanding the financial resources available for conservation efforts. To assess the biodiversity gains resulting from the incorporation of a voluntary credits project, specific milestones must be achieved. These milestones encompass both ecological and management aspects, following the verification process outlined in the protocol. By meeting these milestones, it demonstrates not only effective project management but also tangible biodiversity gains. These milestones may include signing binding agreements, set up an operational plan, habitat restoration and species recovery, and effective monitoring and reporting systems.
How do you engage the population in your project?	Yes. We try to integrate as many local people as possible to our projects. The owners of the territory are the project owners and they own the biodiversity credits to be issued. Terrasos, supports the landowners and communities in making their own individual project technically rigorous and helps in the commercialization process.
Do you perform any educational or awareness-raising actions (especially in regards to the technology and how users can engage with it) ?	Terrasos is committed to generating knowledge derived from the implementation of various projects. The knowledge products are made available to the public, meaning they are open access and can be utilized by any institution. Additionally, Terrasos aims to enable individuals from the private sector, collective territories, and other sectors to make an impact through their participation in projects and subsequent generation of knowledge. Terrasos promotes the dissemination and accessibility of knowledge to foster learning, collaboration, and the advancement of conservation efforts. By making knowledge freely available, it encourages wider participation and the exchange of ideas, ultimately contributing to the collective understanding of biodiversity conservation. Moreover, Terrasos recognizes the value of diverse

	perspectives and expertise in generating knowledge. It actively encourages individuals from different sectors to engage in projects, providing them with opportunities to contribute their unique insights and experiences.
Do you engage in policy around Web3 and blockchain with your local authorities?	No
If you could ask or say something to the blockchain ecosystem in the EU, what would that be?	We do not have information on the subject, but we would ask them to take into account the Global South.
Do you have information about the number of people that you impact with your project?	Yes
If "yes" how many women are you impacting with your project?	Only in our pilot project will we positively impact 3 women, from a total of 12 people. We expect to replicate this approach in two collective territories to impact at least 260 people with roughly 50% are women.
if “yes” how many people in rural areas are benefiting from your project?	All of our projects are located in the rural areas. In the pilot project 12 people benefit directly. In one of the collective territory projects we expect to impact 900 people.
"yes" do you work with minority groups? If so with which groups and could you please provide an estimated number of people?	In the pilot project no. But in one of the new projects we are planning to work with an indigenous Colombian community.

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