



▶ G20 TechSprint 2023

Transforming Cross-border payments

October 2024

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About the G20 TechSprint

The G20 TechSprint is a joint initiative between the G20 Presidency and the BIS Innovation Hub to seek out best-in-class technological innovations aimed at common challenges and focal priorities of the global regulatory and central banking community. Launched in 2020, the annual G20 TechSprint invites global innovators to compete on developing technology solutions on a specific theme chosen by the G20 Presidency of the year and the BIS Innovation Hub. In addition to seeking out transformative solutions, the G20 TechSprint aims to foster collaboration among policymakers, technologists and financial experts.



G20 TechSprint

The fourth edition of the G20 TechSprint was a joint initiative between the BIS Innovation Hub and Reserve Bank of India under India's G20 presidency.

Following the success of the three previous competitions in the areas of regulatory compliance (regtech) and supervision (supotech), green and sustainable finance, and central bank digital currencies (CBDCs), the G20 TechSprint 2023 focused on cross-border payments.

Messages from the sponsors

There is a need to explore solutions to improve efficiency in the cross-border payments space. The time is opportune for innovative tech-based solutions facilitated through standardised protocols and arrangements among nations to solve this problem. There have been increased efforts from RBI, but such efforts need to be expanded and scaled up. When payments across borders become efficient, economic linkages, economic cooperation and economic activities across borders become easier, effective and efficient.

T Rabi Sankar
Deputy Governor, RBI

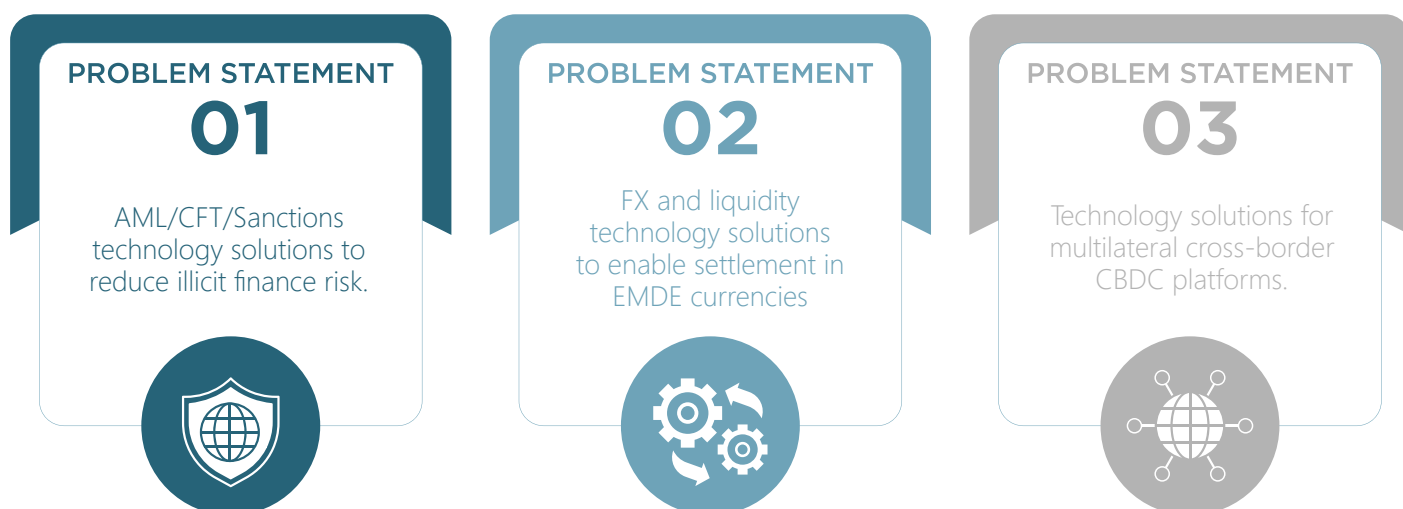


While preserving financial integrity, payments should be able to flow seamlessly across borders and between payment systems to promote competition. The BIS Innovation Hub has been working closely with our global membership to experiment with different innovative solutions to improve many of its known issues. By leveraging the important work of the G20 cross-border payments programme, this TechSprint will make an important contribution to this effort, which ultimately aims to improve people's lives all over the world.

Cecilia Skingsley
Head of the BIS Innovation Hub



Problem statements



Problem statement 1

AML/CFT/Sanctions technology solutions to reduce illicit finance risk

Multilateral cross-border payment platforms, including multiple CBDC platforms, could face reputational risk if they are used for payments related to money laundering, terrorist financing or potential sanctions evasion.

Accordingly, we call for AML/CFT/Sanctions technology solutions that can be integrated into such multilateral platforms to reduce illicit finance risk, increasing efficiency in AML/CFT/Sanctions screening processes, while ensuring a given level of confidentiality between participants and platform operators.

For reference, this could include digital identity solutions, KYC/AML/CFT/Sanctions utilities, zero knowledge proofs (ZKP), black/ white-listing, automated screening combined with alerts to participants and other technology solutions. These solutions in turn can be developed using technologies such as data analytics, machine learning, artificial intelligence, network analytics, federated learning, blockchain, smart contracts and/or other technologies.

Problem statement 2

FX and liquidity technology solutions to enable settlement in emerging market and developing economy (EMDE) currencies

Due to the risk of unexpected volatility in FX rates, FX and liquidity risks can make it more challenging to operate multilateral platforms relative to domestic systems, particularly if the platform processes multiple currencies. To mitigate these risks, a multilateral platform may opt to settle in a few liquid currencies or mandate participants to fully pre-fund their accounts or choose to settle on a deferred net basis. However, these choices could limit the usability of such platforms.

Accordingly, we call for FX and cross-currency liquidity technology solutions that can be integrated into multilateral platforms, including multiple CBDC platforms, to enable competitive pricing, and to settle payments in a larger number of currencies, including in EMDE currencies, on a real time basis with reduced liquidity demands. For reference, this could include liquidity optimisation, liquidity bridges, limit order books, among others. Technology solutions can be combined with data analytics, predictive machine learning tools, smart contract and other technologies.

Problem statement 3

Technology solutions for multilateral cross-border CBDC platforms

This problem statement calls for solutions and technologies that participants believe offer promise with regard to multilateral cross-border CBDC platforms. This problem statement is intentionally kept broad to encourage participants to present the most promising technology solutions in the context of multilateral cross-border CBDC platform development.

For reference, it could include technologies that can contribute to interoperability across multi-CBDC platforms or their interoperability with domestic payment systems, solutions that pursue data standardization to facilitate interoperability and application programming interfaces (APIs). Other ideas may concern digitised governance and voting solutions, embedded supervision, privacy technologies and cyber security solutions for multilateral cross-border CBDC platforms, while ensuring operational resiliency.

TechSprint 2023 at a glance

FINALIST SHOWCASE

This section showcases the 21 finalists selected across the 3 problem statements



PROBLEM STATEMENT

01

**AML/CFT/Sanctions technology
solutions to reduce illicit finance risk**

Panel of judges



Dilip Asbe

**Managing Director
and CEO**

National Payments
Corporations of India
(NPCI)



Bryan Zheng Zhang

**Co-founder and
Executive Director**

Cambridge Centre for
Alternative Finance



Yvonne Tsui

Senior Fintech Director

Hong Kong Monetary
Authority



Andrew McCormack

Chief Operating Officer

Al Ethead Payments



Andre Reslow

**Externally Financed
Appointee**

International Monetary
Fund (IMF)



Harish Natarajan

Practice Manager

World Bank



Violaine Clerc

Executive Secretary

Financial Action
Task Force



Peerapong Thonnagith

Deputy Director

Digital Currency Unit
Bank of Thailand

GLEIF in collaboration with Open Ownership and OpenSanctions



The Transparency Fabric: Simplify screening, increase efficiency by relying on standardized and high-quality data or sanctions and AML screening

Company description

Three organisations joined forces into a collaborative compound leveraging their unique strengths: GLEIF's expertise in legal entity identification and international standards, Open Ownership's focus on beneficial ownership information for greater transparency, and OpenSanctions' comprehensive database of global watch lists. By integrating these resources, the partnership aims to create a next-level screening solution that enhances financial transparency, enables more effective risk management, and strengthens global efforts to combat financial crime.

Solution proposed

The Transparency Fabric project combines high-quality open legal entity, beneficial ownership, and sanctions data and maps it to additional information - thanks to LEI mappings. This demonstrates how to easily develop a detailed understanding of the rich web of information relating to corporate structures. This level of interconnectivity between datasets will shed valuable light on obscured connections between sanctioned individuals or companies and wider corporate networks.

Technology

We use the "FollowTheMoney" (FtM) framework to integrate data from various sources (BODS data, GLEIF records and watch lists) into a coherent knowledge graph. FtM provides an ontology and data processing toolkit for building graphs in anti-corruption and money laundering investigations used for visualisation via Linkurious.

Quote from the team

Together, 'The Transparency Fabric' is set to elevate the data quality for compliance solutions. It further simplifies and reinforces the screening and tracing the players in money laundering, terrorist financing, and sanctions evasion – creating a more transparent and secure financial landscape for all.



Open
Ownership

open sanctions

At a glance

Year founded

2014 | 2017 | 2021

Location

Basel, Switzerland | Virginia, USA | Berlin, Germany

Website

www.gleif.org
www.openownership.org
www.opensanctions.org

Key people / team members

- Stephen Abbott Pugh (Open Ownership)
- Friedrich Lindenberg (OpenSanctions)
- Vikas Panwar (GLEIF)
- Zornitsa Manolova (GLEIF)

Ownership

2 x non-for-profit & 1 private organization

Number of staff

60 | 20 | 7

Have you received funding?

No

% of gender diversity in workforce

avg. 53% female

Notable investors

Not Applicable

Problem statement(s) submitted for

Problem statement 1

Global Screening Services (GSS)



From the industry, for the industry

Company description

GSS brings financial institutions together from across the globe to deliver higher standards in compliance, providing a trusted platform to enhance and exchange information.

Solution proposed

GSS offers sanctions screening solution that helps financial institutions (FIs) comply with global sanctions regulations.

FIs provide data to GSS, such as transaction data, and GSS returns an alert if there is a match against a sanctions list. FIs remain fully responsible for sanctions compliance, but GSS can help streamline the screening process. GSS also allows FIs to configure the solution to meet their specific risk appetite.

Technology

GSS is based on industry defined standards and uses cloud-native technology to provide a more effective and efficient screening solution.

Quote from the team

Uniquely, GSS delivers enhanced transaction screening standards, leveraging industry best practice and contemporary technology to drive a step change in effectiveness and efficiency – unlocking value at an industry and institutional level.

The only end-to-end solution built from the industry, for the industry. GSS delivers performance and scalability that traditional solutions, assembled and managed on-premise, cannot match.



At a glance

Year founded
2021

Location
London, United Kingdom

Website
www.gss-rose.com

Key people / team members

- Tom Scampion
Co-Founder & CEO
- John Cusack
Co-Founder & Chair
- Edward Thurman
Chief Commercial Officer

Ownership
Private

Number of staff
92

Have you received funding?
Yes

% of gender diversity in workforce
65% male
35% female

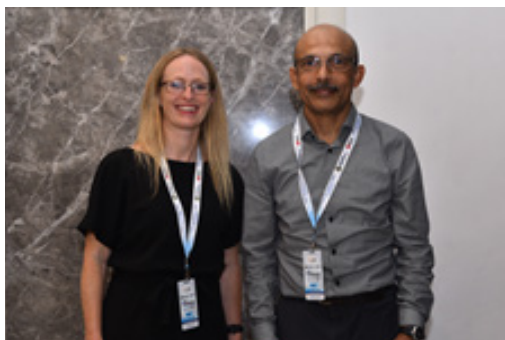
Notable investors

- AlixPartners
- Cynosure Group
- MUFG
- Commonwealth Bank of Australia (CBA)

Problem statement(s) submitted for

Problem statement 1

Mastercard



Enabling trust and supporting inclusive economic development

Company description

Mastercard's cybersecurity and customer experience solutions are helping to create a secure and inclusive digital future with a range of identity, cyber and AI technologies.

Solution proposed

Trace Financial Crime provides insights on mule behaviours, tracks funds through the financial system and identifies suspect money mule networks by delivering graphical representations and insights to participating Financial Institutions.

Technology

Product platforms comprise multiple microservices running in different layers on separate hardware. Algorithms, digital enrichment, and other tradecraft combine to deliver the needed data points.

Quote from the team

It's our vision to provide a range of services to make cross border flows more effective, safe, and secure.

Nicole Tuckwell
Director, Cyber & Intelligence Solutions



mastercard

At a glance

Year founded

1966

Location

New York, USA

Website

www.mastercard.com

Key people / team members

- Nicole Tuckwell
- Sanjay Tibrewal

Ownership

Private

Number of staff

33,858

Have you received funding?

No

% of gender diversity in workforce

61% male

39% female (as of 2022)

Notable investors

-

Problem statement(s) submitted for

Problem statement 1

Monetago



Monetago offers solution for global fraud prevention for finance and trade

Company description

MonetaGo empowers finance and trade industries to solve for systemic risks through privacy preserving digitization and fraud mitigation at scale.

Solution proposed

Monetago's Secure Financing system is a global fraud prevention system that detects duplicate financing and authenticates transaction data, providing financial institutions a reliable and standardised tool to mitigate illicit financing risks associated with trade finance.

Technology

The Secure Financing system uses privacy-preserving technology such as encryption, cryptographic hashing and confidential cloud computing, to detect and thereby prevent duplicate financing across financial institutions.

Quote from the team

Monetago disrupts fraud in Trade Finance. Fraud prevention solutions from a company with a holistic view can help tackling the frauds together through a collaborative industry level ecosystem approach for reducing frauds.

MonetaGo

At a glance

Year founded

2014

Location

United States

Website

www.monetago.com

Key people / team members

- Neil Shonhard
Chief Executive Officer
- Aisling Mullins
Chief Product Officer
- Josh Smith
Chief Technology Officer
- Simon Cox
VP Engineering
- Jialing Chia
Senior Product Manager
- Devrath Chatterjee
Product Manager
- Gaurang Talati
VP Secure Financing Lead

Ownership

Private

Number of staff

35

Have you received funding?

Yes

% of gender diversity in workforce

-

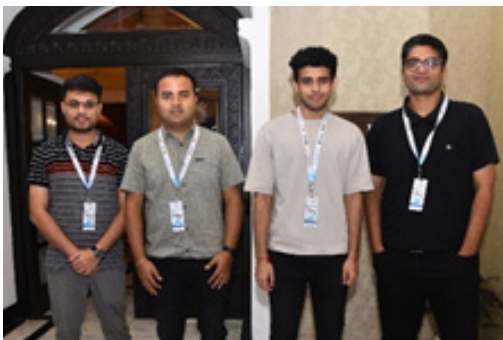
Notable investors

R3, iNovia Capita, Terraform Capital, Fantail Ventures, C2 VenturesCynosure Group

Problem statement(s) submitted for

Problem statement 1

Payglocal



Cross-border payments company enabling Indian merchants to accept payments from global customers

Company description

PayGlocal is a Indian Fintech focused on solving for cross-border payments flows. The company founded in 2021 by a team of ex-Visa directors with 50+ years of cumulative experience in payments. PayGlocal helps merchants in India accept payments from customers around the world via multiple modes including cards, alternate payments and bank transfers.

Solution proposed

The solution aims to ensure robust compliance with sanctions regulations using advanced search algorithms while maintaining the highest level of privacy, data security, and operational efficiency.

Technology

The multilateral SamruddhiX solution incorporates advanced cryptography techniques, zero knowledge proof (ZKP) and zero trust architecture with edge computing capabilities.

Quote from the team

At Payglocal we are committed to fostering global commerce in an inclusive and secure manner. There is a huge global commerce sphere that is being created and we want to protect this global sphere from money laundering attacks at the edge itself, while ensuring customer privacy for individuals inside this sphere.



At a glance

Year founded

2021

Location

India

Website

www.payglocal.in

Key people / team members

- Yogesh Lokhande
Chief Technology Officer
- Mohit Agrawal
Director of Engineering
- Ansh Nigam
Software Engineer
- Yajat Gupta
Senior Software Engineer
- Sakshi Saini
Senior Software Engineer
- Rahul Joshi
Senior Software Engineer
- Parvathi Nair
Founder's office lead

Ownership

Private

Number of staff

55

Have you received funding?

Yes

% of gender diversity in workforce

-

Notable investors

Sequoia Capital, Tiger Global Management, Beenext

Problem statement(s) submitted for

Problem statement 1

Secretarium, FutureFlow, Element-22



The rise of secure data collaboration

Company description

Secretarium and Element-22 started collaborating in 2018 to enable privacy-preserving data collaboration between large financial institutions.

Project DANIE initially focused on reference data quality to improve AML reporting, and was extended to transaction monitoring when FutureFlow joined in 2022.

Solution proposed

We presented a secure, large-scale transaction monitoring service able to detect complex money laundering patterns in support of fighting financial crime.

Secretarium securely de-identifies data on-premise and then pools it in FutureFlow to rank the bank accounts by suspiciousness using unsupervised AI analytics based on graph networks.

Every participating financial institution benefits from data augmented with anonymised information from peers—that may otherwise not be available—to support its fraud prevention activities.

Finally, secure data rooms are provided for investigation and collaboration post-suspicion.

Technology

Secretarium uses a combination of Privacy-Enhancing Technologies and provides cryptographic evidence of integrity to demonstrate that data remains secure throughout the process.

FutureFlow uses proprietary analytics based on graph networks and unsupervised AI to systematically detect suspicious flow of funds.

Quote from the team

Privacy technology provides a unique opportunity to enable cross-firm and cross-border collaboration. When coupled with advanced unsupervised AI, we can efficiently and securely support and augment each financial institution's fraud prevention activities.



At a glance

Location

London, UK

Website

www.Secretarium.com
www.futureflow.org
www.element-22.com

Key people / team members

- Bertrand Foing (Secretarium)
- Florian Guitton (Secretarium)
- Vadim Sobolevski (FutureFlow)
- Mark Davies (Element-22)

Ownership

Private

Number of staff

-

Have you received funding?

-

% of gender diversity in workforce

-

Notable investors

-

Problem statement(s) submitted for

Problem statement 1

United Nations Capital Development Fund



Impact Capital for Development

Company description

UNCDF is the United Nations' flagship catalytic financing entity for the world's 46 Least Developed Countries (LDCs). With its unique capital mandate and focus on the LDCs, UNCDF works to invest and catalyse capital to support these countries in achieving the sustainable growth and inclusiveness envisioned by the 2030 Agenda for Sustainable Development and the Doha Programme of Action for the least developed countries, 2022-2031.

Solution proposed

We have partnered with the Global Legal Entity Identifier Foundation and the Mojaloop Foundation for this TechSprint.

Using Proxy addressing and shared tokenized compliance, UNCDF proposes a solution to provide a compliance history of checks performed on a Proxy registered to an account holder. The solution reduces the risk of paying a Proxy address related to money laundering, terrorist financing or potential sanctions evasion. Additionally, it also reduces false positives and helps process transactions faster.

This concept addresses priority actions 5 (Enhancing information to end-users) and 10 (Exploring enhanced use of the LEI in cross-border payments) of the G20 Roadmap to Enhancing Cross-border Payments.

Technology

- Zero Knowledge Proof
- One-way hash means the plaintext is scrambled into a unique digest through the use of a salt, that cannot be decrypted.
- Verifiable credentials: vLEI
- hardware. Algorithms, digital enrichment, and other tradecraft combine to deliver the needed data points.

Quote from the team

Financially resilient migrants allow for financially resilient economies, locally and globally. Cross-border payments are vital for over a billion people which includes migrants and their families. Failed payments are expensive and false positives are one of the big reasons.



Impact Capital
for Development

At a glance

Year founded

1966

Key people / team members

- Dawid Planeta
- David Badovinac
- Suresh Paladugu

Ownership

Multilateral organization under the United Nations charter

Number of staff

~200

Have you received funding?

-

% of gender diversity in workforce

-

Notable investors

-

Problem statement(s) submitted for

Problem statement 1

TechSprint 2023 at a glance



PROBLEM STATEMENT

02

FX and liquidity technology solutions to enable settlement in emerging market and developing economy (EMDE) currencies



Ajna.inc



Crafting the future with blockchain expertise and AI innovation

Company description

Ajna.inc, founded in 2023, is at the forefront of blockchain innovation, with a keen focus on stabilizing cross-border payments. Our dedicated team in Ahmedabad is committed to delivering solutions that address market needs effectively.

Solution proposed

Our solution is a DAO-controlled stable coin platform that operates on central bank digital currencies (CBDCs) and is capable of generating new stable coins tailored to market demands. This ensures a more stable and predictable cross-border payment ecosystem.

Technology

We leverage Hyperledger Fabric to build a secure and scalable blockchain infrastructure that underpins our stable coin platform, allowing for the custom creation of stable coins and a reduction in cross-border transaction volatility.

Quote from the team

Our impact on cross-border payment is direct and significant – by reducing volatility, we empower businesses and individuals to engage in international transactions with newfound confidence and stability.



At a glance

Year founded

2023

Location

Ahmedabad, Gujarat

Website

www.ajna.dev

Key people / team members

- Vinay Singh
- Aishwarya Hire
- Nancy Kashyap

Ownership

Private

Number of staff

6

Have you received funding?

No

% of gender diversity in workforce

50% female

Notable investors

-

Problem statement(s) submitted for

Problem statement 2

Baton Systems Inc.



Redefining what post-trade processing should look like

Company description

Baton is a US Fintech that has operationalized DLT technology for settlements of Fx, Payments and Collateral for wholesale markets. Our vision is to offer a wholesale post-trade environment in which all asset types settle synchronously and near instantaneously.

Solution proposed

Baton provides a post-trade platform on DLT technology, enabling on-demand Peer to Peer Settlement of Fx settlements between members that are final, irreversible, and supported by a rulebook.

Technology

1. Distributed Ledger that interoperates with existing systems of banks
2. SWIFT/ISO20022
3. Cloud/Microservices/Kubernetes/RDS/Multi-Region data centers
4. SSO/SAML
5. MQ Series

Quote from the team

Payments, Fx Settlements, and Intraday Liquidity are difficult, especially for EM currencies. We believe in bringing efficiencies today, future-proofing payments technology, and democratizing access to settlements for all. We settle over 20B of value daily.



At a glance

Year founded

2016

Location

United States

Website

www.batonsystems.com

Key people / team members

- Ananth Ramakrishnan
CEO & Founder
- Arjun Jayaram
Founder and CEO
- Ananth Ramakrishnan
- Mohammad Abidi
- Alex Knight
- Tucker Dona
- Ravi Mddhuri
- Sonia Bathija

Ownership

Private

Number of staff

130

Have you received funding?

Yes

% of gender diversity in workforce

33%

Notable investors

-

Problem statement(s) submitted for

Problem statement 2

Clever



Team of Innovators

Company description

CLEVER is a small team formed in early 2023, consisting of various practitioners in payment systems and digital innovation. Our team aims to create innovative solutions for addressing cross-border payment challenges with the help of emerging technology such as Distributed Ledger Technology and Machine Learning.

Solution proposed

We focus on resolving the issues of liquidity provisioning and market making as essential components for the facilitation of cross-border transactions by leveraging direct access, single-platform CBDC model. This enables financial institutions to hold and transact in local CBDCs issued by central banks globally.

Technology

We use permissioned Distributed Ledger Technology (DLT) platform to ensure need to know basis between participant of CBDC's transaction. We also enhance user experience with LSTM model to predict foreign exchange transaction.

To avoid focusing on a single platform, as we are currently exploring with other platform as well.

Quote from the team

We believe in embracing local currencies settlement for cross border transactions to eradicate long chain of transaction between borders.



At a glance

Year founded
2023

Location
Jakarta, Indonesia

Website
-

Key people / team members

- Geri Noorzaman
- Bagas Aji Pratama
- Annisa Muzdalifa
- Bijak Antusias Sufi
- Dewi Septina Br Pelawi
- Dian Nofitri
- Claudia Hapsari Priyono
- Septy Adriningsih

Ownership
Other

Number of staff
8

Have you received funding?
No

% of gender diversity in workforce
62.5% female
37.5% male

Notable investors
-

Problem statement(s) submitted for

Problem statement 2

Groww PayServices Private Limited (as part of Groww)



An investment platform that offers a new way of investing money with stockbroking and direct mutual funds

Company description

Groww is an online investment platform that allows individuals to invest in mutual funds, stocks, and other financial instruments. It was founded in 2016 by Lalit Keshre, Harsh Jain, Neeraj Singh, and Ishan Bansal.

Groww has 40M+ customers from all over India. Groww aims to make investing simple, accessible, and transparent for retail investors.

Groww is headquartered at Bengaluru, India.

Solution proposed

A cross-currency multilateral common platform with a new tokenised financial infrastructure based on private network of distributed ledger technology (DLT). The core of the platform are automated market makers (AMMs) enabled by smart contract technology allowing for real-time, low cost, safe and transparent foreign exchange (FX) trading and settlement of central bank digital currencies (CBDCs).

Technology

- * Quorum, EVM based Enterprise Blockchain
- * AMMs, Solidity Smart Contracts
- * Use of ReactJS, NodeJS, Java, MySQL related stacks for developing applications

Quote from the team

We as a team want to present how new, open source, exciting and emerging technologies can be used to transform FX markets using multilateral common platform.



At a glance

Year founded

2021

Location

India

Website

www.groww.in

Key people / team members

- Rishav Thakur, Software Engineer
- Rohit Soni, Product Engineer
- Shivam Jaiswal, Engineer Lead
- Shivam Agarwal, Software Engineer

Number of staff

50, Groww: 1000+

Have you received funding?

-

% of gender diversity in workforce

-

Notable investors

100% owned by Billionbrains Garage Ventures Private Limited.

Problem statement(s) submitted for

Problem statement 2

Millicent Labs



Financial markets infrastructure bringing the benefits of DeFi to mainstream financial services.

Company description

Millicent Labs is a London-based fintech company that creates award-winning financial infrastructures using public blockchain technology to help shape a more equitable and efficient financial future. Our vision is an interconnected world where value moves like data, and the tools for financial empowerment are within everyone's reach. We believe that bringing the advantages of open systems like decentralized finance to the mainstream is the best path to realize this vision.

Solution proposed

LOFTHub, is a decentralized currency exchange that stands out for its unique hybrid structure, combining the benefits of Automated Market Maker liquidity pools with the reliability of traditional order books. This approach not only protects against price volatility and slippage but also enables the frictionless and cost-effective exchange of currencies without established trading pairs or corridors, thereby significantly enhancing the accessibility of instantly settling payments in a wide range of currencies, at very low costs. It's 'Hub-and-Spoke' design interlinks independent sovereign currency issuance chains to create a unified "internet of blockchains".

Technology

LOFTHub, is a decentralized currency exchange that stands out for its unique hybrid structure, combining the benefits of Automated Market Maker liquidity pools with the reliability of traditional order books. This approach not only protects against price volatility and slippage but also enables the frictionless and cost-effective exchange of currencies without established trading pairs or corridors, thereby significantly enhancing the accessibility of instantly settling payments in a wide range of currencies, at very low costs. It's 'Hub-and-Spoke' design interlinks independent sovereign currency issuance chains to create a unified "internet of blockchains".

Quote from the team

When thoughtfully designed for integration into regulated financial ecosystems, the concepts behind decentralized finance (DeFi) have the potential to revolutionize stubbornly inefficient markets such as remittance payments, which take billions of dollars from those who need it most.

By combining the 'crowdsourced' liquidity provision of a DeFi Automated Market Maker (AMM) with the execution precision of a traditional limit order book, along with low-cost, instantly settled payment rails, and best-in-class interoperability, Millicent's LOFTHub (Liquidity Optimizing Forex Transaction Hub) unlocks the potential for seamless value transfer across the globe, mirroring the way the internet democratized access to information.



At a glance

Year founded
2020

Location
London, UK

Website
www.millicent.io

Key people / team members

- Kene Ezeji-Okoye: CEO
- Stella Dyer: COO
- David Grierson: MD Product & Engineering
- Fatih Hatipoğlu: Software Engineer
- Ömer Kayabaşı: Software Engineer
- Erdem Yagan: Advisor

Ownership
Private

Number of staff
12

Have you received funding?
Yes

% of gender diversity in workforce
20% female

Notable investors
Innovate UK, Techstars

Problem statement(s) submitted for

Problem statement 2

Partior



Transforming Financial Market Infrastructure

Company description

Partior, the global unified ledger market infrastructure for clearing and settlement, is building on the inherent features of its global unified ledger and atomic settlement capabilities to address the operating inefficiencies experienced by industry players, including settlement delays, limited transaction transparency and high operating costs, and facilitating the movement of liquidity for financial institutions and their customers.

Solution proposed

Simultaneous atomic FX PvP settlement solution. Our FX and cross-currency liquidity technology solutions can be integrated into multilateral platforms, including multiple CBDC platforms, to enable competitive pricing, and to settle payments in a larger number of currencies, including in EMDE currencies, on a real time basis with reduced liquidity demands

Technology

Partior uses Ethereum Virtual Machine based smart contract technology for our Global Settlement Network.

Quote from the team

Our solution addresses the complexities of FX and liquidity risks in today's emerging markets and developing economies currencies, by offering near real-time global 24/7 settlement finality across EMDE and advanced economy currencies. This is a game-changer as not only are we helping to reduce liquidity costs, we are also minimizing manual intervention, to ensure seamless and efficient payments. Our commitment lies in empowering businesses and financial institutions to thrive in today's interconnected world, to drive economic growth and foster global financial inclusion.

Saxon Bartrop
Head of Innovation, Partior



At a glance

Year founded
2021

Location
Singapore

Website
www.partior.com

Key people / team members

- Saxon Bartrop
Head of Innovation
- Kunaal Patel
Head of Business Development & Partnerships

Ownership
Private

Number of staff
125

Have you received funding?
Yes

% of gender diversity in workforce
65% male
35% female

Notable investors
Temasek, JP Morgan, DBS, Standard Chartered Bank

Problem statement(s) submitted for

Problem statement 2

Universal Navigation Inc.



Swap anytime, anywhere

Company description

Uniswap is a decentralized cryptocurrency exchange that uses a set of smart contracts to create liquidity pools for the execution of trades. It is an open source project and falls into the category of a DeFi product because it uses smart contracts to facilitate trades instead of a centralized exchange.

Solution proposed

Our product is a fully operational demonstration of the use of Distributed Ledger Technology to power EME foreign exchange trading on Uniswap v3. With the slated release of Uniswap v4 in 2024, central banks can create customized liquidity pools to suit their needs with dynamic fees, permissioned pools, and reversible transactions.

Technology

The underlying technology is an automated market maker (AMM). Uniswap v4: A new version of the Uniswap protocol that is forthcoming. It allows for more customisability to include features such as permissioning. It also allows liquidity to be shared across currency pairs, so that the routing is optimized across a number of developed market and emerging market currency pairs without unnecessary lock up of liquidity.

Quote from the team

Our protocol is one of the largest decentralised crypto exchange in the world and we are proud of that the protocol has done trillions of dollars in volume with zero incidents.



At a glance

Year founded

2018

Location

United States

Website

www.Uniswap.org

Key people / team members

- Austin Adams
Research at Uniswap Labs
- Gordon Liao
Advisor to Uniswap Labs
- Sara Reynolds
Smart Contract Engineer at Uniswap Labs
- Mark Toda
Smart Contract Engineer

Ownership

Private

Number of staff

100

Have you received funding?

Yes

% of gender diversity in workforce

-

Notable investors

-

Problem statement(s) submitted for

Problem statement 2

TechSprint 2023 at a glance



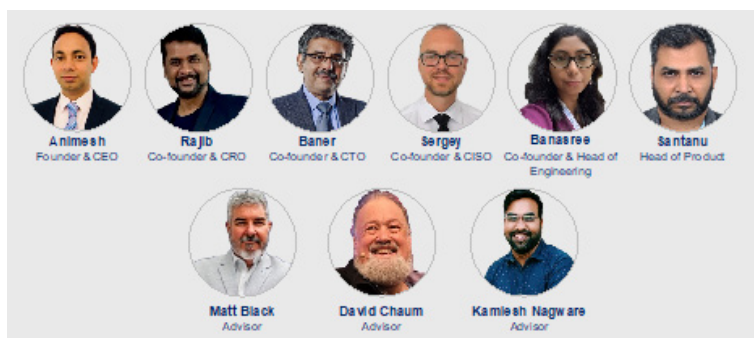
PROBLEM STATEMENT

03

Technology solutions for multilateral cross-border CBDC platforms



Currency Network Ltd



Digitalising National Currencies with the promise of cash-like privacy

Company description

Currency Network is at the forefront of the CBDC innovation in terms of delivering a platform that is quantum safe, highly interoperable and providing cash-like transaction privacy to consumers. We are providing solutions to some of the most prestigious central banks and IBM clients.

Solution proposed

CNL's Continuous Remittance Platform (CRP) implements a cross-border CBDC hub connecting islands of tokenised retail CBDC issuance systems in multiple jurisdictions. The solution tested interoperability with the existing financial system and blockchain networks representing different tokenized currency systems.

Technology

Hyperledger Besu and Hyperledger Fabric to implement two different tokenized currency systems, Hyperledger Cacti was used to deliver CBDC hub to connect the currency systems and coded using 'GO' language coding.

Quote from the team

We showcased the future of cross-border payments where each country operates its own tokenized currency system, all interconnected by a CBDC hub.

We concluded that interoperability is the key to real-time cross-border remittances between two wallets that hold tokenized central bank money under different jurisdictions.



At a glance

Year founded
2023

Location
London, United Kingdom

Website
www.currencynet.io

Key people / team members

- Animesh Ghosh
- Sibabrata Banerjee
- Sergey Igolov
- Rajib Ghosh
- Santanu De

Ownership
Private

Number of staff
10

Have you received funding?
Yes

% of gender diversity in workforce
20% female

Notable investors
Funding round currently open

Problem statement(s) submitted for

Problem statement 3

FortisNet



Quantum DLT built for a billion users

Company description

FortisNet provides advisory and breakthrough CBDC infrastructure for governments, banks, market leaders and financial institutions.

Solution proposed

Utilizing token-based distributed ledger technology, incorporating a two-phase commit protocol compliant with the ISO 20022 standard, and facilitating cross-border interoperability through the Interledger Protocol. Our system grants access to CBDC infrastructure, leveraging Corporate Digital Identity to support on-demand institutional liquidity.

Technology

FortisNet integrates elements from The Project Hamilton, The Interledger Protocol, and the BIS paper on Corporate Digital Identity to establish a robust CBDC infrastructure. This framework enables atomic swaps and instantaneous cross-border settlements, fostering connectivity among fast payment networks. Unlike traditional models reliant on large intermediary banks, FortisNet empowers smaller financial institutions to contribute liquidity, ensuring the level playing field.

Quote from the team

CBDC interoperability plays a crucial role in cross-border financial integration, fostering global economic cooperation, and enhancing the efficiency and resilience of digital payment systems in a rapidly evolving digital economy.

Dawid Planeta
Founder



At a glance

Year founded
2022

Location
London, UK

Website
www.FortisNet.io

Key people / team members

- Dawid Planeta
- David Badovinac
- Suresh Paladugu
- Kamal Kant

Ownership
Private

Number of staff
8

Have you received funding?
No

% of gender diversity in workforce
37.5%

Notable investors
-

Problem statement(s) submitted for

Problem statement 3

Kevin Zhang



TEA: Trusted Execution & Attestation

Company description

Our goal is to build a CBDC system that offers cheap & fast cross- border payments while maintaining interoperability for country participants and privacy for transacting end-users.

Solution proposed

We propose to solve issues related to 1. scalability 2. transaction privacy and 3. technology interoperability through the use of our non-blockchain based settlement layer. Our also allows for a financial app infrastructure to be built that allows interoperability between all countries and their CBDCs.

Technology

- AWS Nitro servers
- Our settlement / app layer is written in Rust to run apps written in WebAssembly

Quote from the team

We want to build an architecture that allows even the smallest of countries to onboard and participate in global financial exchange.



At a glance

Year founded

2018

Location

United States

Website

www.teaproject.org

Key people / team members

- Kevin Zhang
Founder
- Lan Ma
Operations
- George Pornaras
Marketing

Ownership

Private

Number of staff

1

Have you received funding?

-

% of gender diversity in workforce

-

Notable investors

-

Problem statement(s) submitted for

Problem statement 3

Knox Networks



Supporting All Forms of Regulated Digital Money and Securities

Company description

Knox Networks is a global transaction ledger for all forms of regulated money and financial assets 24x7x365. We create parity for how assets (including commercial bank money, bank issued securities, and central bank money) are moved and secured, with a real-time view of all cash and assets within a business.

Our tokenisation system increases scalability, interoperability, privacy, and programmability in payments, while working within the current two-tier banking and regulatory environment.

Solution proposed

Knox Networks has developed a multilateral CBDC platform solution that is able to perform atomic settlement across a variety of asset classes from CBDCs to tokenized deposits and securities, enabling complex DvP and PvP transactions. Knox's solution is a scalable and interoperable multilateral CBDC interface, with a privacy-preserving digital identity solution that utilizes open standards.

Technology

Knox's API software is owned/operated by financial institutions and allows for horizontal scalability without bottlenecks. The solution also utilizes HTLC, Relay, and traditional interoperability protocols for interfacing with different systems, and leverages standards-based identity to preserve privacy while maintaining compliance requirements.

Quote from the team

We created Knox to help address the challenges that exist in traditional legacy and blockchain systems today. The future ecology of money will contain various types of assets that need to be transacted between regulated financial institutions and doing that on one ledger will be powerful. Knox's focus on scalability, interoperability, privacy and compliance were key in designing our vision of what the mCBDC solution of the future should look like.

Natalya Thakur
Co-Founder, Knox Networks



At a glance

Year founded

2021

Location

New York City, United States

Website

www.knox-networks.com

Ownership

Private

Number of staff

<50

Have you received funding?

Yes

% of gender diversity in workforce

13% and female founded

Notable investors

Eric Schmidt, Former CEO/Chairman of Google

Marty Chavez, Former CFO/CIO of Goldman Sachs

Problem statement(s) submitted for

Problem statement 3

Parfin



Parfin is a global blockchain infrastructure provider that unifies the best of traditional finance and Defi.

Company description

Parfin is the leader in digital asset infrastructure in Latam and is rapidly expanding internationally. Rayls (previously known as Parchain) an EVM blockchain ecosystem that enables regulated financial institutions to privately transact tokenized currencies and assets across a scalable, interoperable multi-network ecosystem..

Solution proposed

The multi-CBDC payments solution was built on 4 Rayls Subnets representing 3 domestic economies and 1 Central Bank settlement network. The solution showed both Retail and Wholesale cross-border payments settle privately, in real time, while retaining domestic policy.

Technology

Rayls utilizes custom zk proofs and homomorphic encryption to privately connect Rayls Subnets, whilst enabling a network governor to prove transaction the validity, legitimacy and consistency of the encrypted data.

Quote from the team

The Cross-Border solution, built on Rayls Subnets, enables private cross-border payments between independently governed networks, which interoperate with one another to create a globally connected ecosystem of CBDCs, tokenized deposits and digital assets.

Rayls Subnets provide regulated institutions with real-time settlement finality, transaction privacy, scalability and liquidity, all whilst preserving domestic governance and monetary policy.



At a glance

Year founded

2019

Location

London, UK

Website

www.parfin.io

Key people / team members

- Marcos Viriato
CEO and co-founder
- Alex Buelau
CPTO and co-founder
- Peter Bidewell
Head of Product

Ownership

Private

Number of staff

90

Have you received funding?

Yes

% of gender diversity in workforce

82% male

18% female

Notable investors

ParaFi, Framework, B3, Valor, Alexia

Problem statement(s) submitted for

Problem statement 3

Giesecke+Devrient



Building trust in the tokenized economy.

Company description

Giesecke+Devrient (G+D) is a global SecurityTech company. The company shapes trust in the digital age, with built-in security technology in three segments: Digital Security, Financial Platforms and Currency Technology. For the G20 Techsprint, G+D joined forces with The Universal Digital Payments Network Alliance (UDPN). UDPN is a global messaging network supporting government-regulated digital currency systems, including regulated stablecoins and Central Bank Digital Currencies.

Solution proposed

This solution addresses the challenges of cross-border payments by creating a multi-lateral and multi-currency digital platform that lowers costs, improves speed and transparency while maintaining the privacy and jurisdictional compliance requirements. The solution can interlink different CBDC and digital asset ecosystems, through orchestration and smart contracts on a permissioned blockchain whereby participating Central or commercial Banks can ensure that cross-border payments are trusted, fast and settled instantly across different currency asset and banking platforms. The solution also demonstrates this multi-lateral approach by integrating multiple systems of digital currencies and assets, such as tokens issued on decentralized permissioned blockchains (Hyperledger Besu), and CBDC issued on centrally-managed and distributed database architecture in G+D Filia®, the proprietary retail CBDC product from G+D. This scalable solution enables everything from peer-to-peer cross border retail transactions to wholesale inter-bank tokenized settlements, which includes foreign exchange conversion, atomic settlement and privacy compliant data monitoring for accounting and reporting purposes. This solution also enables high scalability with its API and bridge nodes to easily and flexibly onboard multiple commercial banks, Central Banks and tokenized digital assets.

Technology

G+D Filia® enables Central Banks to create and operate a trusted wholesale and retail CBDC ecosystem through its multi-tiered distribution model and secure transfer and verification protocols which can provide more reliability, faster performance and crypto-agile security compared to DLT blockchain technologies. G+D Filia® also offers mobile wallet applications for individual users, POS devices for merchants and web apps and SDKs for Central Bank and Financial Service Providers/ Commercial Banks in a G+D Filia® sandbox environment, so Central Banks and FSPs can experience the functional use-cases of CBDC and test the interoperability of G+D Filia® and banking systems. On the other hand, UDPN is a decentralized platform that enables efficient, low cost cross border CBDC and stablecoin payments. It supports global commercial transactions in various digital currencies, with a focus on operating within regulated payment services, data protection, global scalability and promoting industry innovation.

Quote from the team

The potential impact by creating interoperable and multi-lateral cross-border payment systems can be enormous in terms of bringing low-cost, real-time settlements globally for business entities as well as individuals. Such a solution could unify the currently fragmented liquidity infrastructures into a single liquidity pool that enables the democratization of cross-border financial services—from trade to remittances—for all participants.

GD Giesecke+Devrient
Creating Confidence

udpn
Universal Digital Payments Network

At a glance

Year founded

1852

Location

Munich, Germany

Website

www.gi-de.com

Key people / team members

- Vratul Kapur
Senior Product Manager CBDC, G+D
- Daniel Nagy
Senior Business Analyst CBDC, G+D
- Jair Larrauri Bistrain
Commercial Project Manager, G+D
- Teresa Riedl
Senior Strategy Consultant, G+D
- Severino Sequeira
Technical Lead Digital Currencies, G+D
- Yifan He
CEO of Red Date Technology, UDPN
- Tim Bailey
Head of International Business, Red Date Technology, UDPN
- Steffen Schacher
UDPN Lead for GFT

Ownership

Private

Number of staff

14,000

Have you received funding?

No

% of gender diversity in workforce

31% female (for end of 2023)

Notable investors

-

Problem statement(s) submitted for

Problem statement 3

Zerone Microsystems Private Limited



Improving cross-border payments through programmable CBDCs to streamline transactions and reduce costs.

Company description

Zerone is a pioneering FinTech company that provides customised payment solutions to merchants of all sizes, ranging from small businesses to large enterprises. Our innovative approach and tailored solutions empower merchants to optimise their payment processes and drive business growth.

Solution proposed

Zerone provides Programmable wholesale CBDCs that enable faster and more cost-effective cross-border payments. By utilising smart contracts, we automate currency exchange and settlement procedures, resulting in reduced intermediaries and lower associated expenses.

Technology

Blockchain technology; smart contracts to automate currency exchange processes, and enforce predefined conditions for transactions; cryptographic techniques for securing transactions, user authentication, and privacy protection, ensuring the integrity and confidentiality of data; decentralised finance (DeFi) protocols to enable decentralised exchange of digital assets and provide liquidity for cross-border transactions; application programming interfaces (APIs) to enable interoperability and facilitate seamless interaction between different platforms and networks.

Quote from the team

Enable Barter trade through innovative cross-border arrangements



At a glance

Year founded
2009

Location
New Delhi India

Website
www.zeronepay.com

Key people / team members

- Dr. Jajit Bhattacharya
- Vivek Sharma

Ownership
Private

Number of staff
16

Have you received funding?
Yes

% of gender diversity in workforce
43.75% female

Notable investors

- Indian Angel Investors,
- The Chennai Angels,
- Anthill Ventures
- Richard Rekhy
Former CEO of KPMG
- Eric Anklesaria
Former VP of CapGemini

Problem statement(s) submitted for

Problem statement 3



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