

# Fast-tracking development of blockchain banking applications using Open Bank Project

Banco Hipotecario de El Salvador launched its first bitcoin-focused hackathon



## Author

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## Background

El Salvador is the first country in the world to give Bitcoin the status of legal tender. This is a historic milestone and could prove the feasibility of widespread cryptocurrency adoption, but introduces a number of operational and regulatory implications.

Banco Hipotecario de El Salvador is a first-tier national bank with a commercial focus. When faced with the Bitcoin Law, the bank recognized that by leveraging an Open Banking infrastructure, it could tap into existing solutions rather than reinventing the wheel.

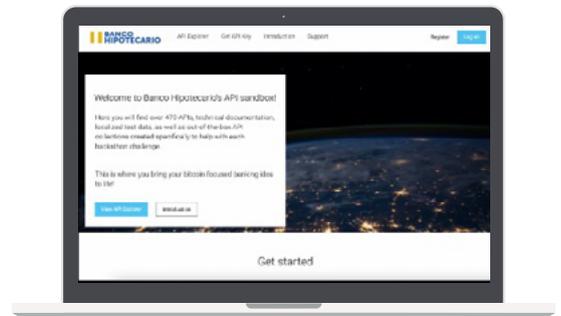
As a result, Banco Hipotecario chose TESOBÉ to help navigate this new landscape and the Open Bank Project solution to power its first bitcoin-focused hackathon, aiming to accelerate the development of innovative banking applications that can satisfy the emergent needs of Salvadoran consumers.

## Objectives

With the urge to provide these services as soon as possible, Banco Hipotecario outlined the following objectives for the hackathon:

- 1 Offer a **unified solution** to hackathon participants to build their applications
- 2 Invite local and global talent to build **inclusive financial applications**
- 3 Enable participants to create **working prototypes**

The Bitcoin Bankathon was the first bitcoin-focused hackathon in El Salvador to be launched by a traditional financial institution. The hackathon challenges developers from around the world to build innovative banking applications that could unlock access to improved financial services using bitcoin.



**About API3**

The API3 Foundation is a Decentralized Autonomous Organization (DAO) that builds decentrally governed and quantifiably secure data feeds to power Web 3.0 applications without employing third-party intermediaries. Powered by Airnode-enabled first-party oracles, API3's dAPIs are fully decentralized and blockchain-native APIs with quantifiable security.

**About Qredo**

Qredo is a decentralized digital asset management infrastructure and product suite designed to unlock new opportunities for institutional investors in digital assets and decentralized finance. Qredo's Layer 2 blockchain protocol enables users to seamlessly transfer and settle BTC, ETH, and ERC-20 tokens. Assets are secured by Qredo's advanced Gen 2.0 multi-party computation (MPC), which provides tier-1 bank security and institutional-grade governance.

**About Tropykus**

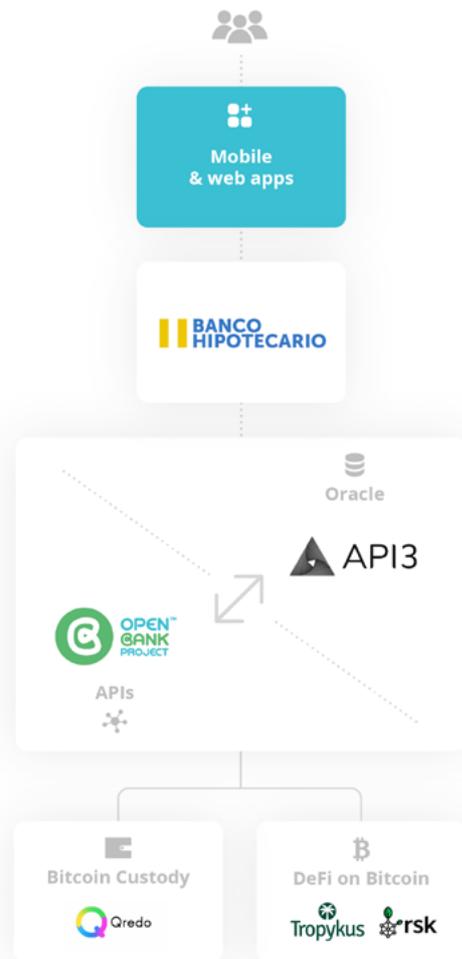
Tropykus finance is a decentralized finance protocol that seeks to connect the Bitcoin community with citizens in emerging economies to offer them better access to intuitive and fair financial products.

**Integration**

TESOBE engaged 3 partners in the blockchain space to assist in this project: API3, a first-party oracle solution; Qredo, a decentralized custody solution; and Tropykus Finance, a bitcoin lending application built on RSK.

The first aim was to combine these technologies. TESOBE deployed an OBP instance to act as the hackathon sandbox, then populated the sandbox with localized test data. Afterwards, in cooperation with API3, TESOBE deployed an Airnode instance connected to the Bankathon API sandbox. The Airnode was set up to listen for commands on the blockchain, translate them into API REST calls, and post the response back onto the blockchain. The teams also developed a decentralised authentication mechanism called dAuth.

After integrating Qredo APIs and making the Tropykus SDKs available, the toolkit was ready for participants to build their apps.



**Hackathon Event**

Prior to the event, a working group involving all parties was established, and the challenges were defined based on existing needs that Banco Hipotecario had identified in the market.

<b>Build the next neobank</b>	<b>Redesign Remittances</b>	<b>Empower women</b>	<b>Empower Merchants</b>	<b>Battle Climate Change</b>

On November 19th 2021, the online part of the Bitcoin Bankathon was launched. Numerous workshops and mentorship sessions took place to help 325 participants build working prototypes that could tackle one or more of the challenges whilst using the provided technology. Technical support was also available throughout the hackathon over the dedicated discord channel.

After three weeks of virtual collaboration and building, on December 6th, 7th, and 8th, a limited number of participants were invited to engage in activities and pitch live in El Salvador.

<b>325 Participants</b>	<b>35 Teams</b>	<b>22 Apps</b>	<b>43 Countries</b>	<b>\$150,000 Total prize pool</b>

The event ended on December 8th with live and recorded pitches in front of 9 Judges, who chose 7 winning applications based on the predefined criteria.

### About Open Bank Project

TESOBE is the Berlin-based software company behind the Open Bank Project, the leading open-source API solution for banks. TESOBE assists banks in executing effective API strategies by providing a proven API platform supported by an active community of developers and partners.

### About Banco Hipotecario de El Salvador

Banco Hipotecario is a first-tier national bank with a commercial focus. It focuses on meeting the financing needs of Salvadoran SMEs in several economic sectors, offering a wide range of banking products and services throughout the country.

## Results and Winning Apps

### Best Overall Product



#### BitFunding

BitFunding is a financial platform for neo banking and investing built on top of the bitcoin blockchain network focused on small companies and entrepreneurs.



#### Grow On-Chain

**(Peseta App)** - Grow is a decentralized protocol for providing open access to peer-to-peer lending services, in which institutional and individual investors can fund lending pools according to their risk/reward appetite, and borrowers can apply for and receive unsecured loans.

### Best use of off-chain data

#### Cardinal

Cardinal connects with banks using OBP to provide a virtual debit card to its clients, the transactions with the card are funded with a Bitcoin wallet from the client and transferred to the bank, so the bank can act as a liquidity pool for card networks.



#### Blockchain Carbon Registry

BCR (Blockchain Carbon Registry) helps organizations and governments easily set up and govern emission trading schemes for companies and monitor fulfillment of their emission targets.

### Best advanced technology



#### PISTO.NET

Pisto.net is an open banking payment system enabling merchants to accept bitcoin by providing customers with digital gift cards, which can be topped up by their relatives abroad to make purchases - even without an internet connection.

### Most visionary concept



#### Tlanetia

Tlanetia is the first mobile app developed on bitcoin enabling financial empowerment for women in El Salvador through a practical financial inclusion platform and educational framework that encourages communities of women to learn about the power of finance and become financially independent by creating their own community banks financed by their collective savings.

#### Chimera

Chimera is a microBank which allows you to create financial products for the sector, based on the information processed and stored in Reddito, an ERP on the web or mobile, which keeps track of sales, inventories, purchases, and additional information related to your carbon footprint.

## Outcomes

The hackathon enabled Banco Hipotecario to fast-track the development of blockchain-based products and services that will be essential in the forthcoming Bitcoin-enabled landscape. Collaboration with the winning teams will continue in the new year to take the solutions to production.

By tapping into solutions that are already existing in the market and by inviting the community to contribute their creativity and expertise, Banco Hipotecario greatly decreased the time it would take to comply with the Bitcoin Law and start offering Bitcoin services to Salvadorans.

*“We became the first bank in the country to launch a bitcoin-focused hackathon, and we are working this 2022 towards a fast-track for the development of new banking applications that can help us achieve financial inclusion and serve our customers best. TESOBE’s help has been invaluable and we look forward to working with them in the future”*

**Celina Padilla**, President of Banco Hipotecario de El Salvador

## Contact

For more information on the Open Bank Project or if you would like to launch your own blockchain hackathon, please contact us at:

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