

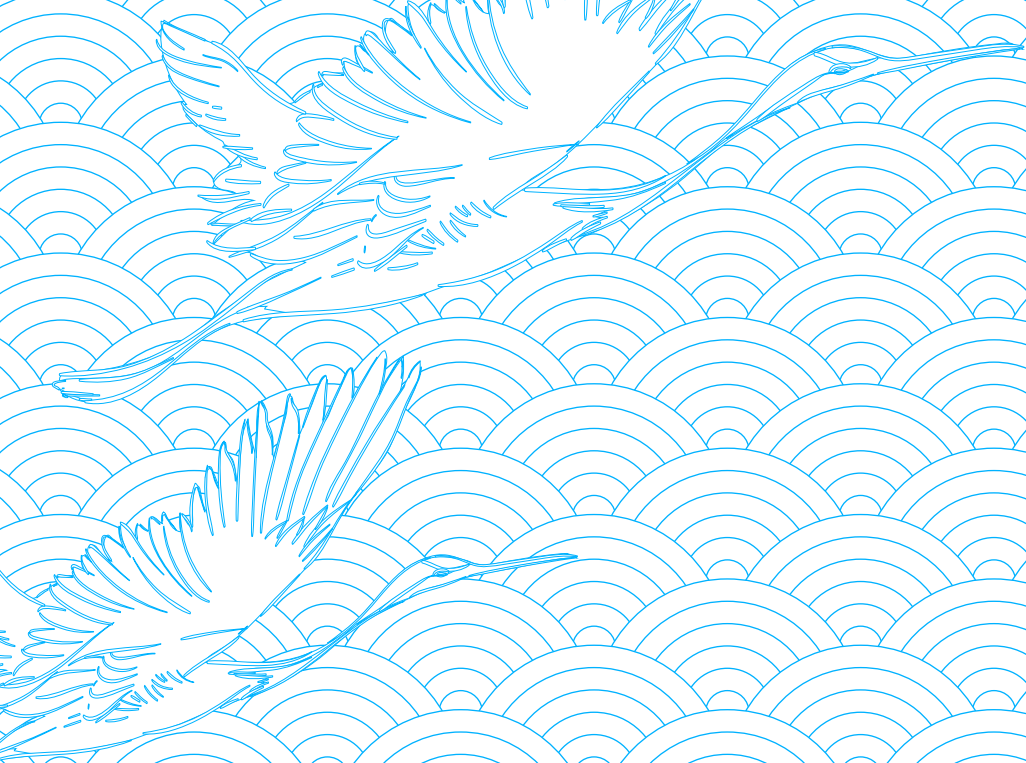
Tezos Foundation Biannual Update



March 2021

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***Tezos has seen more evolution
in the past two years than the
rest of the industry combined.
Through its upgradability, other
blockchains become
Tezos' testnets.***



Preface

Dear Tezos Community

Since the last issue of our biannual update in September of last year, the Tezos project has continued along a strong pathway to long-term growth, despite an unprecedented amount of volatility in the global economy. The world that we have begun to reenter will be fundamentally different than the world that came before. What is clear, at this moment, is that blockchain technology will play a key role in a post-COVID-19 world and that we all need to adapt to this new reality. With its governance function, Tezos can continue to evolve and therefore be the blockchain the world needs.

During the period that this report covers, the Tezos blockchain was successfully upgraded twice. Delphi, the first upgrade, significantly improved the performance of the Michelson interpreter and lowered gas fees significantly while Edo was adopted only a few months later and added continuous performance improvements and, with Sapling, a powerful tool that enables new types of applications, such as voting and asset transactions with selective disclosures. With Florence approaching on the horizon, it is clear that the Tezos upgrade process has reached a seamless regular cadence and so we say with a smile that for Tezos, other blockchains have become a testnet.

It is crucial to understand that we view Tezos as a long-term project - where a solid technical foundation and long term capacity for capital

deployment is key to winning the marathon race to global adoption. It is even more crucial to understand that the Tezos Foundation is not Tezos but only one entity in a global ecosystem. Our role is to sustainably deploy the resources that are under control to support the long-term success of Tezos. This long-term success will only be possible with a vibrant decentralized ecosystem. Our goal is to empower independent, high-performing organizations in this ecosystem and ensure that they have the resources needed to solve the challenges that lay ahead.

No one understands the Tezos Foundation's role better than Arthur Breitman, an early architect of Tezos. We are delighted to welcome Arthur to the Tezos Foundation Council, where his technical expertise and unparalleled knowledge can inform the Council and help fulfill the Tezos Foundation's mission.

There is much to look forward to and be hopeful about when it comes to Tezos. In this report, you will find information about the 62 grantees based in 21 different countries that have received new funding since September 2020. **42% of these projects are new to the Tezos ecosystem** and we welcome their ideas and enthusiasm for Tezos. We are confident that 2021 will prove to be a very bright year for Tezos.

The Tezos Foundation Council

Table of Contents



Preface
3

Mission of the
Tezos Foundation
5

The Past Six Months
with Tezos
6

Facts & Figures
8

Grants
9



Priorities & Process
10

Grantees & Other
Funded Entities
13

Research, Education,
& Core Development
Grants
14

Ecosystem – Tools
& Applications Grants
20

Community Grants
34

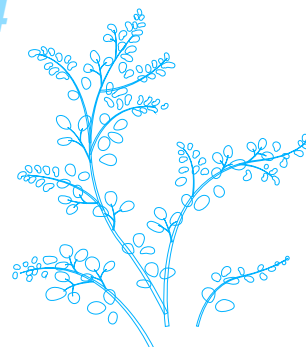
**Industry
Adoption**
38



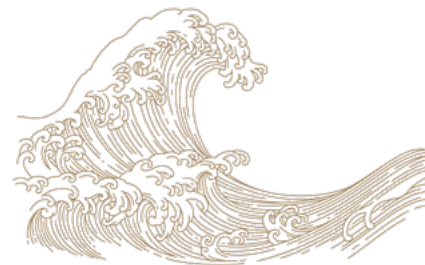
Industry Adoption –
Collaborations
39

**A Map of the
Tezos Ecosystem**
42

Financials
44



Governance
48



Council & Committees
of the Tezos Foundation
49

Foundation Council
50

Foundation Committees
52

Mission of the Tezos Foundation

Tezos is a technology that powers a distributed, peer-to-peer, permissionless network. No single entity owns, manages, or controls Tezos. Understanding this paradigm is fundamental to understanding Tezos.

The Tezos Foundation is a Swiss foundation, supervised by the Swiss Federal Foundation Supervisory Authority. Its global purpose is to facilitate and enable the promotion and development of new technologies and applications, especially in the fields of new, open, and decentralized software architectures, including the promotion and development of the Tezos protocol and related technologies.

As highlighted in the Tezos position paper, the success of any decentralized network is determined by the efforts of a robust, diverse, and flourishing community. The Tezos Foundation exists as a part of this eco-system, alongside developers, scientists, network validators (“bakers”), enthusiasts, and independently managed entities in charge of tech, adoption, business development, and marketing and commu-

nications, all working toward the success of a platform that we believe will ultimately drive innovation on a global scale.

The Tezos Foundation fulfills its mission by deploying resources that support the long-term future of the Tezos project. Grants and other capital deployment vehicles offer a strategic way to help community members, such as educational and research institutions, developers, or activists from all over the world, to support the advancement of the Tezos project.

Tezos’ potential rests in the hands of its community, which is among the strongest and most exceptional in the blockchain ecosystem. All interested parties are welcome to join the Tezos community and contribute to the project.

The success of any decentralized network is determined by the efforts of a robust, diverse, and flourishing community. The Tezos Foundation exists as a part of this ecosystem.



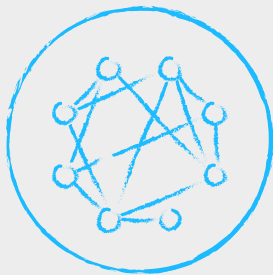
The Past Six Months with Tezos

Selected Events from the Tezos Ecosystem



August 25 , 2020
Luke Youngblood and Keefer Taylor present Harbinger, a project to deliver signed price feeds based on market data from multiple exchanges to the Tezos network.

August 27 , 2020
Spruce Systems are working on decentralized identity (DID) capabilities built using the latest W3C standards.



September 25 , 2020
Sword launches Tezos DigiSign, an open source solution to digitally sign, store and verify documents on the Tezos blockchain

September 30, 2020
Launch of Dexter, the first noncustodial and decentralized exchange on Tezos.



October 29, 2020
Kukai Wallet introduces DirectAuth on Tezos, allowing users to send and receive tez with their Google, Reddit, and Twitter accounts.

October 30, 2020
ecoo, a coin for local businesses is launched by Papers, DU DA and Farner Consulting as a platform for customized, earmarked payment instruments in a Swiss pilot city.



November 5, 2020
The Swiss bank Sygnum is the first regulated bank to launch staking for Tezos for its clients.

November 17, 2020
Sword France expands its involvement in the Tezos ecosystem by becoming a corporate baker.



December 31, 2020
As part of Tezos Commons' monthly community reward program, several community members receive tez for their contributions to the ecosystem.

December 28, 2020
Stably brings the USD-backed stablecoin, USDS, to Tezos.



January 6, 2021
Saudi Arabia's Taibah Valley becomes the first Middle Eastern corporate baker in the Tezos ecosystem.

January 7, 2021
Launch on Tezos' testnet of kUSD, a trustless, algorithmic stablecoin that is collateralized by XTZ and soft-pegged to the US dollar.

2020

August

September

October

November

December

January

Between Aug. 12 & Sept. 4:
The Tezos Delphi upgrade is proposed.



Between Oct. 20 & Nov. 12:
The Tezos Delphi upgrade is activated.



Between Nov. 12 & Dec. 5:
The Tezos Edo upgrade is proposed



Between Jan. 21 & Feb. 13:
The Tezos Edo upgrade is activated.



2021

Facts & Figures

Some Tezos Foundation Highlights Since August 2020



62 new grants in total issued



USD M in assets
(as of January 31, 2021)



new
council members



USD M new grants
committed



countries where grantees
are based



Grant Platform launched



Grants

Grants – Priorities & Process



A key activity of the Tezos Foundation is to deploy resources to entities and initiatives that will help to ensure the long-term success of Tezos. The Tezos Foundation is focused on three grant categories:

Research, Education & Core Development Grants

Foster innovation, development, and education about Tezos. These grants include a range of projects, from online training courses to core protocol development.

Ecosystem – Tools & Applications Grants

Lower barriers to entry to help make Tezos as accessible as possible for developers and end users of subsequent applications.

Community Grants

Support other organizations and initiatives that strengthen and grow the Tezos community to which the Tezos Foundation belongs.

With the launch of the Tezos Foundation's Grant Platform, a range of areas of interest have been published. These reflect our current needs and change based on the priorities at a given point in time. Over the past months the areas of interest published focus on baking, developer experience, education and training, end-user applications, privacy and security. Additionally, the Grant Platform allows the submission of proposals that are not listed as a priority but may advance the Tezos ecosystem. The launch of the Grant Platform also marks a transition to the ongoing possibility of handing in proposals rather than during specific time slots. This biannual update stays consistent with previous updates and uses the three overarching categories for projects.

Our Evaluation Process

Step 1

Anyone can apply with a project at any time. The Tezos Foundation's website contains links that guide to the Grant Platform. Applications are initially vetted to ensure they fulfill the Tezos Foundation's formal and substantial requirements. Vetting is performed by several contributors from the Tezos ecosystem. The Technical Advisory Committee (TAC) has full visibility over reviewers and ensures adequate management of potential conflicts of interest.



Step 2

Applications that pass through the initial review phase are sent to the Tezos Foundation's TAC for technical due diligence and evaluation. The list of current TAC members can be found on the Foundation's website. The TAC does not make grant decisions itself, but rather offers advice on an application's technological strength and usefulness to the Tezos ecosystem.



Step 3

Applications that receive positive recommendations from the TAC complete a due diligence process before final decisions to approve, decline, or revise grant applications are made by the Executive Committee or the Tezos Foundation Council.



Step 4

Final decisions about grant applications are communicated to applicants after they are made by the Tezos Foundation. Lastly, approved applicants collaborate with the Tezos Foundation to complete legal paperwork before a grant is finalized.

In some circumstances, when projects are of significant importance to the Tezos ecosystem, the Tezos Foundation will push applications through an out-of-cycle process. It is important to note that although these applications are expedited, they undergo the same due diligence process and require the same approvals.

The process underwent a change in Q3 2020 together with the launch of the Tezos Foundation's Grant Platform and the communication of areas of interest on its website.

Grants are usually paid out in multiple installments. Such installments are subject to a payment schedule to ensure that predefined milestones are achieved. The Tezos Foundation controls payments and assesses milestone reports from grantees prior to follow-on payments. It may involve the TAC in this process if technical assessments are needed. The Tezos Foundation will not distribute follow-on payments for projects that do not hit their deliverables.



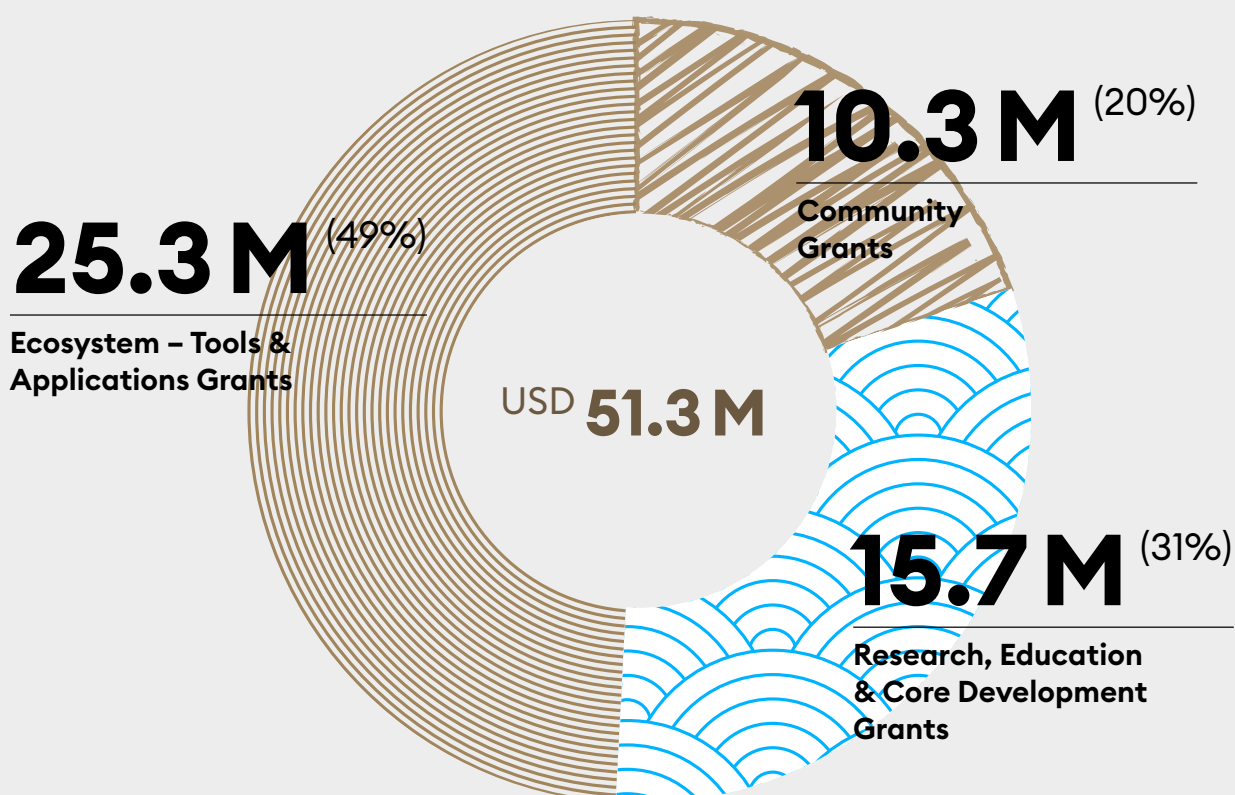
Flying evolves. Tezos evolves.

Since its inception, Tezos has had five upgrades: Athens, Babylon, Carthage, Delphi, and Edo.

Grantees & Other Funded Entities

Since the last Biannual Update (September 2020), the Tezos Foundation has committed funds to 62 new projects across 18 countries for a total amount of USD 51.3 M. 21 of the 62 new grants (34%) are to organizations or individuals that were not previous grant recipients. The increase of committed funds compared to the period covered in the last Biannual Update predominantly relates to large annual grants that were entered into at the beginning of the year.

Some projects that previously received grants and are still active are not listed in this Biannual Update. Please see the Tezos Foundation's previous Biannual Updates for information on earlier grants.



Research, Education & Core Development Grants

The Tezos Foundation supports research on and education about a wide spectrum of domains pertaining to computer science, such as distributed systems, cryptography, programming languages, and formal verification. A significant amount of resources are allocated toward supporting scientists and engineers at top-tier institutions and organizations around the world, as well as educational programs to train future talent. These initiatives, and others that contribute to core protocol development, are a top priority for the Tezos Foundation.

Grantees and Other Funded Entities:

Core Development

- Bolt Labs, USA
- DaiLambda, Japan
- Marigold, France
- Metastate, Switzerland
- Nomadic Labs, France

Research & Education

- B9lab, UK
- Baking Bad, Russia
- Cryptoverse Wars, India
- France-IOI, France

- University of Freiburg, Germany
- Inacta, Switzerland
- Indian Institute of Technology (IIT Madras), India
- Kestrel Institute, USA
- Nagoya University, Japan
- OCaml Labs, UK
- OCTO Technology, France
- Simple Staking, Malta
- Spruce, USA
- Stove Labs, Slovakia
- Tarides, France
- VDF Alliance, USA

Total: USD **15.7 M**

Contractual calculated monthly burn-rate per organisation and category:

- Over USD 500K
- Up to USD 200K
- Up to USD 500K
- Up to USD 50K



Bolt Labs Team

Core Development

Bolt Labs is a US-based firm building zkChannels to provide fast and private transactions on blockchains. By deploying privacy-preserving state channels, transactions are gathered off-chain, relying on zero-knowledge proofs and multiparty computation techniques. With the grant, Bolt Labs will enable privacy-preserving state channels on the Tezos blockchain.

DaiLambda, a Tezos core development team based in Japan, is dedicated to research and development of the Tezos core protocol and smart contracts. The DaiLambda team has extensive experience with OCaml stemming from time in academia at Inria in Paris, and contributes to the growth of the Tezos ecosystem in Japan and the Greater Asia region through training and consulting engagements. The grant covers the Plebia project that targets storage optimisations for the Tezos core protocol as well as promotional activities in Japan.

Marigold is Gabriel Alfour's French company that has received funding to both grow their core developer team and work on several high priority Tezos core protocol topics such as performance, concurrency and codebase maintenance.

Metastate, a Switzerland-based, security-oriented entity, is dedicated to distributed ledger research and protocol development. Metastate researches and develops a number of technologies to help advance the Tezos project. Notably, they work on consensus algorithms, privacy-preserving features, proof-of-stake and staking products, governance, smart contracts, sharding, and more. Metastate collaborated with other Tezos developers on the Delphi and Edo upgrades.

Nomadic Labs is a French firm that conducts ongoing research into formal verification of smart contracts, consensus algorithms, and possible zero-knowledge cryptography implementations for Tezos. Nomadic Labs continues to work on Michelson, a domain-specific language for writing smart contracts on Tezos, as well as an additional low-level language, Albert, which will serve as a compilation target for high-level languages. The team has contributed to past protocol upgrades such as Delphi and Edo. Furthermore, Nomadic Labs collaborates with global research institutions and universities on the development of the protocol. They work together with the global Tezos developer community to support development initiatives and streamline workflows across various teams and contributors to the Tezos project, as well as develop foundational projects such as a reference wallet.

Research and Education

B9lab is a UK-based company specialized in technology adoption, enterprise learning, and consulting solutions focused on the blockchain and decentralized application space. The team received funding to develop an educational experience for developers who want to learn how to develop Tezos applications leveraging the ecosystem stack. They are building a freely accessible training course and a developer-centric continuous security offering (CSO) use case as part of their efforts.

Baking Bad is an active, Russian Tezos development team that builds a variety of Tezos products such as Better Call Dev, a smart contract explorer, and TzKT, an advanced block explorer, indexer, and API. In addition to continuing with its existing projects, the Baking Bad team received funding to create an interactive Tezos developer training program to help onboard more developers to the Tezos ecosystem.



Nomadic Labs Core Development Team

Cryptoverse Wars is developed by the Indian firm BUIDL Labs which is built by and for entrepreneurs, supporting them in their growth. They continue to develop the project as an interactive and fun code school that onboards developers to the Tezos ecosystem by teaching them to write Tezos smart contracts in SmartPy.

The French association **France-IOI** has the goal to make as many people as possible discover programming and algorithms. By providing resources, training, and competitions the association is, for example, supporting high school students in attending the International Olympiad in Informatics. The purpose of the grant is to broaden their offering of Tezos-related languages such as OCaml and Michelson.

Peter Thiemann is a full professor of informatics at the **University of Freiburg** in Germany. Professor Thiemann received this grant for Contract Orchestration for OCaml (COOC), a project to ensure a smooth interaction between OCaml and Michelson and to provide a framework that guarantees the correct orchestration of contract invocation from an application program in the OCaml language.

Inacta is a Switzerland-based professional service firm focusing on information management. With a team of over 60 experts, they offer both consulting and implementation services, including in the blockchain field. The grant is provided to support the transition and training of their consultants on the Tezos blockchain and to support such implementations in the region of Germany, Switzerland and Austria..

The **Indian Institute of Technology** (IIT Madras) is a world-class institute with over 8,000 students and nearly 550 faculty staff concentrating on higher technological education as well as basic and applied research. IIT Madras received a grant to upstream multicore support for OCaml and extend the Tezos tool stack, specifically Irmin and Lwt. The team is in close collaboration with OCaml Labs for this project.

The **Kestrel Institute**, based in the USA, is a nonprofit research center for computer science. Their team is formally verifying the functional correctness of the RICS implementation of Jubjub elliptic curve operations described in the Zcash Protocol Specification. Their work will be used in collaboration with Nomadic Labs and in Tezos' core development.

Nagoya University is the third-highest-ranked higher education institution in Japan with over 16,000 students. Jacques Garriague, a professor at the Graduate School of Mathematics, is working on the Certifiable OCaml Type Inference (COCTI) project to make OCaml type inference more robust, modular, and verifiable by modularizing the OCaml type checker using constraint-based type inference and certifying it using the Coq proof assistant. Further, the grant will support the teaching of blockchain- and verification-related topics as well as technical courses on Tezos technology in collaboration with DaiLambda and other Tezos teams in the Greater Asia region.

At Cambridge University, **OCaml Labs** is a top-tier functional programming and multidisciplinary computer science team based in the UK. With this grant, the OCaml Labs team will migrate the Tezos codebase to the new duniverse build system, which will help improve the speed of Tezos builds and smooth the development workflow for developers. OCaml Labs is working with researchers at the Indian Institute of Technology (IIT Madras), one of the foremost institutes of national importance in India in higher technological education and applied research, on this project.

OCTO Technology is a French consulting and IT realization firm within Accenture Digital. With this grant, the OCTO team built and improved Tezos Academy, a freely available online platform that teaches LIGO smart contract development in a fun and user-friendly manner.

Simple Staking is a Malta-based firm building TezEdge, a Tezos node in the Rust programming language, a popular language with a focus on safety. They collaborate with Nomadic Labs and the larger Tezos developer community on the project. With a Tezos node in Rust, the ecosystem profits from a higher diversity of node implementations, further increasing decentralization and robustness of the network.



Spruce Team Members

Tarides is a French software engineering firm focusing on virtualization, distributed systems, and programming languages. Tarides received a grant from the Foundation for the integration between Tezos and MirageOS and its further development as well as for porting and maintaining Tezos on new platforms such as Windows and JavaScript. The team also ensures long-term support of MirageOS libraries used in Tezos.

The **VDF Alliance** is a collection of world-class academic, nonprofit, and corporate collaborators building open-source hardware for the blockchain ecosystem. The Tezos Foundation joined the VDF Alliance to support research and development that will hopefully improve the security and scalability of blockchain protocols like Tezos.

The US-based team **Spruce** joined the Tezos ecosystem to build a digital and self-sovereign identity solution on Tezos. The main products the team is working on are a mobile application as a credential wallet, a Web2 and Web3 application/platform for credential issues, verifier tools, an ecosystem steward portal, and several infrastructure deliverables such as identity bridges and SDKs.

Stove Labs is a firm based in Slovakia that is building Tezos School, a comprehensive and up-to-date curriculum of content for developers to learn how Tezos can be utilized. They promote this project including the development of use cases to be taught.



Phones evolve. Tezos evolves.

Since its inception, Tezos has had five upgrades: Athens, Babylon, Carthage, Delphi, and Edo.

Ecosystem – Tools & Applications Grants

The Tezos Foundation supports many teams in building tools that will help developers of varying skill levels build novel applications on Tezos and contribute to the growth of its ecosystem. To date, the Tezos Foundation has focused on five main areas within this grant-making category: programming languages and libraries, block explorers and analytics, smart contract development, infrastructure, and applications.

Grantees and Other Funded Entities:

Programming Languages and Libraries

- Ackee, Czech Republic
- Alexandre Moine, France
- Attic Lab/Everstake, Ukraine
- Edukera, France
- Go Tezos, USA
- Luiz Milfont, Brazil
- Madfish Solutions, Ukraine
- MoneyTrack, France
- NEOFACTO, France
- Nomadic Labs, France
- Simple Staking, Malta
- Sotez (Andrew Kishino), USA

Block Explorers and Analytics

- Baking Bad, Russia
- Blockwatch Data, Germany
- Papers/AirGap, Switzerland

Smart Contract Development

- Agile Ventures, Czech Republic
- Anchor Labs, USA
- Baking Bad, Russia
- Biconomy, Singapore
- DaiLambda, Japan
- Guillem Rieu, France
- Johann Tanzer, Austria
- Runtime Verification, USA
- Smart Contract Labs, Estonia
- Tezsure, India
- Truffle Blockchain Group, USA
- Korea University (Hakjoo Oh), Korea

Infrastructure

- Anyblock Analytics, Germany
- Attic Lab/Everstake, Ukraine
- Baking Bad, Russia
- Bender Labs, France
- Breadwinner, Switzerland
- camlCase, USA
- Crypto Storage, Switzerland
- Cryptonomic, USA
- dOrg, USA

Infrastructure (cont.)

- Dream Way, Turkey
- DSENT, Switzerland
- ECAD Labs, Canada
- Equisafe, France
- Figment Networks, Canada
- Fireblocks, Israel
- FutureSense, Korea
- Global P.O.S, France
- Gravity, France
- Henrik Moe, USA
- ImToken, China
- KoineArth, Singapore
- Kukai (Klas Harryson Consulting), Sweden
- Ledger, France
- LIGO, France
- Magic Labs, USA
- Metaco, Switzerland
- MIDL.dev, Estonia
- OCTO Technology, France
- Ozone Networks, USA
- Papers/AirGap, Switzerland
- Pierre Genevès, France
- Shareable Asset, Singapore
- SkillZ, France
- Smart Chain Arena, USA
- SmartChain, UAE
- Soulmachine, UK
- Stably, USA
- Sylo, New Zealand
- Taurus, Switzerland
- TQ Tezos, USA

Applications

- Andrii Sobol, Ukraine
- Atlas One, Canada
- Blockcurators, Germany
- Botwars Ultimate Trading, UK
- Chain of Insight, Canada
- Diginex Solutions, Hong Kong
- Electis, France
- hicetnunc2000, Brazil
- IBF Net, Malaysia
- LeewayHertz, India
- Madfish Solutions, Ukraine
- Mudit Marda, India
- Nzinghaa Lab/Ejara, Cameroon
- Shubham Kukreja and Khushi Asawa, India
- Sword France, France
- Trout Labs, USA
- Wolfram Blockchain Labs (WBL), USA

Total: USD **25.3 M**

Contractual calculated monthly burn-rate per organisation and category:

- Over USD 500K
- Up to USD 200K
- Up to USD 500K
- Up to USD 50K

Programming Languages and Libraries

In order to make Tezos as accessible as possible, the Tezos Foundation supports engineers in creating open-source software that helps lower barriers to entry to Tezos development.

Ackee, the Czech development team, worked on updating its existing TezosSwift project, including tutorials and a proof of concept application.

Alexandre Moine, who is based in France, developed a linter for the LIGO language. He received funding to build a compiler hook and lint-ligo 1.0, which is able to take linting rules as inputs and produce user-friendly reports. His development is in collaboration with the LIGO development teams.

The Ukrainian firm **Attic Lab/Everstake** is receiving funding for several projects. As part of their efforts, they are building and improving TezTracker, a Tezos block explorer, and a Tezos multisig wallet. They received a grant to build and deploy both the back and front ends of the block explorer, while relying on an existent, efficient, and publicly available indexer.

Edukera is a France-based company focusing on smart contract security. The team contributes to Tezos smart security efforts through Archetype, a domain-specific smart contract language focused on security for the Tezos blockchain. They received a grant from the Tezos Foundation to further this project and contribute to the formal verification process for Archetype smart contracts.

Go Tezos, created by Tezos developer **Brice Aldrich** in the USA, is a popular Go library that exposes and builds upon the Tezos remote procedure call (RPC). Brice continues to improve Go Tezos by adding additional features such as smart contract deployment and more RPCs, increasing test coverage and improving security.

Luiz Milfont is based in Brazil and is working full-time on advancing the Tezos project there. He received a grant for creating libraries in programming languages so that Tezos may be present in several programming environments and frameworks as well as for educational initiatives targeting the Portuguese-speaking audience.

The Ukrainian software development company **Madfish Solutions** is working on several projects to help advance the Tezos ecosystem. As part of this category, they will improve the eth2tez (sol2ligo) transpiler to help developers migrate smart contracts from Solidity to LIGO.

Tezos' functional programming makes us confident about having top-grade, provable reliability across systems built on Tezos.

Madfish Solutions



MoneyTrack is a France-based team building a payment platform for directed currency that combines the world of traditional payment with the guarantees of control, traceability, and irrevocability of blockchain. As part of their efforts on Tezos, they are developing a Dart library for Tezos to facilitate developers' adoption and remove friction in dApp development.

The consulting firm **NEOFACTO**, with offices in France, Luxembourg, and Belgium, has a team of over 80 members supporting companies with their digitization initiatives. As part of their offering, they provide blockchain consulting as well as application development. The team received a grant to contribute to the Tezos project by developing and releasing a Java connectivity toolbox (EJ4Tezos) to help boost the adoption of Tezos in the enterprise world.

Michelson, maintained by [Nomadic Labs](#), is the programming language for Tezos smart contracts and was designed with formal verification in mind. Even though it is a rather low-level, stack-based language, its static type system eliminates a whole class of programming errors before the execution of smart contracts. Nomadic Labs also works on Albert, an intermediate smart contract programming language intended to serve as a compilation target for high-level languages. Furthermore, Nomadic Labs maintains Mi-Cho-Coq, a specification of Michelson using the Coq interactive theorem prover. This provides a formal specification of the syntax and semantics of Michelson, as well as a framework to verify smart contracts.

[Simple Staking](#) is a Malta-based firm that continues to build TezEdge, a Tezos node in the Rust, programming language, a popular language with a focus on safety. They collaborate with Nomadic Labs and the larger Tezos developer community on the project. With a Tezos node in Rust the ecosystem profits from a higher diversity of node implementations, further increasing decentralization and robustness of the network.

Andrew Kishino is a US-based Tezos developer working on Sotez, a bare-bones JavaScript library for interacting with Tezos. The firm received a grant to continue said development on [Sotez](#) and also to contribute to Taquito, a TypeScript library suite for development on Tezos.

Block Explorers and Analytics

The Tezos Foundation has also made it a priority to fund the development of open-source block explorers and other tools to help community members analyze the Tezos blockchain.

[Baking Bad](#) is a Russian Tezos development team that builds a variety of widely used products in the ecosystem. This grant supports the team with the further improvements of TzKT, a lightweight, API-first, account-oriented block explorer for the Tezos blockchain. They received further grants for Better Call Dev, a Tezos smart contract explorer.

[Blockwatch Data](#), which is based in Germany and led by Alex Eichhorn, received an additional grant to accelerate the development of TzStats, a Tezos block explorer, and its underlying blockchain indexer, tzindex. In addition to ensuring compliance with future protocol upgrades, TzStats will also allow users to track upcoming Tezos-based assets (tokens). A recent API upgrade included the addition of features such as implicit on-chain events, contract interface hashes, and entry point filters and statistics.

[Papers](#), the Swiss team behind the [AirGap](#) wallet, is an active development team in the Tezos ecosystem. The Papers team continues to improve tezblook, a Tezos block explorer, by adding more advanced baking and governance data through integration with Tezos Agora, Tezos smart contract and asset support, and other key metrics and data visualizations.



Baking Bad Team

Smart Contract Development

Tezos supports institutional-grade smart contracts. The Tezos Foundation funds tools to help lower barriers to entry for Tezos smart contract development and the applications that will follow.

Agile Ventures, based in the Czech Republic, is an in-house software development team and consultancy group that has worked on a number of Tezos projects since 2016. They are currently receiving several grants. Continuing from their work on TaaS, the Agile Ventures team continues working on bringing GraphQL subscriptions on top of Tezos, collaborating both with ECAD Labs and Nomadic Labs. Further, they are building a set of smart contracts for a Tezos Domains dApp, where users can participate in domain auctions and manage their domains. Further, they are building a set of smart contracts for Tezos Domains, a dApp where users can participate in domain auctions and manage their domains as well as load-balanced, and geo-redundant deployment of the Tezos Domains Indexer and publicly available API. of the Tezos Domains Indexer and publicly available API.

Anchor Labs is a US-based team that is working on bringing Golang support to Tezos' smart contracts. They are working on expanding the scope of Anchorage's open-source library to support creating and invoking contract scripts in the Go language.

Adding to its list of products in development, **Baking Bad** works on Atomex STO Gate, a collection of flexible program modules to provide various atomic swap implementations for digital securities (security tokens) and other Tezos asset standards.

The Singaporean company **Biconomy** is focusing on Web3 applications. The team develops a metatransaction protocol for Tezos. As part of these efforts, they develop a TZIP and collaborate with other Tezos developers on a standard for smart contracts to support metatransactions in order to leverage gas-optimized metatransactions and a client-side SDK that allows developers to easily plug into relayer infrastructure to leverage metatransactions. The team is collaborating with ecosystem teams such as TQ Tezos.

DaiLambda development team, based in Japan, received an additional grant to lower the burden of developing high-quality smart contracts using formal methods. This will include establishing a concept of a Typical Smart Contracts (TSC) Agency and building an open-source prototype for such a platform. The platform will be a web application where visitors follow an intuitive and informative wizard to create a smart contract generated from one of many templates provided.

Guillem Rieu, who is based in France, is working on the PeerPatron platform and related open-source tools with the goal of developing a Tezos-based alternative to conventional crowdfunding platforms like Patreon. In this project, he will also release templates for dApps and smart contracts as well as tutorials and full documentation.

Johann Tanzer, based in Austria, is the lead developer of Tplus, a tool that helps developers manage Tezos environments (sandboxes and public nodes) to lower the barriers for development on top of Tezos. He received a grant to incorporate existing open-source projects and libraries into Tplus, improve its user interface (UI) and user experience (UX), and promote its use and adoption in the community.

Runtime Verification is a US-based company that uses runtime-verification-based techniques to improve the safety, reliability, and correctness of software. Building off of its previous Tezos work developing formal semantics of Michelson in the K framework, the firm created a formal verification framework for Michelson by extending its existing unit-testing framework to handle the case of symbolic unit tests. Furthermore, the team has started their work on a Firefly client for Michelson that can present coverage information directly over the Michelson code.

Smart Contract Labs is an Estonian-based team focusing on blockchain products on modern proof-of-stake platforms. Their team is contributing to the Tezos project by building a platform for creating and trading synthetic assets on Tezos, starting with binary options.

Tezsire is an India-based team focused on building Tezos tools for decentralized finance (DeFi) applications. This grant helps the Tezsire team continue to build Tezster, a testing tool for Tezos development, by implementing more advanced features, producing tutorials and explainer videos, and adding examples of smart contract templates.

Truffle Blockchain Group, the US-based team behind the world-class development environment Truffle Suite, received a grant to achieve its objectives with regard to contributing to the Tezos project by supporting the development of a software program that implements Tezos support for the Truffle smart contract development tool. Truffle support will be added for the SmartPy programming language. The team will also create a proof-of-concept, Tezos-flavored Ganache.

Korea University has around 30,000 students as one of the oldest institutions of higher education in the country. **Hakjoo Oh** is an Associate Professor in the Computer Science department and received a grant to build a fully automated tool to verify and test the integrity of smart contracts written in Michelson.

Infrastructure

Infrastructure is essential to a thriving blockchain ecosystem. In the case of Tezos, projects building critical infrastructure like financial primitives and asset standards make it easier for developers to use these public goods to build novel applications on Tezos.

The German firm **Anyblock Analytics** is a blockchain solution provider offering consulting, tools, and data to integrate business processes with blockchain. One key offering of theirs is the Anyblock Index, which enables searching, processing, and analyzing of blockchain data. The grant covers adding the Tezos blockchain to their indexer and enabling it to be queried using Elasticsearch DSL and SQL free of charge for the community.

Attic Lab/Everstake is a Ukrainian team working on several projects for which they receive funding. As part of their efforts for Tezos' infrastructure, they are operating and maintaining the Tezos Giga Node for a reliable and stable operation for the Tezos ecosystem. Furthermore, they are building a Tezos multisig wallet web application that also supports the creation of continuous vesting contracts making use of Paper's Beacon for signing and authentication.

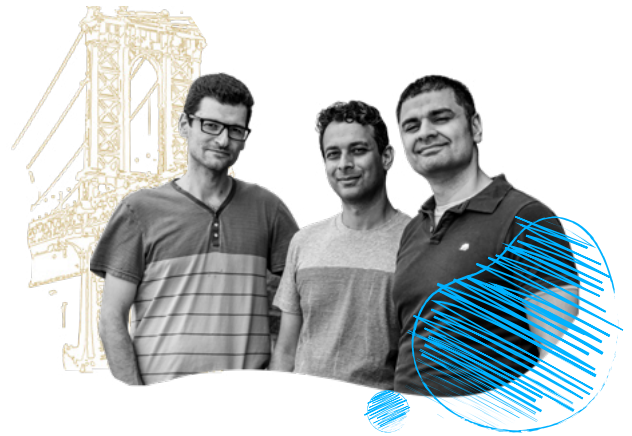
Baking Bad is further developing IMichelson, a Jupyter (interactive notebook) kernel, for education and prototyping purposes based on a custom Michelson interpreter with runtime type checking and further features such as basic autocompletion.

Bender Labs is a France-based team currently building an MVP of the Wrap protocol, allowing anyone to easily wrap ERC20 tokens into tokens on Tezos. Their project includes technical and nontechnical key features such as making use of FA2's white-listing capabilities and building a wrapping consensus and incentive systems as well as a user-friendly web interface.

Breadwinner is the Swiss company behind the BRD wallet, which is integrating Tezos, including the ability to delegate tez to bakers in the network.

The US-based team at **camlCase**, which is focused on (DeFi) development and education, received grants to launch and continue both Dexter, a decentralized exchange, and Magma, a mobile wallet. Magma has a native integration of Dexter and is available on both iOS and Android. Furthermore, they received funding to build and launch a mobile smart wallet for Tezos with native integration with Dexter.

Crypto Storage is a Swiss company that is part of Crypto Finance AG, which focuses on storage infrastructure and tokenization. The team therefore integrated Tezos' FA1.2 and FA2 token standards into their system for their client's projects.



Cryptonomic Team

The US-based firm **Cryptonomic** builds infrastructure solutions. They provide tools and smart contracts that enable higher-level decentralized and consortium applications. The firm received a grant to develop oracle services on Tezos via Chainlink, including ongoing maintenance and community engagement, with which they will touch on existing projects such as their Arronax block explorer.

dOrg is a full-stack freelancer agency based in the USA building and running on Web3. The team designs and develops Homebase, an app for creating and interaction with DAOs using the BaseDAO framework on Tezos.

Dream Way is a Turkish company helping drive the adoption of Tezos tokens among retailers and online merchants. They received a grant to continue advancing Payzos, a set of plug-ins for e-commerce platforms that lets users set up a Tezos as a payment method for their online stores.

Dsent, which is based in Switzerland, is working on tokengate.io, a token issuance platform on Tezos, including payment via Tezos tokens. Their product focuses on institutional clients such as banks that want to make use of tokenization. The firm received a grant to build a token wallet generation tool as well as the integration of the FA2 token standard in their platform.

The Canadian firm **ECAD Labs** delivers and manages projects in the areas of software development, systems engineering, open-source development, and support. ECAD Labs received a grant to develop a Grafana data source plug-in for Tezos and improve Signatory, a Tezos remote signer. ECAD Labs is also involved in the development of Taquito, a TypeScript library suite for development on Tezos as well as in advancing the Tezos indexer library by Nomadic Labs to make it better suited for mass adoption.

Equisafe is a French company that develops a solution for unlisted companies to manage their investors and investments. Their product is used by start-ups, real estate companies, and investors. The team is implementing the FA1.2 and FA2 standards into their platform.

Figment Networks is a Canadian company working on Web3 solutions. Their team is aiming to help make Tezos application development a more seamless experience for software engineers. With the grants, they integrated Tezos into their Hubble Web3 explorer, a high-level analytics, alerting, and governance tool for the Tezos ecosystem.

They will further integrate Tezos into Data Hub, a “full-nodes-as-service” offering to make it easier for developers to access Tezos blockchain data via an API.

Fireblocks is an Israel-based company that develops and operates their digital asset custody, transfer, and settlement platform. Their platform uses multiparty computation (MPC), and they have integrated Tezos’ native token, including the support for staking, and are building tokenization capabilities using FA1.2 and FA2.

FutureSense is a Korean-based company incorporating Tezos in its efforts with the NIA National Police Agency in Korea, including a DID subsystem, data integrity subsystem, and a token-based data marketplace. With its efforts, the team is collaborating both technically and on a communication level with Tezos ecosystem members such as Nomadic Labs and TQ Tezos.

Global P.O.S is a French company working on the integration of Tezos into their Easy2PlayWallet cryptocurrency wallet and making tez usable for payments at its point-of-sale locations internationally.

Gravity is a France-based team developing a solution that allows individuals and small businesses to bring together verifiable data about themselves in a digital wallet and build trusted digital identities that are private, portable, and persistent. As a digital identity project, they are in collaboration with Spruce ID, during which they are building an open-source ID stack for humanitarian organizations. Part of their Foundation-supported work is the integration of Tezos-based DIDs and verifiable credentials into the RedRose system used by NGOs worldwide.

Henrik Moe is a US-based developer who is working on proof-of-stake reward-related Tezos projects for which he received grants. He has been developing a tool for bakers to build taxation reporting, which he is now improving under the name cryptocount, including improved UI and UX design for its users.

imToken is a China-based company that developed one of the most popular wallets in the Asian region. The team not only worked on the integration of tez into their solution, but also on contributing to the network by running a public baker for its users and supporting communication efforts in the Asian market.

The Singaporean **KoineArth** built marketsN, a blockchain- and AI-based, ERP-compatible solution for organizations to work together in a collaborative business-to-business (B2B) marketplace that creates end-to-end visibility and integrates into business processes and vendors on one scalable and distributed platform. The team builds this marketplace on Tezos, including using the FA2 token.



We're excited about the easy onboarding through DirectAuth and how users seamlessly send tez directly to social media accounts.

Kukai

Kukai by Klas Harrysson Consulting and their team in Sweden is a popular wallet for Tezos-based assets. One of its features is the ability to use DirectAuth, allowing users to create wallets through their social media accounts. The team has received a grant to proceed with their development of the wallet, including UX and UI improvements, integration with dApps such as Dexter, mobile device solutions, and more smart wallet features.

Ledger, the France-based company behind the Ledger Nano hardware wallets, works on security and infrastructure solutions for cryptocurrencies and blockchain applications alike. A grant was issued to add Tezos support and delegation capability to Ledger Vault and maintain said support throughout Tezos protocol updates.

The **LIGO** team based in France is advancing their work on the LIGO project with the objective to turn it into a widely adopted and well-supported tool. LIGO is a friendly smart contract language designed for developing larger contracts than those written in Michelson. LIGO is an imperative language that compiles down to clean Michelson code. They received a grant to continue their advancements, including the front end (e.g. error messages), middle end (e.g. public API), and back end (e.g. interpreter improvements).

Magic Labs (formerly Fortmatic) is a company based in the USA that launched Tezos support in its white-label SDK. It enables a passwordless wallet connector for Tezos-based apps, greatly improving the app's UX. The grant issued to them includes work on the infrastructure, platform, and front end to support their integration on Tezos.

With their SILO platform, the Swiss firm **Metaco** provides custody solutions for financial institutions to manage digital assets. As part of this, the firm received a grant to support both the Tezos blockchain and its native token in the SILO platform, including changes in the front end, back end, storage solutions, and the support of delegation and baking. They further received it to integrate the Tezos token standard (e.g. FA2) SILO client's digital securities using Tezos as the underlying technology.

MIDL.dev is an Estonian firm providing staking as a service solution for building an open-source suite of Tezos infrastructure tools. They offer solutions providing the infrastructure against a fixed fee, allowing clients to stake directly. MIDL.dev received the grant to simplify the process to implement a complete baking infrastructure as code in a replicable and secure manner, consequently lowering the barriers to entry for aspiring Tezos bakers.



Papers Team Members

OCTO Technology is a French consulting and IT implementation firm within Accenture Digital. They have been awarded an additional grant to continue to advance the Tezos Link project, an HTTP API to the Tezos network. It includes architecture improvements, increased security, handling of testnets, and further advancements such as better scalability of nodes. The firm is also supported through a grant in their development of Tezos Land, an open-source boilerplate for a digital collectibles marketplace on Tezos.

Ozone Networks is the US company behind OpenSea, one of the largest marketplaces for nonfungible tokens (NFTs) worldwide. Their team is supported to allow users to explore, buy, and sell Tezos NFTs on the main OpenSea marketplace site and ensure embeddable NFT improvements on Tezos.

The Switzerland-based **Papers** team collaborates with other Tezos development teams to create a wallet interaction standard to help users interact with applications built on Tezos from their browsers. Using this standard, a browser extension, Beacon, has successfully been developed to allow any application developer to easily incorporate a wallet via a generic implementation. Furthermore, the team integrates Sapling into their **AirGap** solution.

The French developer **Pierre Genevès** is developing TezQuery, a query engine that evaluates not only SQL queries, but also powerful (recursive) queries on the graph structure of the Tezos blockchain.

Shareable Asset is a team from Singapore integrating the Tezos protocol into Shareable Asset's development of a real estate asset tokenization platform for the issuance of real estate tokens on the Tezos blockchain.

SkillZ is a France-based blockchain company with the aim of helping firms deploy enterprise-grade, production-ready infrastructure. Their goal is to integrate Tezos into their platform, allowing clients to deploy and manage Tezos nodes on multicloud infrastructure as well as to foster adoption in the industry and collaborate with the community.

Smart Chain Arena, based in the USA, is the team behind SmartPy. They have received previous grants and are now focusing on improving existing features and new development. Among others, these efforts include the support of Tezos' upgrades, the ability to easily add metadata to contracts (TZIP-16), lazy and updateable entry points, the integration of Thanos to smartpy.io, and SmartML and SmartJS editors.

SmartChain is a technology organization domiciled in Abu Dhabi in the UAE, with presence in Saudi Arabia that has built a platform called Aqar Chain. They are the first in the Gulf Cooperation Council (GCC) to tokenize real estate property using blockchain technology and offer fractional ownership through crowdfunding for retail investors. Their tokenization platform uses Tezos' FA1.2 token standard.

Soulmachine is a team from the UK contributing to the Tezos project by integrating the Tezos protocol into OroPocket, a venture of SoulMachine for tokenizing gold and silver assets and enabling swift transfer of these tokens between wallets. The Tezos wallet on the OroPocket platform for users enables transfer of tez and Tezos gold and silver tokens, allowing users to instantly buy and sell gold and silver tokens.

US-based **Stably** has the mission to make financial transactions faster, cheaper, and more transparent through a borderless neo-banking platform powered by blockchain, stablecoins, and open-finance APIs. Stably is integrating Tezos to enable next-generation DeFi applications and stablecoins in the Tezos blockchain.

Sylo is a team based in New Zealand that is building the Sylo Smart Wallet, an application that combines a digital asset wallet with a decentralized private messenger. The team integrated Tezos into their smart wallet in late 2020 and is further working on both a fiat on-ramp as well as providing baking services. The Sylo Smart Wallet uses a decentralized communications protocol and messaging platform that has a built-in smart wallet for sending secure crypto payments and messages between users.

Taurus is a Swiss financial services company building a next-generation platform to trade, invest, and protect digital assets. Taurus is also a leading B2B service provider in Switzerland for cryptocurrency custody. The team integrated the Tezos protocol as well as the FA1.2 and FA2 standards into their infrastructure. The integration speeds up the adoption of the protocol by providing robust and trusted infrastructure targeting institutional players and providing secure access for Tezos to some leading financial institutions.

TQ Tezos houses a technology team building Tezos-based solutions and open-source software for enterprises and developers. Among a variety of products in development, TQ Tezos, in collaboration with other Tezos developers, spearheads



TQ Tezos Team Members

the development of a standard for a unified token contract interface, supporting both a wide range of token types (e.g. fungible, nonfungible, nontransferable) and multi-asset contracts. Furthermore, the team focuses on the development of DAOs, banking software, reference applications, and private versions of Tezos.

Applications

End-user applications help facilitate the adoption of Tezos and growth of its ecosystem. The Foundation issues grants to projects building applications that target a variety of real-world use cases based on Tezos.

Ukrainian software developer **Andrii Sobol** received a grant to conduct a game-theoretic economic analysis of the QuipuSwap protocol and its components. QuipuSwap is a decentralized exchange protocol to facilitate the exchange of Tezos-based assets. In this analysis, he aimed to find possible ways of attacking the QuipuSwap protocol and, in case of found vulnerabilities, provide the QuipuSwap team with possible remedies.

Atlas One is a Canadian company focusing on digital securities for private capital markets. The team is using Tezos as the underlying technology of its platform for the purpose of structuring, creating, issuing, distributing, and managing digital securities and digital security offering (DSOs).

Blockcurators GmbH, which is based in Germany, is a software development firm that, among other things, focuses on blockchain and cryptocurrency. They received a grant for integrating Tezos into their CoinKit TipBot and for providing related support to offer tipping of tez (Tezos tokens) through the bot across a variety of platforms such as Twitter, Discord, Slack, and Telegram.

Botwars Ultimate Trading is a UK-based team that teaches players through games how to trade responsibly in a fun and innovative way. In Botwars, you are the captain of an army of trading robots and it is your job to lead them to victory by conquering the cryptocurrency markets.

Chain of Insight is a Canadian builder of decentralized tools and blockchain gaming. The team has built Tezos based puzzle games and is currently working on working on Project Uanon a puzzle game on Tezos with several stages. The game will include Tezos-based NFTs and will play over several months.

The Hong-Kong-based company **Diginex Solutions** drives institutional adoption of digital assets and blockchain technology. They received a grant for building and launching eMin on the Tezos blockchain. This includes the production of an implementation of eMin in Thailand in collaboration with Verifik8 (project 1) and with the United Nations International Organization for Migration (IOM) (project 2). Furthermore, they are producing an enhanced version of the Diginex Trust eMin application for digital auditing purposes in collaboration with the Ethical Toy Program (ETP) and its member companies, including Mattel.

Tezos NFTs are an ecosystem with lots of growth potential with functional programming working well to connect NFTs to oracles.

Chain of Insight



Electis is a nonprofit organization based in France aiming to promote new usage of technology for democracy and voting, with particular expertise in blockchain and enabling concrete voting projects. The grant will help the Electis team to continue with its Tezos-based e-voting application and support its community of over 50 universities from around the world to contribute to the project. Furthermore, the team is collaborating with Spruce to add Spruce's Tezos-based DID solution to the voting application.

The Brazilian firm **hicetnunc2000** was built by Rafael Lima, a Tezos, developer in Brazil. He has been building several projects on Tezos and for this grant, he is focusing on the e-sports community, allowing users to take part in crowdfunding and e-voting systems. The company received a grant to build and launch an application on Tezos that offers this system, including a marketing campaign and providing references and complete documentation.

IBF Net is an Islamic business and finance network that is leveraging research and technology for a halal ecosystem based in Malaysia. As part of their efforts, they are building a charity management platform that integrates Tezos and aims to allow collection, distribution, and management of charity donations in the blockchain, including donations in tez and other cryptocurrencies.

LeewayHertz is an Indian company building digital solutions using emerging technologies for start-ups and enterprises. Their team has been publishing several Tezos-focused blogs and receives support in developing a Tezos-based loyalty token backed by tez.

In addition to eth2tez, the Ukrainian firm **Madfish Solutions** received grants to build the following pieces of infrastructure: QuipuSwap – a protocol enabling a seamless exchange of tokens and assets on Tezos in a secure, decentralized, and censorship-resistant manner; and Thanos – a fully featured wallet focused on UX with integrated support for various Tezos asset standards, dApps, explorers, etc. Furthermore, the team is collaborating with TQ Tezos on several projects such as BaseDAO and the Tezos gas station network.

Mudit Marda is an Indian developer who is focusing on building a marketplace for NFTs using Tezos' FA2 standard. His solution is powered by a unified flexible framework for conducting different formats of auctions with customizable auctioning attributes running on the Tezos blockchain.

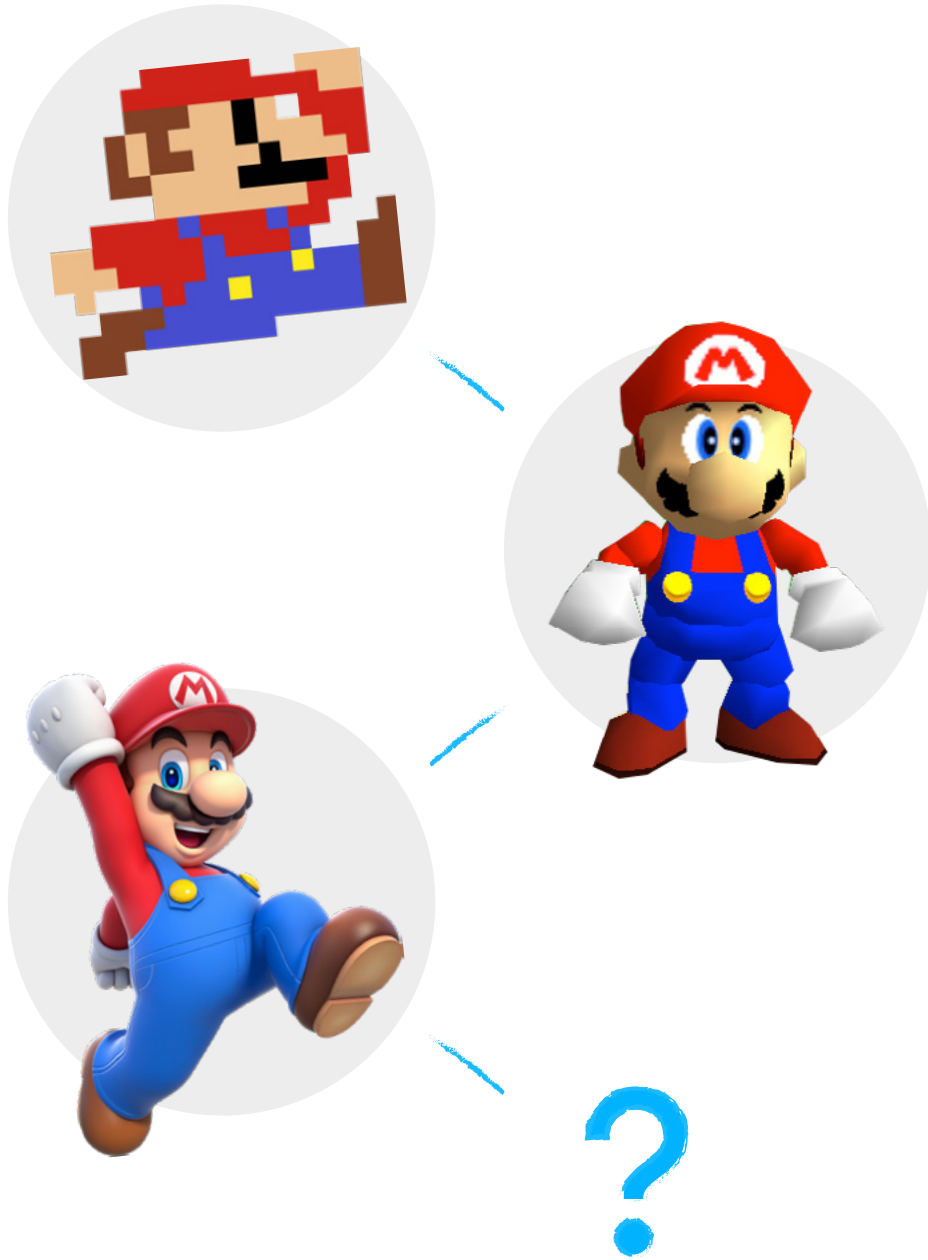
Ejara is a mobile application that supports cryptocurrencies and tokenized assets uniquely tailored to the African market. With this grant, Cameroon-based **Nzinghaa Lab**, which is the team behind Ejara, will develop and integrate smart contracts into its product to enable secure wallet back-up and key recovery, Bitcoin-Tezos atomic swaps, and a cross-chain key registration and recovery system on Tezos.

Shubham Kukreja and Khushi Asawa are students at Savitribai Phule Pune University. They have launched CricTez, a fantasy cricket crypto platform. The platform serves each cricket player participating in the league as multiple NFTs in the form of cards/collectibles. The individual players are defined by a fixed number cards. Meantime, the assumption is 100 cards (NFTs), each having a score of 1.0 at the commencement of the league. Each card/collectible is exclusive to its card score and ownership.

Sword France is an international leader in digital transformation that has engaged significantly with blockchain technologies. The French team is executing a Tezos-based digital signature project to fight against document fraud and fake invoices.

Trout Labs, a US-based team, is producing an open-source web application dashboard for bakers to manage their baking operations. The platform will enable bakers to be more transparent about their baking operations and facilitate proper accounting for bakers.

The US-based team **Wolfram Blockchain Labs** (WBL) provides solutions and services powered by the Wolfram Language, Mathematica, Wolfram|Alpha, and assorted Wolfram technologies. In collaboration with the TQ Tezos team, they aim to create Wolfram|Alpha integration, oracle integration, and education work completed by WBL.

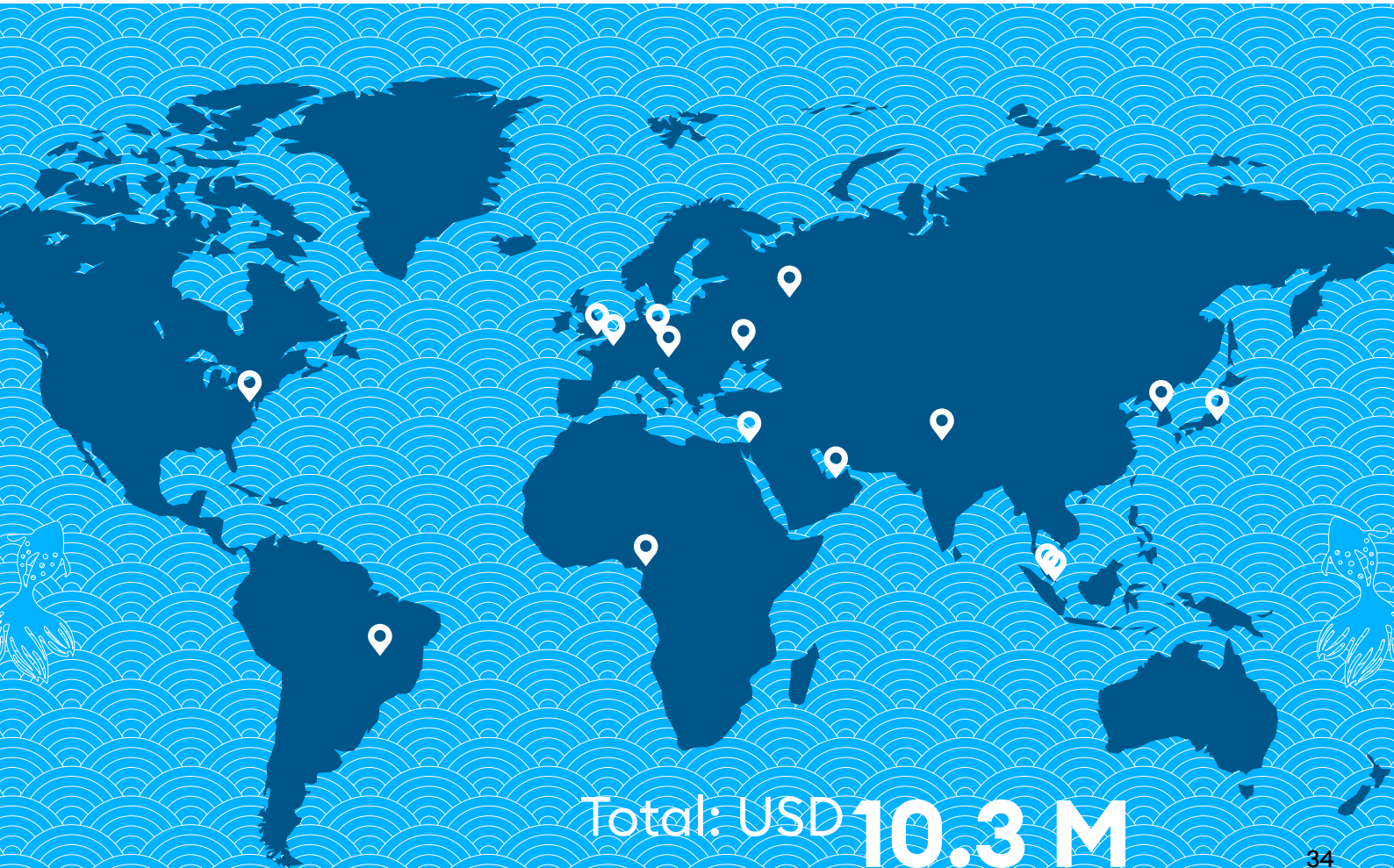


*Gaming evolves.
Tezos evolves.*

Since its inception, Tezos has had 5 upgrades: Athens, Babylon, Carthage, Delphi and Edo.

Community Grants

Tezos was designed to be a digital commonwealth. The protocol was deliberately written to empower individual members of the community through censorship-resistant transactions, a proof-of-stake-based consensus algorithm, and built-in, on-chain governance. These design choices were made to foster a collaborative, open, and global community. To ensure communities around the world have the support they need to succeed, the Tezos Foundation provides funding to entities that support community development, events, and other efforts that grow the Tezos ecosystem.



New Vector, based in the UK, develops the Riot community chat channel establishing a custom brand for the Tezos Riot channel. It will also run an independent Tezos Riot server that is operationally isolated from other users.

In addition to their development work on Tezos, **Nomadic Labs** is active as a business development and enterprise support entity on exciting projects in their area. This includes their contributions to projects related to central banks as well as enterprise adoption such as the Logical Pictures project launched in late 2020. They are working closely with the global ecosystem teams to foster adoption.



Nomadic Labs Adoption and Support Teams

The **Norn Community's** TezosNotifierBot is a popular Telegram bot used to monitor various events on the Tezos blockchain such as transactions, delegations, missing block endorsements, double baking, etc. With this grant, the Norn Community improved its @TezosNotifierBot for Telegram and expanded the bot to support other notification channels as well.

The Malaysian **Pycon** team hosted a hackathon for which they received sponsorship funding. Tezos India presented Tezos at the event and the development using SmartPy was promoted.

Richard Man's team is engaging with the Tezos Japan community on online forums and publishes project updates to social media channels every other week. The team collaborates with the wider Tezos ecosystem and development teams on community standards and libraries to advance the Tezos project as a whole.

Reason Association is growing the ReasonML community by producing and disseminating more effective learning materials and tools. They also build new documentation to teach JavaScript developers Reason and OCaml and improve the developer experience for existing users. This includes Tezos-related content and resources and tools to help encourage the ReasonML community to get involved in the Tezos ecosystem.

Tezos Brazil is a team that engages in business, product, and community development. Through these initiatives, Tezos Brazil promotes the adoption and growth of the Tezos project and ecosystem in the continent-sized country.

Tezos Commons is a US-based nonprofit foundation. Their team is contributing to the Tezos project by supporting its operations and initiatives on education programs, education media, and the Tezos LaunchPad. They collaborate with various Tezos entities and support different projects such as Kukai, Tezos Help, and Tezos Agora. With their growing team, they are contributing to community projects such as hackathons and are actively working on engagement across media.



Tezos Commons Team Members

Based in Dubai, **Tezos Gulf Technologies** is focusing on the UAE and the Middle East. With the grant, it set up an entity and supports the growth of the ecosystem in the region through partnerships with tech hubs across the Middle East and active engagement with private and public institutions.



Tezos India Team

Tezos India serves the largest democracy in the world by supporting individuals and entities who are eager to use Tezos. The team helps and trains individuals and organizations to work with Tezos and organizes and supports community activities in its region. Further, they support the organization of hackathons and webinars to grow the Tezos community in India.

Tezos Israel is an innovation lab that serves the Israeli community in educating and training developers while building advanced blockchain technologies for the Tezos ecosystem. Their mission is to build awareness and integrate Tezos blockchain technologies within the Israeli high-tech ecosystem and government offices.

Tezos Korea is a nonprofit organization that collaborates with Korean universities and hosts events, provides education, and supports technical development. Tezos Korea handles business consulting and facilitates the adoption of Tezos in Korea.

Tezos Ukraine is a nonprofit organization run by Ukrainian blockchain enthusiasts and industry experts. They facilitate and expedite the growth and enhancement of the Tezos network in Ukraine and Eastern Europe. Their efforts include supporting the development and implementation of training courses for Tezos technology developers and organizing hackathons and meetups. Tezos Ukraine is also putting in place a communication strategy aimed at building a sustainable Tezos Community in Ukraine.



Tezos Ukraine Team

Tezos West Africa, based in Cameroon, supports the growth of a vibrant Tezos community in Western Africa and raises awareness about the Tezos blockchain through meetups and local tech conferences. Tezos West Africa will also provide a structured introductory Tezos training to local developers.



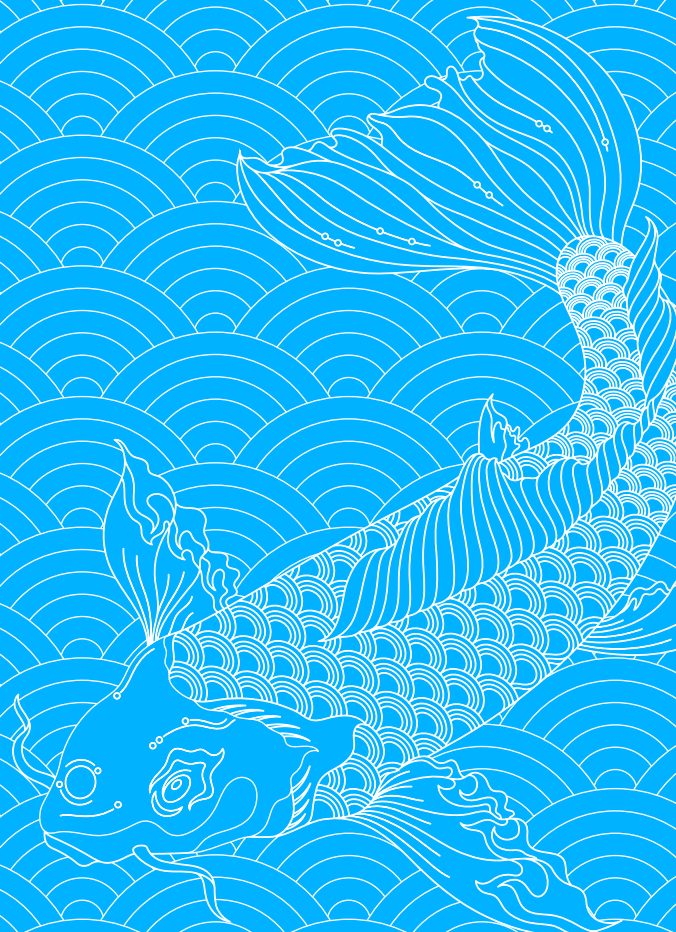
TZ APAC Team

TQ Tezos is a New York City-based organization that focuses on driving adoption, marketing efforts, and awareness of Tezos. In addition to building Tezos-based solutions and open-source software for enterprises and developers, it engages in business development, helps start-ups and enterprises adopt Tezos for a variety of exciting use cases, and works closely with other Tezos organizations and community members on events and ecosystem development initiatives. Its team actively shapes marketing campaigns for the Tezos ecosystem and manages communication around Tezos and websites such as tezos.com.

TZ APAC is a leading Asia-based public blockchain consultancy firm supporting the Tezos ecosystem with its headquarters in Singapore. TZ APAC designs value-added blockchain transformation strategies for enterprises and creators with a bottom-up approach, working closely with blockchain experts and other stakeholders in the Tezos ecosystem.

TZ Connect is a local hub in Berlin focusing on development and adoption of the Tezos protocol in meaningful projects. The initial projects include the development of a prediction market and a toolkit for hackathon organizers. TZ Connect aims to be an environment where collaborations, knowledge transfer, and spillover effects can occur.

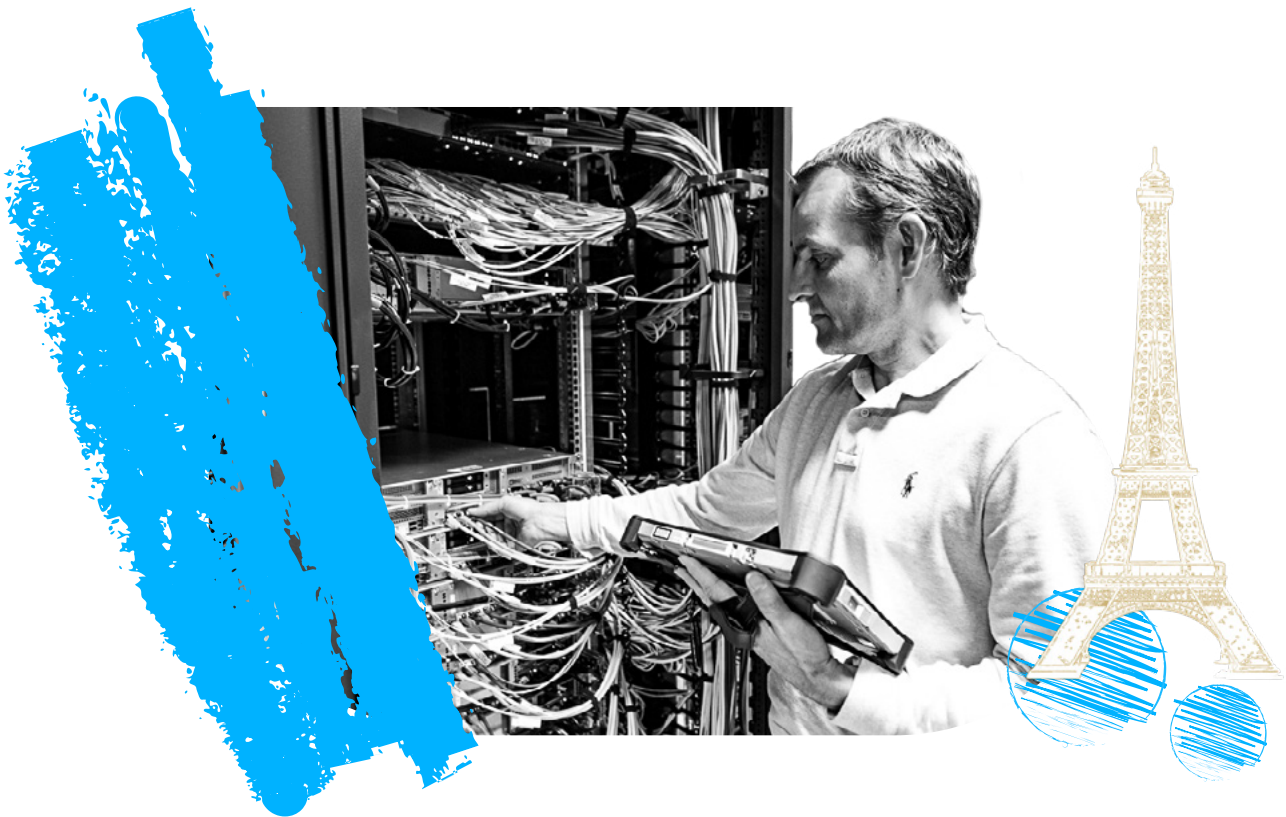
The **University of California, Berkeley**, is ranked among the world's top universities by major educational publications. The university hosts the Blockchain Xcelerator Sponsorship Program which is supported by the Foundation. Tezos ecosystem teams provide further support in an advisory function as part of the program's educational aspects.



Industry Adoption

Industry Adoption – Collaborations

To foster the growth and adoption of the Tezos protocol, the Tezos Foundation collaborates with companies and institutions to support the creation of products for real-world implementation. In these kinds of collaborations, the focus typically lies in building an understanding of the technology, identifying relevant technology applications, and funding projects where necessary.



Exaion, EDF group subsidiary *The French firm Exaion became a Tezos baker in October 2020. They are one of several corporate bakers emerging as validators of the Tezos blockchain globally.*

Digital Securities

Alliance is the leading property developer in Manchester, UK, and has announced tokenizing GBP 500 M of UK real estate as well as partnering with the Tezos Foundation, tZero, and digital securities advisory boutique Megalodon for its first digital security project, the River Plaza in central Manchester (GBP 43 M).

The Silicon Valley Coin, representing an interest in **Andra Capital**'s open-ended fund, is a tradable digital security based on Tezos and breaks the mold of traditional venture capital investing by leveraging blockchain technology. The fund invests in leading late-stage, private technology companies that are backed by top-tier VCs valued at USD 500 M or higher and that are leaders in their industries.

Reit BZ, a Brazil-based project backed by Latin America's largest investment bank, **BTG Pactual**, offers foreign investors access to Brazil's growing real estate market through a security token called Reit BZ (RBZ). RBZ tokens are backed by distressed real estate assets mainly in the states of São Paulo and Rio de Janeiro. Similar to dividends for stockholders, RBZ token holders will receive periodic dividends from the recovery of said distressed assets. Tezos will be used as the default blockchain offered for RBZ's security token.

Berlin-based **Fundament** will launch the first digital security in Germany regulated by the financial market authority, BaFin. Fundament is building end-to-end infrastructure for digital securities, including distribution channels to end-users. Tezos is the default blockchain offered for Fundament's products.

Globacap is a London-based primary issuance and administration platform for digital securities, regulated by the UK's Financial Conduct Authority (FCA). Globacap is also a partner of many digital securities exchanges, offering a secondary market for blockchain-based digital securities. Tezos will be offered as the preferred underlying blockchain for all issuances via Globacap.

Taurus is a Swiss financial services company building a next-generation platform to trade, invest, and protect digital assets. Taurus is also a leading B2B service provider in Switzerland for cryptocurrency custody. Taurus will promote Tezos as its blockchain technology partner and will integrate Tezos as blockchain for digital securities issuance on its platform. Taurus will enable digital securities projects with financial institutions in Europe and provide additional access to Tezos-based digital assets.

Vertalo is a cap table, compliance, and investor onboarding platform utilizing blockchain technology to connect and enable the digital asset economy. As an SEC-registered transfer agent, Vertalo supports the ongoing asset management needs of private companies, broker dealers, and investors, and will use Tezos as the default blockchain for its clients.

Payment

Baanx has developed a proprietary platform for mobile banking applications, including a wallet and payment rails, and operates as a distributor for third parties. Baanx holds an e-money license in the UK. The core product is white-labeling the Baanx decentralized cryptocurrency bank, exchange, and payment system. Baanx products also include a cryptocurrency mobile payment app with a physical and virtual VISA debit card option already issued in 30 countries. Tezos will be integrated as a payment currency.



Digital Asset Platforms

Bitcoin Suisse has developed custody solutions for XTZ, including options for staking and delegating into their main offerings. It further helps mint tzBTC tokens based on the FA1.2 token standard and control the storage of the bitcoin, which is committed when new tokens are issued through its subsidiary Swiss Crypto Tokens. Furthermore, the Tezos Foundation has participated in its Series A financing completed at the end of July 2020.

The **Elevated Returns Exchange (ERX)** is built on Alpha Point, with Tezos as the underlying blockchain. It is approved by the Thailand Securities and Exchange Commission (SEC) and lets investors buy and sell investment tokens.

Equisafe uses Tezos to offer security, traceability and real-time updates to manage registries of votes and shareholders for unlisted companies. It provides a platform for the tokenization of financial assets and the creation and maintenance of digital assets in a shared electronic recording solution based on Tezos.

Securitize is a platform to deliver trusted global solutions for creating compliant digital securities, including funds, equity, fixed income, and real estate. Securitize has integrated Tezos into its offering, which will be available to issuers from around the world.

StakerDAO is a platform for governing financial assets in a decentralized, secure, and compliant manner. In mid-2020, the STKR token was launched based on the Tezos blockchain using the FA1.2 token standard to present, discuss, vote upon, and implement proposals. The first proposal for a StakerDAO financial product, Blend (BLND), which includes tez, was submitted and approved in early 2020.

Memberships and Associations

The **Capital Markets and Technology Association (CMTA)** is an independent association formed by leading actors from Switzerland's financial, technological, and legal sectors to create common standards around issuing, distributing, and trading securities in the form of tokens using the distributed ledger technology (DLT). The aim is to facilitate the use of DLT in the field of capital markets.

DLT Education Consortium (DEC) is a global passport for distributed ledger technology and digital assets, which is benchmark industry standard for anyone working in the blockchain industry. DEC was created by a consortium of leading universities and institutions researching and teaching DLT.

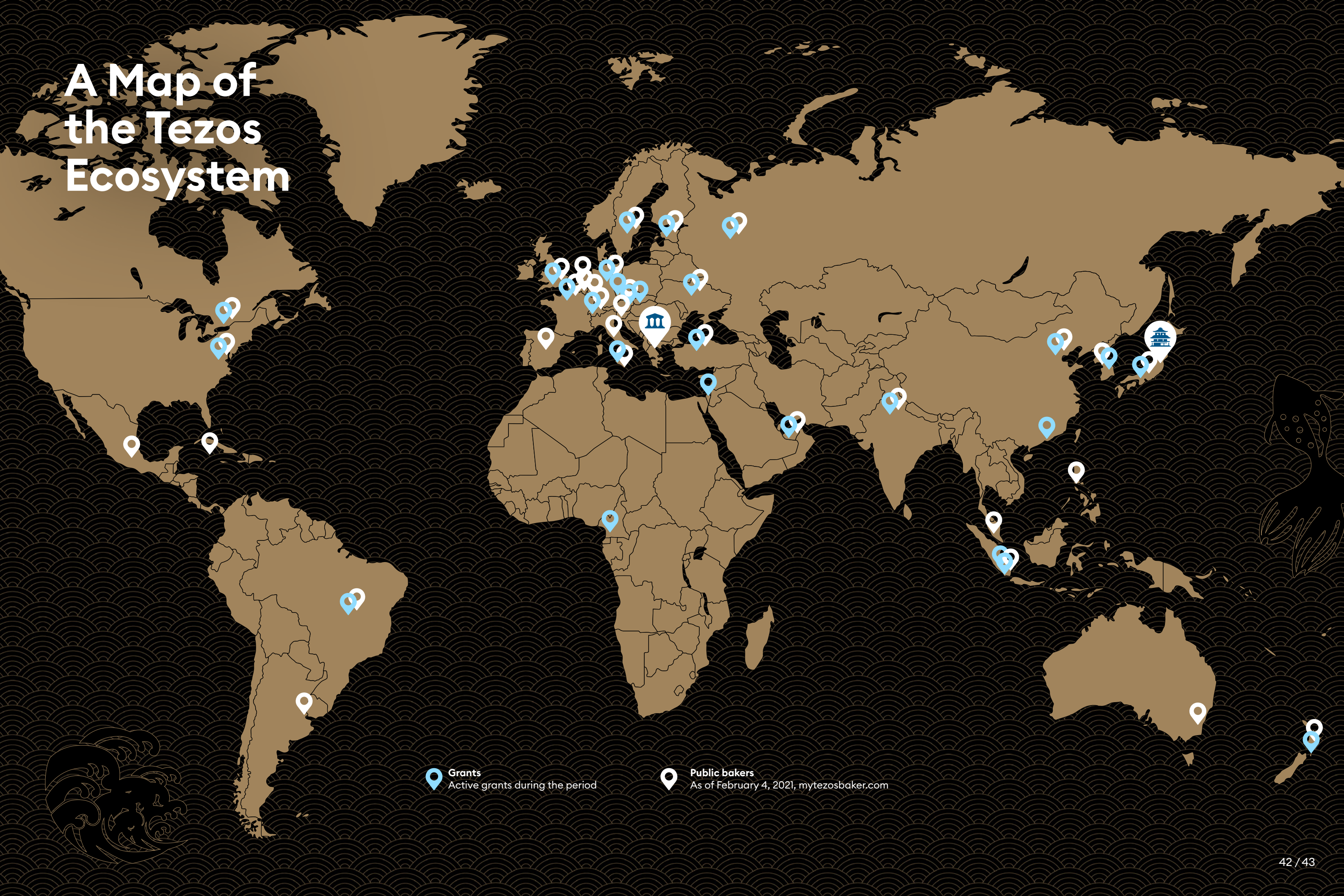
The **OpenVASP Association** is a nonprofit organization dedicated to advancing the protocol and its ecosystem based on the needs and requirements of its members. Its objective is to establish and maintain an open protocol for the transmission of transaction information between virtual asset service providers (VASPs) and other parties.

The **Bitcoin Association Switzerland** is an active community of enthusiasts with regular events trying to resolve open legal questions, and educate the public by providing a contact point for media inquiries.

Multichain Asset Managers Association (MAMA) is a global community of organizations working to transform asset management through blockchain technology and holds events all year round, including Paris Blockchain Week Summit and the Singapore FinTech Festival.

The objective of the **Swiss Blockchain Federation** is to promote the attractiveness of Switzerland as a location for blockchain-based activities and encourage the development of a secure and competitive legal framework. The Swiss Blockchain Federation is a public-private partnership combining agents from the blockchain sector, the fields of politics and economics, the scientific community, and the public sphere.

A Map of the Tezos Ecosystem



 **Grants**
Active grants during the period

 **Public bakers**
As of February 4, 2021, mytezosbaker.com



Financials

Financials

The crypto market has evolved over the past six months. The welcome growth in adoption, use cases, and crypto prices is also visible when looking at the Tezos Foundations' total assets, which increased by around 57% to USD 1'176 M compared to the last update by providing USD 51.3 M in the same time to grantees. One step that has been taken to diversify the Foundation's portfolio is increasing the stability fund by USD 110 M.

In the last few months, the finance function executed more than 500 payments to grantees in all major fiat currencies, including transactions in cryptocurrencies. Furthermore, the number of accounting journals that reflect the business activities is constantly growing, which is why the Foundation heavily invests in the automation of processes. One notable process that has been automated is the bookkeeping of crypto transactions by taking actual transactions directly from the blockchain and compiling them into a readable file for our accounting tool.

In June 2021, the fourth statutory audit by PricewaterhouseCoopers for the financial year 2020 will be completed. This time, its scope covers statutory financial statements under local accounting frameworks and consolidated financial statements in accordance with international financial reporting standards (IFRS for SMEs) for the Tezos Foundation group, including the Foundation's indirect subsidiaries in France, Germany, Singapore, and Dubai.

To most effectively fulfill its mandate to provide resources to promote the Tezos project and ecosystem, the Tezos Foundation continuously improves its effectiveness, efficiency, and transparency. As the grant-making process is essential in providing resources to the ecosystem, the Tezos Foundation, as mentioned in our last update, introduced the new grant process in late 2020 together with the launch of the Grant Platform and updated areas of interest to further streamline this process and provide more transparency to the broader community by making grant information such as deliverables and milestones publicly available.

Key Figures

Assets held as of January 31, 2021, had a market value of USD 1'176 M compared to USD 751 M on July 31, 2020. The Foundation's cryptocurrency assets are predominantly Bitcoin (BTC) and Tezos (XTZ), and both continue to be stored in several secure custody solutions. In late 2020, the Tezos Foundation started to allocate XTZ to certain long-standing, successful grantees to reward them for their participation and ensure their long-term commitment to the Tezos ecosystem.

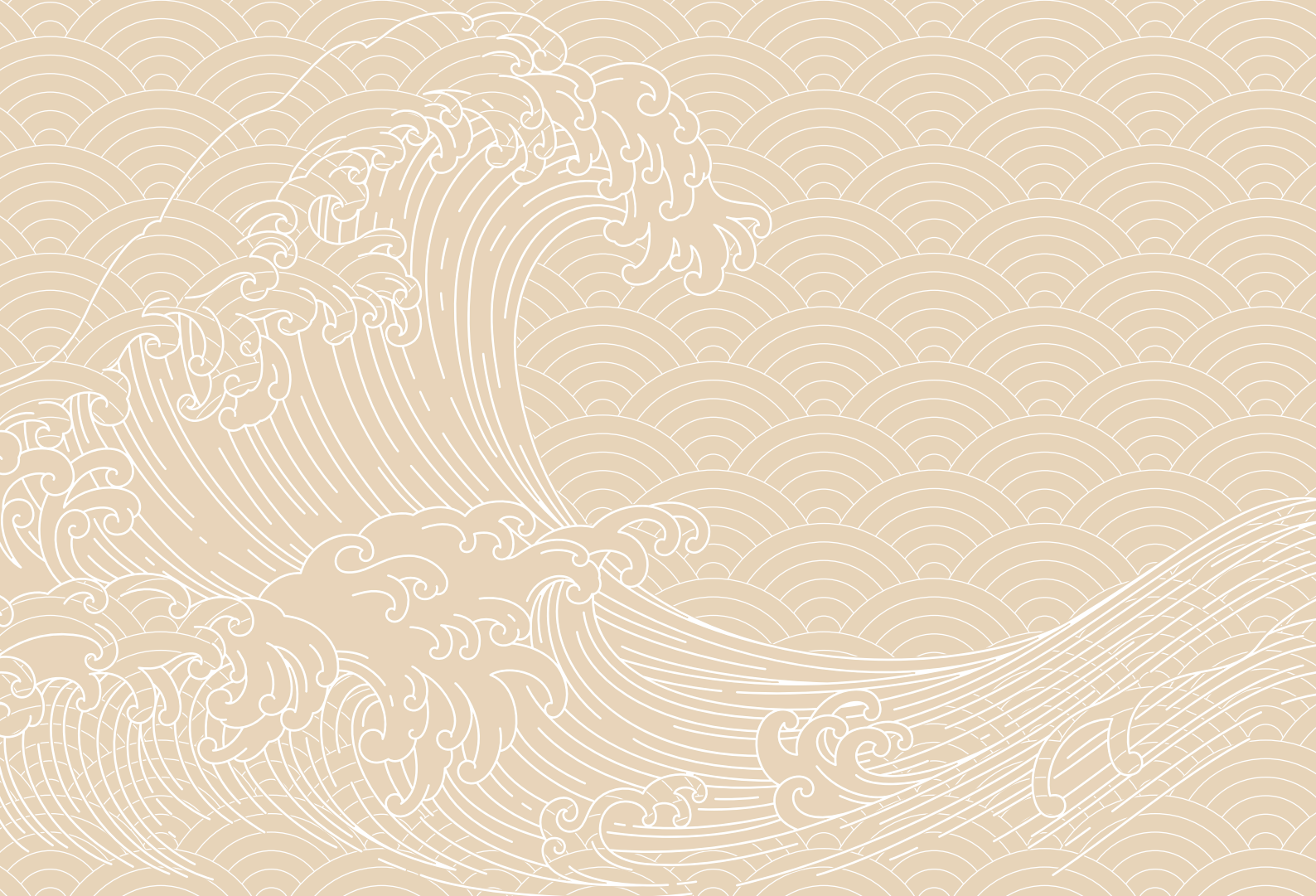
To adequately manage its own liquidity requirements, the Foundation holds a conservative and diversified portfolio with liquid assets such as bonds, ETFs, and commodities at Swiss banks. Further, fiat is held with several banks in multiple jurisdictions: 65% in US dollars, 18% in pounds sterling, 11% in Swiss francs, and 6% in euros and Singapore dollars. Other assets are predominantly strategic equity or debt investments, or cryptocurrencies such as Ethereum.

in USD M	January 31, 2021	in %	July 31, 2020	in %
Cash (fiat)	47	4%	53	7%
Bitcoin (BTC)	600	51%	278	37%
Tezos (XTZ)	258	22%	262	35%
Stability fund	212	18%	105	14%
Other investments	59	5%	53	7%
Market value of assets	1,176		751	



Money evolves. Tezos evolves.

Since its inception Tezos has had five upgrades: Athens, Babylon, Carthage, Delphi and Edo.



Governance

Council & Committees of the Tezos Foundation

In order to provide the Tezos community with more transparency about the Tezos Foundation's organization and governance, outlined below are the functions and responsibilities of the Tezos Foundation's bodies.

Foundation Council

The Foundation Council has the overall responsibility to supervise, manage, and administer the Foundation and its assets, and to define the Foundation's strategy. In line with the Foundation's charter, the Foundation Council has delegated the operational and asset management duties to the Executive Committee of the Foundation. The Foundation Council appoints and constitutes itself. It is currently composed of seven members, including the Chairman of the Foundation Council.

Executive Committee

The Executive Committee is entrusted by the Foundation Council with the operational and asset management duties of the Foundation. In addition, the Executive Committee implements the Foundation Council's resolutions and is, among other things, to some extent responsible for investment decisions fostering the Foundation's purpose.

Audit Committee

The Audit Committee monitors the Foundation's financial and business reporting, including financial statements and tax matters. The audit process includes reviewing the activities, adequacy, and effectiveness of the Foundation's statutory auditor (PwC Switzerland).

Investment Committee

The Investment Committee (IC) provides recommendations and advice to the Foundation Council and the Executive Committee about all investments of the Foundation outside of regular grants and ordinary asset management.

Technical Advisory Committee

The Technical Advisory Committee (TAC) was established to provide recommendations and advice to the Foundation Council and the Executive Committee on all technical matters of the Tezos protocol, including but not limited to technological priorities to be funded by the Foundation. The TAC includes external members from throughout the Tezos community.

Nomination and Remuneration Committee

The Foundation Council recently appointed a Nomination and Remuneration Committee to evaluate and propose new members to the Foundation Council. The committee is further responsible for regularly assessing the Foundation's remuneration model.

Foundation Council

As of January 31, 2021

The Tezos Foundation Council is composed of accomplished professionals who lead the Tezos Foundation as it supports the Tezos protocol and ecosystem. Individually, they bring expertise and insights from their respective fields. Collectively, they form a Council full of unique backgrounds and experiences from all over the world.



Hubertus Thonhauser
Chair

Hubertus is founding partner of Enabling Future, a family-office-backed VC firm and tech company builder based in Dubai. Previously, he co-founded Babil Games, MENA region’s leading mobile games publisher acquired by Stillfront Group in 2016. Prior to 2010, Hubertus held various C-level and board roles within the Casinos Austria Group, a European market leader in the regulated digital gaming and casino industry.



Alexis Bonte
Member of the Foundation Council

Alexis is the cofounder and CEO of online gaming company eRepublik Labs, which is part of the Stillfront Group, where Alexis holds the position of Group COO. He is also a venture partner at Atomico, where he advises on new investments in France, Spain, Portugal, and Eastern Europe, as well as sources and accelerates growth in the gaming, blockchain, and travel verticals. Originally from Romania, Alexis holds a BA degree with honors in International Business and Languages from the European Business School (London).



Lars Haussmann
Chair of the Audit Committee

Lars is the Head of Corporate Management and Company Administration at Haussmann Treuhand AG. He has served at Haussmann Treuhand AG since 1999 and has extensive experience in corporate management, administration, and accounting matters in demanding and complex situations. Lars is from Switzerland and holds a graduate degree in Economics from the University of Zurich. He is a Swiss certified chartered accountant.



Alice Lloyd George
Member of the Foundation Council

Alice Lloyd George is the founding partner of the early-stage venture fund Rogue Capital. Since 2013, Alice has been investing in emerging technology and Internet culture in areas including gaming, blockchain, machine intelligence and computer vision, robotics, virtual and augmented reality, and NewSpace. Previously, Alice was a board member and observer for 12 portfolio companies at RRE Ventures, an investor at Bridgewater Associates, a fellow at the Brookings Institution in Beijing and Washington, DC, and a reporter with the *Wall Street Journal* in Hong Kong.



Daniel Masters
Member of the Foundation Council

Danny is a cofounder and the chairman of the CoinShares Group, a leading digital asset investment firm that manages hundreds of millions in assets on behalf of a global investor base. Prior to CoinShares, Danny launched the world’s first regulated Bitcoin fund and founded Global Advisors, an oil- and commodities-focused investment house. With over 30 years of experience in pioneering new asset classes, Danny is a well-known and respected voice in the digital asset ecosystem. Earlier in his career, Daniel was the Global Head of Energy and Trading at JP Morgan. Originally from the UK, Daniel holds degrees in Physics and Statistics, and is proud to have traded more oil contracts than any other living person.



Anil Madhavapeddy
Member of the Foundation Council

Anil is a University Lecturer (Associate Professor) in the Computer Laboratory at the University of Cambridge, where he researches the intersection of computer systems and programming languages. Anil has worked extensively on open-source software for over 25 years, and his research has been spun out into numerous commercial entities. He was part of the team that created the Xen hypervisor (acquired by Citrix in 2007) and he founded Unikernel Systems (acquired by Docker in 2016). He has additionally directed the OCaml Labs group since 2012.



Chris Wright
Member of the Foundation Council

Chris is Senior Vice President and Chief Technology Officer (CTO) at Red Hat, an open-source software company that was acquired by IBM in 2019. As CTO, Chris has helped Red Hat transition from a single-product business to the foundation from which global enterprise clients can scale apps and roll out emerging technologies across all types of cloud environments. Chris is passionate about open-source software and has spent 25 years in the industry and 20 years in open source.

Foundation Committees

As of January 31, 2021

Executive Committee

Hubertus Thonhauser
*Chair of the Foundation Council
(Executive Committee member ad interim)*

Ulrich Sauter
General Counsel

Roman Schnider
Chief Financial Officer / Head of Operations

Investment Committee

Hubertus Thonhauser
Chair, Chair of the Foundation Council

David Fuchs
Tezos Foundation

Chris Lawlor
TQ Tezos

Alice Lloyd George
Member of the Foundation Council

Ulrich Sauter
Tezos Foundation

Roman Schnider
Tezos Foundation

Audit Committee

Lars Haussmann
Chair, Member of the Foundation Council

Hubertus Thonhauser
Chair of the Foundation Council

Daniel Masters
Member of the Foundation Council

Ulrich Sauter
Tezos Foundation

Roman Schnider
Tezos Foundation

Technical Advisory Committee

Michel Mauny
Chair, President of Nomadic Labs

Jacob Arluck
TQ Tezos

Bruno Bernardo
Nomadic Labs

Benjamin Canou
Nomadic Labs

Jun Furuse
DaiLambda

Luis Gonzalez
Tezos Commons

Anil Madhavapeddy
Member of the Foundation Council

Wayne Chang
Spruce Systems

Nomination and Remuneration Committee

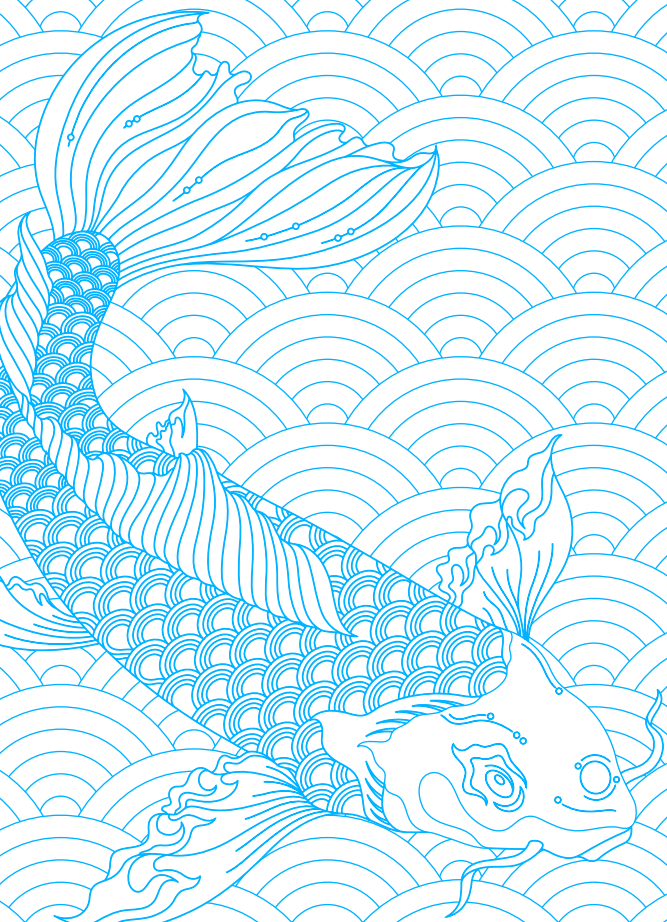
Hubertus Thonhauser
Chair, Chair of the Foundation Council

Alexis Bonte
Member of the Foundation Council

Lars Haussmann
Member of the Foundation Council

***We seek to empower persons
and entities from all over
the world to create a robust
and decentralized digital
commonwealth.***

”





Tezos Foundation

Get involved with the Tezos project at tezos.com

Learn more about the Tezos Foundation at tezos.foundation

The Tezos Foundation is a non-profit Swiss foundation with domicile at Dammstrasse 16 in 6300 Zug, Switzerland. The Tezos Foundation is supervised by the Swiss Federal Foundation Supervisory Authority ("SFSA") which is part of the Swiss Federal Department of Home Affairs. The Tezos Foundation's purpose is the promotion and development of new technologies and applications, especially in the fields of new open and decentralized software architectures including the promotion and development of the Tezos protocol and related technologies. This Biannual Update is not the Tezos Foundation's official activity update due to the SFSA. All the information in this Biannual Update is published in good faith and for general information purposes only. The Tezos Foundation does not make any warranties about the completeness, reliability and accuracy of the information contained herein. Unless otherwise stated, all data, information and pictures contained in this Biannual Update are produced by, and belong to the Tezos Foundation as its intellectual property.