Tezos Foundation Biannual Update



September 2020

In the past six months, we saw valuable development activity inside the Tezos ecosystem with a continuously increasing number of participants and enterprises new to the project.

Preface

Dear Tezos Community,

Since the release of our last Biannual Update in February, a global pandemic has changed how we work, live, and interact with one another. In spite of these dramatic changes, the Tezos ecosystem has come together to make significant strides and reach multiple important milestones. In March, the protocol successfully upgraded itself for the third time through the Carthage amendment. In June, a global community of bakers added the millionth block to the Tezos protocol just before the second anniversary of the Tezos blockchain mainnet. These milestones would not be possible without a dedicated community of developers, enthusiasts, and bakers working together in a truly decentralized network.

The Tezos Foundation has continued to implement its mission to foster a diverse and robust global community. Since February, we have issued 56 new grants, entered into four strategic partnerships, and completed a third independent external audit of our finances. This report, the third iteration of our Biannual Update, provides insight into and a detailed overview of our activities over the last six months.

These past six months have also been a period of reflection and improvement for the Foundation itself. After an extensive internal review, we decided to make significant changes to the structure of the Tezos Foundation and ensure that the role of the Tezos Foundation Council is focused on long-term vision and strategy, while an executive team administers the Foundation's day-to-day operations. Our new governance structure, together with the addition of two non-executive council members, strengthens our decision-making and execution in the long term.

We have achieved a lot together over these past six months. In April, several prominent crypto firms came together to launch the Bitcoinbacked tzBTC token, evidence of how far the tooling and infrastructure of the Tezos blockchain has come. Industry leaders like Truffle and Magic have integrated Tezos into their tooling suites and made it easier to build on Tezos. The TQ- and CoinList-sponsored Tezos hackathon drove over 1,000 applicants and 30 finished projects, many of which have great potential.

Even though the Tezos project is still at a relatively early stage, our primary focus since launch over two years ago has been to allocate resources that will help build out the infrastructure layer. The infrastructure layer will always be a critical area of focus, but as it continues to mature, we are excited to expand our focus and ramp up our allocation of resources to the application layer. This will help to facilitate more end-user products and applications and accelerate real adoption of Tezos. Despite the uncertain nature of the world right now, we believe in the bright future of Tezos and the community's ability to lead it to become an open, upgradable infrastructure, and a sustainable economic ecosystem.

The Tezos Foundation Council

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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 purpose globally 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.

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 part of this ecosystem, alongside developers, scientists, network validators ("bakers"), enthusiasts, and many others, all working towards 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 longterm 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





February 13, 2020

Taurus Group starts its strategic integration of Tezos into its diaital asset infrastructure.



March 5, 2020 The Carthage amendment proposal is approved by Tezos stakeholders and automatically activated across the network.

March 6, 2020 TQ Tezos publishes a request for comment on the FA2 token standard. a multi-asset interface for Tezos.



April 8, 2020

Crypto firms come together to launch Bitcoinbased tzBTC token on Tezos, utilizing the FA1.2 token standard to build a token 1:1 backed by Bitcoin on the Tezos blockchain.

April 15, 2020

Truffle starts supporting the Tezos protocol, enabling users to build smart contracts on Tezos with Truffle's professionalgrade tooling.

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May 7, 2020 TQ Tezos and CoinList launch their hackathon with over 1,000 registrants and 30 projects submitted.

May 22, 2020

BTG Pactual officially issues its real-estatebacked ReitBZ token on the Tezos blockchain.



June 17. 2020

The Tezos community celebrates the baking and adding of the millionth block to the Tezos blockchain.

June 30, 2020

End of June marks the second anniversary of the Tezos blockchain mainnet.

2020



July 1. 2020

Bolt Labs commences its work on extending zkChannels to enable privacy-preserving state channels on Tezos.

July 6, 2020

AirGap's Beacon and Taquito are showcased as two powerful tools working together to build dApps on Tezos. Beacon as an implementation of tzip-10 allows connecting wallets with dApps, while Taquito connects the dApp to the Tezos blockchain.

Facts & Figures

Some Tezos Foundation highlights since February 2020





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 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.

The evaluation process for new grant applications normally takes between six and eight weeks. It is essential that prospective grantees and their projects are evaluated diligently to ensure that the deployed resources add proportional value to the Tezos ecosystem. This Biannual Update follows two previous ones and covers the Foundation's activities from February to July 2020.

Evaluation Process

Step 1

Applications are initially vetted to ensure they fulfill the Tezos Foundation's formal requirements. Formal requirements are published for prospective applicants via a request for proposals (RFP).

Step 2

Applications that pass through the initial review phase are sent to the Tezos Foundation's Technical Advisory Committee (TAC), chaired by the President of Nomadic Labs, Michel Mauny, for technical due diligence and evaluation. The list of current TAC members can be found at the bottom of this Biannual Update. 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 a grant application are made by the Tezos Foundation Council or the Tezos Foundation Executive Committee.

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Step 4

After final decisions about grant applications are made, they are communicated to applicants. 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 is currently being redesigned for prospective grant applications and will be communicated in its new form in 2020. 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 may not distribute follow-on payments for projects that do not meet their deliverables.

Grantees & Other Funded Entities

Since the second Biannual Update (March 2020), the Tezos Foundation has committed funds to 56 new projects across 18 countries for a total amount of USD 18.8 million. A total of 23 of the 56 new grants (41%) are to organizations or individuals that were not previous grant recipients. The change of committed funds compared to the previous period predominantly relates to large annual grants that are typically entered into at the beginning of the year. These grants will be covered again in the next Biannual Update.

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, US
- DaiLambda, Japan* **
- Metastate, Switzerland
- Nomadic Labs, France*

Research & Education

- Baking Bad, Russia*
- Blockmatics, US
- BUIDL Labs, India**
- France IOI, France

- University of Freiburg, Germany
- IIT Madras, India
- Inacta, Switzerland
- Kyoto University, Japan
- Nagoya University, Japan**
- OCaml Labs, UK
- OCTO Technology, France*
- Simple Staking, Malta
- Stove Labs, Slovakia
- Tarides, France
- VDF Alliance, US

Total: USD 5.8 M

* Grantees that receive funding in several categories.

** Organizations that receive funding from the Tezos Foundation via service contracts or other appropriate agreements but are not grantees.

Core Development

Bolt Labs is a US-based firm that builds 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 multi-party computation techniques. With the grant, Bolt Labs will work to enable privacy-preserving state channels on the Tezos blockchain.

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With its governance mechanism, Tezos allows new privacy features to be implemented.

> 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 its 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 optimizations for the Tezos core as well as promotional activities in Japan.

> Metastate (formerly Cryptium Labs), a Swiss-based, security-oriented company, is dedicated to distributed ledger research and protocol development. Metastate researches and develops a number of technologies to help advance the Tezos project. Notably, it works 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 Babylon, Carthage, and future upgrades and presents the Tezos project at conferences and events around the world.

Nomadic Labs performs research and development for the Tezos ecosystem. It works on the core Tezos node software. as well as conducting ongoing research into smart contract security, consensus algorithms, blockchain cryptography, and other improvements for Tezos. Among many other projects, Nomadic Labs continues to work on Michelson, the underlying language for smart contracts on Tezos; recently announced Tenderbake, a classical BFT-style consensus algorithm for public blockchains; and plans to propose the addition of privacypreserving technologies to Tezos. Nomadic Labs collaborates with the global Tezos developer community to support development initiatives and streamline workflows across various teams and contributors to the Tezos project.

Research and Education

Baking Bad is an active Tezos development team based in Russia that builds a variety of Tezos products such as BetterCallDev, 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.

Blockmatics is a US-based firm that helps businesses and professionals better understand blockchain technology. Through online and in-person education it covers core concepts, trains developers, and provides reports and technical guides. In this context, it received a grant to build and release an online course on SmartPy, an intuitive and effective smart contract language and development platform for Tezos.

Cryptoverse Wars by the Indian firm BUIDL Labs is built by and for entrepreneurs, supporting them in their growth. They contribute to the Tezos project with Cryptoverse Wars, an interactive code school that onboards users to the Tezos ecosystem by teaching them how to write Tezos smart contracts in SmartPy.



Benjamin Canou

The French association France IOI aims to make as many people as possible discover programming and algorithms. By providing resources, training, and competitions, the association supports high school students attending the international olympiads in Informatics. The grant has the purpose to broaden its offering to include Tezos-specific 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 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.

The Indian Institute of Technology Madras

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

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

Kyoto University is the second-oldest Japanese university and one of Asia's leading research institutions with 18 Nobel laureates, more than any other university in Asia. Kyoto University conducts research on the current, simple Michelson type-checking to develop static verification techniques for Michelson and higher-level Tezos smart contract languages. Its research team will create an accessible development tool for such verification techniques and contribute to the growth of the Tezos ecosystem in Japan and the Greater Asia region. Nagoya University in Japan is the third-highest-ranking higher education institution in Japan with over 16,000 students. Jacques Garrique, a professor at the Graduate School of Mathematics, is working on the Certifiable OCaml Type Interface (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 the University of Cambridge, OCaml Labs is a top-tier functional programming and multi-disciplinary 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 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 will build and improve 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. With this new grant, they are continuing to build TezEdge and collaborate with Nomadic Labs and the larger Tezos developer community on the project. With a Tezos node in Rust the ecosystem will benefit from a higher diversity of node implementations, further increasing the decentralization and robustness of the network.



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

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

The VDF Alliance is a collection of worldclass academic, non-profit, 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.

Ecosystem – Tools & Applications Grants

The Tezos Foundation supports many team 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

- Anchorage, US
- Archetype, France
- Go Tezos, US
- Madfish Solutions, Ukraine
- NEOFACTO, France
- Nomadic Labs, France*
- Sotez, US
- Tezos Rio, Brazil

Block Explorers

- Baking Bad, Russia*
- Papers/AirGap, Switzerland**
- TzStats, Germany
- TezTracker, Ukraine

Smart Contract Development

- Agile Ventures, Czech Republic
- Baking Bad, Russia*
- DaiLambda, Japan* **
- Korea University, Korea
- Nomadic Labs, France*
- PeerPatron, France
- Runtime Verification, US
- TulipTools, Austria
- Tezsure, India
- Truffle Blockchain Group, US

Infrastructure

- Agile Ventures, Czech Republic
- Anyblock Analytics, Germany
- Baking Bad, Russia*
- Blockdaemon, Ireland
- camlCase, US
- Catsigma, Asia
- Cryptonomic, US
- Dsent AG, Switzerland
- ECAD Labs, Canada
- Figment Networks, Canada
- Finoa, Germany
- LIGO, France
- Magic Labs, US
- MIDL.dev, Estonia
- OCTO Technology, France*
- Papers/AirGap, Switzerland**
- Payzos, Turkey
- SkillZ, France
- Smart Chain Arena, US**
- Taurus, Switzerland
- TezosKit, US
- Tezos-nodes, Russia
- TezQuery Genevès, France
- TQ Tezos, US* **

Applications

- Blockcurators, Germany
- Electis, France
- Ejara, Cameroon
- hicetnunc2000, Brazil
- Madfish Solutions, Ukraine
- Nzinghaa Lab, Cameroon
- Tezos reward distributor

Total: USD **6.2 M**

* Grantees that receive funding in several categories.

** Organizations that receive funding from the Tezos Foundation via service contracts or other appropriate agreements but are not grantees.

Programming Languages and Libraries

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

Anchorage is based in the US and develops the Anchorage open-source library. It received a grant to expand this library and support creating and invoking contract scripts in the Go language. The expansion considers the Micheline JSON syntax, the binary serialization format, and Michelson contracts.

Edukera is a French-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. It 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 US, 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.

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



Luiz Milfont

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 its offering, it provides 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 low-level, stack-based language, its static type system eliminates whole classes of programming errors from the execution of smart contracts. Andrew Kishino is a US-based Tezos developer working on Sotez, a barebones JavaScript library for interacting with Tezos. The firm received a grant to continue this development on Sotez and also contribute to Taquito, a TypeScript library suite for development on Tezos.

Tezos Rio is working on advancing the Tezos project in Brazil. It received a grant where Luiz Milfont is 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.

Block Explorers

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



Baking Bad, Rob Witoff

Baking Bad is a Russian Tezos development team that builds a variety of widely used products in the ecosystem. This grant supported the team with the further development of TzKT, a lightweight, API-first, account-oriented block explorer for the Tezos blockchain. It further received grants for Better Call Dev, a Tezos smart contract explorer. Papers, the Swiss team behind the AirGap wallet, is an active development team in the Tezos ecosystem. The Papers team continues to improve tezblock, a Tezos block explorer, by adding more advanced baking and governance data through integration with Tezos Agora, Tezos smart contracts and assets support, and other key metrics and data visualizations.

The Tezos community is really supportive and genuinely interested in creating products that focus on decentralization.

Alex Eichhorn

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Alex Eichhorn, who is based in Germany, 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 Tezosbased 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.

The Ukrainian firm Attic Lab is building and improving **TezTracker**, a Tezos block explorer. It received a grant to build and deploy both the back and front end of the block explorer, while relying on an existing, efficient, and publicly available indexer.

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.



G. Nicholas D'Andrea

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. It is currently receiving several grants. Continuing from its work on TaaS, the Agile Ventures team provides a free instance of an open-source solution exposing a GraphQL API endpoint.

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 development team **DaiLambda**, based in Japan, received an additional grant to lower the burden of developing high-quality smart contracts using formal methods. This will include the establishment of a concept of a Typical Smart Contracts (TSC) Agency and the building of 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.

Korea University has around 30,000 students and is one of the oldest institutions of higher education in the country. Hakjoo Oh is an associate professor at 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.

Mi-Cho-Coq is 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. Mi-Cho-Coq is maintained by **Nomadic** Labs.

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.

Runtime Verification is a US-based company that uses runtime verification-based techniques to improve the safety, reliability, and correctness of software. Working on this basis of its previous Tezos work developing formal semantics of Michelson in the K framework, the firm will create a formal verification framework for Michelson by extending its existing unit testing framework to handle the case of symbolic unit tests.

Johann Tanzer from TulipTools, 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 to Tplus, improve its UI/ UX, and promote its use and adoption in the community. **Tezsure** is an Indian-based team focused on building Tezos tools for DeFi applications. This grant helps the Tezsure team continue to build Tezster, a testing tool for Tezos development, by implementing more advanced features, producing tutorials and explainer videos, and adding example smart contract templates.

Truffle Blockchain Group, the US-based team behind the world-class development environment Truffle Suite, received a grant with the ultimate purpose to make it easier for developers to build applications on Tezos. The collaboration resulted in an initial integration of Tezos, and in particular, the LIGO language, to Truffle. This will help make developing Tezos applications easier by lowering barriers to entry and providing Tezos developers with a set of industryleading tools in one accessible location. In phase two of the project, the Truffle team is working to solidify its Tezos integration, support the SmartPy language in addition to LIGO, and develop a proof-of-concept, Tezos-flavored Ganache to allow developers to seamlessly simulate Tezos operations and transactions.

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I am interested in what a great smart contract platform could be; in Tezos I get to explore this and innovate.

Johann Tanzer

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.



Agile Ventures is an in-house software development team and consultancy group that has worked on a number of projects since 2016, most recently TezosLive.io, a collection of Tezos API endpoints. Following its research phase of Tezos Domains (see its series of Tezos Agora posts), the Agile Ventures team will implement a functional prototype of a Tezos Domains dApp and smart contracts on a Tezos testnet with a sample wallet integration and a GraphQL endpoint allowing clients to query the data within Tezos Domains with ease. The goal of Tezos Domains is to provide a decentralized name service that allows users to use human-readable names within the Tezos ecosystem like "alice.tez" and map them to machine-readable identifiers such as Tezos addresses.

The German firm Anyblock Analytics is a blockchain solution provider offering consulting, tools, and data to integrate business processes with blockchain. One of its key offerings is the Anyblock Index, which enables the searching, processing, and analyzing of blockchain data. The grant covers the addition of the Tezos blockchain to its indexer and enabling it to be queried using Elasticsearch DSL and SQL free of charge for the community. The Russian-based team **Baking Bad** further develops BetterCallDev. It includes the creation of BetterCallDevHub, a decentralized GitHub repository for Tezos developers and the building of production-grade CI/ CD pipelines. The Foundation gave out grants to further support the team in these projects.

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Tezos has an extraordinary community of developers, which is inspiring and with which you want to share ideas.

Baking Bad

The Irish firm **Blockdaemon** provides blockchain infrastructure and node management services for developers and enterprises. With this grant, the Blockdaemon team created a CLI-based application that is capable of downloading, configuring, and running a Tezos node. The application is plug-in-based so that it can be easily extended for a wide variety of use cases.

The US-based team at camlCase, which is focused on decentralized finance (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. The Foundation's grant contains these two solutions and the launch, maintenance, tutorials, as well as the release of a ReasonML Tezos SDK that provides an interface with the Tezos RPC.

Catsigma is working on Misualizer, a Michelson visualizer. Catsigma received a grant to build the tool allowing for a visualization of Michelson smart contracts' behavior and internal transactions. The project is being built in collaboration with the Nomadic Labs team. The US-based firm **Cryptonomic** builds infrastructure solutions. It provides 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 the ongoing maintenance and community engagement, with which it will touch on existing projects such as its Arronax block explorer.

Dsent AG, which is based in Switzerland, is working on tokengate.io, a token issuance platform on Tezos, including payment via Tezos tokens. Its product focuses on institutional clients, such as banks, who 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 token standard FA2 in its platform.

The Canadian firm **ECAD Labs** delivers and manages projects in the areas of software development, systems engineering, opensource 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 improve it for mass adoption.

Figment Networks is a Canadian company working on Web 3 solutions. Its team is aiming to help make Tezos application development a more seamless experience for software engineers. With the grants, it integrated Tezos into its Hubble Web 3 explorer, a high-level analytics, alerting, and governance tool for the Tezos ecosystem. The team 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.

The German firm **Finoa** builds digital asset financial services. The team is working on integrating the Tezos network into its infrastructure in securely baking and safeguarding Tezos and Tezos-based digital assets and providing secure access to the DeFi ecosystem. The LIGO team based in France is advancing its work on the LIGO project with the objective of turning it into a widely adopted and well-supported tool. LIGO is a friendly smart contracts language designed for developing larger contracts than those written in Michelson. LIGO is an imperative language that compiles down to clean Michelson code. The team received a grant to continue its advancements, including work on the syntaxes, semantics, and type system as well as the compiler itself.

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

MIDL.dev is an Estonian firm providing staking-as-a-service solutions that is building an open-source suite of Tezos infrastructure tools. It offers 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.

OCTO Technology is a French consulting and IT realization firm within Accenture Digital. It has been awarded an additional grant to continue advancing the Tezos Link project, an HTTP API to the Tezos network. It includes architecture improvements, increased security, handling of testnets, as well as further advancements such as better node scalability. The firm is also supported through a grant in its development of Tezos Land, an open-source boilerplate for a digital collectibles marketplace on Tezos. The Swiss-based Papers/AirGap

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.

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

SkillZ is a French-based blockchain company that aims to help firms to deploy enterprise-grade, production-ready infrastructure. As part of this goal, it received a grant to integrate Tezos into its platform, allowing clients to deploy and manage Tezos nodes on multi-cloud infrastructure as well as to foster adoption in the industry and collaborate with the community.

Smart Chain Arena, based in the US, is the team behind SmartPy. They received a grant to develop technology to support oracle services on Tezos via Chainlink. Furthermore, the team is working on developing contracts (LinkToken, Oracle and Client) in collaboration with Chainlink and Cryptonomic. Smart Chain Arena is also integrating Ledger Nano support and enhancing wallet functionalities, such as directly signing an origination or a smart contract transaction in the SmartPy explorer and developing an independent tool to show transactions and their hashes to fully disclose all the necessary information about transactions being signed by users.



Jacob Arluck, Adrian Brink

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

Keefer Taylor, based in the US, is the developer behind TezosKit, a Swift SDK for Tezos. Keefer received a grant to continue improving TezosKit, including compatibility with the Babylon and Carthage protocol upgrades, building a secure key storage on mobile and productizing TezosKit through an independent external security audit.

Tezos-nodes is a Russian team providing a service rating of Tezos bakers. The grant was awarded to improve the service, monitor the state of node performance of non-public bakers, and create mobile applications for iOS and Android.

The French developer Pierre Genevès is developing **TezQuery**, a query engine that not only evaluates SQL queries, but also powerful (recursive) queries on the graph structure of the Tezos blockchain. TQ Tezos houses a technology team building Tezos-based solutions and opensource software for enterprises and developers. Among a variety of products in development, TQ Tezos, in collaboration with other Tezos developers, is spearheading the development of a standard for a unified token contract interface, supporting both a wide range of token types (e.g. fungible, non-fungible, non-transferrable) as well as multi-asset contracts.

Applications

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

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

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

Electis is a non-profit 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 20 universities from around the world to contribute to the project. The Brazilian firm hicetnunc2000 is run by Rafael Lima, a Tezos developer in Brazil. He is focusing on the e-sports community, allowing users to take part in crowdfunding and e-voting systems. It received a grant to build and launch an application on Tezos that offers this system, including a marketing campaign, references, and complete documentation.

In addition to eth2tez, the Ukrainian firm Madfish Solutions received grants to build the following pieces of infrastructure: 1) QuipuSwap – a protocol enabling a seamless exchange of tokens/assets on Tezos in a secure, decentralized, and censorship-resistant manner; and 2) Thanos – a fullyfeatured wallet focused on user experience (UX) with integrated support for various Tezos asset standards, dApps, explorers, etc.

Tezos reward distributor is one of the most widely used baking reward distribution applications for Tezos bakers. The purpose of the grant is for the company to continue advancing the tool, implementing feature requests and bug fixes, as well as supporting upcoming Tezos protocol upgrades.

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 who support community development, events, and other efforts that grow the Tezos ecosystem.





New Vector Limited is based in the UK, building secure, decentralized communication infrastructure including the riot.im chat app. With the grant, the Tezos **Element/Riot** channel is established as a self-hosted and dedicated infrastructure for the Tezos community.

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 **Reason Association** is a non-profit organization that focuses on the practical research, development, and promotion of the ReasonML and OCaml programming languages. This grant helps the Reason Association grow the ReasonML community by releasing more effective learning materials and tools, and producing Tezosrelated content and resources to help encourage more members of 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 country.

Tezos China is contributing to the Tezos project in the Greater China community. They received a grant to build an integrated global portal, construct an online community, organize meetups, and establish collaborations with universities in Greater China, among other activities.

Tezos Commons is a North American nonprofit foundation dedicated to organizing grassroots community interests. Tezos Commons provides programs for community building, education, promotion, and collaborative open-source software initiatives. Founded in 2018, Tezos Commons strives to support the ideas, individuals, and organizations dedicated to building the digital commonwealth. Based in Dubai, **Tezos Gulf Technologies** is focusing on the United Arab Emirates and the Middle East. With the grant, it will set-up an entity and support 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 Hub GmbH is an entity based in Berlin, Germany, focusing on blockchain applications. The team will engage with the community, organize events such as workshops, and foster industry adoption in the region.

Tezos India serves the largest democracy in the world by supporting individuals and entities who are eager to use Tezos. Its goal is to grow the Tezos developer community and advance the Tezos project in India through workshops, meetups, and hackathons.

Tezos Israel is an entity whose mission is to educate, train, and grow the Tezos ecosystem in Israel. Tezos Israel's activities focus on technical and business development by collaborating with start-ups, corporations, and various government agencies to introduce the potential benefits of realizing projects on Tezos.

Tezos Japan is a non-profit organization focused on supporting enterprise activities, engineering engagements, and the Tezos community in Japan. Tezos Japan engages with companies of all sizes, runs technical education seminars, and hosts communitydriven events throughout the region.

Tezos Korea is a non-profit 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 non-profit organization run by Ukrainian blockchain enthusiasts and long-time Tezos community members. Its mission is to facilitate and expedite the growth and advancement of the Tezos project in Ukraine and the Commonwealth of Independent States (CIS) region.

Tezos West Africa is based in Cameroon and is focusing on growing the Tezos ecosystem in Western Africa. The grant's purpose is to build a community and provide structured introductory Tezos training to local developers.

Tezos.help was built by Klas Harrysson in 2017 to help guide new members into the Tezos community and serve as an active repository of various Tezos resources. As part of this project, Klas expanded the original Tezos.help website into a full-fledged, self-sustaining library of all relevant Tezos ecosystem projects and resources.

TQ Tezos is a New York City-based organization that focuses on driving adoption 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 marketing, events, and ecosystem development initiatives.

TZ APAC Pte. Ltd. is a team based in Singapore focusing on adoption of the Tezos blockchain across the Asia-Pacific region, starting from India in the western side of the continent and sweeping across to Korea in the northeast. By working directly with governments, enterprises, and developers to build apps and infrastructure around innovative use cases on Tezos, the team is focused on projects enabling mass adoption within the region. A core goal for TZ APAC is to identify, source, and engage local teams that can contribute to the development of the Tezos ecosystem.

Industry Adoption

Industry Adoption – Collaborations

The Tezos Foundation supports companies and institutions that create products on the Tezos protocol. In these kinds of collaborations, the focus typically lies in building an understanding of the technology, identifying relevant technology applications, and funding projects when necessary or advantageous.



Digital Securities

Alliance, the leading property developer in Manchester, UK, has announced that it is tokenizing GBP 500 M of UK real estate together with tZero and digital securities advisory boutique Megadolon for its first digital security project, the River Plaza in central Manchester.

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 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 periodical dividends from the recovery of said distressed assets. Tezos serves as the default blockchain offered for RBZ's security token.

The Berlin-based **Fundament Group** is building 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. **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 and using the FA1.2 token standard to present, discuss, vote upon, and implement proposals.

Taurus Group is a Swiss financial services company building a platform to trade, invest, and protect digital assets. Further, Taurus is an institutional service provider in Switzerland for cryptocurrency custody. Taurus promotes Tezos as its blockchain technology partner.

Vertalo is a cap table, compliance, and investor-onboarding platform utilizing blockchain technology to connect and enable the digital asset economy. As an SECregistered 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.

The Tezos protocol is robust with its formal verification of smart contracts, leading to clients of industry partners asking for it to be implemented.

Taurus

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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. Its 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, which has already been issued in 30 countries. Tezos will be integrated as a currency for payments.



Digital Asset Platforms

Bitcoin Suisse is providing custody solutions for Tezos, including options for staking and delegating XTZ. It further supports minting tzBTC tokens based on the FA1.2 token standard and is part of the keyholder group that controls the storage of Bitcoin through its subsidiary, Swiss Crypto Tokens AG.

As announced in the previous Biannual Update, Elevated Returns has launched the Elevated Returns Exchange (ERX), built on Alpha Point using Tezos as the underlying blockchain. The exchange was approved by the Thailand Securities and Exchange Commission (SEC) and will let investors buy and sell investment tokens.

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

A Map of the Tezos Ecosystem

Grants Active grants during the period Strategic partnerships Strategic partnerships as of July 31, 2020

Public bakers As of August 6, 2020, mytezosbaker.com •





Financials

The Tezos ecosystem has grown significantly over the past six months, a fact that is also clear when looking at the financial activities of the Foundation. In the last months, the finance function executed more than 5,000 payment operations in all major fiat currencies, including transactions in cryptocurrencies. Furthermore, the number of accounting journals that reflect the Foundation's business activities grew to more than 15,000 transactions. One consequence of this significant growth is heightened accounting requirements. In June 2020, the third statutory audit by PricewaterhouseCoopers for the 2019 financial year was successfully completed. This time, their scope covered statutory financial statements under local accounting frameworks and consolidated financial statements in accordance with international financial reporting standards (IFRS for SMEs).

The Tezos Foundation is the only large-scale blockchain foundation to be audited by a "Big4" auditor and, as customary and mandated by Swiss law, the audit report has been filed with the Swiss Federal Supervisory Authority for Foundations. The Tezos Foundation is proud to have been able to achieve its goal to be part of a small group of organizations with significant cryptocurrency holdings that have received unqualified audit reports.

To most effectively fulfill its mandate in order 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 for the Tezos Foundation to deploy resources, it has continued to work to further streamline the grant-making process.

Key Figures

Assets held as of July 31, 2020, had a market value of USD 751 M compared to USD 635 M on January 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. For XTZ, the Foundation does not have plans to liquidate its genesis block allocation or related baking rewards in the short to medium term.

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: 73% in US Dollars, 12% euros, 12% in Swiss francs, and 3% in pound sterling and Singapore dollars. Other assets are predominantly strategic equity or debt investments, or cryptocurrencies such as Ethereum.

in USD M	July 31, 2020	in %	January 31, 2020	in %
Cash (fiat)	53	7%	51	8%
Bitcoin (BTC)	278	37%	298	47%
Tezos (XTZ)	262	35%	146	23%
Stability fund	105	14%	102	16%
Other investments	53	7%	38	6%
Market value of assets	751		635	



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 overall responsibility for managing and administering the Foundation and its assets, and for defining the Foundation's strategy. In line with its 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 six members, including the Chair 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 others, 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. The TAC includes external members from throughout the Tezos community.

Nomination and Remuneration Committee

The Foundation Council appointed a Nomination Committee to evaluate and propose new members to the Foundation Council. The Committee is further responsible for the regular assessment of the Foundation's remuneration model. Please see the News section of our website for more information regarding the future governance structure.

Foundation Council

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 Chai

Hubertus is a founding partner of Enabling Future, a family-officebacked VC firm and tech-company builder based in Dubai. Previously, he co-founded Babil Games, the 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 co-founder 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, and also sources and accelerates growth in the gaming. blockchain, and travel verticals. Originally from Romania, Alexis holds a BA in International Business & Languages from the European Business School, London.



Lars Haussmann Member of the Foundation Council and 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 originally from Switzerland, and holds a degree in Economics from the University of Zurich. He is a Swiss certified chartered accountant.



Alice Lloyd George Member of the Foundation Council

Alice is the founding partner of 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 Institute in Beijing and Washington DC, and a reporter with The Wall Street Journal in Hong Kong.



Daniel Masters Member of the Foundation Council

Daniel is co-founder and 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, Daniel launched the world's first regulated Bitcoin fund and founded Global Advisors, an oil- and commoditiesfocused investment house. With over 30 years of experience in pioneering new asset classes, Daniel 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.



Marylène Micheloud Member of the Foundation Council

Marylène is a consultant and the first Swiss woman to have an MSc in Computer Science from the University of Geneva. She worked as a researcher at CUI/the University of Geneva and at the Central Research Laboratory of Landis+Gyr. She was also a professor at the Swiss University of Applied Sciences HES-SO for many years, specializing in programming and modeling. She then became Director of RERO, the Library Network of Western Switzerland (covering four universities, six Swiss cantons, and 280 libraries), before retiring from that position after 11 years. Since December 2017, she has been Co-President of the Valais Academic Society.

Foundation Committees

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

David Fuchs Head of Enterprise Adoption EMEA

Chris Lawlor Co-Founder of TQ Tezos

Alice Lloyd George Member of the Foundation Council

Ulrich Sauter General Counsel

Roman Schnider Chief Financial Officer / Head of Operations

Audit Committee

Lars Haussmann Chair

Hubertus Thonhauser Chair of the Foundation Council

Technical Advisory Committee

Michel Mauny Chair

Jacob Arluck Co-Founder of TQ Tezos

Bruno Bernardo Research Engineer at Nomadic Labs

Adrian Brink Co-Founder of Cryptium Labs

Benjamin Canou Chief Technology Officer of Nomadic Labs

Jun Furuse Director of Tezos Japan Foundation

Hubertus Thonhauser Chair of the Foundation Council

Rob Witoff Chief Technology Officer of Polychain Labs

Nomination and Remuneration Committee

Hubertus Thonhauser Chair

Alexis Bonte Member of the Foundation Council

Lars Haussmann Member of the Foundation Council

Marylène Micheloud 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.