

Tezos Foundation **BIANNUAL UPDATE**



MARCH 2023

**WE SEEK
TO EMPOWER
PERSONS
AND ENTITIES
FROM ALL
OVER THE WORLD
TO CREATE
A ROBUST
AND
DECENTRALIZED
DIGITAL
COMMON
WEALTH.**



PREFACE

Dear Tezos Community

The Tezos network saw significant growth in usage and value in 2022. As demonstrated by a **recent report**, network activity, measured by smart contract calls and transactions, saw year-over-year growth throughout the year. In addition to strong network usage, the Tezos ecosystem saw a 115% increase in non-fungible token sales in 2022 in comparison to 2021.

During the second half of 2022, two forkless upgrades were successfully completed, with the most recent, Lima, launching on mainnet in December. These upgrades have helped improve the scalability and functionality of the Tezos network. We are excited about the upcoming 13th Mumbai upgrade which will introduce Smart Contract Optimistic Rollups (SCORU). The upgrade will solidify Tezos' position as a leading blockchain platform by bringing orders of magnitude more transaction throughput, while preserving decentralisation and security.

The Tezos Foundation weathered the industry wide storm and did not incur notable direct losses from any of the significant collapses which were well-documented in the media. However, the value of the strategic Bitcoin and Tezos holdings decreased sig-

nificantly in line with the market movements. Having anticipated the potential downturn, the Foundation had started a thorough review in March 2022 and a reduction of its future commitments; efforts that got validated by the developments later in the year.

The Foundation will continue to enable the creation of high-quality technical solutions, embrace and encourage third-party control and enhance our own transparency to build trust for the industry and for Tezos. The biannual update's transparency and detailed reporting is an example of this. We dedicate this biannual update to all games and gamers on Tezos. Many developers have been building and launching games during the year. Gaming established itself as a strong vertical alongside Collectibles and Creator Tokens and DeFi and the project pipeline for gaming in 2023 is exciting.

The Tezos Foundation's role is to support the long-term success of the Tezos protocol and ecosystem. We look forward to an inspiring 2023 and thank you all for your dedication and your passion.

The Tezos Foundation Council





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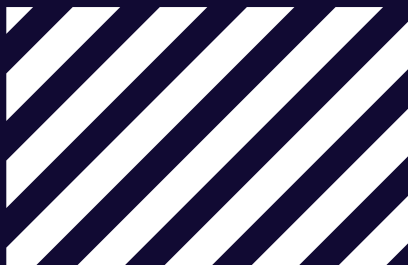
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MISSION OF THE TEZOS FOUNDATION

Tezos is smart money, redefining what it means to hold and exchange value in a digitally connected world. A self-upgradable and energy-efficient proof-of-stake blockchain with a proven track record, Tezos seamlessly adopts the innovations of tomorrow without network disruptions today. No single entity owns, manages, or controls Tezos – understanding this paradigm is essential.

The Tezos Foundation is supervised by the Swiss Federal Foundation Supervisory Authority. The Foundation's purpose is to support the promotion and development of the Tezos protocol and related technologies around the world through grants, investments, and sponsorships. This includes new technologies and applications, particularly in the fields of the latest open and decentralized software architectures.

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, esports and gaming companies, digital art creators and others, all working towards the success of an ecosystem that will 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. To do so, the Foundation deploys grants, investments and sponsorships as a strategic way to support community members, such as educational and research institutions, Collectibles and Creator Tokens, DeFi and Gaming projects and activists from all over the world.

Tezos' potential rests in the hands of its community, which is among the strongest in the blockchain ecosystem, as illustrated by the ever-growing number of smart contract calls on the blockchain. We welcome and encourage interested parties to join the Tezos community and contribute to the Tezos project.



THE PAST SIX MONTHS WITH TEZOS

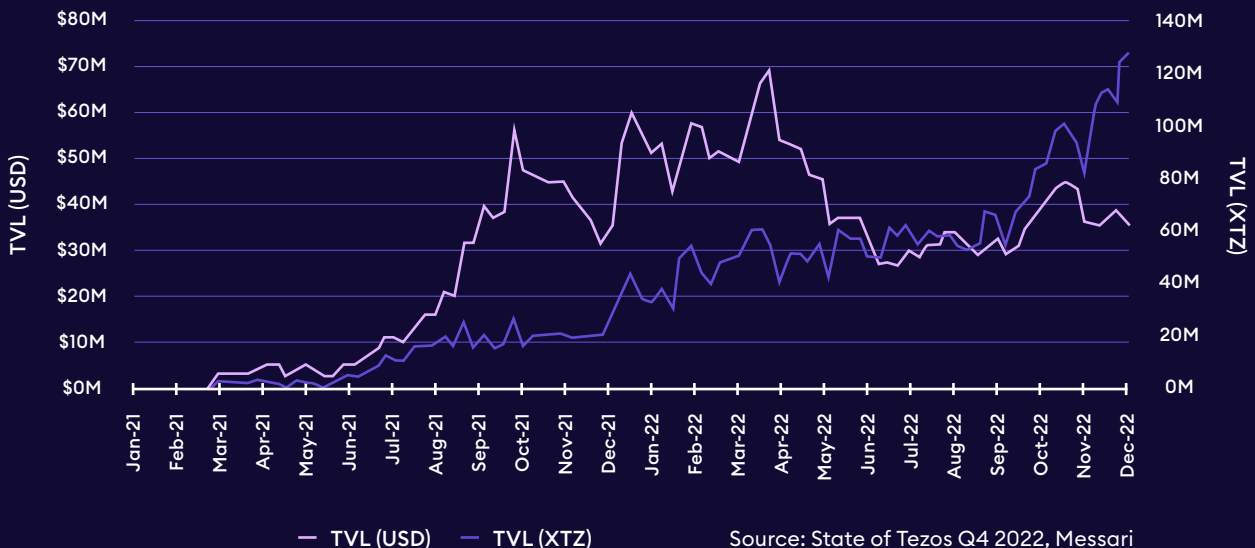
Some of the multitude of events within the Tezos ecosystem

The Tezos network saw significant growth in usage and value in 2022, despite the bear market conditions. Network activity, measured by smart contract calls and transactions, saw year-over-year (YoY)

growth throughout the year. Furthermore, Tezos ended the fourth quarter with an all-time high in total value locked (TVL) in its native token, XTZ.

TVL (XTZ) ON TEZOS SET AN ALL-TIME HIGH IN Q4'22

Tezos total value locked (\$USD and XTZ)



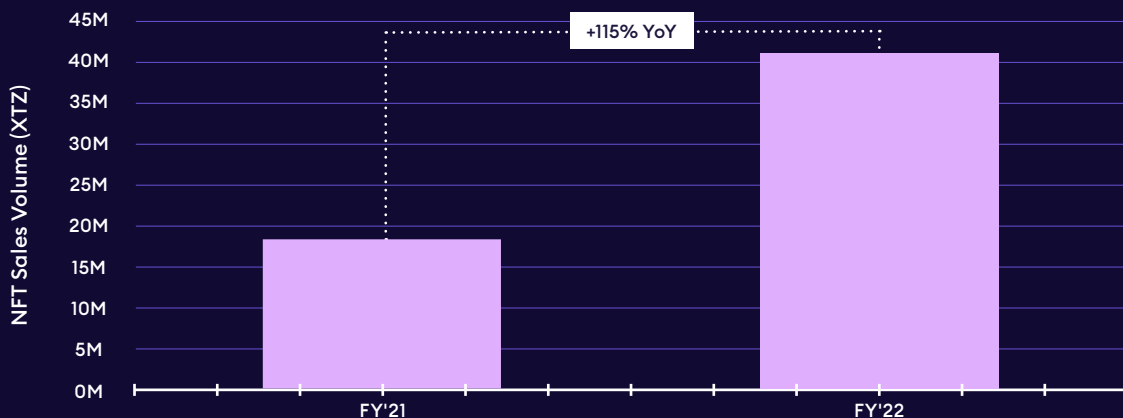
Source: State of Tezos Q4 2022, Messari

In addition to strong network usage, the Tezos ecosystem also saw a significant increase in non-fungible token (NFT) sales in 2022. NFT sales on the

Tezos network (using XTZ) were up 115% YoY, further demonstrating the growing interest in the platform and its adoption.

ANNUAL TEZOS NFT SALES VOLUME INCREASED 115% YOY

Tezos annual NFT sales volume



Source: State of Tezos Q4 2022, Messari

The Tezos blockchain made significant progress in terms of protocol upgrades during the year. The network successfully completed four forkless upgrades, with the most recent, Lima, launching on

mainnet in December. These upgrades have helped to improve the scalability and functionality of the Tezos network.



TEZOS NETWORK UPGRADES

May 2019 – December 2021



Upgrades 1 through 8

From May 2019 to December 2021, Tezos was upgraded eight times. The upgrades were broadly intended to improve network functionality and optimize existing infrastructure and processes. In March 2022, Nomadic Labs, a core Tezos contributor, announces "2022 is the year of scaling Tezos." Since then, the Tezos network has upgraded four times. Tezos' forkless upgrades, on-chain governance, and self-amending functionality allow the network to continually evolve.

April 2022



Ithaca

New consensus algorithm and multiple baking improvements.

June 2022



Jakarta

Transaction Optimistic Rollups, smart contract improvements, and baking improvements.

September 2022



Kathmandu

Pipelined block validation, verifiable delay functions, event logging in smart contracts, and support for permanent test networks.

December 2022



Lima

Continued pipelined block validation, consensus keys, ticket improvements, testnet fixes, etc.

H1 2023



Mumbai

Smart rollups, ZK-rollups on testnet, and reduced block times.

Source: State of Tezos Q4 2022, Messari



JULY 2022

July 7, 2022

V.HIVE - the first support-to-earn system in esports from Team Vitality goes live on Tezos

July 18, 2022

DOGAMI partners with Gap

July 21, 2022

Tether's USDT is live on Tezos

July 26, 2022

Tezos hits over 10,000 new contract deployments in a month

SEPTEMBER 2022

September 1, 2022

Doja Cat launches the Genesis Fusion NFT collection together with JBL on OneOf

September 15, 2022

The Ballon d'Or NFT Collection launches on Tezos

September 23, 2022

Kathmandu, Tezos' 11th protocol upgrade, goes live

NOVEMBER 2022

November 25, 2022

Start of collaboration with Unity for Tezos SDK Development

November 29, 2022

Art Basel Miami hosts generative art exhibition powered by Tezos

AUGUST 2022

August 8, 2022

Block Born Season 1 start with over 11,000 Tezotopia battles fought in August

August 18, 2022

The decentralized lending platform Yupana.Finance launches on Tezos mainnet

OCTOBER 2022

October 19, 2022

Tezos NFTs are now supported on Shopify

October 25, 2022

Robinhood's trading application with over 22 million users lists XTZ

DECEMBER 22

December 3, 2022

Coinbase Japan lists XTZ

December 19, 2022

Lima, Tezos' 12th protocol upgrade, goes live

December 21, 2022

Manchester United launches "The Devils" digital collectible drop on Tezos



Level 00

FACTS & FIGURES

Some of the Tezos Foundation's key figures since July 2022

USD 471 M

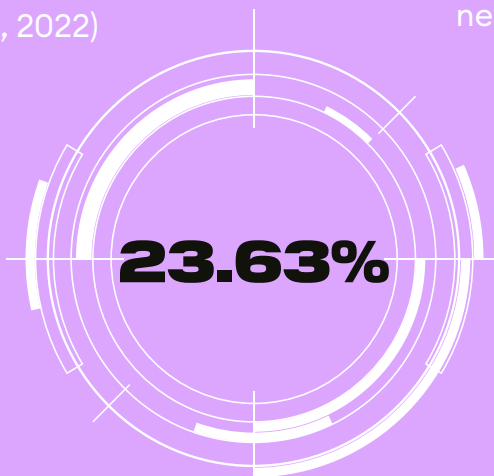
in assets
(as of December 31, 2022)

20+

new grantees

19

countries where new
grantees are based



acceptance rate with over
220 proposals received

52

projects granted
overall

On average,

2

grants signed
per week

USD 20.5 M

in new maximum
approved funds

GRANTS



GRANTS



Level 01

PRIORITIES & PROCESS

The Tezos Foundation focuses on deploying resources that will help to ensure the long-term success of the Tezos ecosystem. Among other forms, these can be grants that fall into three grant categories:

Research, Education & Core Development Grants

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

Ecosystem – Tools & Applications Grants

Contribute to lowering the barriers to entry in order to make Tezos as accessible as possible for developers and end-users of subsequent applications.

Community Grants

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

Over the years, several areas of interest have been identified as being the most beneficial to the Tezos ecosystem at this point. These areas will change over time as the ecosystem evolves and expands.

The grant platform allows the ongoing submission of proposals in our areas of interest, along with those in areas that are not listed as a priority but may advance the Tezos ecosystem.

OUR GRANT EVALUATION PROCESS

The evaluation of grant proposals involves three phases, which are detailed below:

1. Proposal – Grant Proposal Submission

The grant process starts with a grant proposal submission. The grant proposal should include key information on the proposed project and specify how the team intends to succeed. This information can include, for example, functional and technical details of the proposed solution, its purpose, a roadmap, an introduction to the project team, evidence of familiarity with the Tezos ecosystem, anticipated value added to the Tezos ecosystem, and measures to assure the longevity of the solution beyond the duration of the grant. After the proposal has been submitted, it is vetted by the Tezos Foundation. The outcome of this step can be a precursor to in-depth reviews, a revise and resubmit, or a decline.

Duration: 1 week



2. Award – Review and Final Decision

If forwarded for in-depth review, the grant proposal is reviewed by ecosystem experts, supervised by the Technical Advisory Committee (TAC). The TAC completes an in-depth due diligence process and develops recommendations regarding a proposal's fit with and usefulness to the Tezos ecosystem. The TAC's recommendations are then reviewed by the Executive Committee (EC) or the Tezos Foundation Council (FC), which makes the final decision. Final decisions about grant proposals, which can be an accept, decline, or a revise and resubmit, are then communicated to grant proposers.

Duration: 3 weeks



3. Post-Award – Grant Agreement and Follow-Up

Approved applicants work on the legal paperwork to finalize a grant with the Tezos Foundation. The grant agreement for the project and the corresponding payments are usually structured around milestones. Once a milestone is completed, the grantee submits a report, which is reviewed and, if approved, the payment for the milestone is issued. After the project has been finished, the Tezos Foundation conducts regular check-ins to determine the prosperity of the project. At this stage, the Tezos Foundation explores further collaboration opportunities with grantees and may offer to connect parties in the Tezos ecosystem with similar synergies.

Duration: 4 weeks - Open end

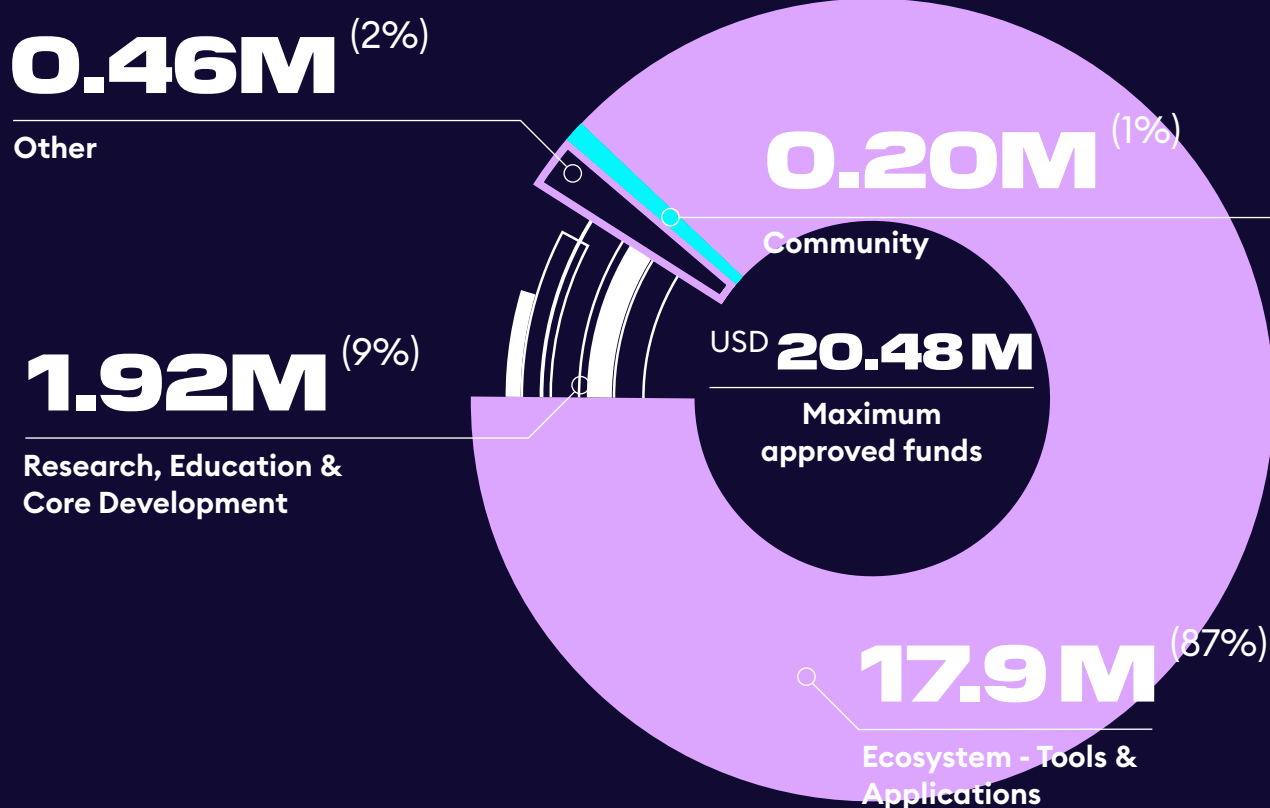


EMERGENTS

TRADING CARD GAME

GRANTEES & OTHER FUNDED ENTITIES

Since the last Biannual Update (published in August 2022), the Tezos Foundation has approved funds to 52 new projects across 19 countries, totaling USD 20.5 million. Certain projects that previously received grants and are still active are not listed in this Biannual Report. Please see the Tezos Foundation's previous Biannual Reports for information on selected earlier grants. Additionally, some agreements are not listed due to mutual non-disclosure agreements.



RESEARCH, EDUCATION & CORE DEVELOP- MENT GRANTS

Through its grant program and other investments, the Tezos Foundation supports research and education across a wide spectrum of domains pertaining to computer science, such as distributed systems, cryptography, programming languages, and formal verification within the Tezos ecosystem. A significant volume of resources is 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

- DaiLambda Inc., Japan
- Marigold (Accélérateur de Blockchain SAS), France
- Nomadic Labs SAS, France
- Oxhead X LLC, USA
- Tarides SAS, France
- TriliTech Ltd., UK

Research & Education

- Computer Software Group, Graduate School of Informatics, Kyoto University, Japan
- Cryspen, France
- Indian Institute of Technology Hyderabad, India
- Indian Institute of Technology (IIT Madras), India
- Nagoya University, Japan
- PyraTzLabs SAS, France
- Turing College, Lithuania
- University of Cambridge, UK
- University of Siena, Italy

Monthly maximum approved amount per organization and category:

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

CORE DEVELOPMENT

As part of the grant program, the advancement of the Tezos protocol is supported by several decentralized core developer teams across the world. These teams often collaborate to work on proposals for new protocol upgrades, which are then suggested to and voted on by the bakers that validate the Tezos network.

DaiLambda is a Tezos core development team based in Kyoto, Japan. The team works on research and development that primarily centers around the Michelson language and gas tools. The team has implemented Michelson opcodes for logical operations on bytes and conversions between numbers, which will be available in the “Mumbai” protocol upgrade. They also improved the code generator of Snoop, the Tezos gas tool, which is essential for charging fair runtime costs for Tezos usage. Their development on Plebeia Merkle tree storage continues and has seen them implement its first garbage collection mechanism to reduce its disk usage for contexts. They also engaged in an academic collaboration with Kyoto University’s Icon team for smart contract security.

Marigold is a global team that has grown its core developer group and works on several high-priority Layer 2 solutions and on Tezos core protocol topics, such as performance, concurrency, and codebase maintenance. The team has supported past protocol upgrades and continues to assist in the development of proposed upgrades to Tezos technology, including quality-of-life improvements for developers.

Nomadic Labs is a Paris-based research and development company that contributes to the development, evolution, and adoption of Tezos. It collaborates with global research institutions and universities on the development of the protocol and conducts industrial research into zero-knowledge cryptography. Nomadic Labs also works on the development and deployment of smart rollups and maintains Octez, the most widely used Tezos node and baking software.

Oxhead Alpha is a US-based research and development team supporting key infrastructure for the Tezos community. Their work includes Ghostnet, protocol specific testnets, snapshots, baking and monitoring tools, and various enterprise configuration utilities. Oxhead Alpha regularly collaborates with other teams on protocol upgrades. They also work to implement production-grade deployments of Web3 applications built on Tezos. Recently, the team developed a Tezos-based titling system for the California DMV.

Tarides is a Paris-based team that builds functional systems focused on offline-first architecture to address security and latency issues common to cloud computing. In collaboration with their partners in the OCaml and MirageOS communities, Tarides further develops innovative OCaml-based open-source software. Furthermore, the team maintains core OCaml libraries and key language functionalities. They are also the primary developers of Irmin, which is used to persist the Tezos blockchain ledger on disk. In addition, Tarides is working towards improving Tezos’ shell and rollups’ scalability by adding multicore support to the OCaml language and its ecosystem.

Trilitech is a Tezos ecosystem company based in London. It cooperates with other Tezos ecosystem companies, partners, and projects on a variety of Tezos blockchain matters, including core protocol development, application development, and blockchain business development regarding gaming, art, and DeFi projects, as well as other areas. Trilitech recently supported the launch of Manchester United’s digital collectables, based on white label NFT store technology supplied by Trilitech.





**CRYSPEN
TEAM**



RESEARCH AND EDUCATION

Research and education grants are dedicated to supporting the long-term success of Tezos and training new developers. Research and development teams are not the only entities supported with these grants: they are also dedicated to those that are actively working on reducing the barriers to entry for new teams joining the Tezos ecosystem by means of educational materials.

The Computer Software Group, Graduate School of Informatics, Kyoto University, is working on devising a static verification method for transactions, namely, sequences of operations, which may involve multiple participants, and developing an intercontract verification tool for Michelson based on the existing verifier Helmholtz. This research adds to the core development of the Tezos blockchain.

Cryspen is a French-German team that works on HACL packages – a set of verified cryptographic libraries that provide a full suite of cryptographic algorithms based on the HACL* research project. Code from this library is used in Tezos, Firefox, Linux, mbedTLS, WireGuard, and ElectionGuard. The Cryspen team is building a vibrant developer and user community around HACL and, to this end, creates well-documented open-source repositories of verified code and a shared testing CI framework that

make maintaining and extending HACL easier for developers and researchers. Beyond HACL, Cryspen is involved in upcoming cryptographic standards such as MLS and builds custom formally verified cryptographic solutions that help companies to secure their products.

The Indian Institute of Technology Hyderabad is working on developing an efficient framework for the parallel execution of smart contract transactions in the Tezos blockchain by exploiting multicore resources. This will lead to improved transactions throughout the Tezos blockchain.

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 fundamental and applied research. The IIT Madras team works on adding support for concurrency and parallelism to the OCaml programming language. OCaml 5, the next major release of the OCaml programming language, will feature shared-memory parallelism support and native support for concurrent programming through effect handlers. The team continues to develop fundamental abstractions for concurrent programming, including lock-free libraries and reagents, a transactional memory implementation that compiles down to hardware transaction support (when available in hardware).

The COCTI team at the **Nagoya University** Graduate School of Mathematics is aiming at a more robust, certifiable OCaml type inference engine. The OCaml type checker is gradually modularized through the introduction of explicit constraints, with many pull requests already merged into mainstream OCaml. Certification occurs at two levels: through a formalization of the theory underlying the type system using the Coq proof assistant; and through a translation from OCaml code to well-typed Coq code, relying on Coq soundness for proving OCaml's type safety. Furthermore, the grant shall support teaching of blockchain- and verification-related topics, in collaboration with DaiLambda and other Tezos developer teams in the Asia-Pacific region.

PyratzLabs, founded by Bilal El Alamy, Maxime Sarthet, Thomas Binetruy, and Jacques Lalo, is a startup studio that specializes fully in Web3. It empowers founders to build, fund and scale ambitious Web3 startups by re-inventing the startup studio model. PyratzLabs has 27 startups in its portfolio that have generated over EUR 10 million in revenue and created over 100 jobs in 2022.

Turing College, an online data and blockchain school based in Lithuania, launched a new free course dedicated to smart contract programming. During the classes, students have the chance to work on practical projects developed on the Tezos blockchain. The team has already launched two batches of Tezos developer courses. Students come from a range of different countries including Brazil, Hong Kong, Lithuania, Estonia, the UK and Rwanda.



The **University of Cambridge** is a renowned UK-based university. The Tezos Foundation has provided philanthropic and research funding to the University to support its foundational research on environmental project verification and decentralized carbon trading for nature-based solutions to climate change, in line with the Tezos blockchain's energy-efficient approach to transactions. The initial research involves building systems for scalable privacy-preserving carbon emissions tracking using Tezos which will result in open-source software and smart contracts that can be utilized by the wider community, as well as being deployed for use in 2023 by the University of Cambridge. This work is based in the University's Department of Computer Science and Technology and is in collaboration with the Cambridge Conservation Initiative, Cambridge Zero, the Department of Zoology, the Department of Plant Sciences, and the Cambridge UKRI Centre for Doctoral Training in the Application of Artificial Intelligence to the Study of Environmental Risks.

Based in the middle of Tuscany (Italy) in the **Department of Political Economy and Statistics of the University of Siena**, Professor Nicola Dimitri researches Tezos' liquid proof-of-stake protocol. The project investigates and formalizes how users determine their optimal stake between baking and delegating.



DEATH
BOUND

Level 01

ECOSYSTEM – TOOLS & APPLICATIONS GRANTS

The Tezos Foundation supports many teams that are building tools to help developers with different skill levels build novel applications on Tezos and contribute to the growth of the ecosystem. To date, the Tezos Foundation has mainly focused on the following areas within this grant-giving category: “programming languages and libraries, block explorers and analytics, smart contract development, infrastructure, applications, collectibles and creator tokenization, gaming, decentralized finance, and payment solutions.”

Grantees and Other Funded Entities:

Programming Languages and Libraries:

- Formal Land (Arae SARL), France
- Ligo (Accélérateur de Blockchain SAS), France
- Morum, USA
- Nomadic Labs SAS, France

Block Explorers and Analytics

- Baking Bad, Estonia
- Blockwatch Data Inc., USA
- Dialectic Design, Netherlands
- Papers AG / AirGap, Switzerland

Smart Contract Development:

- Compellio S.A., Luxembourg
- Edukera SAS, France
- Free Code Camp, Inc., USA
- GK8 Ltd., Israel
- Korea University, Korea
- Massachusetts Institute of Technology, USA

- Runtime Verification Inc., USA
- Serokell OÜ, Estonia
- TezWell Unipessoal LDA, Portugal

Infrastructure:

- CapBridge Financial Pte Ltd, Singapore
- Chainstack, Singapore
- Cryptocount, USA
- Cryptonomic Inc., USA
- ECAD Labs Inc., Canada
- Functori SAS, France
- FutureSense Co Ltd., Korea
- Gravity, France
- Kukai AB, Sweden
- MIDL.dev OÜ, Estonia
- Nomadic Labs SAS, France
- Opsian Ltd., UK
- Papers AG / Airgap, Switzerland
- Satoshi's Closet Inc., US

Monthly maximum approved amount per organization and category:

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

- Solvuu Inc., USA
- Tezos Reward Distributor, USA

Applications

- Agile Ventures S.R.O., Czech Republic
- Electis, France
- Giry SAS, France
- Papers AG / Airgap, Switzerland
- Papers AG / Woocommerce, Switzerland
- Talao SAS, France
- The Blockchain Xdev, France
- The Central Bottling Company Ltd (Carlsberg), Israel
- Xcap Ecosystem Ltd./Ownera, UK

Collectibles and Creator Tokenization

- AllTokenFootball, Switzerland
- Art Basel, Switzerland
- Bickbook Inc., UK
- Block and Byte Technologies Pvt Ltd., India
- Circa Art Ltd., UK
- FloSports Inc., USA
- Joko Inc., USA
- McLaren Racing Ltd., UK
- Tezos Foundation Permanent Art Collection, Switzerland
- The Tickle, UK
- theVERSEverse, USA
- Vertical Crypto Art (VRTCL Ltd.), UK

Gaming

- Blockchain Alchemy, USA
- Misfits Gaming Group (Esports Now LLC), USA
- Talao SAS +, Gif Games (Tezotopia), France
- Team Vitality SAS, France

Decentralized Finance (DeFi)

- Allbridge, Ukraine
- Ejara (Nzinghaa Lab), Cameroon
- indivio AG, Switzerland
- Madfish Solutions Inc., Ukraine
- Nyayomat (Samserve Ltd.), Kenya
- OpusDei (G.Ko Inc OÜ), Estonia
- Papers AG / Airgap, Switzerland
- Proofeo SAS (Lyzi), France
- RAZ Finance (Roshem Ventures Ltd.), Israel
- Rocket Launchpad Ltd., Virgin Islands (British)
- Smartlink.so OÜ (Vortex), Estonia
- Tezsire Inc., The Netherlands
- Wealtchain Inc., Virgin Islands (British)

Payment solutions

- Al Bawaba Group LLC, UAE
- Hexa Solutions SAS, France



JOIN US!

Monthly maximum approved amount per organization and category:

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

Programming Languages and Libraries

The Tezos Foundation supports engineers in creating open-source software that helps lower barriers to entry to developing on Tezos, in the aim of making Tezos technology as accessible as possible.

Formal Land works on formal verification on the Tezos protocol's implementation to help ensure the code is safe and without unexpected errors. The team translates the OCaml code of the protocol to Coq using the tool "coq-of-ocaml". They then express and verify properties on the code in the Coq language. Lastly, Formal Land is focused on verifying global properties, such as the backward compatibility of protocol releases, the absence of internal errors, and the preservation of invariants on the data structures. Furthermore, they have also verified some specific code, such as the skip-list algorithm's implementation, and closely followed the evolution in the development branch of the protocol to keep their proofs up to date.

The France-based **LIGO** team is advancing their 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. The team is continuing its advancement, including overall maintenance, frontend (e.g. better transpilation between syntaxes), middle-end (e.g. improvements to the typer), and backend (e.g. increasing the amount of parts moved to Coq).

Morum, based in the US, is the team behind SmartPy. They are focusing on improving existing features and new developments. Among others, these efforts include the support of Tezos protocol upgrades and mutation testing.

Nomadic Labs maintains Michelson, the programming language for Tezos smart contracts, which was designed with formal verification in mind. Michelson is the reference language for Tezos smart contracts. It is a low-level Turing-complete, stack-based language with a static type system that eliminates a whole class of programming errors before the execution of smart contracts. 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 for verifying smart contracts.



Block Explorers and Analytics

The 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's activity.

Baking Bad is a Tezos development team that works on multiple infrastructure and DeFi projects. In the area of block explorers, they continue to work on and improve both TzKT and Better Call Dev. They are also developing an indexing stack which includes TzKT indexer, DipDup framework, and a diverse set of high-level APIs. They also maintain Python and C# SDKs for interacting with Tezos, as well as a .NET implementation of the Beacon protocol for bridging wallets and dApps.

Blockwatch Data Inc. is a Web3 data analytics provider. Blockwatch's mission in Tezos is to deliver resilient infrastructure and exceptional developer experience through elastic APIs, dedicated nodes, and a suite of powerful tools to access, analyze, and interact with the Tezos network. In addition, Blockwatch provides tailored data intelligence solutions that offer unparalleled insight into on-chain activity.

Dialectic Design, based in the Netherlands, is working on The Stack Report, an analysis and reporting outlet providing analytics and data-driven storytelling covering the development of decentralized technology and communities in the Tezos ecosystem. The goal of this project is to build on the work done in the analysis and visualization of Tezos NFT activity and expand this reporting to the broader Tezos

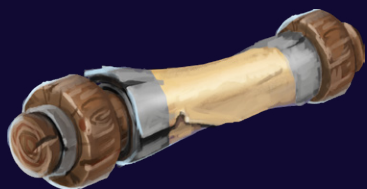
ecosystem. The main output is the thestackreport.xyz data exploration and storytelling platform, with multiple deep-dive articles published on the website and shared across numerous social media channels.

Papers is an active development team that, among other activities, powers the AirGap wallet and developed Beacon to connect wallets with dApps in the Tezos ecosystem. With the Tezos SDKs for Kotlin, Swift and Rust, Papers provides the necessary developer tooling to enable developers in the Tezos ecosystem to interact with the Tezos protocols in various languages. The SDKs reference implementations that can be used to create operations, communicate with the Tezos RPC and much more.

Smart Contract Development

The Tezos blockchain 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.

Compellio SA is an acknowledged provider of global infrastructure components for bridging the gap between Web2 and Web3 computing. Headquartered in Luxembourg, Compellio works with public and private organizations in driving blockchain and Web3 technologies in multiple business verticals, including product authentication, asset tokenization, supply chain management, and consumer loyalty. Its customer portfolio consists of major industry companies, public bodies, and international institutions. Compellio is an accredited research organization and has performed cutting-edge research with MIT in the fields of blockchain interoperability and asset tokenization.



The **Edukera** team aims to improve the way we work with smart contracts written in Archetype language. The test framework has been entirely redesigned to integrate the new binding generation feature for Node.js TypeScript. It drastically reduces development time as it simplifies interaction with the contract. The Archetype language itself is completing its support for tickets and importing external contract types and signatures (Michelson and Archetype). 2023 will see more features, including some major improvements in the VSCode support, such as the long-awaited debug (step-by-step) execution of a contract.

The **Free Code Camp** community is building an in-depth course on how to build applications in the Tezos ecosystem, leveraging many Tezos tools. This project-oriented course will be published on the freeCodeCamp.org community YouTube channel and will feature code-along-at-home projects learners can build.

GK8, a leading institutional-grade digital asset custody platform with DeFi, staking, NFT, trading, and tokenization support has partnered with Tezos to advance the secure expansion of the ecosystem. GK8 offers both traditional and crypto-native institutions an end-to-end platform for managing blockchain-based assets. The company developed the world's first true Cold Vault that enables its clients to create, sign, and send secure blockchain transactions without internet connectivity, eliminating all cyber-attack vectors. GK8 serves clients managing billions' worth of digital assets, including social investing network eToro, Securrency, a blockchain fintech company backed by State Street, U.S. Bank, WisdomTree, and Abu Dhabi Catalyst Partners, Tezos Foundation, and Prosegur, one of the world's largest custodians.

Korea University has more than 36,000 students enrolled and is one of the oldest institutions of higher education in the country. Hakjoo Oh is an Associate Professor in the Computer Science department who received a grant to build a fully automated tool to verify and test the integrity of smart contracts written in Michelson.

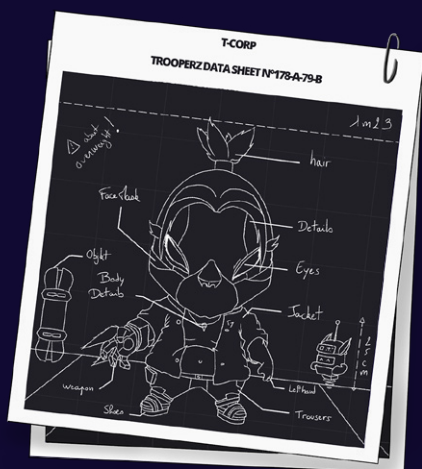
Massachusetts Institute of Technology in the United States, one of the most prestigious American universities, conducts research into formally verified cryptographic software libraries and formally verified software/hardware stacks implementing cryp-

topographic protocols, with all software and hardware designs made available publicly under open-source licenses. MIT works with the Tezos community to develop useful extensions as necessary.

Runtime Verification is a US-based company that uses runtime-verification-based techniques to improve the safety, reliability, and correctness of software. The team supports the Tezos ecosystem through numerous smart contract audits.

Serokell is a software development company focused on creating customized high-performance solutions. The Estonia-based R&D company is responsible for developing and maintaining various developer tools and Tezos smart contracts, including efforts around stable-coins and wrapped assets. Additionally, they also help with the maintenance of several tools and platforms in the ecosystem, such as Tezos Agora, Kiln, and the TZIP explorer.

TezWell is a Portuguese company created in 2020 that initially provided consultancy services to the SmartPy project. The company created VisualTez, a visual programming tool for smart contract development in the Tezos ecosystem, which allows users to describe smart contracts through illustrations that can be built simply by dragging and dropping blocks. Text-based programming languages make the programmer think like a computer, which is usually difficult for people without a computer science or similar background. VisualTez helps lower barriers to entry for people with less technical knowledge.



Infrastructure

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

CapBridge Financial Group is the first fully integrated private markets digital ecosystem in Asia offering flexible customizable liquidity options under one roof – with an integrated primary syndication platform, CapBridge, and secondary exchange, 1exchange. 1exchange allows the direct updates of private (unlisted) companies' share transfer transaction information in the national registry to be written on the Tezos blockchain, thereby eventually allowing any unlisted entity to opt to be "privately traded" with user-defined selected groups/shareholders.

Chainstack offers services connecting developers with Tezos infrastructure, powering applications in DeFi, NFT, gaming, analytics, and everything in between. Chainstack provides unified access to node and data APIs, distributed compute and storage, identity management and security testing, and the ever-expanding list of services and tools to build amazing applications. Chainstack's enterprise-grade platform has intuitive developer experience, battle-tested reliability, predictable pricing, and outstanding customer support.

CryptoCount is a US-based open-source tax accounting platform. Current behaviors are fair market value (FMV) assessment aggregations of native block rewards. Additionally, the team integrates transaction-based capital gain calculations and FMV DeFi/dApp contract rewards.

Cryptonomic has been involved in the Tezos ecosystem since 2017 and operates the Galleon wallet, the Conseil indexer and the ConseilJS SDK for Tezos. Besides this, Cryptonomic has helped numerous companies build their projects on the Tezos blockchain.

ECAD Labs builds open-source development tools and provides infrastructure services for the Tezos ecosystem. Headquartered in Vancouver, Canada, ECAD Labs is on a mission to lower technical barriers and simplify the blockchain development experience. ECAD Labs is the team behind Taquito, the popular JavaScript library for the Tezos community.



Functori is an R&D team that contributes to Tezos in various ways: core protocol development (Tenderbake, Smart Rollups, data availability), protocol development tooling (Mitten), and the backend integration of Rarible. It also develops and reviews smart contracts for clients in the NFT (Dogami, Minteed, Wagmi, Straiqr, etc.) and DeFi spaces (Smartlink, Ownera, SpicySwap, ArtDEX, Flame-DeFi). While doing so, the team designed tools to increase productivity and safety in creating and using smart contracts and blockchain backends (Mligo, TzFunc, Crawlri).

Future Sense is incorporating Tezos blockchain technology into its work with the Korean National Police Agency in South 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 TZ APAC. The first phase has been finalized and the second phase is in progress.

Gravity is a France-based team that developed a solution allowing 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 collaborate with Spruce ID on building an open-source ID stack for humanitarian

organizations. Part of their work supported by the Foundation is the integration of Tezos-based DIDs and verifiable credentials into the RedRose system used by NGOs worldwide.

Kukai is a Sweden-based company that developed a popular wallet for Tezos-based assets. One of its features is the ability to use Web3Auth, 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 popular decentralized exchanges, mobile device solutions, and more smart wallet features. The team is actively implementing new features based on community and developer feedback.

MIDL.dev is a Web3 infrastructure company incorporated in Estonia. They offer a Tezos RPC service used as a backend in several prominent Tezos Defi projects (Plenty, Crunchy and others), as well as a non-custodial baking service. They also build and host Flashbake, a private mempool for Tezos.

Umami is a Tezos wallet that combines best-in-class features to deliver a smooth user experience for both beginners and advanced users. Umami was created and developed by **Nomadic Labs**, a team renowned for its work on the Tezos blockchain. Umami brings all of that expertise together to deliver a superior user experience in an all-in-one desktop wallet and, since December 2022, a mobile wallet.

Opsian is a UK-based company with an office in Cambridge. The team is working on a project to enable the continuous monitoring and profiling of Tezos activity. The goal is to allow the Tezos ecosystem to understand the application and system performance of Tezos nodes. The project includes default-on metrics, low-overhead instrumentation, and continuous profiling of the OCaml runtime on Tezos in the way that the data is ingested, indexed, and aggregated in public dashboards.

Papers collaborates with other Tezos development teams and created a wallet interaction standard to help users interact with applications built on Tezos from their browsers. The Switzerland-based team has contributed to numerous projects in the ecosystem. Besides the projects mentioned in other parts of this report, they have integrated Sapling into AirGap, a wallet solution.

Satoshi's Closet is an America-based team working on a cross-chain NFT-centric mobile wallet app. Satoshi's Closet enables Web3 onboarding and IRL NFT commerce and utility for consumers and brands alike. Their products include WLT, a multi-chain NFT mobile wallet, and GLLRY, an interactive NFT point-of-sale kiosk. Together, these apps plus NFT minting services are onboarding new users and enabling existing NFT collectors to view all of their NFTs across multiple wallets and blockchains in one user-friendly mobile app.

Solvuu consults and builds software solutions for the life science industry. They use bioinformatics algorithms on genomics datasets to accelerate drug discovery and provide clinical decision support systems. They focus on type safe programming languages and use OCaml almost exclusively. The Solvuu team collaborated with OCaml Labs (now merged with Tarides) to implement a new OCaml.org website. They evaluated frontend technologies and helped implement the design and overall site. Solvuu is based in New York City.

Tezos Reward Distributor (TRD) is a worldwide-based team of contributors to the Tezos ecosystem that helps to simplify and automate rewards payouts for bakers of all sizes. The Tezos protocol is dynamic and fast-evolving, and the TRD team has been meeting each challenge with enthusiasm and grit.



Applications

Tezos enables new types of applications which can address problems that have traditionally been difficult to solve using legacy software stacks. The Foundation supports novel applications that drive broad adoption and benefit standardization, censorship resistance, and user control on the Tezos protocol.

The **Agile Ventures** team is actively working on the popular Tezos Domains project. Users can now use a name like `alice.tez` instead of an address like `tz1VBLpuDKMoJuHRLZ4HrCgRuiLpEr7zZx2E` across the entire Tezos ecosystem. Tezos Domains also brings Web3 to Tezos by letting domain owners host their websites on IPFS. Users can manage their domains and leverage secondary market features in the Tezos Domains dApp. Since the start, over 133,000 names have been registered. The Tezos Domains Foundation, a non-profit entity, was incorporated in December and will help with the upcoming DAO launch.

Electis is an organization that has developed a Web3 e-voting platform based on Tezos, which allows for anonymous end-to-end verifiable elections, surveys, and consultations. Combining homomorphic encryption and blockchain, the solutions are designed to be confidential and transparent by design, virtually ruling out the contestation of results. Various organizations around the world already use Electis' solutions as an e-governance tool, ranging from citizen engagement projects by local governments to employee representative elections in private companies. Electis is also involved in projects such as enabling more democratic decision-making in UN organizations and international climate change discussions.

Pebble is a distributed, fully verifiable, self-tallying e-voting system. Built by a team of European researchers and experts at **Giry**, Pebble preserves voters' privacy, ensures transparency of results, and generates sustainable trust in decentralized governance mechanisms. Pebble combines time-lock encryption, ZKP, and DLTs to enable self-tallying elections, eliminating fees and vulnerabilities induced by intermediaries and trusted third parties. Unlike other e-voting protocols, Pebble encrypts ballots upon casting, adjusting the difficulty to ensure that no ballot can be spoofed or opened before the end of the election, and then publishes them onto a decentralized, publicly accessible bulletin board.

Anyone can then take part in the tally by decrypting the time-lock encrypted ballots and checking the results that were announced at any point in time.

The **Papers** team is helping to onboard webshops to the Tezos ecosystem by developing a simple payment gateway plugin for Woocommerce, the go-to e-commerce solution for Wordpress websites. The integration enables shops to support the Tezos native token “tez” and the Tezos FA2 token standard and allows them to accept assets like uUSD or kUSD as payment methods.

Talao is a French company that is building a self-sovereign identity (SSI) solution for Tezos users and applications (DeFi, Gaming, Metaverse, DAO). In 2022, Talao launched a digital wallet called ALTME (<https://altme.io>) that gives Tezos users the ability to manage their digital credentials (identity card, proof of age, membership card etc.) as well as their digital assets (crypto, NFTs...). By using Altme, applications can be regulation-compliant, while preserving the privacy of their users. Several platforms on Tezos like Gif.Games, Tezotopia, Bloometa and more are already using Altme to verify their users’ credentials in a decentralized manner and issue membership cards and loyalty cards to attract and retain more users.

Blockchain Xdev is a French-based team building several projects on Tezos. Under their current grant, they are developing Collaborate (aka PCC-MVP), which facilitates the exchange of technical data between stakeholders in the automotive industry. It includes features such as identity federation, traceability of business data, and the ability to manage consent for vehicle passports, centralizing the data sources related to cars, which are often scattered across consortium members. Access management is undertaken using NFTs. The latest developments include the capability to create business services, such as “pay how you drive”, and service providers can now propose subscription models to customers who possess a digital passport. Future developments foresee DAO support.

The Israel-based **Central Bottling Company** is working with Tezos Israel to develop a tracking and tracing solution to ensure the high-quality production of its bottles. The Central Bottling Company’s bottles will be tracked on Tezos, from the harvesting of their raw materials to the point of purchase at your grocery store.

Xcap Ecosystem Ltd is a UK-based company working on Ownera, an end-to-end digital securities platform based on the Tezos blockchain that allows financial institutions to issue and trade digital securities. Their project envisions implementing a digital securities tokenization solution on the Tezos blockchain which is compatible with FinP2P specifications and allows organizations to issue digital assets on the Tezos blockchain. Through the use of the FinP2P node, those assets issued on the Tezos blockchain can be published to other FinP2P nodes so that their users can invest in those assets, providing global liquidity for those assets.

Collectibles and Creator Tokenization

As an energy-efficient proof-of-stake blockchain with low gas fees, Tezos has been chosen by many artists and organizations to create digital goods. NFTs, to name just one example, continue to gain tremendous popularity on Tezos. The Foundation issues grants to such projects, which make Tezos tangible for end users and thereby foster the adoption of Tezos around the world.

AllTokenFootball becomes **AllTokenSports (ATS)**. After successfully developing its MVP, ATS is engaging with football leagues and broadening its horizons, generating high traction in rugby and athletics, among other sports. ATS builds digital revenue infrastructure for sport clubs, leagues and federations and creates value by integrating GameFi for practicing sports via fan loyalty incentives through its white label SaaS platform (leveraging Tezos). Its key features – Play Pro – Train Pro – Engage Pro – reward fans through their avatar with unique experiences and prizes, such as NFTs, IRL and meta-verse events. Through its unique approach, ATS is committed to redirecting value where it belongs – the sports estate! Keeping Web3 principles as the fulcrum point, ATS aims to build Sports 3.0.

Art Basel is the world’s premier art show for modern and contemporary art. Founded in 1970 by gallerists from Basel, today Art Basel hosts shows in Basel, Miami Beach, Paris and Hong Kong. Defined by its host city and region, each show is unique, which is reflected in its participating galleries, the artwork presented, and the content of parallel programming produced in collaboration with local institutions for each edition. Art Basel’s engagement has expanded beyond art fairs, for example, through new digital



platforms. Worldwide, fair-goers will be able to take part in interactive NFT experiences built on Tezos, as well as attend a speaker series about blockchain and NFT art in a digitally native world.

Blackbook is a UK-based team working on launching BLCKBOOK, an interactive NFT game that allows gamers to mint street art as NFTs while competing with other gangs for their territory. Think of BLCKBOOK as Pokémon Go meets NFTs meets Banksy. On the BLCKBOOK platform, users can take photographs of graffiti they like. Every game week, the community votes on the best graffiti photograph taken, which, as a result, then gets minted as an NFT and can be used to sell or claim territory in the respective area.

Block and Byte Technologies is an India-based company that created an open NFT platform (<https://byteblock.art>) for primary as well as secondary market NFT sales that supports fixed-price, English auctions and collections. The grant will be used to support the development of the auction and secondary sale on the ByteBlock NFT platform.

CIRCA (The Cultural Institute of Radical Contemporary Art) is a London-based institute that works with world-renowned artists such as Ai Weiwei, Yoko Ono and Marina Abramović to launch unique artistic performances. Through this grant, CIRCA has developed Abramović's first ever performance on a blockchain by bringing to life the project "The Hero 25FPS" on the Tezos blockchain.

FloSports is a US-based media company that streams live and on-demand competitive sporting events. The company launched NFTs in the sport of jiu-jitsu on its FloGrappling platform with proof of attendance/proof of viewership NFTs during the

live streams of its biggest competitions. FloSports is excited to launch its NFT store on the Tezos blockchain servicing the sports of racing, wrestling and grappling in Q1-Q2 of 2023.

Joko is a US-based project that created a platform for token-gated video streaming content for recording artists, which is now migrating to Tezos. The initial Joko platform that launched without leveraging Web3 technology allows artists to earn over 50 times their current video streaming revenue. The team has now opted to build on Tezos to scale their model and to provide higher video stream royalties to recording artists in real-time. The team is onboarding recording artists globally and growing a library of exclusive content.

McLaren Racing is undertaking development on Tezos to create a next-generation NFT program, putting their fans and consumers at the heart of the experience. Through their Formula One and esports programs, they have some of the most exclusive and revered assets to mint on Tezos, providing the next generation of digital consumers with the chance to own a unique piece of the team while participating in a variety of marketing activities. McLaren selected the Tezos blockchain because of its pioneering proof-of-stake technology and sustainability credentials. After a very successful NFT series built on Tezos and launched in 2021, the team is now scaling the partnership and NFTs into the future as they strive to push fearlessly forward, both on and off the racetrack.

The **Tezos Foundation Permanent Art Collection** celebrates artists and cultural organizations exploring the Tezos protocol. The mission of the collection is to increase awareness and adoption of blockchain technology across the art world, as the Tezos ecosystem continues to steward and support institutions and artists building on Tezos. The first curator of the Permanent Art Collection [PAC] was photographer, activist and Chair of London's Southbank Centre **Misan Harriman**. The diverse artworks he chose for the PAC feature in the Tezos Digital Art Gallery, which serves to showcase and bring life to this collection of artists working in the Tezos ecosystem.

The Tickle is a UK-based, monthly NFT magazine focusing on contemporary digital art and creative writing that has become a cultural touchstone in the Tezos art sphere. With this grant, the team is able to maximize resources to champion the in-

credibly strong and expanding art NFT community on Tezos. The grant also allows the Tickle team to build cutting-edge subscription models in the Web3 space, to publish a quarterly literary journal with an innovative profit-share system and to create and maintain a website with Tezos wallet sync/collect functionality. The website also serves as a free archive of all content and as a creative directory for all the talent featured.

Founded by three female poets, **theVERSEverse** is the first NFT literary gallery – a place where text is art, poetry is technology, and language has no limits. theVERSEverse is a curated platform where collectors discover poets, and poets discover the infinite potential of the metaverse. Importantly, it is also a hub for GenText – positioning generative text as a revolutionary literary art form. The NFT literary gallery is dedicated to making manifest the value of poems as works of art via blockchain technology.

Vertical Crypto Art is an organization from the UK focused on the NFT space. The team provides mentorship programs and support on how to navigate the Tezos ecosystem as an artist or creative individual. This includes courses about NFTs, on/off chain basics, safety and security for crypto wallets, as well as a dedicated mentorship program specifically on Tezos blockchain with topics including Tezos basics 101, future development of the blockchain, Homebase DAO 101, workshops, and more with the goal of showing artists how they can contribute to the Tezos ecosystem. In addition, in July 2022, the team created London's first immersive 3-day festival showcasing art, fashion and music through the lens of metaverse culture and NFT-backed technology.

Gaming

Gaming is a further application and key vertical for the Foundation and ecosystem teams when it comes to the adoption of Tezos. In its efforts, the Tezos Foundation directly supports developers and collaborates with key players in the industry. The past months were focused on startups with high growth goals in the gaming space as well as the relationships with AAA game developers and esports teams building on Tezos. Additional gaming projects can be found in the Investments section of this Biannual Report.

Blockchain Alchemy is a US-based team that is building PiXL, an evolving NFT Role Playing Game (RPG) with a play-to-earn model. PiXL players can earn NFTs created by Tezos artists that can then be traded on marketplaces. The game changes every week and is therefore designed to constantly evolve. The game also includes its own token called PiXLtez which can be used to sign in-game transactions, create nodes and earn block rewards. All concepts like voting and liquid-Proof-of-Stake are exemplified by the user being able to earn PiXLtez and run their own node - which will make them more powerful in the game.

Misfits Gaming Group (MGG) is a US-based global esports and entertainment company that competes in some of the most successful video game titles worldwide. With MGG, Block Born launched in August 2022 and integrated with three of the most popular games in the Tezos ecosystem, introducing player retention activities such as tournaments and bounties. Block Born quickly achieved 2,000 active users. The first Battle Pass started in De-



cember 2022, intended to create long-term content and rewards for games. Nefta and Bloometa also saw the Launchpad kickstarted, which will act as the gateway into the Tezos ecosystem for gaming projects. Additionally, the team continues to host hackathons and contests for the creative and developer ecosystem.

The **Talao** and **Gif Games (Tezotopia, Matterlight)** teams are working together to develop SSI technology for the crypto game Tezotopia and metaverse. The grant is used to support the partnership between Gif Games and Talao in using the concepts and technical solutions of self-sovereign identity in order to develop innovative features for the Tezotopia game as well as to help increase traffic and recruit new players.

Team Vitality is a French esports club created in 2013. In ten years, the organization has become a leader in France and Europe and is evolving internationally, competing under six titles: LOL, CS:GO, VALORANT, FIFA, Rocket League and Call of Duty Mobile. In 2022, Team Vitality selected the Tezos blockchain as their main technical partner to develop their first exclusive fan engagement and support-to-earn mobile application based on the Tezos blockchain: V.Hive, available on iOS and Android. The aim is to educate fans on Web3 and reward them for their engagement.



DeFi

Decentralized finance (DeFi) is another application area which continues to gain popularity, and which refers to the creation of a decentralized financial infrastructure built on blockchains. The Foundation issues grants to projects constructing the necessary infrastructures, common goods, and tools to strengthen the role of Tezos' technology in this application area.

Allbridge is an established bridging solution provider, enabling cross-chain transfers between a number of EVM and non-EVM chains. In collaboration with Madfish.Solutions, Allbridge has integrated Tezos into their bridge solution, allowing the Tezos ecosystem to connect with 14 different networks. Every blockchain added to Allbridge is fully compatible with the already integrated chains.

Ejara is an investment and savings app for franco-phone Africa and its diaspora. It is the first non-custodial cryptocurrency wallet in Africa, and currently has 100,000 users. With the support of a grant from the Tezos Foundation, Ejara has been developing a no-loss lottery feature, a staking module, and an NFT connect module to facilitate the adoption of Tezos in Africa. The grant also includes funding for smart contract audits, as well as giveaways to raise awareness about the platform.

The Swiss Banking Map, by **Indivio** is a comprehensive database that contains information about sourcing relationships, application usage, and architectural structures in the Swiss banking industry. To encourage companies to keep their data up to date, the Swiss Banking Map uses an incentivization mechanism built on the Tezos blockchain. This mechanism rewards companies with points, which can then be used to pay for their subscription fees on the platform.

Madfish Solutions is a company that is active in various spaces. As part of their infrastructure work, they developed QuipuSwap, a prominent decentralized exchange (DEX) on the Tezos blockchain. QuipuSwap is a protocol that enables the secure, decentralized, and censorship-resistant exchange of tokens and assets on the Tezos blockchain. Additionally, the Ukraine-based firm is also continuing their work on Temple, a fully featured wallet that focuses on user experience (UX) and integrated support for various Tezos asset standards, decentralized apps



(dApps), and explorers. The team is also collaborating with other members of the Tezos ecosystem on multiple projects, including BaseDAO and the Tezos gas station network. Furthermore, they have launched Yupana.Finance, an open-source Tezos-based lending protocol that aims to be part of the DeFi ecosystem.

Nyayomat, a team based in Kenya, is developing the Nyayomat Alternative Credit Platform (ACP) on the Tezos blockchain. The ACP aims to bridge the gap between micro, small, and medium-sized businesses (MSMBs) that are seeking assets/working capital and accredited investors (APs) who are willing to finance them. The platform will use smart contracts to facilitate the financing process and the Tezos blockchain will maintain a secure ledger of all transactions.

OpusDei is an Estonia-based project that aims to create an open-source and decentralized, community-governed financial service built on Tezos. The service will allow users to earn interest on deposits and borrow funds. The project's goal is to provide a user-friendly and accessible platform for non-technical users that will enable them to suggest, debate, and implement changes to the platform. Starting with the Tezos ecosystem, OpusDei aims to make DeFi accessible to a broader audience.

Papers is a Swiss team with several active developments in the Tezos ecosystem. Alongside tezblook, AirGap, and other projects, the team constructs the open-source building blocks for synthetic assets on Tezos, such as the development of the necessary smart contracts. These efforts are built to be embedded in the Tezos ecosystem. They follow the commonly used token standards and are designed to interact with popular decentralized exchanges. The integration of lending and borrowing (youves) on a primary market platform is the initial use case of these efforts.

The **RAZ Finance** team, based in Serbia and Israel, is developing a platform that connects verified data across the economic, social, and environmental outcome landscape to specific timelines, individuals, impact themes, and initiatives. The team's first open-source decentralized app (dApp) is being built on the Tezos blockchain and integrates with DigiSign to create proof-of-existence for stakeholder-verified positive impact. RAZ aims to become an increasingly decentralized network that facilitates outcomes-driven and reputation-based engagement to authenticate progress toward change that benefits people and the planet. RAZ is creating innovative approaches to due diligence, digital asset trade, and capital deployment for world-changing opportunities.

Crunchy Network developed the first DeFi portfolio tracking tool and DEX liquidity aggregator on the Tezos blockchain. The DeFi portfolio tool can be used to track assets staked in protocols like Dogami, Crunchy, and Gif Games, as well as track liquidity deposited into decentralized exchanges (DEXs) and view NFTs. All of these features can be accessed from one easy-to-navigate location. The DEX liquidity aggregator allows users to freely trade between all DEXs, while also providing recommendations for the best swap routes based on price and liquidity, thus providing the lowest slippage and best value for their trade. Both features have been deployed to the mainnet and are fully operational.

Vortex is an end-to-end decentralized exchange introduced by Smartlink. It is composed of various DeFi applications built on the Tezos blockchain and aims to create a sustainable ecosystem of scalable exchange applications. Vortex includes several DeFi features such as an automatic burning system for its users, the Checker's CFMM flat curve, FDA1.2 (a token standard with automated burning and transfer mechanisms), and an upcoming decentralized autonomous organization (DAO).

Tezsurre is a team based in the Netherlands and India that has been actively developing on the Tezos blockchain since 2018. In 2020, Tezsurre shifted their focus to DeFi and mobile, and raised a seed round. Since then, they have developed several projects such as Plenty, the Naan Wallet, a Flutter/Dart library, and the frontend of ctez. Using this grant, the team developed the new plenty.network platform, which integrates a voting mechanism for liquidity pools. Additionally, Tezsurre led the merger of Wrap Protocol and Plenty, which brought together the complementary technology and liquidity of both projects to create an all-in-one DeFi solution, including a bridge from Ethereum and Polygon to Tezos.



Lyzi is a crypto payment solution that aims to democratize and enable crypto-based features, such as loyalty 3.0 and cashback programs, in everyday life. The team behind Lyzi intends to deploy the Tezos token on the French regulated platform Zebitex. Additionally, they will create their own utility token, called \$LYZI, on the Tezos blockchain and bring it to the DeFi ecosystem. Lyzi has signed a lot of partnerships with well-known brands (over 1,000 points of sale available) and signed heavy integrations with POS providers to integrate crypto payment into retailers' cashier stations (around 70,000 POS).

USD Tez (USDtz) is a stablecoin pegged to the US dollar, secured through various other stablecoins, on the Tezos blockchain. The stablecoin's monthly external reviews are funded by a grant from the Tezos Foundation to **Wealthchain, Inc.**, a US-based company, on behalf of StableTech, which is based in the British Virgin Islands.

Payment Solutions

The Tezos Foundation issues grants to projects building payment solutions on Tezos for the payment solutions application area. These services are aimed at integrating or using tez for payments, such as tipping, real-time, and “streaming” payments. Further integration into payment tooling and applications that allow several parties to create simple contracts for conditional payments in just a few clicks are supported.

The Al Bawaba Group is a United Arab Emirates-based media organization that utilizes Tezos blockchain technology to shape the future of digital content and publishing in the Arab region. The company's business model centers around content creators, providing them with support through direct audience payments and tokenization of content.

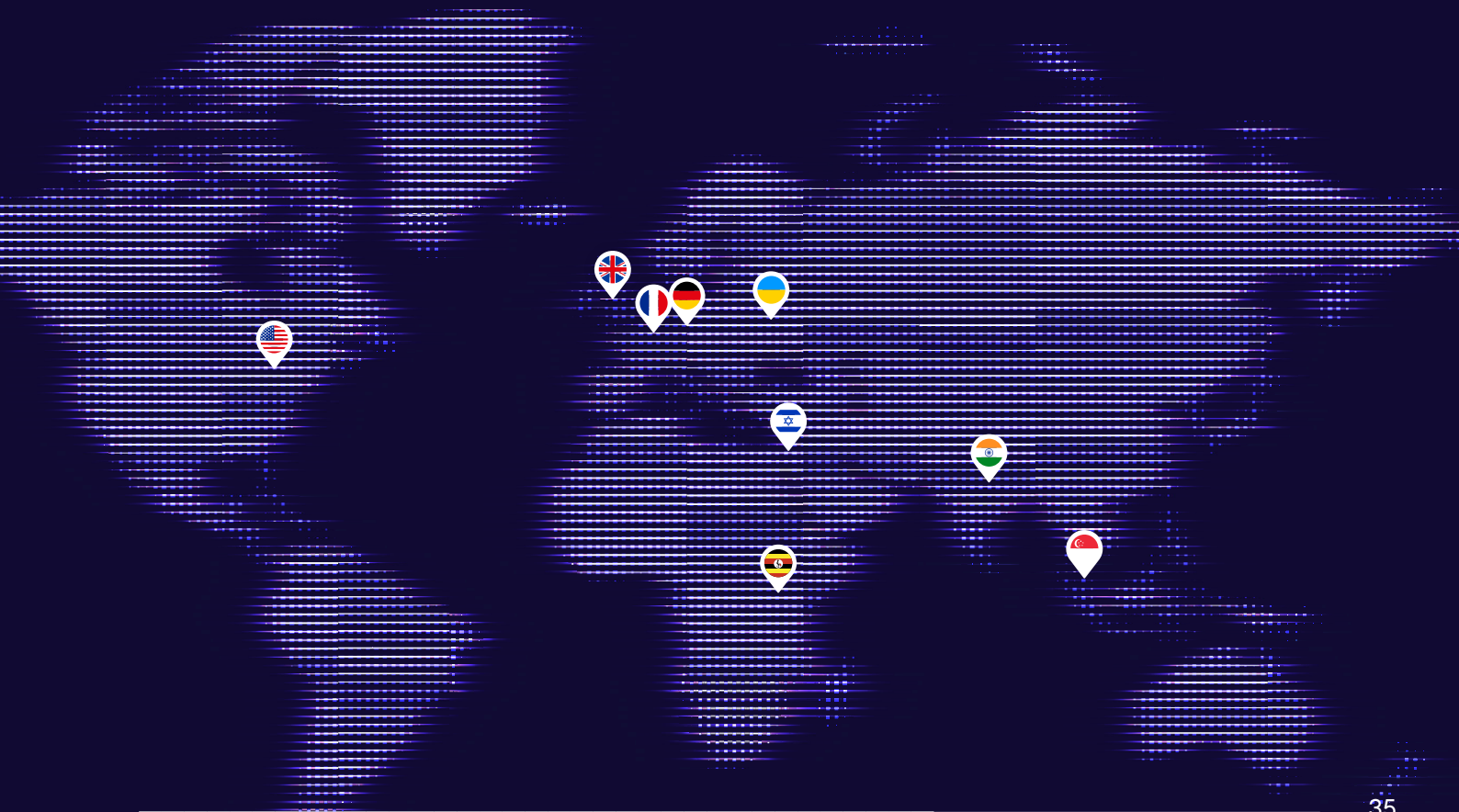
Hexa Solutions is a French-based company that specializes in developing innovative solutions for cities and local businesses. One such solution is the Beez platform, a white-label service that provides a communication tool through a mobile application, as well as a dashboard for local businesses and city managers. Hexa Solutions is introducing a loyalty and vouchers program on the Tezos blockchain to enhance the ability of business owners and city managers to animate local public life.



Level 01

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, marketing, events, and other efforts that grow the Tezos ecosystem. Starting in mid-2021, several entities in the ecosystem have also started small grants programs to support their respective regions, which are communicated and managed by them independently.



The **Bat-Yam Municipality** in Israel is collaborating with **Tezos Israel** to create a local incentive token, inspired by the timebank model in London and Japan, in order to increase community participation.

The Blockchain Club of Uganda, which was founded as a blockchain club at Makerere University with the goal of fighting scams in the crypto space and incorporated in 2021, shifted its focus to promoting blockchain technology throughout the country through extensive outreach programs. Presently, the club is working to expand the Tezos community in Uganda by onboarding developers, technology students, Web3, NFT, blockchain and crypto enthusiasts.

Blokhaus is a marketing and communications agency that specializes in the Web3 and blockchain space. They work closely with various teams in the Tezos ecosystem, facilitating marketing, communications, and PR activities. Blokhaus has played a lead or support role in several high-profile events, campaigns and various ongoing advertising campaigns and launch activities.

Entrepreneur First is a talent investor that provides a platform for the world's most ambitious individuals to build a global technology company from scratch. It is partnering with the Tezos Foundation to launch a Web3-focused program in London. The goal of the program is to foster growth of the local Web3 ecosystem, and to promote the adoption of the Tezos technology.

Manchester United is one of the world's most popular and successful sports teams, playing one of the most widely watched sports in the world. With a heritage that spans 145 years, the team has won 66 trophies, making it one of the leading sports brands globally and building a community of 1.1 billion fans and followers. The partnership focuses on new fan experiences built on the Tezos blockchain including the launch of Manchester United's first ever digital collectibles. As part of the partnership, Tezos features on the club's range of men's and women's training kits.

France-IOI is developing a platform that aims to integrate existing content, new content created by the community, and interactive activities to make learning about Tezos and smart contract development effective, engaging, and rewarding. To achieve this goal, they intend to transform opentezos.

com into a premier platform, and Tezos into the blockchain of choice, for anyone wanting to learn about blockchain and smart contract development, especially for students at universities.

In addition to their development work on Tezos, **Nomadic Labs** is actively involved in business development and enterprise support across various projects in France, Luxembourg, and Belgium. The company aims to create an ecosystem within the economic and industrial structures of these countries, providing support for the development of decentralized applications. They work with companies and institutions such as Banque de France, Société Générale, BNP Paribas, EDF, Ubisoft, Team Vitality, etc. to help them leverage the Tezos blockchain for their business needs. They also offer training sessions and technical support.

The Tezos Africa Foundation is a collective of 12 regional chapters, including Cameroon, Ghana, Nigeria, Tunisia, Senegal, Uganda, Tanzania, Zimbabwe, Togo, South Africa, Kenya, and the Ivory Coast. Together, the foundation aims to promote the adoption of the Tezos platform throughout Africa by providing education, organizing events, connecting with communities, establishing bakers, and hosting hackathons. The foundation has seen significant success in its efforts, expanding its presence across Africa by establishing new chapters, hosting educational events, and democratizing the Tezos blockchain through the establishment of five bakers across the continent. Additionally, the foundation has also supported various innovative projects building on the Tezos platform through its Small Grant Program, which has helped to facilitate the achievement of milestones for these projects.

Tezos Commons is a US-based non-profit foundation with a team of more than 10 people. They are dedicated to supporting the Tezos ecosystem by working on a variety of projects such as operations, education programs, educational media, and the Tezos LaunchPad. They collaborate with various entities in the Tezos ecosystem and provide support for different initiatives like Kukai, Tezos Help, and Tezos Agora. Their expanding team also actively contributes to community projects like hackathons and works on increasing engagement across different media channels.

Tezos India is committed to supporting individuals and entities who are interested in using Tezos blockchain technology in India. As innovation in the blockchain space advances in India, Tezos India is dedicated to addressing key barriers to adoption. The team works with individuals and organizations to build on Tezos and organizes and supports community activities in the region. Tezos India also focuses on different areas such as Tezos India Arts and Culture for NFTs, Tezos India Gaming Launchpad for gaming, TezIndia Builder Camp for developer adoption to name a few.

Tezos Israel works to promote the adoption and development of the Tezos blockchain in Israel. Tezos Israel hosts meetups and educational events to bring together developers, entrepreneurs, and other interested parties to learn about and contribute to the Tezos ecosystem. As an active and vibrant community, Tezos Israel places a strong emphasis on fostering collaboration and innovation within the local ecosystem.

Tezos Ukraine is a non-profit organization run by Ukrainian blockchain enthusiasts and industry experts. The team aims to facilitate and accelerate the growth and advancement of the Tezos community in Ukraine and Eastern Europe. Their efforts include the development and implementation of training courses and mentorship programs for developers of Tezos technology, organizing hackathons and meetups, and fostering and implementing communication strategies for the Tezos community in Ukraine and Eastern Europe.

TZ APAC is a leading Asia-based blockchain adoption team, supporting Tezos ecosystem growth opportunities in Asia's digital revolution. Based in Singapore, TZ APAC's mission is to empower Asian brands, startups, developers, and creators as they enter the world of Web3.

In 2022, TZ APAC launched its Ecosystem Growth Grant Web3 Incubator Program. The first cohort had over 20 Web3 projects incubated across NFT, Gaming and DeFi tracks.

During the International Olympiad Informatics 2022, TZ APAC facilitated Tezos ecosystem participation as an IOI community partner. This resulted in a partnership with the National University of Singapore's School of Computing to set up the Centre for Nurturing Computing Excellence, empowering students to learn from experts in blockchain technology, cloud computing, and more. TZ APAC and Tezos India also

organized the TezAsia Hackathon, attracting over 11,000 registrants across the APAC region.

TZ Connect is a Berlin-based team committed to advancing the Tezos ecosystem by developing open-source software, supporting projects and companies building on Tezos, and connecting with the global Tezos community. TZ Connect assists in ecosystem onboarding through multiple streams, such as technical solutions built in-house, hackathons, various educational initiatives, a small grant program and events through despace, and an art & culture track. They pride themselves on being a diverse team that values diversity in others and maintains a culture of equal opportunity, respect, and acceptance.

The multinational **XTZ News** team came together with a shared vision of providing news, information, and visibility for developments and updates in the Tezos ecosystem. The goal is to grow and inform audiences across the world. They established a weekly Twitter event on Mondays called "GM Tezos" where the team rounds up the latest news from the past week and interviews people who are building on the blockchain. The team also seeks to amplify Tezos projects across social media through a weekly newsletter and with media partners. During the grant period, the XTZ News website will be upgraded to a new design, and they are also supporting efforts to create a CoinMarketCap-like platform on Tezos in the form of the Crunchy Token Tracker.



INVESTMENTS

02

A stylized illustration of a young girl with brown hair and bangs, wearing a grey dress with a dark belt and a small circular brooch. She is breaking through a translucent blue barrier that is shattering into pieces. The illustration is centered within the first digit '0' of the large number '02'.

& LOANS

INVESTMENTS & LOANS

The Tezos Foundation supports established companies and organizations that create products on the Tezos protocol and sometimes provides loans to further the development of Tezos.

Investments

In these kinds of collaborations, the focus typically lies in building an understanding of the technology, identifying relevant technology applications, and investing in projects when necessary or advantageous. The following section displays new investments and convertible loans made by the Tezos Foundation during the period covered by this Biannual Report.

ArtMeta is a trailblazer in the art world, combining the capabilities of blockchain with the creation of a metaverse and NFT platform. This platform leverages the potential of blockchain technology to provide visual artists, art galleries and museums with a new artistic medium, community, and sales channel. ArtMeta partners with renowned artists, galleries, curators, institutions, and digital experts to produce exceptional digital environments and NFTs that showcase the limitless potential of blockchain-based art.

Archax is a leading player in the digital securities exchange industry and the first to receive regulation from the Financial Conduct Authority (FCA) in London. The company has integrated its custody platform into Tezos, enabling the trading, clearing, and settlement of Tezos tokenized securities and other eligible tokenized assets on the Tezos protocol. This integration allows for the secure holding of these assets through the Archax custody platform

and efficient trading and settlement through the Archax trading and settlement platform.

Balthazar DAO, developed by **Carmen Jojo 72 Inc.**, is an NFT gaming platform dedicated to building an NFT gaming ecosystem that revolutionizes the USD 200 billion gaming industry. Its specialized infrastructure called Babylon will enable game developers to create equitable games on any blockchain for all gamers. Its objective is to facilitate playing NFT games seamlessly and securely through a decentralized login system, which allows gamers



to experience an immersive, complete gaming experience and allows game-makers to easily distribute their games to millions of gamers. Balthazar's expert Alpha team produces comprehensive gaming and blockchain reports and audits, providing the gaming space with deep insight into Web3 games. Balthazar is working with the Tezos Foundation to deeply integrate the Babylon infrastructure into the Tezos blockchain.

Culture3, led by Misan Harriman, is a platform that showcases the artistry, creativity, and impact of the latest advancements in blockchain technology, metaverses, artificial intelligence, and extended reality on culture, commerce, and society. It offers a balanced perspective, highlighting the positive stories of Web3 in a world where negative news and hype often dominate the media landscape. Culture3 serves as a source of inspiration, highlighting the importance and potential of these technologies to shape the future.

Draper Goren Holm (DGH) is a venture studio and fund based in Los Angeles and formed through a partnership between Tim Draper, Alon Goren, and Josef Holm. In April 2021, DGH announced plans to incubate and accelerate startups built on the Tezos blockchain, building on their long-term support of the Tezos ecosystem since its early days.

Defy Trends Limited is a premier information source that offers comprehensive analytics for cryptocurrency traders, aimed at facilitating informed investment decisions. Utilizing both on-chain and off-chain data, our indicators provide a comprehensive market overview to empower users with the knowledge required to make sound investment decisions.

ELEET GAMES is striving to bring the benefits of Web3 to traditional gamers: true ownership of digital assets and the potential to earn. Entertaining, affordable, and accessible gameplay are their invitation to reach out to this vast user group and drive crypto adoption. With the support of the Tezos Foundation, ELEET is developing its flagship MMORPG title Oathbound with true-utility in-game NFTs and best-of-breed graphics on Unreal engine 5. In future, the commercial success and decision making of the ELEET GAMES publishing label is to be shared with the community via its Tezos-based \$LEET token, building the "players' publisher".

Emergents Trading Card Game

The Emergents Trading Card Game is a revolutionary take on digital card games that features the rich, deep gameplay that will keep serious TCG players hooked while also being approachable to beginners. It features an entire world of comic book characters, The Emergents, that were created specifically for the Tezos blockchain. By minting cards, cosmetics, and other in-game items on Tezos, the TCG creates a robust economy that closely mirrors the traditional economy and trading ecosystem of popular physical TCGs.

EyeJack is an art and technology company that specializes in creating unique and immersive experiences. With a focus on augmented reality, immersive installations, games, and Web3, the company operates as a global creative studio, partnering with leading brands, museums, city councils, and other creators to explore the intersection of art and technology.

InterPop Inc. is a digital entertainment company that believes fans of digital games, comics -- and all forms of digital media -- should have agency over their digital objects. InterPop has created beautiful, acclaimed comic books on the Tezos blockchain, a best-in-class NFT platform called MinterPop, and a Tezos-based trading card game called Emergents TCG. InterPop's team includes some of the most talented TCG players and designers in the world.

Kora is the new economy empowering everyone to make an impact by converting every 100 grams of CO2 avoided into a redeemable Kora token. Kora measures an individual's carbon footprint with the Kora app. The less CO2 consumed by participating in sustainability-oriented activities such as sustainable transportation or utilizing renewable energy, the more Koras earned. These Koras can then be redeemed in the **Kora Rewards Hub** where discounts on environmentally-friendly products and services are available. In partnership with Tezos, KORAs are registered on Tezos to ensure that each KORA token earned for sustainable actions is digitally secured and documented, giving everyone the possibility to become their own climate hero.

Mavryk (Tezos Dynamics) is a finance protocol under development with the intention to offer users the flexibility to borrow and earn, while also granting them the opportunity to participate in the platform's governance processes. In addition the platform



provides a user interface for the Tezos liquidity baking application.

Over the course of 2022, **Montis** initiated the MVP build-out phase and established the working group with global systemically important banks, primary issuance platforms and custodians. During 2023, Montis aims to achieve a full CSD authorization in Luxembourg, operationalize the technology platform and launch the world's first natively digital, blockchain-based CSD by the end of the year.

Memberships, Associations and Corporate Infrastructure

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

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

The Foundation supports **corporate bakers** through tez loans in order to facilitate the corporate adoption of Tezos technology. Those sandbox-type loans enable corporations to come into contact with Tezos blockchain technology and educate their developers.

The **DLT Education Consortium** is a global passport for distributed ledger technology and digital assets, which is a 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 **Multichain Asset Managers Association (MAMA)** is a global community of organizations working to transform asset management through blockchain technology. It holds events throughout the year, including the Paris Blockchain Week Summit and the Singapore FinTech Festival.

The **Proof of Stake Alliance** is a US-based organization that brings together thought leaders in the blockchain space. They work actively with ecosystem teams to understand needs and act as a unified voice supporting and growing proof-of-stake-related technologies, with the Tezos blockchain being one of the first blockchains based on proof-of-stake.

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 stakeholders from the blockchain sector, the fields of politics and economics, the scientific community, and the public sphere.

Corporate Baking Program Loans

The Foundation supports corporate bakers through tez loans in order to facilitate corporate adoption of Tezos technology. These sandbox-type loans enable corporations to get in touch with the Tezos blockchaintechnology and educate its developers.

FINANCIALS

03



FINANCIALS

Level 03

FINANCIALS

Driven by the crypto bear market, the Tezos Foundation liquidated fewer Bitcoins and utilized its cash (fiat) reserves to pay its ongoing commitments. The total amount held as cash (fiat) and within the stability fund allows the Tezos Foundation to fund its entire activities for more than 18 months. The stability fund invests mainly in bonds, equity exchange-traded funds (ETFs) and gold; it is designed to be liquid, of low credit risk and has no exposure to crypto.

The Tezos Foundation was not directly affected by most of the collapses during the year. It held a small number of vested FTT tokens from FTX that stem from FTX's earlier acquisition of Blockfolio, a company the Tezos Foundation invested in.

The increased credit risk in the crypto sector required the Tezos Foundation to reallocate assets to more robust service providers. The Foundation predominantly holds its Bitcoins (BTC) and Tezos (XTZ) in ring-fenced cold storage with Swiss banks and Swiss crypto custodians to benefit from the legal certainty that such assets are protected by Swiss law in case of bankruptcy.

Other assets are primarily strategic equity or debt investments, loans in fiat or crypto, cryptocurrencies such as Ethereum or fiat currency forwards.

The daily activity of the finance function of the Tezos Foundation remained strong and the department executed approximately 2,000 payments to grantees and service providers in all major fiat currencies, including transactions in cryptocurrencies. The year-end audit 2022 for the Tezos Foundation group started in September 2022 and will be conducted by PricewaterhouseCoopers AG, Zug. The audit will conclude in May 2023. The scope of the audits covers statutory financial statements under local accounting frameworks for the Foundation's subsidiaries in Switzerland, France, Singapore and Dubai and consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) for Small to Medium Enterprises for the Tezos Foundation group.

KEY FIGURES

in USD M	December 31, 2022	in %	June 30, 2022	in %
Cash (fiat)	11	2%	81	12%
Bitcoin (BTC)	138	29%	216	33%
Tezos (XTZ)	110	23%	170	26%
Stability fund	152	33%	148	23%
Other assets	60	13%	40	6%
Market value of assets	471	100%	655	100%

As at December 31, 2022, Bitcoin (BTC) includes tzBTC held and lent. Tezos (XTZ) includes Tezos ETPs as well as loans granted in XTZ.



MAPS OF THE TEZOS ECOSYSTEM



Asia



Grants

Active grants during the period





Public bakers

As of December 31, 2022, Blockwatch Data



Europe

 **Grants**
Active grants during the period

 **Public bakers**
As of December 31, 2022, Blockwatch Data



**North and
South America**

**Australia and
New Zealand**

GOVERNANCE



GOVERNANCE

COUNCIL & COMMITTEES OF THE TEZOS FOUNDATION

In order to provide the Tezos community with greater 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 its own members and determines its own organizational structure. It is currently composed of nine members, including the Chair of the Foundation Council.

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).

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 aspects, to some extent responsible for investment decisions fostering the Foundation's purpose.

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 relating to the Tezos protocol. 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.

Level 04

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.



ROMAN SCHNIDER
CHAIR

Roman is the President of the Tezos Foundation. He joined the Tezos Foundation as Chief Financial Officer and Head of Operations in 2019, and has been a member of the Foundation's Executive Committee since its creation in 2019. This follows a fifteen-year career at PwC Switzerland, Germany and Australia where he developed from being a financial services specialist to serving as a Director in Financial Services with a focus on blockchain technology.



ALEXIS BONTE
MEMBER OF THE FOUNDATION COUNCIL

Alexis is the co-founder and CEO of the online gaming company eRepublik Labs, which is part of the Stillfront Group, where Alexis holds the position of the Group COO. He is also a former venture partner of Atomico and an angel investor in, and board member at, several internet and game companies. Originally from France and Portugal, Alexis holds a BA in International Business & Languages from the European Business School, London.



ARTHUR BREITMAN
MEMBER OF THE FOUNDATION COUNCIL

Arthur Breitman is an early architect of Tezos. Previously, Arthur was a research engineer for Google X and Waymo. In the early days of his career, he worked as a quantitative analyst at Goldman Sachs and Morgan Stanley. Arthur graduated from the École Polytechnique and the Courant Institute of NYU where he studied Applied Mathematics.



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.



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 originally from Switzerland and holds a degree in Economics from the University of Zurich. He is a Swiss Certified Public Accountant.



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 which was acquired by IBM in 2019. As CTO, Chris has helped Red Hat transition from a single product business to the foundation on 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 he has spent 25 years in the industry, 20 years in open source.



**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.



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 commodities-focused 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.



Level 04

FOUNDATION COMMITTEES

EXECUTIVE COMMITTEE

Roman Schnider
President of the Tezos Foundation

Mason Edwards
Chief Commercial Officer

INVESTMENT COMMITTEE

Roman Schnider
Chair, President of the Foundation Council

Alexis Bonte
Member of the Foundation Council

Alice Lloyd George
Member of the Foundation Council

Mason Edwards
Tezos Foundation

AUDIT COMMITTEE

Lars Haussmann
Chair, Member of the Foundation Council

Roman Schnider
President of the Foundation Council

Daniel Masters
Member of the Foundation Council

Andrea Zuppiger
Head of Finance, Tezos Foundation

TECHNICAL ADVISORY COMMITTEE

Rafael Ziolkowski
Chair, Tezos Foundation

Bruno Bernardo
Nomadic Labs

Benjamin Canou
Nomadic Labs

Anil Madhavapeddy
Member of the Foundation Council

John Newby
TZ Connect

Dani Jozsef
TZ Connect

Chris Pinnock
Tezos Foundation

Valérie C. Whitacre
TriliTech

Jeremy Foo
TriliTech

Corey Soreff
Tezos Commons

NOMINATION AND REMUNERATION COMMITTEE

Alexis Bonte
Chair, Member of the Foundation Council

Roman Schnider
President of the Foundation Council

Lars Haussmann
Member of the Foundation Council



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 located 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 as required by the SFSA. All the information in this Biannual Update is published in good faith and is for general information purposes only. The Tezos Foundation does not make any warranties about the completeness, reliability, or 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.

