

September 2022



#### **Dear Tezos Community**

The Tezos ecosystem continues to grow, scaling to meet demand: from Tezos protocol upgrades featuring transactional rollups, to a commitment to developer tooling and onboarding.

At the Tezos Foundation, the last few months has seen increased efforts to support developer growth. We're excited to share the key events, tooling and best-in-class resources in this report.

In June, Tezos saw a high-profile presence at one of the largest developer events of the summer, the WeAreDevelopers World Congress 2022, held in Berlin, Germany. During this event, the Tezos HCKR Lounge hosted a career fair and two days of workshops, featuring representatives from several teams including Blokhaus, Marigold, Tezos India, Trilitech and TZ Connect. In the main hall, Tezos co-founder and early architect Arthur Breitman delivered his keynote speech, 'A Developer's Journey Through Web3: Separating Hype From Substance', and away from the show floor, the Blokhaus team filmed a series *P* of in-depth interviews with developers and thought-leaders across the Tezos ecosystem.

In July, the Tezos ecosystem coordinated the first conference devoted to Tezos developers since the pandemic, TezDev. Held in Paris, France, TezDev brought together Tezos community members from all over the world. The 3-day conference saw more than 400 registrants attend panels and talks. In July, Tezos India TZ APAC co-organised a month-long TezAsia Hackathon spanning across the Asia-Pacific region. The TezAsia Hackathon attracted over 11,000 registrants across the APAC region looking to build solutions on the Tezos blockchain. Hackathon winners were chosen for accelerator programs.

The new Tezos Developer Portal  $\nearrow$  went live in July featuring a range of resources including an ecosystem map and tutorials covering topics ranging from coding smart contracts to building decentralized applications.

Tezos continues to gain recognition among developers as demonstrated by a recent report 7: when looking at developer activity measured by smart contract deployments through H1 on Tezos, developer activity is up 288% versus the same period in 2021.

With this Biannual Report, we would like to express our gratitude in being a part of such a thriving community, and reiterate our support to developers and builders currently reimagining the future of the Web on Tezos.

The Tezos Foundation Council

\*In June 2022, we have decided to change the periods covered by the Biannual Reports to align with our audit and financial reporting. As January 2022 had already been covered in our previous Biannual this Biannual covers five months ranging from February to June 2022.



"The future of the Web is being built on Tezos by developers creating innovative applications."





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

The Tezos Foundation is a foundation supervised by the Swiss Federal Foundation Supervisory Authority. The Tezos 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 also includes new technologies and applications, especially in the fields of the latest open and decentralized software architectures.

As highlighted in the Tezos position paper, the success of any decentralized network is determined by the efforts of a robust, diverse, and flourishing community. The Tezos Foundation exists as part of this ecosystem, alongside developers, scientists, network validators ("bakers"), enthusiasts, esports and gaming companies, digital art creators, and many others, all working toward the success of an ecosystem that we believe will ultimately drive innovation on a global scale. The Tezos Foundation fulfills its mission by deploying resources that support the long-term future of the Tezos project. To do so, the Foundation deploys grants, investments, and partnerships as a strategic way to support community members, such as educational and research institutions, DeFi, art and gaming projects, developers and activists from all over the world.

Tezos' potential rests in the hands of its community, which is among the strongest and most exceptional in the blockchain ecosystem, as can be illustrated by the growing number of new smart contract deployments on the blockchain. We welcome and encourage all interested parties to join the Tezos community and contribute to the Tezos project.







A selection from the multitude of events within the Tezos ecosystem that happened in the period covered by this Biannual Update.

"Through H1 2022, developer activity, measured by new smart contract deployments, is up 288% versus the same period in 2021" - Messari  $\nearrow$ , State of Tezos Q2 2022 Report



**February 10, 2022** Manchester United announces Tezos as its official blockchain and training kit partner.

**February 18, 2022** DOGAMÍ's 'Petaverse' NFT minting starts.

### April 2022

**April 2, 2022** Ithaca 2, Tezos' ninth upgrade, goes live.

**April 5, 2022** Evian × Sara Shakeel NFTs sell out.

April 19, 2022 Guerlain launches Reaverse Cryptobees, which are minted on Tezos.

**April 26, 2022** Decathlon announces NFTs minted on Tezos.

June 2022

June 1, 2022 Plenty launches a new bridge from Ethereum to Tezos.

#### June 7, 2022

The Temple wallet mobile app developed by Madfish is released on Google Play.

June 13, 2022 NFTs built on Tezos are exhibited at Art Basel in Basel as part of March 9, 2022 Misfits Gaming Group selects Tezos as official blockchain partner.

March 23, 2022 WAC Lab announces Web3 fellowship program for arts and culture institutions.

March 30, 2022 Yield farming goes live on QuipuSwap.

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## May 2022

May 10, 2022 The National University of Singapore School of Computing partners with TZ APAC.

#### May 12, 2022

The Tezos Foundation announces the Digital Art Gallery curated by Misan Harriman.

#### May 19, 2022

La Diversité du Cinéma français (DCF) launches KlapCoin, a Tezos-based token for the entertainment industry.

#### May 27, 2022

NFTs built on Tezos are exhibited at Art Basel Hong Kong as part of the "NFTs and the Ever-Evolving World of Art" exhibition. the "Chance Encounters in New Mediums" exhibition.

#### June 14, 2022

International performance artist Marina Abramović announces her first-ever NFTs and blockchain performance created on Tezos.

#### June 28, 2022

Jakarta, Tezos' 10th upgrade, goes live.

# Facts and Figures

Some of the Tezos Foundation key numbers between February and June 2022.









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 under three grant categories:

#### **Research, Education & Core Development Grants**

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

#### **Ecosystem – Tools & Application Grants**

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

#### **Community Grants**

Supporting 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. In this edition of the Biannual Update, the Gaming category was added to showcase the increase in gaming projects submissions received by the Foundation.

Additionally, the Tezos Foundation released a new program to strengthen its support for the Tezos ecosystem. In May 2022, the Bounty Program went live. The program offers special bounties to anyone who can solve a concrete demand that technical experts in the Tezos community have identified as highly beneficial.

#### **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 central information on the proposed project and how the team intends to succeed. This information can include, for example, functional and technical details of the proposed solution, its purpose, a road map, an introduction of 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 grant duration. After proposal submission, the proposal is vetted by the Tezos Foundation. The outcome of this step can be a forward for in-depth reviews, a revise and resubmit, or a decline.

**Duration: one 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 on a proposal's fit 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: three 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 along 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 is 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: three weeks**





Since the last Biannual Update (March 2022), the Tezos Foundation has approved funds to 56 new projects across 19 countries for a maximum total amount of USD 35.2 million. Some projects that previously received grants and are still active are not listed in this Biannual Update. Please see the Tezos Foundation's previous Biannual Updates for information on earlier grants. Additionally, some projects are not listed due to mutual nondisclosure agreements.





Through its grant program 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 amount 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**

- Computer Software Group,  $\bigcirc$ Graduate School of Informatics, Kyoto University, Japan
- DaiLambda Inc., Japan •
- Indian Institute of Technology  $\bigcirc$ Hyderabad, India
- Indian Institute of Technology Madras, Ο India
- Marigold (Accélérateur de Blockchain ۲ SAS), France
- Nomadic Labs SAS, France
- 0 Oxhead X, LLC, US
- Tarides SAS, France 0
- TriliTech Limited, UK •
- Viable Systems S.R.O., Slovakia

#### **Research and Education**

- B9lab Ltd., UK
- Dacade (Unit U+2467 GmbH), Germany 0
- Free Code Camp Inc., USA 0
- 0 Nagoya University, Japan
- 0 Turing College, Lithuania
- University of Cambridge, UK
- University of Siena, Italy Ο

Monthly maximum approved amount per organization and category:

Over USD 500K

• Up to USD 200K Up to USD 500K O 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.

The Computer Software Group, Graduate School of Informatics, Kyoto University, works 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.

DaiLambda is a Tezos core development team based in Japan. The DaiLambda team has extensive experience with the OCaml programming language stemming from time spent in academia at the Inria Paris Research Centre. The grant covers the Plebeia project, which targets storage optimizations for the Tezos core protocol together with promotional activities in Japan.

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

The Indian Institute of Technology Madras is a world-class institute with over 8,000 students and nearly 550 faculty staff concentrating on higher technological education as well as basic and applied research. IIT Madras received a grant to upstream multicore support for OCaml and extend the Tezos tool stack, specifically Irmin and Lwt. The team is working in close collaboration with Tarides for this project. Marigold is a global core developer team which 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 is continuously helping the development of proposed upgrades to Tezos technology, including quality-oflife improvements for developers.

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

Oxhead Alpha is an American full-stack developer team dedicated to maintaining network primitives, protocol R & D, and supporting companies building on Tezos. In order to provide continuity for the ongoing efforts to advance awareness and adoption of Tezos technology, the team will assume responsibility for the maintenance and development of several projects relating to infrastructure and protocol research and development.

The Tarides team, who merged with OCaml Labs Consultancy and Segfault Systems, builds functional systems focused on offline-first architecture which address security and latency issues common with 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 crucial libraries and key language functionalities in collaboration with core development teams. They are also the primary developers of Irmin. This system stores the Tezos blockchain ledger in the Octez node implementation. Tarides is working towards multicore support for the protocol core which improves the scalability of the Tezos shell. In addition to this, Tarides works on type-safe programming language abstractions.



**TriliTech** is a Tezos blockchain R & D and entrepreneur hub based in London that mainly focuses on core development of the Tezos protocol as well as supporting global industry adoption of Tezos technology. Their goal is to further develop and catalyze unique opportunities for the Tezos ecosystem, both on- and off-chain.

Viable Systems is a global team of experienced developers and technical writers who work remotely, primarily from Europe and North and South America. The global team is further divided into five teams: 1) security, which is tasked with creating tools for automatic testing and auditing the node's security; 2) core, which focuses on the development and management of the node itself; 3) storage, which works on the storage implementation of the node that stores the blockchain state; 4) community, which is primarily focused on the creation of front-end tools that make using the node easier and more user-friendly; and finally, 5) marketing, which is tasked with the creation of content that attracts new users and keeps existing ones interested.

#### **Research and Education**

Research and education grants are dedicated to supporting the long-term success of Tezos and the training of new developers. Research and development teams are not the only ones supported with these grants. They are also dedicated to those who are actively working to reduce the barrier of entry for new teams that are joining the Tezos ecosystem through educational materials.

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

Dacade is a project by Unit U+2467, a multidisciplinary network of strategists, developers, and designers. They were founded in Berlin in 2010 and are now distributed in four countries working on the project. It is a peer-to-peer learning network where quality educational interactions are rewarded with tokens. Dacade is a market for knowledge within the Tezos ecosystem and educational interactions.

Free Code Camp is the team behind freeCode-Camp.org, a project based in the US that works towards increasing the number of skilled Tezos developers worldwide by publishing a free, in-depth Tezos smart contract development course to the 4.5 million developers who subscribe to freeCode-Camp's YouTube channel. Nagoya University is one of the most elite higher education institutions in Japan.A professor at the Graduate School of Mathematics is working on the Certifiable OCaml Type Inference project to make OCaml type inference more robust, modular, and verifiable by modularizing the OCaml type checker using constraint-based type inference and certifying it using the Coq proof assistant. Furthermore, the grant will support the teaching of blockchain- and verification-related topics, which include technical courses on Tezos technology in collaboration with DaiLambda and other Tezos developer teams in the Asia-Pacific region.

**Turing College**, an online data and blockchain school based in Lithuania, is working on launching a new free course program dedicated to smart contract programming. During the classes, students will get the chance to work on practical projects developed on the Tezos blockchain. The course is planned to start in Q4 2022.

The University of Cambridge is a renowned UKbased university. The Tezos Foundation has provided philanthropic and research funding to the university to support its foundational research on 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. 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.

In Italy, in the **Department of Political Economy and Statistics at the University of Siena**, Professor Nicola Dimitri researches Tezos' liquid proofof-stake protocol. The project will investigate and formalize how users determine their optimal stake between baking and delegating.



# Ecosystem – Tools & Application 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 focused mainly on the following areas within this grantmaking category: programming languages and libraries, block explorers and analytics, smart contract development, infrastructure, applications, collectibles and creator tokenization, crowdfunding, gaming, decentralized finance, and payment solutions.

#### **Grantees and Other Funded Entities:**

#### **Programming Languages and Libraries**

- Cryspen, France
- ECAD Labs Inc., Canada
- Formal Land (Arae SARL), France •
- Ligo (Accélérateur de Blockchain SAS), France
- Massachusetts Institute of Technology, USA
- Nomadic Labs SAS, France
- PyratzLabs SAS, France  $\cap$
- Tarides SAS, France

#### **Block Explorers and Analytics**

- Agile Ventures S.R.O., Czech Republic  $\bigcirc$
- Baking Bad OÜ, Estonia
- Blockwatch Data Inc., USA
- Cryptonomic Inc., USA •
- Dialectic Design, Netherlands
- Papers AG/AirGap, Switzerland

Monthly maximum approved amount per organization and category:

#### • Up to USD 200K Over USD 500K

- Up to USD 500K
- O Up to USD 50K

#### **Smart Contract Development**

- Chinstrap (WeFuzz), Netherlands  $\bigcirc$
- DaiLambda Inc., Japan •
- Edukera SAS, France 0
- 0 Korea University, Korea
- Runtime Verification Inc., USA
- Smart Chain Arena LLC, USA
- Tezwell, Unipessoal Lda, Portugal 0

#### Infrastructure

- Agile Ventures S.R.O., Czech Republic Ο
- 0 Ateza LLC, USA
- CapBridge Financial Pte. Ltd., Singapore 0
- 0 Chainstack Pte. Ltd., Singapore
- **COEXYA Group, France**
- Compellio SA, Luxembourg
- Cryptonomic Inc., USA
- 0 ECAD Labs Inc., Canada
- 0 Figment Networks Inc., Canada
- Functori SAS, France 0
- 0 FutureSense Co Ltd., Korea
- 0 Global Infra Tech Bulgaria EOOD, Bulgaria
- Gravity SAS, France
- Kukai AB, Sweden 0
- MIDL.dev OÜ, Estonia

#### **Grantees and Other Funded Entities:**

#### Infrastructure (cont.)

- Nomadic Labs SAS, France
- Opsian Ltd., UK
- Papers AG/Airgap, Switzerland
- Satoshi's Closet, Inc., USA
- O Solvuu, Inc., USA
- Tezos Reward Distributor, USA

#### Applications

- Agile Ventures S.R.O., Czech Republic
- Cryptocount, USA
- Electis, France
- O Giry SAS, France
- O GK8 Ltd., Israel
- Kontera GmbH, Switzerland
- Madfish Solutions Inc., Ukraine
- Papers AG/Airgap, Switzerland
- Serokell OÜ, Estonia
- Talao SAS, France
- Tangany GmbH, Germany
- The Central Bottling Company Ltd., Israel
- The Blockchain Xdev, France
- Xcap Ecosystem Ltd./Ownera, UK

#### Art and other Collectibles

- AllTokenFootball GmbH, Switzerland
- Amplify Creative Group Inc., USA
- Arago, France
- O Blckbook Inc., UK
- Block and Byte Technologies Pvt Ltd. (ByteBlock), India
- Bookit, USA
- O CADAF, USA
- Circa Art Ltd., UK
- Mailscript, Inc. (DNS), USA
- EuraNov SAS, France
- FloSports, Inc., USA
- O Joko Inc., USA

- McLaren Racing Ltd., UK
- $\odot$   $\,$  Proof of People, UK  $\,$
- Red Bull Racing Ltd., UK
- Superstar Xchange Inc., USA
- Tezos Foundation Permanent Art Collection, CH
- The Tickle, UK
- the VERSE verse, USA
- VerticalCrypto Art (VRTCL Ltd.), UK

#### Gaming

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

#### **Decentralized Finance (DeFi)**

- Baking Bad OÜ, Estonia
- Ejara (Nzinghaa Lab), Cameroon
- INABLR FZCO Ltd., UAE
- Indivio AG, Switzerland
- Kord.fi, Turkey
- Madfish Solutions Inc., Ukraine
- Nyayomat (Samserve Ltd.), Keyna
- 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
- Tezsure Inc., Netherlands
- Weltchain Inc., Virgin Islands (British)

#### **Payment Solutions**

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

Monthly maximum approved amount per organization and category:

Over USD 500KUp to USD 500K

Up to USD 200KUp 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 order to make Tezos technology as accessible as possible.

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, mbed, WireGuard, and ElectionGuard. The Cryspen team is building a vibrant developer and user community around HACL and, to this end, builds welldocumented 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.

**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.

Formal Land is a France-based team of developers that uses Coq (coq-of-ocaml) for formal verification of the Tezos codebase. This includes verifying many components of the protocol (mostly low-level layers for now), verifying the storage system, the Michelson interpreter, and the serialization library (data encoding) and its usage. The founder made an opensource translator to convert the code of the Tezos protocol to similar-looking Coq code. The team is now maintaining the translation and writing proofs on the protocol and interacting with other members of the Tezos community. The grant is dedicated to increasing the number of verified properties on the protocol and the rest of the codebase.

The LIGO team based in France is advancing their work on the LIGO project with the objective to turn it into a widely adopted and well-supported tool. LIGO is a smart contract language designed for developing larger contracts than those written in Michelson. The team is continuing its advancements, including overall maintenance, front end (e.g. better transpilation between syntaxes), middle end (e.g. improvements to the typer), and back end (e.g. increasing the number of parts moved to Coq).

The Massachusetts Institute of Technology in the United States, one of the most prestigious American universities, conducts research in formally verified cryptographic software libraries and formally verified software/hardware stacks implementing cryptographic protocols, with all software and hardware designs made available publicly under open-source licenses. MIT works with the Tezos community to develop useful extensions.

**Nomadic Labs** maintains Michelson, which is the programming language for Tezos smart contracts that was designed with formal verification in mind. Michelson is the reference language for Tezos smart contracts. It is a low-level Turing-complete, stackbased 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 to verify smart contracts.

**PyratzLabs** is a Paris-based start-up studio dedicated to Web3 with the goal of industrializing the launch of ventures in the Tezos ecosystem. Responsible for Smart-link and Dogamí, the studio plans to launch eight new companies in 2022. As huge believers in education, PyratzLabs also developed PyMich, a Python-to-Michelson compiler to allow for easier developer onboarding.

**Tarides** also maintains the OCaml developer tools used by the Octez developers and ensures longterm support of MirageOS libraries used by the Tezos developer community.

#### **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.

In addition to other projects covered in this Biannual Update, Agile Ventures developed the framework for indexing smart contracts, Dappetizer, built on TypeScript/JavaScript. **Baking Bad** is a Tezos development team that works and improves both TzKT and Better Call Dev. Apart from their indexer functionality, this includes the necessary changes to support protocol upgrades, but also the integration of recent developments such as NFT- and DeFi-related activities.

**Blockwatch Data** is a leading web3 data analytics provider. Blockwatch's mission is to deliver resilient infrastructure and exceptional developer experience in the Tezos ecosystem through 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.

**Cryptonomic** maintains the Arronax block explorer. Adding to this, they are also in charge of maintaining Galleon, Conseil, and ConseilJS, and also conduct regular alignments with Tezos ecosystem teams.

**Dialectic Design**, a team based in the Netherlands, is working on The Stack Report, a financial analysis and reporting outlet providing analytics and datadriven storytelling for and on the economics of the Tezos ecosystem. The goal of this project is to build on the work done in analysis and visualization of Tezos NFT activity and expand this reporting to the broader Tezos ecosystem. The main output are regular reports shared on thestackreport.xyz and multiple social media channels.

**Papers** is a Swiss development team that, among other things, develops and maintains tezblock, a Tezos block explorer, which is now merging with TzKT.

#### **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.

**DaiLambda** is actively contributing to lowering the burden of developing high-quality smart contracts using formal methods. This includes establishing a concept of a Typical Smart Contracts (TSC) agency and building an open-source prototype for this kind of platform. The platform is a web application where visitors follow an intuitive and informative wizard to create a smart contract generated from one of many templates provided.



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

Korea University has a total enrollment of more than 36,000 students 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.

**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. In addition, the team is developing a Firefly client for Michelson that can present coverage information directly over the Michelson code.

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

**TezWell** is a Portuguese company who focuseson bringing visual programming to smart contract development in the Tezos ecosystem, which will





allow users to describe smart contracts through illustrations that can be built by simply dragging and dropping blocks.

Chinstrap is a project being developed out of the Netherlands by WeFuzz. The grant is used to develop and improve Chinstrap. Chinstrap makes developers' lives easier by providing support for multiple contract compilations, tests, and origination on public and private Tezos networks.

#### 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 make it easier for developers to use these public goods to build new applications on Tezos.

Agile Ventures, based in the Czech Republic, is an in-house software development team and consultancy group that has worked on a number of Tezos projects since 2016. Building on their work on Tezos as a Service (TaaS), the team continues to work on bringing GraphQL subscriptions on top of Tezos, which was given the name TezGraph. TezGraph is a simple, highly compatible, and reliable open-source API that provides access to historic and real-time Tezos blockchain data with the convenience of GraphQL. To achieve this, the team is collaborating both with ECAD Labs and Nomadic Labs.

Ateza is a US-based team developing a global, load-balanced application programming interface (API) with end-to-end encryption to interface with Tezos nodes. The goal of the API is to help strengthen the Tezos infrastructure to facilitate development of applications that interface with the Tezos distributed ledger.

**CapBridge Financial** is a Singapore-based company that contributes to the Tezos project by enabling the direct updating of unlisted (private) companies' share transfer transaction information to the national registry, thereby eventually allowing any unlisted entity to elect themselves to be "privately traded" with user-defined selected groups/shareholders.

**Chainstack** is a Singapore-based company that helps companies from start-ups to large enterprises build, run, and scale blockchain applications. They provide a managed services offering to deploy selfenclosed and self-sufficient private networks, public Tezos nodes – including Tezos community support where they support developers in the ecosystem – and Tezos-specific business development efforts, such as meetups and webinars.

**COEXYA** is a French company who developed a project called "Choose Your Baker." This project aims to release a communication protocol enabling issuers of Tezos transactions to select the baker to whom they want to send their transactions. This topic is of particular importance for the compliance department of financial institu- tions working in the security tokens space.

**Compellio** is a Luxembourgian entity that implements a Verifiable Data Registry based on the W3C verifiable credentials model. Smart contracts will be deployed on the Tezos blockchain. The scope of this implementation is to offer a decentralized and publicly availa-ble service for issuers, holders, and verifiers to obtain public keys, identifiers, and verifiable credential schema data, as required in the con-text of W3C verifiable credentials workflows.

**Cryptonomic** provides tools and smart contracts that enable higher-level decentralized and consortium applications. The firm develops oracle services on Tezos including ongoing maintenance and community engagement.

In addition to other projects covered in this Biannual Update, **ECAD Labs** work includes Signatory, a remote signing application; TezGraph, a GraphQL indexer API built in collaboration with Agile Ventures; and Taqueria, a Tezos development tool suite recently launched in beta.



Figment Networks is a Canadian company working on Web3 solutions. Their team aims to help make Tezos application development a more seamless experience for software engineers. With the grants, they are further integrating Tezos technology into Data Hub, a "full-nodes-as-a-service" offering to make it easier for developers to access Tezos blockchain data via an API. With Data Hub, developers will be able to sign up and access live Tezos blockchain data via a standard API without having to worry about maintaining blockchain infrastructure or doing custom integrations.

The **Functori** team is a France-based team that worked on the protocol level (Tenderbake), the protocol development experience (Mitten), the backend integration of Rarible, and also developed and reviewed smart contracts for clients in the NFT (Straiqr, Arago, etc.) and DeFi spaces (Smartlink, FlameDeFi, SpicySwap, etc.). While doing so, the team developed tools to increase both productivity and safety in the creation and use of smart contracts. The grant will be used to develop and open-source the "Factori" tool, which eases dApp development on Tezos.

**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. A first phase has been finalized and a second phase is in process.

**Global Infra Tech** is a technology provider specialized in building products, services and applications that facilitate the interaction with blockchains and cryptocurrencies. The company has offices in



Opsian team



the US and Bulgaria, and is working on two main products, Crypto APIs and Vaultody. Crypto APIs is an infrastructure suite of blockchain data, developer tools and services that provide quick and easy access to multiple blockchain protocols. It offers unified REST API endpoints that simplify building crypto applications. The product also includes Blockchain Events (Webhooks), Node as a Service (shared and dedicated nodes) and an open-source Key Management System. Vaultody is a highly secure MPC-based Wallet as a Service that provides advanced digital wallet infrastructure for managing crypto assets. The grant is dedicated to integrating all of its product portfolio with Tezos.

**Gravity** is a France-based team that developed a solution that allows individuals and small businesses to bring together verifiable data about themselves in a digital wallet and build trusted digital identities that are private, portable, and persistent. As a digital identity project, they collaborate with Spruce ID on building an open-source ID stack for humanitarian organizations. Part of their foundation's supported work 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 DirectAuth, allowing users to create wallets through their social media accounts. The team has received a grant to proceed with their development of the wallet, including UX and UI improvements, integration with dApps, such as 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 an Estonian firm providing staking as a service solution for building an open-source suite of Tezos infrastructure tools. Their offerings include the popular page xtz-shots.io, an easy way for bakers to import snapshots of the Tezos blockchain. They offer solutions providing the infrastructure for a fixed fee, allowing clients to stake directly. MIDL.dev has simplified the process of implementing a complete baking infrastructure as code in a replicable and secure manner, consequently lowering the barriers to entry for aspiring Tezos bakers. In addition, they are also working to implement idealized payouts as well as further improvements for the popular "Tezos Reward Distributor" bakers' tool.

Umami is a Tezos desktop wallet that delivers 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.

**Opsian** is a UK-based company with an office in Cambridge. The team is working on a project to enable 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 has created a wallet interaction standard to help users interact with applications built on Tezos from their browsers. The Switzer-land-based team has contributed to numerous projects in the ecosystem. In addition to the pro-jects mentioned in other parts of this Biannual Update, they continue maintaining the AirGap wallet and Beacon, an interaction standard which allows the connection of a dApp with a wallet.

Satoshi's Closet is an American-based team working on a cross-chain NFT-centric mobile wallet app. Satoshi's Closet has been exploring the NFT space since 2019. They have minted and collected NFTs on several blockchains, including the Tezos blockchain. The team is currently developing WLT, an exceptionally designed multicoin, self-custodial crypto wallet app with NFT functionalities as a firstorder experience, designed for prosumers and early mainstream users. WLT will feature a novel and intuitive UI that functionally separates personal finances from social use cases (e.g. private financial transactions versus showing off NFTs), as well as intuitive management of multiple hot wallets, including hidden wallets. WLT will be accompanied by a web-based product or products that extend the visibility and functionality of the Satoshi's Closet product suite.

**Solvuu** is a US-based team focused on the programming language OCaml and its online presence. The team is selecting a new implementation technology for ocaml.org and porting current content to the new implementation of the site, integrating the Ocaml manual into the site, as well as delivering ongoing maintenance and enhancements.

**Tezos Reward Distributor (TRD)** is a global team of contributors to the Tezos ecosystem that helps to simplify and automate rewards payouts for bakers of all sizes.

#### Applications

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

The Agile Ventures team is also actively working on the popular Tezos Domains project. Tezos Domains is a dApp where users can participate in domain auctions and manage their domains, and that also allows for load-balanced and geo-redundant deployment of the Tezos Domains indexer and publicly available API.

**Cryptocount** is a US-based team working on proofof-stake, reward-related Tezos projects. The team built a tool for bakers to build taxation reporting, which went to market under the name Cryptocount.

**Electis** is an organization that has developed a web3 Tezos-based e-voting platform, which allows for anonymous end-to-end verifiable elections. Electis' solutions are already used by numerous local governments for citizen engagement projects as well as by organizations and universities around the world as an e-governance tool. 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 the transparency of the results, and generates sustainable trust in decentralized governance mechanisms. 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.

**GK8** is a leading Israel-based, institutional-grade, self-managed digital asset custody platform with DeFi, staking, NFT, and tokenization support. The team worked on the integration of GK8's custody solution with the Tezos blockchain, including FA1.2 and FA2 token integration as well as Tezos dApp connectivity.

Kontera is a Switzerland-based company that provides SMBs with tools to digitize their accounting using an engine that uses artificial intelligence and advanced heuristics to extract information from invoices and receipts, allowing SMBs to automatically book their invoices into their accounting systems. One of the most popular feature requests from customers is to allow them to discard paper documents and receipts after the paperwork has been processed by Kontera. To do this, Kontera needs to be compliant with a range of laws that make sure the documents are not modified and audit trails are guaranteed. To guarantee the compliance of document archival, they have integrated the Tezos blockchain.

In addition to their work in the DeFi space, Madfish Solutions is continuing their work on Temple, a full-feature wallet focused on UX with integrated support for various Tezos asset standards, NFTs, staking, dApps, explorers, etc. The wallet is now available on mobile as well as on desktop.

The **Papers** team is helping to onboard online shops to the Tezos ecosystem by developing a simple payment gateway plug-in for WooCommerce, the go-to e-commerce solution for Wordpress websites. The integration supports the Tezos native token "tez" and the Tezos FA2 token standard and allows online shops to accept assets like uUSD or kUSD as payment methods.

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.

Talao is a French company implementing a solution in the digital identity space on Tezos. In collaboration with other ecosystem entities that work in the space, they are building a solution that allows companies to issue professional verifiable credentials to talent as employees or freelancers and to companies as customers. It offers talent the option to deliver certified data to future employers about their professional skills and experiences in a decentralized manner on Tezos.

**Tangany** is one of the major German custody providers for digital assets that has recently become more active in the Tezos ecosystem. As part of their grant, they integrated Tezos technology into their solution, generating a broad reach into the B2B blockchain ecosystem throughout Europe.

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

The **Blockchain Xdev** is a France-based team building several projects on Tezos. With this grant, the team is developing a decentralized digital passport solution. The team is working on an MVP version of a blockchain-based multipartner platform for the certification and sharing of vehicle data hosted on the Tezos blockchain.

Xcap Ecosystem 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 that is compatible with the FinP2P specifications and allows organizations to issue digital assets on the Tezos blockchain. Through the use of the FinP2P node, assets issued on the Tezos blockchain can be published to other FinP2P nodes so that their users can invest in, and thereby provide global liquidity.

#### Art and other Collectibles

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. To pick just one example, NFTs continue to gain tremendous popularity on Tezos. The Foundation issues grants to these types of projects, which make Tezos tangible for end users and thereby foster the adoption of Tezos around the world.

AllTokenFootball is a Switzerland-based project that aims to shape Sports 3.0. The AllTokenFootball platform enables soccer clubs and leagues to create unity and engagement across the socioeconomic spectrum of their communities, leveraging the passion and the economic interest that soccer can generate. As a partner of the clubs, AllToken-Football will help sports clubs and leagues manage their digital assets through capital-increase events within their communities and recapture digital revenues by reconciling the digital life of the fans with their love for the sport and passion for their clubs.

Amplify Creative Group is a US-based fractional ownership platform for creators. The team's work on Tezos has two phases. First, the development of creator trading card NFTs issued with each AmplifyX investment, and second, a curated NFT platform that allows creators to create their own NFTs. On this marketplace, creators gain the ability to monetize their content while engaging their fans and communities of collectors, and buyers receive certainty regarding the uniqueness and authenticity of the art purchased.

Arago aims to position itself as a European pioneer in the construction of a decentralized digital cultural identity. The French start-up develops tools to enable cultural and creative industries to create and deploy Web3 journeys for their audiences. The team aims to enable all players in European cultural and creative industries to exploit the potential of blockchain technologies: NFTs, coins, credentials, wallets, and other technologies via SaaS solutions and a free mobile wallet for the general public to efficiently manage their assets and digital cultural identity.

**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 photos taken, and the winners get 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 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.

US-based **Bookit** is a project that is creating a UI/ UX NFT marketplace focused on book authors. Creators will build e-books of single or multiple assets, sealed and consumable as an NFT. This project will allow the creation of e-books and asset storage as Tezos NFTs. This will bring another novel use case to dApp development on Tezos and provide growing value as authors and creators migrate to Web3 and Tezos.

**CADAF** (Crypto and Digital Art Fair) is a complete ecosystem for artists, curators, and collectors to discover, buy, and learn about digital art and NFTs. CADAF Marketplace provides tools for curators and artists to develop curatorial visions, create digital exhibitions, collaborate, and discover new talent. CADAF supports the expansion of digital and new media art through a dedicated program of art fairs, festivals, and educational programming around the world.

**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 is developing Abramović's first-ever performance on a blockchain by bringing to life the project "The Hero 25FPS" on the Tezos blockchain.

DNS is a US-based company that offers NFT collectors and creators a solution that provides an overview of all of their assets in one place. The solution features a beautiful, decentralized "Linktree" website where users can share links and a one-click gallery for their NFTs that loads quickly. Secondly, DNS allows anyone to create a personal website by logging in with their Tezos wallet, offering better discovery and gallery tools for NFTs (not just a store, but attractive boards and galleries), and social recommendations, enabling users to curate and upvote NFTs.



euraNov is the French team behind the Golden Goals NFT soccer marketplace. Golden Goals is the first digital art gallery dedicated to the art of soccer based on the Tezos blockchain. Through Golden Goals, users are able to collect, display, create, and trade exclusive club content and digital artwork from thousands of fans. In addition, euraNov also offers their NFT marketplace format in white label for anyone who would like to recreate it.

**FloSports** is a US-based media company that streams live and on-demand competitive sporting events. FloSports provides access to over 200,000 sports competitions live or on demand, with exclusive, behind-the-scenes coverage and original programming for over 25 different sports. The company selected Tezos as their preferred blockchain for events and NFTs (fan tokens) starting in 2022.

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 royalties to recording artists in real-time. The team is onboarding recording artists globally and growing a library of exclusive content.

McLaren Racing develops on Tezos to create a nextgeneration NFT platform, putting their fans and consumers at the heart of the experience. Through their Formula One, IndyCar, 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 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.

**Proof of People** was London's first immersive three-day festival showcasing art, fashion, and music through the lens of metaverse culture and NFT-backed technology. The inaugural Proof of People event, which was organized by VerticalCrypto Art, took place in July 2022. Festivalgoers were invited to mint their own NFT on Tezos, participate in immersive performances, and attend panel discussions.

Red Bull Racing, also known as Oracle Red Bull Racing, is a winning Formula One racing team. In Formula One, innovation is a constant, with cars evolving and developing from race to race, and Tezos is no different. Designed to self-upgrade, Tezos' ability to remain at the cutting edge of blockchain technology makes it a natural fit for Oracle Red Bull Racing, as Max Verstappen won the drivers' championship in 2021 while partnering with Tezos. Crucially, its energy-efficient design also matches the team's long-term future environmental ambitions, and as Formula One moves toward carbon-neutrality the low-impact methodology pioneered by Tezos will be a valuable asset. Additionally, working on Tezos helps the team maximize their engagement with fans through the development of NFTs. Red Bull Racing developed a collectible NFT ecosystem that brings the brand's innovation and story telling to the forefront of the fan experience while allowing fans to own a part of Oracle Red Bull Racing history.

Superstar Xchange is a US-based team that developed Superstar Xchange, Bollywood's first celebrity NFT marketplace. The platform enables celebrity creators to sell digital tokens dictating ownership of their trading cards, artwork, audio, and other exclusive digital collectible assets. Tokens will be sold by auction or preset pricing models and designed in collaboration with each creator.

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 Tezos continues to steward and support institutions and artists building on Tezos. The Tezos Foundation Digital Art Gallery curated by Misan Harriman which is part of the Permanent Art Collection showcases a collection of selected artists working in the Tezos ecosystem. The Tickle is a UK-based, weekly NFT zine 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 building a platform on Tezos to host interactive and dynamic editions of The Tickle magazine previously distributed as a PDF and to continue to champion the incredibly strong and expanding art NFT community on Tezos.

Founded by three women 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. The grant is being used to develop the gallery's Web3 capabilities as well as to support its promotional and onboarding activities.

VerticalCrypto 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, and 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. The goal is to show artists how they can contribute to the Tezos ecosystem. In addition, in July 2022, the team launched Proof of People, London's first immersive three-day festival showcasing art, fashion, and music through the lens of metaverse culture and NFT-backed technology.



#### Gaming

Gaming is a further area of application and key vertical in blockchain technology. In recent months, the Tezos Foundation witnessed an increase in grant submissions combined with increased smart contract activity related to games. In its efforts, the Foundation follows an adoption strategy ranging from developer tooling to supporting indie studios and AAA game developers to achieving mainstream adoption through projects built by esports teams on Tezos. Additional gaming projects can be found in the Investments section of this Biannual Update.

**Blockchain Alchemy** is a US-based team that is building PiXL and Tez Run. PiXL is an evolving NFT Role Playing Game with a play-to-earn model. PiXL players can earn NFTs created by Tezos artists. Tez Run is a simulation game that is designed to create a horse racing experience. The game will allow players to own and trade digital horse NFTs. Players will also be able to stake rewards using Tezos smart contracts while the system interacts with an oracle that feeds randomness into the race.

Team Finest is an Israeli esports club that partnered with Tezos Israel to create NFTs on Tezos for its fans as well as to work on education for blockchain adoption in the esports realm. To do this, Team Finest will leverage social media channels for community building and educational activities directed toward its audiences and will introduce them to the Web3 space. Team Finest will also build a member club for NFT owners with different utilities for each level.

**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. MGG selected the Tezos blockchain as their technical partner of choice and will build multiple projects on the Tezos blockchain, as well as provide the launchpad for the new MGG blockchain gaming platform, Block Born. In addition to this, the Tezos brand will be visibly powering the teams during competitions.

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

Created in 2013, **Team Vitality** is a leading French esports team. Based in the heart of Paris with performance centers in Berlin and Mumbai, they are currently one of the most influential and successful esports clubs in Europe. The team competes in the biggest esports licenses, such as Counter-Strike, League of Legends, Rocket League, Fortnite, Valorant, and FIFA, and has won over 100 national and international championships. Team Vitality selected the Tezos blockchain as their main technical partner to unlock completely new fan experiences with its global community.

#### DeFi

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

In addition to other projects covered in this Biannual Update, **Baking Bad** works on Atomex STO Gate, a collection of flexible program modules to provide various atomic swap implementations for digital securities (security tokens) and other Tezos asset standards. **Ejara** is a mobile platform that democratizes access to investment and savings for the francophone African market. It supports cryptocurrencies and tokenized assets and plans to add more financial assets in the coming months. With this grant, Cameroon-based Ejara will develop offerings for new products, such as staking, no-loss lottery, and NFT integration to meet customer expectations and to attract a larger number of followers.

**INABLR** is an Authorized Sandbox Participant with the Central Bank of Bahrain (CBB) with the aim to develop a platform for fractional ownership of financial and alternative investment instruments.

Indivio is the company behind the Swiss Banking Map. The team is now working on a Tezos-based data-maintenance-incentive coin that rewards companies that frequently update their information on the Swiss Banking Map. The Swiss Banking Map is a collaboration platform for the Swiss banking industry. Companies can access communityprovided information about sourcing relationships and software usage, as well as further information from other companies to build new sourcing relationships. The earned coins can be spent placing ads on the platform or for getting a kickback on membership fees.

Kord.fi is a Turkey-based team developing a lending and borrowing platform that allows users to borrow XTZ or tzBTC in order to take part in liquidity baking on the Tezos. The platform enables its users to generate a higher annual percentage yield (APY) through leveraged liquidity baking.

Madfish Solutions is active in several spaces in the Tezos ecosystem. As part of their DeFi work, they developed the prominent decentralized exchange (DEX) QuipuSwap on Tezos. QuipuSwap is a protocol enabling a seamless exchange of tokens and assets on Tezos in a secure, decentralized, and censorshipresistant manner. Madfish also launched Yupana. Finance, an open-source Tezos-based lending protocol.

Nyayomat, a Kenya-based team, is working on developing the Nyayomat Alternative Credit Platform based on Tezos. The Nyayomat Alternative Credit Platform (ACP) seeks to become an intermediary between MSMBs seeking assets/working capital and APs willing to finance them. Technology-wise, smart contracts will be used to execute the financing flows, while the Tezos blockchain will maintain a secure ledger of transactions.

**OpusDei** is a project based in Estonia with the goal of creating an open-source and decentralized, community-governed financial service for earning interest on deposits and borrowing built on Tezos. The project aims to allow users to suggest, debate, and implement changes. Starting with the Tezos ecosystem, they want to build a product that is userfriendly and open for nontechnical users, thereby opening up the opportunities of DeFi to a broader audience.

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

Lyzi is a crypto wallet developed by **Proofeo** that aims to democratize and enable crypto-based features, such as loyalty and cashback 3.0 in everyday life. Lyzi wishes to deploy tez on the French-regulated crypto assets platform Zebitex. In addition, the team will create its own utility token on the Tezos blockchain and will bring it to DeFi (\$Eazy token) as well as to Lyzi and the Zebitex ecosystem.

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

Rocket Launchpad, a team based in the British Virgin Islands, developed a DeFi wallet service as well as a DEX aggregate service running on the Crunchy Network. The number of projects, tokens, and NFTs, and the amount of farm flooding happening on the Tezos blockchain is continually growing, which makes it difficult for any user to manage. This wallet helps users easily track their assets, vaults and staked tokens, and displays their value in one location. With the increase in the amount of DEXs, more and more traders will have to actively look for the most liquidity and the best price between current exchanges. Crunchy Network hosts a DEX aggregate that allows users to freely trade between all DEXs while being recommended the best swap route based on price and liquidity to provide the lowest slippage.

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

Tezsure is an enthusiastic and motivated team based in the Netherlands and India that has been developing on Tezos since 2018. In 2020, Tezsure changed its focus to DeFi and mobile, and raised a seed round. Since then, the team has developed Plenty, the Naan wallet, the Flutter/Dart library, and the front end of ctez. With this grant, the team further developed Plenty, one of the biggest DeFi platforms on Tezos, adding a token-to-token automated market maker (AMM) to Plenty. Tezsure led the merger of Wrap Protocol and Plenty, which provides the opportunity to merge the complementary technology and liquidity of Wrap and Plenty, creating all-in-one DeFi platform that includes a large collection of stableswaps. In addition, Plenty offers a large collection of stableswaps.

Wealthchain is a US-based firm contributing to the Tezos ecosystem through several stablecoins, such as USDtz, pegged assets, and other financial instruments on Tezos, and also as an active community member taking part in numerous public appearances. The team received a grant for the monthly publishing of audit reports for the USDtz stablecoin.

#### **Payment Solutions**

The Tezos Foundation is issuing grants to projects that are building payment solutions on Tezos. 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 is supported.

Al Bawaba Group is a UAE-based media group that leverages the Tezos blockchain to advance the future of digital content and publishing in the Arab world by putting the content creators at the heart of the business model and supporting them via direct audience payment and content tokenization.

Hexa Solutions is a French company that is developing the Beez platform. This platform is a white-label solution for cities and local businesses. It provides a communication tool to reach out to citizens through a mobile application, as well as a dashboard for local businesses and city managers. Hexa is introducing a loyalty and vouchers program on the Tezos blockchain to further enable business owners and city managers to animate local public life.


# Community Grants

Tezos was designed to be a digital commonwealth. The protocol was deliberately written to empower individual members of the community through censorshipresistant transactions, a proof-of-stake-based consensus algorithm, and built-in, on-chain governance. These design choices were made to foster a collaborative, open, and global community. To ensure communities around the world have the support they need to succeed, the Tezos Foundation provides funding to entities that support community development, 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, which are communicated and managed by them independently, in order to support their respective regions.



The **Bat-Yam Municipality** in Israel is working with **Tezos Israel** to develop a local incentive token, similar to the timebank model in London and Japan, to cultivate community involvement. As part of this project, public-school students created a Tezos NFT collection and presented it at the Global OECD Educational Conference in Jerusalem.

Having started as the Makerere University Blockchain Club fighting scams coined as cryptos, the **Blockchain Club of Uganda** incorporated in 2021 and is now focused on taking blockchain to the rest of the country through massive outreach programs. Today, the club focuses on growing a local Tezos community by onboarding developers, tech students, and Web3, NFT, blockchain, and crypto enthusiasts.

**Blokhaus** is a marketing and communications agency specializing in the Web3 and blockchain space. Blokhaus liaises with various teams in the Tezos ecosystem and helps facilitate marketing, communications, and PR activities. To date, Blokhaus has been involved in several high-profile activities in a leading or supporting role, from Art Basel to Unsplash, Red Bull Racing to Manchester United, and various ongoing advertising campaigns and launch activities. As part of a growing ecosystem, Blokhaus also plays a role in information sharing and coordination from a PR standpoint and helps produce marketing and educational content for social media and other key channels.

**Entrepreneur First** is a talent investor that provides the world's most ambitious individuals with a platform to build a global technology company from scratch. It is collaborating with the Tezos Foundation to run a Web3-focused program in London, grow the local Web3 ecosystem, and support the adoption of the Tezos technology.

Manchester United is one of the most popular and successful sports teams in the world, playing one of the most popular spectator sports on Earth. Through their 144-year heritage, they have won 66 trophies, enabling them to develop the world's leading sports brand and a global community of 1.1 billion fans and followers. Since announcing the global partnership with Tezos on February 11, 2022, statistics show that the collaboration is the most talked-about training kit launch ever in the world of sports. It was the most talked about global football club training kit launch ever with 156% more mentions than the next best club; 990+ items of global coverage delivering 3.4 million engagements across the launch content in just 72 hours. Through this partnership, Tezos will be featured on the club's range of men's and women's training kits. In addition to the Tezos branding on the club's training kit, the partnership will also include several new fan experiences built on the Tezos blockchain and a pledge to support the Manchester United Foundation with ongoing donations toward the work it does in training, educating, and inspiring young people within the local community.

The **French IOI Association** is working on a platform that will integrate existing content, new content created by the community, and, most of all, interactive activities that will make learning about Tezos and smart contract development effective, engaging, and rewarding. To do so, they will transform opentezos.com in order to make it a platform of choice, and Tezos the blockchain of choice, for anyone, especially at universities, to learn about blockchain and smart contract development.

In addition to their development work, **Nomadic** Labs is active as a business development and enterprise support entity involved in exciting projects in France, Luxembourg, the Netherlands and Belgium. The company is creating an ecosystem in the economic and industrial fabric of these countries that provides support to the construction of decentralized applications. The teams help companies and institutions (e.g. Banque de France, Société Générale, BNP Paribas, EDF, Ubisoft, Team Vitality, Guerlain etc.) use the Tezos blockchain for their business needs, providing training sessions as well as technical support.

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

Queens Ballpark Company designs, constructs, and operates real estate properties. The company owns Citi Field and is a wholly owned subsidiary of the New York Mets. As part of the agreement, the Tezos logo and related messaging are displayed at Citi Field, which is located in Flushing Meadows-Corona Park in New York City. Tezos Cameroon, Tezos Ghana, Tezos Nigeria, Tezos Senegal, Tezos Tunisia, and Tezos (West) Africa are six main chapters that are actively growing the adoption of Tezos throughout the African continent. Each team focuses on their respective markets with a close alliance between the teams to grow Tezos' presence together. Initially, they are focusing on community building, social media presence, and building baking activities in their region. Another key focus is the support and education of local developers to start building on Tezos in order for business and opportunities to grow in the region.

**Tezos Commons** is a US-based nonprofit foundation with a team of over 10 people. Their ongoing efforts contribute to the Tezos ecosystem across a number of projects, including supporting its operations and initiatives on education programs, education media, and the Tezos LaunchPad. They collaborate with various entities in the Tezos ecosystem and support different projects, such as Kukai, Tezos Help, and Tezos Agora. With their growing team, Tezos Commons is contributing to community projects, such as hackathons, and actively enhancing engagement across media.

**Tezos Gulf Technologies** focuses on the United Arab Emirates and the Middle East. Their mission is to support the growth of the ecosystem in the region through partnerships with tech hubs across the Middle East and active engagement with private and public institutions.

**Tezos India** is supporting individuals and entities who are eager to use Tezos blockchain technology in India. As innovation in the blockchain space advances in India, Tezos India strives to address key barriers facing blockchain adoption. The team helps and trains individuals and organizations to build on Tezos and organizes and supports community activities in its region. Furthermore, they support the organization of hackathons associated with fellowship programs for winners, which includes tooling, support, and mentorship, in addition to receiving a stipend, and webinars to grow the Tezos community throughout the country. **Tezos Israel** is an innovation lab that serves the Israeli community by educating and training developers and advancing Tezos' blockchain technologies within the ecosystem. Their mission is to integrate Tezos blockchain technologies among the Israeli high-tech ecosystem, government offices, and start-ups.

**Tezos Ukraine** is a nonprofit organization run by Ukrainian blockchain enthusiasts and industry experts. The team facilitates and expedites the growth and enhancement of the Tezos community in Ukraine and Eastern Europe. Part of their efforts support the development and implementation of training courses and mentorship programs for Tezos technology developers, organizing hackathons and meetups, and fostering and implementing communication strategies for the Tezos community in Ukraine and Eastern Europe.

**TZ APAC**, headquartered in Singapore, is a leading Asia-based blockchain adoption entity supporting the Tezos ecosystem. It designs value-added blockchain transformation strategies for enterprises and creators with a bottom-up approach, working closely with blockchain experts and other stakeholders in the Tezos ecosystem.

**TZ Connect** is a Berlin-based team dedicated to advancing the Tezos ecosystem by building opensource software, providing support to projects and companies building on Tezos, and connecting to the worldwide Tezos community. TZ Connect values inclusion, accessibility, and equal opportunity.

**XTZ News** operating with a core team from the United Kingdom, the Netherlands, and Ireland is a community-initiated Tezos journalist news hub. It was set up to provide information and visibility on Tezos ecosystem developments and project updates with a view of growing and fostering more informed audiences across the world.

# Investments, Loans and Memberships



# Investment, Loans and Memberships

The Tezos Foundation supports established companies and organizations that create products on Tezos and, at times, provides loans to further the development of the Tezos protocol and related technologies.

# **Investments and Loans**

The following section reports on new investments and convertible loans made by the Tezos Foundation during the period covered by this Biannual Update.

**DOGAMÍ** is a unique play-to-earn game built on the Tezos blockchain where players adopt and raise virtual dog NFTs. \$DOGA is the internal currency of DOGAMÍ's unique Petaverse, where you can buy add-ons to customize Dogamis, trade items, buy new dogs, and interact with other players.

Draper Goren Holm (DGH) is a Los Angeles-based venture studio and fund, set up as a partnership between Tim Draper, Alon Goren, and Josef Holm. In April 2021, DGH announced plans to incubate and accelerate start-ups built on the Tezos blockchain. This follows DGH's long-term support of Tezos since the early days of the ecosystem.

**ELEET GAMES** is a novel type of game publisher, combining traditional as well as blockchain games. ELEET GAMES strives to overcome the gap between crypto and core gaming, putting gameplay and entertainment first. Additionally, ELEET GAMES allows for optional participation in the commercial success and decision-making of the publishing label: Publi- shing 3.0 – Game Publishing Decentralized.

Kyro Digital is the first native Web3 platform builder that enables the next generation of applications for crypto marketplaces. It has created a new category of services that will transform crypto adoption with a simple and easy way for partners to rethink and push forward NFTs, coins, tokens, and new frontier assets. As more developers enter the Web3 and crypto space, Kyro is abstracting many of the technical barriers associated with blockchains through its extendible platform, which also offers 15 utility applications for all crypto assets.

**InterPop** is a digital entertainment company that is forging the future of digital fandom with fan-governed comics and collectible NFTs on the Tezos blockchain. InterPop's most notable product is their collectible card game that utilizes the expertise of veteran talent to design a game that goes toe-to-toe with the best in-category games. The InterPop team believes that true ownership of digital assets is the future of comics and gaming and that future begins with InterPop.

Many Hands SPC is a US-based company that develops and commercializes collectible NFTs minted on Tezos for its trading card game VersesTCG. The team plans an internally playable alpha in Q3 of 2022, a closed beta in Q4 of 2022, and an open beta in Q1 of 2023.



Mark Investment Holding is a Switzerland-based company that has committed to integrating Tezos into their investment platform Splint Invest. On Splint Invest, users can invest in tangible assets by purchasing fractions of ownership (splints) represented in tokens one the Tezos blockchain.

**Moonfire Ventures** is a VC specialized in funding Web3, blockchain, artificial intelligence, machine learning, augmented and virtual reality projects. The Moonfire team focuses on projects that redefine all sectors of technology and are a source of distortion, and that drive innovation.

**OneOf** established itself as a go-to platform for the music community. OneOf offers crucial solutions for artists and fans eager to explore the exploding world of NFTs without having to worry about high minting costs or the complexity of blockchain technology. In addition to Warner Music Group, OneOf collaborates with the Grammy Awards, JBL, the Montreux Jazz Festival, HarmanKardon, iHeartRadio and MusiCares. OneOf haslaunched NFT collections with major and independent artists, including Doja Cat, Whitney Houston, Alesso, The Game, Chief Keef and Pia Mia.

Wert.io is the first payment gateway to introduce direct NFT purchase with credit cards. Wert uses embedded finance technology to simplify the purchasing of NFTs and other DeFi products. Wert's payment module facilitates user acquisition by bringing together regulatory, compliance, payments, and blockchain interoperability for projects built on blockchain under one roof. The Estonia-based start-up has conquered a large market portion since going live with the first NFT marketplace in April 2021. The service is easy to plug in and is already operating on major NFT projects, such as Rarible, Mintable, and KnowOrigin, and has also established partnerships with retail players that are especially interested in a solution that looks familiar to online shoppers and noncrypto natives.

# Memberships

The **Bitcoin Association Switzerland** is an active community of Bitcoin enthusiasts that holds regular events, tries to resolve open legal questions, and educates the public by providing a contact point for media inquiries. The Capital Markets and Technology Association (CMTA) is an independent association formed by leading actors from Switzerland's financial, technological, and legal sectors to create common standards around issuing, distributing, and trading securities in the form of tokens using distributed ledger technology (DLT). The aim is to facilitate the use of DLT in the field of capital markets.

**DLT Education Consortium (DEC)** offers certifications for distributed ledger technology (DLT) 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.

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

**SmartNode** is a France-based staking and RPC gateway company focusing exclusively on proof-of-stake chains.

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

### **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.







The Foundation's strategic asset allocation with its significant Bitcoin and tez holdings was impacted by soaring crypto markets. Cash (fiat) was also increased by not reinvesting matured financial positions from the stability fund.

The finance function of the Foundation has executed around 2,000 payments to grantees and service providers in all major fiat currencies, including transactions in cryptocurrencies. It continued to provide its expertise to the subsidiaries of the Foundation.

In June 2022, the fifth statutory audit by PricewaterhouseCoopers for the financial year 2021 was completed without qualifications or remarks. The scope covered statutory financial statements under local accounting frameworks and consolidated financial statements in accordance with International Financial Reporting Standards (IFRS for SMEs) for the Tezos Foundation Group, including the Foundation's indirect subsidiaries in Switzerland, France, Germany, Singapore, and Dubai.



in USD M	June 30, 2022	in %	January 31, 2022	in %
Cash (fiat)	81	12%	52	4%
Bitcoin (BTC)	216	33%	474	41%
Tezos (XTZ)	170	26%	309	27%
Stability fund	148	23%	233	20%
Other investments	40	6%	95	8%
Market value of assets	655	100%	1,163	100%

As of June 30, 2022, cash includes overnight deposits with banks, which were previously disclosed as part of the Stability fund. Bitcoin (BTC) includes tzBTC held and lent, which were previously disclosed in Other investments. Tezos (XTZ) includes Tezos ETPs that were previously disclosed in Other investments.







Public bakers As of June 30th, 2022, Blockwatch Data







# Council & Committees of the Tezos Foundation

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

#### **Foundation Council**

The Foundation Council has overall responsibility for managing and administering the Foundation and its assets and for defining the Foundation's strategy. In line with its charter, the Foundation Council has delegated the operational and asset management duties to the Executive Committee of the Foundation. The Foundation Council appoints and constitutes itself. It is currently composed of 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 things, to some extent responsible for investment decisions fostering the Foundation's purpose.

#### **Investment Committee**

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

#### **Technical Advisory Committee**

The Technical Advisory Committee was established to provide recommendations and advice to the Foundation Council and the Executive Committee on all technical matters of the Tezos protocol. The Technical Advisory Committee 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 Nomination and Remuneration Committee is also responsible for regularly assessing the Foundation's remuneration model.

# 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 of the Foundation Council

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, following a fifteen-year career at PwC in Switzerland, Germany, and Australia, where he developed from a Financial Services specialist to a Director of Financial Services with a focus on blockchain technology.



#### **Alexis Bonte** Member of the Foundation Council

Alexis is the cofounder and CEO of the online gaming company eRepublik Labs, which is part of the Stillfront Group, where Alexis holds the position of Group COO. He is also a former venture partner of Atomico and an angel investor and board member of 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 is an early architect of Tezos. Previously, Arthur was a research engineer for Google X and Waymo. In his early career, he worked as a quantitative analyst for 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 Institution in Beijing and Washington, DC, and a reporter with The Wall Street Journal in Hong Kong.



#### **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).



#### **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 chartered accountant.



#### **Daniel Masters** Member of the Foundation Council

Daniel is a cofounder and the chairman of the CoinShares Group, a leading digital asset investment firm that manages hundreds of millions in assets on behalf of a alobal investor base. He also 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, he 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, he holds degrees in Physics and Statistics, and is proud to have traded more oil contracts than any other living person.



#### **Olivier Jaillon** Member of the Foundation Council

Olivier is the Chief Executive and Enablement Officer of Wakam, formerly known as La Parisienne Assurances, a leading French insurance company that delivers customized white-label insurance products to brokers, insurtech companies and non-insurance distributors across Europe with a GWP of EUR 382 million. Olivier graduated from emlyon business school and has a master's dearee from SDA Bocconi in International Economics and Management. He is the author of The Intangible Age, a book explaining how our societies are transitioning from an ownership to a sharing economy.



#### **Chris Wright** Member of the Foundation Council

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



## **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

**Olivier Jaillon** Member of the Foundation Council

Mason Edwards Tezos Foundation

Edward Adlard TriliTech

### **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 Tezos Foundation

**Olivier Jaillon** Member of the Foundation Council

# **Technical Advisory Committee**

**Rafael Ziolkowski** Chair, Tezos Foundation

Edward Adlard TriliTech

**Bruno Bernardo** Nomadic Labs

**Benjamin Canou** Nomadic Labs

**Jun Furuse** DaiLambda

Luis Gonzalez Tezos Commons

**Anil Madhavapeddy** Member of the Foundation Council

John Newby TZ Connect

**Dani Jozsef** *TZ* Connect

Chris Pinnock Tezos Foundation

### 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



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



# **Tezos Foundation**

Get involved with the Tezos project at tezos.com Learn more about the Tezos Foundation at tezos.foundation

The Tezos Foundation is a nonprofit Swiss foundation with domicile at Dammstrasse 16 in 6300 Zug, Switzerland. The Tezos Foundation is supervised by the Swiss Federal Foundation Supervisory Authority (SFSA), which is part of the Swiss Federal Department of Home Affairs. The Tezos Foundation's purpose is the promotion and development of new technologies and applications, especially in the fields of new open and decentralized software architectures, including the promotion and development of the Tezos protocol and related technologies. This Biannual Update is not the Tezos Foundation's official activity update due to the SFSA. All the information in this Biannual Update is published in good faith and for general information purposes only. The Tezos Foundation does not make any warranties about the completeness, reliability, or 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.

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