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### INTERNATIONAL

## Cristiano Ronaldo faces US-Lawsuit for promoting Binance NFT Collection

*Baruffol, Tim*

The hype was huge: Binance search frequency spiked 500% after the collaboration with Cristiano Ronaldo. But the sentiment has changed after a failed NFT campaign. The Portuguese superstar is now the target of a billion-dollar class-action lawsuit filed in a Florida court.

Investors claim that Ronaldo's promotion of the world's largest crypto exchange, Binance, led them to make significant losses. Allegations include accusations that Ronaldo actively supported the promotion

and sale of un-registered securities in collaboration with Binance. Furthermore, his involvement in selling Non-fungible Tokens (NFTs) purportedly resulted in substantial financial losses for investors.

Ronaldo initiated his partnership with Binance in November 2022, launching the CR7 NFT collection as a reward for his fans' long-standing support. However, the lawsuit reveals that the value of the cheapest NFT in the collection plummeted from \$77 to just one dollar within a year.

Despite the legal challenge, Ronaldo has not terminated his association with the crypto exchange, recently posting a video related to his Binance partnership in late November.

Binance itself has faced significant setbacks, admitting guilt for violating U.S. anti-money laundering regulations and international financial sanctions, resulting in a hefty \$4.3 billion in fines.



*The Portuguese Superstar faces US Lawsuit*

As the legal battles unfold, questions loom regarding whether the Al-Hilal striker will be held financially accountable.

## El Salvador's "Freedom VISA": A Gateway to \$1 Billion Annual Bitcoin Investments

*Grünig, Gian*

El Salvador is actively courting bitcoin and crypto millionaires through its recently launched "Freedom VISA" program, designed to attract long-term residents. The initiative offers residency to a maximum of 1,000 individuals annually, provided they invest a minimum of \$1 million in Bitcoin or Tether (USDT) stablecoins. Successful applicants not only secure a long-term residency permit but also gain a potential pathway to full citizenship. The application process, live since December 1st, requires a non-refundable fee of \$999 in either BTC or USDT, with the technical aspects managed by Tether Global, the USDT issuer.

This approach mirrors the "Golden VISA" programs in other nations, wherein wealthy individuals can secure residency permits by investing in the host country's bonds or property. El Salvador's decision to accept Bitcoin and Tether investments for residency marks a historic first globally, potentially attracting over \$1 billion in deposits annually if quotas are met.

As a technology collaborator, Tether stands by El Salvador's initiative and provides essential support. Paolo Ardoio, Tether's CEO, emphasizes the company's commitment to assisting cities and communities in their pursuit of financial freedom and innovation. This partnership, as expressed by Ardoio, solidifies their commitment to advancing technology, empowering nations, and facilitating individual investments in a future where innovation and progress coexist.

El Salvador made history in September 2021 by becoming the first nation to recognize Bitcoin as legal tender.



*El Salvador offers Residency for wealthy Investors who invest Bitcoin or Tether*

Since then, the country has actively invested in Bitcoin, accumulating a treasury holding of over 2,700 BTC, resulting in unrealized profits exceeding \$3 million, according to El Salvador's President Nayib Bukele. However, there were disagreements with Bukele's statement, as critics argued that the information he disclosed about El Salvador's Bitcoin treasury was incorrect.

## HSBC Launches Tokenized Gold Assets

*Baruffol, Tim*

In a groundbreaking move, the Hongkong & Shanghai Banking Corporation (HSBC) has used distributed ledger technology to convert physical gold stored in HSBC's vault into digital tokens. Mark Williamson, Global Head of FX and Commodities Partners and Propositions at HSBC, revealed this innovative approach in a recent interview.

The new system creates digital tokens representing gold bars, which can be seamlessly traded through the bank's single-dealer platform. While HSBC is not the first to explore the intersection of gold investment and blockchain, its extensive influence in the gold market sets it apart. As one of the world's largest custodians of precious metals and one of the four clearing houses in the London gold market, HSBC oversees more than \$30 billion in daily transactions involving changes in gold ownership.

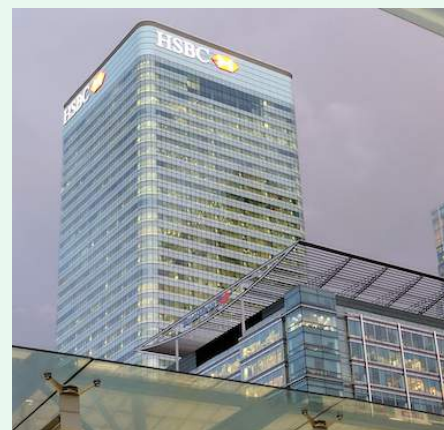
The London Bullion Market Association reports that some 698,000 bars of gold, valued at approximately \$525 billion, are held in vaults in Greater London.

Despite its vast size, the London gold market relies heavily on manual records and operates exclusively over-the-counter.

By incorporating blockchain technology, HSBC aims to streamline and speed up the process, allowing customers to easily trace the gold they own down to the serial number of each bar, Williamson said. The bank plans to extend the system to other precious metals in the future.

A token in HSBC's new system represents 0.001 troy ounces, a significant reduction from the 400 troy ounces in a standard London bullion bar, the bank said. This system could pave the way for direct private investment in physical gold, subject to local regulations, with an initial focus on institutional investors. The aim is to make the gold trading process quicker and more accessible.

In a related move, HSBC is set to launch a digital asset custody service in 2024, highlighting its commitment to blockchain technology. The service will be specifically designed for the custody of tokenized blockchain securities, rather than cryptocurrencies such as Bitcoin. Institutional clients will



*HSBC launches tokenized Gold Assets, showcasing its role in the De-Fi landscape*

also be able to invest in tokenized gold through this new blockchain service, marking another milestone in HSBC's foray into the digital asset landscape.

By partnering with Swiss custodian Metaco for the new blockchain service, HSBC continues to position itself at the forefront of financial innovation. As a pioneer in facilitating the trading of crypto ETFs in Hong Kong, HSBC further cements its role as a key player in the evolving digital finance landscape.



## Judge Labels Binance's Changpeng Zhao a Flight Risk, Orders U.S. Confinement

*Grünig, Gian*

Binance co-founder Changpeng 'C.Z.' Zhao, who faces sentencing next year for violating federal money-laundering rules, has been ordered to remain in the United States by Judge Richard Jones. The decision, detailed in a December 7 court filing, labeled Zhao a flight risk due to his substantial financial wealth, family presence, and "favored status" in the United Arab Emirates (UAE), where he resides. The absence of an extradition treaty between the UAE and the U.S. played a significant role in the judge's determination.

This overrules the initial decision by a magistrate judge that would have allowed Zhao to return to Dubai, where he resides with his partner and three children. However, federal prosecutors raised concerns about CZ fleeing to the UAE, leading to the final decision by Judge Jones.



*Binance's founder Zhao remains in the spotlight*

Despite Zhao's plea of guilty and his legal team's insistence that he posed no flight risk, U.S. prosecutors argued otherwise, pointing to his significant assets, ties to the UAE, and potential challenges in extradition from the Middle East. Zhao, the founder of Binance, the world's leading cryptocurrency exchange, had agreed to a \$175 million bond, secured by an additional \$15 million in trust, to ensure his presence during sentencing.

The court acknowledged the unique circumstances of the case, citing Zhao's immense wealth and property abroad, along with his lack of ties to the U.S. His guilty plea is part of a broader deal with the U.S. government involving Binance. While Zhao potentially faces a maximum of 10 years in prison, his sentence is expected to be no more than 18 months.

## Robinhood's European Crypto Venture: Expanding Horizons Beyond the US

*Mottis, Fabrizio*

Robinhood, a well-known trading firm, now offers its crypto trading platform in the European Union (EU), giving eligible users access to 25+ cryptocurrencies. This step follows their recent UK stock-trading launch and is part of a strategic move to grow beyond the US.

Users can buy, sell, and hold different tokens on Robinhood's crypto platform. They plan to introduce more tokens and new features by 2024, including transferring and earning rewards for holding Crypto.

This EU expansion is Robinhood's second big move outside the US. They've revealed

plans to start stock trades in the UK early next year and are offering a waitlist for potential users, promising up to 5% yields on deposits.

To attract EU users, Robinhood offers the chance to earn free Bitcoins by actively trading and referring friends. Users can earn up to one bitcoin based on trading volume and referrals.

This expansion comes amid US regulatory issues for major crypto firms. The SEC has targeted firms such as Coinbase and Binance for alleged security law violations. In contrast, the EU is proposing stricter rules for crypto platforms and stablecoin issuers through the MiCA regulation.

Robinhood's Crypto General Manager, Johann Kerbrat, selected the EU as their first international market due to its thorough regulation of crypto assets. The company prioritizes transparency and security, showcasing trading spreads openly and ensuring the secure storage of customer coins.

By entering the EU market, Robinhood aims to meet the growing demand for crypto services while ensuring user safety and compliance. Their move is expected to transform the EU crypto landscape, providing users with a seamless way to trade and invest in digital assets.

### Did you know...?

The Markets in Crypto-Assets Regulation (MiCA) is an EU regulation designed to create a single set of market rules for crypto assets within the European Union. It aims to regulate crypto assets that are not currently covered by financial services legislation. MiCA focuses on improving transparency, disclosure, authorization, and supervision for entities issuing and trading crypto assets such as asset reference tokens and e-money tokens.

## Société Générale Issues First Digital Green Bond on Ethereum Blockchain

*Brönnimann, Nadine*

Société Générale has showcased its commitment to innovation by issuing a groundbreaking digital green bond on the Ethereum public blockchain. This milestone event, executed in late November, is a strategic move toward greater transparency, efficiency, and environmental responsibility.

At the forefront of this transformative initiative is Société Générale's digital unit, SG-FORGE, which orchestrated the issuance as a security token on Ethereum. AXA Investment Managers and Generali Investments, two major institutional investors, fully subscribed to this pioneering digital green bond, underscoring the confidence in Société Générale's vision for the future of finance. This isn't Société Générale's first venture into blockchain-based financial solutions. The bank had successfully issued Eurobonds on the Ethereum blockchain and security tokens on the Tezos blockchain. The digital green bond issuance exemplifies Société Générale's proactive approach in the crypto space, positioning itself as a comprehensive digital asset service provider.

Structured as a EUR 10 million senior preferred unsecured bond with a 3-year maturity, the bond's net proceeds will be exclusively channeled into financing or refinancing Eligible Green Activities, aligning with Société Générale's Sustainable and Positive Impact Bond framework. This venture marks Société Générale's first foray into leveraging blockchain's unique capabilities for a digital green bond. The transition to a digital format promises increased transparency and traceability, facilitating seamless transactions and settlements. The Ethereum blockchain serves not just as a transaction facilitator but as a data repository and certification tool, bolstering transparency on a global scale.

Société Générale's digital green bond introduces several innovative features. Firstly, its smart contract allows stakeholders, including issuers and investors, 24/7 access to data, providing insights into the carbon footprint associated with the bond.



*Société Générale breaks new ground in finance, advancing transparency, efficiency, and environmental responsibility in the banking sector. (Source: Fintechnews Switzerland (2023))*

This move aligns with Société Générale's broader commitment to advancing environmental, social, and governance (ESG) considerations. Tokenizing bonds is a strategic move by Société Générale to enhance transparency, traceability, and efficiency in financial transactions. The bank's crypto team has strategically embraced decentralized ledger technology, choosing Ethereum for its transparency and traceability advantages. The bond also paves the way for settling securities on-chain using

EUR CoinVertible, a stablecoin pegged to the euro.

Société Générale's latest move aligns with a growing trend in the financial sector, exemplified by the European Investment Bank's recent tokenized bond issuance. As the bridge between blockchain and sustainable finance strengthens, Société Générale stands as a beacon of innovation and environmental responsibility in the banking sector.

## Prime Play: Champions Ascension Unleashes Exclusive Rewards with Amazon

*Hauri, Christoph*

In a major milestone, Champions Ascension, the exciting blockchain role-playing game, has partnered with Amazon Prime to launch exclusive in-game rewards. This collaboration brings special perks to Amazon Prime Gaming members, including 100 in-game gold and loot boxes.

Beginning with a 12-week promotion, Champions Ascension will join other Web3 games in delivering exclusive items to Amazon Prime Gaming subscribers. These collectible digital as-sets, unlike tokenized NFTs, have significant in-game value. Released every two weeks, the loot boxes contain essential monster parts for crafting creatures in the upcoming Maestro Towers mode.

Amazon Prime's gaming perks extend beyond Champions Ascension, offering a wealth of free content for a variety of titles, spanning both NFT and popular "web2" games. Subscribers gain access to a portfolio of games that includes Mojo Melee, Brawlers, League of Legends, Roblox, Madden NFL 24, and Cyberpunk 2077.

Despite the promise of blockchain gaming's integration into mainstream platforms, the broader Web3 gaming landscape faces challenges. A recent CoinGecko report revealed a staggering 80.8% annual failure rate for Web3 games launched between 2018 and 2023. Champions Ascension's strategic move with Amazon Prime not only expands its player base, but also addresses the uncertainties surrounding the sustainability of the Web3 gaming industry.

This partnership represents a critical step in bridging blockchain gaming to a broader audience and underscores the growing importance of NFTs in enhancing the gaming experience.

## North-Koreas Ongoing Crypto Attacks



*North Korean Hackers steal Billions in Cryptos*

*Baruffol, Tim*

Since 2017, North Korea has significantly increased its focus on the cryptocurrency industry, amassing over \$3 billion in digital currency. This shift followed increased scrutiny of its breaches of financial institutions through the SWIFT network. As the cryptocurrency market surged in 2017, North Korean hackers shifted their focus from the South Korean market to a global scale. And as cryptocurrency prices are on the rise, so are their profits. In its - so far - most successful year 2022 alone, North Korean cyber

actors are believed to have stolen around \$1.7 billion in cryptocurrency, equivalent to 5% of the country's GDP or 45% of its military spending. This tenfold increase from the value of North Korea's exports in 2021 underscores the economic impact of these cyber operations.

Hackers linked to North Korea use a variety of tactics to exploit vulnerabilities in the crypto ecosystem. These include phishing, supply chain attacks, and infrastructure hacks involving the compromise of private keys or seed phrases.

The hackers have evolved their strategies by posing as recruiters to lure victims, the Wall Street Journal reported in June. Social engineering plays a crucial role, allowing them to build relationships and gain access to systems, according to Erin Plante, vice president of investigations at Chainalysis.

It is estimated that up to 50% of North Korea's ballistic missile program could be funded by illicit cryptocurrency profits. This highlights the regime's dependence on these funds.

The country's aggressive involvement in cryptocurrency theft underscores the need for a concerted international response, including strong cybersecurity measures and regulatory frameworks, to mitigate the risks of state-sponsored cybercriminal activity.

### Did you know...?

The SWIFT network is a global messaging network used by financial institutions to quickly, accurately, and securely send and receive information, such as money transfer instructions. SWIFT provides a standardized way for banks and other financial institutions to communicate, facilitating international transactions.

## SWITZERLAND

### Bitcoin Boom: Lugano's Plan B Redefines Municipal Payments

*Hauri, Christoph*

The city of Lugano in Switzerland has embraced cryptocurrency by accepting Bitcoin (BTC) and Tether (USDT) as legitimate forms of payment for all municipal transactions, signalling a big shift in the city's financial landscape.

Lugano's push into cryptocurrency, known as "Plan B," which began a year and a half ago in partnership with

stablecoin issuer Tether, has reached a new milestone.

Initially limited to online transactions, bitcoin payments will now be accepted for all invoices, regardless of service type or invoice amount, in line with a similar initiative in the canton of Zug.

This expansion includes taxes, fines and all invoiced services, covering both outstanding and previously issued invoices. Using an automated solution, the City of Lugano efficiently converts all cryptocurrency payments into Swiss francs, streamlining financial and accounting processes.

Lugano is prioritizing user convenience in its cryptocurrency payment process,

using the same QR code found on traditional paper bills.

Residents can seamlessly pay bills through the City of Lugano's crypto homepage by scanning the bill with a webcam or camera for instant payment.

Behind the scenes, payments are processed through Swiss crypto broker Bitcoin Suisse, extending services to both citizens and businesses. Lugano sees the integration of bitcoin as a complementary service to traditional payment methods via post office counters and e-banking platforms. The move undermines Lugano's commitment to transforming its financial system through decentralized solutions.



## Global Regulators to Review Bank Capital Rules for Stablecoin Exposure

*Mottis, Fabrizio*

Global banking regulators have announced their intention to re-evaluate how banks set aside capital to cover risks associated with stablecoins. The Basel Committee, which sets international banking standards, wants to address concerns about the stability of certain stablecoins and crack down on unacceptable behavior by some global banks.

In a recent statement, the Basel Committee highlighted the need to revisit standards published a year ago regarding bank treatment of crypto assets, particularly stablecoins. Stablecoins, often backed by a currency and considered less risky than unbacked crypto assets like Bitcoin, have raised concerns due to instances, where their claims of stability have not held up.

The Committee plans to initiate consultations on possible targeted revisions for "Group 1b" stablecoins that claim to have stabilization mechanisms. Last year's standards introduced criteria for identifying low risk stablecoins, and this upcoming consultation aims to further refine those criteria.

In addition, the Basel Committee recognized the risks associated with crypto assets that use permissionless blockchains and indicated that these risks cannot currently be adequately mitigated. As a result, the existing treatment of such crypto assets will be maintained. Tokenized securities on public blockchains may be classified as higher-risk (Group 2) assets, requiring banks to hold higher capital reserves. One of the critical areas of focus in the upcoming consultations will be the composition of stablecoin reserve assets, and the effectiveness of statistical tests to ensure stablecoins maintain their peg. The Committee aims to address concerns raised last year by considering potential rule changes in this regard.

Discussions around the treatment of per-



*The Basel Committee is refining standards and mitigating evolving risks in the crypto asset landscape*

missionless blockchains pose challenges, particularly in the context of tokenized securities. Public blockchains are increasingly attractive for digital securities, but the Basel Committee's stance could create discrepancies between bank-affiliated and non-bank asset managers, potentially affecting the level playing field.

The Basel Committee's upcoming consultations represent a proactive approach to addressing the evolving challenges around crypto assets, stablecoins, and their impact on global banking regulation.

## CRYPTOCURRENCIES

### Revolutionizing DeFi: Uniswap expands beyond Ethereum



*Uniswap is bridging the gap between the two major blockchains by expanding to Bitcoin's Rootstock*

*Grünig, Gian*

Uniswap, a decentralized exchange renowned on Ethereum, has expanded to the Bitcoin sidechain Rootstock, marking a significant development in the decentralized finance (DeFi) landscape of the world's largest blockchain. The deployment of Uniswap version 3 (v3) on Rootstock was orchestrated by GFX Labs, the team behind the Oku trading terminal.

According to details available on Uniswap's official website, the project, initially created for Ethereum, has also been deployed on Ethereum's layer-2 networks, including Arbitrum, Optimism, and Polygon.

Rootstock will benefit from Oku's advanced trading tools, encompassing analytics, limit orders, and liquidity provider position management. The integration capitalizes on the synergy between Uniswap's Ethereum-based smart contract capabilities and the security provided by Bitcoin's proof-of-work network. This collaboration is anticipated to bring more liquidity, as well as diversified DeFi use cases within the cryptocurrency sector.

The initial step towards this expansion occurred in May when Uniswap smart contracts were deployed on the Bitcoin network, aligning with the emergence of BRC-20, a token standard facilitating token issuance and enabling DeFi applications on Bitcoin.

The year 2023 has witnessed elements, typically associated with Ethereum, making their way into the Bitcoin ecosystem, such as the Ordinals protocol introducing non-fungible tokens (NFTs) and ongoing efforts to integrate Ethereum-style smart contracts.

#### BLOCKCHAIN CALENDER

*What happened in the blockchain world this month some years ago?*

*Mottis, Fabrizio*

#### December 12, 2010: Satoshi Nakamoto, The Disappearance

Satoshi Nakamoto, the mysterious creator of Bitcoin, writes a post on the specialized forum Bitcointalk in which he announces his withdrawal from the project. By entrusting the protocol key to Gavin Andresen, he declares to pass the baton to the American developer.

## RESEARCH INSIGHTS

## Innovative Market Design for Public Voluntary Carbon Market Proposed

*Ganz, Dario*

At the Blockchain and Secure Critical Infrastructure (BSCI) Symposium in Nagasaki, Japan, a team from Shanghai Wanxiang Blockchain Inc. revealed an innovative design for a public voluntary carbon market in a path-breaking paper. This model, which integrates cross-chain technology and token economics, aims to transform carbon credit markets and therefore enhance environmental impact. Written by Dongsheng Hou, Yukun Hao and Yu Du, the paper addresses the critical need for effective strategies to mitigate climate change. It proposes a dual-token economic model in a public carbon market that facilitates broad public participation and makes a substantial contribution to reducing emissions in today's cities.

This dual-token model comprises two types of carbon assets: Carbon Coin and Carbon Point. The Carbon Coin is designed to fluctuate in value for the purpose of incentivizing sustainable project managers in this market system. The distribution of Carbon Coin is dependent on the quantity of verified carbon emission reductions collected. The Carbon Point is stable and pegged to regional fiat currency, rewards individual participants and promotes practical utility in volatile markets. A key aspect of this model is the use of the Relay Chain technology for cross-chain communication. This approach guarantees system security and allows for separation among operators of various scenarios, addressing the intricate requirements of a decentralized carbon credit system.

The authors of the paper conclude that this innovative public voluntary carbon market design will not only promote low-carbon lifestyles in urban areas, but also deliver an efficient and scalable carbon credit management solution. This design has substantial potential as a policy tool by combining public participation, incentive mechanisms, and technological innovation to create a noteworthy impact on the environment and society.

## Brazil's Largest Bank Launches Cryptocurrency Trading Platform

*Brönnimann, Nadine*



*Itaú Unibanco: Brasil's largest private bank is launching a cryptocurrency trading platform*

Itaú Unibanco, Brazil's biggest private bank, has embraced the digital wave, introducing cryptocurrency trading services for its clients. This strategic move aims to diversify the bank's offerings and cater to the growing demand for digital assets among its customers.

With the establishment of a dedicated business unit, Itaú Digital Assets, Itaú Unibanco initiated its journey into the digital asset realm in July 2022. This unit, known for transforming traditional assets into digital tokens, laid the groundwork for the bank's recent foray into cryptocurrency trading.

Guto Antunes, Head of Digital Assets at Itaú, revealed that the initial phase of cryptocurrency trading would focus on Bitcoin and Ethereum. However, Itaú's strategic vision extends beyond these two cryptocurrencies, with plans to incorporate additional assets in the future, subject to the evolution of crypto regulations in Brazil. In a distinctive move, Itaú Unibanco will not only offer trading services but also act as a custodian for its clients' digital assets. This custodianship provides an extra layer of security, ensuring the safe storage of customers' crypto holdings with the guarantee of Itaú's robust balance sheet.

Antunes emphasized, "When you keep your money in the bank account, you will have the guarantee of Itaú's balance sheet as security for the amounts invested."

Itaú Unibanco has joined forces with major Brazilian financial institutions, including BTG Pactual and Santander Brasil, in participating in Brazil's central bank's digital currency initiative known as Drex.

This collaborative effort aligns with the country's preparations for the introduction of its digital real, offering a glimpse into the future of digital finance in Brazil. Not only is Brazil the biggest Latin American country by land mass but also by crypto market size. And it is now even witnessing a surge in crypto adoption. Itaú Unibanco's entry into the crypto trading space further solidifies Brazil's position as a key player in the global crypto market. Other local companies, like Nubank and BTG Pactual, have also introduced their crypto trading platforms to meet the growing demand among customers.

This move comes at a time when other financial institutions globally are adopting different stances on crypto-related services. While Itaú Unibanco embraces crypto trading, some international counterparts, such as JPMorgan Chase & Co.'s UK retail bank, Chase, have imposed restrictions due to an increase in crypto scams targeting consumers.

As Itaú Unibanco ventures into cryptocurrency trading, it positions itself to compete with both local and global players in the crypto market. Notably, the bank's focus on custodianship sets it apart, providing clients with a secure and reliable platform for engaging in cryptocurrency transactions. In the broader context, this move by Itaú Unibanco aligns with the global trend of financial institutions exploring tokenization to enhance efficiencies in various financial processes, from payments to settlements and trade finance. As Itaú Unibanco pioneers cryptocurrency trading in Brazil, it sets the stage for a new era of financial services, combining traditional banking strength with the innovative potential of the digital asset landscape.



## WhatsMiner and Phoenix Group Join Forces in \$380 Million Eco-Friendly Mining Venture

*Grünig, Gian*

On December 7th, Phoenix Group, a leading Bitcoin mining firm based in the United Arab Emirates, disclosed a \$380 million deal for high-quality hydro cooling mining equipment with mining hardware supplier WhatsMiner. This announcement was made just after Phoenix Group's successful initial public offering on the Abu Dhabi Securities Exchange (ADX).

The strategic partnership involves the integration of hydrocooling miners in collaboration with WhatsMiner, a step towards establishing high-performance computing (HPC) data centers globally. In pursuit of eco-friendly practices in crypto mining, this strategic realignment positions the company as a pioneer in responsible and efficient mining solutions.

The deal encompasses mining equipment valued at \$136 million, with an additional option for \$246 million. Notably, this marks the most substantial order for WhatsMiner in the last two years, reinforcing Phoenix Group's role and influence in the crypto mining sector.

WhatsMiner's hydro cooling hardware utilizes a closed-loop water system, offering more efficient heat transfer compared to conventional air or oil methods. The company claims this technology leads to reduced operational costs and a minimized environmental impact.



*The cooling system has the potential to significantly reduce the property footprint of a mining operation*

As the exclusive distributor of WhatsMiner equipment since 2022, Phoenix Group views this collaboration as an essential step in establishing high-performance computing (HPC) data centers. While the deployment locations for the equipment remain somewhat unclear, it's worth noting that Phoenix operates mining facilities not only in the UAE, but also in Canada and the United States.

Phoenix Group's triumphant debut on the ADX, with a stock price opening at 2.25 UAE dirhams (\$0.60) and soaring over 50% from its initial public offering (IPO) of 1.50 dirhams (\$0.41), underscores its positive stock performance. The market capitalization exceeded \$4 billion (15.1 billion AED) within the first two days of trading.

Bijan Alizadehfard, Phoenix Group's co-founder and CEO, attributed the company's ability to form substantial partnerships with leading mining firms such as Whatsminer to the successful ADX listing. Thereby he was amplifying its capabilities in the blockchain and cryptocurrency domains.

While specific details about the acquired mining machines remain undisclosed, the industry observes a trend of significant investments in hardware. Texas-based Bitcoin miner Riot Platforms, for instance, recently acquired over 66,000 mining machines valued at \$290 million in collaboration with MicroBT (WhatsMiner's owner), emphasizing the industry's ongoing growth and evolution.

## London Pension Fund buys Crypto Derivatives

*Baruffol, Tim*

M&G Investments, the asset management arm of London-based pension giant M&G Plc, has invested \$20 million in UK-based crypto derivatives trading platform GFO-X. This strategic investment comes as part of a \$30 million Series B funding round, with M&G's Crossover strategy contributing on behalf of the £129 billion Prudential With-Profits Fund.

M&G's move marks a turning point in institutional confidence in digital assets, particularly following the collapse of FTX last year. The collapse prompted traditional asset managers, including Ontario Teachers' Pension Plan, Tiger Global Management and Singapore's Temasek Holdings, to write down their stakes.

GFO-X, which previously formed a strategic partnership with LCH SA, a majority-owned subsidiary of the London Stock Exchange Group, is preparing to launch a service called LCH DigitalAssetClear by Q1 2024. This service aims to clear

Bitcoin index futures and options contracts, although there have been some delays due to increased client demand.

Investing significantly in GFO-X, M&G signals a potential resurgence in institutional backing for crypto infrastructure. As traditional players explore the crypto space, this reflects a growing institutional presence in the evolving digital asset landscape. While the added funds represent a fraction of the vast crypto market, such institutional flows often draw in new investors.



## INTERVIEW

## Interview: Dr. Robert Müller about the Implementation of a Smart Contract Solution to Improve the VAT System

Ganz, Dario



SCL's Tokenization Team is developing a prototype for a smart contract solution for the Value-Added-Tax (VAT) system in Switzerland. The objective of this prototype is to prevent VAT fraud, enhance system efficiency, transparency, and security, and thus aid the government in ensuring their compliance and to safeguard revenue.

Similar to Ainsworth et al. (2016), the team proposed incorporating a VAT token (ERC20 To-ken) into their smart contracts solution for VAT payments. Moreover, a receipt token (ERC721) can be generated after a successful VAT payment to the government, which provides an unfalsifiable proof of the transaction for both buyers and sellers of goods or services.

The working paper of Ainsworth et al. (2016) was also one of the first technical contributions that got Dr. Robert Müller's own thoughts rolling. He continued to pursue and develop a concept of an automated cross-border VAT collection mechanism for digital supplied services. In addition, he extended the before mentioned

VAT-Token concept to different countries and tax systems. A small insight of the interview regarding his approaches and thoughts are presented below exclusively for The SCL Times readers.

**Can you give us your thoughts why a VAT token can be beneficial to be implemented in the current European VAT systems?**

**Dr. Rober Müller:** "I think the charm with the VAT token is very exciting, because it would intervene very strongly in certain fraud scenarios, which you always must think about. At the same time, however, it's also a question of optimizing another aspect in addition to combating these fraud scenarios. Namely, how can we simplify the calculation, computation, and documentation as part of the taxation process? In terms of criminal activity, there is a small percentage of criminal entrepreneurs, i.e. entrepreneurs in the sense of VAT, but who cause a very high tax loss in Europe."

**You have also dealt with the split payment process in detail. What is your current view on this?**

**M:** "In such a system, unlike the current system, VAT is already paid to the tax authorities by the payment service provider during the execution of the payment transaction. The VAT paid in advance in this way can then no longer be evaded.

The idea is very appealing to me. If we assume that everything will be transacted into digital currencies in the future, then of course that makes sense. Why is that? Because the tax authorities have direct access to financial resources, so to speak. Fraudsters would have more difficulties because the money would not first go to the fraudulent company as part of the input tax, which would then not be paid to the tax authorities. At the same time, this requires very extensive metadata to calculate the respective VAT amount. Additionally, to be able to implement this split payment, you have to be able to use digital currency



*Dr. Robert Müller highlights the exciting potential of blockchain to enhance efficiency and transparency in VAT systems.*

or implement the hole system into the normal processing of payment information. This is currently not the case in Europe."

**How could blockchain technology support companies in maintaining VAT compliance and aid Swiss tax authorities in preventing VAT fraud, especially in scenarios where businesses claim input VAT but fail to transfer the corresponding amount to the tax authorities?**

**M:** "A common VAT fraud mechanism is to claim input VAT from a transaction and not transfer the amount afterwards to the tax authorities. Your described technical solution can help the involved companies to be VAT compliant and the Swiss tax authorities can prevent VAT fraud. Even in the case when the entrepreneur would like to act fraudulent, the received "VAT-NFT" can only be used for other VAT-payments. And the entrepreneur doesn't have to exchange it at the tax office first. So, if you really want to convince entrepreneurs of the benefits, then I would say this NFT will help you document your transactions, and it should be recognized by the tax authorities as a verification for the paid VAT. The tax authorities know exactly where they need to check. And it's not a question of being a fraudster, but of not fulfilling the formalities that transactions entail. Simplifying this formalism and making it safe for me as an entrepreneur is the added value of a technical system."

# Guest Speakers Event Review - Tokenization and Digital Assets: Unveiling the Future with SCL & DeFiAM

*Douglas, Ioannis*

On the evening of December 6th, Smart Contracts Lab and DeFi Asset Management joined forces to host an amazing guest speakers' event at the University of Zürich. The event surpassed all previous gatherings, with an astounding 200 registrations that led to an overfull venue, exceeding expectations, and setting a new standard for future occasions.

Fabiola Huerta, the ecosystem manager at CV Labs, assumed the role of Master of Ceremonies, kicking off the evening by extending a warm welcome to our guests and introducing the four remarkable industry speakers. This exclusive gathering brought together leaders to explore the transformative realms of blockchain, tokenization, and digital assets, with a keen focus on the key opportunities and challenges within the banking sector.



*SCL was also introduced to the listeners in the beginning of the event*



*After the presentations the event transitioned to Lichthof for further interesting discussions*

Nicola Plain, CEO of Aktionariat AG, took the stage first, providing a deep dive into their efforts to democratize private equity. Following suit, Tobias Wohlfarth, Head of Origination at Obligate, explained how on-chain investing represents the future. Thomas Brunner, Head of Custody & Staking at Sygnum, shared case studies illustrating the challenges and future prospects that the first digital asset bank, Sygnum, encountered. Lastly, Manuel Villegas Franceschi, Digital Assets Specialist at Julius Baer, dived into the world of digital assets and how they can enhance an investor's portfolio.

After an hour and a half of interactive presentations, the event seamlessly transitioned to Lichthof for an aperitivo. The overwhelming support and interest received sparked numerous engaging discussions and fostered several new relationships.

The evening not only exceeded attendance expectations but also created a memorable platform for meaningful industry dialogues.

We extend our heartfelt gratitude to everyone who attended, our dynamic speakers who shared their invaluable insights, and the collaborative efforts of Smart Contracts Lab and DeFi Asset Management. Your enthusiasm and participation made this event a resounding success, setting the stage for more exciting endeavors in the future. Thank you for being a part of this incredible evening that showcased the vibrant spirit of innovation and collaboration in our blockchain community.

*The event was packed with exciting guest speakers*



## SCL OFFBOARDING

*Douga, Erietta*

Another SCL round comes to an end, as eight of our lovely colleagues will be handing in their theses in three weeks. These motivated students embarked on their journey with this project at the beginning of July this year, when the previous team of 32 students bid farewell to SCL.

Anika, Sofiya, Selin, Nicolai, Robin, and Joel reflect on this six-month period, looking at their biggest achievements and challenges. Also, Newsletter member Christoph and Lead Editor Erietta part ways with the project and share with us their biggest takeaways and favorite memories.



**Nicolai Kessler**  
Function: LinkedIn  
Topic: Tokenization



**Anika Weimer**  
Function: Head of Publication  
Topic: Tokenization

“I would say one of the biggest achievements was reaching over 400 followers on LinkedIn. When Christoph and I took over this account, it had less than 200 followers. It’s great to see that what we’ve created is not only appealing to us, but also to industry experts.”

“Successfully steering our social media platforms to a significantly improved performance has been one of my greatest achievements as Head of Publication. However, a great challenge I faced involved coordinating and defining clear targets for the Video & Visual tasks, requiring strategic planning and effective communication to overcome.”



**Christoph Hauri**  
Function: LinkedIn and Video and Visuals  
Topic: Newsletter

“The start of the project in July, combined with big changes in the number of students in the project, was a challenge. But we soon found the right keys in the teams to solve our daily tasks. As time went by, things got better and better and I am proud that we were able to overcome many challenges and reach some milestones. In the LinkedIn team, we were able to gain a lot of new followers, generate many impressions and continue to grow the platform. In the Video & Visuals team, we created great flyers for our guest speakers’ events and improved some templates. In the Newsletter team, we created new newsletters and launched the newsletter on LinkedIn, where we quickly gained over 100 followers.

Through these various tasks, I was able to learn a lot of new things, that I would not have learned without SCL and that I am happy to take with me on my future path.

Lastly, the social aspect of the project is something I’ve greatly enjoyed and cherished. By that I mean the good cooperation with my team members and the many fun and educational SCL events.”

“After my time at SCL, I can confidently say that I have become an excel guru and learned the true meaning of teamwork. Automating the SCL’s capacity planner excel to update all excel sheets by feeding just one of them with data has been my biggest achievement. Also, taking part in such a dynamic environment I learned to let go of my need to do everything by myself and trust that others can come up with great solutions too!”



**Joel Blank**  
Function: Operations  
Topic: Functional Platform and Accounting



**Selin Acar**  
Function: Head of Operations  
Topic: Regulation

“For me it was very important that my team members feel connected to SCL and strive to take it to the next level. I am happy to see that I managed to create this great sense of community. Thinking about the next chapters, I hope that future members can accomplish what we have started and expand the project into other disciplines, such as computer science. Become an accredited student association at UZH would be the cherry on top.”



**Robin Schmid**  
Function: Operations  
Topic: Tokenization

“I can proudly say I organized and held 8 successful info sessions, interviewing 16 potential applicants in total. One of my biggest challenges was to research ways to implement the use of receipt tokens in cross-border trades on the blockchain.”



**Sofiya Guta**  
Function: Operations  
Topic: Functional Platform and Accounting

“Along my topic, my focus was on making the Backend operational and practical to be used in the Frontend. I’ve successfully achieved the first one and the frontend team is ready to merge the backend and make the frontend functional.”

## SCL OFFBOARDING



**Erietta Douga**

Function: Instagram sub-team leader and Video and Visuals  
Topic: Head of Newsletter

“In these few months within the project, I’ve grown much as a person, but also professionally. My biggest challenge has also been my biggest achievement; namely, reviving The SCL Times. Our Newsletter currently has a larger readership than ever before, counting more than 30 subscribers that receive the Newsletter in their inbox and more than 140 subscribers on – a nuance. Additionally, my team and I have successfully managed to transform this platform from being purely informational to also having an educational aspect to it.

Another of my greatest achievements was taking over the role of Head of Tokenization when I first joined the project. There, I came up with a research concept and solution about fighting VAT fraud with receipt tokens and NFTs, something the current tokenization team has taken over and works towards. I am happy to have left an impact in two out of the four topic teams of SCL.

This project has offered me and all of us the chance to enjoy our last six months as students. All that while learning more about blockchain, as well as about ourselves, and how we work towards the same goal while communicating in an effective and constructive manner.

Certainly, a highlight of this period for most of us were the amazing social events we attended. We went treasure hunting, played lasertag, attended and helped organize guest speakers events and even travelled to Barcelona, Spain, together.”

## FIND THE DIFFERENCES

### *Douga, Erietta*

As Erietta said in her interview, the SCL team has grown to be very close. Some of the members spent a weekend in Barcelona, Spain, some weeks ago. On their first dinner, they had this picture taken.

There are 8 differences in the right picture below. Can you spot them? If you find them, send us your solution per email.





*Douga, Erietta*

On behalf of the entire Smart Contracts Lab Team, we wish you a Merry Christmas and a Happy New Year!

May the year 2024 surpass all your expectations, bringing you and your loved ones abundant health, luck, love, and prosperity!



## Crossword

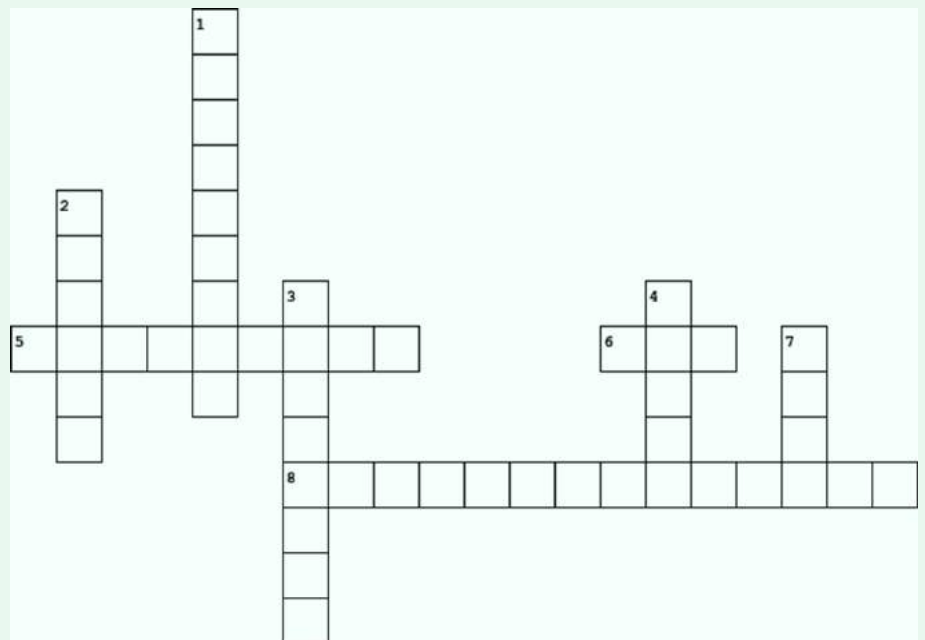
*Mottis, Fabrizio*

### Down

1. In what film would you hear the greeting “Merry Christmas, ya filthy animal”?
2. What is the name of the red-nosed Reindeer?
3. What was the first company that used Santa Claus in advertising?
4. In what City is CZ a residential?
7. What percentage of their GDP did North Korea steal in cryptocurrency in 2020?

### Across

5. Which major financial services company is expanding into Europe?
6. Besides the city of Lugano, in which Swiss canton are there already many possibilities to pay with Bitcoin?
8. Who wrote A Christmas Carol?



Solutions: 1. Home Alone 2. Rudolf 3. CocaCola 4. Dubai 5. Robinhood 6. Zug 7. Five 8. Charles Dickens

### Impressum

Newsletter of Smart Contracts Lab  
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