1st International Onchain Economy Conference

May 23-25, 2025
SGH Warsaw School of Economics

Book of Abstracts

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1st International On-chain Economy Conference

2025, MAY 23–25 | SGH WARSAW SCHOOL OF ECONOMICS

Keynote 1

Future of Ethereum

Tomasz Stańczak, Ethereum Foundation

I will present Ethereum roadmap for the next 9 months and the strategy for the next year. I will show the role of Ethereum in the world with AI and autonomous machines, Ethereum as a backbone of the borderless global economy.

Keynote 2

On-chain document and data processing - a future of the IT and data security

Jacek Figuła, Chief Commercial Officer - Billon Group Ltd

Billon has created Unified Blockchain (layer one architecture) that processes digital assets, documents and data ON-CHAIN with SELF-SOVEREIGN IDENTITY. 1. Billon Solutions with its reputable regulator (KNF) EMI license is a unique company to offer the Industry the framework to address the MiCA convergence - creating a safe and regulatory compliant StableCoin bridge between FIAT and Crypto worlds - for Issuance, Exchange, Wholesale P2P, Custody, DvP and Settlement based on EU national currencies as well as precious commodities based. 2. The DLT is the first enterprise blockchain that builds end to end documents and data solution for enterprises to enable digital transformation. It works commercially at initial customers in finance, education, energy, environmental. It has been named top 3 most performing platform by EBSI (European Blockchain Services Infrastructure).

Track 1. Economics, Markets & Finance I

Reasons for Public Blockchain Stagnation: Quantifying
Arkadiusz Iwanicki, Uniwersytet Łódzki, Poland

Public blockchain networks are the foundation of numerous IT projects concerning decentralized finance (DeFi), identity management, the Internet of Things (IoT), and secure data collection and exchange. They are a technology used to store critical information, such as application source codes, personal or financial data. Their stable development and high level of security are extremely important to ensure the reliability of blockchain-based systems and minimize the risk of attacks, fraud, and data loss. The main goal of the study is to identify factors affecting the stagnation of public blockchain networks. Stagnation is defined in it as the lack of updates to the blockchain ledger source code for at least three years. For this purpose, a logit model was developed that identifies key factors increasing the probability of project abandonment. The analysis includes a set of data on various features of blockchain projects, including the consensus mechanism, token supply limitation, and the possibility of implementing smart contracts. The study corresponds to the issue of assessing the durability of blockchain projects, providing developers and investors with a tool to better understand the factors determining the success or failure of these technologies. The obtained results indicate that the probability of a blockchain project stagnation increases in the case of a limited token supply and the lack of smart contract support. In addition, the type of consensus algorithm in a blockchain project has a significant impact on its survival, and some mechanisms may increase the risk of project abandonment. In turn, a higher market capitalization in the first year of operation reduces the chance of stagnation, which suggests that greater interest from early-stage investors favors long-term developer activity.

Degree of interdependence of cryptocurrency quotes assessment using Dynamic Time Warping.
Michał Bernardelli, SGH Warsaw School of Economics

Cryptocurrency quotes are not random but depend on many factors. One common factor is Bitcoin quotes, which affect almost every altcoin. However, external factors also influence the volatility of the cryptocurrency market. The dynamic time warping method (DTW) allows time series comparisons by quantifying the distance between them. This approach will be used to assess the degree of similarity and identify cryptocurrency quote behavior patterns for selected cryptocurrencies and assets on traditional financial exchanges. In assessing similarity, periods of growth and decline in financial markets and

the global economy will be taken into account separately to capture the possible lead-lag relationship better.

Understanding Business Readiness for Blockchain and Cryptocurrencies: A comprehensive Analytical Study
Leona Hasani, Christoph Lattemann, Constructor University, Germany

The rapid advancement of blockchain technology and cryptocurrencies has been reshaping how enterprises approach digital transformation. While we see those major enterprises like (Micro)Strategy, Tesla, JP Morgan Chase, and consulting firms such as EY and PwC have begun to integrate these technologies, the widespread adoption across different types of industries and regions remains fragmented, especially among small and medium enterprises (SMEs).
The presentation presents adoption patterns and the readiness levels of enterprises for cryptocurrencies and blockchain technology. Data were gathered via mixed-methods, literature review, job market data analysis and social media discourse. Utilizing web scraping, retrieving data from APIs and natural language processing, a dataset of more than 4,000 unique job postings related to blockchain and cryptocurrencies have been collected from platforms like LinkedIn, Indeed, Glassdoor, and others. Additionally, Reddit data was scraped to extract sentiment analysis and thematic insights.
Findings reveal that the IT, Finance, and Consulting industries are leading the blockchain and cryptocurrency-related hiring, with a geographical concentration in the United States, India, and Germany. Sentiment analysis on Reddit shows a predominantly neutral tone with clusters focusing on market volatility, regulatory uncertainty, and future competitive dynamics.
The literature review confirms that the barriers to adoption are more ecosystem-related than technical, including the lack of governance standards, and the weak institutional support.

Track 2. Governance, Sustainability & Smart Cities

Blockchain and Smart Cities for Inclusive and Sustainable Communities
Andrea Delle Foglie, University of Macerata, Italy

- Research Motivations and Contribution
- Research Design
- Results of the Bibliometric Analysis
- Results of the Systematic Analysis

- Conclusions and Research Agenda

From Hobbes to Blockchain: Do DAOs Undermine the Social Contract?
Karol Sobków, Cardinal Stefan Wyszyński University in Warsaw, Poland

The rise of Decentralized Autonomous Organizations (DAOs) presents a fundamental challenge to the traditional social contract, which grants states authority to regulate economic entities. Unlike conventional corporations, DAOs operate outside legal jurisdictions, enabling anonymous governance, regulatory avoidance, and smart contract-based rule enforcement. This presentation explores whether DAOs breach the social contract by rejecting state oversight or whether they signal the emergence of a new governance model.

Digital Innovation for Sustainable Governance: Evaluating the Policy Potential of Blockchain, AI, and IoT
Megha Jain, Symbiosis International University, India

Blockchain, along with other emerging technologies like artificial intelligence (AI) and the Internet of Things (IoT), holds significant potential to advance environmental sustainability and support the achievement of the United Nations' Sustainable Development Goals (SDGs). A systematic review of literature reveals blockchain's capability to enhance supply chain transparency, improve energy efficiency, and facilitate secure, decentralized solutions in smart cities and public governance. Additionally, IoT and AI can optimize resource management, streamline systems, and provide real-time data for better environmental decision-making. However, challenges remain, including high implementation costs, data privacy concerns, technological complexity, and ethical issues such as algorithmic bias and equitable access. Research also identifies 76 positive and 10 negative blockchain–SDG linkages, emphasizing the need for balanced, responsible adoption. Collaborative, multidisciplinary research and governance frameworks are essential to address these challenges and fully harness the transformative potential of digital technologies for sustainability.

The impact of blockchain technology on the renewable energy industry
Oskar Juszczyk, NFOŚiGW & Academy of Piotrków Trybunalski

This presentation will combine the main takeaways from my recent publications on the impact of blockchain technology on 1) enhancing the renewable energy industry development - revaling its key features, applications, and prospects, 2) optimizing sustainable supply chain management, and 3) innovating business models. Further

research will explore the role of blockchain and other digital innovations such as IoT, AI, 5G, etc. in supporting the energy transition by providing the empirical evidence from the renewable energy industry. Presenting my previous outcomes as well as ideas for future research in front of such distinguished and well-experienced academics and professionals operating within the problematics of blockchain technology will surely provide numerous benefits, hopefully multilateral.

Track 3. Economics, Markets & Finance II

The Ripple Effect: Navigating an XRP Investment Decision
Ilan Gildin, College of Management Academic Studies (COLMAN), Israel

Information Shocks and Real-Time Market Reactions: Evidence from Blockchain-Based Fan Tokens During the FIFA World Cup
Lennart Ante, Aman Saggu**, Christoph Lattemann*,*
**Constructor University, Germany **Mahidol University, Thailand*

This study examines the minute-by-minute impact of in-game events during the FIFA World Cup on the returns of blockchain-based fan tokens pertaining to national football teams. Relying on a sample of 502 key in-game events of World Cup 21 matches involving fan token teams, we study the minute-level event impact on token prices. While the results of events such as substitutions, match periods, VAR decisions, and cards are not substantial, fan token returns react significantly and immediately to goals scored and conceived. The effects are asymmetric, with the negative impact of conceded goals being stronger in magnitude and equalizing goals scored by opposing teams having an even larger impact. These findings provide insights into how sports events influence financial markets in real time, particularly in the context of highly volatile, emotion-driven assets like fan tokens. This analysis contributes to understanding market efficiency and behavioral responses in the emerging intersection of sports and financial markets.

Bitcoin efficiency across cryptocurrency platforms
Hanna Kołodziejczyk, Poznań University of Economics and Business, Poland

The aim of the research is to measure the informational efficiency of bitcoin across multiple exchanges based on daily data. Existing literature on the subject of informational efficiency of the largest cryptocurrency, bitcoin, shows mixed results (Pieters & Vivanco (2017); Tiwari et al. (2018); Matkovskyy (2018); Vidal-Tomas & Ibanez (2018); Noda (2021)). We set the following research questions: (a) Are there significant differences between the levels of market efficiency across exchanges? (b) Which exchange is the most, and which

the least, efficient? (c) How has the level of efficiency changed over time? There are seven cryptocurrency platforms included into our study: Bitfinex, Bitstamp, Cex.io, Coinbase, Exmo, Gemini and Kraken. To verify efficiency on the bitcoin market we use the generalized Hurst exponent. Initial results suggest that at a 5% significance level, all platforms were overwhelmingly inefficient and that cryptocurrency exchanges do not differ significantly in terms of efficiency.

Track 4. DeFi: DAO & Tokenization

Impact of and lessons from licensing of tokenization stakeholders
Szymon Zych, DLK Legal Korus

All provisions of the EU Regulation 2023/1114 on markets in crypto-assets (MiCA) are directly applicable throughout the EU as of 30 December 2024. However, the full extent of the regulation's impact on the market remains uncertain, with several critical issues yet to be definitively addressed. To date, crypto-asset service provider (CASP) licenses have been granted in only six EU countries. Nonetheless, preliminary insights can already be drawn regarding the impact and lessons from licensing of tokenization stakeholders. Relevant conclusions may also be derived from the VASP registration framework established under the AML Directive (implementations at the national level). In this presentation, I will outline the principal licensing-related challenges faced by participants in the tokenisation market and explore strategies for navigating the current regulatory uncertainty. I have divided my presentation into three thematic blocks, in which I will discuss the following issues: (1) The Expanding Reach of EU Licensing Regimes: MiCA's De Facto Global Influence: The EU’s capacity to shape global markets, as evidenced by the delisting of stablecoins (e.g., the USDT case) and the application of the reverse solicitation concept. (2) Licensing as a Moving Target: (a) Persistent Regulatory Arbitrage: Despite harmonization efforts, jurisdictional arbitrage in the EU remains a challenge. (b) Uncertain Compliance Realities - Evolving Supervisory Practices: Interpretations of MiCA obligations may be controversial and may shift over time (regulation on information accompanying transfers of funds and certain crypto-assets; MICA-PSD2 overlap) (3) The Organizational Shift: From Start-Up to Supervised Entity: 5.1. Transformation into Regulated Institutions: Transitioning from a technology-driven entity to a fully authorized financial institution involves substantial financial costs, increased governance requirements, and operational restructuring.

Decentralized Finance in Cross-Bank Operations and Tokenization
Krzysztof Gogol, University of Zürich, Switzerland

In my talk, I present the major categories of Decentralized Finance (DeFi) protocols—automated market makers (AMMs), lending protocols, and others—and explore how these innovations can be applied to traditional cross-bank processes such as repo transactions and interbank payments. I provide an overview of the key challenges and risks associated with this integration, along with potential mitigation strategies. The talk concludes with an update on the current state of institutional adoption, highlighting pilot projects led by the Bank for International Settlements (BIS) and central banks around the world.

Tokenization of works of art as an object of collection and as an object of crime
Katarzyna Lenczowska – Soboń, Uniwersytet Marii Skłodowskiej Curie w Lublinie, Poland

Tokenization of works of art, based on blockchain technology, opens up new possibilities for collecting, investing in art, and also opens up new possibilities related to the acquisition, movement of works of art and allows for wider access to the market. These possibilities also give rise to legal threats, including criminal and criminological ones. The presentation analyzes the dual nature of tokenization - as an innovative collecting tool and as a potential criminal tool, including money laundering, fraud, and infringement of intellectual property rights. Particular attention will be paid to methods of detecting and counteracting cybercriminals. The aim of the presentation is to show the challenges facing art markets and law enforcement agencies in the era of their digitization.

Cybersecurity of CASPs (Crypto-Asset Service Providers) in the Context of Legal Requirements
Rafat Prabucki, University of Silesia, Poland

The dynamic development of the crypto-asset market and its increasing integration into global financial systems have amplified the need for robust cybersecurity measures. This paper examines the cybersecurity challenges faced by Crypto-Asset Service Providers (CASPs) within the framework of existing legal requirements. It highlights key regulatory obligations imposed on CASPs, including those stemming from the EU's Markets in Crypto-Assets Regulation (MiCA) and international standards. The study explores the intersection of technological vulnerabilities and compliance demands, focusing on risk management, incident reporting, and the protection of customer assets. By analyzing real-world cases and best practices, the paper provides insights into enhancing security and maintaining trust in a rapidly evolving sector. This work aims to support CASPs, regulators, and stakeholders in navigating the complexities of cybersecurity governance in the crypto-asset ecosystem.

Track 5. Supply Chains & Blockchain

Harnessing Blockchain Technology for 3T Value Addition in the African Great Lakes Region: Advancing Traceability and Ethical Supply Chains
Aleksandra Cholewa-Domanagic, University of Szczecin, Luma Holding Ltd., Poland

The African Great Lakes Region (AGLR) is a significant source of tin, tungsten, and tantalum (3Ts), critical minerals essential to global industries. However, the region's mineral supply chains face challenges, including transparency, ethical compliance, and traceability, which impact stakeholder confidence and market access. This presentation explores the innovative application of blockchain technology in the 3T value addition sector to address these challenges. By leveraging blockchain, stakeholders can ensure real-time traceability, secure data sharing, and immutable records throughout the mineral lifecycle—from extraction to final product. Using a case study from Rwanda's Luna Smelter and Uganda's Woodcross Resources the presentation highlights how blockchain supports compliance with international standards, such as the OECD Due Diligence Guidelines and the Responsible Minerals Assurance Process (RMAP). The study demonstrates blockchain's potential to enhance supply chain efficiency, foster ethical sourcing, and drive economic benefits for local actors, ultimately positioning the AGLR as a leader in responsible mineral production.

Blockchain Integration in Sustainable Supply Chains: Measuring its Contribution to Circular Economy Goals
Mateusz Zaczyk, Silesian University of Technology, Poland

Blockchain plays an increasingly significant role in transforming supply chains towards sustainable development. Blockchain solutions particularly support circular economy goals by enhancing transparency, traceability, and the efficiency of processes such as recycling and material reuse. The paper presents an analysis of selected blockchain platforms, including Circularise and Plastic Bank, focusing on their impact on key circular economy indicators. The findings highlight blockchain's potential in reporting sustainable actions and reducing waste in supply chains. The study also examines major technological and organizational barriers hindering blockchain integration into circular economy initiatives. This publication provides practical recommendations for businesses and policymakers, promoting the adoption of innovative solutions in sustainable supply chain management.

Enhancing Document Verification in Supply Chains. The Synergy of Artificial Intelligence and Blockchain Technology

Sławomir Wyciślak, Jagiellonian University, Poland

This study investigates the synergy between artificial intelligence (AI) and blockchain technology in enhancing document verification processes within supply chains. Traditional methods face challenges including fraud, inefficiency, and lack of real-time visibility. By combining blockchain's immutability and transparency with AI's analytical capabilities, the research explores potential solutions to these issues. The paper examines AI-enhanced document authentication, automated compliance checks, and intelligent data analysis in blockchain-based supply chains. Benefits such as improved accuracy, reduced processing times, and increased stakeholder trust are discussed. Implementation challenges, including data privacy concerns and standardization needs, are also addressed. The findings suggest that the AI-blockchain integration offers promising avenues for developing more secure, efficient, and trustworthy document verification systems in modern supply chains, potentially revolutionizing supply chain management practices.

Track 6. Monetary Policy & CBDC

Ownership of money in the era of CBDC
Konrad Rydel, University of Warsaw, Poland

Protecting ownership is one of the basic components of democratic systems. Crucial importance for individuals is the ownership of money and the ability to use it unfettered. Some CBDC designs could give central banks a previously unavailable ability to influence money and its owners. For example, concerns are raised about whether money will "evaporate" if algorithms introduce a "use-by date" for money with CBDC. Introducing CBDC may violate fundamental individual rights without considering these and similar risks. This paper presents individuals' main risks of money ownership if CBDCs are introduced. Drawing the legal boundaries for ownership protection depends, first and foremost, on diagnosing the threats because these will occur; the question is on what scale? Only a clear identification of ownership risks will allow the formulation of the legal guidelines necessary for policymakers, legislators, or banking institutions during the introduction of CBDC in democratic states.

CBDC - Policy Implications
Robert Rybski, University of Warsaw, Poland

Most central banks in democratic countries work on their own central bank digital currency (further CBDC). One major central bank – the European Central Bank - is on a

fast track to start implementing the digital euro soon. Even those central banks that currently do not work on CBDC might one day join the crowd for differentiated reasons. The pioneering CBDC introduction by one of major central banks in the coming years is looming and will create a tipping point for the massive spread of CBDC implementations. From that moment, CBDC will stop occupying a niche and enter the mainstream banking. Yet, the key question is: what will be the policy implications of implementing CBDC. This paper claims that the CBDCs will revolutionize the existing banking sector and payment system thanks to building up new financial market infrastructure by the central banks when they will be developing their digital currencies.

Systemic risk to monetary policy due to Crypto currency. Is CBDC the answer? The Indian Experience
Manish Sinha, Global Business School and Research Centre, India

When Facebook decided to launch Libra, an international cryptocurrency, it set alarm bells ringing across central banks of the world. The prospect of a stable coin financing a large fraction of global trade had serious implications for the monetary policy exercise done by central banks of the world. Central Banks around the world have reacted by coming up with it's own version of Central Bank Digital Currency. India also launched it's own version of CBDC at both retail and wholesale level. The question before a central bank is whether the mushrooming of crypto currencies create systemic risk to the existing financial structure? This presentation will explore the prospective threats to exercise of monetary policy in India due to cryptocurrency and the utility of CBDC for the same.

The Digital Shift: Transforming Monetary Policy Dynamics of the Digital Age through Central Bank Digital Currency
Srijanie Banerjee, Symbiosis Center for Management and Human Resource Development, India

The introduction of centralised digital currency is impacting the macroeconomic framework of the countries worldwide. This study tries to examine the influence of e-Rupi on the monetary policy of India. The research tries to delve into the influence of e-Rupi transactions on the money supply. Further it takes into account the effect of e-Rupi transactions on the money multiplier. The inflation, unemployment, interest rate and GDP growth are taken as the control variables. Regression is used for analysis of the secondary data collected from the official website of Reserve Bank of India. The study contributes to the existing literature of Central Bank Digital Currencies impact on the monetary base of India.

Track 7. Utilizing blockchain

Digital safe - how to take care of your heritage with blockchain
Piotr Wójcik, Safe And Trust Sp. z o.o.

In today's world, it is increasingly difficult to ensure that you and your loved ones have access to critical information that may be needed in an emergency or crisis situation. Safe & Trust provides peace of mind and makes it easy to organize all relevant information for everyone who uses it. Safe & Trust protects the privacy and security of its users' information, while ensuring that the information it stores is available to designated individuals even in the event of the sudden illness, incapacity or death of the safe owner. To ensure non-repudiation of stored information, we use notarization on a public blockchain network.

Solana Made in Poland: A Local and Global Overview of the Ecosystem
Michał Wojtas, Superteam Poland

This presentation offers a comprehensive look at the growing Solana ecosystem in Poland and its connection to the global blockchain landscape. We will showcase key projects, developers, and communities driving innovation locally, while highlighting how Polish teams are contributing to Solana’s worldwide momentum. From grassroots initiatives to venture-backed startups, the session will explore Poland's unique strengths, challenges, and future potential in building on Solana.

Lessons Learned Building The Fastest Growing Blockchain Oracle in Poland
Marcin Kaźmierczak, RedStone Oracles

Building a crypto startup is a ride... I'll present less obvious moments and findings from RedStone's journey that can be handy for both engineers and non-technical professionals.

From Wallet to Chain. A Bridge of Two Worlds on an Ethereum Transaction
Michał Zając, Nethermind

The presentation examines how Ethereum—through ongoing protocol and infrastructure enhancements—can align with the compliance, governance, and operational resilience standards expected in regulated financial markets. It challenges the conventional dichotomy between decentralized public chains and centrally governed financial systems, showing that the two paradigms complement one another. We trace the end-to-

end transaction lifecycle on Ethereum, from the moment a user initiates a transaction in their wallet, to its finality on-chain. We highlight the complexity of today's transaction flow architecture, encompassing public and private RPC paths, mempool strategies, and the role of third-party searchers, builders, and relayers under the PBS model. These pathways are analysed for performance and their capacity to support regulatory requirements, such as KYC, AML, and transaction traceability.

Track 8. Monetary Policy & Crypto

Designed for the Mind: How Stablecoins Went Mainstream Before the Rest of Web3
Michał Moneta, Onchain AG, University of Łódź, Poland

Stablecoins are often framed as a technical or regulatory success story – but their true success lies in how well they fit the human mind. This keynote explores how stablecoins quietly became the first Web3 product to reach mainstream scale, backed by billions in daily volume and growing institutional reliance. Drawing on original data from Onchain's recent research, it unpacks the mechanics behind this growth and shows that behavioral factors - not just utility or design - were the real catalysts. This session connects blockchain data, behavioral insights, and product adoption dynamics to explain why stablecoins work - and what they reveal about designing the next generation of onchain products for real-world use.

Bitcoin as money – theoretical approach
Seweryn Gajdek, Helena Chodkowska University of Technology and Economics in Warsaw, Poland

The aim of the presentation is to assess the possibility of fulfilling the role of money by the Bitcoin cryptocurrency. Conclusions will be formulated based on the features and functions of money indicated in the economic literature, as well as references to the theories of the most important economic schools will be made. The differences between BTC and other cryptocurrencies will be indicated. The main attention will be paid to the limited supply of BTC and to the fact that this feature does not rule out the possibility of BTC fulfilling the function of money in the market economy. The presented study is of theoretical nature.

Beyond the Blockchain – How Financial Institutions Are Entering the World of Crypto
Grzegorz Timoszuk, 7bulls.com

In the early days of blockchain adoption, financial institutions primarily focused on creating private blockchain networks within their own infrastructures. Now, they're increasingly looking to open, public networks, often leveraging zero-knowledge proofs for privacy and scalability. This presentation explores both experimental and production deployments—from ETF solutions to Real World Assets (RWAs), including tokenized U.S. Treasury bills, staked real estate, and private validium chains integrated with Ethereum. We'll examine how these approaches streamline settlement, boost liquidity, and strengthen compliance. We'll also discuss pilot projects that explore cross-chain interoperability, bridging traditional finance with decentralized platforms via trusted oracles and custody solutions. Our aim is to demonstrate tangible benefits—such as lowered costs, quicker settlements, and enhanced transparency—while addressing regulatory and security considerations. By merging private and public ecosystems, institutions can innovate more effectively, paving the way for widespread adoption of digital asset technologies.

Track 9. Regulations, Cybersecurity & Taxes

In Search of Effective Taxation of Digital Assets and Decentralized economic activity – A Review of Taxation Models
Jakub Wisła, SGH Warsaw School of Economics, Poland

The presentation examines national taxation models for activities involving crypto-assets. The growing significance of crypto-assets has led multiple jurisdictions to implement dedicated regulations or administrative guidelines. The author will outline tax rules across different stages of a crypto-asset's lifecycle (creation, operation, termination) and specific crypto-related events, including mining, staking, forks, and airdrops. The impact of legal classification on tax treatment will also be discussed. Tax policy decisions have both domestic and international implications. The presentation will introduce criteria for assessing taxation models and their influence on a jurisdiction's attractiveness for crypto-related activities. Given the digital nature of crypto-assets, jurisdictional shifts are seamless, intensifying global tax competition. Effective taxation requires international cooperation to ensure transparency, and recent global initiatives in this domain will be presented.

Cybersecurity of CASPs (Crypto-Asset Service Providers) in the Context of Legal Requirements
Rafał Prabucki, University of Silesia, Poland

The dynamic development of the crypto-asset market and its increasing integration into global financial systems have amplified the need for robust cybersecurity measures. This paper examines the cybersecurity challenges faced by Crypto-Asset Service Providers (CASPs) within the framework of existing legal requirements. It highlights key regulatory obligations imposed on CASPs, including those stemming from the EU's Markets in Crypto-Assets Regulation (MiCA) and international standards. The study explores the intersection of technological vulnerabilities and compliance demands, focusing on risk management, incident reporting, and the protection of customer assets. By analyzing real-world cases and best practices, the paper provides insights into enhancing security and maintaining trust in a rapidly evolving sector. This work aims to support CASPs, regulators, and stakeholders in navigating the complexities of cybersecurity governance in the crypto-asset ecosystem.

Linking Crypto Regulation, Adoption to Country Credit Risk
Ilan Alon, Ariel University, Israel

Track 11. Semi-panel: Documents, Security & Credibility

On-chain data as the foundation of new Web3 apps - Dashboards, Routers and AI agents
Radosław Budzyński, Budzyński

On-chain data is a goldmine for Web3 builders. This talk shows how to transform these data into new projects - real-time cross-chain dashboards tracking token flows, smart routers for perfect execution, and AI-driven portfolio agents. We'll also explore MEV challenges and leverage them for next Uniswap research, revealing the exact datasets and actionable steps you need.

How to be credible in the internet, using Blockchain
Jakub Sielewiesiuk, AOMB Polska Sp. z o.o.

This presentation will explore two blockchain-based inventions through a detailed case study. The first case study addresses the secure transfer of information between an origin and destination Virtual Asset Service Provider (VASP) over a network in a hostile environment. The second case study focuses on the process of registering digital documents as immutable digital files within a blockchain database. By examining these two case studies, this presentation will showcase how blockchain technology can be leveraged to establish credibility and security in digital transactions, creating a reliable and transparent environment on the internet.

GDPR and Data Security in CASPs
Mateusz Jakubik, Jagiellonian University, Poland

The application of the General Data Protection Regulation (GDPR) within the operations of Crypto-Asset Service Providers (CASPs) presents unique challenges and opportunities. This paper explores how GDPR principles, such as data minimization, purpose limitation, and ensuring adequate security measures, impact CASPs in their handling of personal data. It examines key obligations, including the need for transparency, lawful processing, and the implementation of robust security practices to mitigate risks associated with decentralized and high-risk environments. Additionally, the study highlights best practices for compliance, the role of Data Protection Officers (DPOs), and the integration of privacy-by-design approaches in blockchain-based services. Through the analysis of regulatory frameworks and case studies, this paper provides insights into aligning CASPs' operations with GDPR requirements while fostering trust and security in the crypto-asset ecosystem.

Track 12. Economics, Markets & Finance III

Digital bonds - concepts and practice
Krzysztof Piech, Lazarski University, Poland

The paper will be about tokenization of bonds (mostly corporate bonds) with the description of platform offering them and giving a lot of details on the issuances, especially in Europe during last months, as the landscape has changed substantially (x20 growth).

Ideology vs. Speculation: Who Are Cryptocurrency Users? – Research Findings
Daniel Haczyk, Media: CyfrowaEkonomia.pl, Quark.House, PSB

This presentation explores the motivations behind cryptocurrency adoption — is it driven by ideological conviction or the pursuit of profit? Drawing on research findings, it highlights key differences between newcomers and long-term enthusiasts, particularly in their views on monetary policy, financial institutions, and the role of crypto as a hedge against inflation. It also examines sources of knowledge, the impact of community narratives, and the effectiveness of grassroots marketing in shaping Bitcoin's identity. The aim is to offer a deeper understanding of who today's cryptocurrency users are — and what truly influences their decisions.

Cookie3: Where Crypto Research Begins... And Ends

Michał Stec, Cookie3

How is Cookie3 planning on changing the current workflow of analysing and researching crypto assets? The presentation is looking to break down the future of crypto analysis with Cookie Deep Research tool.