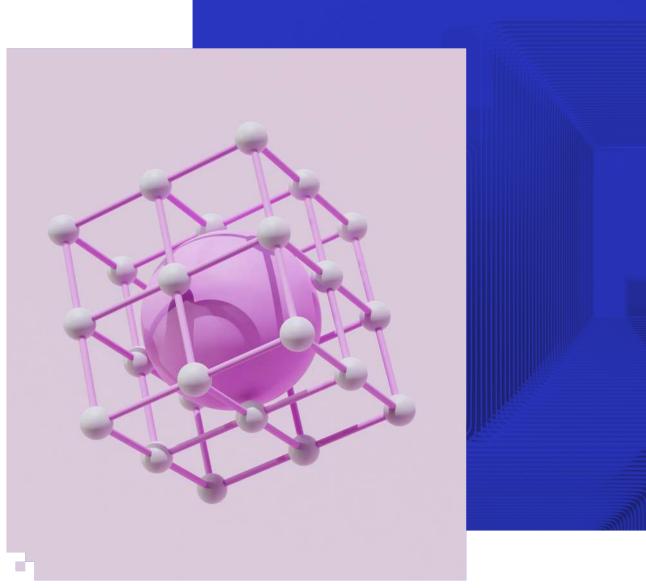


The Big Whale Report



Data and Transparency:

BUILDING TRUST IN THE CRYPTO ECOSYSTEM

WITH THE SUPPORT OF



EDITORIAL

Building Trust in the Crypto Ecosystem

The crypto industry has been built from its inception on a founding promise: transparency. Thanks to blockchain, every transaction and asset movement is recorded on a public ledger that is immutable and accessible to all. However, this raw transparency, as powerful as it may be, reveals a paradox: it is both an opportunity and a challenge. For this transparency to truly become a vector of trust, it must go beyond mere data accessibility. Users, investors, and regulators must be able to navigate this complex universe through clear, interpretable, and actionable information. Only by transforming this raw data into intelligible tools can the crypto ecosystem fulfill its promise of fairness and security while meeting growing expectations for accountability and compliance.

The role of data in crypto now extends beyond its function as a public ledger. It has become a strategic pillar, catalyzing innovationand strengthening informed decision-making.

Many companies have positioned themselves to extract value from this data, whether through analytical tools, interactive dashboards, or advanced indicators for investors. However, this transformation raises major questions. Who controls this data? How can we guarantee its quality and reliability? And most importantly, how can we prevent this data economy from reproducing the same imbalances and monopolies that marked the era of centralized platforms? Building a trusted ecosystem requires rethinking how this data is accessed, processed, and shared.

This report explores the strengths and weaknesses of the current blockchain data landscape while identifying the opportunities and risks that accompany development. More than diagnosis, it offers concrete solutions to make transparency and trust solid pillars of the crypto ecosystem.



GREGORY RAYMONDHead of Research,
The Big Whale



02

ANASTASIA MELACHRINOS (KAIKO)

"REVEALING WHAT'S HIDDEN IN RAW DATA AND MAKING IT USABLE FOR THOSE BUILDING THE FUTURE OF FINANCE" WEB2 AND WEB3
DATA:
THE MAJOR

DIFFERENCES

03

THE RACE FOR DIFFERENTIATION AMONG SPECIALIZED PLAYERS

A WIDE VARIETY OF BUSINESS MODELS

TRANSACTION
ANALYSIS:
NEW REGULATORY
REQUIREMENTS

06

PIERRE GERARD (SCORECHAIN)

"AUTOMATION IS AT THE CORE OF OUR APPROACH"

07

JACQUES LOLIEUX (APLO)

"ORDER BOOKS ARE THE MOST COMPLEX DATA TO PROCESS" <u>80</u>

ORACLES:

CONNECTING BLOCKCHAIN TO THE REAL WORLD

MAPPING: KEY PLAYERS
IN CRYPTO DATA

ACKNOWLEDGEMENTS

O1 Understanding

WEB2 AND WEB3 DATA: THE MAJOR DIFFERENCES

THE BIG WHALE



WEB2 AND WEB3 DATA: THE MAJOR DIFFERENCES

The transition from Web2 to Web3 represents a dramatic shift in how data is collected, stored, and utilized. These two models are based on different principles, marking a break from traditional practices.

DATA TRANSPARENCY AND ACCESSIBILITY

In Web2, data is typically collected, centralized, and siloed by private companies like Google, Facebook, or Amazon. These entities exercise complete control over the information they possess, making it difficult for third parties to access. Although this data is often «free» for users,

it is monetized by platforms through targeted advertising or sold to third parties. In contrast, in Web3, data is decentralized and public by design. Blockchains like Ethereum or Bitcoin store all transactions on a distributed ledger, accessible to everyone. Every interaction is visible and traceable, enabling complete transparency.

This accessibility allows anyone to view transactions in real-time through explorers like Etherscan.

The key difference lies in the fact that Web3 doesn't rely on centralized intermediaries, but rather on a decentralized infrastructure.

DATA CONTROL

In Web2, users have no direct control over their data. It is hosted on private servers, and its use is dictated by company policies. For example, a Facebook user cannot easily export all their data or know exactly how it is being used. Conversely, Web3 is based on the principle of data ownership. Each user controls their information through private keys, giving them the ability to decide who can access it. For example, an NFT holder can publicly prove ownership of a digital asset, but only they can transfer this asset thanks to their private key. This decentralized model gives power back to users and reduces dependence on centralized platforms.

INFRASTRUCTURE CONSTRAINTS_

Despite data transparency and accessibility, processing data in Web3 remains complex. Blockchains generate massive amounts of data continuously: Ethereum produces a block every 12 seconds and Solana every 400 milliseconds. This raw data is unstructured and difficult to use directly. It requires costly infrastructure to store, index, and analyze.

02 Interview

ANASTASIA MELACHRINOS KAIKO

« REVEALING WHAT'S HIDDEN IN RAW DATA AND MAKING IT USABLE FOR THOSE BUILDING THE FUTURE OF FINANCE »





WHILE BLOCKCHAIN PROMISES
TRANSPARENCY, ITS RAW AND
COMPLEX DATA OFTEN REMAINS
OPAQUE AND DIFFICULT TO USE.
ANASTASIA MELACHRINOS,
HEAD OF GROWTH AT KAIKO,
EXPLAINS HOW HER COMPANY
TRANSFORMS THIS CHAOS INTO
A KEY TOOL FOR TOMORROW'S
FINANCE.

« Revealing What's Hidden in Raw Data and Making it Usable for Those Building the Future of Finance »

BLOCKCHAIN IS TRANSPARENT BY DESIGN, YET IT'S KNOWN FOR HAVING OPAQUE DATA - HOW DO YOU EXPLAIN THIS PARADOX?

The name Kaiko is inspired by the Japanese submarine Kaikō, which was designed to explore extreme ocean depths and bring valuable scientific data to the surface. This parallel perfectly illustrates our mission: diving into raw data, often complex and inaccessible, to make it understandable and usable. Blockchain, while entirely transparent in its operation, contains complexity comparable to these great depths. Transactions are recorded as encrypted data, associated with anonymous addresses and dispersed across decentralized networks. For example, a single on-chain transaction can contain information about multiple assets, addresses, or interact with multiple smart contracts, thus initiating several types of flows. These interconnections make the data difficult to interpret, even though it's technically public. In essence, blockchain is a treasure trove of information, but without tools to explore its depths, it remains inaccessible. Our role at Kaiko is to act as this explorer submarine: revealing what's hidden in raw data and making it usable for those building the future of finance.

HOW DOES KAIKO WORK TO ENSURE THE TRANSPARENCY OF THE DATA YOU PROVIDE?

At Kaiko, data transparency is at the core of our approach. For blockchain data, we collect it directly from the source, without intermediaries, thus ensuring its integrity and the continuity of our services for institutions worldwide. Each piece of data is captured raw from the chain, allowing us to process it with complete transparency. For market data, which comes from crypto exchange platforms rather than the blockchain, such as that used to calculate the «fair price» of an asset, we apply internally developed aggregation methodologies. These methodologies are accessible to all and reproducible, thus transparent, often published as academic works, to ensure they are verifiable and robust. Finally, this transparency and replicability, both in collection and in our methods, meets strict regulatory requirements, allowing our clients to rely on data that complies with their audit obligations or regulatory requirements.



HOW DOES KAIKO COLLECT AND ENSURE THE INTEGRITY OF DATA FROM DIFFERENT PLATFORMS?

Our independence from the exchange platforms from which we collect our data is essential. It allows us to avoid any conflict of interest and ensure the impartiality of our offering. These conflicts of interest can, for example, manifest when a data provider is owned by an exchange, which could lead to a biased representation of an asset's market value, underestimating the weight of other exchanges in favor of the owning exchange. This independence that Kaiko enjoys constitutes a fundamental pillar of our commitment to the integrity of the data we provide, particularly when it's used for the creation and redemption of structured crypto products, in which institutional actors worldwide invest billions of euros.

WHAT ARE YOUR MAIN PRODUCTS?

Our main offering for institutional clients (B2B) includes a wide range of real-time market data with 15+ years of history on crypto assets (volume, liquidity, execution prices, order books), enabling traders, hedge funds, and financial institutions to analyze liquidity, backtest and optimize their trading strategies, while supporting middle, back, and front office functions. We also offer quantitative metrics that help portfolio managers

and investors evaluate fair prices of digital assets, measure risks, and analyze investment performance, which is crucial in such a volatile environment with such a diverse asset offering. With our monitoring solutions, such as Blockchain Monitoring and Market Surveyor, we offer regulators and exchange platforms the ability to track market or blockchain activity in real-time, detect anomalies like wash trading, and ensure compliance with existing regulations, whether in terms of market abuse or AML/KYT protection. Finally, our indices and benchmarks allow asset managers and crypto derivatives platforms to track the performance of crypto assets or specific investment strategies, settle these contracts reliably based on regulated and independent information, and develop customized investment products like ETPs (including ETFs).







WHAT ARE THE MAIN CLIENT PROFILES OF KAIKO?

We respond to the growing needs of asset managers and investment product issuers, such as crypto ETFs, worldwide; and we have strengthened our market dominance with the acquisition of Vinter (European leader) in December 2024. For example, among our clients, we are fortunate to count 7RCC, regulated by the SEC, which launched one of the first ETFs allowing investment in both bitcoin and carbon credits. We also count among our clients crypto derivatives platforms, such as Gemini, CBOE, and many others. These need indices for contract settlement and NAV calculation, but when they also operate in spot markets, they use Kaiko's vast databases, which cover hundreds of crypto marketplaces worldwide. This allows them to better understand their positioning on certain assets compared to the competition and make strategic decisions.

HOW HAVE YOUR CLIENTS' NEEDS EVOLVED WITH THE RECENT DEVELOPMENT OF FINANCIAL PRODUCT TOKENIZATION?

What's interesting is that we've recently observed an evolution in our clients' needs as more and more financial products and tokenized funds are developed on the blockchain. Although our clients remain the same, notably asset managers and derivatives platforms, the way they consume our data is evolving. Blockchain is increasingly being used as infrastructure for developing these products, which pushes us to adapt our distribution methods. That's why we launched our blockchain data distribution service, to meet the growing needs of DeFi protocols and tokenized financial products, offering a dedicated solution to a financial ecosystem that's shifting to blockchain. We're also working on international data models and standards applicable to tokenized financial instruments.



WHAT ARE THE MAIN CHALLENGES YOU FACE IN STANDARDIZING AND MAKING USABLE DATA FROM MULTIPLE SOURCES IN THE CRYPTO SECTOR?

One of the main challenges is the fragmentation of the crypto asset market. Trading data is dispersed across more than 100 exchange platforms and thousands of asset pairs, which complicates their centralization and standardization. Added to this is the often uneven quality of data from exchanges, where data flows sometimes lack cleaning, deduplication, or normalization. These inconsistencies require significant efforts to ensure impeccable integrity. Managing such a quantity of data also represents a costly challenge in terms of infrastructure. The complexity and volume of data require advanced technological resources for efficient storage and processing. Finally, issues such as market abuse, poor governance of centralized platforms, and a generalized lack of trust reinforce the need to provide reliable, transparent data free from any conflict of interest. At Kaiko, we address these challenges by building robust infrastructures that ensure data collection, standardization, and distribution that meets the expectations of our institutional clients.

DO YOU SEE OPPORTUNITIES IN COLLABORATION BETWEEN CRYPTO ACTORS AND DATA PROVIDERS TO IMPROVE TRANSPARENCY ACROSS FINANCIAL MARKETS?

In the long term, it's conceivable to include all financial markets, but for now, it's essential to focus on what works best. At Kaiko, we focus on concrete opportunities, particularly collaboration around crypto products that are becoming mainstream, such as ETFs and tokenized Money Market Funds. These products, at the intersection of traditional markets and blockchain, pave the way for collaborations on data collection and distribution, particularly via blockchain. Our approach aims to bridge traditional capital markets and web3, with the goal of accelerating digital

asset adoption beyond the crypto community. We have the experience and expertise necessary to support this transition and are open to any initiative aimed at building shared standards for these new markets.

DO YOU USE OR DEVELOP AI-BASED TOOLS TO IMPROVE YOUR DATA ANALYSIS CAPABILITIES?

We are both a provider and user of AI: artificial intelligence is a promising technology, but its effectiveness relies on one essential condition: data quality. As they say, «garbage in, garbage out» - poor quality data leads to unreliable results. At Kaiko, we collect, clean, and structure data with impeccable precision, making it possible to train high-performing and reliable AI algorithms. Our data serves as a foundation for advanced tools: market trend prediction, anomaly detection, and detailed risk analysis. Although we already integrate AI to improve our processes, such as identifying outliers, our main role is to provide our clients with a solid foundation to develop their own intelligent solutions.

03
Sector

THE RACE FOR
DIFFERENTIATION
AMONG SPECIALIZED
PLAYERS

THE RACE FOR DIFFERENTIATION AMONG SPECIALIZED PLAYERS_

The blockchain data industry is characterized by intense competition, fueled by free access to raw materials: on-chain data. However, this very same free access requires companies to innovate and differentiate themselves, which has given rise to a variety of economic and strategic models.

1 / EASY DATA ACCESS

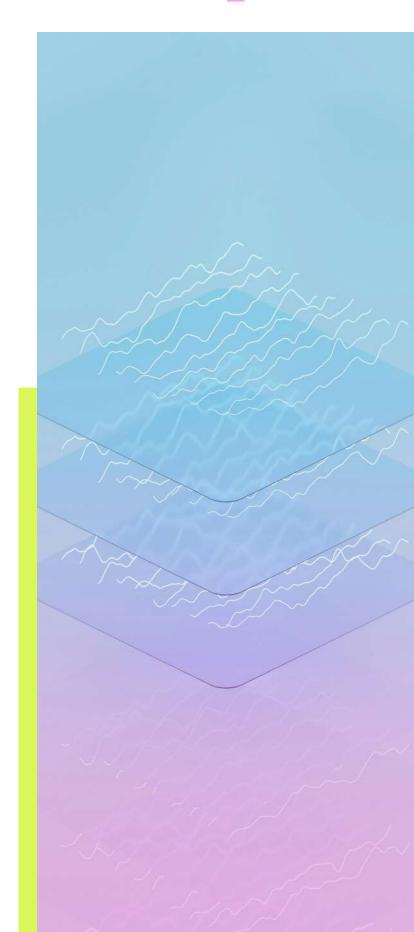
Blockchain data is public by nature, accessible to everyone through explorers like Etherscan or by running their own nodes. This means no company can monopolize access to raw data, unlike Web2 companies that control proprietary data (such as Meta or Google).

2 / DIFFERENTIATION THROUGH QUALITY AND USER EXPERIENCE

Companies must distinguish themselves through the quality of data they collect, organize, and present. For example, Amberdata and Kaiko dominate the order book segment thanks to their comprehensive coverage. Data presentation also plays a key role. Platforms like Nansen or Dune emphasize interactive and intuitive visualizations to attract users.

3 / AN INNOVATION RACE

New players must offer novel features to compete with established leaders. For example, Arkham introduced a crowdsourcing model for wallet labeling, where Nansen relied on internal algorithms. The introduction of AI in products like Dune Analytics demonstrates a desire to push technical boundaries to facilitate data access. Users can now ask DuneAI any question to display crypto data related to their query.



O4Business

A WIDE VARIETY
OF BUSINESS
MODELS

A WIDE VARIETY OF BUSINESS MODELS

Faced with this competition, companies adopt varied strategies depending on their targets and resources.

1 / / B2B-ORIENTED MODELS

Target financial institutions, investment funds, or large companies. Offer highly granular data, such as real-time order books, pre-trade and post-trade analysis, as well as compliance and taxation tools. Products are generally paid, with customized subscriptions or annual contracts.









ADVANTAGES

Predictable and relatively stable revenues, even during bear markets. Less dependent on a large number of users, as each B2B contract can represent significant revenue.

CHALLENGES

High barriers to entry, requiring significant capital to build robust infrastructure. Long and complex sales cycle, requiring deep client relationships.

2 / B2C-ORIENTED MODELS

Target individual users, such as retail traders or amateur analysts. Offer less granular data but accessible for free or at low cost via freemium subscriptions.

DEFILLAMA

DUNE

COINGECKO



Potential for economies of scale thanks to a large user base. Freemium model: a small but significant percentage of free users can be converted to paying customers. Possibility to generate additional revenue through advertising or partnerships.







CHALLENGES

Often low revenue per user. Heavy dependence on funnel size (number of free users) to be profitable.

05 Compliance

TRANSACTION
ANALYSIS: NEW
REGULATORY
REQUIREMENTS



TRANSACTION ANALYSIS: NEW REGULATORY REQUIREMENTS

As cryptocurrencies gain popularity, their regulation has become a major challenge in combating illicit activities.

Transaction analysis, which leverages the transparency of public blockchains, has become an essential tool for ecosystem participants.

By cross-referencing «on-chain» and «off-chain» data, it enables the monitoring of financial flows, identification of suspicious behavior, and risk assessment.

The operation of public blockchains, such as Bitcoin and Ethereum, relies on an open transaction ledger. This characteristic offers a unique opportunity: the ability to analyze each fund transfer in detail. Collected data, such as sender and recipient addresses, exchanged amounts, and transaction dates, are combined with external information. This allows for the identification of wallet owners or the detection of addresses associated with illicit activities. These analyses, conducted specialized companies like Chainalysis, Elliptic or Scorechain, are now essential for ensuring transparency in the digital asset universe.

Transaction analysis operates within an increasingly strict legal framework, particularly in Europe with the upcoming implementation of the MiCA regulation. This text aims to harmonize cryptocurrency regulation within the European Union while strengthening anti-money laundering and counter-terrorism financing (AML/CTF) measures.

To meet these requirements, digital asset service providers (DASPs) must monitor each transaction, assign a risk score, and when necessary, report suspicious activities to authorities like Tracfin. Transaction analysis is not limited to regulatory compliance: it is also used in criminal investigations and market research.

These technological tools, though essential, are not without limitations. The collection of «on-chain» information does not directly reveal user identities or locations. Certain technologies, such as mixers or privacy-focused blockchains, also complicate flow traceability. Monero, for example, uses privacy protection mechanisms that make traditional transaction analysis impossible. Despite this, companies in the sector, particularly Chainalysis, continue to innovate by developing algorithms capable of partially circumventing these obstacles.

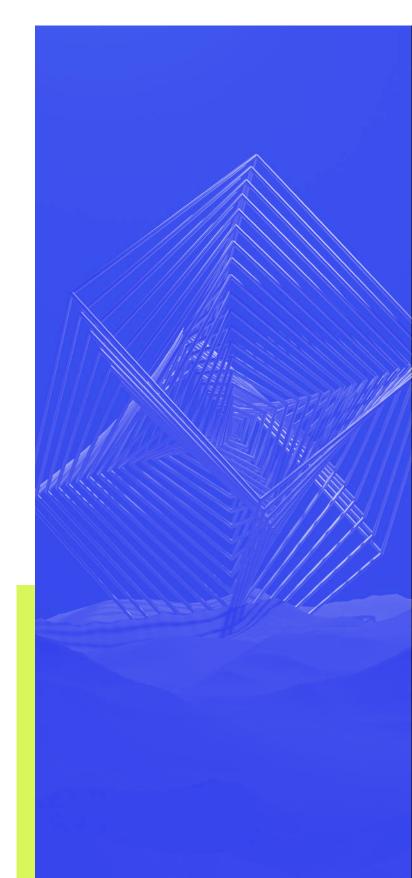


TRANSACTION ANALYSIS: NEW REGULATORY REQUIREMENTS_

Transaction analysis also faces challenges related to the implementation of the Travel Rule, a European regulation requiring providers to share transaction information among themselves. While this measure aims to improve traceability, its implementation remains complex and depends on protocols still under development.

Despite these challenges, transaction analysis is a rapidly expanding market. Leading companies are enriching their databases and integrating advanced technologies like artificial intelligence to improve the accuracy and speed of analyses. Simultaneously, they collaborate with law enforcement and monitor open web and dark web spaces to identify high-risk addresses.

In a sector where financial flows are often perceived as opaque, transaction analysis strengthens investor and regulator confidence. While technological limitations persist, its rapid evolution and the commitment of specialized players offer hope for increasingly effective cryptocurrency regulation. The balance between innovation and compliance is complex, but it is essential to ensure healthy and transparent development of digital assets.





PIERRE GERARD SCORECHAIN

« AUTOMATION IS AT THE CORE OF OUR APPROACH »



PIERRE GERARD SCORECHAIN

PIERRE GERARD, CEO OF SCORECHAIN, EXPLAINS HOW ON-CHAIN ANALYSIS AND AUTOMATION ARE TRANSFORMING RISK MANAGEMENT AND STRENGTHENING TRUST IN THE CRYPTO ECOSYSTEM.

« Automation is at the core of our approach »

HOW WOULD YOU DESCRIBE THE SCOPE OF SCORECHAIN'S ACTIVITIES?

At Scorechain, our mission is to build trust in the blockchain ecosystem by making data actionable and understandable. We primarily focus on compliance, which includes detecting market abuse, money laundering, and other non compliant behaviors. We operate in 45 countries with nearly 200 clients, ranging from small startups to large financial institutions. Our tools are particularly suited for DASPs (Digital Asset Service Providers), as well as exchanges, Web3 platforms, and even traditional banks exploring digital assets. Our strength lies in our ability to provide automated solutions that comply with local regulations, such as MiCA while remaining flexible and Europe, customizable for various needs. For example, an exchange with millions of wallets can rely on us to monitor its activity in real-time, while a small business can use our tools to evaluate a specific project. Our ambition is to enable every ecosystem participant to operate with confidence while following the rules of the game.

DO YOUR TOOLS OPERATE IN A FULLY AUTOMATED MANNER?

Yes, automation is at the core of our approach, as it's the only way to meet the needs of a sector where data volumes are enormous. We have developed tools that allow for setting custom rules to monitor specific activities, such as detecting transactions exceeding certain

thresholds or identifying abnormal behaviors over a given period. We have also integrated third-party systems, like Fireblocks, to act directly on suspicious funds, for example by blocking them or placing them in escrow accounts pending verification. In parallel, we are actively exploring opportunities offered by artificial intelligence and language models (LLM) to simplify rule configuration and enhance automation. For example, a compliance officer could use natural language to create a rule, or even rely on virtual agents to validate transactions in accordance with regulations. This vision is based on advanced automation and proactive assistance to maximize efficiency while minimizing human intervention.

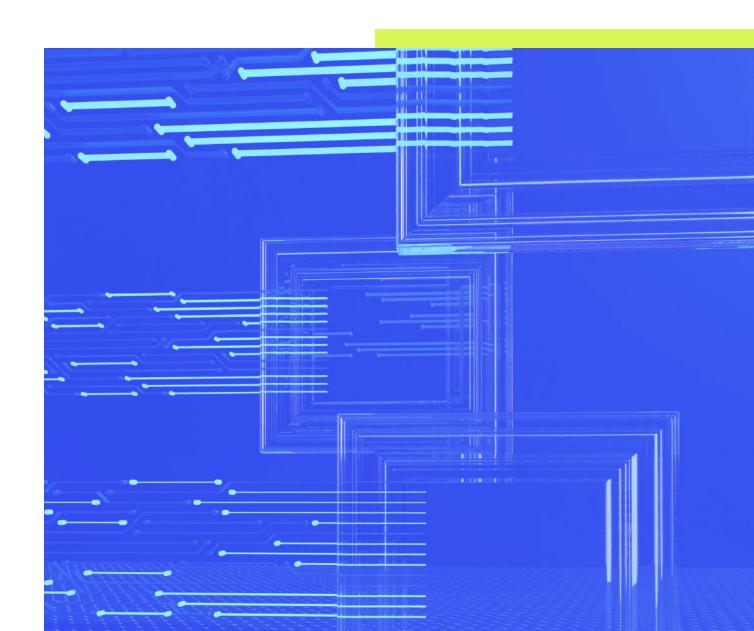
PIERRE GERARD SCORECHAIN_

HOW DOES SCORECHAIN DIFFERENTIATE ITSELF FROM COMPETITORS LIKE CHAINALYSIS OR ELLIPTIC?

The main difference lies in our positioning. We made the strategic choice to focus on regulatory compliance rather than criminal investigation. While our competitors have heavily developed by addressing needs related to forensics and fighting the Dark Web, we have built a product primarily intended for compliance officers. This choice has allowed us to develop a lightweight, automated, and customizable SaaS solution, adapted to the needs of financial institutions and companies wanting to comply with regulations like MiCA.

Furthermore, we operate on a private cloud in Europe, which is an advantage in terms of data security and sovereignty.

Our agile structure, composed of about twenty people, allows us to innovate quickly and respond to our clients' specific needs without the constraints of a large organization. This differentiated approach positions us as a key player in supporting the rise of regulations in the digital assets space.





JACQUES LOLIEUX APLO

« ORDER BOOKS ARE THE MOST COMPLEX DATA TO PROCESS »



JACQUES LOLIEUX APLO

JACQUES LOLIEUX, VP OF TRADING AND RESEARCH AT APLO, BREAKS DOWN THE DATA CHALLENGES IN THE BLOCKCHAIN ECOSYSTEM, FROM TRANSPARENCY TO TECHNICAL CHALLENGES AND REGULATORY PERSPECTIVES.

« Order books are the most complex data to process »



YOUR ROLE IS TO ENSURE THE BEST POSSIBLE ORDER EXECUTION. HOW DO YOU ACHIEVE THIS AND WHAT DATA DO YOU USE?

Our business relies on using two complementary types of data. First, we use on-chain data, which serves as reference data providing a consolidated view of final transactions. This data is essential for validating operations and providing an indisputable foundation. Second, we utilize «market data,» which reflects the activity of various marketplace venues in the ecosystem, such as Binance, Coinbase, or Kraken.

This data includes order books, executions, and other critical information to ensure our clients' orders are executed under the best conditions. This allows us not only to optimize execution but also to prove, for example, that a bitcoin purchase made at 10:20 was done at the best available market price at that precise moment. This is what we call «best execution,» a central requirement for us.

IS THIS TRANSPARENCY AN ADVANTAGE COMPARED TO TRADITIONAL FINANCE?

Absolutely, but with some nuances. In traditional finance, market data is expensive and often reserved for professionals. For example, «market data» represents the second-largest revenue source for the New York Stock Exchange, which shows how valued this data is. In the crypto ecosystem, however, this data is free and accessible to everyone, whether you're an individual or a large institution, provided you master the necessary technological tools. However, this data is often less mature than in traditional finance, where it's regulated and standardized.

In the crypto world, it's essential to collect, clean, and analyze this data to ensure its reliability, a process that requires significant resources and specific expertise.

JACQUES LOLIEUX APLO_



YOU SEEM TO SUGGEST THAT DATA ANALYSIS IS A MAJOR CHALLENGE. DO YOU WORK WITH EXTERNAL PROVIDERS TO HELP YOU?

Indeed, data analysis is a challenge, particularly due to the volume and complexity of information to process. We manage the data from key markets for our activity internally, but we work with partners to complement our needs in certain situations. For example, when we lack historical data or are exploring new markets, we collaborate with companies like Kaiko, who provide us with complex data, such as order books. This data is crucial for ensuring the best possible execution and represents a significant technical burden. Collaborating with partners allows us to focus on essential markets while maintaining access to the information necessary for our analyses.

WHAT IS THE MOST COMPLEX DATA TO PROCESS?

Order books, without a doubt. This data represents the core of market analysis, but its volume is enormous, reaching terabytes per day. Capturing, storing, and analyzing this information requires substantial infrastructure and specialized skills. We collect this data directly from exchanges for our priority markets. For secondary markets or when costs are prohibitive, we collaborate with trusted partners who provide this data reliably and securely, allowing us to optimize our operations while efficiently managing our resources.

O8
Focus

ORACLES:
CONNECTING
BLOCKCHAIN
TO THE REAL WORLD

ORACLES: CONNECTING BLOCKCHAIN TO THE REAL WORLD

While blockchains are incredibly powerful for securing and validating transactions, they are inherently isolated from the outside world. Oracles bridge this gap by acting as connectors, enabling blockchains to access essential external data, such as asset prices, weather data, or sports results.

These tools play a key role in the ecosystem, particularly for decentralized finance (DeFi) and asset tokenization, by ensuring the reliability and transparency of information used by smart contracts.

Chainlink

Chainlink is the historical leader in decentralized oracles, playing a central role in the blockchain ecosystem through its proven model of data collection, aggregation, and validation. It connects smart contracts to real-world data while ensuring reliability and security through a network of independent nodes. Its technology guarantees data integrity for various use cases, such as DeFi (Aave, Synthetix), insurance (Arbol), and cloud services (AWS). Despite its widespread adoption, Chainlink faces challenges such as continuously declining revenues, dependence on price feeds (98% of its activity), and competition from more specialized solutions like Pyth or more cost-effective ones like RedStone. To maintain its position, Chainlink is betting on innovations like CCIP, promoting blockchain interoperability.





ORACLES: CONNECTING BLOCKCHAIN TO THE REAL WORLD_



Pyth

Pyth stands out with its innovative «pull» model, which allows users to retrieve price data in real-time, unlike the traditional «push» model where prices are updated at regular intervals or predetermined thresholds.

This model significantly reduces latency and offers fast, accurate price updates. Pythnet, Pyth's dedicated blockchain, aggregates prices provided by various actors and uses Wormhole to transmit this data to different blockchains, where protocols can request it at any time. This architecture facilitates scaling by offering all available price feeds on each chain, without requiring specific deployments.

Redstone

RedStone distinguishes itself by specializing feeds for yield-bearing tokens, such as staking tokens, liquid restaking tokens, and yield-generating stablecoins. Through these feeds, it enables applications like Pendle and Morpho to efficiently integrate these tokens. RedStone also innovates with its optimized «push» model on EigenLayer, where data validation occurs off-chain to reduce operational costs. In case of error, the validator's capital is «slashed,» ensuring enhanced economic security. Its rapid growth in 2024 is explained by its response to the specific needs of trending new tokens, such as Etherfi's weETH or Ethena's sUSDe, consolidating its position in the modern oracle ecosystem.









Off-chain / Market data















COINGLASS

THETIE

COINMETRICS

CCDATA

KAIKO

COIN MARKETCAP

CRYPTORANK







COINGECKO

CRYPTO **COMPARE**

AMBERDATA

On-chain / Market data















GLASSNODE

THETIE

COINMETRICS

CCDATA

KAIKO

CRYPTOQUANT

MARKETCAP











ALENO

SANTIMENT

CRYPTO COMPARE

AMBERDATA

COINGECKO

Social Analytics





DEXU AI

KAITO AI



Block Explorers











BLOCKSCAN

ETHERSCAN SOLANA BEACH

SOLSCAN

BLOCKCHAIR

Wallets Analytics









ARKHAM

OCTAV

NANSEN

DEBANK

Blockchain Analytics













BUBBLEMAPS

CRYSTAL

INTOTHEBLOCK DAPPRADAR

SCORECHAIN CIPHERTRACE





CHAINALYSIS

ELLIPTIC

Oracles









UMA

REDSTONE



_Accounting solutions















BITWAVE

WALTIO

CRYPTIO

CRYPTOWORTH COINLEDGER

SOFTLEDGER

TAXBIT

Protocols Analytics







TOKEN TERMINAL

ARTEMIS

DEFILLAMA

DeFi Analytics











PARSEC

KAIKO

OAK RESEARCH

DUNE

THE BIG WHALE









AMBERDATA

DEFILLAMA

FLIPSIDE

MESSARI



ACKNOWLEDGEMENTS

PIERRE GERARD

Scorechain, CEO

JACQUES LOLIEUX

Aplo, VP Trading

_

AMBRE SOUBIAN

Kaiko, CEO

ANASTASIA MELACHRINOS

Kaiko, Head of Growth

-

OLIVER YATES

Aplo, CEO

This report was produced by

The Big Whale Research Team under the direction of **Grégory Raymond.**

www.thebigwhale.io

Contact us: contact@thebigwhale.io 9 rue des Colonnes, 75002 Paris, FRANCE