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**Technical Litepaper****Exorde Protocol***The decentralized knowledge network fighting misinformation***T  rence Gras, Mathias Dail, Damien Pucheu***Exorde Labs, Lyon, France*

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## 1 Introduction

Data growth has been impressive in the past few years and the online world keeps growing and accelerating. An astonishing 90%<sup>1</sup> of internet data has been created in the last 2 years. Today, the Web hosts close to 2 billion active websites and is an ever-evolving data jungle. In recent years, a great deal of attention has been devoted to the rise in "fake news": everything from satire and misleading content to articles that are completely fabricated. When any type of content (image, news, video, audio, ... ) makes it on the web, it can spread anywhere in a matter of seconds, without any original context, for any purpose. Any authentic content (or not) can be reused to create viral fake information to manipulate the public opinion on a given subject in the short term or hurt the reputation of any entity (organizations, personas, etc). News is consumed more and more via personalized and customized news sites and social media (personalized search, newsfeed), creating a bubble effect, isolating users from any news and information that is deemed inconsistent with their bias & beliefs. Rapid technological advancements and this bubbling effect mean that fake news or other informative campaigns have the potential to create a much bigger impact on society over time. The greatness of the challenge can be seen from the fact that large companies like Twitter, Google, and Facebook seem to struggle against misinformation despite the resources invested. According to a report from Oxford University, almost 60% of misinformation surrounding the coronavirus pandemic remains on Twitter without a warning label<sup>2</sup>. Facebook has increased its efforts to combat fake news, by employing human fact-checkers in combination with artificial intelligence systems. Even though the vast majority of Facebook's efforts against fake news are powered by artificial intelligence, those fact-checkers, providing the necessary human touch to reviewing fake news, are overwhelmed with the amount of data flooding the social-medial giant's platform.

The issue of leveraging information and doing online virality analysis is a global challenge. Therefore we believe that it can only be tackled by a global approach that goes beyond the reach of individual social networks or media platforms. This

solution needs to leverage both AI, on a large scale, and the work of a heterogeneous self-governed community. We propose Exorde as a solution: a global, open, censorship-resistant, and fully transparent information platform enabling trust, relevance & neutrality in its data services.

<sup>1</sup> [Big Data, for better or worse: 90% of world's data generated over last two years](#)  
- ScienceDaily

<sup>2</sup> [Twitter Fails To Remove Almost 60% Of COVID-19 Misinformation, Study Claims](#) - Forbes

## 2 Exorde Key Features

We propose an ecosystem, called Exorde, built around a core platform providing unbiased trust scores on information (and virality-related analytics), powered by its community, its AI modules, and a token-based economy.

### 2.1 Exorde Platform

The Exorde WorkSystems are the main component and will serve as a base layer for the whole ecosystem. This platform is decentralized, open, and transparent. This is where the contributors will work together to index the whole web, to extract its unstructured information, the relations, similarities, trends, and any type of pattern in the information circulating everywhere on the web, regardless of the platform or media. The Exorde platform performs a continuous knowledge extraction on the content that is indexed by its contributors, through continuous and decentralized Data Science analytics.

Exorde is governed by its DAO (decentralized autonomous organization) and uses votes and community polls. The governance is decentralized among all the community members, whether they are investors, participants, workers. Collectively, they alter the internal rules and parameters of the systems (rewards, constraints, delays, plannings, etc..) and will have a built-in reputation system. These mechanisms are designed to keep the community interests and its governance aligned at all times, for the good of the Exorde ecosystem and services.

Functionally, at the platform's core are the Work Systems, designed in layers. The Work Systems act as a digital data factory powering the **Exorde Knowledge Graph, or Exorde Graph**:

- 1) **Work Systems**: the first layer of the system where participants index different URLs taken off the Web and their data relationships (similarities, correlations) according to predefined rules and guidelines. This set of rules is set and approved by the Exorde community and can evolve to value relevance and maximize data value creation.
- 2) **Data Analytics System**: the second layer of the system where participants perform a continuous data analysis of different types on the linked & indexed data composing Exorde core database (a knowledge graph). It includes data clustering, trend analysis, labeling, tracing, partitioning, and is performed using sentence-encoder (or document-encoder) NLP models such as BERT (or other transformer-based deep learning models). Texts entities (sentences, paragraphs, titles, etc.) are transformed into numerical vectors, then added to the core neural database, allowing for scalable indexing & querying by Exorde's contributors. These data operations will increase in quantity and diversity, over time, to follow demand and to maximize the relevance of Exorde's services & products.

## 2.2 Exorde Products and target audiences

Exorde as a knowledge network can leverage the unstructured content of the web and perform first-of-its-kind virality analysis on the information circulating across the entire web. This core potential will be used, and fine-tuned, to offer services and products for different clients and users:

- 1) **Analytics and alerts for investors**: The virality analysis of Exorde can help traders (Stock market, crypto market, etc) and investors in various markets to make better judgments regarding their decisions. Disinformation plays a significant role in markets and can produce brutal, quick, and irreversible economical consequences for the actors involved. Exorde will be able to offer services enabling its users to have additional knowledge, context, and details about who is spreading the information they are consuming, especially if it is viral and recently in circulation. The platform will be able to give alerts on specific topics, to inform as

- 2) **Data services for organizations:** Exorde can help businesses and organizations (political parties, companies, NGOs, etc) understand better how information flows around, how the different topics that they are interested in are evolving across social media. Exorde can, for example, capture the sentiment around a product, a person, or a specific topic. Politicians during a campaign or various events could use Exorde to analyze their opponent's misinformation and explore how information is relayed online, or on which media platform they could increase their visibility. Organizations can also leverage Exorde's data to fight misinformation at its source, to explore how many entities are involved in relaying a viral piece of information (e.g. for strategic decision making).
- 3) **Media platforms:** Exorde aims to sell simple trust scores through high-performance or decentralized APIs. This is the end goal of the Exorde platform, to be easily integrated with the rest of the Web ecosystem, to enrich established social media and other community-based platforms by providing trust scores (between 0 and 100) and other metrics with a request-response model. Social media can integrate Exorde as a transparent third-party to significantly boost their user experience, their potential fact-checking processes, to know if a link posted by one of their users contains viral or dangerous information (e.g. phishing links, content breaching terms of use, targeted disinformation). Exorde aims to be the perfect intermediary for large platforms dealing with a large userbase, as our platform capitalizes on a transparent, decentralized community dedicated to verify and index the Web via a global approach.

### 3 Market opportunities

#### [Could We Fight Misinformation With Blockchain Technology?](#)

- The New York Times

#### [How Blockchain Can Prevent the Spread of Fake News](#)

- Blockchain Blog | Dr Mark van Rijmenam

The popularity of blockchain-based systems is growing fast. This new sector is expected to disrupt the whole industry of content creation, distribution, rights management with even new forms of remuneration. Blockchain and decentralized ledger technologies are capable of disrupting the entire creation chain. Blockchain helps here with the advent of decentralized autonomous organizations (DAO) that can accompany creators in their creation and production processes. To do this, a computer program executes a smart contract, whose rules are pre-established by the collaborators and recorded in a blockchain. The contracts can't be tampered with. For each task identified within the various processes, the amount of remuneration and the rights acquired on the result of the task are clearly defined. In a creative collaboration between the participants, the creation is then broken down into "creative tasks" (such as writing a verse or a scenario scene, composing a rhythm, in the musical context, for example) whose assembly forms the work.

The assembly, done in a decentralized and collaborative way, without third parties, is a key point, leading to the creation of value through a new form of efficient, transparent, and open collaboration. The blockchain records, automatically and in real-time, the execution of each task as well as the transaction associated with the remuneration of each collaborator. Motivated by guaranteed remuneration, the tasks are assured to be performed by a skilled collaborator, as DAOs and smart contracts are open systems where skilled workers can join freely and contribute as long as they follow the given DAO framework, rules, and guidelines.

In the last years, the industry has seen the emergence of indexing platforms like The Graph, serving as a decentralized API infrastructure for querying easily the information existing in blockchains to serve it to web applications. There are new kinds of information retrieval needs that are not matched by current major applications, due to the fundamental complexity and volatile nature of this information.

There is an empty spot in the market for a Web-based Data curation and indexing platform. This is where Exorde aims to shine, as it aims to serve a clear purpose in the Web and blockchain ecosystem, while not having direct competitors.

The knowledge database composing the core of the Exorde platform is expected to grow, by capturing increasing parts of the data market. The more its content grows, the more value will be created by the platform, impacting the value and emergence of new data services around it. Jointly, its growing userbase of contributors will enable its services to become more real-time, more accurate (in terms of coverage of the world wide web), more relevant, and more secure (more contributors to strengthen the Exorde token-based economy, securing the entire process).

Exorde is a decentralized institution creating knowledge continuously. The platform is offering data services for traders, organizations, and media platforms while being able to monetize these services and fighting misinformation as a public service. We believe that this set of use-cases and economical model can only be possible and meaningful in a trusted, open, fault-resistant and transparent environment, enabled by blockchain technology. Exorde aims for a scalable and neutral coverage of the Web, enabled by the decentralized (and therefore distributed) use of NLP technology by its contributors (scraping, indexing, and connecting information across the Web) at a large scale. The neutrality behind Exorde's services and trust scores is enabled by both its heterogeneous community of users (international user base with a diversity of incentives and interests), and the blockchain technology it relies on (the work, systems, and trust scores are transparent and auditable at all times).

Exorde is built on recent components (smart contracts, token-based incentives, NLP, Web3 protocols, decentralized storage) explaining why such a platform could not be possible before (NLP became scalable with transfer-learning in 2018-2019, scalable blockchain platforms after 2018, and decentralized storage in 2019-2020 with Filecoin or Arweave).

Exorde is designed to become the base layer of the future information industry. Indeed, similarly to how Ethereum became a base layer for decentralized applications, Exorde is designed to be a neutral & objective layer for information (explains how information propagates itself, clusters, relaying structures in the Web, trending topics), bringing the trusted foundations needed for other protocol and services to build on (fact-checking or "truth-seeking" applications). We believe that Exorde is well-positioned to both capture the untapped Data market (the fight against fake news, leveraging the Web on a global scale, cross-platform analytics) and integrate itself in the emerging Web3 ecosystem.

## 4 Tech components

Exorde is built on 4 major technological pillars:

- 1) **Ethereum**, a Layer 1 network: acts as a secure & transparent settlement layer. This is the chain that secures the Exorde token economy
- 2) **SKALE**, a Layer 2 network: an elastic sidechain network connected to the Layer 1 chain, acting as the Execution layer. It is a scalable and elastic environment, enabling high transaction throughput. The Exorde SKALE sidechain is where Exorde contributors and users will connect. It is on this Layer 2 that the Exorde collaborative work architecture is built on. This layer allows a scalable platform to be built on, for thousands of users to participate and interact.
- 3) **Filecoin**, a decentralized storage network: acts as a censorship-resistant distributed storage for the data being created by the Exorde Work Systems.
- 4) **NLP**, the branch of AI handling unstructured text. In Exorde, NLP modules are used by the platform's contributors to maintain and organize a decentralized neural database composed of all the pieces of information that the contributors are feeding into the system. NLP enables the automation of clustering similar & related content online, to build knowledge graphs on top of the raw data.

These pillars are critical to achieving Exorde's mission. Ethereum is needed to secure Exorde's governance and economy. SKALE Layer 2 is crucial to offer an application and platform that scales with its userbase, with minimal interactions costs & latency. Filecoin is the storage and content-distribution network of Exorde, serving its knowledge in a scalable way for the entire Web while guaranteeing the integrity of its data (Filecoin relies on IPFS, a censorship-resistant and immutable storage network).

Exorde is powered by its community, ruled by its economy and rules. This community of participants will be working collaboratively on a base layer of indexing. This main layer, which is essentially a collaborative information graph, is "woven" and developed through distributed web-crawling, performed by participants doing information mining. Technically, this process consists of each participant extracting structured and hierarchical information from web pages, such as text (articles, social media, free text, etc.). This knowledge extraction is a challenging part of the work. It will be performed by a hybrid mix of artificial intelligence and

community-based work. The AI component (using NLP for textual content) will allow recognizing entities in a text, extracting sentences, facts, correlating them with each other, and performing similarity checks. The supervision part will add the necessary human-related interaction to pre-process and foster the work produced by AI-based tools. This approach seems essential to make the work of the participants as efficient as possible but above all the most relevant and up-to-date regarding the information mined by the network.

As it is a decentralized work, it has to be peer-reviewed by the network. This means that a set of validators will systematically check and assess the quality of the work performed by a given indexer. Validators will evaluate work based on a set of guidelines and charts. Exorde's token economy is a core component of every process: contributor's work will be validated and then rewarded with Exorde's Token (EXD). The rewards will incentivize the fastest, most relevant, and up-to-date work to be performed, as it will reward the contributors performing the most valuable work (both in quantity and quality). The token-based incentives model creates a favorable competition-based dynamic, by attracting the best data scientists, scrapers, and information spotters in the network. This decentralized and competitive dynamic ensures that Exorde increases relevance, quality, and speed on the capture of information on the Web, increasing the value of its services and products.

## 4.1 Work Systems

Work Systems are a set of decentralized virtual & anonymous “lobbies” in which contributors (user and “bots” alike) will work together to achieve specific clear-cut goals. Work Systems offer a reward in EXD to all its contributors upon completion & validation of the work required from them.

Participation in Work Systems is regulated in two ways:

- **Reputation** (RP): As a contributor contributes to Exorde's Work Systems, said contributor is rewarded in EXD and RP (Reputation). Reputation is not tradeable and attests to the contributor's involvement in the Exorde environment. Certain Work Systems such as Moderation are only available to contributors with a very high amount of RP, acting therefore as a testimony to that contributor's trustworthiness with regards to Exorde.
- **Staking**: to prevent spamming and ill-intentioned contributors, every participant in every Work System requires an “entry-fee” or stake. The stake is



paid in EXD and is either paid back in full if the contributor's submission is accepted, or slashed (partially or totally) if it is not.

### How to participate in the WorkSystems?

Participating in a Work System simply requires having an Exorde-compatible virtual wallet activated. These wallets can be created directly through Exorde's main website. If this option is privileged, user wallets will be protected by Exorde Labs (double authentication, support & more..).

Certain Work Systems are locked as they will require a set amount of RP to be available. Work System selection can be performed directly on Exorde's main website or through the API that Exorde Labs will provide.

Each Work System will come with a tutorial explaining how that Work System works that contributors will be forced to follow on their first contribution to it. After going through the tutorial, the contributor will enter a queue to be allocated the most critical work in the Work System to which he/she has subscribed.

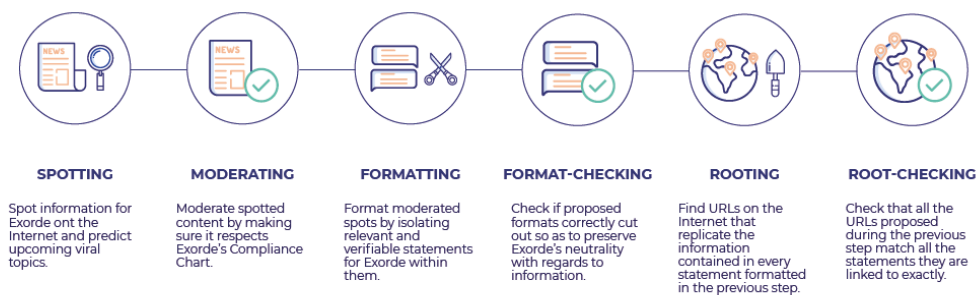
Upon completing the work related to the Work System, that contributor will obtain a reward in EXD and RP put on "hold" . This "hold" will be released when verification has been performed on the work done. If validated, the contributor is rewarded according to the quality of his/her participation. If rejected, the contributor's reward will disappear as well as his/her stake.

Work Systems are the core of Exorde. They are built to be:

- **Neutral:** contributors are anonymous, only identifiable by an ID created for the Exorde platform. This anonymity enforces Exorde's neutrality, and therefore its value as a service specialized in providing trust scores for information
- **Transparent:** all contributions are publicly accessible through the use of the blockchain
- **Fair:** contributors know the maximum of EXD they can make in participating
- **Collaborative:** almost all Work Systems require a consensus of votes to be reached to produce value
- **Accessible:** Work Systems can be accessed through Exorde's official website with no background tech knowledge required, or through an API provided by Exorde Labs for those more comfortable with technology

- **AI-Powered:** Exorde Labs will provide open-source AI modules to help contributors automate Exorde’s Work Systems. Such open-source modules will not be sufficient to fully automate the processes but will act as a guiding template for those willing to work on making them better
- **Modulable:** All Work Systems rewards can be adjusted through a series of votes to make sure that the available workforce for Exorde is evenly spread out. Further modulation can be brought about by adjusting stakes for these same systems, further balancing the entrance of certain systems

This summarized process of the Work Systems workflow will be detailed below:



- 1) **Spotting:** a simple Work System where a Spotter places a vote on a URL in exchange for a small stake in EXD. Spotters are asked to prioritize viral information (URLs that are prone to generating the most internet traffic). Spotted URLs are eventually Moderated to make sure they respect Exorde’s Compliance Chart (which Spotters should keep in mind while placing their votes). If the Spotted URL is accepted during that phase, it will move on to the next Work System: Formatting.
- 2) **Moderating:** A system that ensures that Spotted content for Exorde respected Exorde’s Compliance Chart
- 3) **Formatting:** Format information sources in such a way that they can be Rooted effectively and in a deterministic way. Formatters are asked to follow a series of guidelines to establish how a piece of information should be Formatted. Information sources are broken down into “Formats” or series of “facts” that are relevant to Exorde, neutral in the way they are cut (not leaving out important contextual information), and verifiable.

- 4) **Format-checking:** Assess the quality of a Formatting session by reviewing its resulting Formats and their compliance with Formatting guidelines. A Formatting submission is either accepted in full or not at all. This all-or-nothing system allows for more simplicity within Exorde and avoids having recursive Formatting sessions where only certain Formats would have been accepted for instance. This will also enforce collaboration between Formatters to reach a consensus faster while maintaining quality.
- 5) **Rooting:** Root the Formatted-content by finding URLs on the Web for every Format or 'fact' within the information source that directly repeats said Format. Rooting is the center-most important Work System of Exorde. This is where a given content (for a given source/creator) will be linked to other contents elsewhere on the Web, therefore creating a 'map' of the Web in the process.
- 6) **Root-checking:** Assess the quality of a Rooting session by reviewing its resulting proposed URLs and their compliance with Rooting guidelines. A Root submission is either accepted in full or not at all. This all-or-nothing system allows for more simplicity within Exorde and avoids having recursive Rooting sessions where only certain Formats (and their URLs) would have been accepted for instance.

More information on the Work Systems (incentives and rewards curves, formulas) can be found in Exorde's Whitepaper.

## 4.2 Voting Systems

Voting Systems are a subset of Exorde's Systems aimed at regulating the inner workings of the Exorde platform. Through them, Exorde's community will be able to fine-tune anything ranging from the rewards given by the Work Systems (modulable for every Work System), all the way to the trust scores allocated to every information source (done for every domain name on the Web). Voting Systems are essential in Exorde to preserve the neutrality of the platform and ensure that the community retains all the power to shape Exorde's future.

Participation in Voting Systems is regulated in two ways:

- **Reputation(RP):** As a contributor contributes to Exorde's Work Systems, said contributor is rewarded in EXD and RP (Reputation). Reputation is

not trade-able and attests to the contributor's involvement in the Exorde environment. Certain Voting Systems such as changing Work Systems-related variables are only available to contributors with a very high amount of RP, acting therefore as a testimony to that contributor's trust-ability with regards to Exorde.

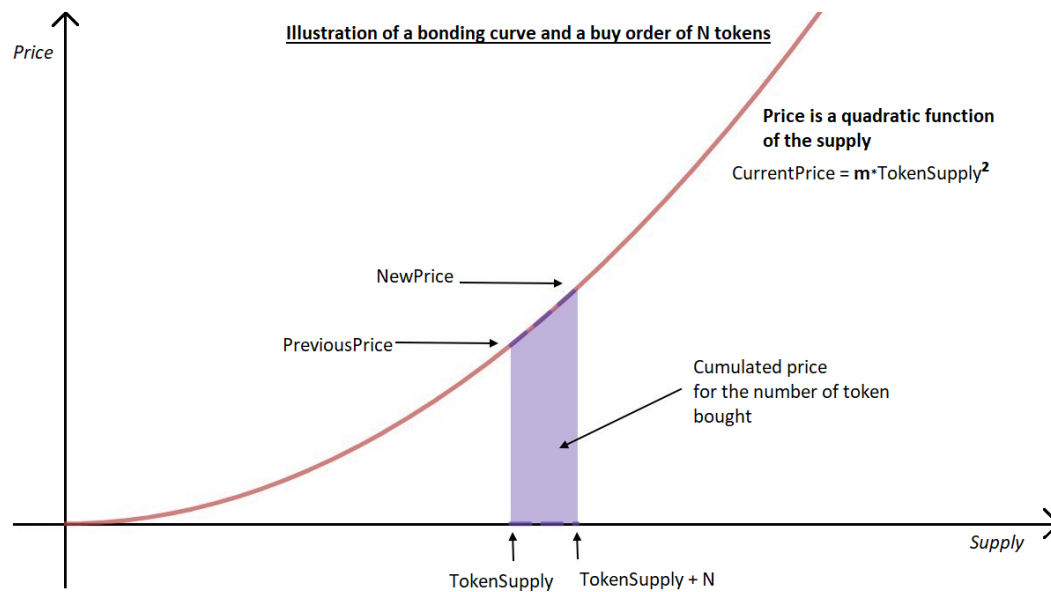
- **Staking:** to prevent spamming and ill-intentioned contributors, every participant in every Voting System requires an “entry-fee” or stake. Unlike Work Systems, this stake is not paid back. Voting System stakes are far lower than those that can be found in Work Systems, as their role is mostly to fight against vote spamming.

More information on the Voting Systems can be found in Exorde's Whitepaper.

## 5 Token Economy

The native token of the Exorde ecosystem is the utility token EXD. This multi-purpose Utility Token will be used for Governance, Staking, and all value transfers inside the ecosystem.

The token will be issued through a continuous token model, called a bonding curve. In this system, the current token price is mathematically related to the current token supply. The price will follow a quadratic growth function of the current supply. The Bonding Curve model is defined under a  $y = m * x^e$  type of equation, with  $m$  being the slope and  $e$  the exponent of the curve.



Launching a token with a bonding curve system, implemented as a smart contract is a strong decision, as it is a perpetual market-making system. Once this contract is launched, users can buy or sell into the curve. Buying pushes the token price up along the curve, while selling pushes the token price down along the curve.

This modern distribution model provides many advantages. It includes being an automated and highly customizable market maker. It allows participants to buy and sell early while enjoying a liquid system. It gives early buyers an additional incentive to buy early (into the curve), creating a positive cascading dynamic over time. If a project has a solid foundation, its continuous improvement should create more demand, ultimately driving the price up the curve. We believe that it is important to allow for the token to derive its value from the real-world value

created by the project, as it creates an economic feedback loop enabling a properly priced and sustainable system.

## 5.1 Utility Token

The Exorde Protocol is managed by contributors around the world who participate economically or technically in the ecosystem. The Exorde Protocol is governed by EXD token holders.

The EXD token, based on the ERC-20 standard, is the native asset of the Exorde ecosystem. It is a utility token with multiple utilities:

- 1) Acts as the **medium of exchange** in the Exorde ecosystem to buy data indexing and analysis services, or to pay for API requests.
- 2) Used as **rewards (economic incentives)** for the participants in the Exorde Work Systems. Each system will reward the work done by its contributors, according to their quality, quantity, and reactivity. The rewards amounts will be designed and adjusted often by the Exorde Governance to incentivize the most relevant, up-to-date & consistent work done by the Contributors.
- 3) Acts as **voting rights** during governance events: the amount of token a user holds determines his voting rights weight during Governance polling and votes. Note that Reputation also plays a role in determining a user's voting rights in different voting events.

Exorde's Governance systems involve Protocol Voting and Polling. The EXD holders govern the Protocol, its parameters (reward rates, rules, reputation system parameters, etc.), and its functionalities (they decide on updates, new smart-contract-based functionalities, etc.). The system is economically designed to align the economic interest of the EXD holders with the platform's interests, to ensure its long-term stability, to keep its data relevant, and to guarantee maximal value creation by the ecosystem.

As there will be different types of decisions and different levels they apply to (technical decisions, global updates, big-picture type of decisions), The Governance will be structured in several committees, with a potential hierarchy in the decision-making, to make Exorde's governance fluid, efficient and scalable while still keeping complexity as low as possible.

The EXD token will be based on a token-bonding curve smart contract, acting as an automated market maker ensuring:

- 1) Reserve: the bonding-curve will always be fully reserved for traders to buy or sell into the curve, even right after launch
- 2) Economical independence from secondary markets (centralized exchanges, etc.)

The long-term financial sustainability of the Exorde Platform will be guaranteed by two different token income streams:

- 1) Trading Exchange Fees: each sell order on the token-bonding curve will include a fee, applied to the transaction value.
- 2) Data Services market: any type of data service (data analysis requests, analysis requests, Exorde Graph exploration, etc) will include a fee, applied to the transaction value.

These fees will be redistributed, via smart contracts, to finance the Exorde Ecosystem. They will be split between the Developer Fund and the Rewards Pool, ensuring both continuous development by Exorde Labs and the neutrality of the Work Systems by providing continuous economic incentives to its participants. The Exorde platform's long-term economic sustainability is always ensured and scales with the growth of its community and the size of its data-based economy.

## 6 Initial Bonding Curve Offer

### 6.1 Terms and Conditions

Exorde Labs is a company based in Lyon, France, managing the issuing of the EXD tokens. The EXD utility token will act as a medium to interact with the Exorde platform, as well as with the services and products available on the Exorde ecosystem.

### 6.2 Token Emission

Exorde's native utility token, the EXD, is based on the ERC-20 standard, the emission of tokens is done through a bonding-curve system, implemented via a smart contract. EXD token will be issued and created in two phases:

- 1) The **Initial Token Distribution** event
- 2) The **Initial Bonding Curve Offering**.

During the initial token distribution event, EXD tokens will be minted and allocated to different entities (Seed investors, partnerships, Founders, Advisors, Protocol Rewards, Community Bounty program, Liquidity Pooling).

The rest of the EXD tokens will be created via the Bonding Curve, replacing the traditional ICO phase. When the initial hatching phase of the bonding curve ends, the curve will kick in, providing a perpetually available system to buy new tokens. (When someone buys into the curve, the system mints new tokens, and symmetrically destroys tokens when someone sells).

The IBCO has the following rules:

- Is open to participants from permitted jurisdictions who perform KYC.
- Starts with a hatching phase, which can be seen as an ICO. This phase determines the initial starting price on the curve.
- Tokens purchased from the IBCO, after the hatching phase, have no cliff or vesting period, those can be immediately claimed, transferred, or sold back to the Curve.
- When tokens are bought from the Curve, new ETH tokens are created, and the price of the token increases, when tokens are sold back to the Curve ETH tokens are destroyed and the price of the token decreases.
- Bonding curve is inspired from the Bancor\* continuous liquidity protocol.  
**Explore Bancor Whitepaper Here**
- There is no fixed hard cap for the number of tokens, as opposed to traditional ICOs, that can be minted by the Bonding Curve. However, there's a practical limit given by the market. Indeed, linear growth in token emission results in an exponential growth in token cost. The token supply is expected to reach an equilibrium, depending on current supply and demand.

The initial token distribution will have the following structure and smart contract enforced vesting:

- **Seed investors:** tokens reserved to early/seed investors; Linear vesting of 48 months.
- **Development Fund:** tokens reserved for Exorde Labs to develop the protocol and its products. Linear vesting of 48 months.



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- **Team Fund:** tokens reserved to incentivize Exorde Labs team members and Founders to contribute to the project with a long-term mindset. Linear vesting of 48 months.
  - **Advisors:** tokens reserved to Advisors who support the project. Linear vesting of 24 months.
  - **Community/Bounty Program:** tokens reserved to the community members who participate in the community-organized data science tournaments and other campaigns, aimed at improving the technology and adoption of the ecosystem. Linear vesting of 6 months.
  - **Ecosystem Rewards:** tokens reserved for rewards to community members participating in the Work Systems and the broader Exorde ecosystem. Linear unlock over 72 months.
  - **Liquidity Providing:** funds reserved for liquidity bootstrapping (for example on decentralized exchanges).

In the setup that has been designed, no entity can mint more tokens, except through the bonding curve smart contract. The initial token amounts are fixed and can't be changed later on, and by doing so, we prove to our potential investors that the Exorde ecosystem is committed to its original business plan.

Note that the amounts and allocations described above are subject to change until the ICBO.

## 7 Team

### **T rence Gras, CEO**

Terence is a computer vision engineer very involved in anything AI/ML-related for image processing. He has worked both in the video game industry and on production lines in the spatial & transportation sector. This is also where Terence has learned to pitch new ideas, to drive new technology adoption in big groups with international influence. His role in this project is that of steering the Company's Vision in the right management and defining the business strategy both short & long term.

### **Mathias Dail, CTO**

Mathias is a software engineer with a specialization in data science. Initially, with a background in programming, networking, and back-end systems, he has specialized later in Data Science and most especially NLP. He always had a thing for complex systems & interconnected architectures. Curiosity made him discover smart contracts development when it started to emerge a few years ago. Since then, he has kept learning about decentralized protocols & token models. He realized that combining NLP technology with the strengths of decentralized networks could leverage the entire unstructured Web through a complex, coordinated, yet fascinating approach. Therefore, his mission is to combine NLP with the power of decentralized systems, through a new form of digital organization, to make Exorde emerge as an innovative service of the Web3 ecosystem.

### **Damien Pucheu, COO**

Damien is a software engineer who worked for Suez, Monsieur Tshirt, and Lectra. He joined Exorde to build all the visible parts (platform, APIs & extensions) to offer the best experience to all users. Great operational leader, he always knows what web technology to investigate and integrate to make a better product. He identifies the best solutions quickly and always keeps scalability in mind. As the company will grow he will focus on its COO role by working on business and processes to help Exorde reach its goals.

## 8 Legal Disclaimer

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