DATAEUM

DATA REVOLUTION

WHITEPAPER

Version 3.2 - June 03, 2019

DISCLAIMER

The Dataeum Whitepaper is intended to provide potential Dataeum token (XDT) holders with information regarding the Dataeum project and the Dataeum tokens (XDT) Sale.

This Whitepaper is made for informational purposes only and is not intended to and should not be relied upon or construed as a legal opinion or legal advice regarding any specific issue or factual circumstance, including but not limited to a basis for any investment decision.

No data presented hereinafter constitutes an offer or solicitation to buy or subscribe to debentures, stocks or shares issued by any person or entity; units in a collective investment scheme; or any other security or class of securities, nor shall it be interpreted in that way.

The Dataeum tokens (XDT) mean cryptographic ERC20 tokens, issued by Dataeum and can only be used through the platform for the services that concern and are offered by Dataeum.

The Dataeum tokens (XDT) are not securities, are not registered with any government entity as a security, and shall not in any case be considered as such. The Dataeum tokens (XDT) are not intended to be a digital currency, commodity or any other kind of financial instrument, do not represent any share, stake or security or equivalent rights, including, but not limited to, any right to receive future revenue shares and intellectual property rights, and do not represent any ownership right.

Certain statements in this Whitepaper constitute forward-looking statements. When used in this Whitepaper, the words “may,” “will,” “should,” “project,” “anticipate,” “believe,” “estimate,” “intend,” “expect,” “continue,” and similar expressions or the negatives thereof are generally intended to identify forward-looking statements. Such forward-looking statements, including the intended actions and performance objectives of Dataeum, involve known and unknown risks, uncertainties, and other important factors that could cause the actual results, performance, or achievements of Dataeum in its development of the Platform to differ materially from any future results, performance, or achievements expressed or implied by such forward-looking statements.

No representation or warranty is made as to future performance or such forward-looking statements. All forward-looking statements in this Whitepaper speak only as of the date hereof. The Dataeum expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statement contained herein to reflect any change in its expectation with regard thereto or any change in events, conditions, or circumstances on which any such statement is based.

The Dataeum Whitepaper may be executed in the other languages. In case of any discrepancies between different versions, the text in English language shall prevail.

SUMMARY

DATAEUM IS A BLOCKCHAIN-BASED PLATFORM WHICH USES CROWDSOURCING TO ENABLE THE COLLECTION OF 100% OF ALL GLOBAL PHYSICAL DATA (SUCH AS STORES, GAS STATIONS, TRAFFIC SIGNS) ANYWHERE IN THE WORLD, WITH 100% ACCURACY.
IT DOES THIS BY USING A DISTRIBUTED WORKFORCE OF "COLLECTORS" WHO ARE INCENTIVISED IN XDT TOKENS TO SUBMIT PHYSICAL DATA.

1. EXECUTIVE SUMMARY

Today, we live in what many call the Information Age, where digital data production is at the heart of all ecosystems. Businesses of all sizes — large and small — are using some form of data to drive growth. By 2020, our accumulated digital universe of data will grow from 4.4 trillion gigabytes today to around 44 trillion[1]. However, one of the downsides of this huge production is poor data quality, causing yearly losses of an estimated $3.1 trillion in the US alone.

Used by billions of individuals, data allows users to locate and move between different Points Of Interest[2]. However, most of the data is not captured; **less than 0.5%[3] of the world's data is analyzed or exploited**. On maps, only 8%[4] of pin-points are accurate, and 80% of online listings display inconsistent, inaccurate or missing physical data. That is because data is still crude, unrefined and hard to find.

As individuals living in this Age, **we have become instruments of data collection through our actions, behaviors and movements**. It has been of tremendous value to many companies, but oddly enough, they are getting all this data without our consent.

So, doesn't it seem a little unfair that there is no reward for those of us who generate these data?
That is why we are introducing you to Dataeum.

"OUR MISSION IS TO PLACE HUMANS AT THE CENTER OF THE DATA ECOSYSTEM"

As the amount of data available keeps increasing, Dataeum tackles the challenges of data ownership and data reliability. **Data needs to be decentralized, disintermediated, and incentivized**. Rising collaborative solutions using the Blockchain and Smart Contracts now make it possible.

Using crowdsourcing, Dataeum will offer the first collaborative and decentralized platform for data generation. Any individual will now be able to collect a high quantity of physical data through a mobile application and get rewarded in Tokens. This innovative solution will make it possible to **gather 100% of the real world's data with 100% accuracy**.

[1] http://www.emc.com/leadership/digital-universe/2014iview/executive-summary.htm.
[2] A point of interest, or POI, is a specific point location that someone may find useful or interesting. Most consumers use the term when referring to restaurants, shops, ATMs, schools, pharmacies, hotels, campsites, fuel stations...
[3] https://www.technologyreview.com/s/514346/the-data-made-me-do-it/
[4] https://moz.com/blog/local-listings-how-canadian-retailers-stack-up-what-you-can-learn

Disintermediation will be brought to the data ecosystem by the Dataeum platform where data will flow freely and securely between data collectors and acquirers. Dataeum's role is to create an ultra-scalable and highly reliable platform and secure the relationship between both parties.
Dataeum is going to change the existing paradigm so that data generation is no longer exploited by large corporations at the expense of the individuals who create it.

Over the past 2 years, our mobile app has been up and running. We have collected all the data on Point of Interests in cities such as London, Paris, and Barcelona. We have already licensed our database to several companies, and the model has proven its scalability and profitability.

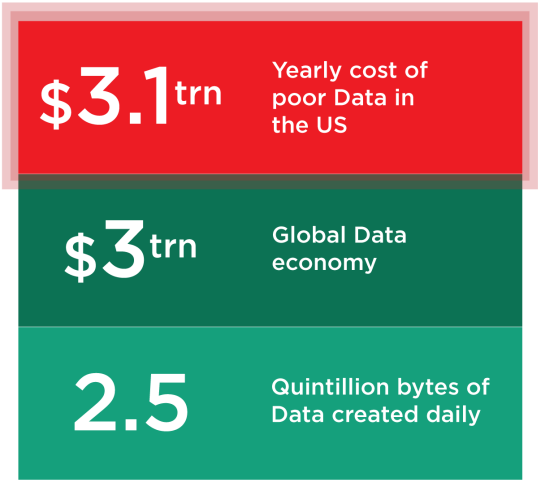
The decentralization enabled by the Blockchain suppresses the middlemen and directly connects users to data acquirers. The Blockchain and Smart Contracts technologies provide full transparency on how data is collected, verified, updated and guarantees the reward for the collectors.

2. MARKET

The data market is now estimated to be worth more than 3 trillion dollars[5]. With 90% of its production achieved in the last two years, and growth that will increase tenfold by 2025[6], data is considered the “new oil"[7].

While oil and gas companies used to have the highest market capitalizations, the most valued companies today are the ones that have based their business around data: Alphabet, Apple, Facebook, Amazon, Netflix, Uber, Microsoft, etc.

A gold mine for private companies and other governments, data has become part of the daily lives of individuals. It allows large firms to know more about their desires (Google), their needs and movements (Facebook, Uber) but also to influence their buying behaviour or preferences (Amazon, Netflix). **Data is thus a direct source of value creation**.



As the data production rises, the quality of data is still poor. In the US[8], **the annual spending on bad data quality is an estimated 3.1 trillion dollars.**

Even as its production increases, data remains difficult to harvest and even harder to verify. It is particularly the case of physical data, which consists of all the visual elements individuals interact with: stores, administrative buildings, cultural centres, roads, sanitary facilities, electrical terminals, traffic signs, vending machines, etc.

2.1. Physical Data: Introduction

Physical data have different attributes[9]:

- *Category* (restaurant, hotel, road, traffic sign, charging station...);
- *Contact details* (name, email, address, telephone number…);
- *Geolocation* (latitude, longitude);
- *Variable data* (times, operating status...).

[5] According to the World Economic Forum https://www.weforum.org/agenda/2017/09/the-value-of-data.
[6] https://www.storagenewsletter.com/2017/04/05/total-ww-data-to-reach-163-zettabytes-by-2025-idc/.
[7] “Data is the new oil” : citation relayed on multiple occasions, from major decision-makers like Ajay Banga (CEO of Mastercard) or Atana Basu (CEO of Ayata) to the specialized press defining it as the "most valuable resource" (The Independent).
[8] https://hbr.org/2016/09/bad-data-costs-the-u-s-3-trillion-per-year.
[9] Type of digital information attached to an element.

*non-exhaustive list of potential players

These data are used by different players:

1. Maps or mapping and geolocation services use data to complete, update and enrich their services;
2. Companies seeking to complete their BtoB databases for prospecting, listing, mailing, telemarketing, statistics, etc.;
3. Artificial Intelligence services needing access to accurate and updated information to provide autonomous solutions;
4. BtoC services Geo-targeting users in order to promote goods and services;
5. Public services and governments for statistical, census and urban landscape development purposes;
6. And more generally, all individuals using physical data to determine their location and interact with the elements of their environment;

A variety of businesses have built their activity and business model around physical data.

Map[10] accuracy relies on virtual representations of physical data. In fact, people use Maps in 44% of cases that involve looking for a place, and 41% of these searches result in a physical visit[11]. The Google Maps application (the 4th most used mobile application in 2017, according to Nielsen[12]) alone has more than a billion yearly users. **Used to locate, move, or get information, physical data are the essence of maps and their reputation will depend on the accuracy and updates of these data**.

Despite its importance, physical data remains difficult to collect and qualify. This is expressed by Brett Hurt, Co-founder of Data.world, in Forbes: *"People say that data is the new oil, but the truth is, it's crude, unrefined and hard to find."*

Such is the case for physical stores. In the US, at least **40% of them have at least one incorrect or missing address listed online, "leading to $10.3 billion worth of lost sales"**[13].

To go deeper in the analysis[14], it appears that:

- **80% of online listings for top retailers display inconsistent, inaccurate or missing data**[15].
- When it comes to Facebook, 90% of physical data is either inconsistent or missing, and 75% for Google+.
- **Only 8% of map pin placements are correct.**

[10] Digital maps provided by different actors: Google, Apple, Bing, Here, TomTom, etc.
[11] https://www.gybo.com/downloads/search-listing-research.pdf Ipsos Study.
[12] http://www.nielsen.com/us/en/insights/news/2016/tops-of-2016-digital.html
[13] http://streetfightmag.com/2017/06/23/what-happens-to-local-data-when-physical-stores-close/
[14] https://moz.com/blog/local-listings-how-canadian-retailers-stack-up-what-you-can-learn
[15] The top US retailers are outperforming the top twenty-five Canadian retailers by over 28% - https://moz.com/blog/local-listings-how-canadian-retailers-stack-up-what-you-can-learn

Worldwide, the analysis of the different local data providers[16] demonstrates that 70%[17] of the physical stores are not displayed on any map, and 30 to 40% when relating to large cities[18].

To better understand the limitations of physical data availability and accuracy, one must understand how they are generated.

2.2. Physical Data Generation: Limits

There are five main approaches for physical data generation:

Methods	Limits
 **Use of multiple external databases among specialized companies** (Acxiom, Infogroup, Factual, national directories...)	Data verification based on their redundancies with different sources and not on their actual reliability.
 **Recovery by using computer bots to extract and analyze website content** (example: GoogleBot)	Content is sometimes inaccessible.
 **Use of collaborative mechanisms allowing users to fill in or update information** (Foursquare, Google guides program, Waze...)	Low incentives or rewards for users.
 **Use of image recognition technologies** (street view car)	Information is often invisible, inaccessible, or unavailable (front store obstructed, pedestrian areas). Very high operating and analysis costs.
 **Registration by the stores themselves** (maps, social networks, databases...)	Process too complex and not suitable for a non-tech-savvy population.

[16] https://moz.com/learn/seo/local-search-data-us
[17] Estimated upon the analysis of market studies and cross checking informations provided by Google, OpenStreetMap, Factual, Yext, Yellow Pages, Apple Plan.
[18] Cities with more than 200,000 inhabitants

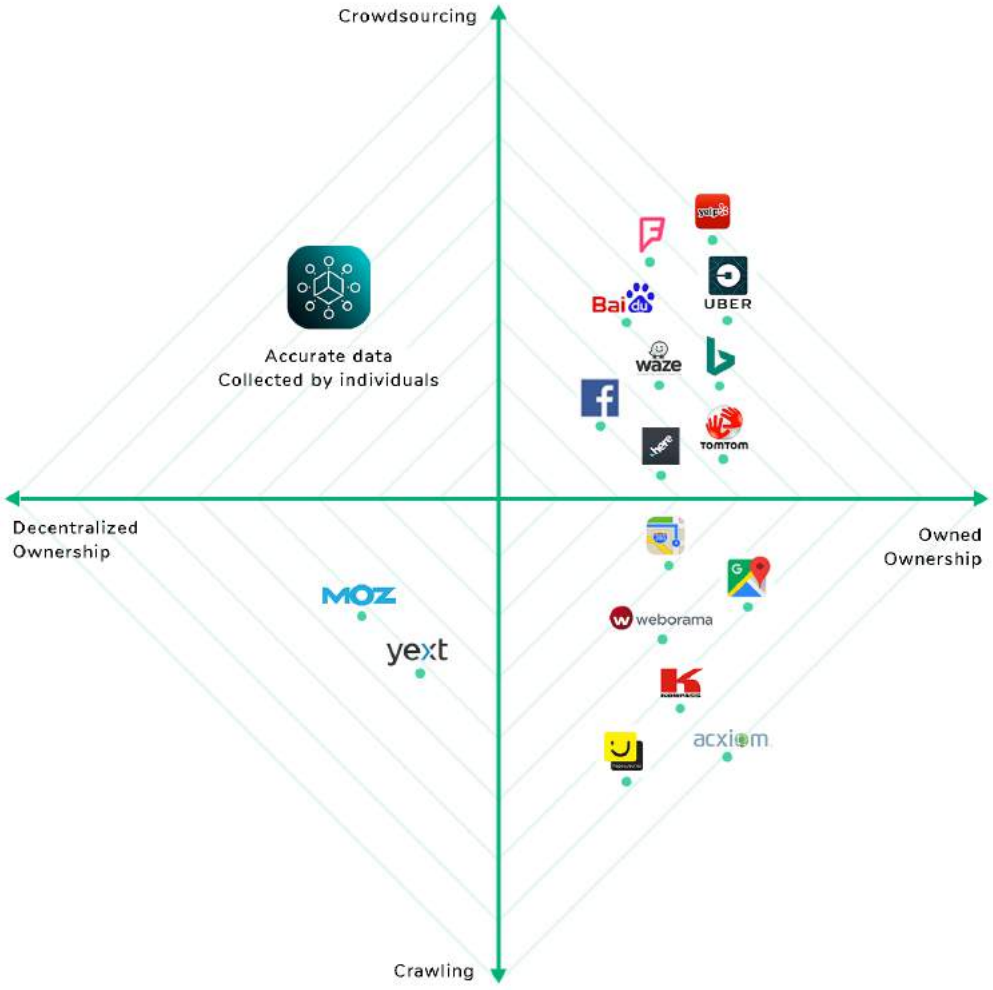
Finally, all these **methods are limited because they do not meet the first needs of maps and run the following risks: incomplete data, out of date, not reliable, or high maintenance costs**.

Several challenges persist due to the very nature of physical data:

- 58%[19] of physical stores do not optimize for local SEO[20], which means that information is not available, nor updated in online listings
- business hours and phone numbers change regularly[21]
- 15%[22] of roads are modified each year in developed countries
- new housing appears every day in connection with an ever-increasing urbanization of emerging countries[23]

Whether passively[24] or actively[25] collected, physical data remains the consequence of human actions and behaviors. To give back people the value of their production, while improving the process of data generation, the model must be reinvented.

Hence, by putting individuals at the center of a decentralized data generation protocol, Dataeum's solution will provide unparalleled data quality to the market.



[19] https://www.reviewtrackers.com/local-search/.
[20] seo : search engine optimization. Optimization of the organic position on the search engine.
[21] For example, companies like Kompass or Acxiom only list in their database 4000 fast-foods in Paris, France. We estimate there are nearly 4 times as many.
[22] TomTom Study.
[23] 250 million new housing will be needed in 2030 in 12 pays. it represents 61 % of the world population (urban-hub.com).
[24] Collection carried out indirectly following an individual's action: analysis of movements, use of cookies, content or search for places of economic and social interest, opinions, social networks, etc.
[25] Collection directly following an individual's action: saving a point of interest on a map, creating a Facebook page, etc.

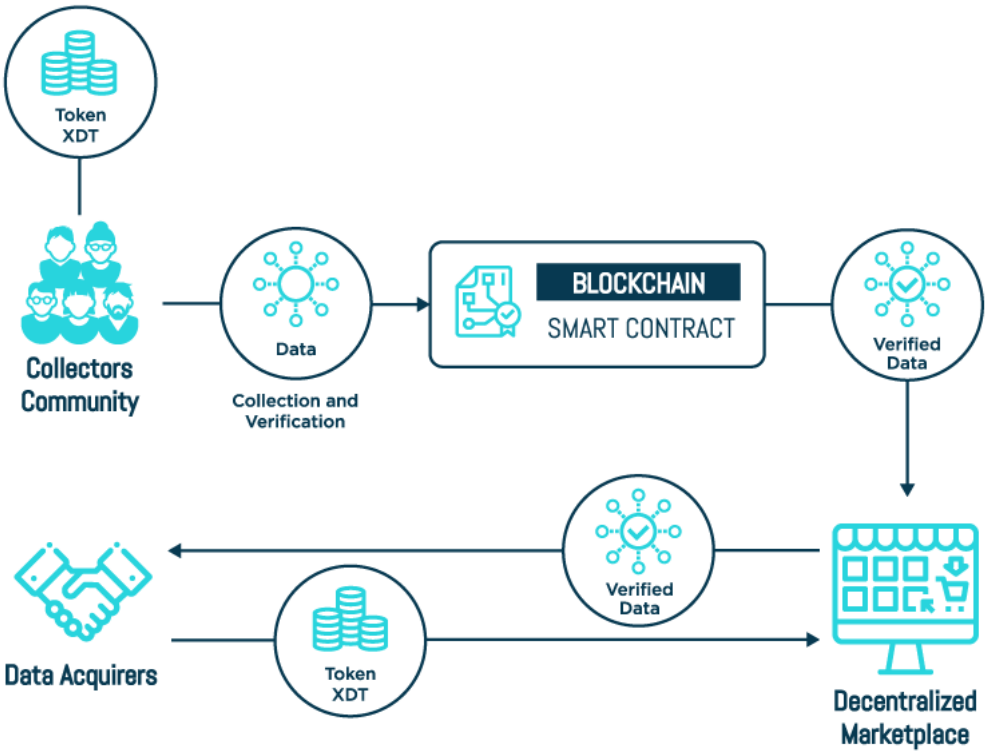
3. DATAEUM'S SOLUTION

With that in mind, Dataeum has set up a unique and innovative **solution to collect 100% of the world's physical data**[26].

Using crowdsourcing[27], the solution allows those who collect and generate data to be rewarded. **Data will then be accessible for use within a decentralized marketplace**, according to the different needs of each market player: navigation services, BtoB prospecting, listings updates, telemarketing, statistics, etc.

Data will flow freely, transparently and securely from the individuals who collect it to those who exploit it.

The Token Dataeum "XDT" will be the fuel for the exchanges, from collectors to data acquirers.



Dataeum will be the backbone of the first decentralized and collaborative network for physical data generation.

This decentralized network will democratize access to data while rewarding those who generate it. Backed by the blockchain, it will guarantee the transparency of the data generation process, its collection and accuracy.

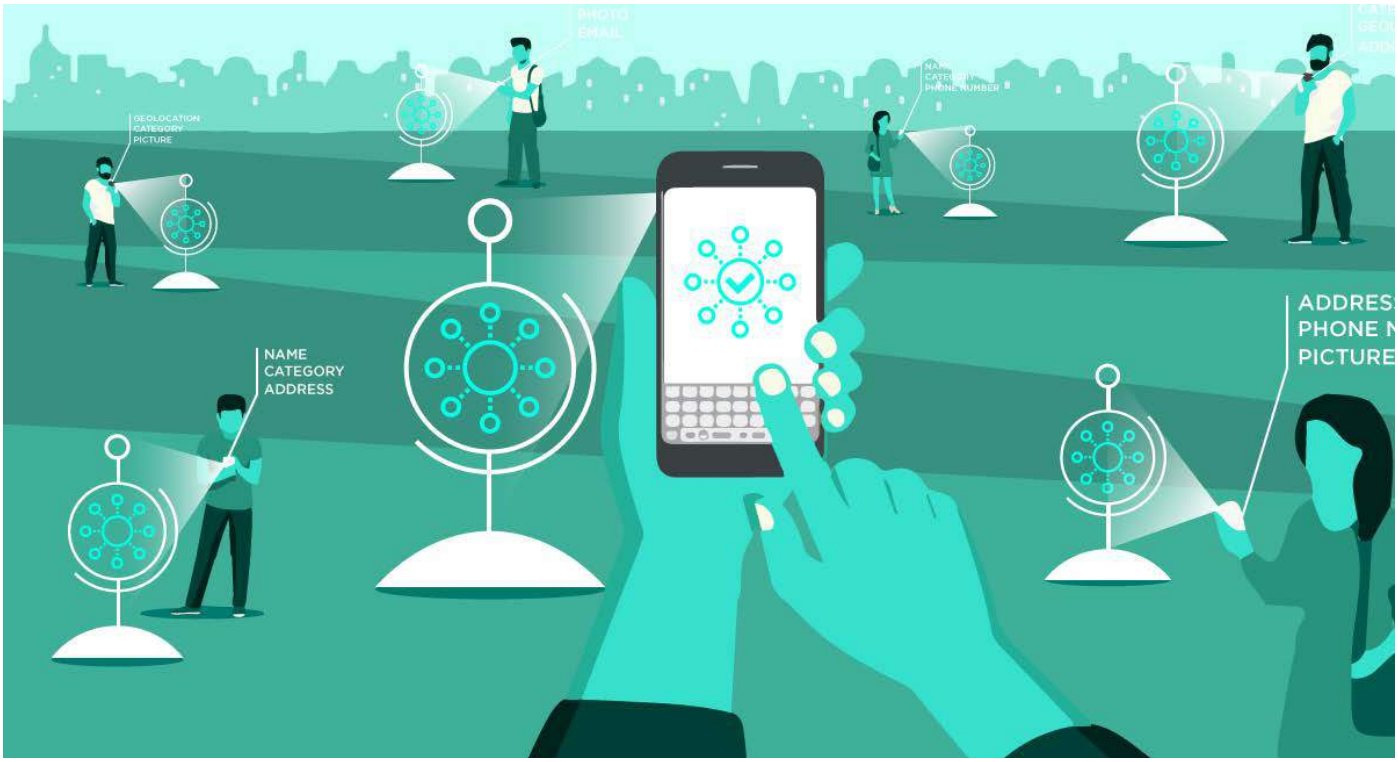
[26] visual elements individuals interact with : shops, administrative buildings, cultural centres, roads, sanitary facilities, electrical terminals, traffic signs, vending machines, etc.

[27] large amount of people who gather on a platform to perform tasks usually done by an employee or contractor.

3.1. Crowdsourced Data Generation

The sharing economy - or crowdsourcing - was born 10 years ago with the rise of Uber. Today, it affects all major sectors such as transportation (Lyft, Uber), delivery (Deliveroo, Stuart), hospitality (Airbnb), freelancing (Upwork), etc. By 2025, this economy will generate a revenue of $335 billion in key sectors[28].

When it comes to data generation, crowdsourcing remains under-utilized, but it is the only way to access to physical data from any location, and with unprecedented coverage.



Data collection is done through a mobile application used by a community of collectors who are rewarded for their actions. This reward is calculated according to a “collection value" (cv) price.

The collection value is applied to each physical data and calculated using an algorithm that takes into account several criteria, such as:

- Gross domestic product (GDP) and hourly average wage in the area concerned
- Demand and rarity
- Online availability and accessibility
- Data licensing market value
- Hourly average wage in the area

Other metrics are used to establish the collection value. It provides a strong incentive to collection participants. As these metrics change over time, the cv is also bound to evolve.

[28] key sectors in the study are described as the following: travel, transportation, finance, recruitment, music and video streaming: https://www.pwc.fr/fr/assets/files/pdf/2015/05/pwc_etude_sharing_economy.pdf.

PROOF OF SOLUTION

The mobile application is already available in an Alpha version. It is dedicated to the collection of one of the main components of physical data: physical stores[29]. It allows collectors to harvest the following attributes:

- Name
- Address
- Phone number
- Geolocation (latitude and longitude)
- Category
- Opening hours
- Photo(s)
- Email
- Website

This solution has been tested in three major European cities (Barcelona, London and Paris). **It has proven its scalability, the data attractiveness towards market players and the profitability of its business model.**

Following are the results of the tests:

Cities	Objectives	Results
BARCELONE	Launch city **Testing physical data collection model** and acquisition of collectors	**Collection of all the data from 150 000 stores** in 6 weeks with 2000 collectors **40% of the stores collected were not displayed on any map**
LONDON	**Testing scalability** of the collection model	**50 000 stores collected in 2 weeks** Validation of the expansion model
PARIS	Collection within the scope of the first partnerships signed **Validation of the collection model**	**120 000 stores collected** in 3 weeks **17% of stores collected in the center of Paris do not appear on any map**

Crowdsourcing thus provides a solution to one of the constraints of physical data: **accessibility.**

[29] also named "local stores"

For each data collection cost, a 2.5 ROI[30] can be reached for a yearly data licensing towards a unique data acquirer.

Online listings (such as digital maps or online directories) represent a main part of physical data use and thus, acquisition. To generate data that will be provided to users, data acquirers are dealing with data providers - among the 3,500-4,000[31]data brokers over the world (Acxiom, Factual, YP...etc). To ensure the data accuracy, these players multiply partnerships with data providers. It's the redundancy between these different sources, matched with the existing database, that generates the final data proposed.

Dataeum aims to become a reference for all market players dealing with physical data, enabling them to drastically reduce data acquisition costs by using one trusted provider. To become this reference, one must be able to prove transparency on the way data is collected. Moreover, data should be verified and due to its evolving nature, it should also be regularly updated.

By linking this solution to the blockchain, Dataeum will bring transparency and accuracy to the data generation through a decentralized process.

[30] Return on investment between the amount paid to collectors for the data collection and the amount charged to data acquirers. This is calculated by taking into account the following figures with the three targeted area:

- Cost per physical store collection: 0.20€ to 0.30€
- Amount per physical store licensing (yearly): 0.50€ to 0.90€
- With three partnerships (this is not limited) the ROI can reach 8.5.

[31] https://en.wikipedia.org/wiki/Information_broker

3.2. Physical data decentralization

The collector is the first node of the data generation chain. Attracted with marketing campaigns, social media, job posting sites and student networks, the collector initiates the data collection.

Data is collected through our mobile application and validated in a 2 step process:

- Collector 1: first data input
- Collector 2: data verification

Each collector receives a **quality score** to maintain a high level of reliability.

The **verified data is then made accessible on the decentralized marketplace** and regularly updated to keep it accurate.

Using the blockchain makes the data unalterable, guaranteeing the transparency and traceability of its validation process: **collection, verification, update**.

The efficiency of the Dataeum decentralized network is therefore based on two pillars:

The decentralized and collaborative data generation enables any physical data to be collected and verified;

The decentralized marketplace makes this data accessible.

Tamper-proof, immutable and decentralized, the blockchain ensures the integrity and verification of the data available on the marketplace. This brings confidence and security to the data acquirers that exploit it. Using Smart Contracts technology also guarantees the rewards of the collectors.

3.2.1. Physical Data Generation: Decentralization and Evolution

1°) Data Generation Process

Before hitting the marketplace, all physical data collected will be verified and thereafter, regularly updated. The collectors will also be evaluated and rated along the process.

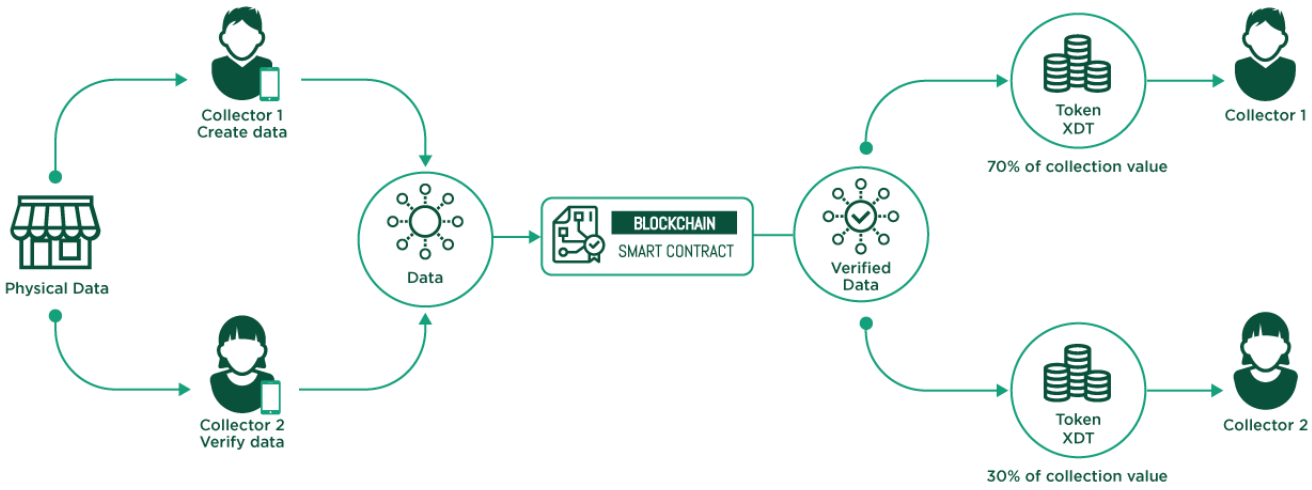
In order to conduct these procedures, the following techniques will be used:
Proof-of-Existing Data, **Proof-of-Constant Data** and **Proof-of-Trust**:

Proof-of-Existing Data (creation / verification): **compares the collected data** from two different collectors. **If both data match, the data will be considered as valid**. If not, the data remains invalid until a further collector validates it.

Thus, a collector has **two functions**:

- **Initiate** the data collection: input a data point that has never been collected before;
- **Verify** the data collected: check a collected data not yet verified

The first collector, who initiated the data, will obtain 70% of the collection value (cv[32]). The second collector, who verified the data, will have the remaining 30%.



Example:
In case of where a physical data has a collection value of 10 XDT, the first collector will be rewarded 7 XDT and the second collector, 3 XDT.

This process allows the full validation of the collected data. Once the data is validated, the reward for collectors is automatically triggered.

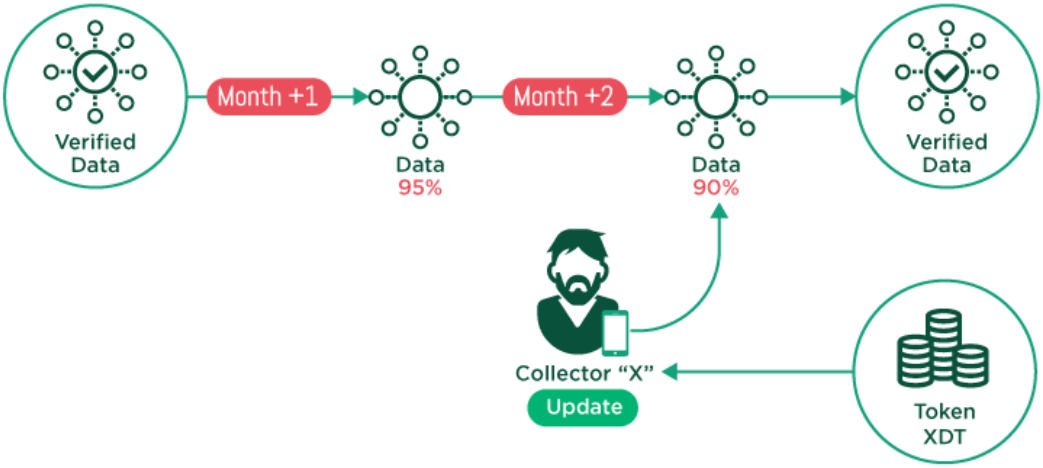
[32] Collection value of collected data: GDP, demand, availability, density, data rental value in the targeted areas and different metrics allow to establish a collection value for each physical data of the real world

Proof-of-Constant Data (update): to assure a constant accuracy, data will be regularly updated. Its **accuracy rate will decrease progressively** on a monthly basis (X%[32] per month). An algorithm will guide the collectors to maintain up-to-date data.

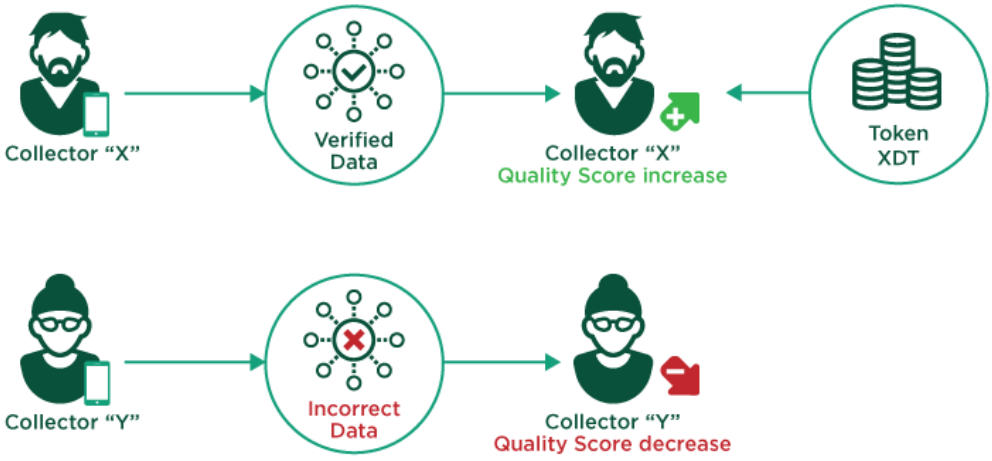
The collector who updates physical data will be rewarded based on the data's collection value (cv) and its accuracy rate.

Example:
In the case where physical data has a collection value of 10 XDT and a 5% monthly decrease of its accuracy:

- *accuracy rate for the second month = 90%*
- *collector's reward on the second month: 10% x 10 = 1 XDT*



Proof-of-Trust (evaluating the collector): The **collector will get a "quality score"** for his or her collection actions. The more collectors initiate, update and verify data correctly, the higher their "quality score" will be. A higher quality score leads to a higher level of "trust", and thus a quicker reward and attractive incentives.



In order to alternate their actions, collectors will be guided to initiate, verify and update data. Thus, collectors will have to undertake all of the different type of actions (initialization, verification and update).

To prevent abusive or fraudulent behavior, the quality score will also be taken into consideration to determine which collector will carry out the action. Also, an incorrect collection can lead to a retroactive decrease of the collector's quality score.

[33] This percentage is different depending on the type of data. Data sets more sensitive to changes (independent shops and new shops) may see this rate decrease by 5% to 10% per month depending on the zone. On the other hand, established elements, such as monuments or museums will see their rate decrease by 0.1% per month. A scale of discount rates will then be established based on the areas and actual items collected.

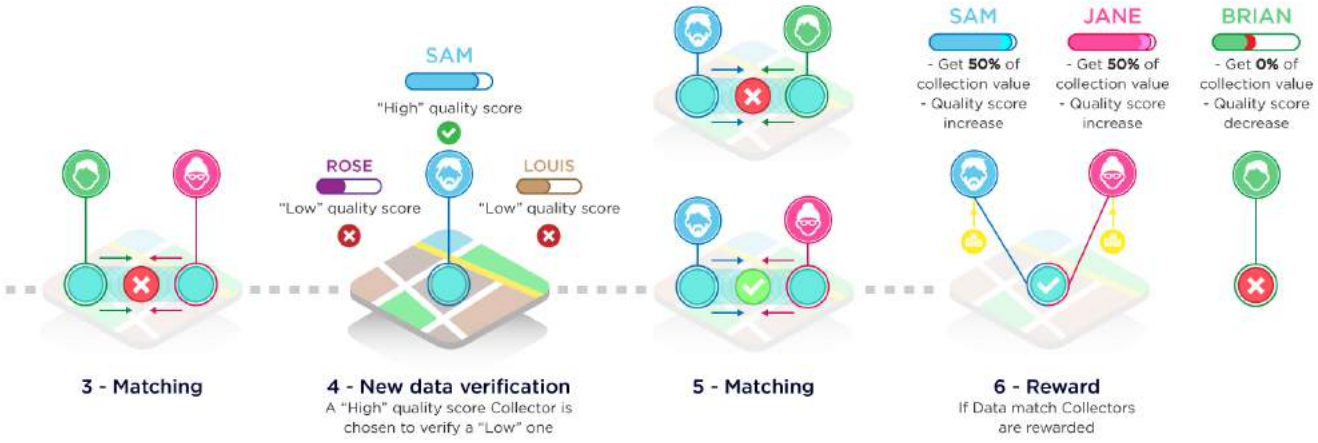
The “quality score”, and the process of data verification/update, which consists of the collectors being chosen with an advanced algorithm, guarantee the accuracy of the generated data.

USE CASE

Brian, who has a low “quality score” will see his data collection verified by a collector (in this case Jane) with a high quality score. Jane, in order to keep realizing higher incentive actions of data initialization, will have to verify collections of other collectors. The validation of the data during the decentralized matching process will trigger both Brian and Jane’s rewards. If the data doesn’t match, another collector (Sam) will validate either Brian’s or Jane, thus updating their quality score.

Data match:

Data do not match:



By linking crowdsourcing to the blockchain and using these techniques to provide proof for the generation of physical data, Dataeum's solution makes it possible to collect and verify 100% of physical data in any part of the world:

Solutions	Methods	Physical data collection	Reliability/Accuracy
Dataeum	- Crowdsourcing - Blockchain - Proof of existing data - Proof of constant data - Proof of trust	- 100% in any area in the world	- 100% verified - Highly accurate
Other: **- Maps** **- Databases** **- Data brokers** **- Directories** **- Institutions**	- Database - Website cross-matching - Image recognition	- Only 60% to 70% of "big cities[34]" physical data - Only 30% of worldwide physical data	- 40% of online listed data is inconsistent, inaccurate or missing

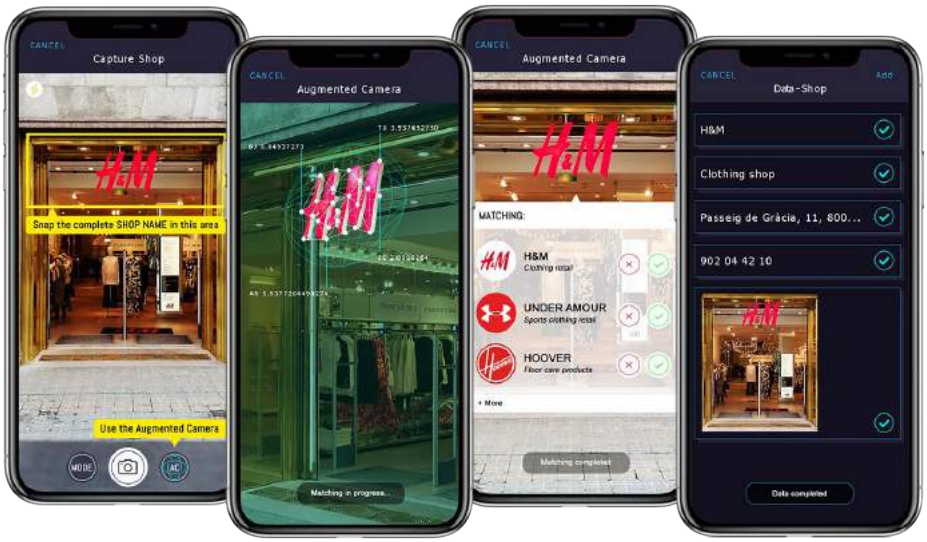
[34] Cities with a population of more than 200 000 inhabitants

2°) Evolution and Optimization of the Data Generation:

Initially made for the generation of physical stores or POI[35], the mobile app will evolve to gather the entire set of physical data available in the real world.

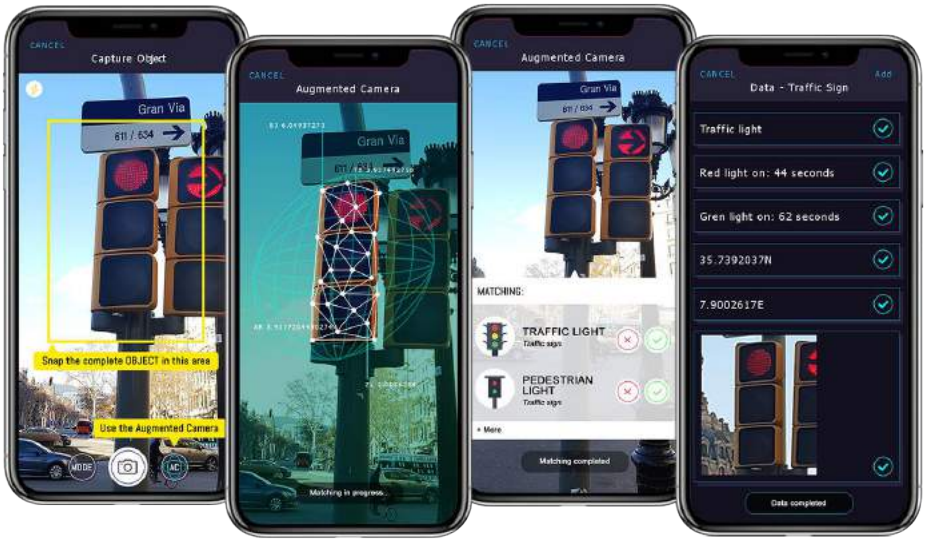
Deep Learning[36] is used to analyze the data and user behavior and will help improve the solution. **Image recognition technology will facilitate data collection**, and **Artificial Intelligence will ease and optimize its verification**.

Example of storefront recognition:



AR features (Augmented Reality[37]) features will allow automatic, intuitive and instant recognition of any visually accessible data: stores or other POI, street signs, traffic lights, benches, street lamps, vending machines, metro stations, taxi stands, bus stops, etc.

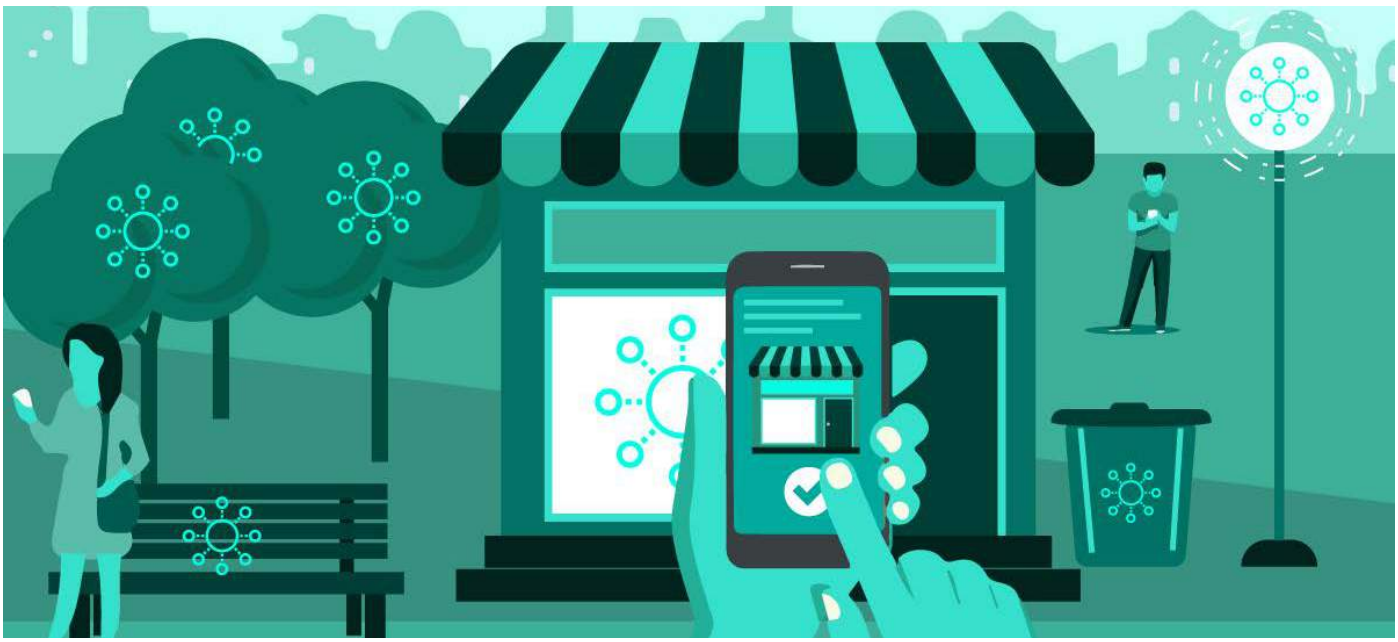
Example of object recognition:



When capturing an element, a virtual overlay will be displayed on the screen facilitating the input and validation work of the collector:

- recognition of stores front door and objects
- recognition of typology and numbers (name, hours, discounts...)
- recognition of obstacles (example: damaged roadway)
- attendance analysis

[35] A POI (point of interest) is a specific point location that someone may find useful or interesting. it can be a tourist attraction, a business, a hotel, a restaurant, an ATM, a pharmacy, a medical centre, a shop, a gas station, a museum, a school, etc.
[36] A set of automatic learning methods that attempt to model data with a high level of abstraction. Technique allowing rapid progress, especially in visual analysis.
[37] Superposition of reality and elements calculated by a computer system in real time. It often refers to the different methods that allow virtual objects to be realistically embedded in a sequence of images.



IMPLEMENTATION OF THE SOLUTION:

First, Dataeum will implement the collection of stores into the blockchain. Then, Dataeum will improve its application and open its solution to all available physical data (roads, traffic signs and lights, benches…).

The collection of physical data worldwide will open new fields of data exploitation such as:

- Census of all elements of the urban landscape: vegetation, cycle paths, electric terminals, waste bins, telephone booths, sanitary facilities, sports complexes, etc.;
- Optimisation of journeys for people with reduced mobility by identifying all pavements and their characteristics;
- Identifying visual failures of elements of the public space: damages in the roadway, uncollected garbage, defective ticket machines, etc. so that they can be fixed more quickly by local institutions.

A gamification model will be implemented in the app to boost mass adoption and incentivize the community to contribute. Loyalty and contributions will be rewarded with Tokens.

3.2.2. Decentralized Marketplace

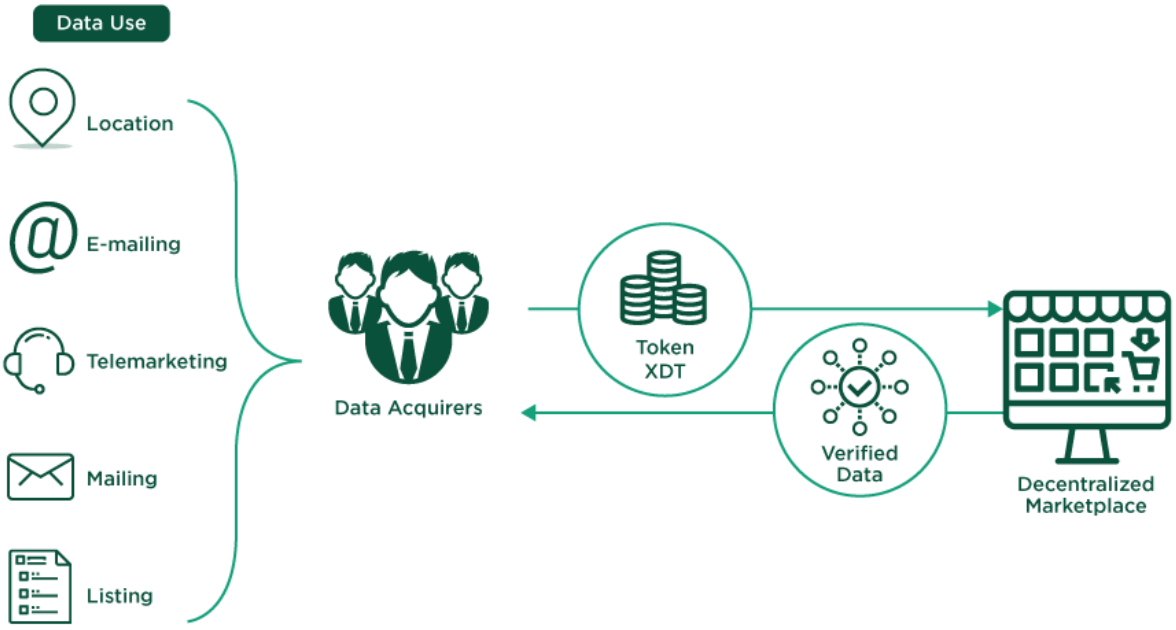
The **Dataeum decentralized marketplace aims to democratize access to all physical data in the world** (stores, gas stations, ATMs, monuments, road signs, etc.). In addition to giving access to data consultation, **the marketplace offers XDT token holders the following possibilities**:

- **LICENSING** of the data for use and exploitation
- **ACQUISITION** of the data ownership exploitation (DOE)

1°) Licensing of Physical Data

The licensing (or rental) of the data will be addressed to **different types of market players**:

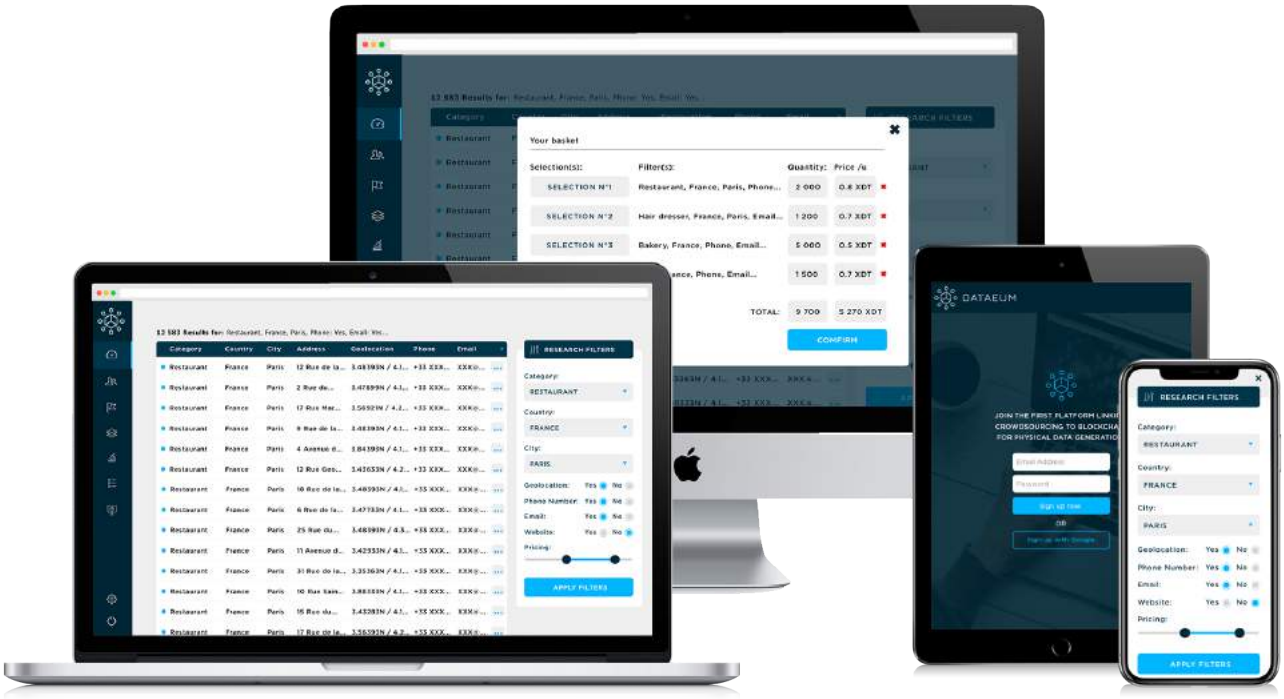
- **Maps**
- **Private companies**
- **Urban planning companies**
- **Local authorities**



In order to exploit the data available on the marketplace, these players (or data acquirers) will have to license (rent) its use.
The **licensing price will be calculated according to a market value** "mv". This value depends on the type of data concerned (email, address, name, geolocation) and use (consultation, one-time use for marketing actions or recurring for online listings) ; this value also depends on its average rental cost in the area where it is located.

The platform will thus propose all available attributes for each physical data :

- *Type of data* (stores, cultural sites, administrative services, etc.)
- *Date of collection*
- *Date of last update*
- *Exact location* (latitude / longitude)
- *Attributes specific to certain types of physical data* (for an example of a store: name, address, type, telephone number, time, etc.; for an example of a traffic light: wait time, position)
- *etc.*



From the platform, data acquirers will be able to specify their needs and directly obtain the desired data.

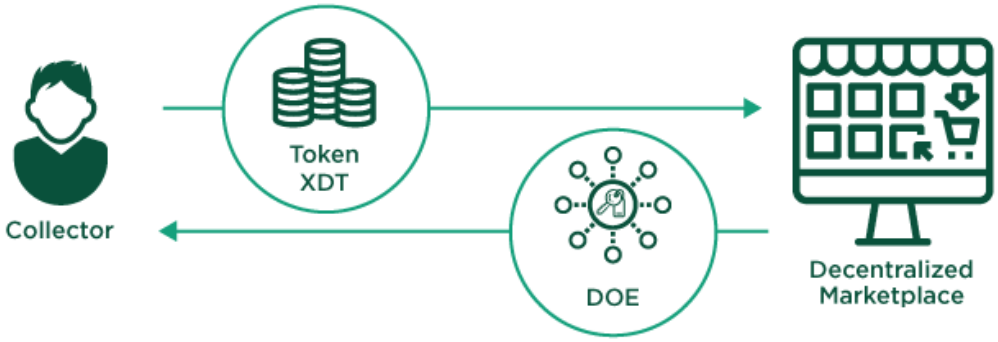
The tool will also provide an API to constantly access updated data.

As a point of access and interaction with the data available on the blockchain, the marketplace establishes a link between the collection on the mobile app and the availability of the data to the market players.

The revenues generated by data rental will be reused to finance new collections, verifications and updates. Dataeum will also charge a commission to ensure the proper function of the network and its development.

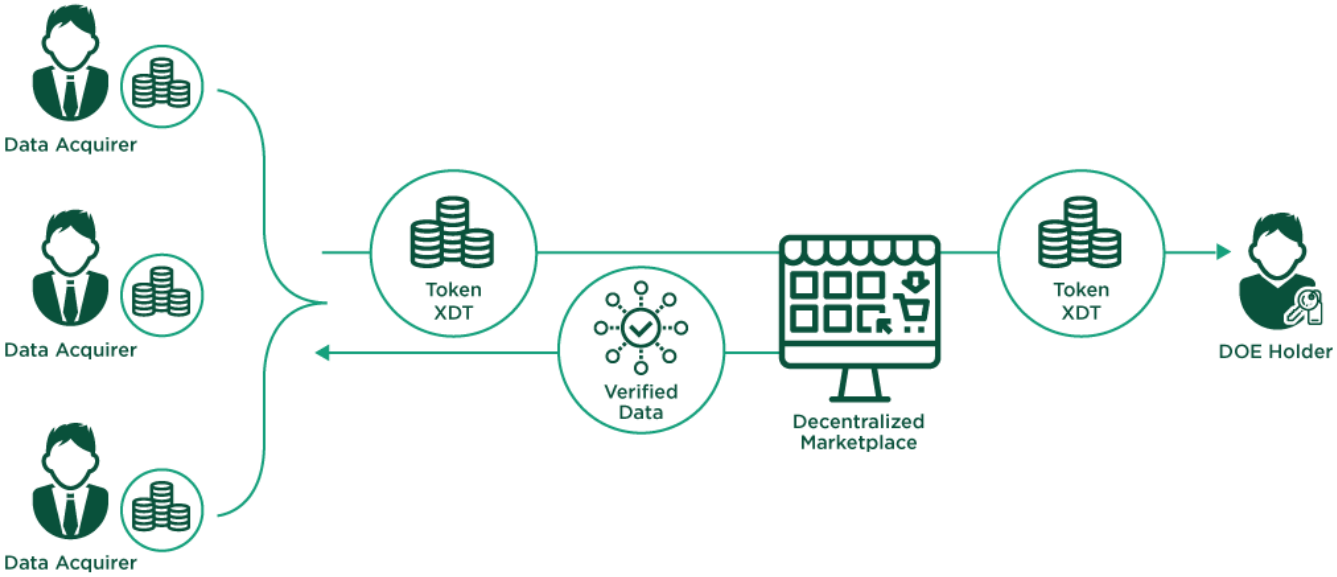
2°) Acquisition of Data Ownership Exploitation (DOE)

From the marketplace, it will be **possible to acquire the exploitation ownership of physical data**.



This data ownership exploitation (DOE) will enable the acquirer **to be rewarded based on all the income generated by the exploitation (rental) of the data**.

The **DOE option gives each XDT token holder the possibility to invest in the activity of the network and the value created by the exploitation of the data**. The more the activity develops, the more physical data will be exploited and the more the DOE holder will be compensated.



The DOE acquisition cost will be directly calculated by the platform, based on a fixed[38] and variable value depending on the recurrence of its commercialisation and the income generated by its exploitation.

The data that has had its ownership of exploitation purchased will remain obligatorily available for rent on the marketplace and the rental price will always be defined by the market value (mv[39]). The DOE can also be resold by its holder who will have the option to determine its resale price.

The collectors who initiate the physical data collection will be offered a priority option to acquire its DOE. If they use it, they will become DOE holders and beneficiaries of the revenue generated by the data exploitation once the physical data is validated. On the other hand, if they do not use the option, the DOE will be proposed to the collectors that verified the data.

If none of the collectors use their option, the DOE will become accessible on the marketplace for acquisition by any XDT token holders.

The blockchain and Smart Contracts technology will guarantee the remuneration granted to the DOE holders based on the revenue that the data generates.

The amount received for the sale of DOE by Dataeum, as well as a commission charged on its exploitation revenues,, will be allocated to future collection campaigns and to the overall function of the network and its evolution.

[38] According to the following criteria: average rental value, demand and availability on the market, category.
[39] Market Value: this value depends on the type of data (email, address, name, geolocation) but also on its average rental in the zone where it is located. Also, it can vary according to the recurrence of its exploitation.

FIRST EVOLUTION OF THE MARKETPLACE:

The Dataeum marketplace will initially be dedicated to physical data attributes for physical stores or POIs.

The first market players to interact with the marketplace and data licensing will be:

- Companies offering navigation services or maps looking for geolocated data (non-exhaustive list: Google, Here, Apple, YP, TomTom, Bing, Foursquare, etc.);
- Companies offering products and services for physical/local businesses (Groupon, Kompass, Deliveroo, etc.), or BtoB data brokers (Factual, Axciom, Infogroup, etc.), looking for physical data attributes for various uses (mailing, emailing, listing, telemarketing, statistics).

The advantages of the Dataeum solution for these market players are the following:

- **Unique:** Dataeum provides data that no other player is able to collect (the only solution capable of collecting all data in the world);
- **Transparent:** the collection and verification circuit of data validation is guaranteed by the blockchain because it is immutable;
- **Reliable:** verification and updating are guaranteed by the blockchain and Smart Contracts;
- **Fast** and **scalable:** Dataeum is able to deploy its data collection solution in any part of the world and gather data in any major city in less than a couple of weeks;
- **Simple** and **decentralized:** accessible directly from an interface or via an API.

In order to educate the market players on the marketplace's use, Dataeum will also have a data brokerage role, by linking the data stored in the blockchain to potential acquirers. Additionally, as any token holder, market players will have the possibility to interact directly with the marketplace, and access to the data for consultation, licensing, or DOE acquisition purposes.

FUTURE EVOLUTION OF THE MARKETPLACE:

In addition to evolving to a fully automated data licensing solution, the marketplace paves the way to new evolutions.

The decentralized marketplace will be an objective source for public and private market players. Bringing together all the information from the real world, it will enable scientists, governments and private companies to understand all the current components of the visual environment and establish the foundations for the construction of new cities.

The marketplace is intended to gain independence in order to become a self-sufficient meeting place between data demand and supply.

4. TECHNOLOGY

The Dataeum platform will be **built on different technological layers to ensure the efficiency, security and flexibility of data collection** until their availability on the marketplace.

The main challenges that need to be addressed are:

- **Speed:** ability to respond in real time to multiple read/write requests;
- **Scalability:** ability to adapt to an increasing load and to a constantly evolving number of recorded data;
- **Flexibility:** the structure of the recorded data could evolve with the proposed service;
- **Accessibility:** data should be able to be stored as structured data and retrieved via advanced queries;
- **Cost control:** the high demand for reading/writing should not lead to excessive costs;
- **Immutability:** data cannot be modified or deleted in order to guarantee its integrity.

DATA STORAGE:

In order to meet these different criteria, BigchainDB will be used as a **storage solution for collected data**. This technology, already operational, offers the combination of best of both worlds: the **traditional distributed database and the blockchain**.

One of the points raised was to **make data flexibility coexist with immutability** because these two notions come into conflict. Indeed, immutability prevents the updating and deletion of data, common to any "traditional" database. BigchainDB responds to this conflict by implementing the CRAB (Create-Read-Append-Burn) method. It allows data to be updated by creating a new version of the data.

Focusing on scalability, BigchainDB offers a speed of over 1 million writes per second, a petabyte capacity (1,000 TB) that increases with each node added, storage of structured objects, advanced queries and a rich permissions model.

MEDIA STORAGE:

Each physical data collected requires at least an image linked to the visual element concerned by the collection. **Media storage** will be supported by a new technology layer, IPFS. It is based on a peer-to-peer system that provides decentralized resource hosting in each node of the network. Thus, each resource is duplicated and versioned, making the infrastructure infallible.

To summarize, the following interoperable modules will be used by Dataeum:

- The Dataeum XDT token, ERC20 Token based on the Ethereum platform;
- Wallet of the Dataeum platform where tokens created during the TGE (Token Generation Event) will be stored;
- BigchainDB-based data storage spaces (https://www.bigchaindb.com);
- IPFS-based media file content storage space (https://ipfs.io);

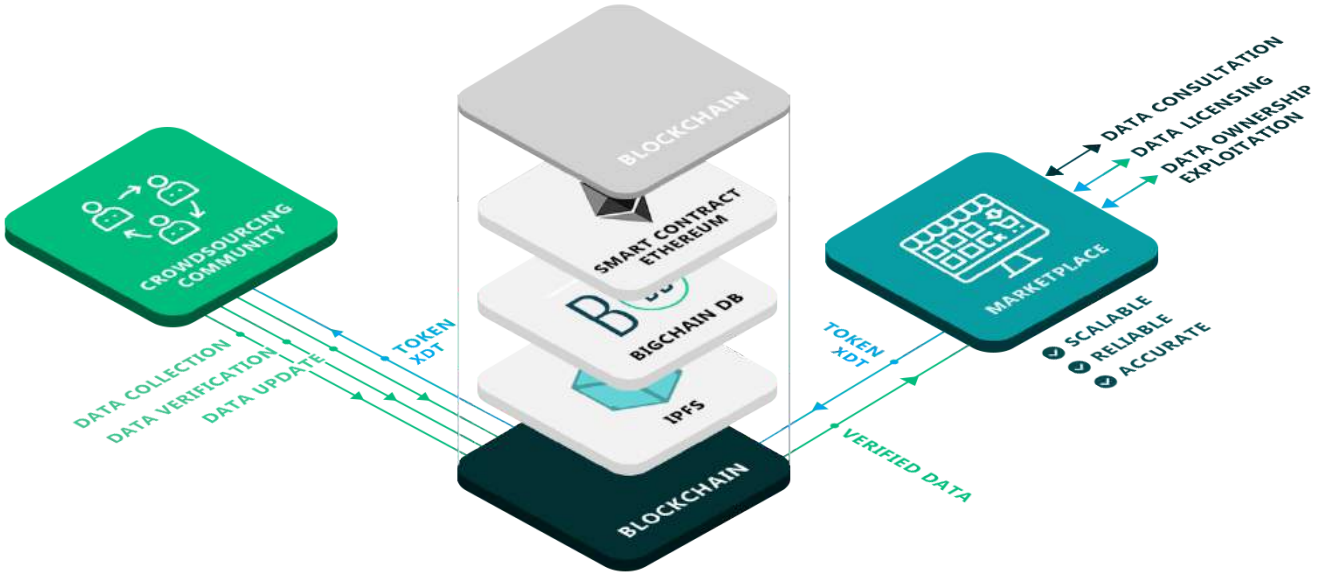
Dataeum will not exclude the possibility of new technical choices since other solutions under development promise similar functionalities and benchmarks (TiesDB, Parity, etc.).

WORKFLOW:

The first step consists of collecting and storing attributes of the physical data through the mobile application directly on the blockchain. A part of the previously collected attributes are reused in order to give minimum and already pre-filled inputs to the collectors in the verification and update phases.

The stored data will then have its status updated, pending or validated if there is a match. Once “validated”, a new version of the data is created to replace the previous one in the blockchain. The validation of a data triggers the remuneration of the collectors via an oracle and using the Smart Contract Technology.

Validated status also makes the data available on the marketplace. The data is then made accessible for any token holder for different actions: consultation, licensing, DOE. These actions are triggered from an interaction with the Smart Contract Token.



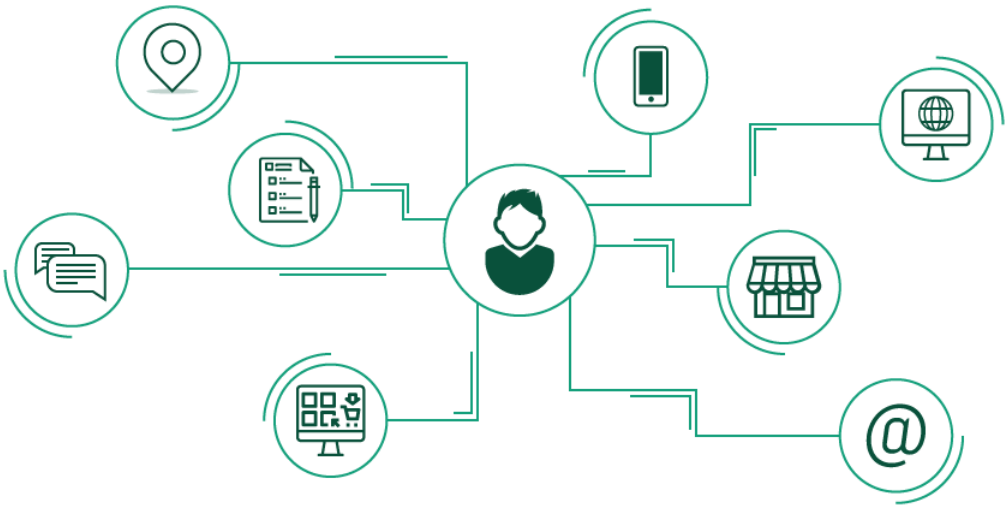
5. POTENTIAL FUTURE TRAJECTORIES

Based on a **large and global community**, the physical data generation and its exploitation is the backbone of Dataeum's ecosystem. Once the potential of the data platform is maximized, innovative solutions can potentially be added to the community, paving the way to other parts of the digital economy, where the blockchain will preserve the independence and the free will of its members.

5.1. Flow Data

Every day, **billions of "flow data" are passively generated by users**: browsing behaviour, online purchases, opinions on specialized forums or platforms, movements, visits to points of sale, etc.

These data are used for marketing purposes by advertising players (Google, Apple, Facebook, Amazon, etc). Although the individual is at the origin of the data, he is not paid when it is used and he doesn't even know this data is being collected.



Dataeum will provide transparency to this market by giving the possibility to make these data available within the marketplace. **Users could then be remunerated for the use of the flow data they generate**. They will have the possibility then to choose what information is disclosed.

The incentive for advertisers will be the ability to have a direct entry point into a global community, already sensitized with the ads incentivisation.

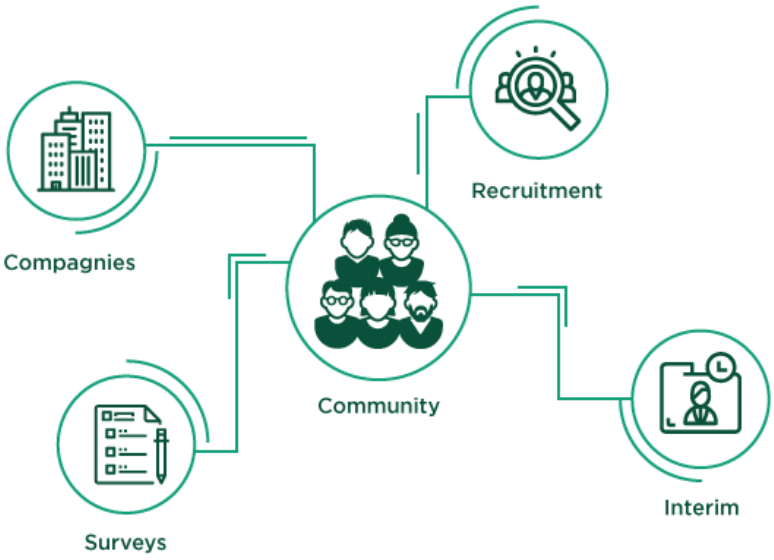
The marketplace will integrate these "flow data" and make them available in exchange for XDT tokens. The participants' remuneration will be directly correlated to the income generated by their data exploitation.

5.2. Role Extension

With a 20-fold[40] increase in growth by 2025, sharing economy and crowdsourcing will represent a real alternative to the traditional labour market. Combined with the rise of artificial intelligence and robotization, it will result in millions of job losses.

Dataeum's **global community** will represent a **reference in crowdsourcing** and will progressively open its community's role to all public and private players.

From the marketplace, the **various market players and recruiters will have the possibility to directly interact with the community's members for specific missions**. They will be able to specify their needs (type of mission, duration, remuneration) and target a specific type of profiles within the marketplace.



The "quality score" will also make it possible to sort potential participants by their confidence level.

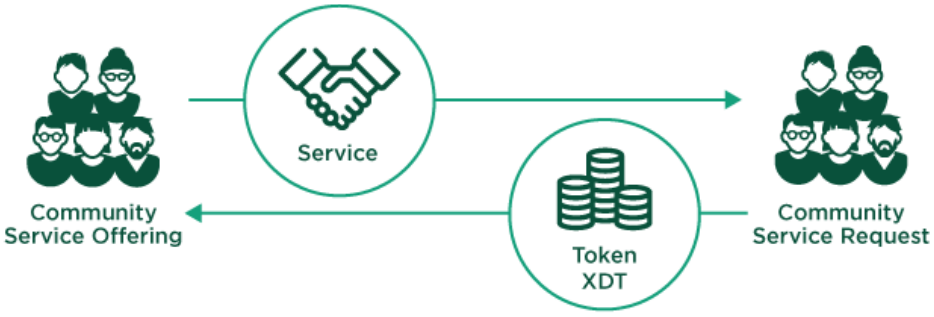
The community's role extension to services other than those related to data generation will also make it possible to attract a wider audience.

5.3. Member To Member Interactions

The decentralized platform will also evolve to **link community members together**. From a dedicated interface, they will be **able to either offer their services or access the services offered by other members of the community**.

The platform will reinforce the direct exchange between the members of the community and boost accessibility to a whole range of services, so far reserved for specialized intermediaries: home services, moving, plumbing, evening classes, daycare, maintenance, renovation, etc.

The evolved form of the "quality score" will also be used to sort and evaluate participating members.



[40] https://www.pwc.fr/fr/assets/files/pdf/2015/05/pwc_etude_sharing_economy.pdf

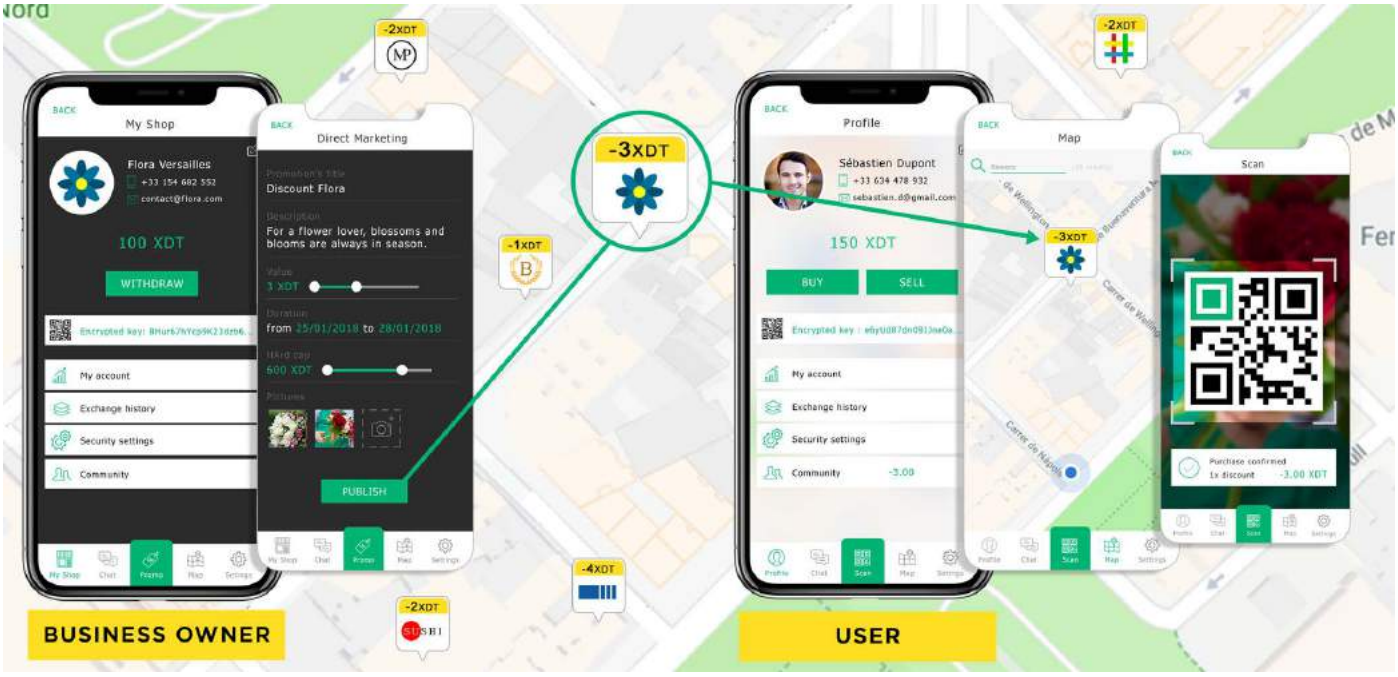
5.4. Merchants Interactions

"37% of consumers do not consider a business with inconsistent information and additionally, 32% do not consider buying from a business with wrong contact information listed online"[41].

Thus, Merchants are the first victims of the lack of physical data's online visibility: inaccessible locations, unsuitable online visibility tools, high commissions for intermediaries, unclear business models, etc.

Through its community and marketplace, and by making all physical data accessible, Dataeum addresses this lack of visibility. However, it does not allow merchants to directly reach the customers.

Therefore, **Dataeum will provide merchants a solution allowing them to directly interact with the community by proposing promotional offers and loyalty programs**.



From the interface, each merchant will have the ability to:

- define a discount for community members;
- define a number of consumers to be reached;
- define a target group of members to diffuse the promotion to.

The promotion budget will be submitted in XDT tokens from the interface but will only be applied at the time of purchase to the final consumer. This means that the merchant will only invest this budget if a purchase takes place; this budget, applied to the total amount of the purchase, will be applied as a reduction (discount) to the consumer.

Rather than investing in marketing materials with no guarantee of results, this acquisition solution allows merchants to reach consumers while controlling their acquisition costs.

Also, this solution allows consumers to be rewarded for the value they create by consuming. In other words, rather than allocating an advertising budget to uncontrolled profitability, the Dataeum solution provided to merchants will allow direct investment to acquire the end consumer, bypassing the control of marketing intermediaries.

[41] https://www.reviewtrackers.com/local-business-information-reviews/

Despite the importance of Dataeum's core market - the physical data -, its community's dynamism and attractiveness is linked to its capacity to federate more and and more participants and keep them active within the network. Thus, in order to develop its attractiveness, it is important to maximize the potential of the community by extending its role and taking advantage of its global influence while continuing to incentivize its members.

To conclude, whether it is a data collector or acquirer, merchant or customer, the **human being is at the heart of the entire Dataeum decentralized network. If he is at the centre, it is because he is the solution to all the challenges, from data generated to the development of the sharing economy**.

"The Dataeum network tends to extend to other blockchain players, offering complementary functionalities and around a common value: people. This bond will be built by the human interaction, with no intermediaries to influence individuals in their choices or desires, leading the blockchain community towards the very first decentralized collaborative movement".

Charly Pham, Dataeum's CEO

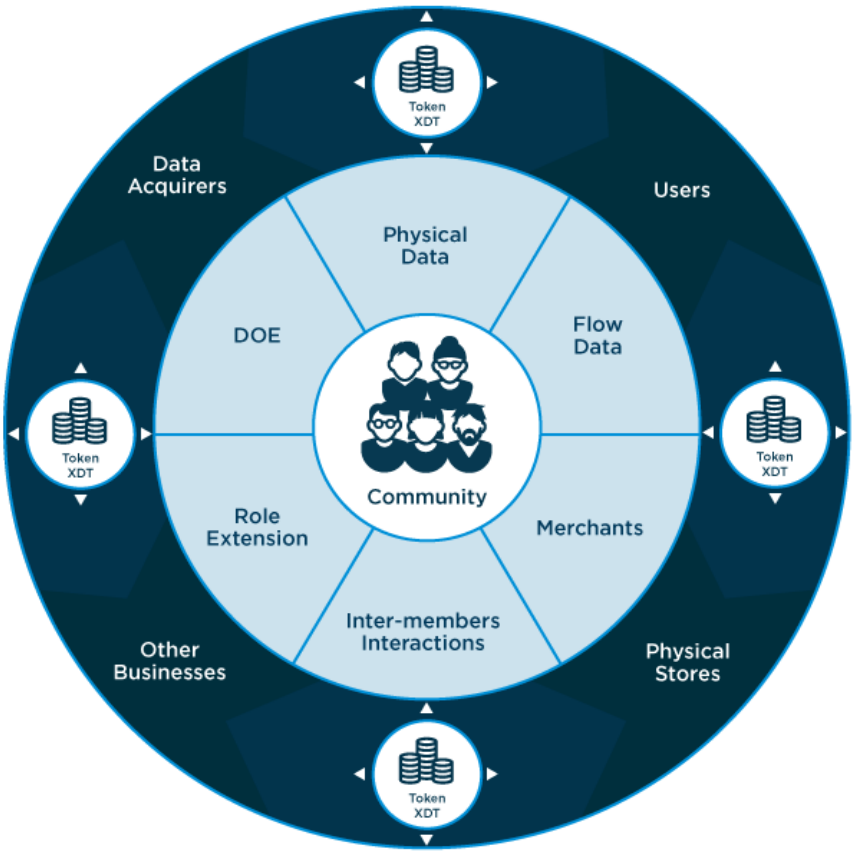
6. XDT TOKEN: USAGE AND FUNCTIONALITY

The Dataeum Token (XDT) will be the basis of the exchange within the whole network. It will enable interaction among these services:

- **Data collection:** reward to collectors for their participation in the collection of physical data and flow data;
- **Data licensing** (rental): data acquirers for the use of physical data and flow data;
- **Data consultation:** for each Token holder;
- **Acquisition of data ownership exploitation (DOE):** for each Token holder;
- **Community role extension:** enable other market players to interact with the community;
- **Community member to member interactions:** enable community members to interact with each other;
- **Merchants interactions:** enable merchants to interact with community members.

6.1. Token Usage

The XDT Token goes between all Dataeum's players:



All players interact within the ecosystem using the XDT Token:

Players	Actions	XDT Interaction
Community	Physical Data Collection DOE[42] Acquisition Flow Data Community Role Extension Member to Member Interactions Merchants Interactions	XDT received XDT sent / received XDT received XDT received XDT sent / received XDT sent
Private / Public Players	Use of Physical Data Use of Flow Data DOE Acquisition Interactions with the Community for specific Missions	XDT sent XDT sent XDT sent / received XDT sent
Physical Stores	New Customers Acquisition DOE Acquisition	XDT sent XDT sent / received
Users	Participation to Missions proposed by other Players Member to Member Interactions Merchants Interactions	XDT received XDT sent / received XDT sent

In order to stimulate and dynamize the exchange of all these actions and make it more dynamic, an exchange platform will be integrated into the application and the marketplace.

6.2. Token Functionalities

The XDT Token will have the following functionalities:

- To access and interact with the platform services: data consultation, data licensing, acquisition of data ownership exploitation (DOE), interaction with the community;
- To benefit from the participation in DOE;
- To reward the community members for their different actions like the physical data generation;
- To reward the community members for sharing their flow data;
- To benefit from discounts and make purchases from merchants;
- To offer missions to the community;
- To enable any member of the community to interact with each other;
- To reward quality actions carried out by community members.

[42] Data ownership exploitation

On top of these functionalities, the XDT Token guarantees the expansion and global adoption of the model:

- It will democratize access to data for all players: public, private, individual. The marketplace will enable accessibility of physical data and flow to all types of players, no matter their size and influence;

- It will remove the bank fees involved in using fiat money. For example, in the case of a small volume of data, these fees would be too high, limiting access to data for major players only.

- It will democratize platform access to anyone, and especially to those who do not have a bank account. The XDT will enable the worldwide population to join every service offered by the platform.

7. TOKEN GENERATION EVENT

7.1. Purpose Of The TGE

Dataeum provides its potential Users with the right to participate in the Dataeum tokens (XDT) sale campaign.

The Dataeum token (XDT) is based on the decentralized Ethereum market standard Smart Contract ERC20 token.

Formed within the blockchain and subject for automatic execution upon the occurrence of pre-defined criteria and events and subject to certain conditions, the XDT tokens are valid indefinitely and are the property of their respective holders.

Dataeum is duly incorporated and validly exists under the laws of Republic of Estonia, and has the power and authority to carry on its business as now conducted. It is subject to a market best practice audit in accordance with European regulations, thereby ensuring total transparency and absolute accountability of all Dataeum activities including the publishing of full company statements.

The Dataeum token (XDT) is a utility token that enables its holder with the ability to use the specific functionalities of the Dataeum platform. The XDT Tokens are not securities, are not registered with any government entity as a security, and shall not in any case be considered as such. The Dataeum tokens (XDT) are not intended to be a digital currency, commodity or any other kind of financial instrument, do not represent any share, stake or security or equivalent rights, including, but not limited to, any right to receive future revenue shares and intellectual property rights, and do not represent any ownership right.

Dataeum will allocate a number of the Dataeum tokens (XDT) equivalent to the Purchase Amount under the provisions of Token Sale Agreement and other Accompanying Documents.

All organisation and implementation processes with regards to the Dataeum TGE have been successfully prepared according to the industry best practices, and applicable law provisions.

In addition, to ensure the transaction security, Dataeum token (XDT) distribution will be carried out using specially deployed token sale Smart Contract.

7.2. Token Sale

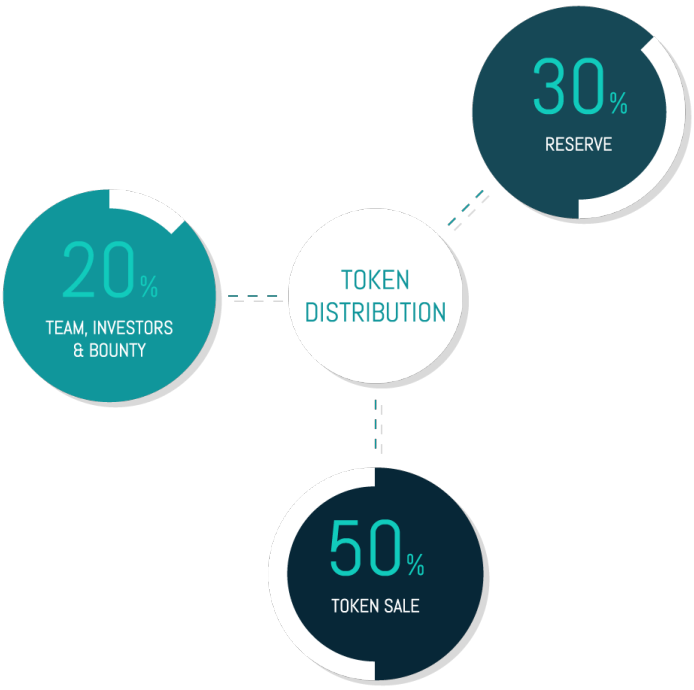
PRIVATE SALE:

The private sale is live, to contribute please e-mail: contact@dataeum.com

Minimum contribution accepted:

- ETH= 10
- BTC= 0.25
- USD= 1500

7.3. Token Distribution



- **50%** of the XDT Tokens will be issued and for sale during the TGE.
- **30%** of the XDT Tokens will be put in reserve in order to finance the collectors and boost future services.
- **20%** of the XDT Tokens will be redistributed among the different partners, team members, advisors and bounty program.

Tokens issued that have not been sold during the Token Sale will be used to finance data collections and technological developments.

When the sales period ends, tokens will be issued and distributed to participants of the TGE via a Smart Contract within 14 days after the end of the public sale.

The Tokens distributed to team members and associates who contributed to the success of the operation will be locked up for the first 24 months following the end of the sale and will then be gradually released at a rate of 10% of the total each month.

7.4. Funds Usage

Dataeum's funding will contribute to the development of the following areas: Technical Development, Operational Development, Marketing and Communication, Operating Expenses.

- **Platform development (45%):**
  - Consolidation of the collection platform and extension of the collection to all kinds of physical data.
  - Integration of Artificial Intelligence, image recognition technology and augmented reality features within the collection app.
  - Integration of XDT Tokens in the data collection and acquisition workflows.
  - Deployment of the data Marketplace and its API.
  - R & D and blockchain implementation.
  - Integration of an Exchange feature in the app and in the marketplace
  - Development and implementation of the Data Ownership Exploitation (DOE) feature.
  - Development and implementation of the app, marketplace and blockchain related elements, of the following solutions: flow data, merchant interactions, community role extension and member to member interactions.
  - Integration of other decentralized platforms, offering additional functionalities (NaviAdress, Connectjob, DomRaider, Foam...).

- **Operational development and data collection financing (25%):**
  - Operational team development.
  - Data collection financing to create and build an Ecosystem around the model.
  - Legal compliance.

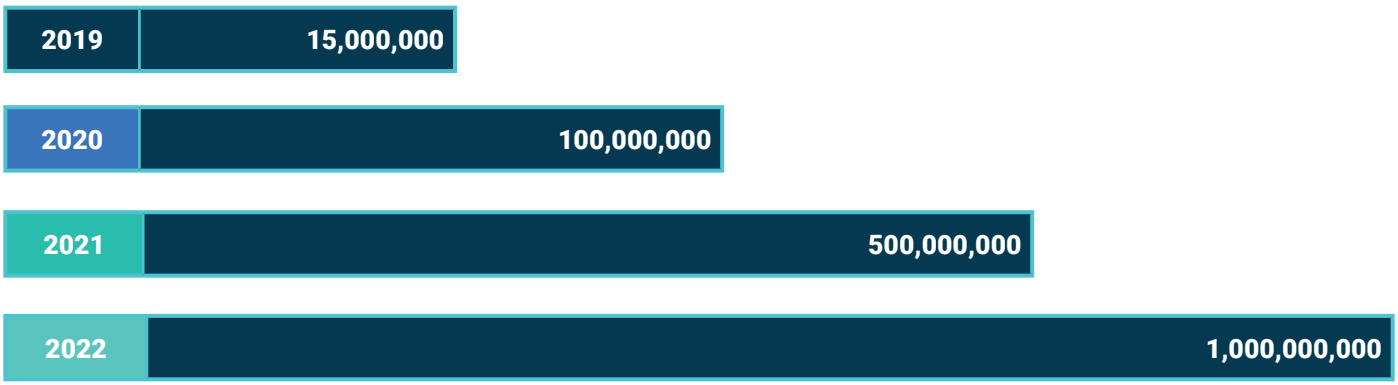
- **Marketing and communication (20%):**
  - Coordination of collection campaigns: online and offline advertising.
  - Communication with the community: relation improvement, meetings, conferences, creative media.

- **OPEX and other expenses (10%):**
  - Administrative expenses, legal opinions, subsidiary establishment
  - Bug bounty program

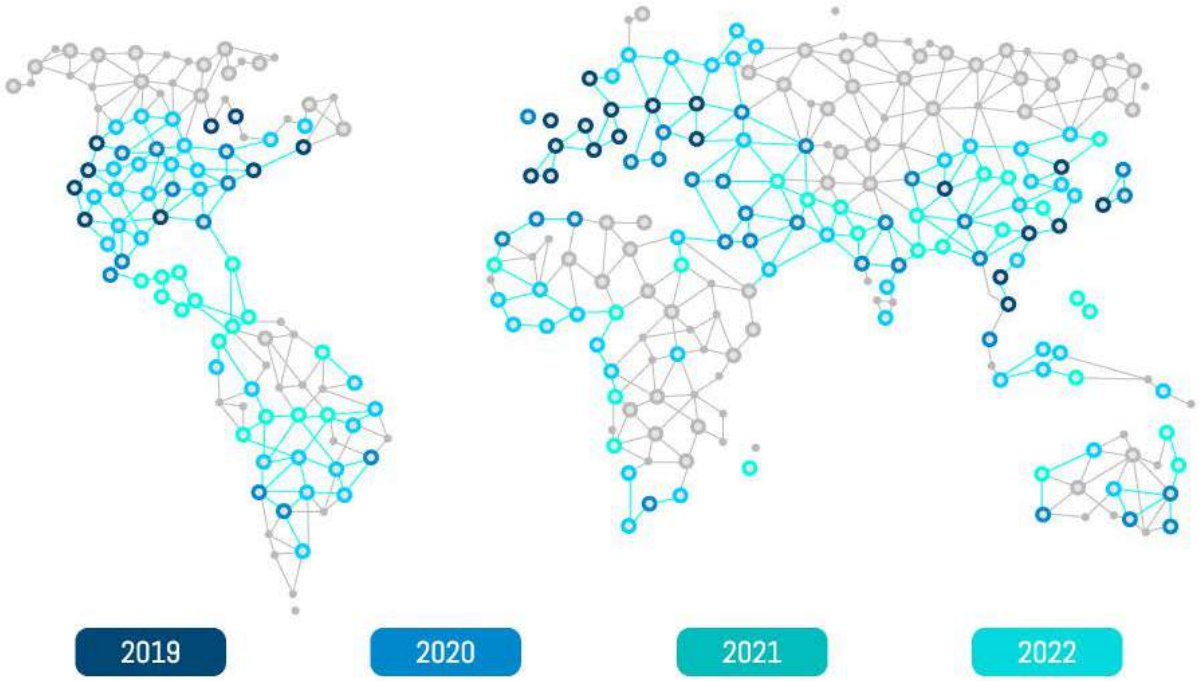
7.5. Roadmap

The roadmap timelines will depend on the funds gathered during the TGE. While physical data collection and the marketplace will follow the milestones, the other optimizations (application, interface) or potential future trajectories of timeline development are bound to be variable following the amount reached.

Physical Data collection roadmap goals[43]:



DATA EXPANSION:



[43] These goals can be adapted according to the evolution of the platform and the amount reached during the TGE. These figures are provided as objective goals that the team sets for itself, but cannot be considered as commitments.

8. THE COMPANY

8.1. History

"WHY CAN'T WE FIND OUR BUSINESSES ON MAPS?"

This is the quintessential question that lead to the creation of DenDen in 2015, which interestingly happens to be the brain-child of Charly & Billy Pham, graduates of prestigious French schools.

While studying the Global Financial markets in-depth, they noticed a huge gap between the data that is delivered to maps and how they are generated. They quickly came to conclusion that Crowdsourcing was the answer.
Shortly after DenDen was created, the team had raised funds from angel investors in order to create the tool that would allow the collection of physical stores. A few months later, the first version of the app was launched.

In September 2016, DenDen secured a second round of funding (expanding towards Barcelona, London, Paris) to test the scalability of its model.

DenDen quickly validated the effectiveness of its data model by signing its first contract.

Blockchain Adoption:

Shortly after, DenDen wanted to introduce tokens to its platform as part of the remuneration of collectors. These tokens would ease two main constraints:

- cut transaction fees,
- reach collectors who might not have a bank account.

In September 2017, Charly and Billy forayed into the Blockchain arena, believing that their venture could also respond to a constraint that affects all market players: transparency of the physical data generation.

The idea to integrate the data fetching process to the blockchain began to take shape. It would resolve various market constraints and further provide means for the model to expand globally. This led to the birth of the Dataeum project.

Dataeum was therefore created with the aim of enforcing in today's digital world the first ever decentralized and collaborative real world data generation network, where humans would be the center of their decentralized network.

8.2. Team Introduction

TEAM MEMBERS:

CHARLY PHAM - CEO & co-founder

A partner and founder of several successful ventures, Charly created the first mobile application for physical data generation based on crowdsourcing. He is the passionate leader and visionary behind Dataeum bringing his digital expertise within the local and online listing markets.

BILLY PHAM - COO & co-founder

A technophile and crypto-enthusiast, Billy studied at the University of Paris Dauphine (France) and UCLA (US). He created many successful ventures and managed more than 500 employees. During his various entrepreneurial adventures, he developed strong managerial and technical skills that he now puts into use for Dataeum.

MICHAEL TRAJKOVIC - CPO & CMO

With over 10 years of experience as a web entrepreneur, Michael is the founder of the 2nd largest online comparator of financial products in Poland, which he sold to an international investment fund. At Dataeum, he brings his digital experience to the strategic and marketing development of the project.

ALAIN RABAHI - Chief Technical Officer

A CTO and co-founder of numerous digital startups (webradio, webTV, community app, e-commerce platform), Alain developed managing skills for technical projects and expertise in various programming languages such as PHP, JavaScript, Java, Go and Solidity. He is in charge of the technical management of the project, from its architecture to its implementation.

HOA THAI SON - Head of Product

A graduate from Paris Dauphine University (France) in Engineering Systems, Hoa has strong experience in development and in IT consulting (SG, BNP, CA, HSBC...) in France, Geneva and Silicon Valley. He joined DenDen in 2015 as a consultant and one of the early team members of Dataeum. He now participates in the development of the product with the blockchain, its implementation, and coordinates technical projects.

THANH-QUY NGUYEN - Blockchain Developer

Blockchain developer by day, day trader by night, he has been following the blockchain technology with a keen interest since mid-2016. He has worked in the most disruptive and technical fields there can be. His expertise goes also through finance and quantum physics.

GAELLE BOUVIER - Head of Communication

Previously Director and Head of Communication at Endemol France and TF1 Digital, Gaelle was in charge of the entire communication strategy and its implementation on the various channels: web, media, community, tv, forums, events.

MAXIME MÉCHIN - UX/UI Designer

Having been part of DenDen since its creation, Maxime is at the base of the visual conceptualization. With strong UX / UI skills acquired during numerous projects, his understanding and application of the vision are highly valuable for the team. At Dataeum, he defines the entire visual identity.

ADVISORS:

ANDERS LARSSON

Anders has held various CTO roles and the role of Vice President for Ericsson in Southeast Asia & Oceania with billion dollar yearly sales responsibilities. Anders owns his own patents and is a code lover. His mid-2017 GitHub repo trended past the best-trending repos of Google, Facebook, Twitter and Alibaba. Ranked No 5 among top ICO advisors at the 15th edition of the d10e, Anders possesses unequalled technical and managerial qualities. He advises on the strategy and architecture of the project. A notorious crypto enthusiast, he is also the co-founder of the AllCoinWiki.com.

SIMON COCKING

Simon is a number one Advisor on IcoBench, and is listed in the top 10 most influential people in Fintech according to a Twitter ranking. He is also editor in chief at Irish Tech News and CryptoCoinNews. He is a regular speaker at TEDx, Websummit, and multiple tech events. Simon brings his market experience in the introduction of the project and its communication strategy.

IAN SCARFFE

Ian Scarffe is a serial entrepreneur, investor and a leading expert in Bitcoin, Blockchain and Crypto industries. Ian is at the very heart of revolutionizing the financing industry across the globe and currently consults and advises for a range of multi-million dollar companies. As one of the Top 2 ICO Experts on ICO Bench, he is the founder of Crypto Consulting and Investment LTD. Ian advises Dataeum on his investment strategy and communication purpose.

JOAKIM HOLMER

Joakim has over 20 years of experience in various technical leadership positions around the world, for Ericsson. As a crypto-Investor, he is a notorious trusted advisor and participated in several successful ICOs. Joakim helps in the definition of the process and promotion of the project. He is also the co-founder of AllCoinWiki.com.

MIKHAIL ZELENIN

As the VP of Products, Smart Contract RnD, Blockchain Architect at Naviaddress. Mikhail is an experienced technical expert and led Naviadress's successful TGE as a core team member. He is a highly skilled advisor that provides high-quality technical recommendations and ICO process expertise.

SÉBASTIEN BOURGUIGNON

Sébastien is one of the most influential people in the blockchain ecosystem in France. As author, influencer and speaker, Sébastien is a digital and blockchain expert. An advisor for several successful ICOs, he is advising the team regarding the technological choices and communication of the project.

NAVIIN KAPOOR

Investor, blockchain ICO advisor, fintech and business transformation leader. Top 10 ICO Experts on IcoBench.

JORGE RODRIGUEZ

Ethical hacker since childhood, security expert, blockchain developer, marketing and social media manager, project manager. Jorge Rodriguez is passionate about technology and is considered as one of the greatest experts in the world of CryptoCurrencies.

CHRISTIAN KOSIEK

Christian is an investor, digital consultant in startups, and an entrepreneur. With over 20 years of experience in top management leadership positions, Christian brings his experience by advising on the project management and resources optimization.

JUSTIN JOVANOVIC

Justin is the Co-Founder and Chief Operating Officer of investFeed - the leading cryptocurrency social network – powered by over 150,000+ crypto specific investors.. Justin has been a part of several successful ICOs, including investFeed's, and has a passion for progressive decentralization and blockchain innovation.

EDGAR KAMPERS

Edgar has been working as a community currency expert since 1993. Currently Chief Currency Officer at Qoin, he focuses on policy strategy, monetary design, fundraising, as well as monitoring and research. He is advising on partnerships and evolution of our tokenomics.

ILYA ANIKIN

Serial entrepreneur with 17 years of experience. Managing and Investment director of VC Funds Sferiq Venture Capital Fund and Imperious Group, which have total invested more than $200 millions in more than 30 companies. 8 years' professional investment banking experience. Carrying out a large number of investment deals, totalling more than $ 300 million.

9. LEGAL DISCLAIMER

Dataeum, its Website and the Dataeum Tokens (XDT) are provided on an “as is” basis without warranties of any kind, either express or implied. Dataeum disclaims all warranties, express or implied, including, without limitation, implied warranties of merchantability, fitness for a particular purpose, title and non-infringement with respect to the services. Dataeum does not represent or warrant that the services and the information contained therein are accurate, complete, reliable, current or error-free.

Dataeum Does Not Provide Investment Advice. This document does not advise on the merits of any particular transactions or any taxation consequences. By entering into any transaction on the Platform, the User represents that he/she has been, are, and will be solely responsible for making their own independent appraisal and investigations into the risks of the transaction. The User represents that he/she has sufficient knowledge, market sophistication, professional advice and experience to make their own evaluation of the merits and risks of any transaction.

Dataeum gives no representation, warranty, or guarantee as to the accuracy or completeness of any such information or as to the tax consequences of any transaction. The User is solely responsible for any applicable taxes imposed on the Dataeum Tokens (XDT) purchased hereunder.

Any trading recommendations, market commentary, or any other information provided by Dataeum or its representatives, are incidental to the User’s relationship with Dataeum and impose no obligation of truth or due diligence on behalf of Dataeum or its representatives.

Dataeum Does Not Provide an Investment Offer. This document or any other documentation available on the Dataeum website does not constitute an offer or solicitation to buy or subscribe to debentures, stocks or shares issued by any person or entity; rights, options or derivatives with respect to such debentures, stocks or shares; rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss; units in a collective investment scheme; units in a business trust; derivatives of units in a business trust; or any other security or class of securities, and shall not be interpreted in that way. No data presented is deemed to be a basis for any investment decision.

The Dataeum team makes no guarantee on the increase of demand, value or any other financial benefit of the Dataeum Tokens (XDT). Dataeum offering does not constitute an opportunity to obtain a future profit and shall not be bought with an expectation of profit from the efforts of others. Dataeum does not provide the User with any intellectual property rights, or any voting or governance rights or any other right to influence the development or operation of Dataeum, and does not represent any ownership right of Dataeum.

Dataeum Does Not Constitute a Financial Institution. Dataeum and/or the Platform development team or any of its Affiliates are not a financial institution and currently not under supervision of any financial supervisory authority. Dataeum does not provide any licensed financial services, such as investment services, fund management or investment advice. The Token Generation Event is not a public offering of equity or debt and consequently does not fall under the securities or any prospectus regulation.

None of the information or analyses presented are intended to form the basis for any investment decision, and no specific recommendations are intended, and the Website is not and does not offer and shall not be construed as an investment or financial product.

Risks: The User understands and acknowledges that the Dataeum Tokens (XDT), Blockchain-based technologies, Ethereum, and other associated and related technologies are not exclusively controlled by Dataeum and adverse changes in market forces or the technology, broadly construed, may prevent or compromise the platform performance under White Paper and/or the other Accompanying Documents.

The purchase of the Dataeum Tokens (XDT) carries with it a number of risks. Prior to purchasing the Dataeum Tokens (XDT), the User should carefully consider the risks listed herein. If any of the following risks are unacceptable to the User, he/she should not purchase the Dataeum Tokens (XDT). By purchasing the Dataeum Tokens (XDT), and to the extent permitted by applicable law, the User is agreeing not to hold Dataeum or any Affiliates liable for any losses or any special, incidental, or consequential damages arising from, or in any way connected, to the sale of the Dataeum Tokens (XDT), including losses associated with the risks set forth herein.

By using the Platform, the User represents/warrants and accepts that:

a. It is possible that due to a number of reasons outside of the Dataeum's control, including but not limited to, changes in regulatory or intellectual property law, technological advancements, decreases in token or cryptocurrency utility, social or economic reforms, the failure of commercial relationships, or the malfunction, breakdown or abandonment of the Ethereum Protocol, the Dataeum Tokens (XDT), Blockchain-based technology, Ethereum and other related technologies may dissolve, disappear, be abandoned or otherwise no longer operate, or operate with material impairments.

b. Any cryptocurrency that possess value in public markets, such as ETH, have demonstrated extreme fluctuations in price over short periods of time on a regular basis. A purchaser of the Dataeum Tokens (XDT) should be prepared to expect similar fluctuations, both down and up, at the price of the Dataeum Tokens (XDT) denominated in respective cryptocurrency (ETH). Such fluctuations are due to market forces and represent changes in the balance of supply and demand. Dataeum cannot and does not guarantee market liquidity of the Dataeum Tokens (XDT).

c. Dataeum and any of its Affiliates shall not be held liable to and shall not accept any liability, obligation or responsibility whatsoever for any change of the value of the Dataeum Tokens (XDT) or cryptocurrency.

d. By purchasing the Dataeum Tokens (XDT), the User expressly acknowledges and represents that he/she fully understand that they may experience volatility in pricing and will not seek to hold Dataeum liable for any losses or any special, incidental, or consequential damages arising from, or in any way connected to, the sale of the Dataeum Tokens (XDT).

e. Should the User proceed to purchase any Dataeum Tokens (XDT) and the product fails to be suitable for the special or particular purpose as intended by the User, Dataeum or its Affiliates will not be liable to the User for such unsuitability (including but not limited to accepting the return of, or refunding to the User the purchase price of the respective Dataeum Tokens (XDT)).

f. It is possible that the Platform will not be used by a large number of individuals, and other entities and that there will be limited public interest in the mentioned project and dissemination of equity. Such a lack of interest could impact further development of the Platform and potential use of it. Therefore, the success of the mentioned project cannot be predicted.

g. The User recognizes that the Platform is currently under development and may undergo particular changes in the future. The User acknowledges that any expectations regarding the form and functionality of the Platform held by the User may not be met upon release of the mentioned project, for any number of reasons, including a change in the design and implementation plans and execution of the implementation of the Platform.

h. It is possible that even if the Token Generation Event threshold is met, the insufficient funds will not feasibly develop Platform, possibly causing the effect that the Users may not be able to participate in any intended or implied projects. Dataeum shall not provide to the User any refund possibility (payout liquidity) for the purchased Dataeum Tokens (XDT).

i. To the maximum extent permitted by the applicable Law, Dataeum or its Affiliates do not accept any liability for any damage or loss, including loss of business, revenue, or profits, or loss of or damage to data, equipment, or software (direct, indirect, punitive, actual, consequential, incidental, special, exemplary or otherwise), resulting from any use of,

or inability to use, this Website or the material, information, software, facilities, services or content on this website, from the buying of the Dataeum Tokens (XDT) or their use by the User, regardless of the basis, upon which the liability is claimed.

j. Dataeum shall not be liable for uninterrupted availability of the Website at all times, in all countries and/or all geographic locations, or at any given time.

k. There may be additional risks that cannot be anticipated or foreseen due to the incipience of cryptographic token technology, Blockchain-based technology, Ethereum and related technologies.

Performance of the Services: Dataeum development team does not support any unfair or fraudulent practices and confirm their intention to further develop and elaborate the Dataeum's project. However, there are some risks, associated with cryptocurrency and digital tokens market, the User understands and accepts that while the Platform development team will make reasonable efforts to maintain the mentioned project.

Dataeum or its Affiliates make no representations or warranties, whether express or implied, and assume no liability or responsibility for the proper performance of any services, online cryptocurrency services, assets or platforms and/or the information, images or audio contained or related to the Website.

Dataeum will take reasonable steps to exclude any viruses or defects from the Website, but cannot guarantee or warrant that any material available for downloading from the Website will be free from infection, viruses and/or other code that has contaminating or destructive properties, defects will be corrected and accordingly no liability is accepted for defects and viruses.

Dataeum is not responsible for the proper and/or complete transmission of the information contained in any electronic communication or of the electronic communication itself, nor for any delay in its delivery or receipt. Security measures have been implemented to ensure the safety and integrity of any of the services related to the Token Generation Event. However, despite this, information that is transmitted over the Internet or Blockchain may be susceptible to unlawful access and monitoring.

Jurisdictions: The marketing and sale of the Dataeum Tokens (XDT) are being made in the permitted jurisdictions on the basis that the Dataeum Tokens (XDT) do not constitute a security, financial instrument or otherwise regulated investment in those jurisdictions, such that the prospectus or other disclosure requirements and other investor safeguards that would apply to a securities offering will not apply to the issuance and sale of the Dataeum Tokens (XDT) in the permitted jurisdictions.

In addition, the Dataeum Tokens (XDT) are not regulated in the permitted jurisdictions and is not required to be registered with, or licensed or authorized by, relevant authorities in the permitted jurisdictions.

If applicable law does not allow all or any part of the above limitation of liability to apply to you, the limitations will apply to the User only to the extent permitted by applicable law. The User understands and agrees that it is the User's obligation to ensure compliance with any legislation relevant to your country of domicile concerning use of the website, and that the User should not accept any liability for any illegal or unauthorized use of the website. Dataeum should not accept any liability for any illegal or unauthorized use of this Website and use and buying of the Dataeum Tokens (XDT).

Specific Worldwide Regulation. Certain jurisdictions restrict or have specific regulation concerning the offer, sale and/or purchase of cryptocurrencies and/or tokens through the Token Sale. This list is provided for information purpose only and do not constitute legal advice:

• The United States Securities and Exchange Commission (SEC): Report of Investigation: the DAO (as of July 25, 2017), Administrative Proceeding In the Matter of MUNCHEE INC. (as of December 11, 2017) and other analytical framework.
• The United Kingdom Financial Conduct Authority (FCA): Consumer warning about the risks of Initial Coin Offerings

('ICOs') (as of September 12, 2017).
• The Canadian Securities Administrators (CSA): CSA Staff Notice 46-307
Cryptocurrency Offerings (as of August 24, 2017).
• The Israel Securities Authority (ISA): Public Announcement Regarding Dangers of ICOs (as of July, 2017).
• The Financial Supervisory Commission (FSC) of South Korea Statement as of September 3, 2017).
• The People's Bank of China Statement (as of September 4, 2017).
• The Australian Securities and Investments Commission (ASIC): Initial coin offerings (as of October 4, 2017).
• The Monetary Authority of Singapore (MAS): A Guide to Digital Token Offerings (as of November 14, 2017).
• The Securities and Futures Commission (SFC) of Hong Kong: SFC warns of cryptocurrency risks (as of February 9, 2018).
• The Financial Market Supervisory Authority (FINMA) of Switzerland: ICO Guidelines (as of February 16, 2018).

Accordingly, the Dataeum Tokens (XDT) shall not be marketed, offered, or sold to the residents of the People's Republic of China (excluding the special administrative regions of Hong Kong and Macau, and Taiwan), South Korea, Japan, the United States, including the State of New York, Puerto Rico, the U.S. Virgin Islands, and any other possessions of the United States.

JOIN THE ADVENTURE

DATAEUM