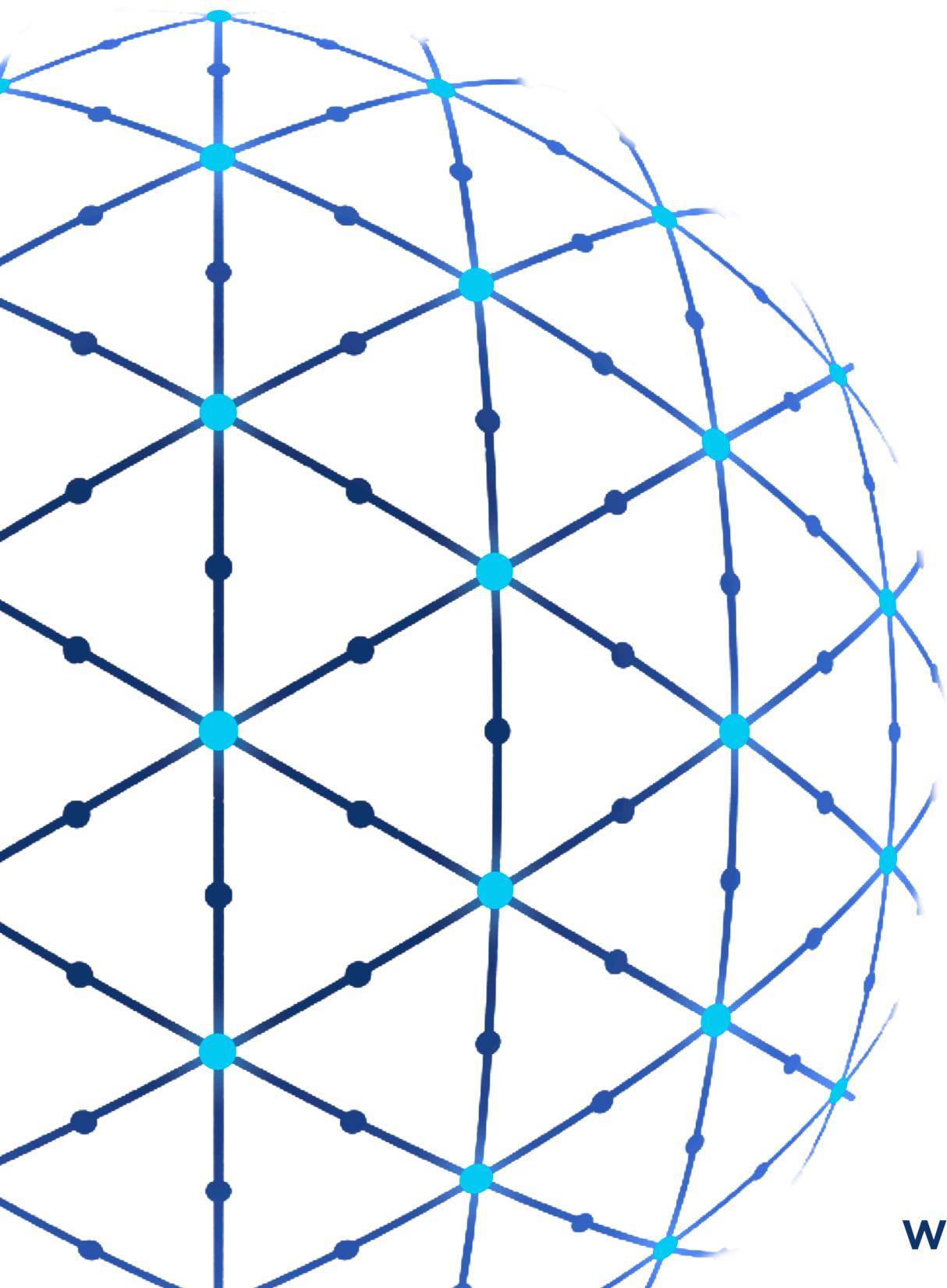
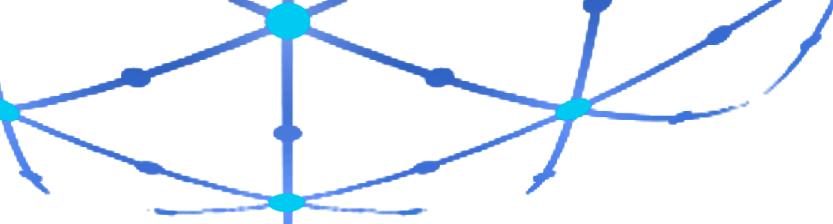


# TravelChain

Decentralized Data Exchange for the Travel Industry



White Paper •



# / Contents

<b>Contents</b>	<b>2</b>
<b>Key Market Challenges</b>	<b>3</b>
<b>Data Use Potential</b>	<b>3</b>
<b>Our Mission</b>	<b>4</b>
<b>SmartTraveling EcoSystem</b>	<b>5</b>
<b>Data in TravelChain</b>	<b>6</b>
<b>Example of Traveling with TravelChain</b>	<b>7</b>
<b>Platform Roles</b>	<b>9</b>
<b>Using of TravelToken</b>	<b>11</b>
<b>Direct Adverts</b>	<b>12</b>
<b>TravelChain Business Model</b>	<b>13</b>
<b>Decentralized Management</b>	<b>14</b>
<b>Voting</b>	<b>15</b>
<b>Issue</b>	<b>16</b>
<b>Digital Development Fund</b>	<b>17</b>
<b>Distribution</b>	<b>18</b>
<b>Partners</b>	<b>19</b>
<b>Bounty Program</b>	<b>20</b>
<b>Road Map</b>	<b>21</b>
<b>The Team</b>	<b>23</b>
<b>Advisors</b>	<b>26</b>
<b>Disclaimer</b>	<b>26</b>

## / Key Market Challenges

Travel market is an industry with a customer's life cycle averaged about half of a year. However, these days the majority of business community is aware of a customer only when he or she comes to the final stage of making a purchase decision – booking tickets, tours, hotel, etc.

In other circumstances, marketing specialists work almost blindfolded trying to guess what travelers would prefer. Furthermore, the business community loses track of customers after they have made their purchase and spends more money to attract new ones.

Personal data is the key corporate strength and “the oil of the 21st century”. However, only 20% of such data is publicly available, the rest 80% circulates within corporate systems: Google, Apple, Amazon<sup>1</sup>, and other major players in the area of interest.

Small and medium business have no access to this kind of information. In addition, customers normally have no means to control their data transition and do not benefit from the data being used by the third parties.

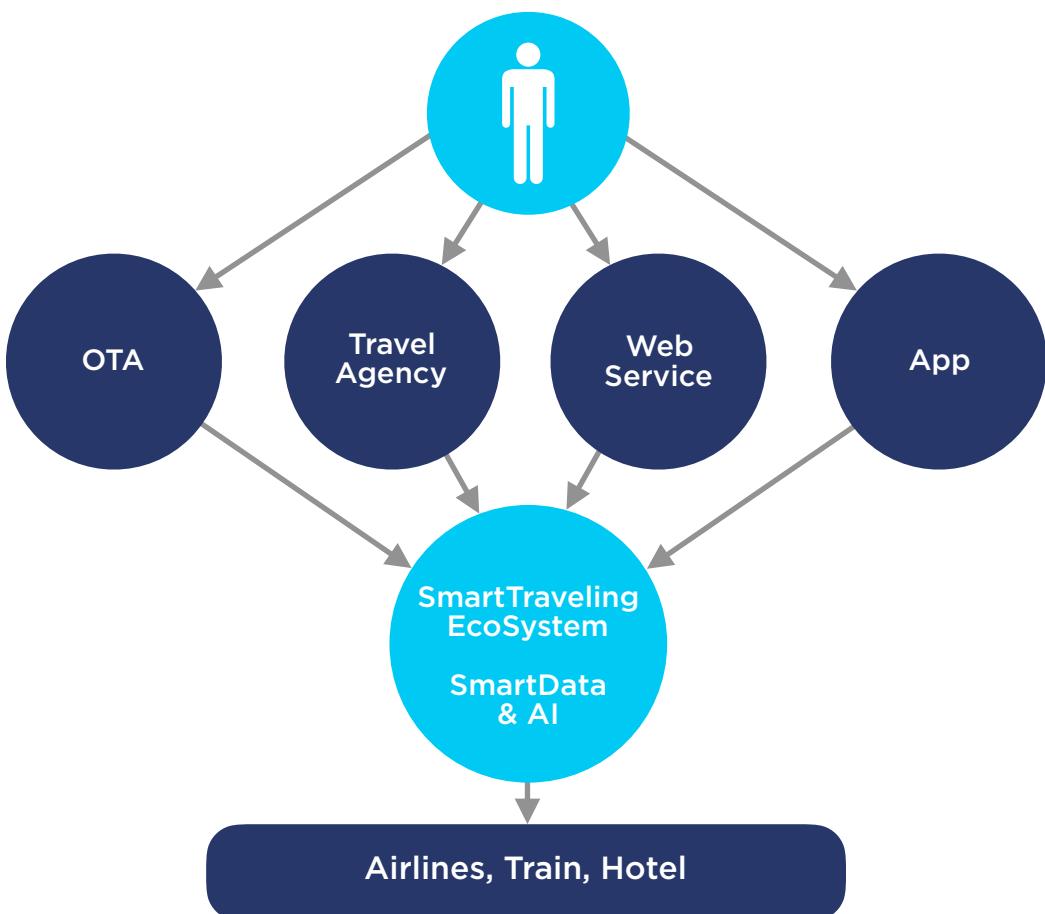
In this context, users are willing to submit their personal information by themselves<sup>2</sup> to ensure they receive custom-designed offers in accordance with their personal preferences.

## / Data Use Potential

**It is obvious that the future belongs to platforms that are capable of collecting and structuring any data.** Artificial Intelligence applications will be able to use collected and stored data to anticipate user preferences and provide accurate recommendations.

The more data, the smarter are the algorithms that will eventually be able to foresee the wishes we are yet unable to predict for ourselves.

**Just imagine a global database that contains the most comprehensive and unbiased information about suppliers** and customers of the travel market. Access to this database is granted not only to major corporations, but small and medium business representatives and the most gifted developers worldwide can also get access to it.



By putting a block chain in the very heart of the EcoSystem, we will develop an environment with low entry barriers in order to improve fair and clear competition.

This will enable all players to invest their resources in developing the shared infrastructure avoiding the outcome when the information flow is controlled by one leading platform operator.

## / Наша миссия

We would like **to provide equal access** to all players for data exchange and **give control of personal data back to users so that they can handle and manage it by themselves**.

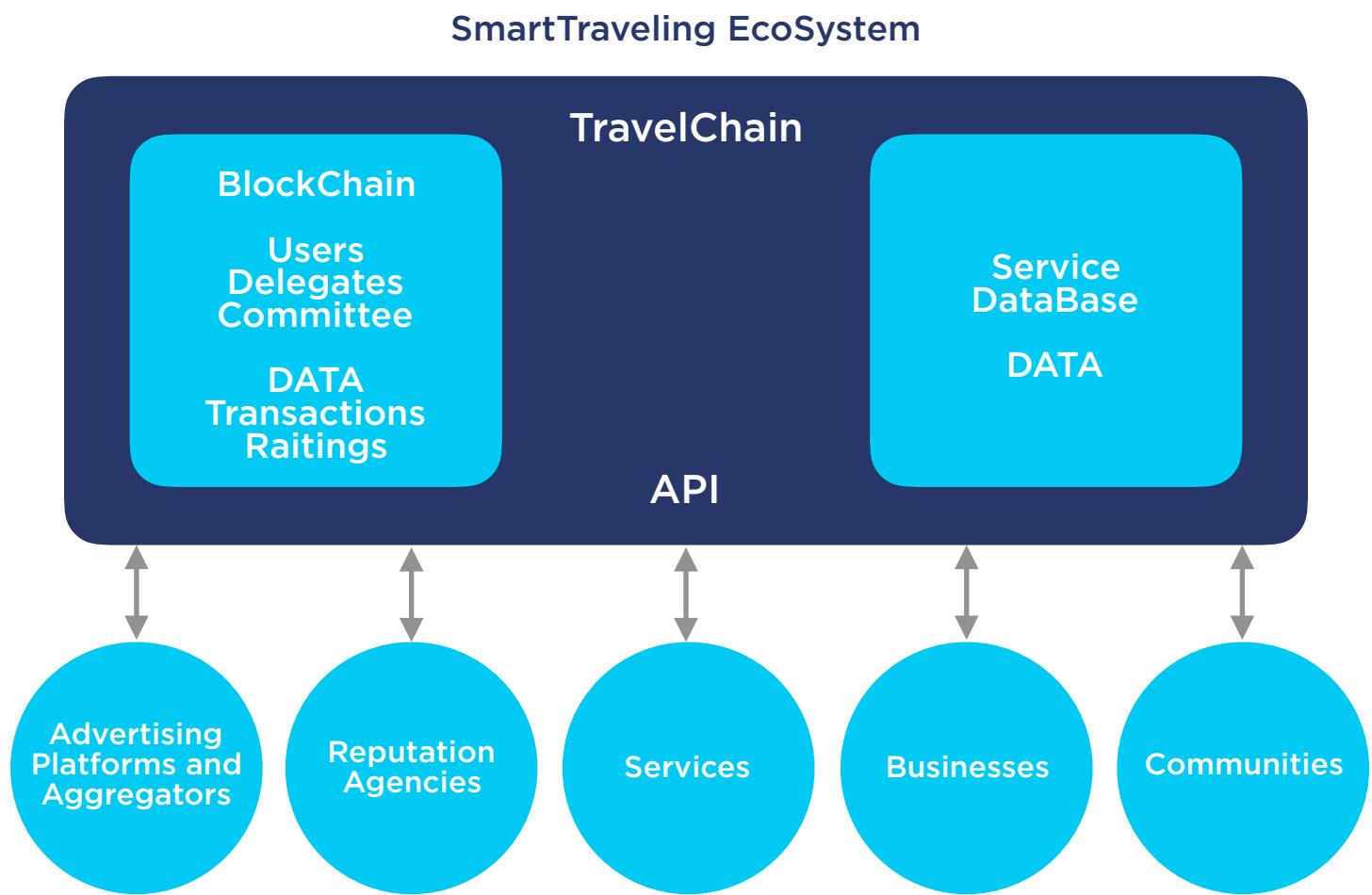
That is why we create TravelChain – a decentralized platform for data exchange in the travel market where users submit their personal information and receive a benefit for it. This is a public open source block chain under management of the EcoSystem's users.

We believe that with further improvement certain breakthrough solutions will occur in order to establish **new standards** of how **people will be traveling in the nearest future**.

We call it **Smart Traveling**

# / SmartTraveling EcoSystem

We designed TravelChain so that it would become the core of SmartTravel EcoSystem - a reliable tool for developers and entrepreneurs willing to create services that comply with the demands of modern leisure travelers.



TravelChain will become a databank containing the information about the five pillars of the travel industry and travelers:

- Locations
- Transport
- Entertainment
- Accommodation
- Travelers

The value of TravelChain will develop with increase of data amount, number of users and links between them. When reaching critical mass of users will trigger Network effect, leading to an explosive growth of the entire ecosystem.

TravelChain is able to provide the travelers with an opportunity to monetize personal information and for companies to suggest creating accurate individual offers.

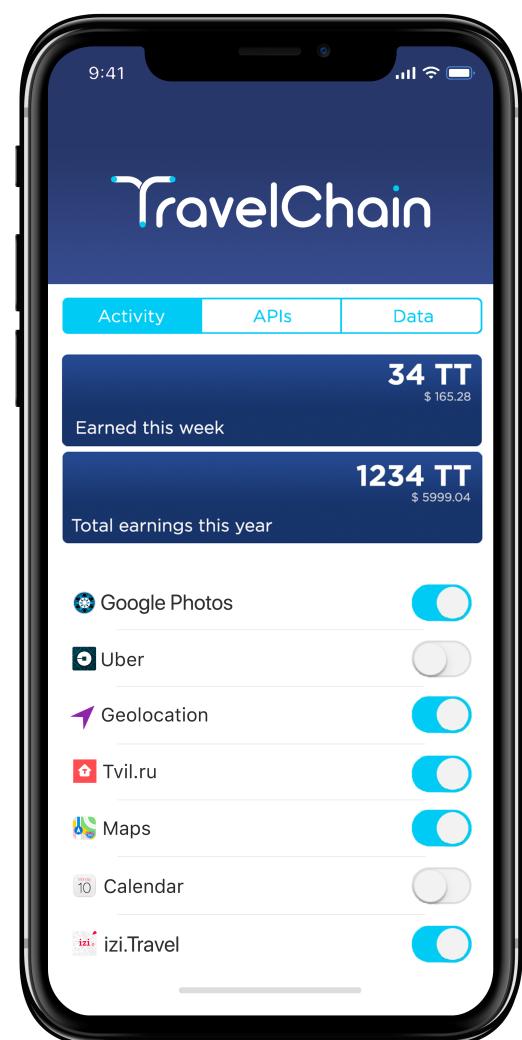
## / Data in TravelChain

Using TravelChain-driven services, customers render information about themselves and their values, interests, and concerns. TravelChain will enable users to decide how to use this information: when and which application to grant access to their personal information and preferences in order to get rewards.

If you use TravelChain, you do not need to trust centralized services. Thanks to a block chain technology, every user can be assured that their data is used the way as it is specified in the code and User Agreement.

TravelChain allows information storage within the following industry sectors:

- Transaction history
- Review and feedback
- Tours
- Movements
- Accommodation
- Locations
- Activities
- Events
- Services
- Commodities
- User personal information
  - Valuable personal experience (guides, life hacks, reviews...)
  - Profile
  - Interests
  - Search history
  - Travel records
  - Social ties
  - Contact information
  - Other commercially valuable information



Users control all their personal information in encrypted form. A user chooses who and when will be granted with access to the information in exchange for TravelTokens.

In the nearest future, all data used within travel industry may be stored inside TravelChain. Today, in cooperation with scientists from the Novosibirsk State University we design standards of storing decentralized travel data published in the documents "Ontology" and "Technical Paper".

## / Example of Traveling with TravelChain

Using TravelChain enables the industry to step forth to a new level of customization. Let's have a look at what can trips be like in the nearest future.

### Preparation

A few months ago, you became aware of the entire ecosystem of TravelChain applications. Using these applications, you filled up the global knowledge database of travel industry and shared personal information.

When your personal information is used, you receive TravelTokens and accumulate sufficient amount to go to the journey of your dream. Moreover, the TravelChain now has sufficient information to comprehend your wishes in more optimal way.

### Travel Planning

One day, you open one of the TravelChain applications and get your personal advert from your dream hotel located in Cuba. This advert describes your dream in details - there's the sea within 50 meters of the hotel - what a great opportunity for you to go kiting! Moreover, there is a small yoga studio located beside a cliff with beautiful view on the mountains, and on top of that, windows in your room are located on both sides with a magnificent views.

You have never told anyone about your dream, in fact, you did not realize it for yourself but this is it. It is out of the question that you have to seize it. The application suggests the best dates for you to visit this place, so that your kiting session won't be spoiled by a hurricane.

### Booking

You click "Order" button and the system requests access to your personal data: phone number, email, passport details, etc. You agree and in a few seconds you receive the tickets that are already filled in for you - the only thing you still have to do is to confirm payment with a single click.

After your transaction is confirmed, you will receive a message suggesting the list of items you should take with you. Therefore all companies and 3rd parties that guarantee your journey will receive the information about your preferences which agreed to be shared. In this context, they would be prepared for your visit and offer you best services, specifically designed to meet your demands.

### Journey

During your stay in the hotel of your dream in Cuba, you keep receiving offers, that provide you money and pleasure of the idea that your desires are really fulfilled. This time you are offered to rent a bike at a favorable price and pay it on the spot using TravelToken. This is very tempting for you

since it seems suitable and safe, and what is more important the bike should be inspected since there is insufficient feedback on it.

After examining the bike, you draw up a rental agreement and pay it by holding your phone to the bike owner's phone. After a few seconds, the money is transferred and you have the bike rented without any papers. You think it is very handy and start traveling around the island using knowledge provided by those who submitted relevant information to TravelChain in your language. Really handy, you must have thought.

**This way traveling with TravelChain will exceed your expectations.**

# / Platform Roles

There are the following roles at the TravelChain platform:

## **Users/companies**

- Service/information consumers
- Service/information providers

The above roles can be associated with companies or users who acquire information from other players or provide it. The same account can be both a seller and a buyer of information. Two profiles can be created using one account: both as an individual and a company.

Users have full control of access to personal data and receive compensation when their data is used. In addition, they obtain new level services based on individual recommendations:

1. Offers created after reviewing the user interests and best market offers;
2. "Smart" selection of news feed and search inquiries;
3. Unified profile and source of social ties (e.g. friends, subscriptions) regardless of an application in use.

## **Services**

Information brokers between buyers and sellers of information can provide previously processed data and help communicating with API TravelChain.

Application and web-services developers do not use resources to collect data and create content. By using access to TravelChain database, they can focus on creating user-friendly interfaces and high-quality applications – both for travelers and travel service providers.

Using TravelChain, application developers are granted access to:

- Shared database;
- Global service catalogue;
- Transactions and user preferences;
- Global ranking of service providers;
- Consumers concerns;
- Opportunity to develop algorithms that offer more comprehensive background for leisure travelers

AI creators can submit their algorithms or processed data to developers. This can be paid either on contract basis or using TravelToken in case the agreement between sides is reached by this ensuring an extra flow of tokens within the system.

## **Technical Supervisors (Delegates)**

To be elected by TravelToken owners, according to the principle of delegated democracy. They take care of TravelChain software performance at their servers and receive compensation in TravelTokens for their work (see Technical Paper for details).

## **Economic Supervisors (the Committee)**

Manage economic features of a block chain without changing a source code. For instance, they affect fees in the market and define budget size, which is distributed to the Digital Development Fund (see Technical Paper for details).

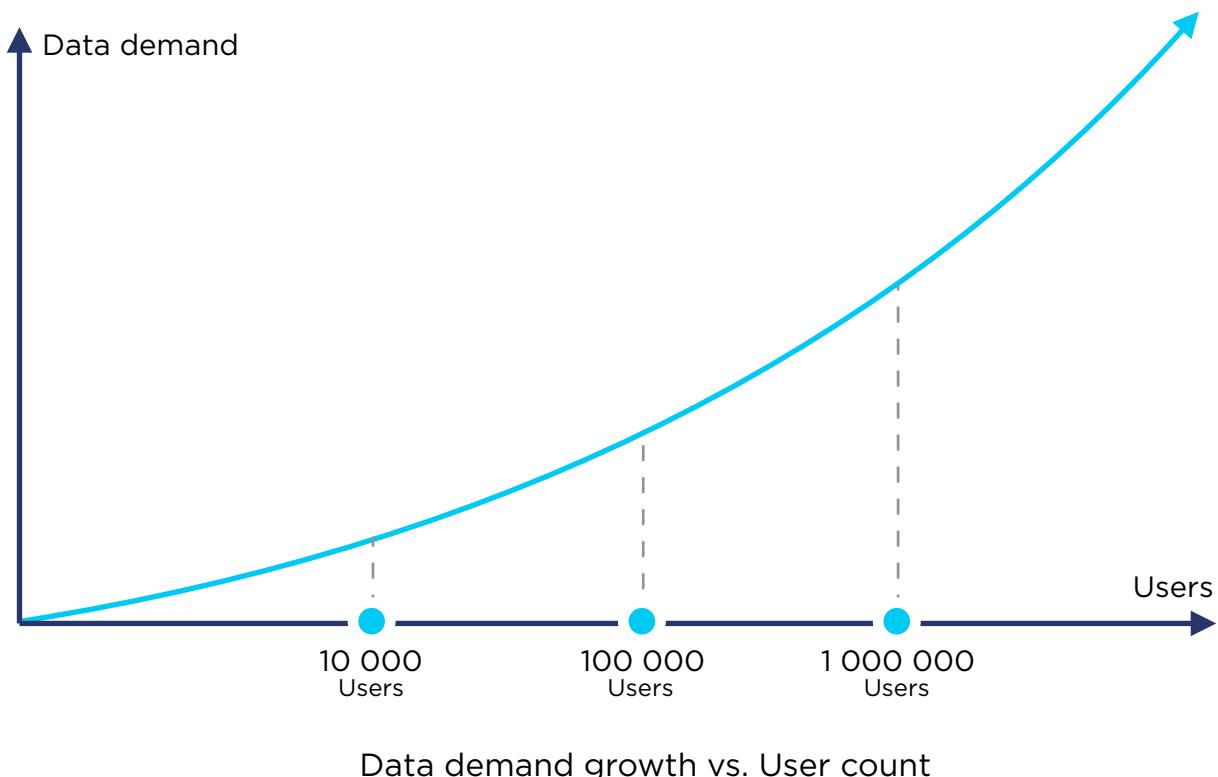
## / Using TravelToken

TravelToken is a fuel for the ecosystem of TravelChain Smart Traveling

TravelToken is used to:

- get personal user information
- create and submit adverts
- gain authority in the community and opportunity to make decisions
- upgrade an account from basic to temporary or lifetime
- be nominated to the Decentralized Management
- pay for extra services provided by reputation agencies
- pay for extra services provided by computer-aided education tools and AI
- pay for transport services, accommodation and entertainment during traveling, provided by companies and leisure travelers
- pay fees of more than 40 various operations (see Technical Paper for details);

**The more users are presented, the more data and demand for TravelToken**



## / Direct Adverts

TravelChain enables an opportunity to send and receive direct adverts. Any user can specify minimum cost for an advert by stating a minimum fee, which he or she agrees to receive in return for reviewing this ad from an advertiser in the network. This advert will be visible to user in the ecosystem clients who agree with the terms for participating in the marketing network.

In this way, the user's individually defines the fee for his or her concern for advertisers. In its turn, the advertiser decides to create a personal offer for user based on his or her relevant reputation and received personal information on preferences.

Thanks to the fact that integrated data about user profile can be obtained directly from him or her, numerous companies will have an opportunity to create more accurate offers, thus spending their advertising budget more effectively by doing so.

# / TravelChain Business Model

Key factors affecting our business model:

## **TravelChain: Key Partners:**

- Owners of applications and web services able to embed their services into TravelChain or create new ones using this platform
- Advertising networks capable of embedding TravelChain marketing opportunities to their business processes
- Travel companies of any scale
- All industry players providing their services to travelers: individual entrepreneurs, hotels, airlines, bus and railroad carriers, sightseeing agencies, etc.

**The TravelChain core value** – is to provide companies with the personal user information that he or she agrees to share. In this way:

- **Traveling will be more affordable;**
- **companies will be able to cut their expenses for marketing** and make individual offers to travelers;
- **users will be compensated for using data and viewing target messages.**

Therefore, TravelChain acts as a broker between data sellers and buyers, thus ensuring technical capability, friendliness, transparency, and safety of transactions.

**Key activities** is what we are focused on in the first place:

- Enhance methods for data acquisition and constant increase of a number of applications working in the TravelChain ecosystem;
- Structure data being acquired and extend number of relevant classes;
- Increase data demand and attract partners interested to use it;
- Increase number of advertising space (both individual applications and advertising networks);
- Advertising demand growth via TravelChain ecosystem.

## **Major costs of TravelChain:**

- Compensation of TravelChain core team;
- Compensation of delegates who ensure network performance;

Other essential expenditures: costs for registering user accounts and data funded from the Digital Development Fund (see details below).

**The main source of TravelChain income** is the fees received from transactions within the system and fixed issue to the community reserve fund.

# / Decentralized Management

All network members represent Decentralized Management. Each TravelChain user can vote in real-time and withdraw his or her vote on behalf of other members. Each user can be nominated to Decentralized Management, approved and dismissed by the community at any time.

## **Technical Supervisors (Delegates)**

Network delegates ensure functioning of TravelChain according to Delegated Proof of Stake algorithm (DPOS) and receive compensation in TravelTokens. The community defines the number and structure of active delegates.

Delegates, in consent with the Committee and considering the community opinion, are able to change some TravelChain network parameters. See Technical Paper for details of DPOS algorithm, capabilities and responsibilities of delegates.

## **Economic Supervisors (The Committee)**

The Committee represents economic managers of a block chain inside TravelChain. They administer economic features of a block chain, trying to reach balance and operating for the benefit of long-term perspective of the community.

The Committee is capable of managing some properties of a block chain inside TravelChain. For this purpose, they do not need to install special software, in contrast to delegates. All changes made by managers proceed without network reboot. The Committee does not have a compensation for its work. See Technical Paper for details on the Committee and the properties managed.

## / Voting

A principle of delegated democracy is in effect within the platform. All TravelToken owners without limitation have a voting right within the TravelChain platform. The more TravelTokens in possession of an owner, the more weight of his or her vote.

Members can use their votes independently to make any administrative decisions within the community or assign them to any other user with delegation of decision-making rights on his or her behalf.

By means of continuous voting, token owners manage:

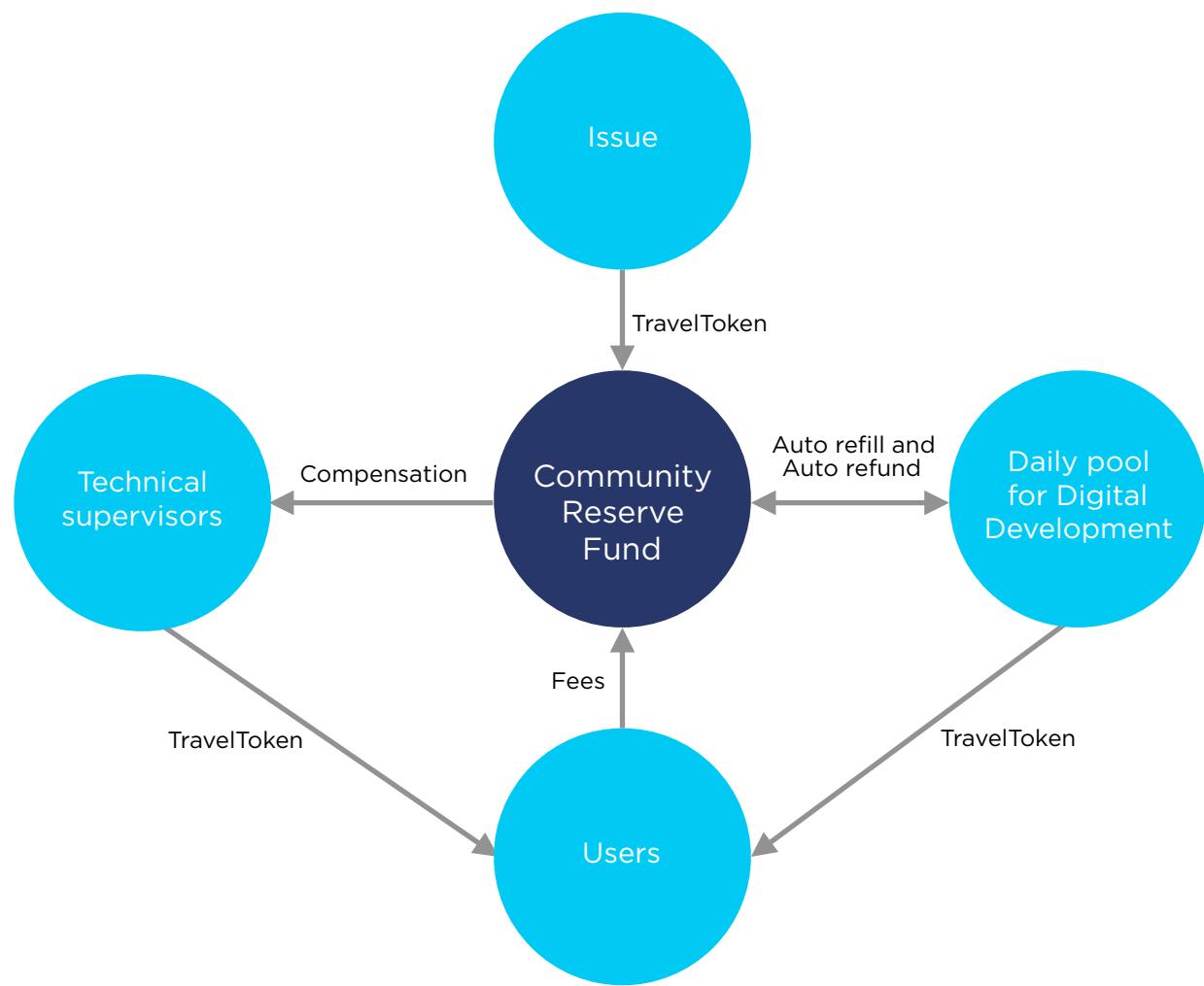
- Composition of technical supervisors
- Composition of economic supervisors
- Distribution of the Digital Development Fund
- Making any decisions raised by the community members for the general voting

See Technical Paper for details of voting types.

## / Issue

Issue is set at 10% per year. The overall issue proceeds to the community reserve fund and remains under relevant control. The daily digital development fund and technical network supervisors are paid from the reserve fund.

Issue size equaled 10% ensures using extra development resources but will not become crucial for members who received TravelToken earlier. Due to the fact that TravelTokens proceed to the Development Fund on a regular basis, the number of users increases with subsequent growth of demand in data and TravelTokens.



TravelTokens from the daily digital development fund proceed to users; they make some actions within the platform and receive compensation for it. Once again, TravelTokens proceed to the community reserve fund, and thus the circulation of economic system is triggered.

## / Digital Development Fund

Issue is a tool to create economic motivation focused on TravelChain development. For instance, the Decentralized Management can suggest funding acquisition of user movement information by allocating some of the daily pool of the Digital Development Fund to TravelChain applications. The community makes the final decision whether to accept the suggestion or not.

Every player can make a claim for funding from the Digital Development Fund if he or she propose relevant plan and request support from the community. If the community approves the development plan, in this case this player will be funded in TravelTokens following the schedule specified in the plan.

Funding can be withheld at any time if the player does not adhere to the plan or this plan proves to be inefficient. Decentralized Management and the community stakeholders monitor the progress of the development plan based on KPI.

### TravelToken Circulation

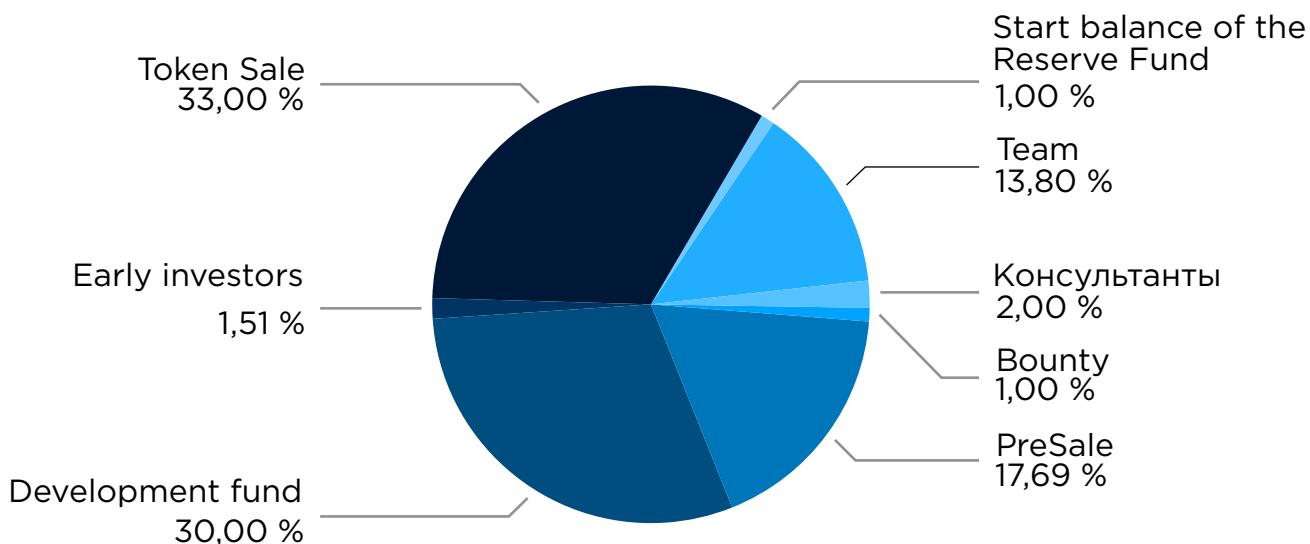
TravelTokens start circulating from the reserve fund via the daily pool of digital development or can be acquired on the exchange. They can be used to receive corporate/p2p knowledge and services within the ecosystem.

TravelTokens drop out of circulation by proceeding to the community reserve fund via payments of platform fees or on the exchange. A fee is automatically paid by the transaction party performing operations with token within the platform, though there can be exceptions. Fees are regulated by economic supervisors who focused on leading the system to a balance for the benefit of the entire community (see details in Technical Paper).

## / Distribution

Для граждан США, Китая и Сингапура участие в Token Sale закрыто.

Всего эмитируется 2 100 000 000 TravelToken, которые будут распределены по итогам Token preSale и Token Sale:



TravelToken are created based on smart contract of Ethereum ERC-20 tokens with subsequent transfer to a block chain within TravelChain. Token sale and transaction will become available after a token is transferred in February 2018.

**Command tokens** (13.8%) will be blocked for 12 months by TravelChain software and later deblocked in equal amounts within this period.

**Development Fund tokens** (30%) are intended for sale to large-scale travel industry players. They will be transferred to a multisignature account with two signatures, each having an equal weight, and one of which will be controlled by a third-party escrow and the second one by TravelChain team. Tokens can be deblocked only when KPI reaches 100,000 ecosystem users.

**We sell 30% of TravelTokens to large industry players to ensure success of the project.**

In order to make TravelChain a standard for the industry we have to attract maximum number of travel market players to the platform, in particular, large companies. These companies will be provided with special conditions ensuring their entry.

In order to retain the flexibility while attracting partners, we reserve some tokens for sale to institutional investors. The quicker they enter the project, the more data is presented at the platform and faster it will grow.

## / Partners

Our numbers grow constantly since large market players are involved in the project.



the storytelling platform

**3 000 000**

Users

**3 000 000**

Monthly visitors



Туристер

**189 000**

Users

**1 360 000**

Monthly visitors



**TVIL.RU**

**1 800 000**

Users

Within the work group, we discuss the standards of data exchange in the travel industry. In this context, TravelChain will satisfy the tasks and demands of the industry and yield with the benefit to all players in particular and the entire industry in general.

## / Bounty Program

Bounty program will be available from November 06, 2017 up to Token Sale.

Every member is able to perform simple tasks, for example:

- Publish articles
- Translate articles
- Leave likes and reposts to our materials
- View videos, etc.

Each task will be compensated with bonus miles that can be later converted into TravelToken by the end of Token Sale.

Conditions of the program can be changed, up-to-date information is published [here](#).

# / Road Map

## **Stage 1. Token Sale.**

**Time:** December 2017.

**Target:** Raise up to \$10.000.000 for design and development of TravelChain.

Launch of TravelChain testnet;  
Launch of MVP TravelChain;

Setting up of working group with industry representatives  
for introduction of TravelChain;  
Token Sale;

## **Stage 2. Preparation for TravelChain launch.**

**Time:** January 2018.

**Target:** Preparation for launch of TravelChain working net.

Design of basic standards for storage of tourism data at  
TravelChain platform;  
Launch of block-explorer;  
Launch of basic functional at TravelChain.io platform;

## **Stage 3. Launch of working net.**

**Time:** February 2018.

**Target:** Launch working net of TravelChain, and offer an opportunity for initial developers to design their applications.

Formation of genesis block;  
Launch of working net;  
Access to the stock market;

Публикация документации использования TravelChain;

## **Stage 4. Preparation of tools for collection of information.**

**Time:** Q1-Q2 2018.

**Target:** Preparation and launch of collectors of information.

Introduction of additional operations and plug-ins for  
TravelChain;

Mobile application for TravelChain with wallet function and  
function of data collection and control;

Plug-in for Chrome;

Widget JS for introduction into partner sites;

## **Stage 5. Integration of partners.**

**Time:** Q2 2018.

**Target:** Integration of strategic partners from tourist sector.

Expansion of ontology as regards partner requests;  
Introduction of widgets into partner sites;  
Profound integration of partners;

## **Stage 6. Establishment of developer community.**

**Time:** Q2 2018.

**Target:** To establish a community of developers ready to introduce TravelChain into existing projects or create own ones.

Create expanded documentation;  
Establish community of developers;

## **Stage 7. Distribution of coins and critical mass.**

**Time:** Q2-Q3 2018.

**Target:** Distribution of tokens through ecosystem projects, team of developers and active users for recruitment of critical mass of participants.

Launch of labour fund;  
Emission launch;  
Recruiting 100 000 users;

## **Stage 8. Infrastructure for scaling.**

**Time:** Q1-Q2 2019.

**Target:** Working out infrastructure solutions for scaling TravelChain.

Creation and introduction of infrastructure solutions for scaling the ecosystem;

# / The Team

## Key Figures



**Alexey Muravjev**  
Co-Founder, Architect

Block chain expert and research programmer. Master in nanomaterial physics and optoelectronics. Interested in fusion of informational systems. In search of efficient applied principles for creating high-quality relations between people, based on latest technologies.



**Ilya Orlov**  
Co-Founder, CEO

In charge of governance and strategic management. Has a high profile in management of small and medium enterprises with subordinate staff up to 450 persons. Has high social skills, deep knowledge of technology and clear vision regards the future industry development.



**Alexey Soloviev**  
Co-Founder, COO

Serial entrepreneur with 15 years of experience in various sectors – trading, services, construction. TOP-delegate of Golos block chain. Additional training in management, formation of corporate structure, marketing, creation and promotion of products. Engaged in corporate management and external development.

## / The Team

### Developers



**Orkhan Zeynally**  
CTO



**Anton Kolonin**  
AI, BigData Expert



**Yuriy Anikin**  
Data Analyst



**Pavel Dorozhkin**  
Team Lead, Back-end  
Developer



**Artem Bogomolov**  
Front-end Developer



**Zurab Shivarbidze**  
Front-end Developer



**Sabina Gurbanova**  
UX/UI Designer



**Konstantin Chanchikov**  
System Engineer

## / The Team

### Community Core



**Anastasia Razmakhnina**  
Head of Community  
Management



**Dmitry Kin**  
Lead Editor



**Сергей Логвин**  
HR Manager



**Ekaterina Vlasova**  
Copywriter



**Timofey Matveev**  
Community Manager

# / The Team

## Marketing



**Ivan Begunov**  
Head of Communications



**Valeria Baranova**  
Head of PR & SMM



**Roman Ufaev**  
Head of media integration  
and traffic



**Maxim Uvarov**  
Digital Producer



**Dmitry Seleznev**  
Graphic Designer



**Mikhail Sezemov**  
Marketing Manager



**Alexandr Petrov**  
Marketing Manager



**Anton Polevich**  
PR Manager



**Dmitry Lagutin**  
Investor Relations



**Dmitry Larin**  
PR Manager

## / Advisors



**Tony Simonovsky**

Serial entrepreneur with more than 14 years of experience in digital marketing



**Roman Povolotskiy**

Coordinator of "Cyber Russia"



**Alex Tursky**

Founder of izi.travel  
Entrepreneur of innovative start-up projects



**Eduard Jamgaryan**

Entrepreneur, CBDO ICObox, ICO Analyst/  
Adviser, CEO/Founder of GMPay



**Yuriy Matveev**

The founder of the "Banzay", "National Business" magazines, experienced traveler.



**Dmitry Machikhin**

Partner GMT Legal. Legal consulting of cryptocurrency projects, ICO



**Ruslan Sokolovskiy**

Video-blogger, over 1M subscribers

## / Disclaimer

This document is intended solely for indicative purposes and does not constitute an offer or a call to trade equities or securities using TravelChain platform or any other related or associated entity.

This document can be freely altered and amended in any manner. Final document will be published prior to the kick-off date of Token Sale.

