



# Worldwide Meds Project

## WHITEPAPER

BASED OF BLOCKCHAIN TECHNOLOGY

# Worldwide Meds White Paper

Worldwide Meds is a digital healthcare platform, whose embedded telehealth, telemedicine and AI solutions are designed to deliver world class medical consultations and solutions to patients and Users anywhere, at any time. The Worldwide Meds ecosystem will use blockchain technology and smart contracts to integrate innovative and latest technologies with the infrastructure of the traditional healthcare system, such as offline medical facilities and insurance companies. Worldwide Meds will facilitate high quality, affordable, end to end healthcare management to people all over the world.

## OFFICIAL WORLDWIDE MEDS WEBSITES

Main product website: <https://worldwidemeds.online>

## TOKEN SALE

Worldwide Meds Token (BBEX)

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# EXECUTIVE SUMMARY

Founder's Goal: “Worldwide Meds is going to bring exciting new technologies including AI, telemedicine and blockchain to the fields of healthcare and wellness management. This will empower healthcare systems to deliver superior cost efficiency, affordability and quality of service to clients. We believe these advances will increase quality and duration of life around the world”.

Worldwide Meds is creating a global blockchain ecosystem that will make affordable healthcare accessible to everyone. This ecosystem will enable the integration of existing infrastructure, including hospitals and healthcare clinics, while connecting care providers and clients worldwide.

The Worldwide Meds platform has many considerable advantages over the traditional healthcare system. The three main ones are:

- In today’s world medical charges differ significantly across geographical regions, which often renders high-quality healthcare inaccessible. Worldwide Meds will eliminate these differences.
- Our healthcare decision support system and AI-powered solutions will enable low-cost health care providers to improve the quality of service to patients.

- Drastic cost reductions will be made possible by replacing certain doctor or specialist's responsibilities (e.g. admin) with AI services.

With the ever-growing development in Technology, We believe that autonomous AI services will advance to hold a 45% share of digital health and wellness services in the near future.

Therefore, the Worldwide Meds Smart token will facilitate 24/7, healthcare-on-demand services, thereby solving some critical problems that healthcare systems around the world faces.

Worldwide Meds will utilize Artificial Intelligence solutions to better connect and empower both care providers and patients worldwide. Our aim is to increase quality and duration of life around the world.

The global market cap for the health care industry is estimated to reach around \$4,5 trillion by 2025 (according to Grand View Research Inc), more than \$2 trillion of which could be covered by internet services. Worldwide Meds has a goal to reach at least a 3% share of the global market for telemedicine and telehealth services.

Worldwide Meds will combine existing healthcare infrastructures in various countries including hospitals, medical centers, clinics, wellness centers, insurance companies, fitness apps and wearable devices to drive demand and value for the Worldwide Meds token. The Worldwide Meds ecosystem will support a whole new

economy of healthcare-related goods and services, built upon a decentralized marketplace and provided by traditional care providers, insurance companies and autonomous AI services.

## 1. **Telemedicine Market Size**

Healthcare in most countries is one of the most socially significant, and therefore a sensitive sector. It has a considerable huge commercial market. In the next three years, according to Deloitte estimates, global healthcare costs will triple reaching \$8.7 trillion and the global GDP spent on healthcare will rise by 10.5%. Health experts in the U.S experts the growth rate within the healthcare market to increase by 4.3%; the rate in Western Europe will be 4% same; and in transition economies, up to 7.5%.

The main driver of healthcare market growth are aging populations, higher life expectancies and rising hospital treatment costs. All of this has led, and will continue to lead, to growth in the demand for high-quality and up-to-date ambulatory services.

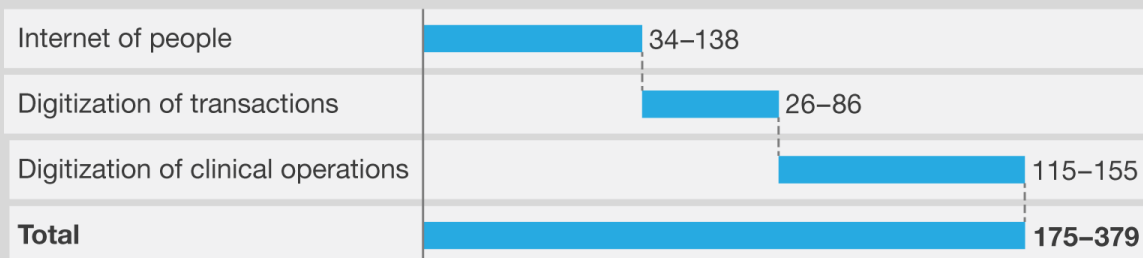
As healthcare expenditures continue to grow, consumers of medical services are actively looking out for better cost efficiency. It is unlikely that any of them will be willing to sponsor the non-stop growth of costs within the sector without a noticeable increase in the quality and availability of medical care. One of the most promising solutions to this problem is digitalization of the healthcare sector.

According to IBIS World estimates, the number of people over 65 has reached 46 million in the US. These people are the so-called 'Baby Boomer' generation, whose healthcare preferences are already driving growth in the demand for digital healthcare services as they prefer home (or remote) treatment and health monitoring to hospital treatment and are often financially capable of handling such a luxury.

McKinsey's global Healthcare Systems & Services estimates that digital and mobile healthcare technologies will help US taxpayers to save from \$175 billion to \$379 billion annually.

#### Potential impact of digital health

\$, billion



McKinsey&Company | Source: McKinsey analysis

McKinsey experts predict that in the next 5-10 years approximately 65% of people who own smartphones will be using them to access health services, including telemedicine. Now, about 70% of US residents use Smartphones.



## **2. Global Issues for the Modern Healthcare Sector and Worldwide Meds Solutions**

### **I. HEALTHCARE SYSTEMS ARE UNABLE TO OPERATE EFFICIENTLY ON A DAILY BASIS**

In many countries, healthcare systems are made up of numerous huge and cumbersome institutions which provide poor experiences to end-users. The individual elements within those systems often interact poorly and pursue opposing goals. As a result, bureaucracy, wastefulness, and a mentality of 'the system for its own sake' have unfortunately become defining features of the global healthcare sector.

Doctors face a considerable administrative burden, having to fill out papers even during a basic 15-minute appointment, which limits their ability to help patients. For patients, this means meaningless queues at outpatient clinics and hospitals, long waiting times for ambulances, insufficient attention from doctors and medical facilities with low patient capacities.

This means that high-quality medical care becomes unavailable to many people who do not have sufficient disposable income and/or personal connections. Even in developed countries, such as the US and the United Kingdom,

accessing health services is difficult in rural areas and the number of doctors per capita is significantly lower than in cities.

This means that people often lose valuable time waiting for the day of their appointment, as well as additional time and expenses on travel and accommodation.

## **THE WORLDWIDE MEDS SOLUTION**

Worldwide Meds is a blockchain platform which facilitates the exchange of structured medical and financial information. This high-tech solution will help to create the environment that meets the needs of all participants and is under the complete control of those who know best - doctors and patients.

The Worldwide Meds platform will have the integrated medical information system that will significantly speed up all formal procedures, enabling doctors to spend significantly less time on administrative matters. This system is already implemented in the world-class clinic Medicina, located in Moscow (Russia). During Worldwide Meds consultations, doctors

can focus on nothing but the patients and their health issues, while all administrative formalities would be removed from the scope of the consultation.

McKinsey estimates that up to 60% of all ambulatory visits can be conducted online Since Worldwide Meds is a platform

for remote consultations, we can ensure that qualified professionals will be available for patients anywhere in the world. Furthermore, one of our priorities is to constantly reduce waiting times for appointments with specialists to one minute or even less. Prompt access to qualified doctors can also significantly reduce the demand and workload for clinics, medical centers and even ambulances, allowing them to work more promptly with urgent cases.

## **II. MOST HEALTH CARE PROVIDERS FOCUS ON MEETING MINIMUM STANDARDS AT THE LOWEST POSSIBLE COST, NOT ON OUR HEALTH**

Health insurance system was created by competent specialists with good intentions but has since degraded. Insurance companies are incentivized to maximize profits at the expense of patients, which often means not paying out if an insured event occurs.

To accomplish this, insurance companies draft policies in such a complicated manner that the average consumer is unable to understand the policy terms. Insurance policies contain plenty of provisions aimed at reducing payments to the insured, instead of providing efficient medical care.

Another flaw in the modern health insurance system is its narrow focus on curing the symptoms of illnesses, rather than on the general goal of improving people's quality of life and life expectancy. If a patient reports a complex problem it is often divided into several diagnoses, which necessitates a variety of unrelated medical procedures and, as the result, patient's problems often remain unresolved. At the same time, less conventional issues related to a patient's

health, such as obesity, remain outside of the scope of doctors' attention in most countries.

Profit-oriented healthcare providers benefit from this, since treatment of patients with existing diagnoses at hand brings more income and provides employment for medical staff. This method is not designed to solve patients' problems, but rather to generate a stream of regular users of medical services.

# THE WORLDWIDE MEDS SOLUTION

On its blockchain platform, Worldwide Meds can provide clear and automatically executable insurance policies to its users, based on smart contracts. This medium involves participation of the three parties: patients, medical clinics and insurance companies. This medium also helps to minimize influence of the factor having the most potential for abuse - the human factor - which was previously unattainable.

Provisions of insurance policies that are based on the smart contract will be phrased in a manner that is clear and easy to understand; they will also be fixed in the blockchain, observable, transparent and permanent.

Worldwide Meds's insurance policies, based on smart contracts, will provide a solution to the current opacity in medical services and insurance policies. This opacity negatively affects patients and insurance companies, both of whom would benefit from the emergence of automated settlement systems.

### **III. THROUGHOUT THE WORLD, THE HEALTHCARE SECTOR DOES NOT USE THE LATEST TECHNOLOGY ADVANCES, THEREBY GREATLY LIMITING ITS CAPABILITIES**

All over the World, most medical facilities do not use decision support systems. The absence of such systems and the rapid development of the pharmaceutical sector and new technological methods of treatment significantly increase the risk of medical errors and improper medical prescriptions. This problem is further aggravated by the fact that in most countries doctors are unable to spend enough time improving their skills; and as the speed of scientific progress increases, the task of informing doctors about new methods and improving treatment efficiency is becoming more difficult. The extent to which

medical specialists exchange information remains low, despite recent development of communication tools. If a patient consults a general physician, and a subsequent consultation with another specialist is required, it is impossible to get it at once.

It is equally important that the healthcare sector is not ready to use the Artificial Intelligence for analyzing medical images. The quality of visual diagnostics remains very low. Even in the US visual oncology diagnostics are in urgent need of

improvement — 20 to 50% of diagnostic tests return false negative results, which means that doctors misdiagnose at least one fifth of the patients that have cancer.



## THE WORLDWIDE MEDS SOLUTION

The Worldwide Meds platform is one of the rare systems worldwide that supports medical decision-making. The medicines recommended by our doctors are automatically checked to ensure that they are compliant with the patient's medical issue, medical record and compatible with other medicines. This method significantly reduces the risk of medical errors. Worldwide Meds's medical system monitors whether a treatment plan corresponds to generally accepted standards of quality. Thus, Worldwide Meds's intelligence system helps doctors to consistently provide medical services of the highest quality.

Worldwide Meds's team, in collaboration with the medical community, has developed its own program for testing doctors' qualifications. It is based on the relevant international standards of medical care and can guarantee a high and professional level of medical consultants. All this information is stored completely transparently in the blockchain

and is available to all participants of our system. On the Worldwide Meds platform doctors will be able to seek advice from each other and to consult in real time, which also helps to significantly increase the quality of medical services.

The Worldwide Meds team works with machine learning technologies and neural networks to solve one of the most urgent medical problems of the modern era - analysis of

medical images (CT/MRT results, X-ray images, blood, skin and ultrasound images) for evaluation and predictive diagnosis. Even today, medical neural networks can recognize skin cancer at the level of the best doctors, and to predict the likelihood of the disease. Worldwide Meds intends to implement such solutions in its mobile platform to make image diagnostics using AI accessible to every user.

#### **IV. PEOPLE DO NOT OWN THEIR OWN HEALTHCARE RECORDS; RECORDS ARE STORED ANYWHERE BUT WITH END USERS**

The value of data and information in the modern world is obvious. People are eager to collect as much information as they can about everything that is taking place around them, and then claim ownership of this information. So far, the medical information that people all over the World leave at medical facilities has been an exception. It is virtually inaccessible to people who are directly involved, instead such information is owned and administered by medical clinics and public institutions. Neither can guarantee quality of the information management that would benefit patients and the community.

Another important aspect of such lack of access to information is the lack of knowledge about the quality of medical services and doctor's qualifications. The inefficiency of healthcare systems renders them opaque. Evaluation of a doctor's consultation by the patient is still a rare thing in the healthcare sector and very few medical clinics implement this practice. Information about doctors' efficiency, education and skills is not transparent and not available to patients. In most cases, you will not be able to find reliable data on the quality of medical care at a medical facility. The result is that people have to rely on indirect sources, often erroneous:

intuition, feedback from their circle of friends, and price. All this puts a patient at a disadvantage.

## **THE WORLDWIDE MEDS SOLUTION**

With Worldwide Meds, users will own and manage their medical information. Patients medical records will aggregate information from different sources: recommendations of doctors and fitness consultants, results of medical tests, wellness devices, cardio monitors, glucose meters, etc. This data will be available to the providers of medical and wellness services so that they have a complete picture about the health of a patient. If patients possess this information, they may start paying more attention to monitoring their health right away.

On the Worldwide Meds platform, the users will be able to influence the quality of services of clinics doctors: after the consultation they will have an opportunity to leave feedback. All opinions about the quality of consultations will be stored in the blockchain, which guarantees safety and makes it impossible to alter the information to benefit

somebody's interests. If a patient gives a low grade, Worldwide Meds's supervisors will thoroughly check what happened at the consultation and find out the reasons for the low grade. It will help us to create a transparent and non-biased system to evaluate the quality of medical services, and our patients will be able to use it before deciding whether to make an appointment with a doctor.

## **V. HEALTHCARE SYSTEMS ARE NOT READY TO WORK WITH PROGNOSTIC SCENARIOS OF PATIENT CARE AND TO MONITOR CHRONIC DISEASES ONLINE**

Modern healthcare systems are unable to aggregate information about each person's health status and to distribute it efficiently within the system. Doctors do not have access to the huge amount of information that people accumulate about their health using mobile devices. However, this information could facilitate a significant reduction in the cost of monitoring chronic diseases, the number of medical errors and incorrect medication prescriptions.

### **THE WORLDWIDE MEDS SOLUTION**

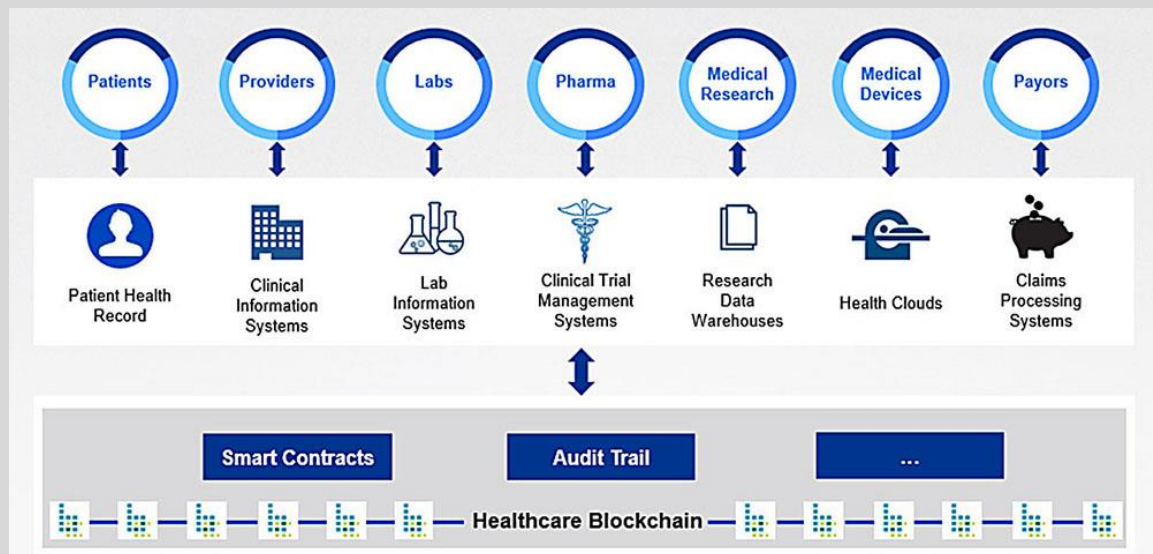
As a platform capable of aggregating and analyzing huge amounts of information, Worldwide Meds aims to develop the system of pro-active medical care for its users through built in mechanisms for accumulating data on physical activity and health. This information will be analyzed by machine algorithms and, after processing, will be available to doctors and wellness consultants working on the platform. It will also become the basis for Healthcare systems are not ready to work with prognostic scenarios of patient care and to monitor chronic diseases online.

Modern healthcare systems are unable to aggregate information about each person's health status and to distribute it efficiently within the system. Doctors do not have access to the huge amount of information that people accumulate about their health using mobile devices. However, this information could facilitate a significant reduction in the cost of monitoring chronic diseases, the number of medical errors and incorrect medication prescriptions making automated recommendations for the patients to change their lifestyles, including physical activity and nutrition, as well as frequency of health check-ups. Such prognostic recommendations, if presented in a clear form with specific advice on immediate actions, can significantly reduce a patient's healthcare costs.

### 3. **THE WORLDWIDE MEDS ECOSYSTEM**

Worldwide Meds is developing a comprehensive system of healthcare services that will enable customers from many countries to have consultations and receive care for various medical and health related lifestyle issues in one-window mode both offline and online. Worldwide Meds will offer a variety of solutions in the sphere of telemedicine, including online video consultations with doctors and other healthcare specialists, integration with wearable medical devices, a support system for medical decisions, a blockchain-based rating system to evaluate medical specialists, AI medical solutions, and integration with many different ecosystems and databases that store medical information. In this section we describe the full functionality of the ecosystem that Worldwide Meds plans to implement by 2020.

## How Worldwide Meds Revolves?



## TECHNOLOGY PLATFORM

The Worldwide Meds Platform is the core of the ecosystem. It processes client requests, records transactions, helps doctors to make more prompt and accurate decisions and aggregates user and appointment information to

calculate specialists' ratings. Its operational resources come from the fees for teleconsultations and services that Worldwide Meds clients receive from the partner clinics, laboratories and wellness-centers. The

Worldwide Meds Platform contains several key elements such as Data Bank, Our Decision support system, Our Doctor rating module, and the Worldwide Meds Blockchain Platform that will help facilitate consistent improvements in both the



speed and the quality of all services provided within the ecosystem.

## **TELEMEDICINE**

Telemedicine is the service within the Worldwide Meds ecosystem that enables customers worldwide to get a prompt, professional consultation on any healthcare issue. For doctors and wellness specialists, this provides the opportunity to increase their income by providing online consultations.

Teleconsultations can be used to collect anamnesis, answer patient's questions, prescribe medication and for many other things.

## **PARTICIPANTS IN THE SYSTEM**

### **Medical Clinics**

Clinics: existing offline clinics (in future, virtual online clinics may become participants too) that will: (1) provide services to patients and use the opportunities to be presented by the Medical Information System, (2) bring together doctors and collaborate with Worldwide Meds Ecosystem to provide online services to patients, and (3) agree to make offline appointments with Worldwide Meds's patients.

In many cases, during the online consultation, the specialist may decide that the patient should consult an offline clinic for diagnostics, tests and medical procedures.

Worldwide Meds will sign contracts with clinics that meet global quality standards and will integrate them into the platform. Then, a specialist will be able to make an appointment at a time and place that suits the patient, considering the patient's geolocation, availability of relevant specialists and available time slots in the nearest medical facility.

All information necessary for the personal consultation will be sent to the offline clinic in advance; the patient will simply need to show up and receive the service. No administration, either filling out forms or making a payment, will be necessary at the offline clinic because the Worldwide Meds platform will perform all the necessary actions automatically.

Results of the offline consultation will be added almost immediately to patient's electronic medical records and may be used again in future, whenever the patient consults Worldwide Meds specialists.

Each time Worldwide Meds makes an appointment for one of its clients at a partner clinic, it will receive fees as a proportion of the cost of the service provided to the patient offline.

## LABORATORIES

Laboratories are facilities that provide medical tests and procedures. They will receive orders for tests from Worldwide Meds's clients and send test results to the Worldwide Meds ecosystem. Orders can require both online research (e.g. descriptions of test results that were performed earlier) and offline visits (blood tests, MRT, X-ray, etc.).

If during the consultation the specialist decides that the patient needs to take some tests, they will be able to send the patient to the nearest Worldwide Meds partner laboratory performing the required service. In large cities, some partner laboratories will be able to send a nurse to the patient's home to take the necessary tests.

All information that is required by a laboratory to provide services will be sent to them by Worldwide Meds automatically. The test results will be then sent back to Worldwide Meds and added to the patient's electronic medical records. The notification system in the Worldwide Meds application will inform the patient about the received results immediately and

offer to make a new appointment for an online consultation to discuss the results with a medical professional. All payments will be made on the Worldwide Meds platform - patients will just have to provide their certificate for the laboratory services: they will not have to waste any time on explanations, filling forms and payments.

All partner laboratories will be connected to the Worldwide Meds ecosystem after they confirm their ability to meet international quality standards for the provision of services.

Worldwide Meds will provide a flow of orders to its partner laboratories and charge fees on services rendered to the clients.

## **WELLNESS-CENTERS**

Over the past decade, healthy lifestyle practices and demand for products and services, which help people in such practices, have been growing globally. These products and services are no longer the privilege of a small circle of athletes and high-income individuals. A move towards a healthier lifestyle is currently one of the most significant consumer trends. According to Europe Active analysts, the European market for fitness services has reached \$32 billion, they also note that the European market is the biggest for these services globally.

## **INSURANCE COMPANIES**

Insurance companies are amongst the most numerous healthcare organizations all over the world. Depending on the country, medical insurance can be compulsory or voluntary, and insurance companies can be private or public. Aside from insurance-backed medical services, many countries have a large budget for state-funded medical services. The

US, for example, has a wide-scale joint federal and state programs for people with low incomes (Medicaid) and elderly people (Medicare). Meanwhile, in the UK most of the medical care is financed from the federal budget.

Insurance companies do not always cover the full cost of medical treatment. Depending on the type of the insurance (private or public), patients often must pay for a portion of their care - for example, the first day of a hospital stay (US, Medicare) or a certain medical fee until it reaches a sum each year (Sweden). In addition, ordinary users often do not understand the specifics or fine print within their insurance policies, including what exactly they are paying for, and which services are and are not covered by the

policy. Many people do not understand even the basic terms. Worldwide Meds's insurance policies, which are based on smart-contracts, will be able to solve this problem.

The blockchain platform will enable Worldwide Meds to provide its users with a transparent and automatically-executed insurance policies based on smart contracts. This format involves three-party contribution - of patient, clinic and insurance company - and it is able to achieve a degree of freedom from human intervention that was unattainable earlier. The terms and conditions of an insurance policy will be written in simple language, transparently fixed in the unchangeable blockchain.

There will be a special interface in the Worldwide Meds ecosystem for insurance companies that will simplify the process of drafting such policies. Insurance companies will be able to use this interface to put together their client products and put them up for sale. All available policies will be written in simple language, making it much easier for the user to make an informed choice. Users will also be able to construct individual insurance policies that will comprise only of the services they need.

Worldwide Meds will collaborate only with those insurance companies that are ready to offer transparent terms and support our principles of automated insurance. We are going to monetize this sector by charging fees for insurance policy sales and prolongations.

Worldwide Meds will provide insurance companies with all the marketing tools for profitable sales, as well as legal services and technical support.

## ARTIFICIAL INTELLIGENCE (AI)

AI technologies are one of the most promising areas in modern medicine having huge opportunities for investors. McKinsey estimates the potential of the global market at \$750 billion. The sector is on the verge of technological disruption; events that will take place in the next 10 years will dramatically change the way doctors and other medical professionals treat patients.

The latest research and empirical data suggest that the first generation of medical AI technologies will appear in medical practices in the next 3- 5 years. These technologies will be able to decide as to whether someone's X-ray image or CT scan should be shown to the doctor or not. In 7 -10 years the second generation of medical AI will be able to make a preliminary interpretation of the image, enabling diagnosticians

to work faster and tell them what to pay attention to. AI will also give prognostic recommendations and assess the risk of developing different diseases, including cancer, based on the patient's medical tests. This can feed into recommendations for the necessary frequency of future check-ups.

Worldwide Meds is going to implement the most advanced technological solutions of its market partners into its mobile platform, acting as a marketplace in the sphere of high tech medicine. Throughout the world, dozens of teams are developing impressive AI based products, and many of them

have significant potential. Worldwide Meds will provide them with the necessary flow of clients and monetization of their inventions, while users will receive the most advanced solutions from around the world all in one accessible platform.

Worldwide Meds will also be using AI technologies both in product solutions and its internal technological processes. For example, we are working on the implementation of machine learning in Worldwide Meds's system of support for medical decisions. This will enable the system to learn independently and amend its operations based on the new data. This system will also be able to verify the qualifications of doctors connected to Worldwide Meds.



