Al for Healthcare Advanced Technologies for Healthcare Focus on Early Diagnostics and Preventive Medicine

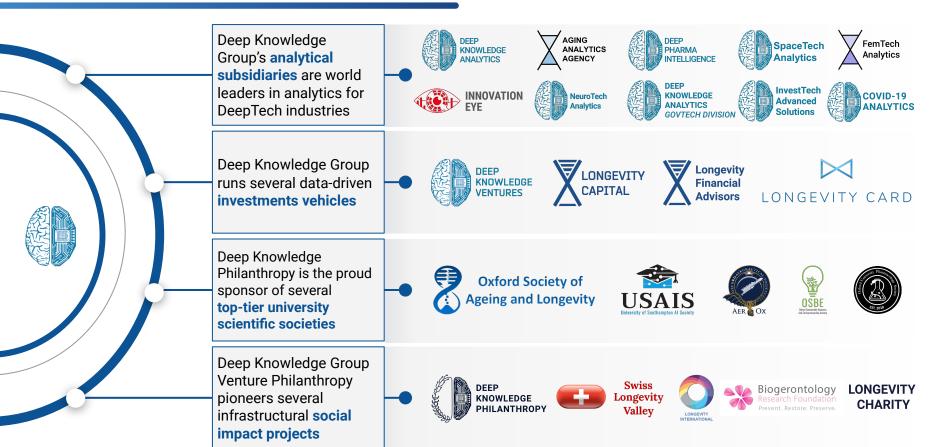
Dmitry Kaminskiy

Deep Knowledge Group General Partner

Academy of Science, Republic of Moldova June 17, 2022



Deep Knowledge Group Activities



Geography of Deep Knowledge Group



Longevity
Aging
FemTech
COVID-19
Deep Pharma



InvestTech NeuroTech SpaceTech GovTech

Deep Knowledge Group's Social Impact and Government Relations



Forbes



FORTUNE



Daily Mail

The Guardian

















Media Influence Government Relations Charity



Conferences **Book Production** Government **Policies**



Benjamin Netanyahu Prime Minister of Israel

Israel has been ranked first in the Covid-19 Health Safety Countries Ranking on the Deep Knowledge Group website.



Hong Nam-ki Deputy Prime Minister of South Korea

Finance Minister Hong Nam-ki posted a Forbes article that ranked South Korea as the third safest out of 100 countries around the world during the COVID-19 pandemic.



Karin Prien
German Minister for
Education, Science
and Culture

Germany is very far ahead in the country comparison: "Compared to the other countries, Germany currently has the best security and stability ranking in Europe and is also one of the leading nations worldwide in terms of crisis management."



Judith Varga Hungarian Minister of Justice

We are grateful for all healthcare workers and first responders battling the cornovirus. Hungary will continue to focus all its efforts on protecting the lives of its citizens and mitigating the adverse health and economic impacts of the pandemic.



Fabrice Filliez Ambassador of Switzerland to Singapore

Deep Knowledge Group's report, based on 130 parameters, ranks Switzerland #1 due to its economy's resilience & careful ways to relax lockdown without sacrificing public health and safety.

FORMER PRESIDENT



Former President of Switzerland

Alain Berset is Federal Councillor, Head of the Federal Department of Home Affairs (DFI) and former President of the Swiss Confederation. Alain Berset mentioned Deep Knowledge Group's COUN-19 Safely Ranking published on 4th of June 2020 on his Twitter account.









Deep Knowledge Group's Covid-19 Rankings in Press

DER SPIEGEL



"According to a ranking, the Federal Republic is currently the safest and most stable country in Europe and even the second safest in the world. Only Israel manages the crisis better, according to the country comparison of the London Deep Knowledge Group (DKG), which is exclusively available to SPIEGEL."

Read Article

ASIAN REVIEW



"The countries that will be able to provide long-lasting protection for their citizens, and stay stable, they will to some extent automatically attract financial activity," Dmitry Kaminskiy, DKV's founder and managing partner, told the Nikkei Asian Review.'

Read Article

'The Palestinians benefit from the Israeli assistance, since Israel was just ranked the safest country in the world during the pandemic by the Deep Knowledge Group," - Fox News

Read Article

Deutsche

tests and the availability of hospital beds."



"Germany is the safest country in Europe, with Greece in "Deep Knowledge Ventures, which is focused on health care 30th place and Cyprus in 29th place. In their research, DKG and longevity technology, ranked 20 countries in Asia Pacific analysts took into account many different criteria, such as the on these parameters: lowest likelihood of infection, lowest validity of restrictive measures, the number of quarantine chance of mortality, and highest likelihood of recovery based violations, the range of travel bans, the number of diagnostic on efficiency of guarantine and government management, monitoring and detection, and emergency treatment

Read Article

Esquire



readiness."

Read Article

Forbes



"The Deep Knowledge Group, a respected a consortium of commercial and non-profit organizations, has just published an interim review of measures to combat the COVID-19 pandemic, including a "Safety Countries Ranking" of the 40 countries that are doing the best job of protecting their citizens against coronavirus."

Read Article



"In order to assemble the ranking, DKG analysts gathered information on several factors, including the period of lockdown and the number of confinement infractions per country. Other indicators are travel bans, coronavirus testing and how well hospitals are equipped in each country."

Read Article



"According to Deep Knowledge Group Germany manages extremely well to protect its population against the dangers of coronavirus. In an analysis by the Hong Kong and Londonbased company, Germany ranks the second worldwide when it comes to providing security and dealing with the crisis."

Read Article

The Washington Times



"A list of the world's 10 current "safest countries," compiled by the London-based Deep Knowledge Group, includes classic European-style parliamentary democracies (Israel, Australia and New Zealand), densely populated city-states (Singapore and Hong Kong) and totalitarian (China)."

Read Article

Forbes



"Deep Knowledge Group has developed advanced analytical frameworks to analyze this data. The results are presented in the form of open source country rankings to help people and governments make informed decisions that maximize beneficial outcomes for humanity."

Read Article

DER SPIEGEL



"Internationally, its crisis management is praised. In the country comparison of the London Deep Knowledge Group on the corona crisis, Germany is currently the safest and most stable country in Europe and the second safest in the world , with Israel as the front runner. Spahn can be celebrated and gives interviews to international broadcasters such as CNN "

Read Article

euronews.



"According to research by Deep Knowledge Group, the COVID-19 crisis is best managed by Israel on a global scale. Germany is the second and South Korea is the third.Deep Knowledge Group, a London-based artificial intelligence and data analysis company."

Read Article

DEEP KNOWLEDGE GROUP'S COVID-19 RANKINGS ON NATIONAL TV CHANNELS GLOBALLY







Deep Knowledge Group in Press

Daily Mail

"In a world first, Japanese venture capital firm Deep Knowledge recently named an artificial intelligence (AI) to its board of directors. The robot, named Vital, was chosen for its ability to pick up on market trends 'not immediately obvious to humans"

The Guardian

"For Deep Knowledge Ventures, the Hong Kong-based venture firm that added a machine learning algorithm named VITAL to its board in 2014, it was about adding a tool to analyse market data around investment opportunities."



"The firm, Deep Knowledge Ventures (DKV), which invests in companies researching treatments for age-related diseases and regenerative medicine, uses the algorithm to analyze financing trends to make investment recommendations in the life sciences sector."

HUFFPOST

"Deep Knowledge Ventures said that the AI would help make financial and business decisions, help lead its research into biotechnology and regenerative medicine, and would act as an "equal member of the board".

ASIAN REVIEW

"Artificial intelligence gets a seat in the boardroom. Hong Kong venture capitalist sees Al running Asian companies within 5 years."

FINANCIAL TIMES

"The One Billion Retired People Globally are a Multi-Trillion Dollar Opportunity for Business" - Dmitry Kaminskiy for Financial Times

Forbes

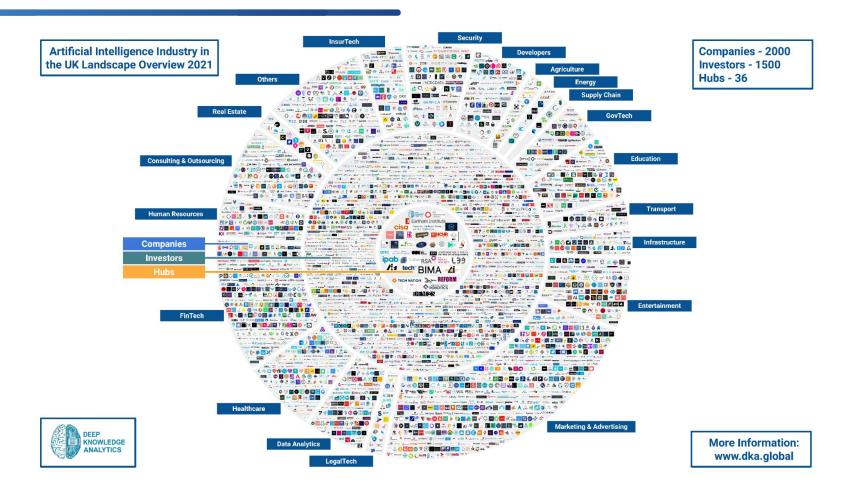
An Insight Of Al's Penetration In Drug Development Market. Thanks to Deep Knowledge Ventures which a couple of days ago updated their research data, we took the opportunity to delve into the latest developments of this market.



"A venture capital firm has appointed a computer algorithm to its board of directors. According to Deep Knowledge Ventures, Vital has already approved two investment decisions. The software was developed by UK-based Aging Analytics."

Al, Longevity and Blockchain in UK by Deep Knowledge Group

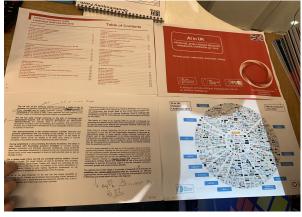
AI in UK 2021



Artificial Intelligence in UK Landscape Report was presented in the UK Parliament on Oct 24, 2018





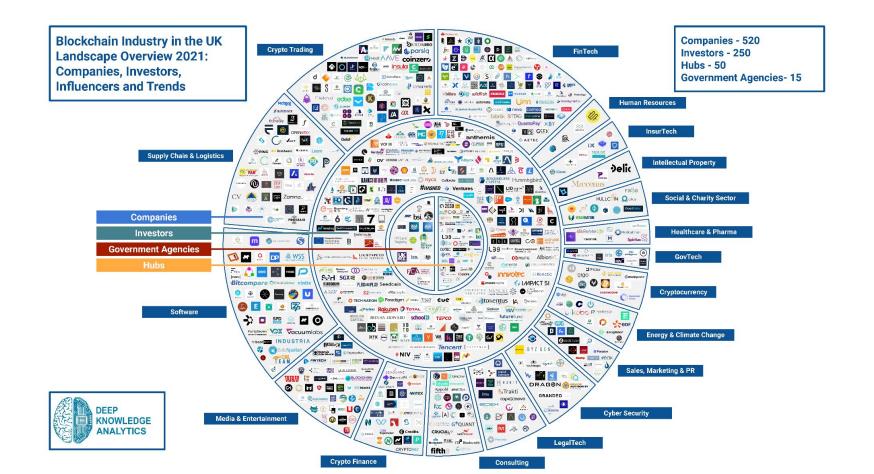








Blockchain in UK 2021



Al in UK 2021 Dinner Reception by Deep Knowledge Group, Dec 15, 2021



Artificial Intelligence
Industry in the UK
Landscape Overview 2021:
Companies, Investors,
Influencers and Trends



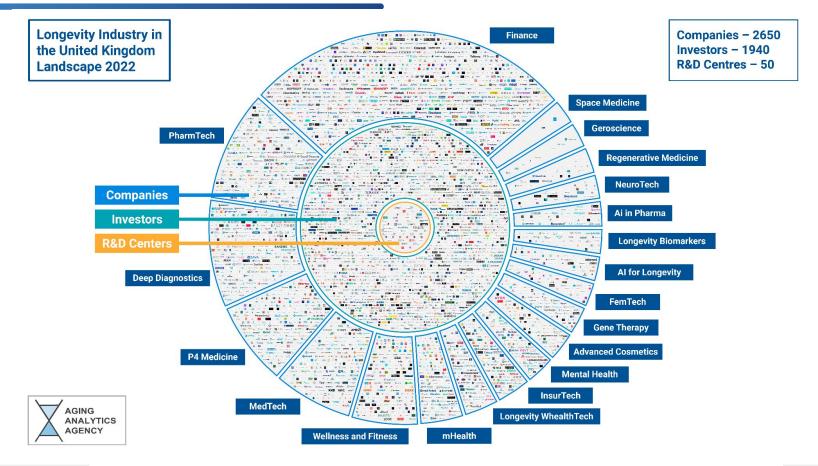


www.dka.global

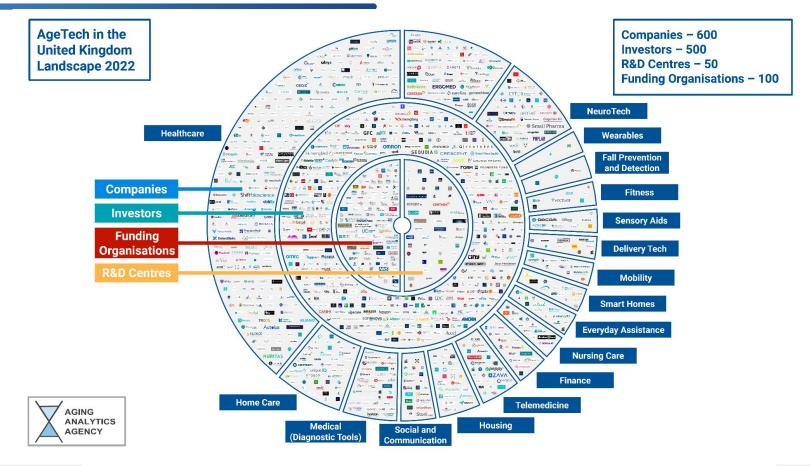




Longevity in the UK 2022



AgeTech in the UK 2022



Conferences & Longevity Industrialization Thought Leadership

Dmitry Kaminskiy is a frequent speaker on AI and Longevity, including events organized by The Economist "Aging Societies and The Business of Longevity", Financial Times "Smart Machines vs Smart People", Financial Times "Global Pharmaceutical and Biotechnology Conference", Private conferences organized by UBS Bank, "Brasilian Pension Funds Conference" the "Precision Medicine World Conference" in Silicon Valley as well as others at Oxford and Cambridge Universities.













Longevity is now regularly embraced as a major topic of interest for panel discussions and entire conference series by top-tier finance and business media brands including *The Economist, Financial Times* and *Bloomberg*.

Conferences & Longevity Industrialization Thought Leadership











Future Finance Forum / Seoul, Korea, 2017 / Al in Finance





The Economist Conference AgeTech and Longevity / London, 2016



INVESTING IN LONGEVITY

Longevity Industry 2022 Overview

Dmitry Kaminskiy

Deep Knowledge Group General Partner **Davos, 25 May 2022**









All Party Parliamentary Group for Longevity / London, 2019



THE 2ND INTERNATIONAL LONGEVITY POLICY AND GOVERNANCE SUMMIT

Kenji Shibuya

Adriane Berg

Stephen Johnston



Ms Joanna Bensz

John Godfrey

Brian Kennedy

Events in Moldova





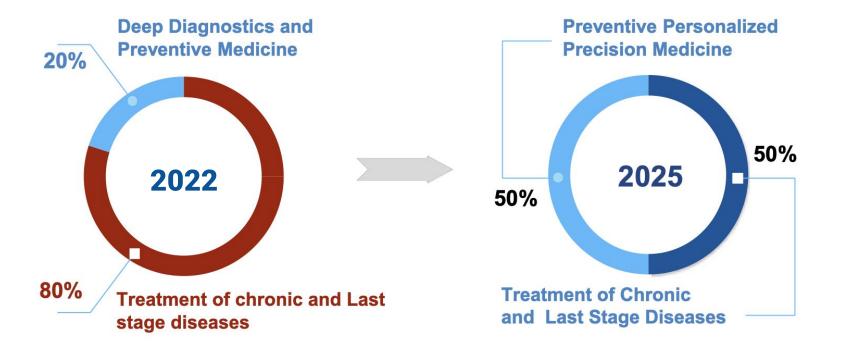
IT Summit, Moldova, 2016

Lecture in Moldova Polytechnic University

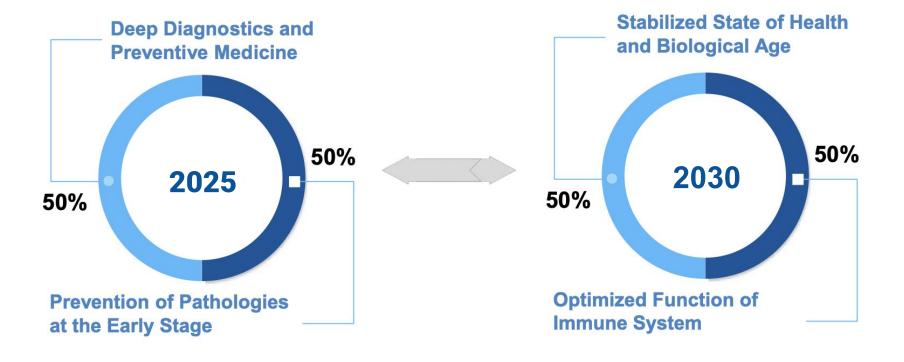
Chisinau, Moldova, 2016

Global Trends in Healthcare

Paradigm Shift from Treatment to Prevention

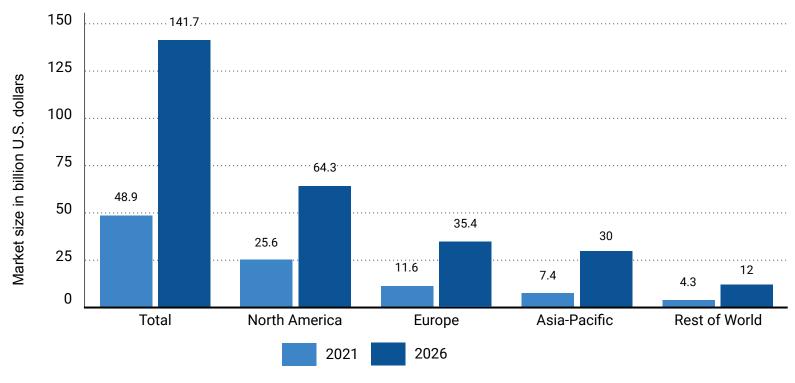


The New Frontier - from Precision Medicine to Precision Health



Healthcare Becomes More Personalized

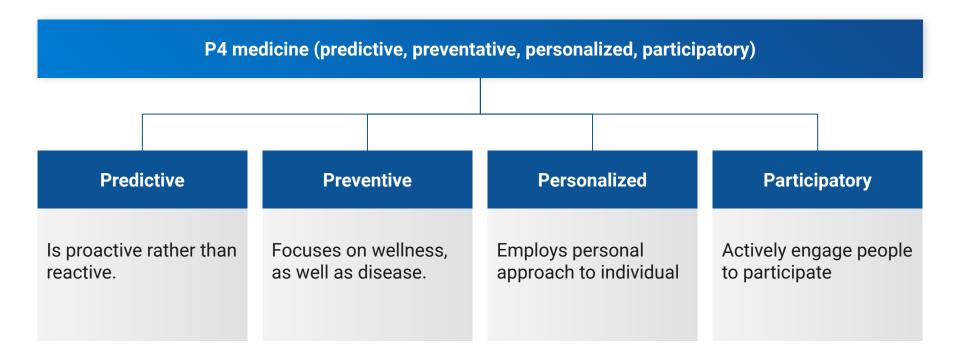
Total Precision Medicine Market Size Worldwide in 2021 and a Forecast for 2026, by Region (in Billion, U.S. Dollars)



Deep Knowledge Group

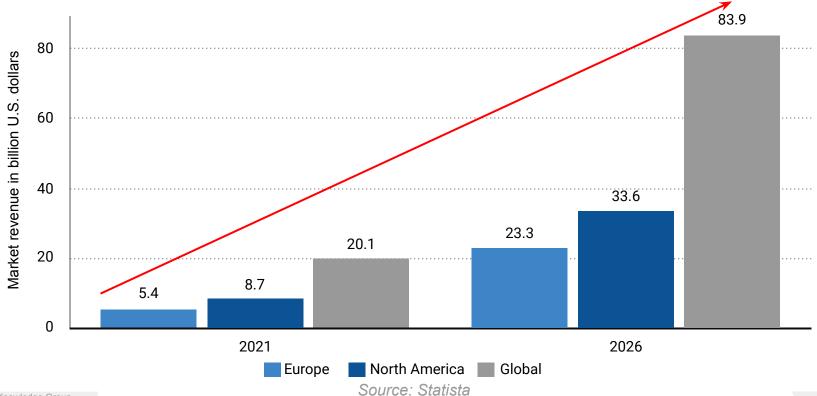
Source: Statista

Core Ideas of P4 Medcine



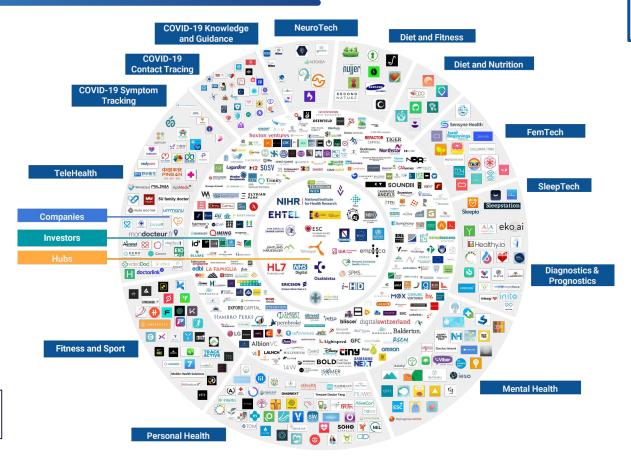
Wearable Devices Go Mainstream

Medical Wearable Devices Market Revenue Worldwide in 2021 and 2026, by Region (in Billion, U.S. Dollars)



Global mHealth Industry Landscape Overview 2020

Companies - 260 Investors - 330 Hubs - 25





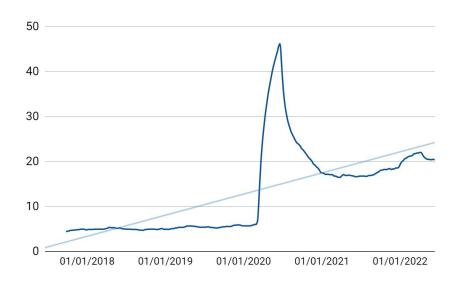
Al in Healthcare General Overview and Recent Trends

Healthcare Trends to Monitor

Al Begins to Disrupt Healthcare



Virtual Healthcare Is Exploding



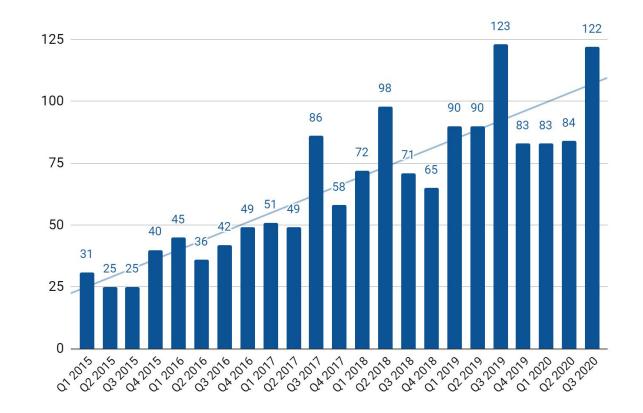
Google Searches for "Al and healthcare" are up 322% in the last five years. Al is increasingly used by healthcare providers.

Searches for "telehealth" spiked at the start of the COVID-19 pandemic. But remains higher than pre-pandemic levels.

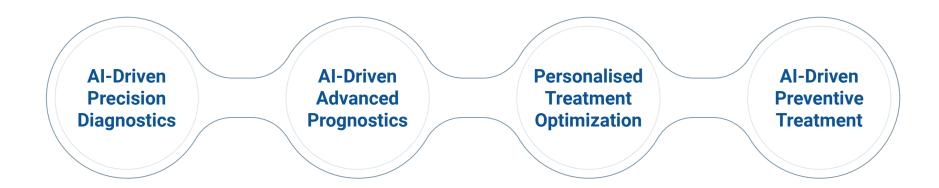
Disclosed Healthcare AI Deals and Equity Funding, 2015-2020

Al is impacting the future of virtually every industry and every human being.

Al has acted as the main driver of emerging technologies like big data, robotics and IoT, and it will continue to act as a technological innovator for the foreseeable future.

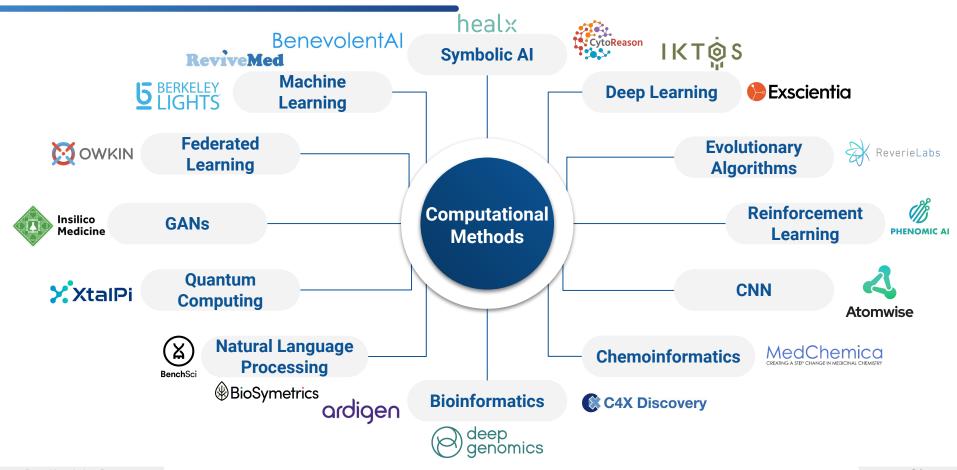


AI in Healthcare: Priority Use Cases

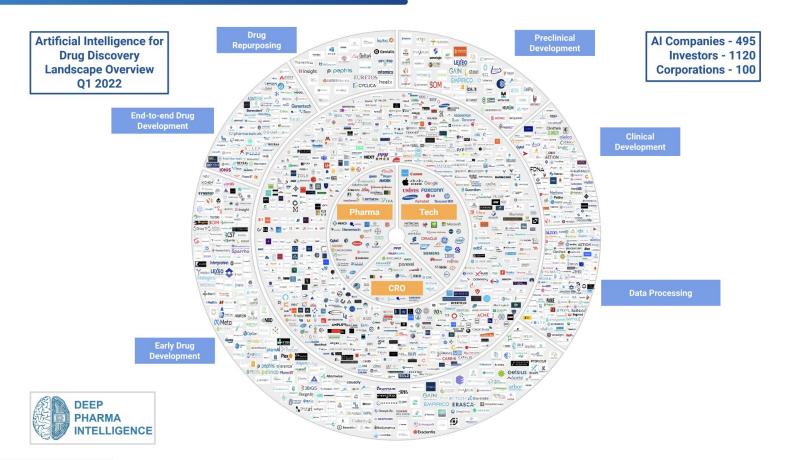


- Multi-Omic Sequencing
- Continuous monitoring powered by Big Data Analytics
- Continuous monitoring of health state based on changes in biomarkers of aging
- Advanced biomarker-based prognostics
- Al-driven predictive prognostics based on personalized multi-omnics
- Al-Driven in silico personalized treatment optimization
- Al-driven personalized in vivo drug optimization
- Treatment optimization based on patient genetics
- Maintenance state of Precision Medicine through Preventive Medicine
- Al-based predictions of optimal drug combination

Computational Methods Used by the Most Advanced AI Companies



Artificial Intelligence for Drug Discovery Landscape Overview 2022



Examples of AI Applications at Different Stages of the COVID-19 Crisis

Detection

Early Warning

Detecting anomalies and digital "smoke signals"

Diagnosis

Pattern recognition using medial imagery and symptom data

Prevention

Prediction

Calculating a person's probability of infection

Surveillance

To monitor and track contagion in real time

Information

Personalised news and content moderation to fight misinformation

Response

Delivery

Drones for materials' transport; robots for high-exposure tasks at hospitals

Service automation

Deploying triaging virtual assistants and chatbots

Recovery

Monitor

Track economic recovery through satellite, GPS and social media

General Overview of Advanced Medicine and

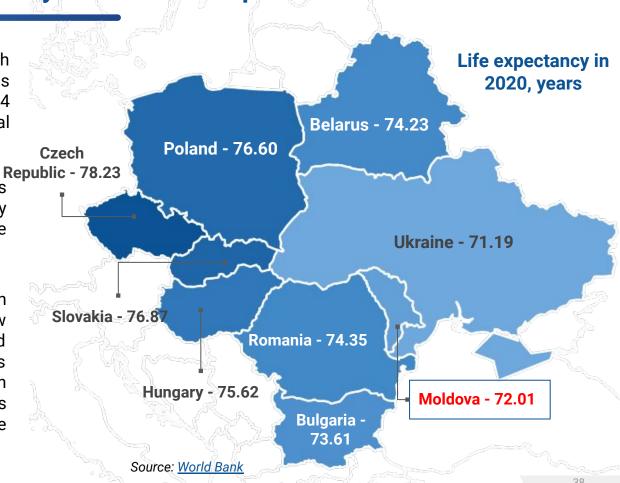
Life Expectancy in Eastern Europe

Life Expectancy and Mortality in Eastern Europe

The average life expectancy for both sexes across the Eastern Europe is 74.74 years, which is higher by 2.14 years compared to the global average.

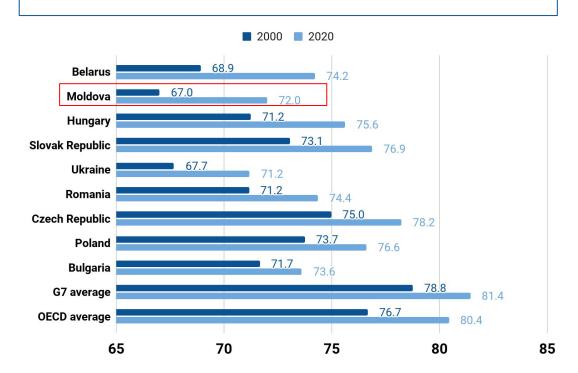
The Czech Republic with 78.23 years has the highest life expectancy among all states, while Ukraine the lowest - 71.19 years.

Eastern European countries, which have historically had relatively low life expectancy, have experienced improvements since the 2000s. It's expected that improvements in healthcare systems of the countries would result in long-term future life expectancy values.



Life Expectancy in Eastern Europe

Improvements in life expectancy, 2000-2020

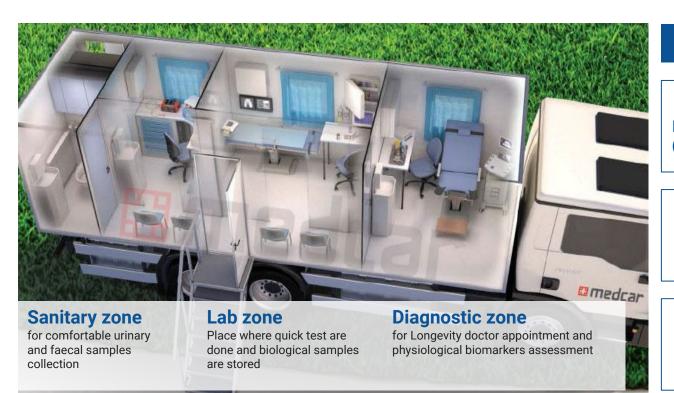


During the past 20 years the average life expectancy for the region has increased by 3.69 years with Belarus (7.71%), Moldova (7.46%) and Hungary (6.13%).

Deep Knowledge Group Source: World Bank

Problem - Lack of Early Stage Diagnostics

What is the best solution? Mobile Diagnostic Cabinet



Services

Pathogen Identification (Diagnostics)

Immunization

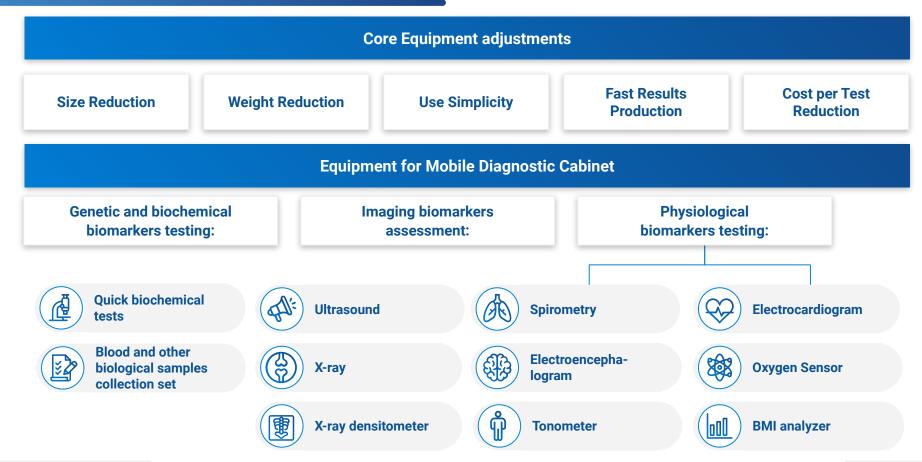
Urgent and Emergency Care

Health Screening

Pediatric Care

Treatment Plan Creation, Consultation

Equipment Conditions for Mobile Diagnostic Cabinet



Functionality of Mobile Diagnostic Cabinet

Patient data is analysed digitally on the basis of artificial intelligence and telemedicine

1 Samples collection 2 Samples storage 3 Sample transferring 4 Sample analysing

Our specialists collect biological samples (blood, genetic material, urine, saliva, faecal) for biomarkers assessment in sterile conditions. The mobile clinics have a fridge suitable for biological samples storage that will not disturb the biomarkers composition.

The transferring is done as soon as possible to local Mobile Diagnostic Cabinet. The fast transfer is vital for quality diagnostics.

Modern analyzers in Mobile Diagnostic Cabinet extract data from samples, create Digital Avatar and provide the Longevity solutions in concrete case.

Health Surveillance

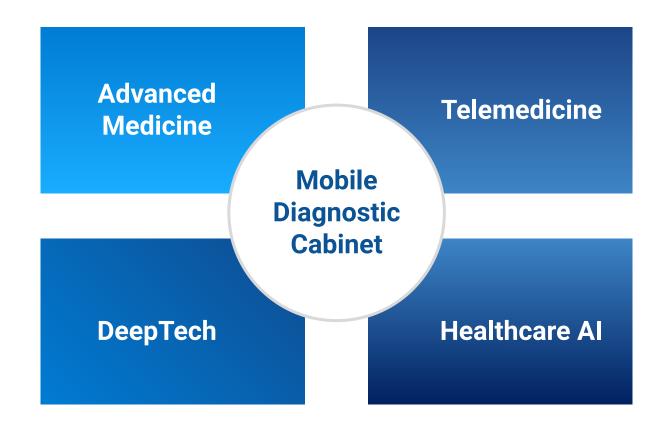
Early Detection of Infections

Early Diagnosis

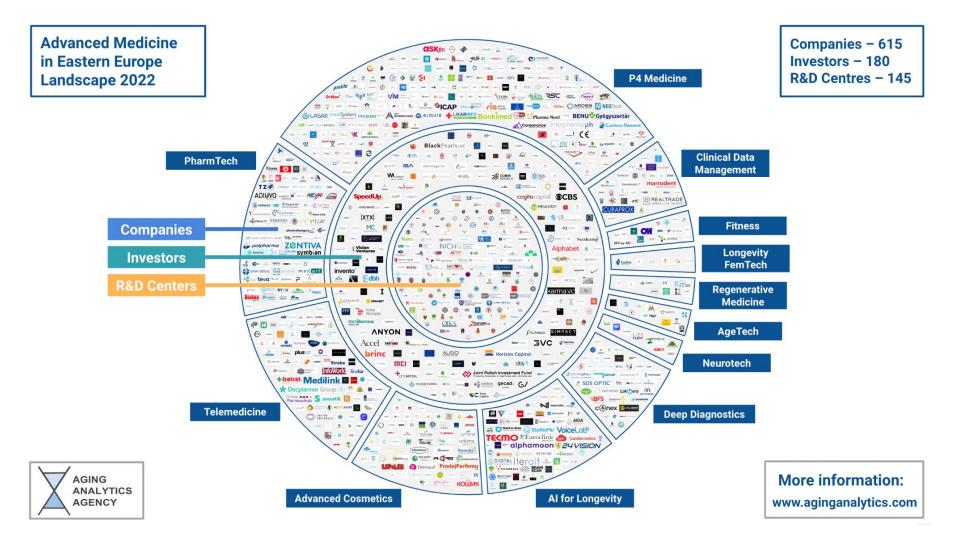
Beter Treatment Results

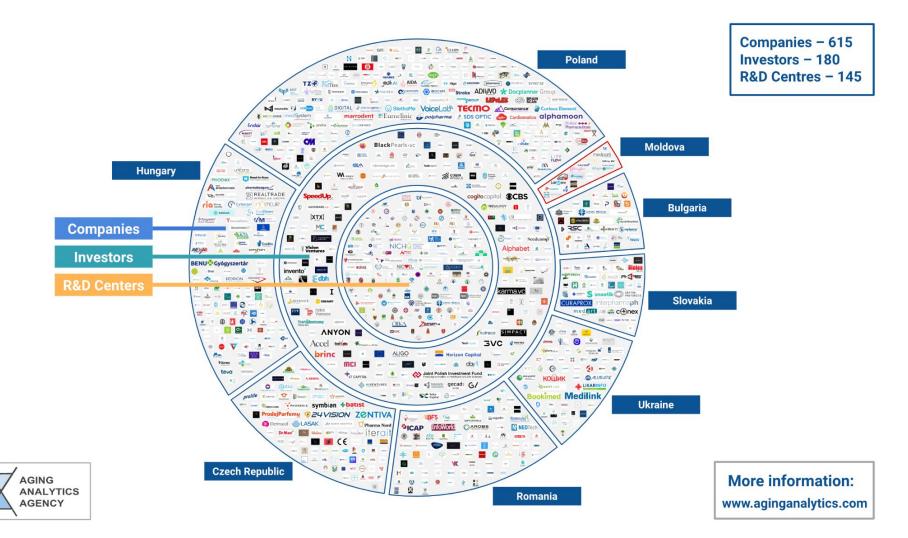
Longevity

Tech Synergy for Modern Medical Approach



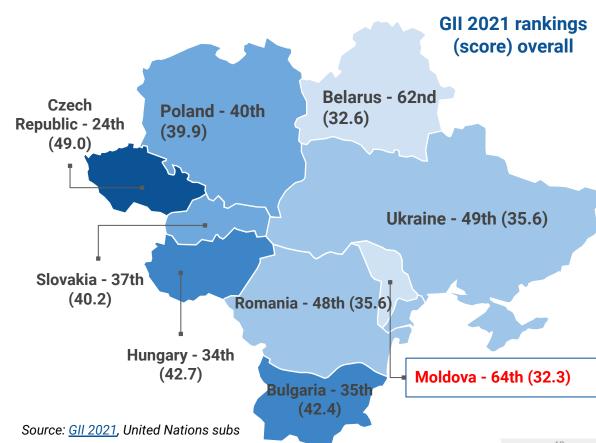
Is Eastern Europe ready to Implement DeepTech and AI in Healthcare?





Global Innovation Index (GII) in Eastern Europe, 2021

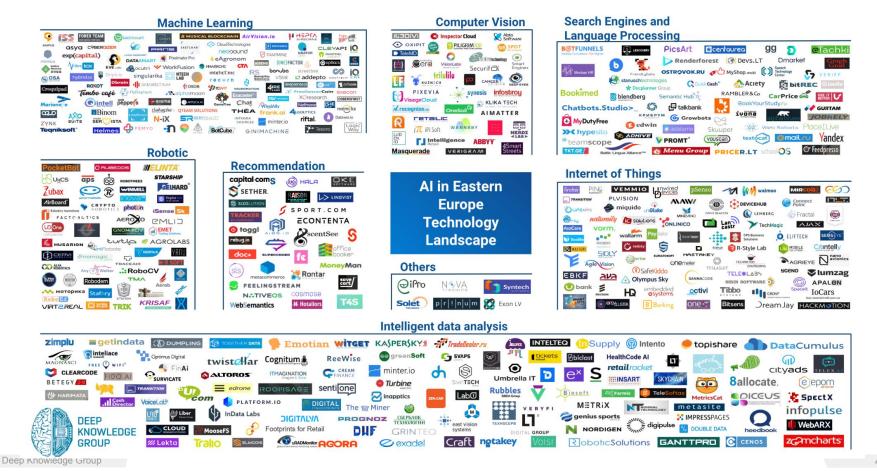
- Among top 5 countries three are European countries: Switzerland taking 1st place (65.5), Sweden 2nd place with 63.1 score, and United Kingdom (4th, 59.8). Among Eastern European countries Czech Republic ranks the highest score 49.0 (24th palace).
- The majority of the GII top 25 most innovative economies continue to be from Europe, with France (11th) and Estonia (21st) making notable progress.
- Czech Republic, Bulgaria, Ukraine and Moldova have Innovation performance above expectations for level of development.



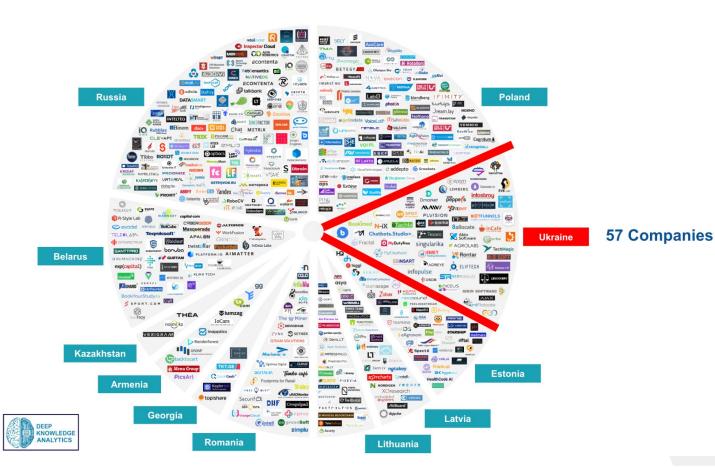
Deep Knowledge Group

12

AI Companies in Eastern Europe 2018

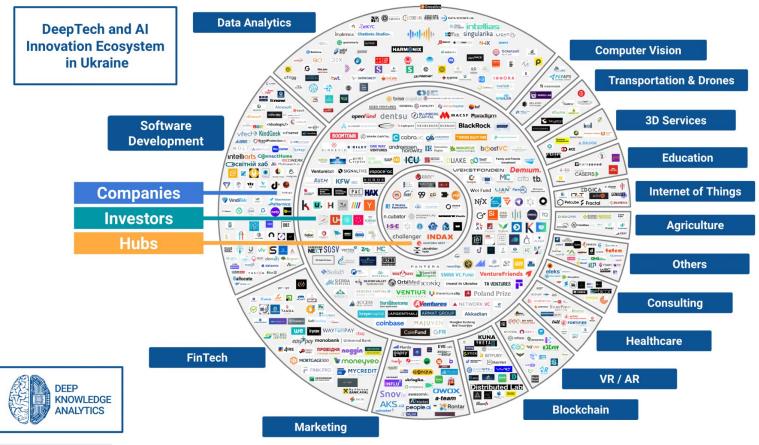


Al in Eastern Europe Industry Landscape 2018



AI Companies in Ukraine 2022

Companies - 450 Investors - 270 Hubs - 20+





Case Study:

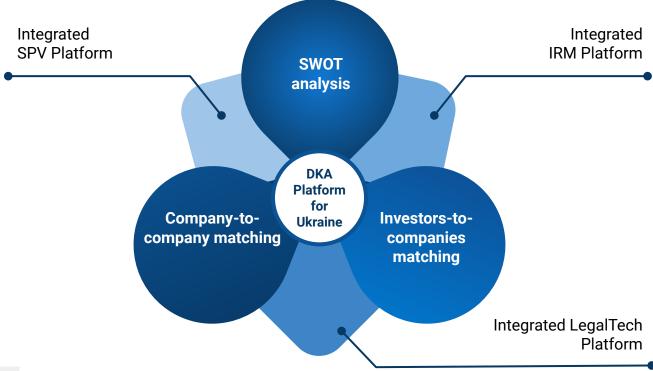
DeepTech and AI in Ukraine 2022

Solution - InvestTech Platform for Ukraine



Solution - InvestTech Platform for Ukraine

Deep Knowledge Analytics aims to find incentives to further development of AI and DeepTech in Ukraine. Therefore, the specialized collaborative platform will allow contributing to building the network of tech entrepreneurs.



Industry Funding by Years

CAGR 2014-2022 = 24%

* Forecast taking into account the prediction of the World Bank about the possible fall of the Ukrainian GDP by 45% in 2022 due to the war ** CAGR-based forecast



Investments in Ukrainian companies applying AI increased significantly over the last 10 years from \$42.4 million in 2014 to \$440.9 million in 2021, which shows the incredible growth of the Ukrainian economy and the attractiveness of Ukrainian companies to domestic and foreign investors. It is worth noting the sharp decline in investment in 2020 in connection with COVID-19, and in 2022 (\$1.1 million in Q1 2022) due to the invasion and war of russia against Ukraine.



Innovation and Tech Ecosystem IT-platform Solution for Moldova

Platform Features



Who Can Benefit

Investment institutions, funds, investment banks, Family offices

Private and Public Companies

Research Institutions, Universities

Consulting Companies and Agencies

Startup Hubs, Accelerators

Technology Vendors and Contract Research Organizations



Practical Value

Data-driven insights about the emerging areas of industry

Investment advisory and actionable insights about primary and secondary markets

SWOT analysis of most promising entities and technologies, providing a clear view of opportunities and risks

Identification of growth opportunities, including partnerships, technology deals, and investment prospects

Competitive intelligence

Smart matching of B2B and B2G segments

Identification of patterns within industries and sub-industries for their future development

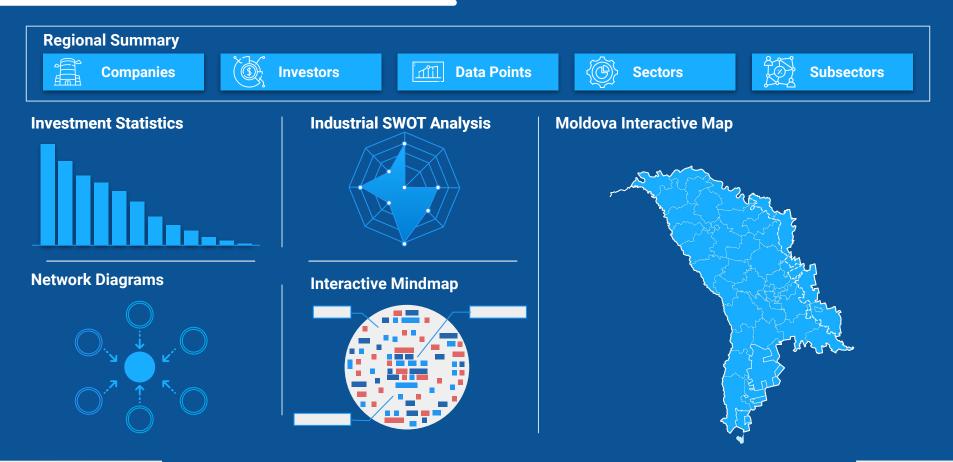
Moldova Innovation Ecosystem Dashboard



Dashboard Major Features:

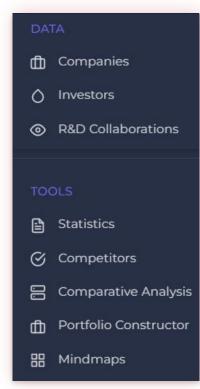
- Visualization of the ecosystem
- Data on the participants of the ecosystem, their industrial presence
- Investment and finance overview
- Interactive charts, graphs, mindmaps, regional redistribution
- Automized matching tools
- Advanced adjustment of the dashboard settings

Moldova Innovation Ecosystem Dashboard Mock-up: Front-End

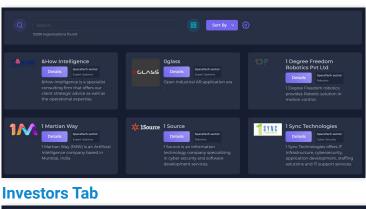


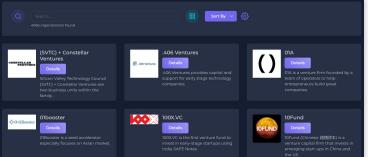
Dashboard Mockup: Available Tools and Companies Tab

Database & Interactive Tools



Companies Tab





Investment Rounds

COMPANY	ROUND TYPE
Curve	Undisclosed
Verisart	Seed
Curve	Late Stage Venture
Curve	Early Stage Venture
Auroboros	Seed
Aura - Museum Genius	Seed
Aura - Museum Genius	Seed
ARTCUBE	Undisclosed
USEUM	Undisclosed
SMARTIFY	Undisclosed
blonde gone rogue	Seed
Codex Protocol	Seed

Available Tools and Represented Features

Dashboard Overview

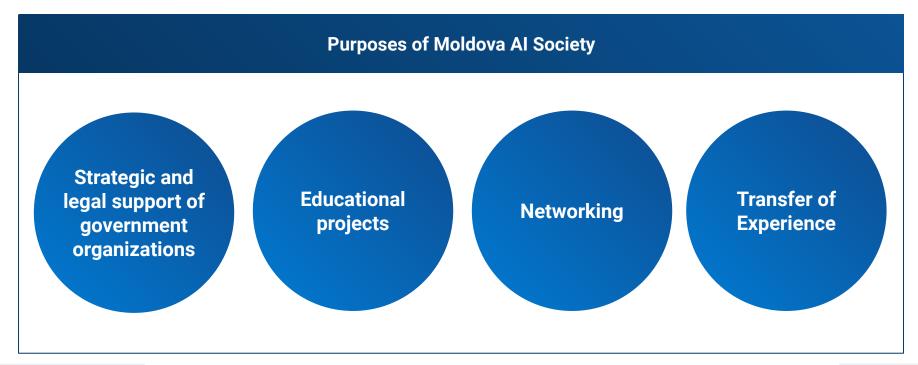
Deep Knowledge Analytics is building a sophisticated cloud-based engine for advanced market and business intelligence in various deeptech industries. It includes a data-mining engine, infrastructure for expert data curation, and advanced visualization dashboards, including mindmaps, knowledge graphs, and 3D visualizations. The dashboard can be developed with a varied industrial and regional scope and stands as an interactive tool for advanced data visualization, which allows for the user-friendly experience.

Smart matching tool	Machine learning for database extrapolation	Dynamic SWOT analysis representing evolution of a company
Companies database	Machine learning and deep neural networks for companies clusterization	Interactive industry mindmaps
Investors database	Machine learning for COVID-19 predictions	Real-time investments data analytics platform for deep tech corporations
SWOT analysis	Governmental programs for digital companies database	Longevity industry financial instruments analytics

Moldova AI Society

About the Concept

As a part of Moldova Tech Embassy we create a modern Al Society that become a platform for communication and transfer of experience in the Al industry and other similar organizations.



Tech Embassy in Netherlands

Successful case: Tech Embassy of Netherlands

The Netherlands Innovation Attaché Network creates new chains between Netherlands enterprises and international companies in USA, Latin America and within European Union

The network focuses on three areas:

- developments in tech, innovation and science policy;
- spotting the latest tech trends like artificial intelligence, photonics and their applications;
- and matchmaking between companies, universities and government.

The Netherlands Consulate General in San Francisco (Holland in the valley)

Holland in the Valley is a network of Dutch and American entrepreneurs, universities, and government that connects the Netherlands and Silicon Valley. The objective of Holland in the Valley is to tap into the latest tech developments to strengthen ties between the Netherlands and the Bay Area at multiple levels.





Embassy of the Kingdom of the Netherlands



Moldova Tech Embassy

About the Concept

Another option of creating a new value is launch of the Moldova Tech Embassy.

Such embassy will stimulate cooperation between international firms and regional companies in Moldova, local universities and government agencies.

Starting in London, Moldova Tech Embassy will introduce new tech companies to new markets and opportunities.







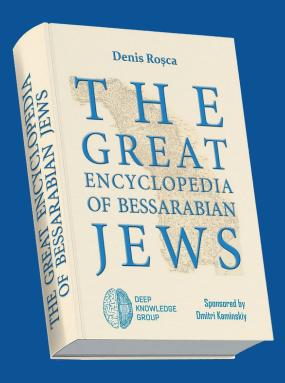
Innovation Ecosystem IT-Platform Tech Embassy

Al Society

vstem IT-Platform and Moldova Tech Embassy, we will be able

By creating the Moldova Innovation Ecosystem IT-Platform and Moldova Tech Embassy, we will be able to promote the development of innovative areas in Moldova, increase awareness of the country in developed countries and boost the internal growth.

THE GREAT ENCYCLOPEDIA OF BESSARABIAN JEWS





Longevity Book

www.Longevity-Book.com



www.longevity.International



Deep Knowledge Group

www.dkv.global



www.deep-pharma.tech



www.aginganalytics.com