



DEEP  
KNOWLEDGE  
GROUP

# Deep Knowledge Group 2022 Overview



# About Deep Knowledge Group

**Deep Knowledge Group** is a consortium of commercial and non-profit organisations active on multiple fronts in the realm of DeepTech and Frontier Technologies (AI, Longevity, FinTech, GovTech, InvestTech), ranging from scientific research to investment, entrepreneurship, analytics, media, philanthropy, and more.

Deep Knowledge Group runs several data-driven **investments and financial vehicles**



DEEP KNOWLEDGE VENTURES



InvestTech Platform



LONGEVITY FINANCIAL CLUB



DeepTech and Longevity Industry Financial Advisors



LONGEVITY CARD



LONGEVITY CAPITAL

Deep Knowledge Group's **analytical subsidiaries** are world leaders in analytics for DeepTech and Longevity industries



AGING ANALYTICS AGENCY



Big Data Analytics Department



GovTech Analytics



FemTech Analytics



NeuroTech Analytics



DEEP KNOWLEDGE ANALYTICS



SpaceTech Analytics



DEEP PHARMA INTELLIGENCE

Deep Knowledge Philanthropy pioneers several infrastructural **social impact projects**



DEEP KNOWLEDGE PHILANTHROPY



5th Industrial Revolution Institute



LONGEVITY INTERNATIONAL



Swiss Longevity Valley



Biogerontology Research Foundation  
Prevent. Restore. Preserve.

# Deep Knowledge Group: 2022 Accomplishments and Outlook for 2023

2022 has been a pivotal year for Deep Knowledge Group, with the launch of a wide array of new projects, events and Big Data Analytical Dashboards, a substantial strengthening of our Data Science assets, and significant progress in our ongoing work to develop the technological, financial and ecosystemic frameworks and instruments to support the accelerated development of DeepTech and Longevity Industrialization, the establishment of an integral financial infrastructure for their further growth and stabilization, and the emergence of DeepTech and Longevity as new asset classes of themselves.

From a substantial expansion of our workforce across analytics, Data Science, finance, media, business development, philanthropy and executive management, a continued strengthening of our UK, Switzerland and Europe branches, and significant expansion of our newer branche in the UAE, 2022 has been a year of unquestionable growth, consolidation, refinement and development, positioning us on excellent terms for the execution of our expanding ambitions and the efficient implementation of our strategic agenda for 2023 and beyond.

## DeepTech and Longevity Financial Commoditization

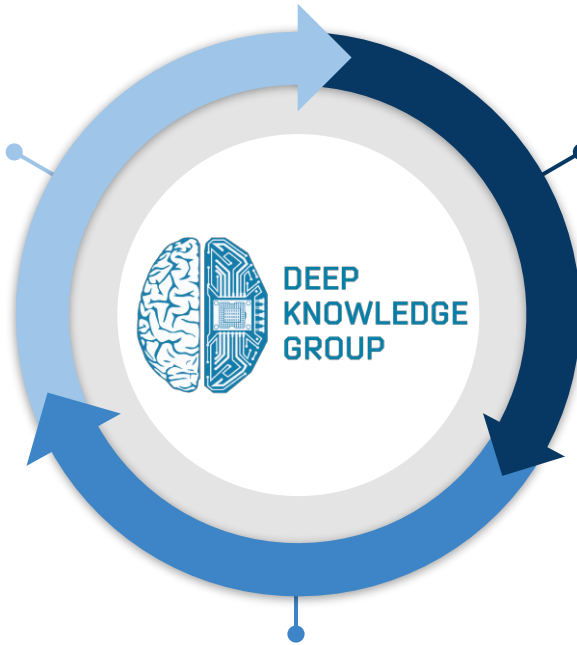
Developing the ecosystemic infrastructure (platforms, indices, exchanges, financial instruments and derivatives) to support the emergence of DeepTech and Longevity Industries as fundamentally new asset classes.

## Big Data Aggregation, Analysis, and Visualization

Automatized data parsing, aggregation, optimization of machine learning and deterministic scoring algorithms for competitor matching, and due diligence results

## Financial Insights and Investment Strategies

Modern InvestTech solutions and DeepTech investment approaches driven by Data Science and Big Data Analytics



# Knowledge is Power Deep Knowledge is Transcendent Power



## Deep Knowledge Group

Deep Knowledge Group is a data-driven consortium of commercial and non-profit organizations active on many fronts in the realm of DeepTech and Frontier Technologies (AI, Longevity, BioTech, Pharma, FinTech, GovTech, SpaceTech, FemTech, Data Science, InvestTech), ranging from scientific research to investment, entrepreneurship, analytics, consulting, media, philanthropy and more.

Major DKG projects are:

- [Big Data Analytical System](#)
- [InvestTech platform](#)
- [Longevity Club](#)
- [Longevity Books](#)
- [Longevity and DeepTech Investment Projects](#)
- [Fifth Industrial Revolution](#)
- [Analytical and Ranking Agencies](#)
- [Deep Knowledge Philanthropy](#)

# Notable Acknowledgements: Our COVID-19 Rankings

Since 2019, we have been conducting a regular analysis of how the government of different countries and at different levels has responded to the COVID-19 outbreak. This special analytical case studies are performing by Deep Knowledge Analytics, the DeepTech analytical subsidiary of Deep Knowledge Group, which specializes in producing advanced analytics using sophisticated technologies to provide insightful market intelligence and pragmatic forecasts.

## Notable Acknowledgements: Our COVID-19 Rankings



**Benjamin Netanyahu**

Prime Minister of  
Israel

In a tweet, the Office of the Prime Minister of Israel acknowledged Israel's first-place ranking in the COVID-19 Health Safety Countries Ranking.



**Hong Nam-ki**

Deputy Prime Minister  
of South Korea

Hong Nam-ki posted about Deep Knowledge Group's COVID-19 Safety Ranking published on August 26, 2020.



**Karin Prien**

German Minister for  
Education, Science and  
Culture

"Compared to the other countries, Germany currently has the best security and stability ranking in Europe and is also one of the world's leading nations when it comes to crisis management."



**Judith Varga**

Hungarian Minister of  
Justice

"The latest IMF forecast sees Hungary registering the second smallest GDP drop in the EU, and we are the #4 State by European Covid19 Safety Countries Ranking, according to the research of the Deep Knowledge Group."

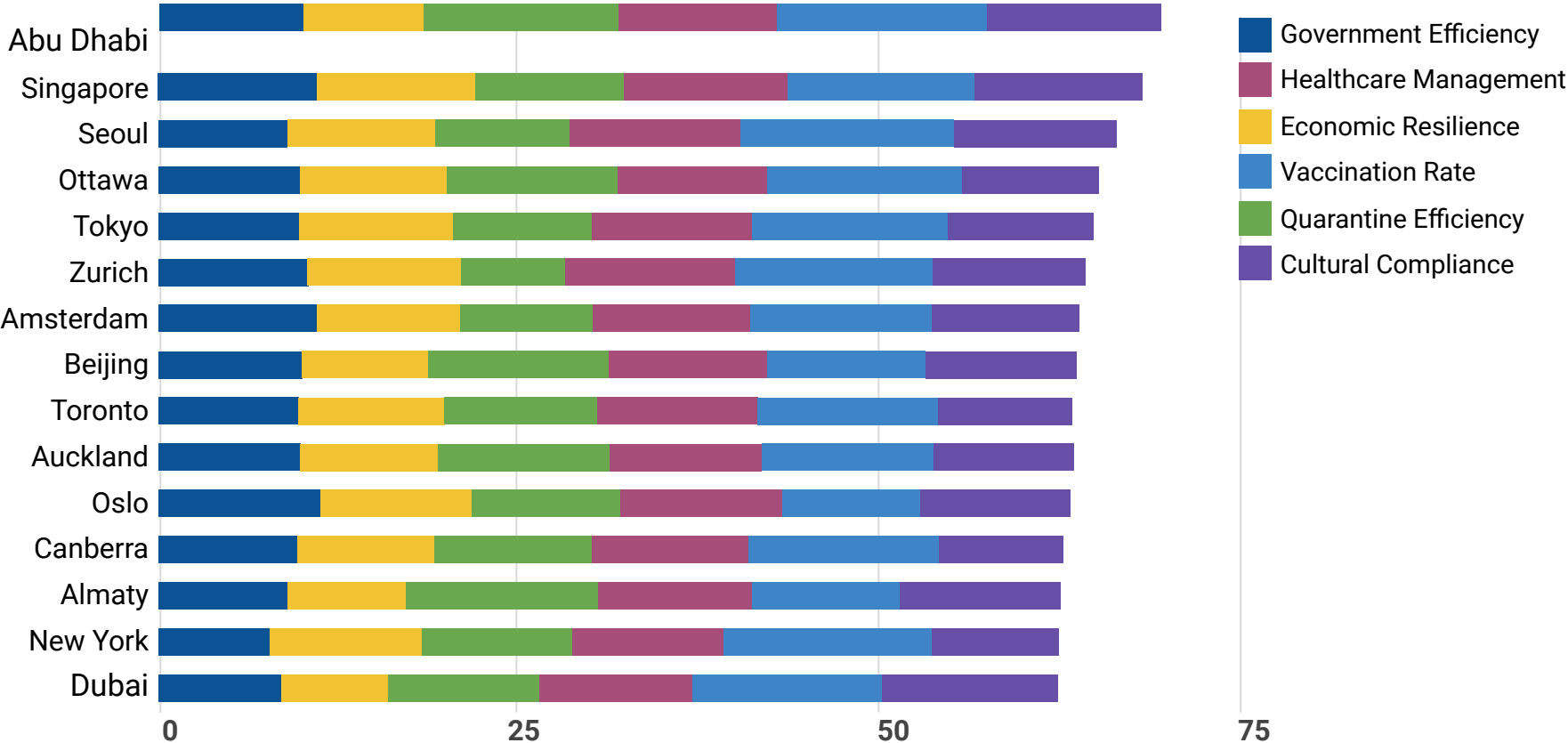


**Fabrice Filliez**

Ambassador of  
Switzerland to Singapore

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

# Pandemic-Resilient Cities Ranking 2022. Top 15 Cities\*



\*The figure displays Top 15 Cities of the Ranking, where the final score for each city is the sum of six equally weighted categories and ranges from 0 to 100.

# Analytical Methods and Systems Developed by Deep Knowledge Group since 2013



Created frameworks as a basis for further analytical research of complex industries

**Frameworks of Complex Longevity and DeepTech Industries**

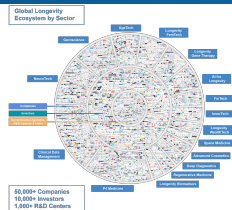
2013



Produced first-of-their-kind reports on Longevity and DeepTech

**Fundamental Analytical Reports**

2014 - 2018



Industrial and regional representation of the market development

**Advanced Visualization of DeepTech Industries**

2019



Different analytical products arranged into thematic dashboards

**Big Data Analytics Dashboards**

2020 - 2021



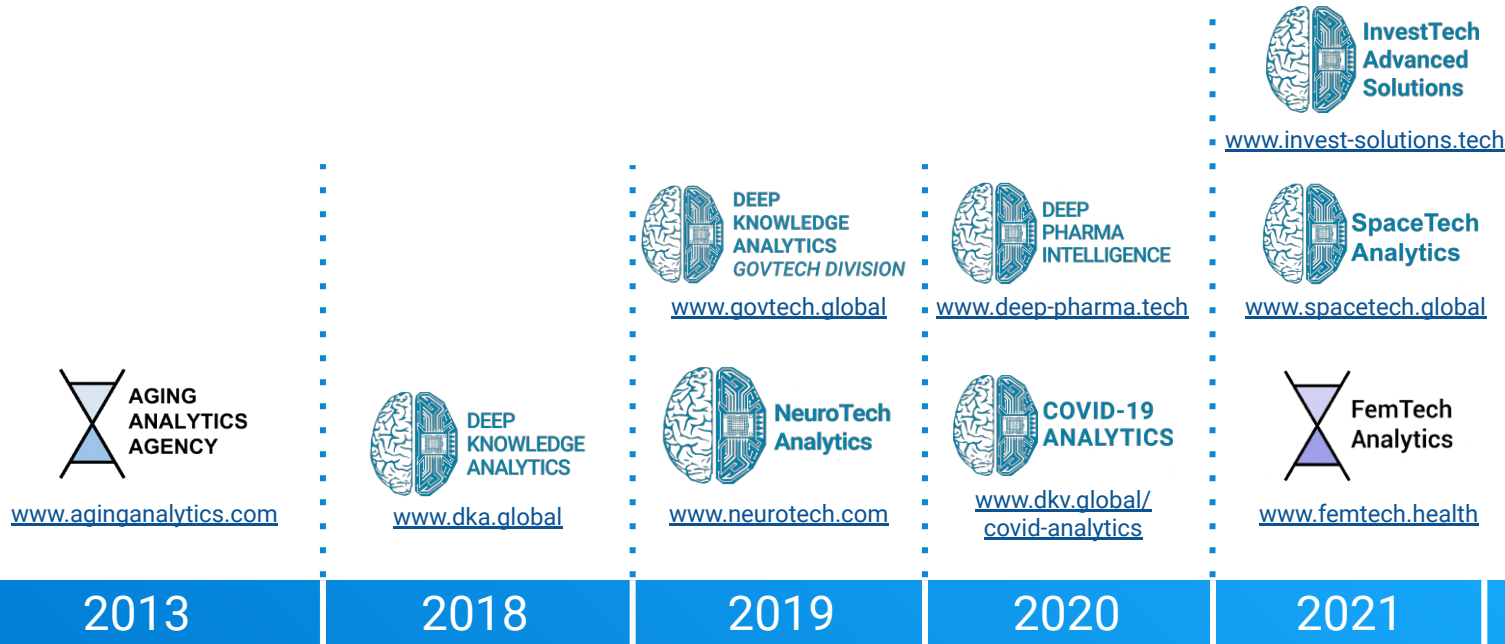
Extended the number of dashboards' tools and added the embedded AI Engine

**AI-driven Big Data Analytics System and Dashboards**

2021 - 2022

# DeepTech-related Analytical Subsidiaries of Deep Knowledge Group

Deep Knowledge Group's analytical subsidiaries produce advanced analytics on DeepTech and frontier-technology industries using sophisticated frameworks and algorithmic methods that combine hundreds of specifically-weighted metrics and parameters to deliver insightful market intelligence, pragmatic forecasting and tangible benchmarking.



The extensive expertise in DeepTech sectors allowed us to create AI-Driven Big Data Analytics System and Dashboards



# DeepTech and Longevity Industry Financial Commoditization

Deep Knowledge Group remains committed as always to developing and deploying reliably sophisticated and multidimensional Big Data analytics, AI, Machine Learning and Reinforcement-Learning driven technological forecasting and benchmarking of DeepTech, Longevity and related technology-for-high-social-impact industries, pioneering the fundamental tools required for strategic decision making in these unprecedentedly complex and innovation-driven sectors, laying the foundation and basis for defining and understanding the coming DeepTech Revolution.

However, more than this, the Group remains just as decisively committed to the practical execution of many of these forecasted developments by establishing the core investment and financial industry infrastructure (platforms, indices, exchanges, financial instruments and derivatives) needed to execute the concept of **DeepTech and Longevity Financial Commoditization**, reflected in its pursuit of a truly ecosystemic approach through its various financial service divisions to establish an integral financial infrastructure to support the commoditization of the **DeepTech and Longevity Industries as fundamentally new asset classes**.

<b>NaTFaA</b> New advanced technologies and apparel	<b>NaMSHE</b> New advanced materials for Electronics	<b>NPIP</b> Nanotechnology Pipelines	<b>NaTaAmC</b> New advanced Thermal and Fuel	<b>NT</b> Network Technologies	<b>S</b> Sensors	<b>RSTAA</b> Robotics surplus, Energy and analysis	<b>RECS</b> Robotics Emerging Consumer Services	<b>LVCF</b> Longevity VC Funds	<b>ATB</b> Age Tech Biotech	<b>LHF</b> Longevity Hedge Funds	<b>TFP</b> TFI Funds
<b>LA</b> Legal Advisors	<b>AiBLD</b> AI-backed Legal Documentation	<b>ASWM</b> Advanced AI-based Wealth Management	<b>VFM</b> Virtual finance management	<b>DT</b> Digitalization technologies	<b>ETWPM</b> Eco-friendly Waste Processing Methods	<b>AR</b> Assembly Robotics	<b>RB</b> Regeneration - Programming	<b>LT</b> Longevity Funds	<b>LSE</b> Longevity Stock Exchange	<b>LIF</b> Longevity Index Funds	<b>ETFAPR</b> ETFs performance regulation
<b>PP</b> Prediction & Precision	<b>EI</b> Exploration & Interpretation	<b>NMoCL</b> New Models of Consumer Lending	<b>DLT</b> Distributed Ledger technologies (DLT)	<b>COMW</b> Collection of Municipal Waste	<b>ASSFT</b> Advanced Satellite systems for Telecommunication	<b>ADR</b> Advanced dietary research	<b>RS</b> Regeneration - Storage	<b>FESaEA</b> Future oriented ESG and Environmental	<b>HoAaMLIS</b> The Integration of AI and Machine Learning in investment analysis	<b>QaFAA</b> Quantitative and Alternative asset evaluation	<b>IEA</b> Investment evaluation (environmental)
<b>SaCT</b> Social and Technological technologies	<b>NaMFC</b> New advanced materials for Construction	<b>NeFM</b> New engineered materials	<b>QC</b> Quantum Computing	<b>AIFABD</b> AI for Autonomous Big Data	<b>OSEG</b> Olding solar energy generation	<b>SMRTA</b> Smart robotics	<b>RSC</b> Regeneration - Stem cells	<b>AIIG</b> Data in preparation for investment	<b>DaaPA</b> Data as a Political Asset	<b>LbD</b> Longevity based derivatives	<b>EonNFI</b> Emergence of the Next Financial Instruments
<b>AiMLD</b> AI and ML for Drug Development	<b>SB</b> Structural Bioinformatics	<b>RR</b> Regulatory Reporting	<b>KYCAML5</b> KYC AML solutions	<b>COTSDA</b> CO2 clean approach	<b>DaSRR</b> Debris and Spillage Risk Reduction	<b>TIPHE</b> Tools for Improving Personalized Hospital Experience	<b>G</b> Comptroductors	<b>DaPI</b> Data as Political Influence	<b>DaPI</b> Data as Political Influence	<b>AleBaPA</b> AI-based Environmental and Economic analysis	<b>BIPaSPaJLc</b> Biotech Software & Services
<b>SRM</b> Smart Resource Management	<b>CDR</b> Carbon Dioxide Removal	<b>AEFEQ</b> Advanced Engines for Electricity Generation	<b>ESI</b> Energy Storage Investments	<b>SC</b> Smart contracts	<b>SS</b> Security services	<b>PHMCo</b> Patient hospital monitoring and care	<b>PTAdR</b> Personalized Tailor-made Drugs	<b>PRs</b> Personalized Re-stabilization	<b>PSCaSC</b> Personalized Cancer Screening	<b>AIJET</b> AI in EdTech	<b>EnIoT</b> Emergence of the Next Generation of IoT
<b>SM</b> Self Management	<b>GE</b> Genetic Engineering	<b>ST</b> Sensing technologies	<b>ASfF</b> Advanced Solutions for Farming	<b>IM</b> Identity Management	<b>FEaP</b> Finance, Engineering & Property	<b>SS</b> Sustainability	<b>ED</b> Economic Development	<b>DaaSA</b> Data as a Service	<b>ARaVRIET</b> AR and VR in EdTech	<b>BdFE</b> Big Data for Education	<b>IPi</b> Innovation Positive Investment
<b>TfEPT</b> Tools for Enhanced Personalized Treatment	<b>ANaLT</b> AI-Driven Analytics for Nanotechnology	<b>PGSaT</b> Personalized Genomic Sequencing	<b>NToPE</b> New Technologies of Power Electronics	<b>BIH</b> Blockchain in Healthcare	<b>HM</b> Health Monitoring	<b>SS</b> Security Services	<b>AtMI</b> Advanced Technology Manufacturing	<b>AlBaSaTS</b> AI-based Biotech Solutions	<b>ScEA</b> Sustainable Consumer Electronics	<b>WRdttUaU</b> Wearable Devices	<b>CIMI</b> Consumer Investment



## The inevitable rise of DeepTech as a new asset class

Turning DeepTech into a new asset class would unlock trillions in capital, resulting in massive economic opportunities and a positive impact on humanity



The consensus approaches to investment and financing haven't evolved for decades if not longer. This doesn't only make successful investment in DeepTech difficult and risky, it also limits the levels of funding DeepTech companies require in order to innovate.

Today, there is a sizable gap between DeepTech innovation and sophisticated financial infrastructure available to support investments in DeepTech. Compared to other industries, investment approaches to DeepTech are outdated. Those approaches were originally developed and adopted for simple, slow-moving industries. Therefore, they require legacy system modernisation.

DeepTech must become a recognised asset class on its own, available for all types of investors regardless of their exposure preferences in terms of risk and liquidity. DeepTech will inevitably be commoditised beyond product and service availability to everyday consumers, but also financially commoditised and available for the average investor, both individual and institutional.

As the DeepTech sector evolves into a multi trillion-dollar industry playing a key role for the growth and stability of national economies, it will inevitably become commoditised in the same manner and recognised as a new asset class. It is not a question of 'if' but 'when', and it will require enabling financial infrastructure.

Commoditising previously unstructured assets on financial markets opens up potential funding to the full scope of the global investment community. It also speeds up the development and maturity of the DeepTech sector.

# DeepTech and Longevity Industry Financial Advisors (Longevity as New Asset Class)

In 2022 Deep Knowledge Group established DeepTech and Longevity Industry Financial Advisors, to act as the practical vehicle for development of legal, financial, and ecosystemic frameworks and instruments to support the accelerated development of DeepTech and Longevity Industrialization, the establishment of an integral financial infrastructure for their further growth and stabilisation, in order to expedite the emergence of DeepTech and Longevity as new asset classes in and of themselves.

Longevity and DeepTech Financial Advisors Ltd. is a leading advisory boutique focused on the Longevity and DeepTech industries. Its shareholders and senior managers have built up significant expertise in private and public capital markets, as well as a substantial network of companies operating in the industry.

They provide intermediary financial services that are deployed in the form of an interactive online semi-automated IT-platform designed for end-users of investment products and services. They serve as the WealthTech/InvestTech financial marketplace for professional investors, family offices, and institutional investors and provide industry-specific analytical systems to enable the significant optimisation of dealflow, stock selection, and execution capabilities for investors.



*"At Deep Knowledge Group we firmly believe that Longevity and DeepTech should be commoditised as new asset classes. As people living longer and better we can see a slough of societal and financial challenges that we will be facing. We operate along the lines of advisor and financial services as well as data analytics. From a lot of our market intelligence work we came up with an index of the best of the breed in the Longevity industry, and with that we put together a performance tracker - something that will eventually become tradable, and immediately bankable. That will be something for people who are interested in the public market. But for those interested in the private market, we will also be setting up an SPV platform where you can invest as a private investor into private companies that are doing amazing things." - Dominic Jennings, Head of Strategic Partnerships for DeepTech and Longevity Industry Financial Advisors*

# Longevity Investment Summit (World Economic Forum) / May 2022, Davos



Deep Knowledge Group General Partner Dmitry Kaminskiy delivered a keynote address on the current state and future of the Longevity Industry at Davos Longevity Investment Summit during the World Economic Forum 2022.

During the keynote address, Dmitry Kaminskiy presented key findings on major trends and developments shaping the 2022 Longevity Industry and investment landscape, outlining the Group's work in defining the sector, having coined and popularized the term 'Longevity Industry', and the developments which led to the Group's creation the largest Longevity Industry database (50,000 companies, 12,000 investors, and 1,200 R&D hubs distributed across 20 sectors and 160 subsectors, with over 9.5 million data points) assembled into one integrated Longevity Industry Big Data Analytical System and Dashboard.

**Deep Knowledge Group's General Partner Dmitry Kaminskiy Presents Keynote Address at Davos Longevity Investment Summit During World Economic Forum 2022**

**yahoo!**  
**finance**



<https://finance.yahoo.com/news/deep-knowledge-group-general-partner-141300708.html>

# Longevity Financial Club / June 2022, London

Launched at the prestigious Oxford and Cambridge Club at 71 Pall Mall, London, UK on June 21st 2022, the London Longevity Financial Club was created with the support of Longevity Financial Advisors to fill the unmet need and provide a forum for financial industry professionals to discuss all the latest trends in the Longevity Financial Industry – a multi-trillion sector with massive untapped potential.



# Longevity Financial Club / June 2022, London

The event attracted significant interest from the financial industry professionals and investment community, with a number of investors, financial professionals and executives in attendance. While several topics were discussed, a general emphasis was placed on the major challenges facing the growing multi-trillion opportunity of the Longevity Financial Industry.



# Longevity Financial Club / June 2022, London

60,000 Companies

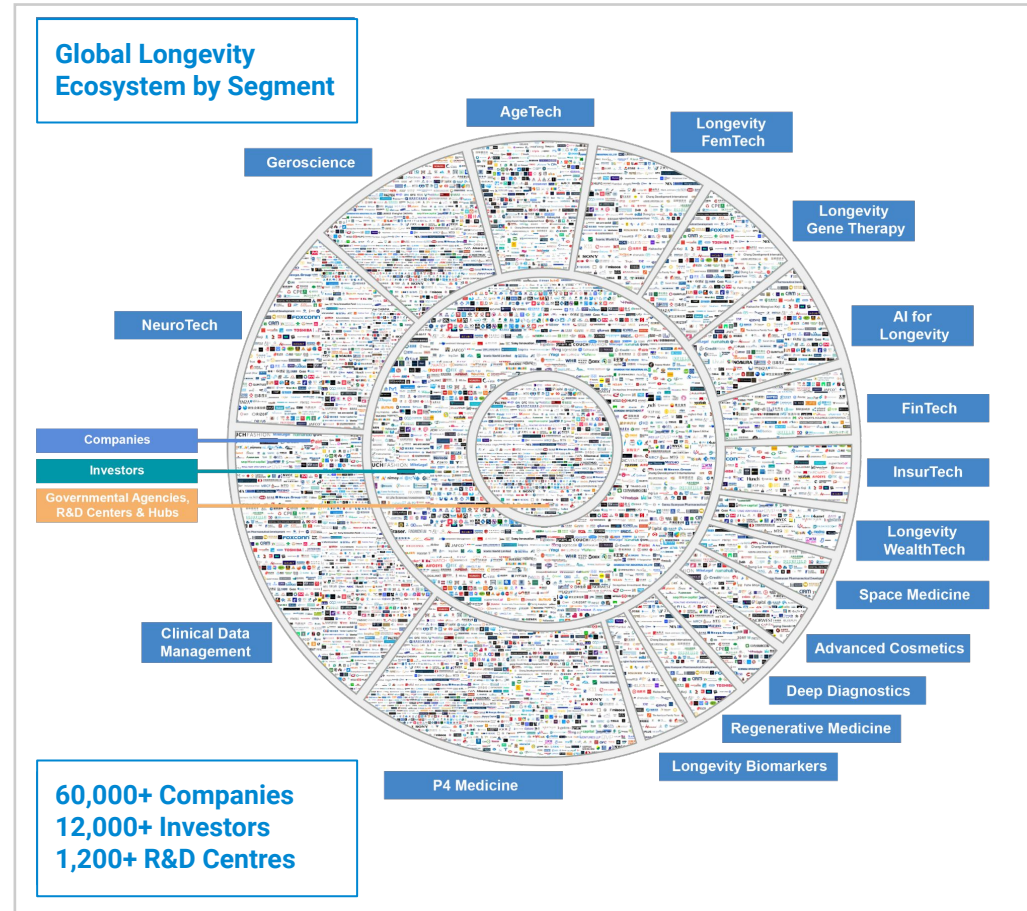
1,200 Hubs

20 Segments

14,000 Investors

Deep Knowledge Group's first-of-its-kind **Longevity Industry Ecosystem IT-Platform** constitutes the **world's largest** Longevity industry database in the world, encompassing **60,000+ companies**, 14,000+ investors, and 1,200+ R&D hubs across **20 segments** and **160 subsegments**, covering over **18 million data points in total**.

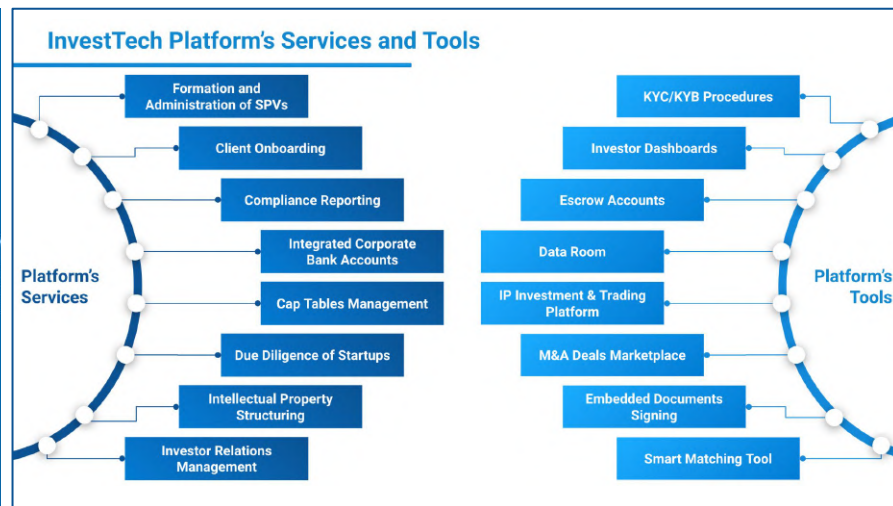
Deep Knowledge Group aims to create a full-scope database and frameworks for the analysing of the **DeepTech Industry** with a similar-like approach used for the Longevity Industry. This goal is planned to be delivered within 3-6 months.



# Longevity Financial Club / July 2022, London

On July 21st, 2022, the Longevity Financial Club hosted their second official invitation-only event for investment and financial industry professionals on the topic of Longevity FinTech and InvestTech in the Sky Lounge of the UK's landmark Shard building.

The event was moderated by Dominic Jennings, Head of Strategic Partnerships at the Deep Knowledge Group and Longevity Financial Advisors, and featured presentations by Longevity financial professionals, discussing challenges and opportunities for investors and startups in DeepTech and Longevity private markets with a particular focus on the Liquidity Gap which is currently hindering the accelerated development of these industries. They also spoke about potential solutions, with a particular focus on the UK.



# Longevity Financial Club / July 2022, London

Following the presentations, Dominic Jennings moderated a panel discussion among all of the event's speakers focused on the primary challenges and opportunities facing UK Tech and DeepTech startups, with an emphasis on liquidity as the foremost bottleneck for their further growth.

The panel concluded with a discussion of the severe lack of innovation in investment and financial approaches, tools, instruments and platforms compared to the high-innovation sectors they are applied to, and the fundamental role that innovations in both analytics, data science and core investment and financial industry infrastructure will play in the next several years for ensuring these industries' further development, maturation, and stabilization as fundamental pillars of the 21st-century global economy.





# InvestTech Platform

Deep Knowledge Group aims to remove existing barriers to investing in private markets and to add value for all stakeholders with the launch of its **InvestTech Platform**. This one-stop solution allows investors to deploy capital quickly in an efficient, timely manner enabling startups to raise funds and keep growing. Innovative LegalTech tools and e-documentation provide a clear, step-by-step investment process which is enhanced by additional service integrations such as Analytics, IR Management and corporate payment solutions.

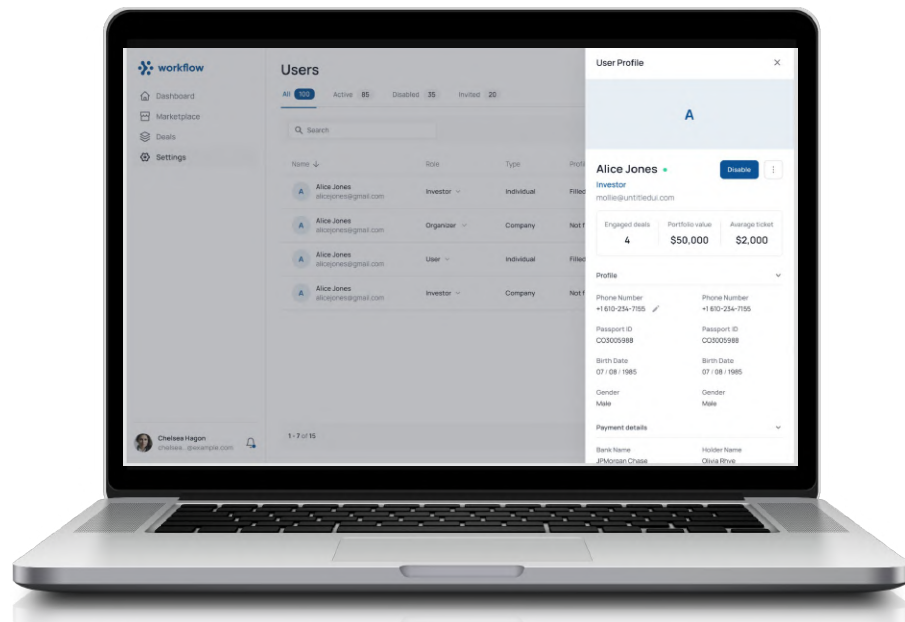
## InvestTech Platform Ecosystem

End-to-end LegalTech IT-based System

Full Scope of Investment Transactions in Private Equity Markets

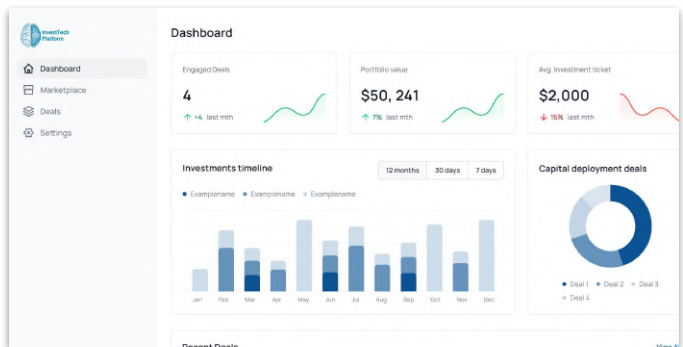
Intellectual Property Investment & Trading Platform

Extra Mile Service Integrations



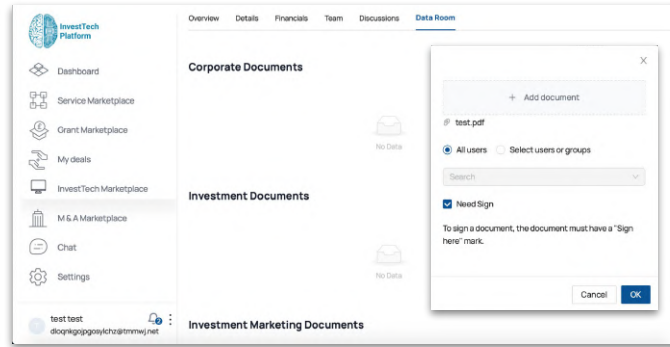
# Selected Tools of the InvestTech Platform

## Investor Dashboard



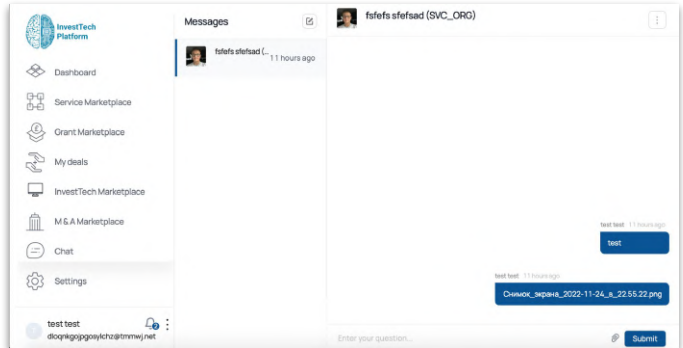
An online dashboard for investors to track the investment process

## Secure Data Room for Investment Transactions



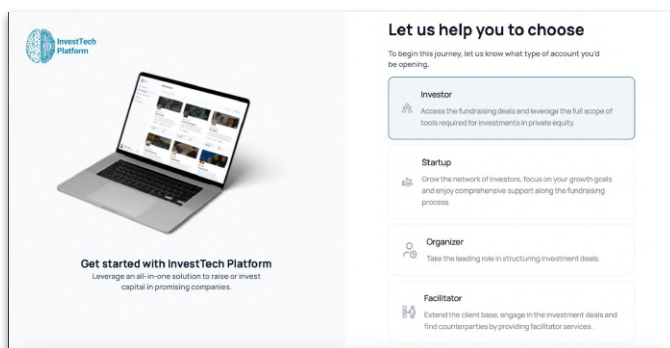
Legal document templates to download, edit, and sign

## Chats Between Users



Users of the platform can start chats to discuss fundraising campaigns

## Onboarding for Different Categories of Users

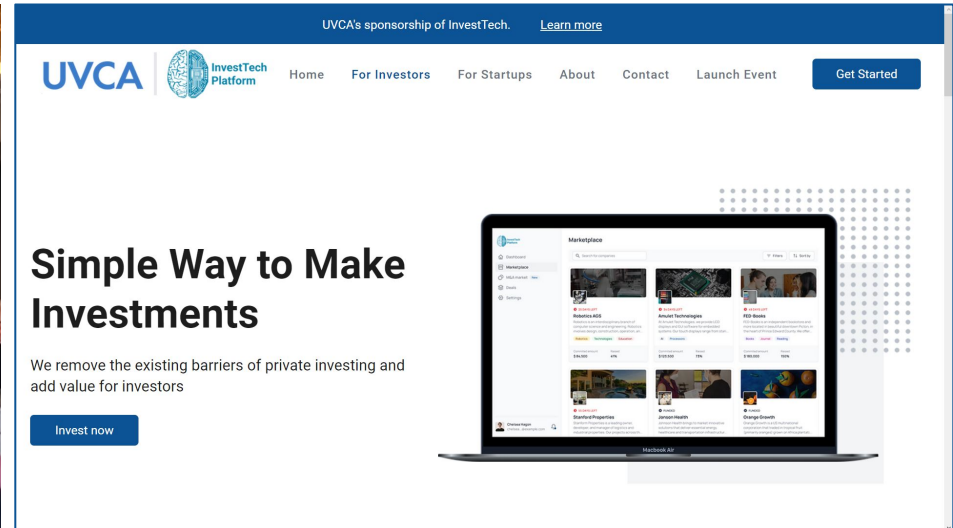


Onboarding for different categories of users (Investor, Startup, Organiser, Facilitator)

# InvestTech Platform Live Demonstration / November 2022, London

Deep Knowledge Group hosted the first public demonstration and launch event for its InvestTech Platform at Rise by Barclays on Friday, November 25th.

The InvestTech Platform is an AI-powered next-generation investment management technology designed to streamline fundraising and investment processes in private equity markets through innovative analytical and matching tools, providing investors with access to private equity fundraising deals leveraging the full set of tools required to make investments, and enabling startups to boost their networks of existing investors, focus on their growth goals, and receive comprehensive support throughout the fundraising process.



# InvestTech Platform Live Demonstration / November 2022, London

**InvestTech Platform was created to identify specific private market investment targets and to reduce financial and transactional risks.** Users can participate in investments on a deal-by-deal basis making multiple direct investments at different funding stages. Moreover, it allows investors to deploy capital quickly and time-efficiently and startups to fundraise and keep growing.

## InvestTech Platform Key Features

Clear and Transparent  
Investment Process

Mitigation of  
Compliance Risks

Investing on a  
Deal-by-Deal Basis

Enhanced Risk Management

In-Depth Performance Analysis

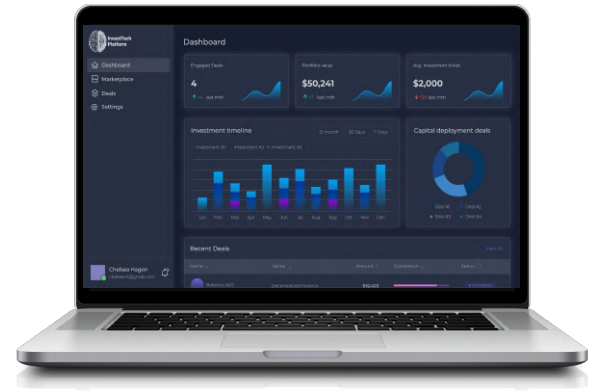
Alignment with Initial Investment  
Vision

Tailored to the  
Needs of Investors

Suitable for Family Offices and  
Angel Syndicates

## Comprehensive Investment Infrastructure

- State-of-the-Art Investment Platform
- Automated Processes
- Legal coverage, Document Templates



# Longevity Card

**Longevity Card** is the new way to lead a healthy lifestyle and manage money in one secure app. We strive to make the mobile experience easier and safer for people of all ages by developing new features in combination with cutting edge HealthTech, AgeTech and FinTech designed for users who are planning to live healthy, extra long lives and remain financially stable. The app has its very own mHealth fitness, wellbeing and nutrition console as well as a marketplace of the best health and wellness brands in the world. The app is currently in beta testing.



Longevity Banking Card

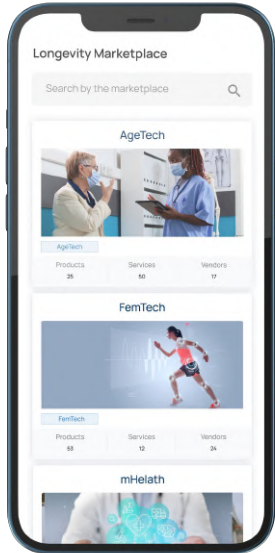


Longevity Club Membership Card

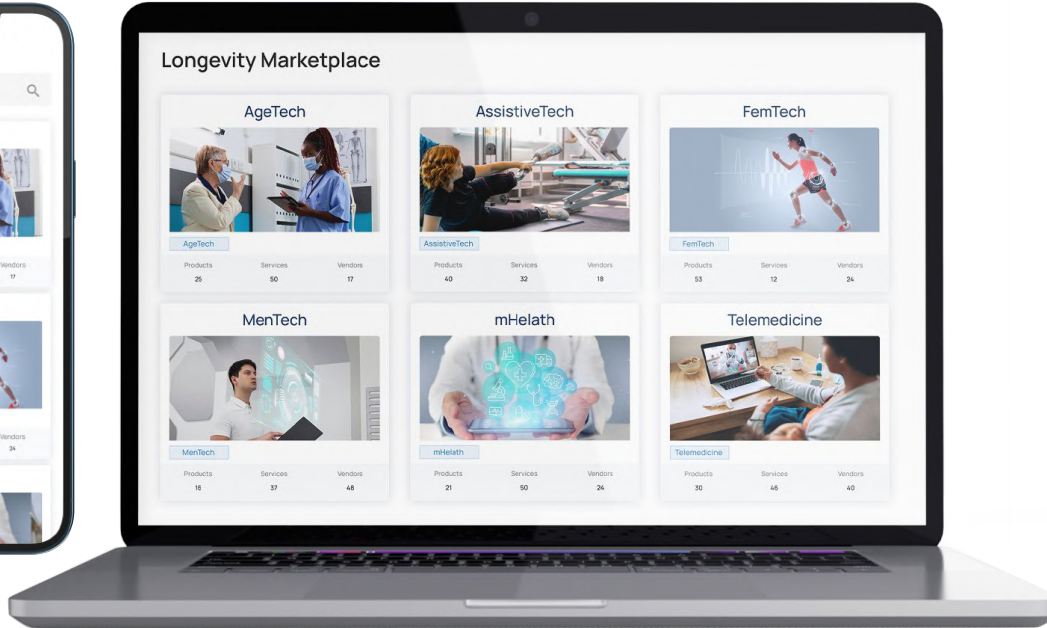
# Longevity Club

**Longevity Club (LC)** is a unique community, members of which will have full access to advanced concierge services, lists of specialists and treatments, as well as educational material and practical advice on healthy longevity.

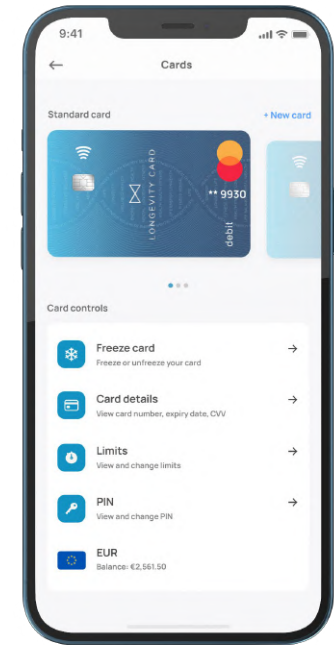
## LC Mobile Application



## LC Desktop Version



## Longevity Banking Card Application



# Becoming the 'DeepMind of DeepTech' - Data Science Prioritization as our #1 Asset

Deep Knowledge Group considers itself among a small vanguard of organizations whose mission and vision is truly defined by its Data Science and technological forecasting experts, rather than the other way around. We do not simply use data analytics to support our goals; we use it to define and drive them. In a sense, you can consider that DKG's Board of Directors reports to its data, analytics and science/technology forecasting specialists, and not the other way around.

Internally stylizing itself as the 'DeepMind of DeepTech', the Group considers its Data Science Assets as its most valuable resource, and this year has seen a large number of its long-term projects come to fruition within this domain. This past month alone saw the implementation of a number of key enhancements and expansions to the Group's internal AI and Data Science division, including:

- Hiring several dozens of new members into its Data Science Team, including mathematicians, data science specialists, physicists and quant finance specialists and economists,
- Further enhancement of the DKG General Data Science Department structure, including the establishment of several new more narrowly-focused sub-divisions working on more advanced solutions to the department's existing scope of projects
- Several key enhancements to the Group's existing Big Data Analytical Dashboards, including:
  - Public companies heatmap,
  - DeepTech patents,
  - Hedging and option analysis tool,
  - Automated index builder
- Launch of the European Digital Ecosystem Dashboard
- Launch of the Gulf Region Digital Ecosystem Dashboard
- Launch of a new, freemium Demo Dashboard showcasing the most interesting and advanced features of the full DKG Big Data Analytics Ecosystem of Dashboards

# Overview of Big Data Analytics System and Dashboards

We provide profound investment and data science insights on the private and public markets via **customized IT-Platforms and Dashboards**.

512,000+	Companies
40,000	Investors
33 million	Data Points
170	Parameters of Automated SWOT Analysis



## Market Intelligence Focus

HealthTech

DeepTech

BioTech

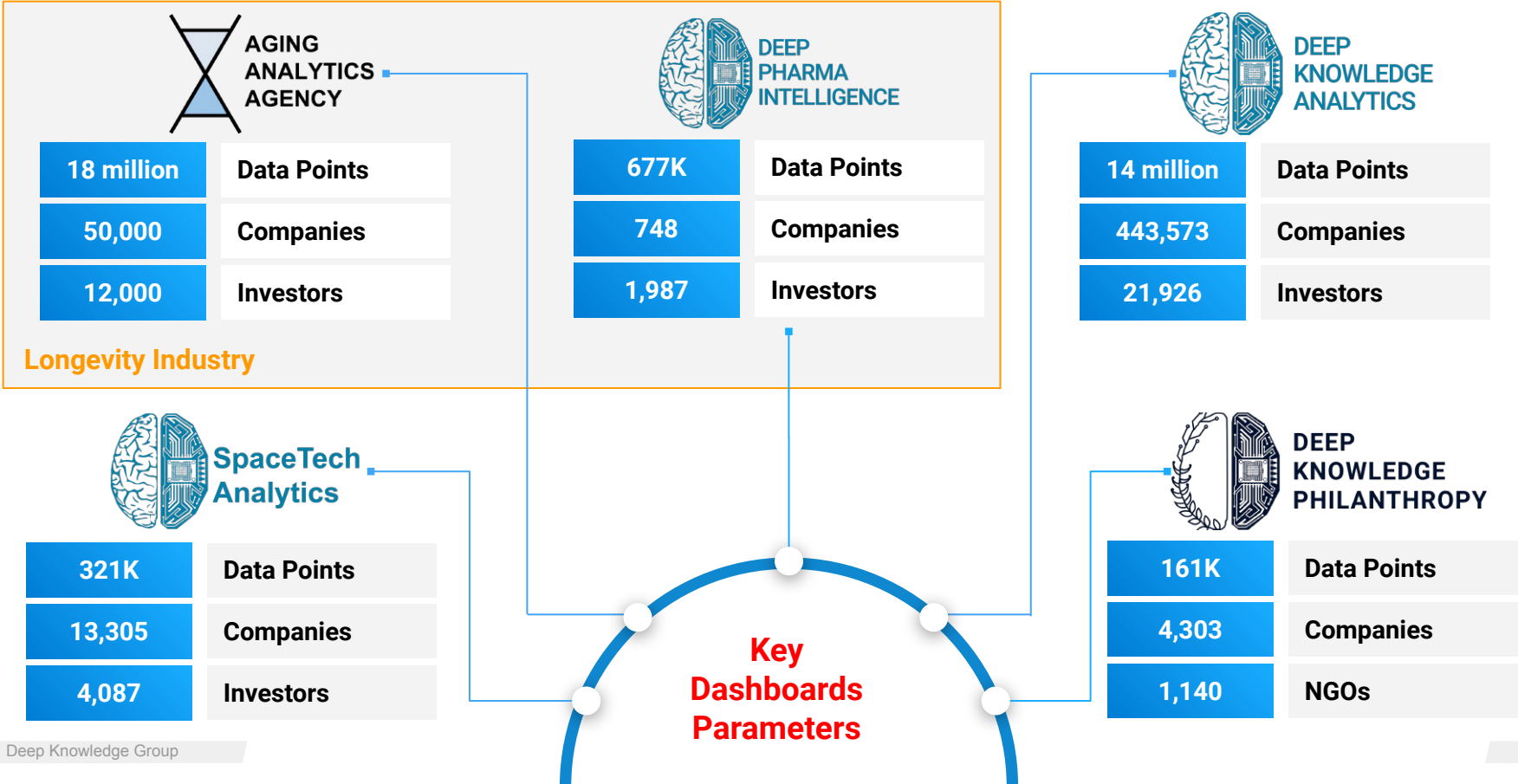
Longevity

GovTech

Philanthropy



# Deep Knowledge Group's Big Data Analytical System and Dashboards



# Major Components of Data Science and AI Engine Architecture

## Data Aggregation

Big Data Analytics System and Dashboard cover the datasets synthesized from various sources and having the different types of representation

## Database Extension

The data sets behind the finalised data provided to users is subject to constant updating to ensure the precise results of analysis

## Natural Language Processing (NLP) Engine

Advanced NLP-techniques are used for gathering and storing the multiparametric and high-dimensional data.

## Components of Data Science and AI Engine

## AI-Based Clustering

Embedded AI engine is able to find the interconnections and form the groups of entities having the similar characteristics

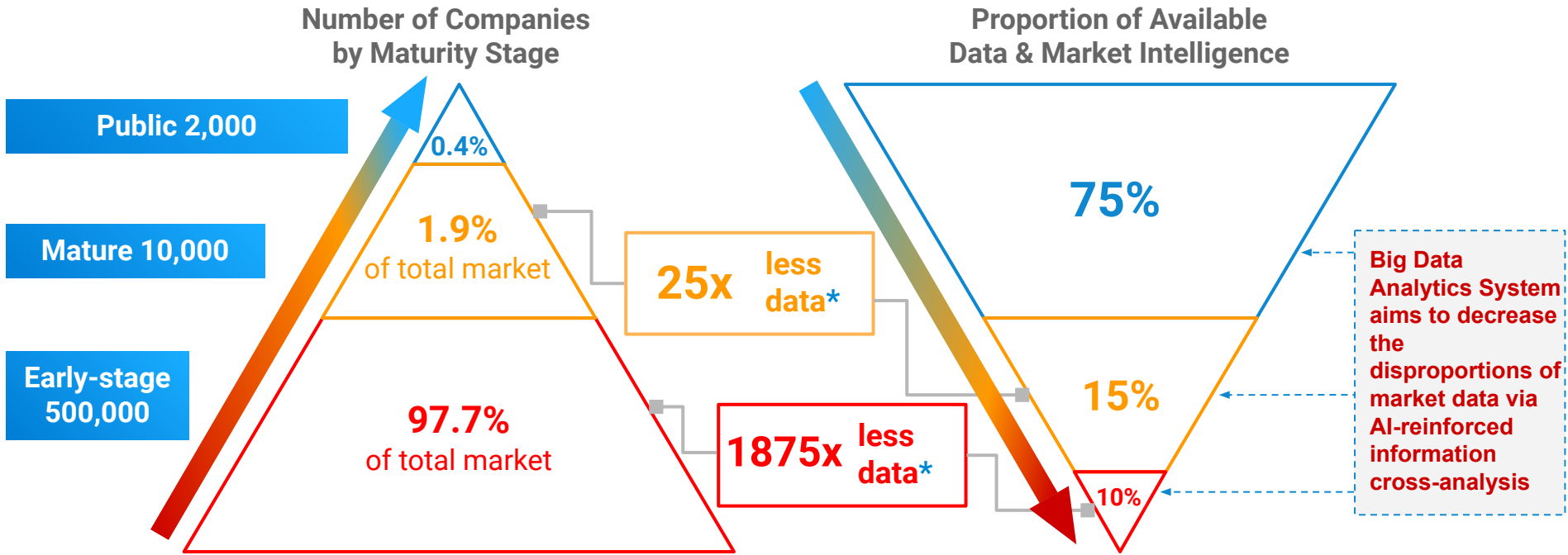
## Companies Assessment with Machine Learning

Dashboards provide the ranking of both private and public companies based on the aggregated and constantly refreshed market data

## AI-based Predictions

Big Data Analytics System and Dashboard has the modules able to forecast the possible ways of future traction of certain events (such as stock prices) based on the large sets of market data

# Need for Complex Analytical Systems for DeepTech and Longevity Companies



\* disproportion accounts for the difference between the number of public and private companies and the amount of available relevant market intelligence

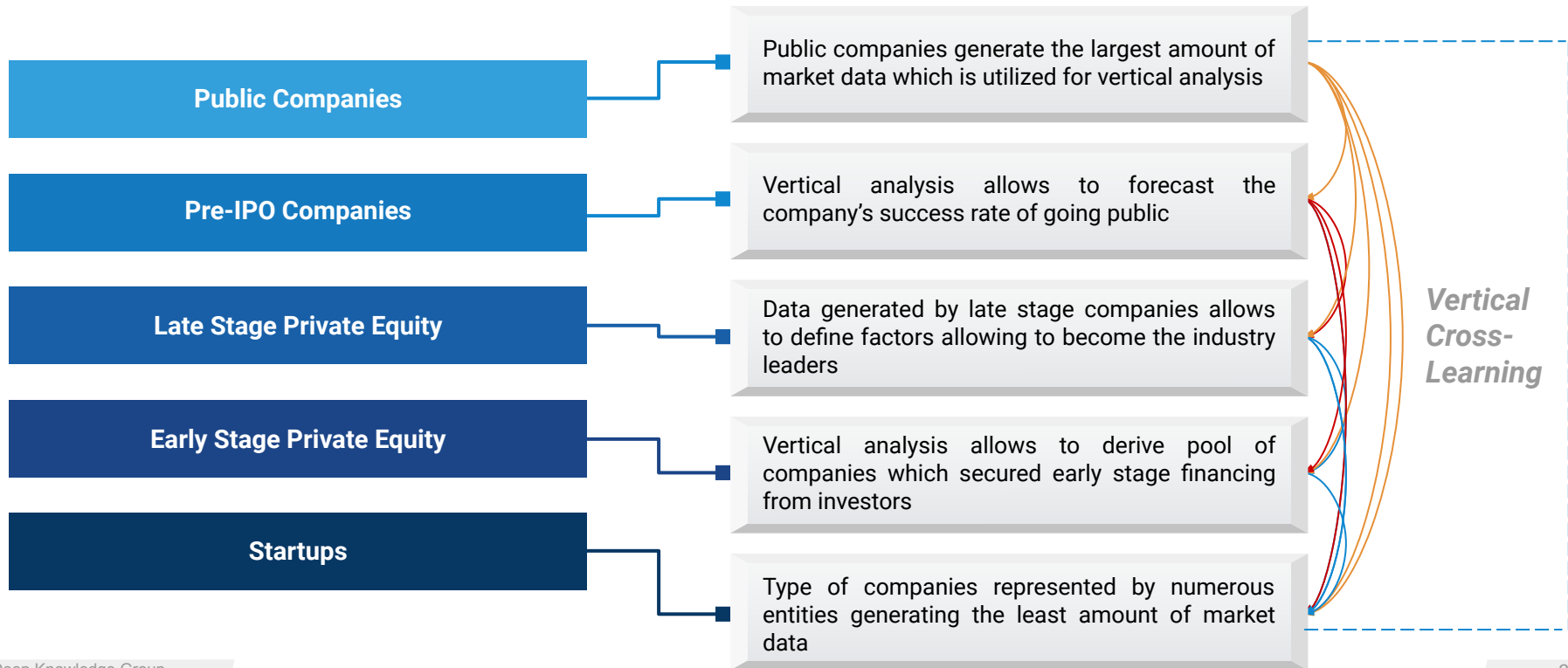
Focus on extremely complex and science-based DeepTech and Longevity Industries requiring the sophisticated approach to analysis

Eliminating the disproportions between the number of different types of companies and the volume of available market data for analysis

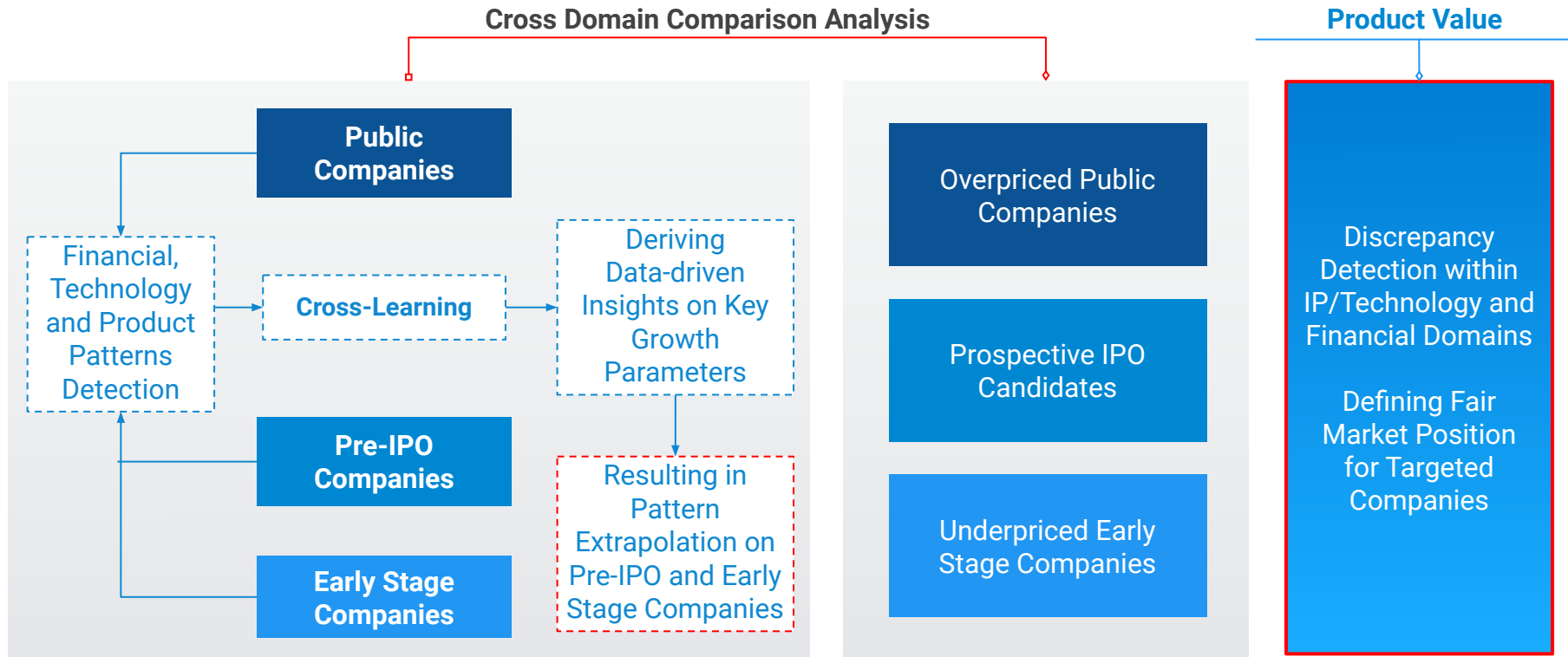
Building AI-driven algorithms able to make the cross-analysis between mature (pre-IPO) and public companies and find unique market insights

# Vertical Cross-Learning Mechanism

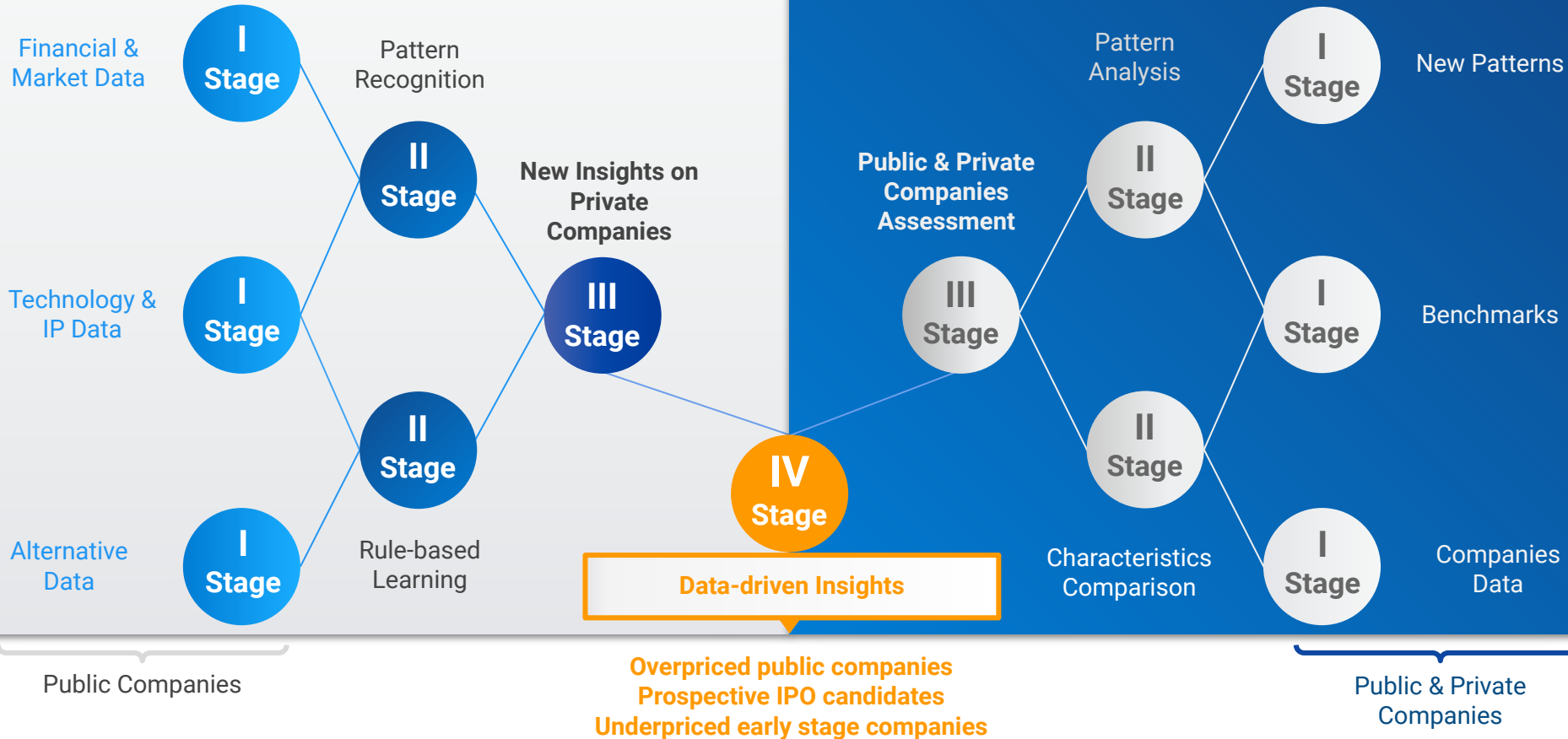
Using cross-learning methods, our models can learn how to accurately predict individual data values from many time series of traditional and alternative data. We found the great potential of cross-learning by making different neural network models that use this method on different vertical levels based on the stage of company maturity, from pre-seed to public.



# Deriving Value from the Data Scarcity

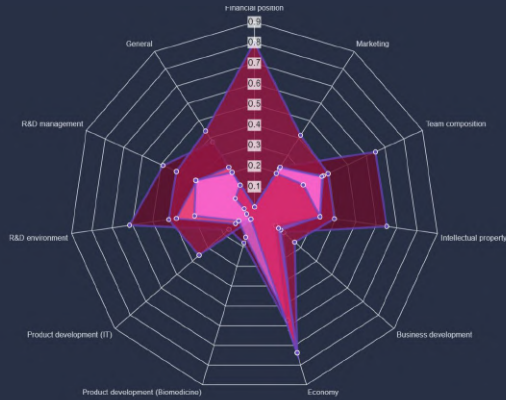


# Overcoming Data Disproportion via the Pattern Machine Learning



# Automated SWOT Analysis as a Key Tool of Deriving Value from the Data Scarcity

## Example of Five Longevity Related Companies Automated SWOT Analysis



### Key Features:

- Unlimited number of compared companies
  - Entities from all industries and markets
  - On-demand analytics and due diligence for one or multiple companies
  - Competitive comparison of hundreds of parameters in a matter of seconds
- 
- **Automated Comparative Competitive SWOT AI-Driven Analysis is the core solution allowing to visualise the comparison of companies based on 170 unique parameters**
  - **Based on unique logical frameworks developed over 9 years specifically designed for selected industries**

# Accurate Data Science-Based Company Assessment

## Life-Sciences Companies



## Longevity Services Companies



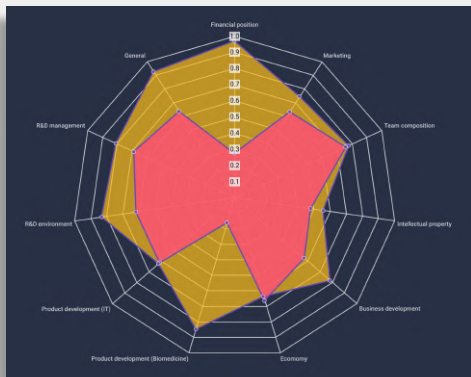
An example of a SWOT analysis of two Longevity companies tailored specifically to market segments.



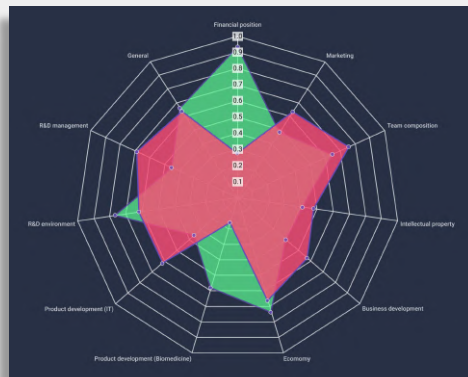
# Automated SWOT Analysis for Market Validation of Candidates for Listing

- Automated SWOT Analysis provides the performance scoring, which allows making decisions on the readiness of an individual Longevity-focused company for the IPO.
- It also helps to compare the scoring of the given private company with the benchmark values, which are calculated based on the statistical data of the companies which went public before.
- Ultimately, the SWOT analysis allows identifying the pre-vetted mature companies able to demonstrate a successful track record in future.

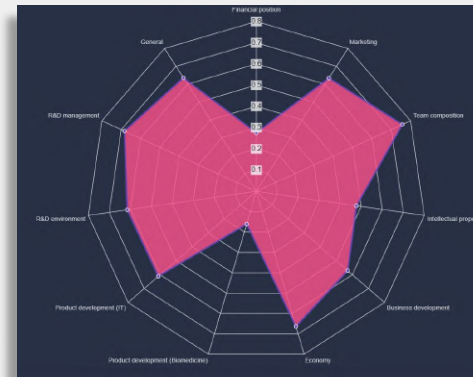
## Recommended for Stock Exchange



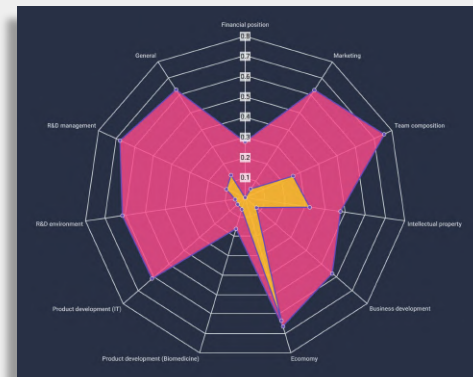
## Recommended for MTF



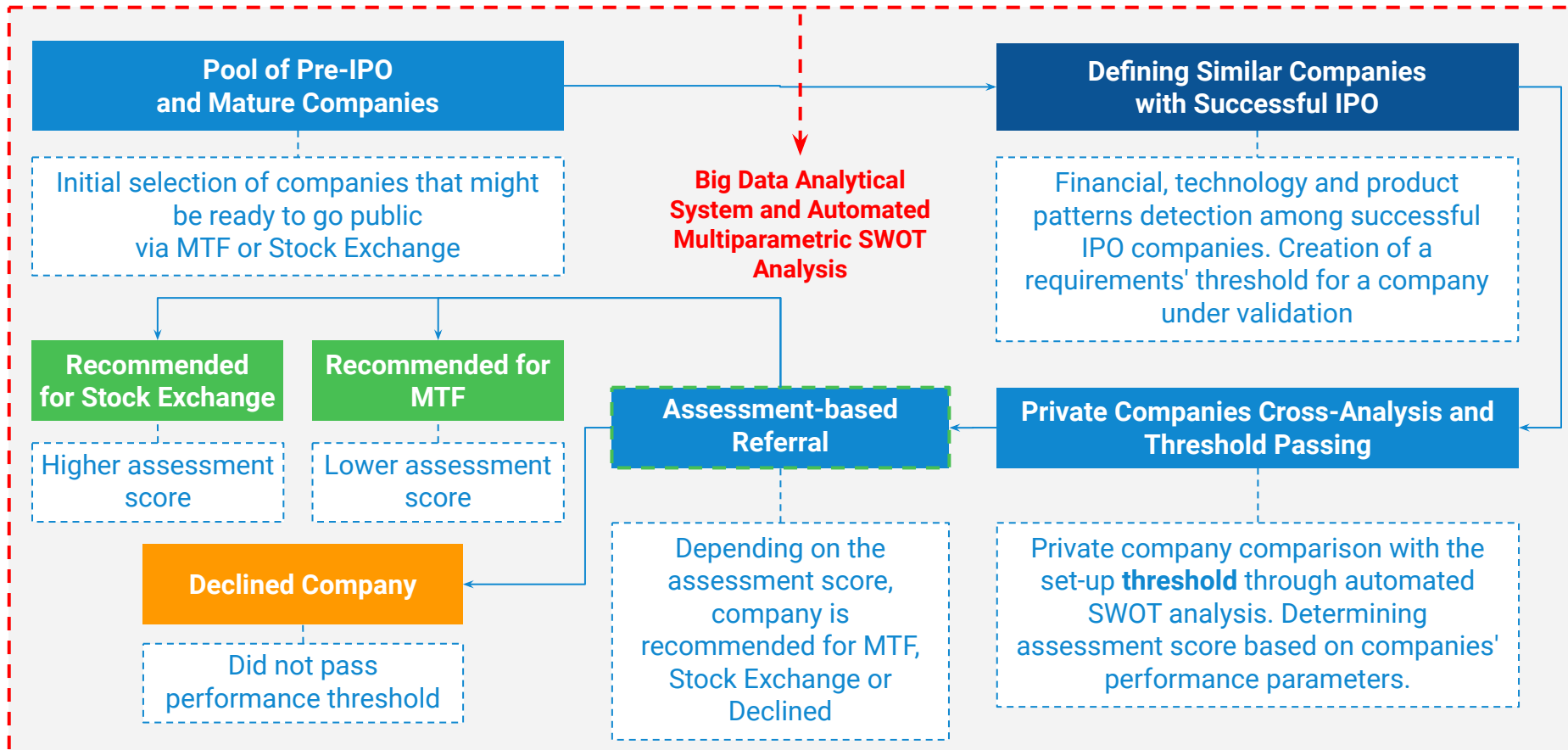
## Benchmark



## Declined

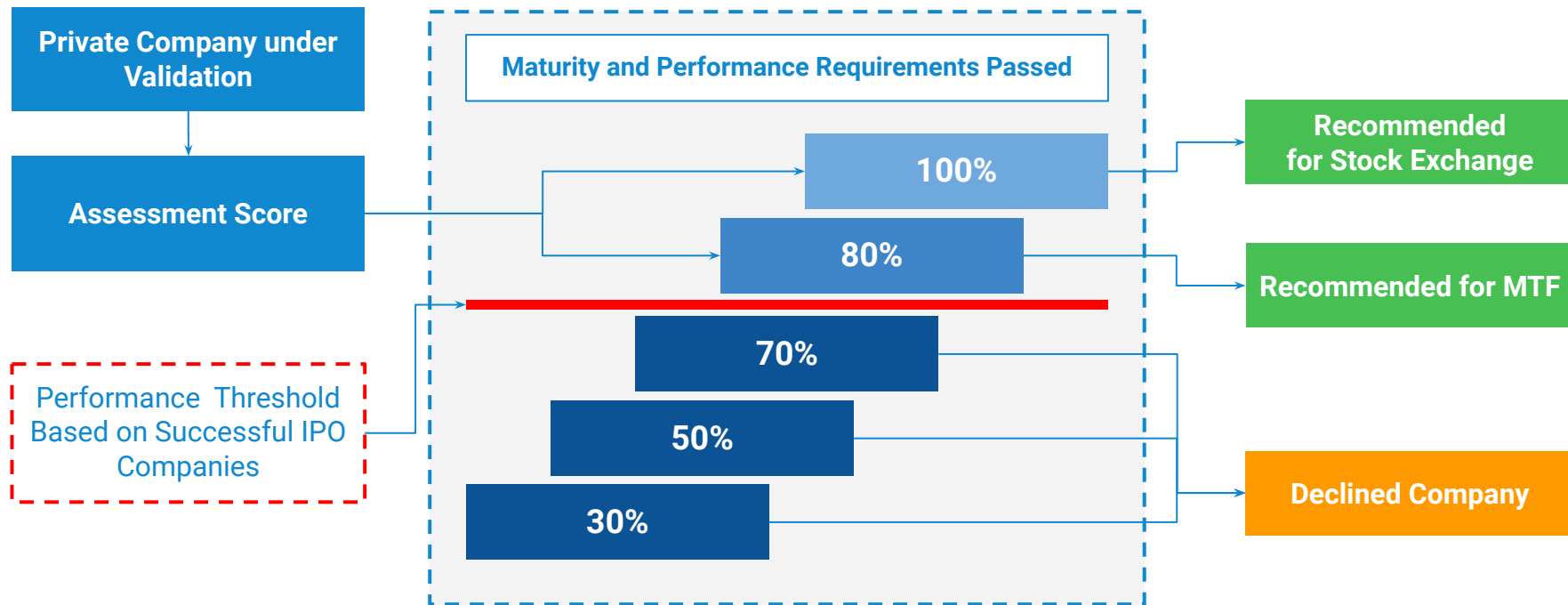


# Sophisticated Multiparametric Algorithm for Evaluating Listing Candidates



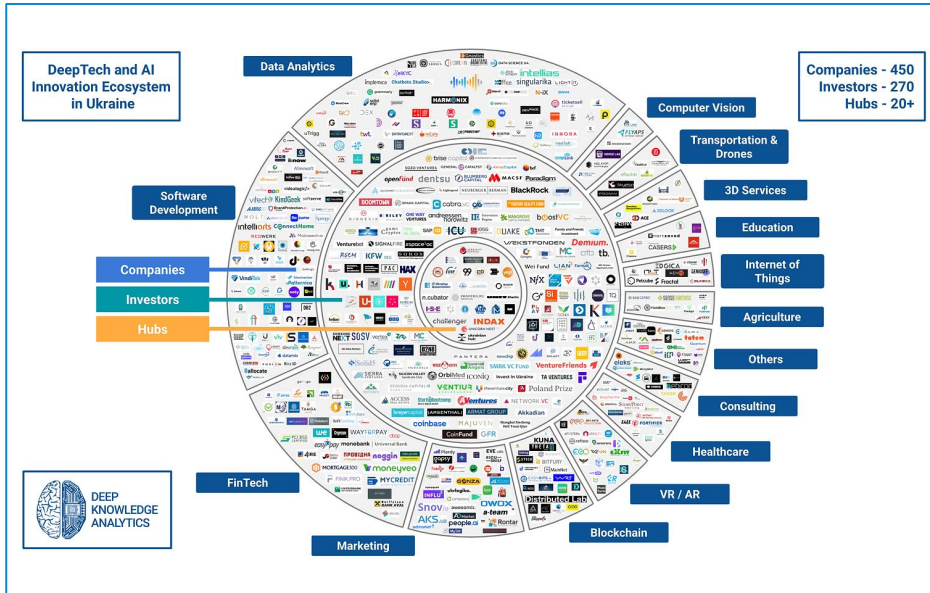
# Company Maturity and Performance Scoring for Public Capital Market Readiness

The comprehensive assessment of performance traction of a given mature company allows to provide recommendations on the listing decision and mechanism. The scoring threshold is defined based on the performance metrics of the companies focused on similar market segments having closed the public listing. Thus, such threshold allows making analytics-backed decisions on the proper way of seeking capital at public capital market.



# Ukrainian AI and DeepTech Data Analytics Platform

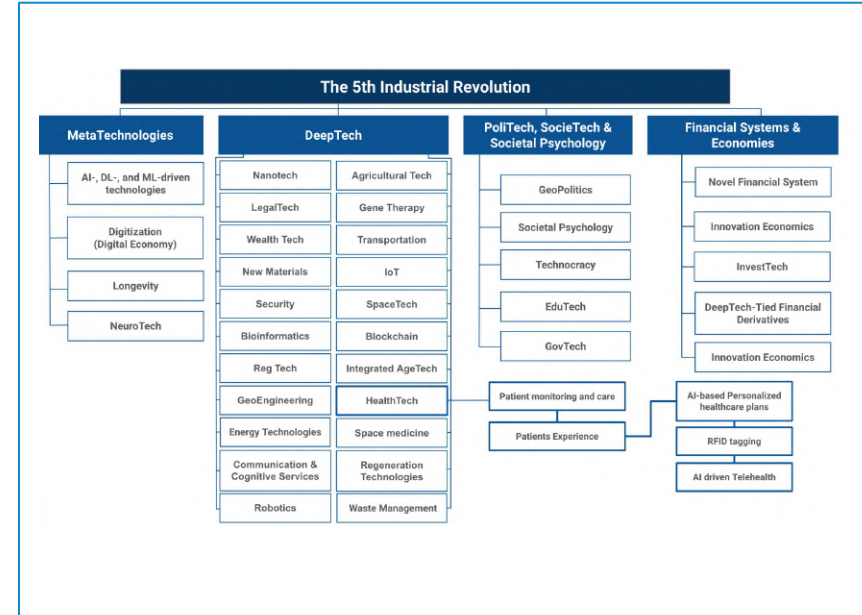
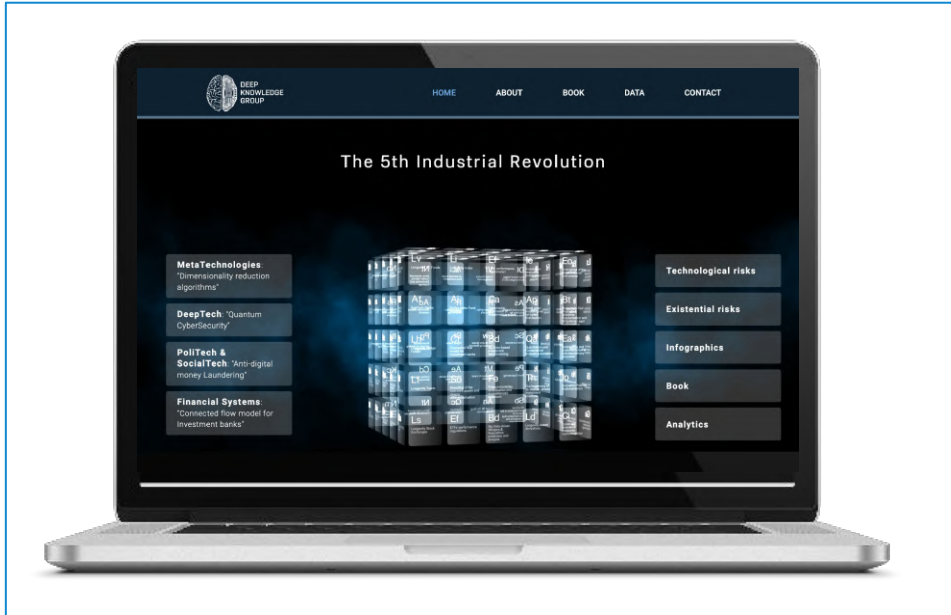
Deep Knowledge Group aims to help Ukrainian entrepreneurs and businesses find the right partners, investors, data, tools and expertise. To this end, Deep Knowledge Group has launched the data analytics platform that aims **to attract \$1 billion in AI and DeepTech investments to Ukraine** over a foreseeable period of time. DKA's post-war rebuilding effort aims to support Ukrainian entrepreneurs and companies in finding the right partners, raising capital and gaining access to the data, tools and expertise they need to set up and scale their businesses.



[www.invest-in-ukraine.tech](http://www.invest-in-ukraine.tech)

# The 5th Industrial Revolution Institute

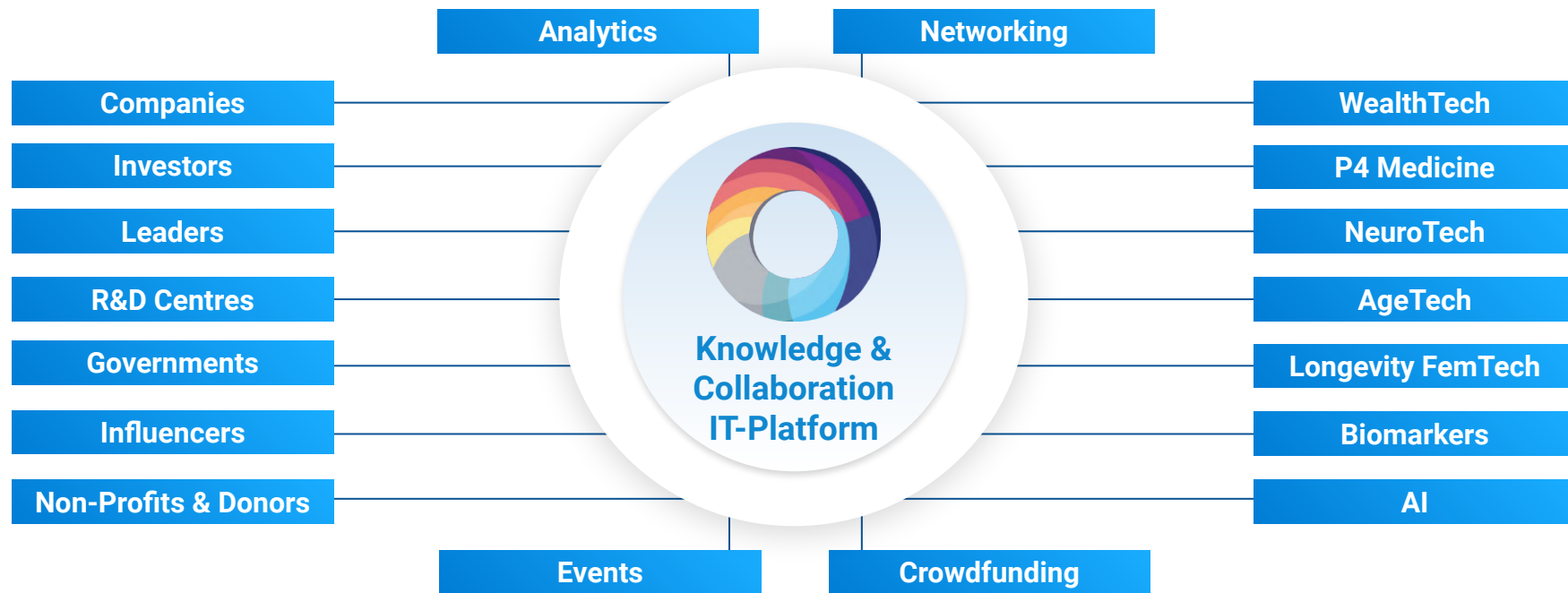
Despite the accelerated pace of technological progress that characterizes the 21st century, in reality, technology's practical implementation and overall impact on humanity faces many challenges. For this purpose, Deep Knowledge Group intends to set up **the 5th Industrial Revolution Institute**, the non-profit foundation aimed at accelerating the R&D efforts across the DeepTech sectors and joining the experts for the subsequent exchange of knowledge in innovative industry fields.



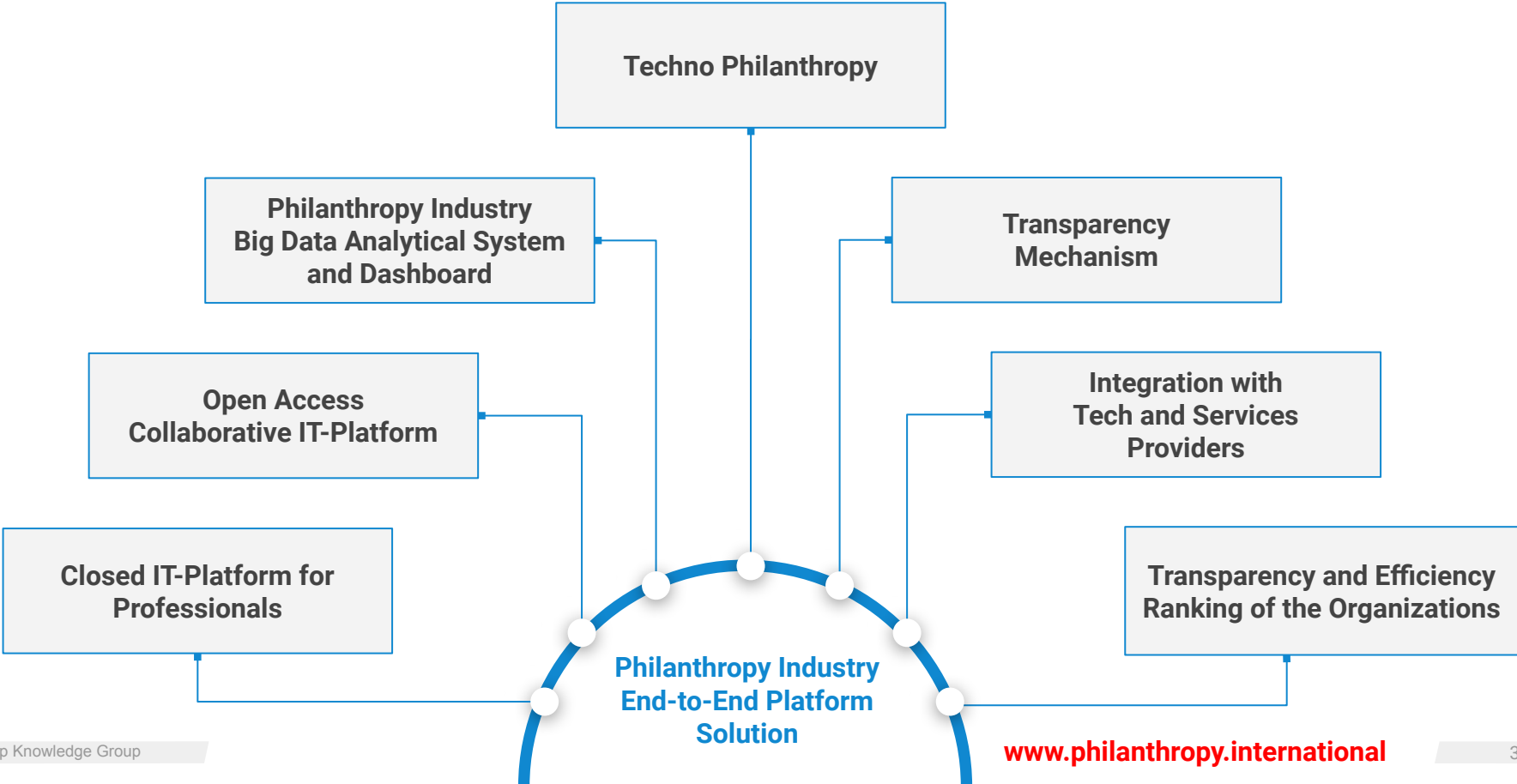
[www.5revolution.tech](http://www.5revolution.tech)

# Longevity.International: One-Stop Platform for Longevity Industry Knowledge

Longevity.International is a first-of-its-kind, open-access non-profit decentralized Longevity Industry Knowledge and Collaboration platform with the aim of promoting a greater degree of synergy, efficient cooperation, and discussion among a variety of Longevity Industry participants and stakeholders, including companies, investors, non-profits, academic labs and R&D hubs, governmental bodies and policy makers.



# Philanthropy Industry End-to-End Platform Solution



# Philanthropy Ecosystem IT-Platform and Marketplace

## Rationale for the Creation of Philanthropy Marketplace

The Philanthropy Marketplace will serve as IT solution aiming to connect the sponsors and donors of the philanthropy industry. The primary goal of the Marketplace is to effectively resolve the issue of transparency for both types of users. The unique approach will be developed to eliminate the concerns of philanthropy industry players regarding the proper money allocations in charity sector.

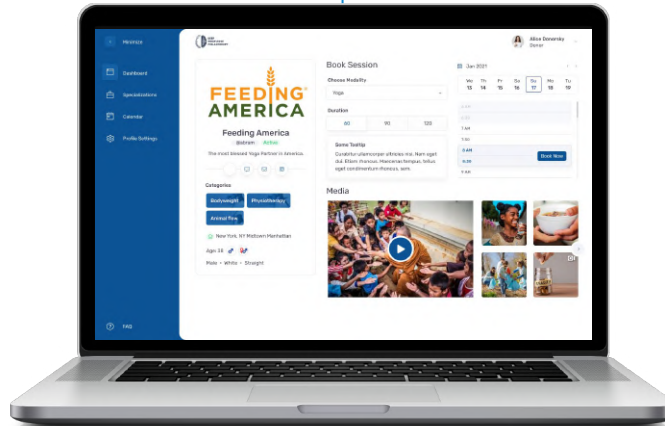
### Benefits for Charity Organisations

Placing the charitable projects

Identification of best-fit donors

Transparent charity fundraising mechanism

Pooling the network of donors



[www.deep-knowledge.org](http://www.deep-knowledge.org)

### Benefits for Charity Donors

Placing the proposals of charitable grants

Extending the network of partnering charities

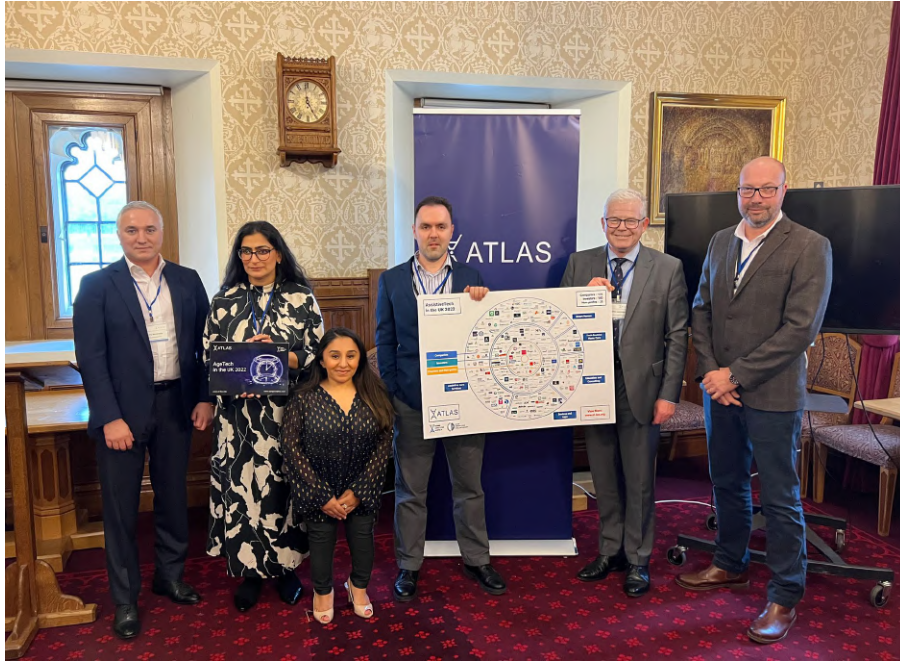
Joining the promising charitable projects

Enhanced transparency for money allocation



# AssistiveTech in the UK / October 2022, London

On October 4th 2022, ATLAS (Assistive Technology, Longevity and Ageing Society) with the support of Aging Analytics Agency and Deep Knowledge Philanthropy hosted the official launch event and revealing key findings of the new 'AssistiveTech in the UK' interactive report. The event was held in the UK Parliament at the historic House of Lords.



# AssistiveTech in the UK / October 2022, London

The event brought together key industry and ecosystem participants, thought leaders, and founders of AssistiveTech organisations across governance, policy, charity, academia, and industry in a bid to harness the power of technology for social good. Participants included award-winning disability inclusion strategist Shani Dhanda and Board Co-President of DATEurope (Digital Assistive Technology Industry Association for Europe) Antony Ruck, among others.

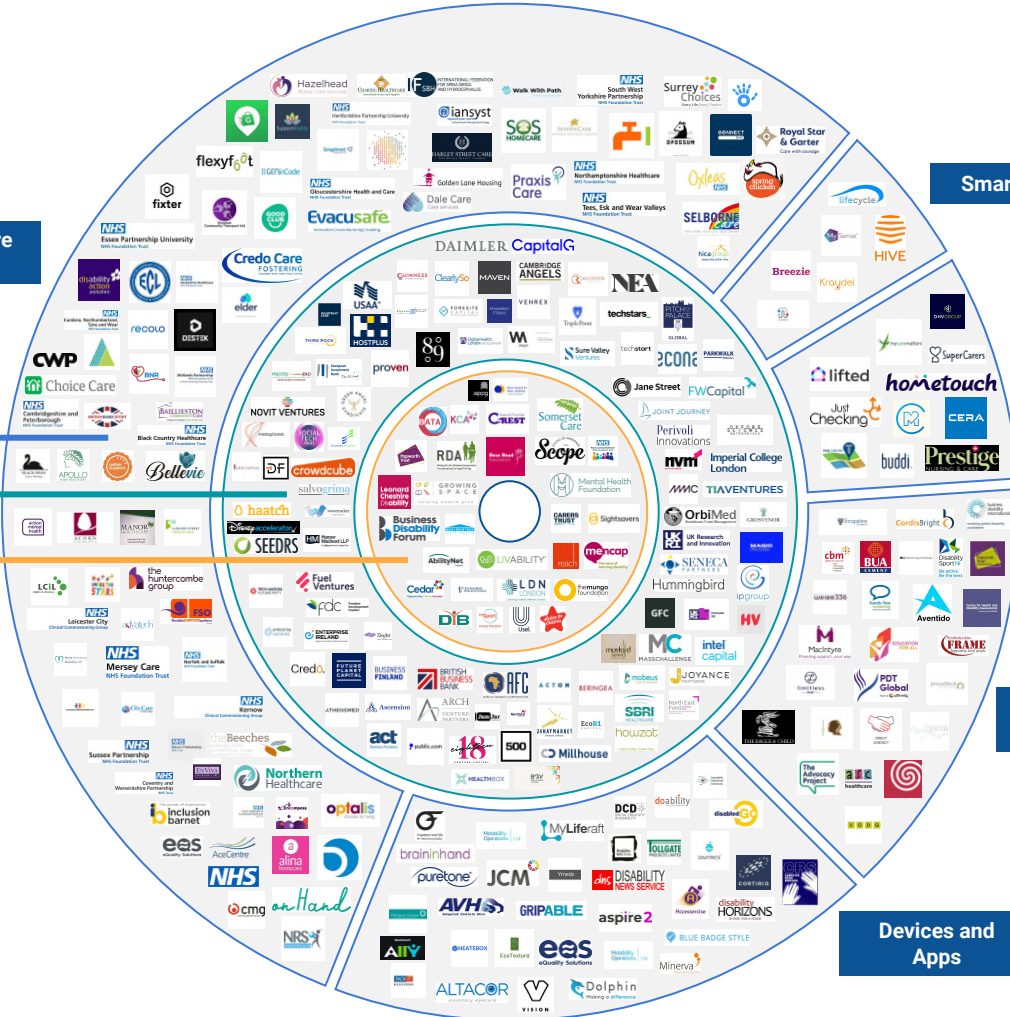
The event concluded with an open discussion between the speakers and audience. The subject of inclusivity remained dominant throughout. While the report has been incredibly well received, data only goes so far; it requires a 'mindset change', and ATLAS could be the driving force to enable such change.



# Assistive Tech in the UK 2022

Companies - 170  
Investors - 100  
Non-profits - 25

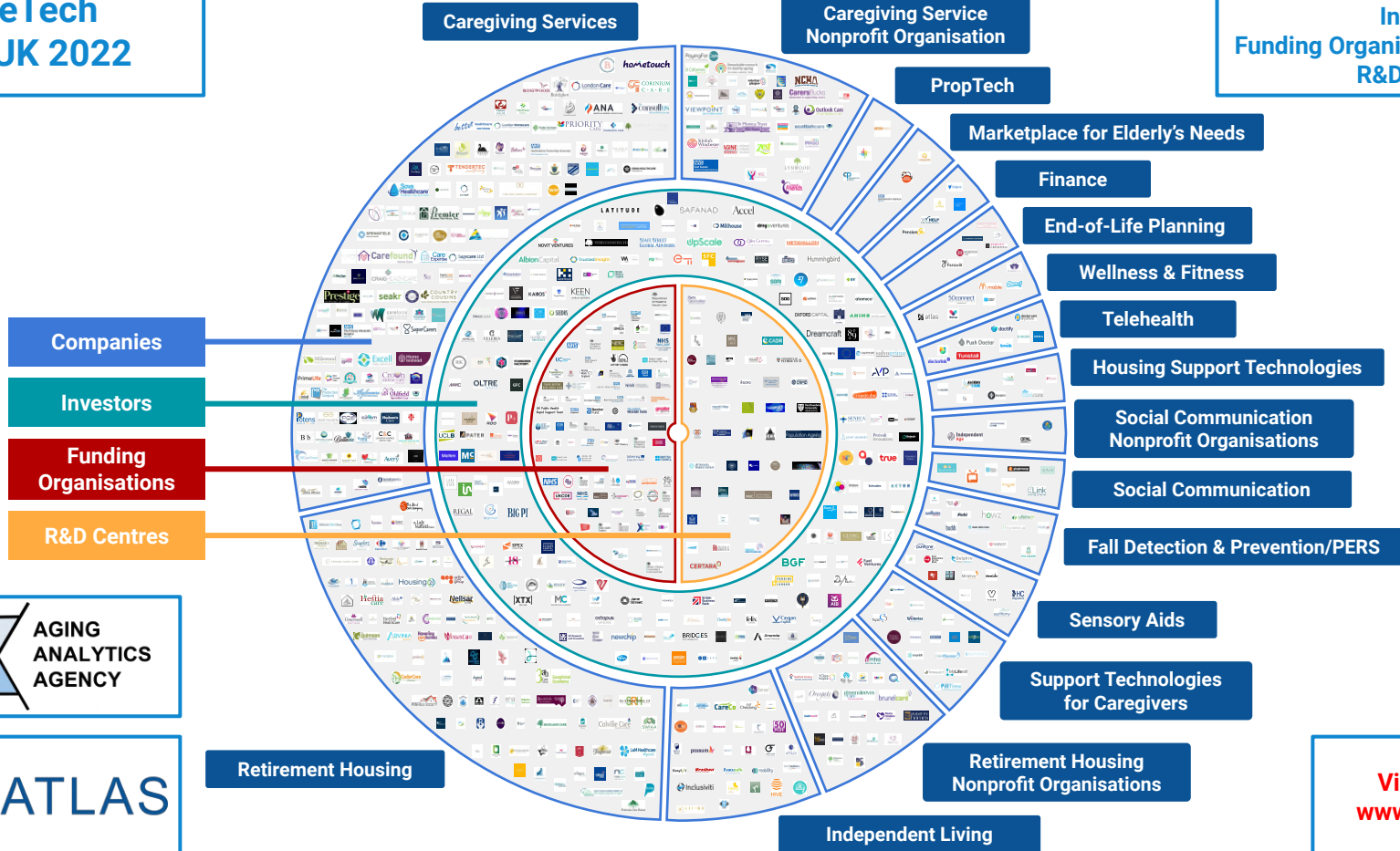
- Assistive Care Services
- Companies
- Investors
- Charities & Non-profits



View More:  
[www.at-las.org](http://www.at-las.org)

# AgeTech in UK 2022

Companies – 415  
Investors – 165  
Funding Organisations – 100  
R&D Centres – 75



**View More:**  
[www.at-las.org](http://www.at-las.org)

## Gulf Region as Major Strategic Priority for 2023

Deep Knowledge Group recently conducted a week-long strategic visit to the United Arab Emirates to deepen the company's DeepTech-focused activities in the GCC and unveil several key MENA-focused projects, and conducted several meetings with high-calibre policy and decision makers including the Department of Health in Abu Dhabi. The trip was undertaken as part of our ongoing and intensified ambition to build a technological bridge between the UK and the Gulf Region to further enhance its synergetic support of DeepTech acceleration, Longevity Industrialization and global technological progress.

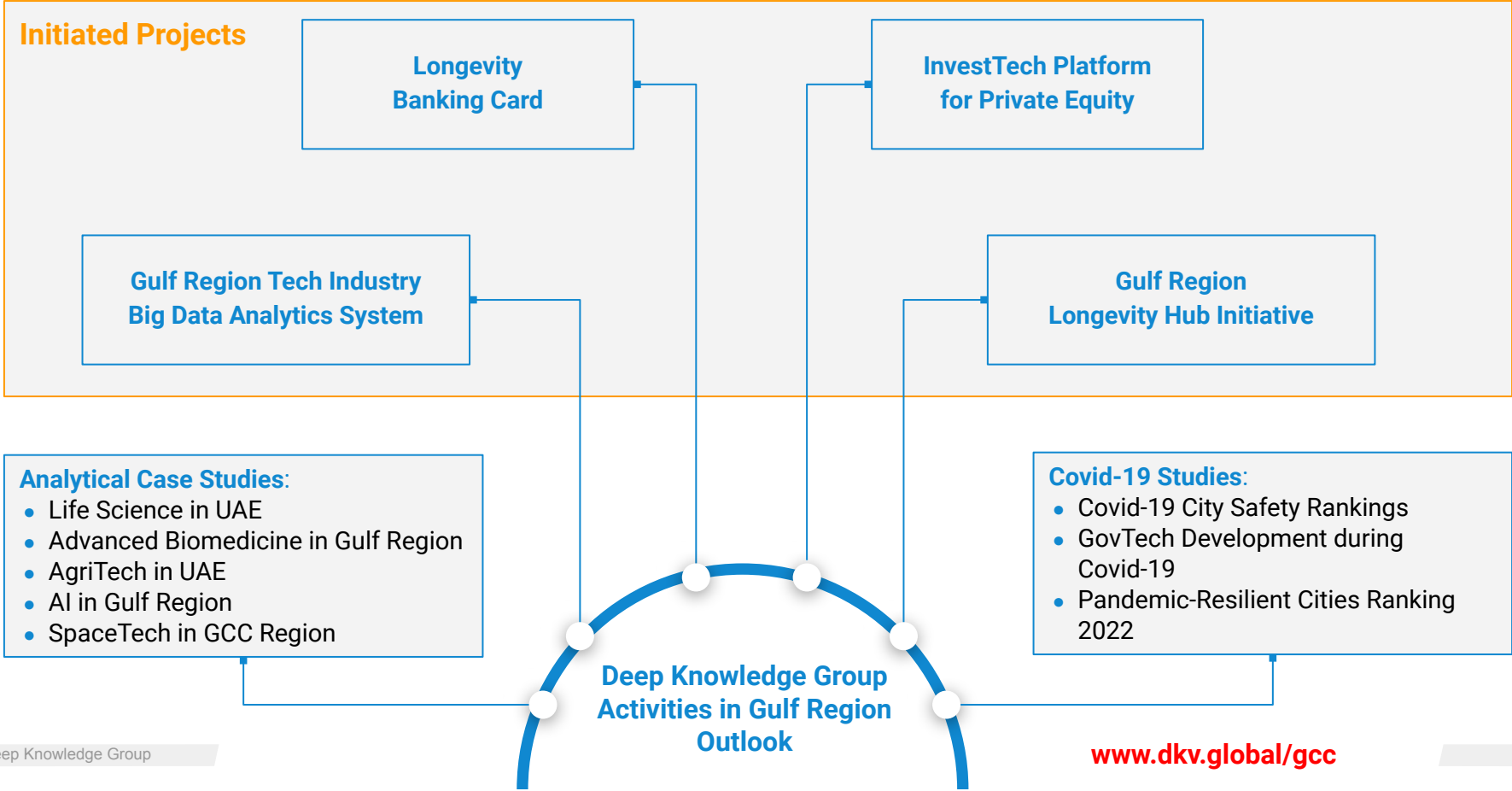


Deep Knowledge Group General Partner Dmitry Kaminskiy and Head of the Group's UAE branch Baha Hamadi with Dr. **Omar Najim, Executive Office Director at Department of Health in Abu Dhabi**

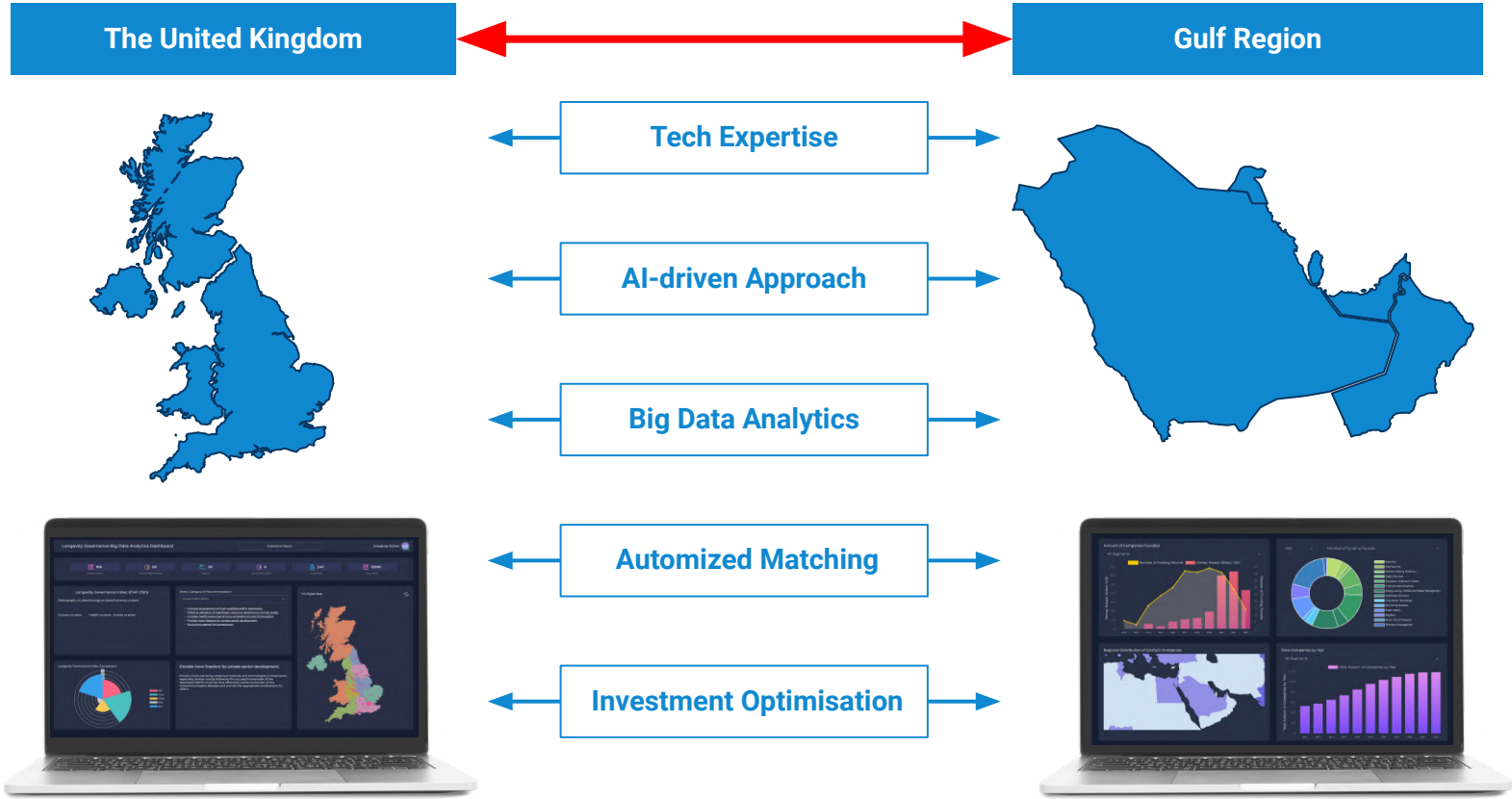


Deep Knowledge Group General Partner Dmitry Kaminskiy with **His Excellency Hussain Al Mahmoudi, CEO of Sharjah Research, Technology and Innovation Park**

# Deep Knowledge Group Activities in Gulf Region



# Establishing Technological Bridge between the UK and Gulf Region



[www.deep-innovation.tech/gcc](http://www.deep-innovation.tech/gcc)

# Life Sciences in the UAE Report Launch / February 2022, Sharjah

Deep Knowledge Group (DKG) and the Sharjah Research, Technology and Innovation Park (SRTIP) have co-hosted a TechTalk to reveal jointly-produced **Life Sciences in the UAE report**.

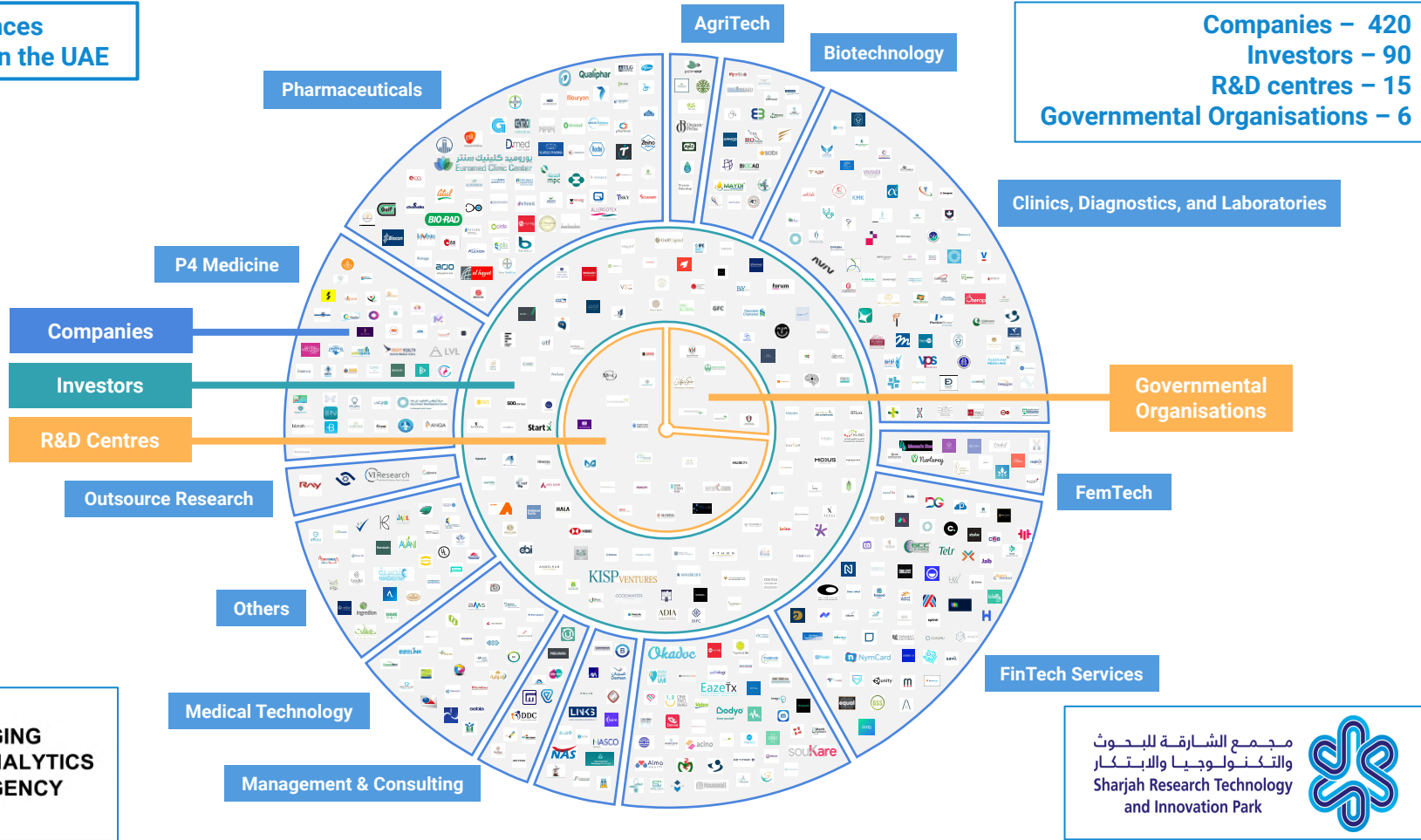
Commenting on the report, Hussain Al Mahmoudi, CEO of SRTIP said: "I am very pleased to collaborate with Deep Knowledge Analytics to launch the UAE's first Life Sciences report, which covers the full Life Sciences and Longevity landscape across the country. The report highlights the opportunities associated with this growing industry, key stakeholders, high-level data of the UAE population and many other key insights."

The report reveals key developments in the UAE's Life Sciences industry, highlighting major UAE players in the field and covering technological trends and advances, analysing existing and projected government policies, and providing an overview of underlying economic and financial data.





**Life Sciences  
Industry in the UAE**



## 2nd Arab-British Economic Summit / November 2022, London

Deep Knowledge Group Head of Investor Relations Talgat Takiyev presented key findings and new project announcements on November 2, 2022 at the landmark **2nd annual Arab British Economic Summit** (ABES 2022), a high-level conference hosted by the Arab-British Chamber of Commerce bringing together government officials, senior executives, thought leaders, and decision-makers from the UK and the Arab World to discuss trade and investment opportunities across healthcare, education, financial services, hospitality, real estate, transport, and other key sectors.



# 2nd Arab-British Economic Summit / November 2022, London

Attending the event, Dmitry Kaminskiy, General Partner of Deep Knowledge Group, commented: “We commend the various AI-related strategies of the UAE government and their ongoing efforts to embrace new technologies as a matter of national priority. In 2017, the UAE established a dedicated Ministry for Artificial Intelligence to oversee the strategy’s implementation. We are committed to contribute insights that underpin the prosperity of the UAE and its business ecosystem through providing high-quality data for investors, decision-makers, journalists, and experts.”



DEEP  
KNOWLEDGE  
GROUP



2<sup>ND</sup> ARAB  
BRITISH  
ECONOMIC  
SUMMIT 2022  
EXPO  
القمّة الافتتاحية العربية البريطانية الثانية

## Talgat Takiyev

Head Of Investor Relations  
Deep Knowledge Group

**Accelerating Health**



# Ecosystems 2030 Summit / June 2022, Spain

Deep Knowledge Group General Partner Dmitry Kaminskiy followed-up his keynote address at the Davos Longevity Investment Summit with a talk the following week on the Future of Human Longevity in Spain at the 4-day Ecosystems 2030 conference on June 2nd, 2022. Ecosystems 2030 is one of the most sophisticated, invitation-only conferences on the topic of long-term technological forecasting, organized with significant support from the Spanish government (including on the conference's Honorary Committee the King of Spain, His Majesty Filipe VI, and Inés Rey García, the Mayor of A Coruña), and purposely limited to just 150 high-calibre attendees across government, tech sector executives, investors and financial industry professionals.



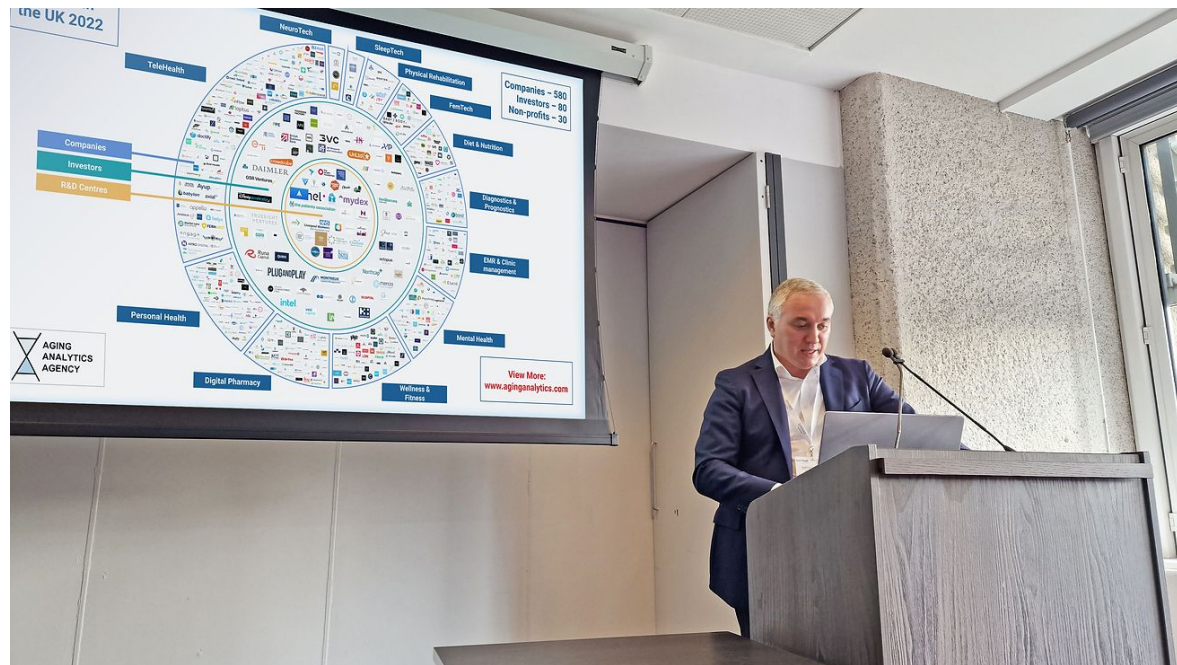
# GovTech Global 2022 / October 2022, London

On October 13th, 2022, Deep Knowledge Group unveiled [five GovTech and DeepTech Big Data Analytics Dashboards](#) at the landmark GovTech Global 2022 conference alongside top government officials from UK Department for Business, Energy & Industrial Strategy, Department for Digital, Culture, Media and Sport, Centre for Data Ethics and Innovation and others. The Dashboards unveiled at the conference included the world's first and most comprehensive AI-driven Global GovTech Big Data Analytics System, as well as Deep Knowledge Analytics' UK Digital Ecosystem Dashboard, GovTech in UK Dashboard, and Aging Analytics Agency's Global Longevity Governance Dashboard and Longevity Governance in the UK Dashboard.

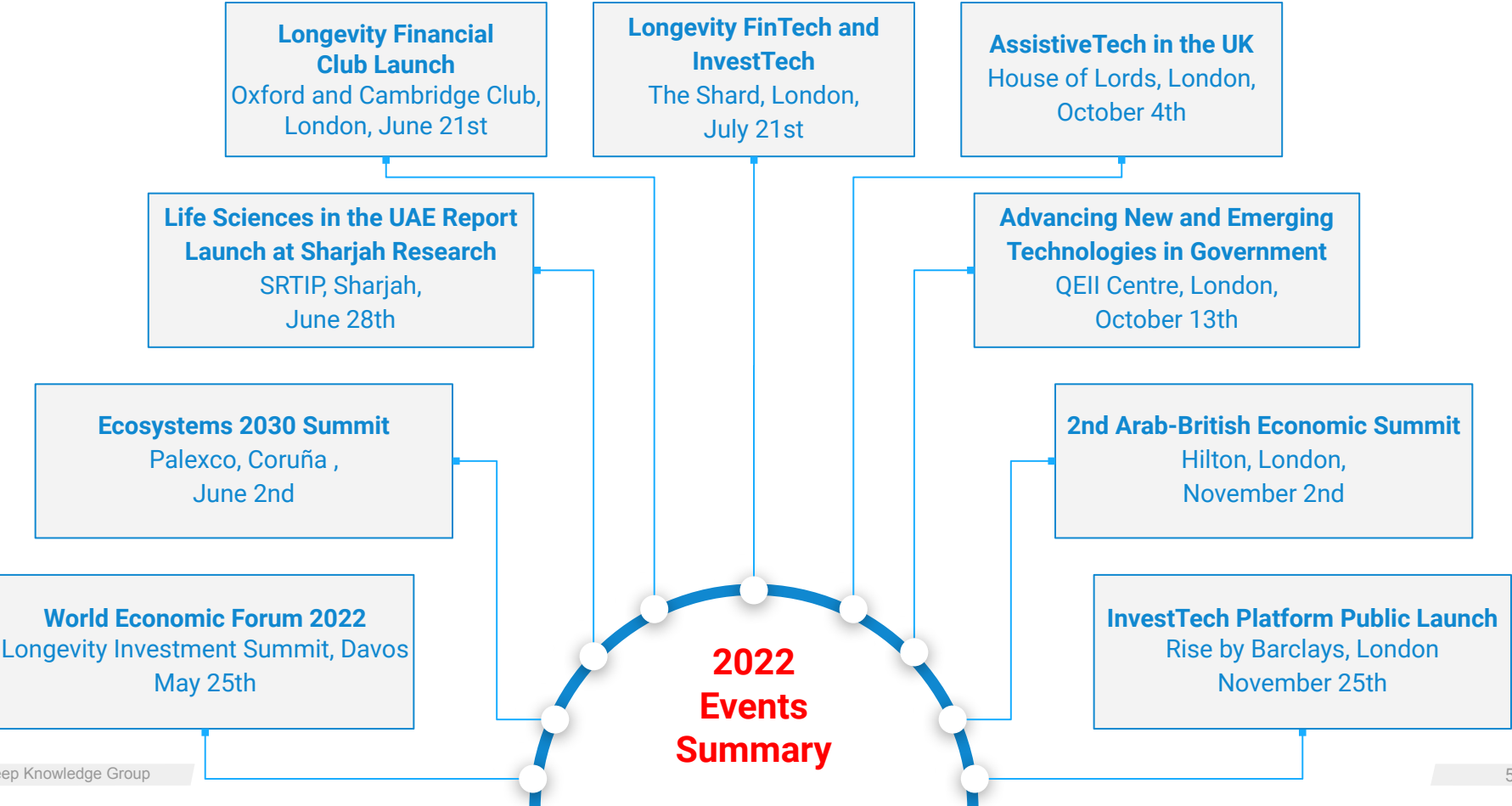


# GovTech Global 2022 / October 2022, London

Deep Knowledge Group remains committed to using AI and Data Science to support, propel and accelerate socio-economic progress across the globe. The company's DeepTech and Longevity analytics capabilities are already being heavily utilised by progressive investors and financial professionals for the greater good, and in support of the health and wealth of citizens and national economies in the UK and abroad. It is with the aim of extending these toolsets to a broader scope of DeepTech and Longevity Industrialization stakeholders and decision makers, including governments and policy makers, that the Group has unveiled these Dashboards at GovTech 2022.



# 2022 Events and Conferences Summary



# 2022 Events Summary

10+ Major Events in London, UK

Presentations on Longevity, DeepTech, InvestTech, GovTech

Tens of Thousands of Total Attendees

**LONGEVITY FINANCIAL CLUB**  
London, 21 June 2022  
Oxford and Cambridge Club  
[www.longevity.network](http://www.longevity.network)

**LONGEVITY FINANCIAL CLUB**  
21st June 2022, London  
Oxford and Cambridge Club  
[www.longevity.network](http://www.longevity.network)

**GovTech**  
13<sup>th</sup> OCTOBER 2022  
08:31 Centre, London  
[govtechglobal.co.uk](http://govtechglobal.co.uk)

**Dmitry Kaminskiy**  
General Partner  
Deep Knowledge Group

**Dominic Jennings**  
Head of Strategic Partnerships  
Deep Knowledge Group

**DEEP KNOWLEDGE GROUP**  
**2<sup>nd</sup> ARAB BRITISH ECONOMIC SUMMIT 2022**  
S E X P O  
المؤتمر العربي البريطاني الاقتصادي 2022

**InvestTech Platform First Public Demonstration**  
25th of November 2022, 1 pm  
Rise London, EC2A 4DP  
[www.dkv.global](http://www.dkv.global)  
[www.invest-platform.tech](http://www.invest-platform.tech)

**ATLAS**  
**AssistiveTech in the UK**  
4 October 2022 | 1:00-5:00 PM BST  
House of Lords, London, UK

**INVESTING IN LONGEVITY**  
Longevity Industry 2022 Overview  
Dmitry Kaminskiy  
Deep Knowledge Group  
General Partner  
Davos, 25 May 2022

Longevity Financial Advisors | DEEP KNOWLEDGE GROUP | LONGEVITY CAPITAL

**The Future of Human Longevity**  
Dmitry Kaminskiy  
Deep Knowledge Group  
General Partner  
Galicia, Spain, June 2022

ECOSYSTEMS 2030

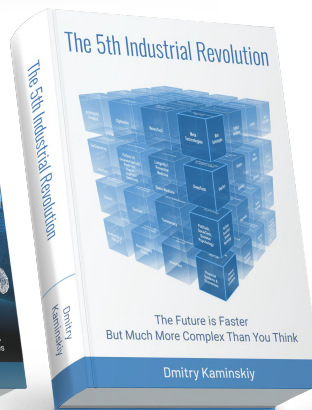
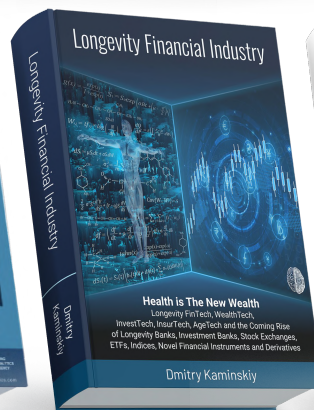
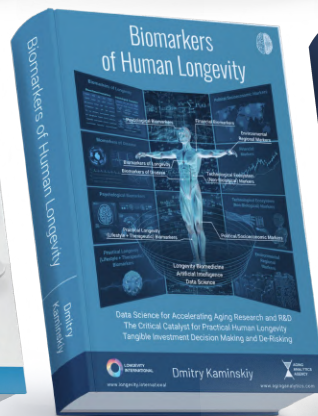
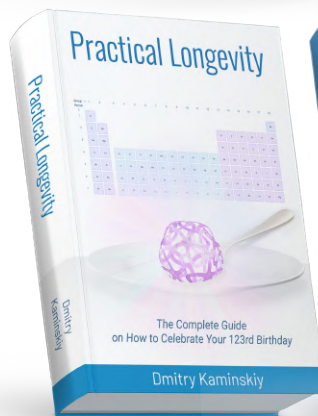
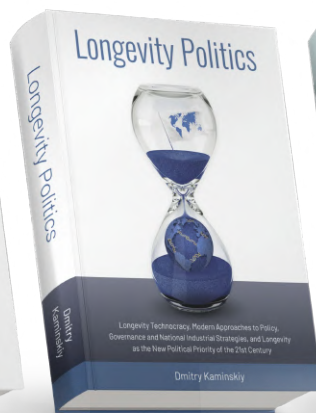
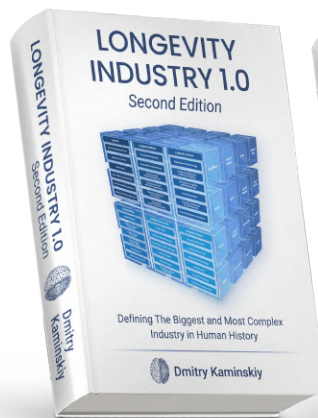
Longevity Financial Advisors | DEEP KNOWLEDGE GROUP | LONGEVITY CAPITAL

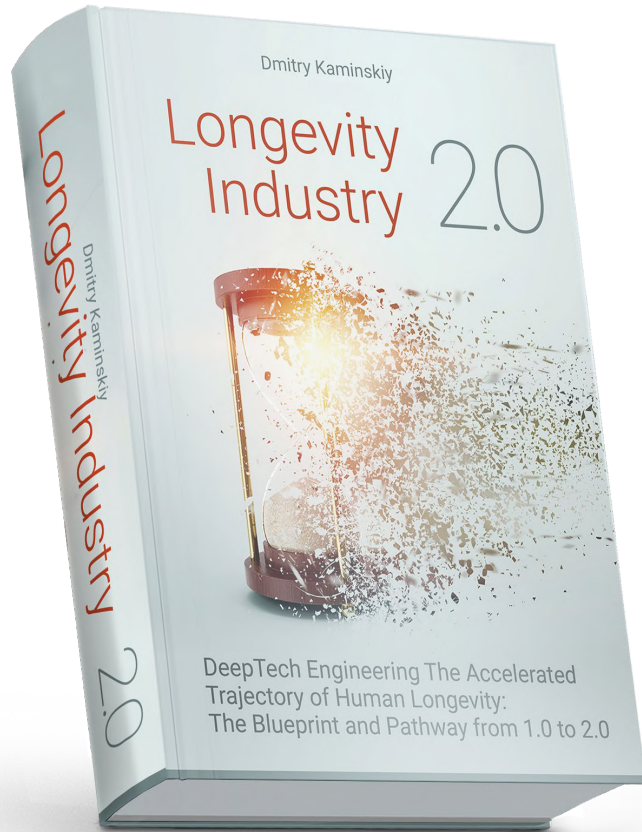
**Key Developments in the Life Sciences in the United Arab Emirates**  
28th of June 2022

www.dkv.global | www.dkv.global | www.dkv.global



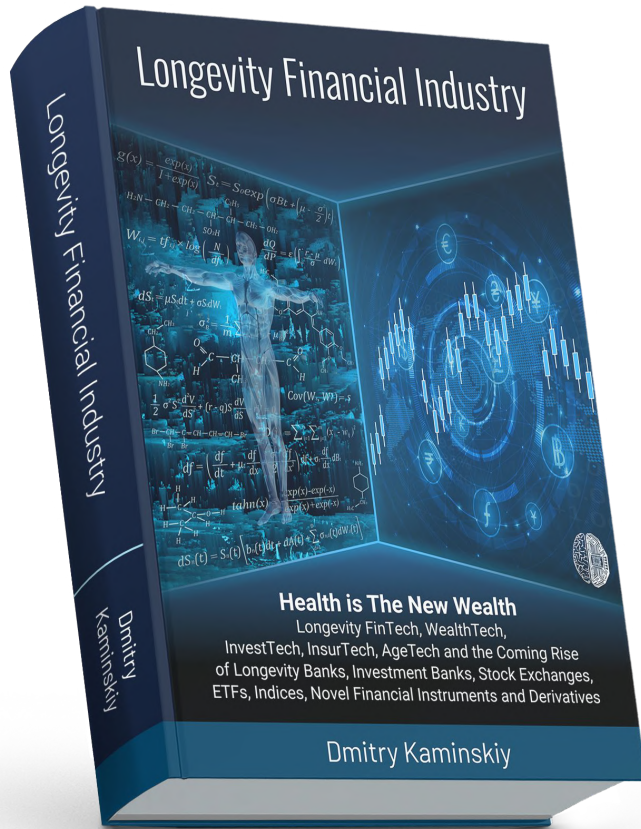
# Longevity Books





## DeepTech Engineering the Accelerated Trajectory of Human Longevity - the Blueprint and Pathway from 1.0 to 2.0

- Evolution from 1.0 (Defining the Industry) to 2.0 (Applying the Framework for Longevity Industrialization, Investment De-Risking and National Longevity Economy Development)
- The Evolution from Longevity Start-ups to Multi-Trillion Dollar Longevity Corporations
- Future of Longevity Finance: Financial Instruments to Bridge the Longevity Liquidity Gap
- The Rise of Longevity Technocracies and the Concept of 'Longevity Valley'
- Engineering Market-Ready Pathways for Practical Human Longevity by 2030



## Health is The New Wealth

### Longevity FinTech, WealthTech, InsurTech, AgeTech and the Coming Rise of Longevity Banks, Investment Banks, Stock Exchanges, ETFs, Indices, Novel Financial Instruments and Derivatives

- Engineered InvestTech and FinTech Solutions to Bridge the Big Longevity Industry Liquidity Gap
- Longevity Futures, Shorting, Exchange Traded Funds and Technology Marketplaces
- Longevity Stock Exchange, Investment Bank, Index Fund and Financial Derivatives
- Longevity Financial Instruments 2.0: Derivatives Tied to National Healthcare Systems, Pension Systems, National Healthy Longevity & Longevity Economies



[www.longevity-journal.info](http://www.longevity-journal.info)



# Deep Knowledge Group Analytics on the United Kingdom in 2022

10,000  
Companies

8,000  
Investors

1,510  
R&D Centres and Laboratories



**Longevity Industry  
in the United Kingdom**  
Landscape Overview Q2 2022

[www.aginganalytics.com](http://www.aginganalytics.com)



**AgeTech  
in the UK 2022**

[www.at-las.org](http://www.at-las.org)



[www.aginganalytics.com](http://www.aginganalytics.com)



**AssistiveTech  
in the UK 2022**

[www.at-las.org](http://www.at-las.org)



**mHealth in the UK**  
Landscape 2022

[www.aginganalytics.com](http://www.aginganalytics.com)



**FinTech in the UK Industry  
Overview Q2 2022**

July 2022

[www.dka.global](http://www.dka.global)



**GovTech in the UK  
Industry Overview Q2 2022**

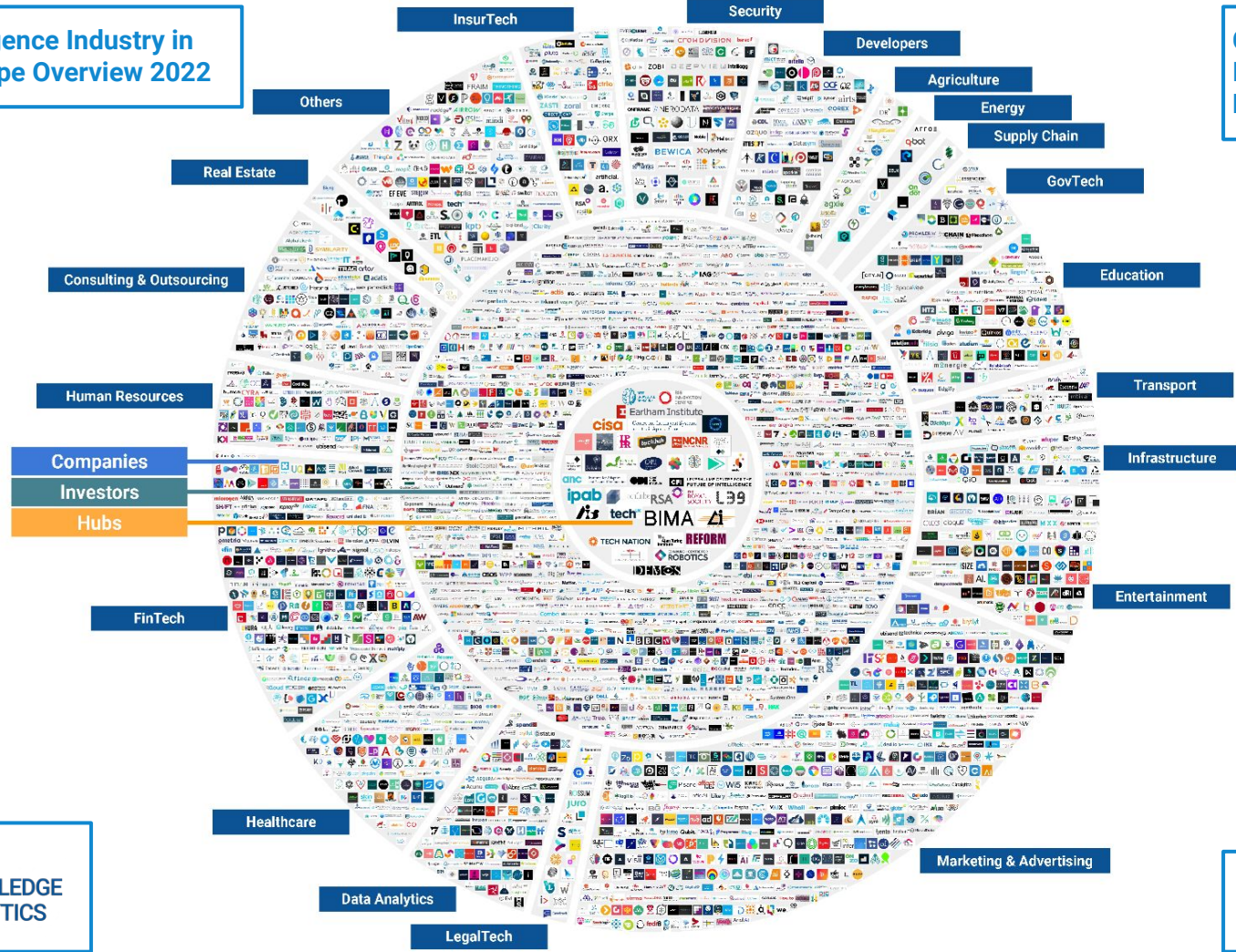
July 2022





# Artificial Intelligence Industry in the UK Landscape Overview 2022

Companies - 2000  
Investors - 1500  
Hubs - 36



More Information:  
[www.dka.global](http://www.dka.global)



Future is Asian  
Big Data Analytics  
Dashboard

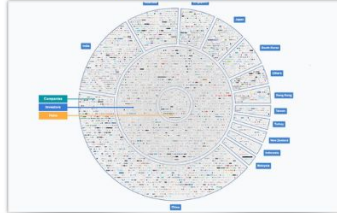
## DeepTech & Artificial Intelligence Industry in Asia Pacific Region 2020

### DeepTech & AI Interactive Mindmaps

by Industries

by Regions

### DeepTech & AI in Asia Pacific (Industries)



View More

### Dashboard Parameters

COMPANIES

2400

INVESTORS

1300

REGIONS

40+

HUBS

100+

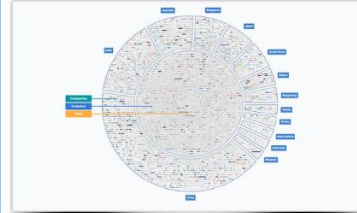
PARAMETERS

25+

DATA POINTS

56999+

### DeepTech & AI in Asia Pacific (Regions)



View More

### DeepTech & AI Analytics

AI Race

Education and R&D

Patents Worldwide

AI Status and Strategies

### Databases

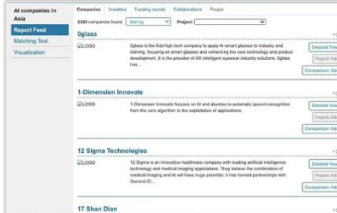
Companies Database

Investors Database

Global Innovation 1000

Global Power City Index

### DeepTech & AI in Asia Pacific Industry Database



View More

### DeepTech & AI Industry in Asia Pacific Region 2020



View More

### DeepTech & AI in Asia Pacific Assessment

DeepTech & Artificial Intelligence  
Industry in Asia Pacific Region 2020

January 2021



View More

### Landscape Overview Documents

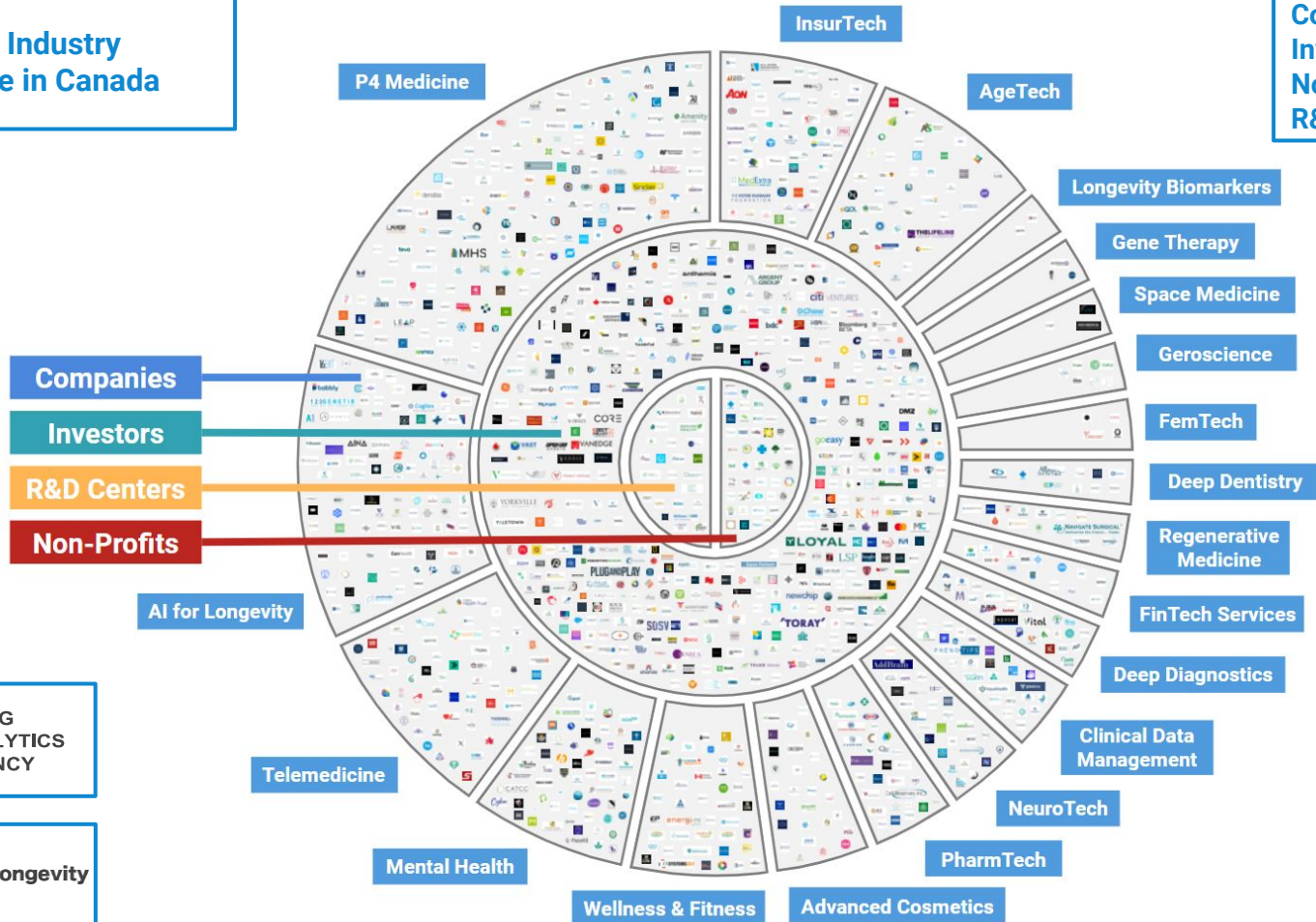
Mindmap

One Pager

Press Release

# Longevity Industry Landscape in Canada

Companies – 760+  
 Investors – 470+  
 Non-Profit – 40+  
 R&D Centres – 20+



# AI Industry in Switzerland Landscape 2022

Healthcare & Life Sciences

Science & Engineering

Companies - 500+  
Investors - 220  
Non-profits, R&D Centres and Hubs - 50+

Consulting Services

Virtual Assistant & Chatbots

Recruitment & HR

Entertainment

Logistic & Transportation

FinTech & InsurTech

Geoscience & Geospatial

Retail Solutions

Security & CyberSecurity

Others

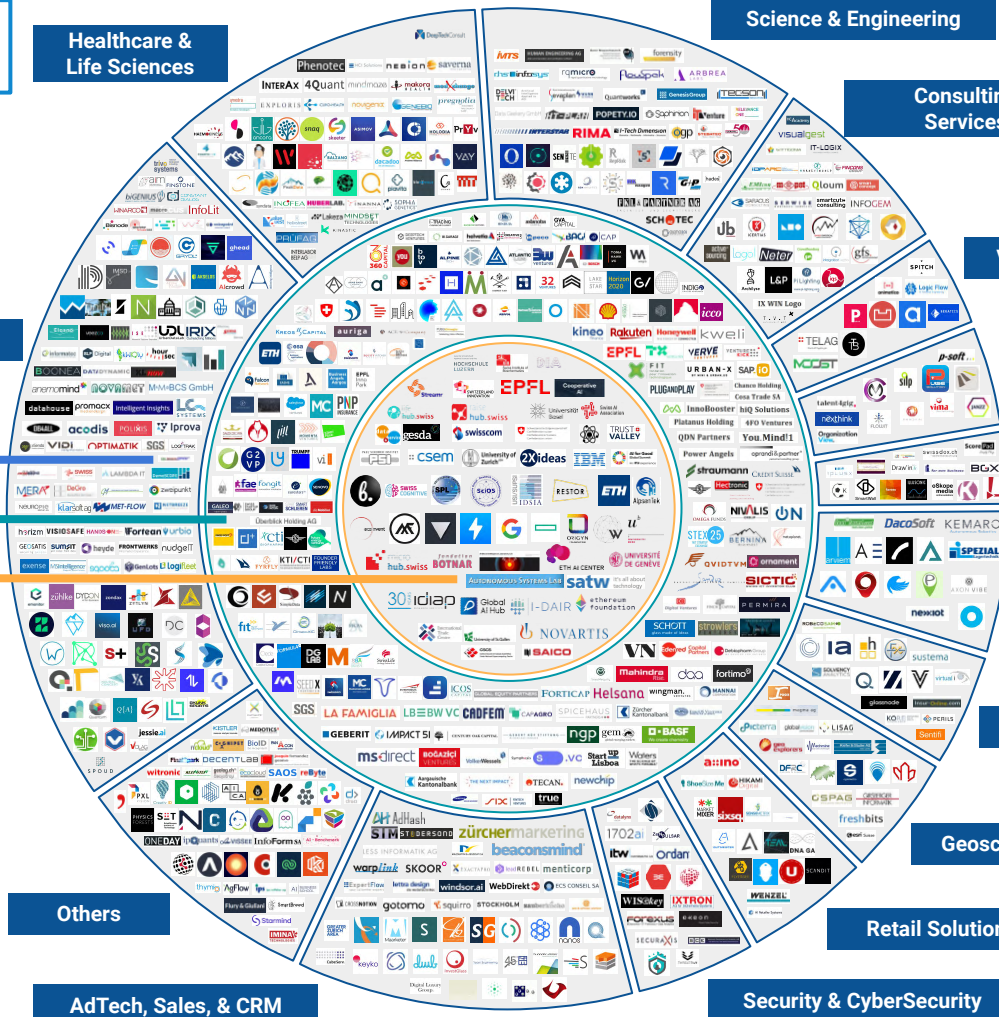
AdTech, Sales, & CRM

Marketing & Analytics

AI Companies

Investors

Non-Profits, R&D Centres, and Hubs



DEEP KNOWLEDGE ANALYTICS



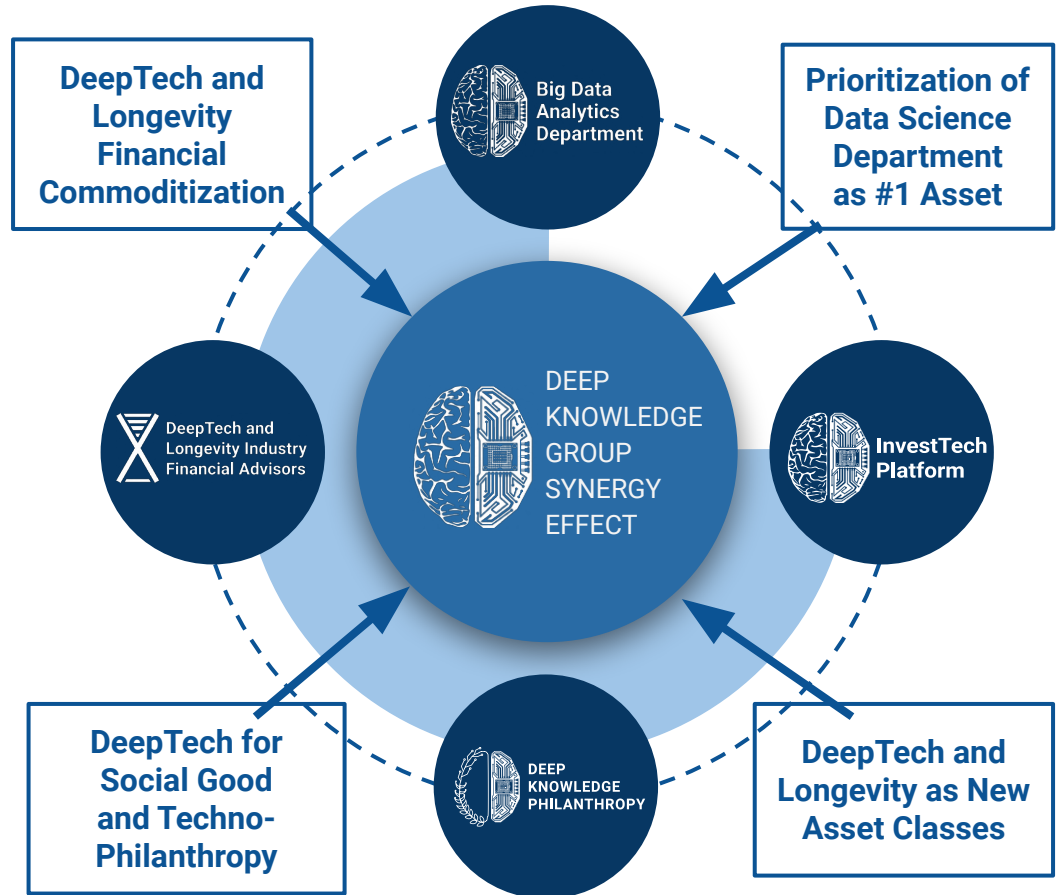
SWISS COGNITIVE

National Association of AI Specialists

# Deep Knowledge Group Outlook for 2023 and Beyond

Deep Knowledge Group remains committed as always to developing and deploying reliably sophisticated and multidimensional Big Data analytics, AI, Machine Learning and Reinforcement-Learning driven technological forecasting and benchmarking of DeepTech, Longevity and related technology for high social impact industries, pioneering the fundamental tools required for strategic decision making in these unprecedentedly complex and innovation-driven sectors, laying the foundation and basis for defining, thinking about and understanding the coming DeepTech Revolution.

The pursuit of this truly ecosystemic approach, and the integral fusion of sophisticated analytics with investment, internal entrepreneurship and financial industry activities to stabilise, optimise and accelerate DeepTech and Longevity industry development, is the foundation and basis for Deep Knowledge Group's commitment to ensuring that all necessary components of the 5th Industrial Revolution are in place before the year 2030, and its mission to do as much as possible to personally and practically pave the way for its emergence.





**InvestTech Platform**  
[www.invest-platform.tech](http://www.invest-platform.tech)

**LONGEVITY CARD**  
[www.longevity.cards](http://www.longevity.cards)

**ATLAS**  
[www.at-las.org](http://www.at-las.org)

**AGING ANALYTICS AGENCY**  
[www.aginganalytics.com](http://www.aginganalytics.com)

**FemTech Analytics**  
[www.femtech.health](http://www.femtech.health)

**DeepTech and Longevity Industry Financial Advisors**  
[www.longevity.finance](http://www.longevity.finance)

**Big Data Analytics Department**  
[www.deep-innovation.tech](http://www.deep-innovation.tech)

**DEEP KNOWLEDGE PHILANTHROPY**  
[www.deep-knowledge.org](http://www.deep-knowledge.org)

**DEEP KNOWLEDGE ANALYTICS**  
[www.dka.global](http://www.dka.global)

**DEEP PHARMA INTELLIGENCE**  
[www.deep-pharma.tech](http://www.deep-pharma.tech)

# Deep Knowledge Group

