



# AGING ANALYTICS AGENCY

**The World's Premier Provider of Public and Proprietary Longevity Analytics**

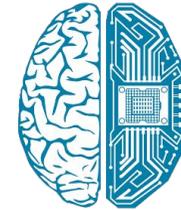
*The Main Provider of Data and Analytics for the UK All-Party Parliamentary Group on Longevity and Specialized Investment Fund Longevity.Capital  
Official Member Organization of the United Nations NGO Committee on Aging*

# Deep Knowledge Ventures Group



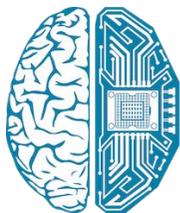
**AGING  
ANALYTICS  
AGENCY**

**Aging Analytics Agency** - the world's premier Longevity Analytics provider, dedicated to the production of analytical reports on the topics of Longevity, Precision Preventive Medicine and AgeTech. Operating for over five years, it began producing in-depth reports on Longevity long before it emerged as an industry. The company also provides strategic consulting in the fields of Longevity and Economics of Aging.



**DEEP  
KNOWLEDGE  
ANALYTICS**

**Deep Knowledge Analytics** - the analytical arm of Deep Knowledge Ventures, specialising in forecasting on the convergence of technological megatrends, conducting special case studies and producing advanced industry analytical reports on the topics of Artificial Intelligence, DeepTech, GovTech, Blockchain, FinTech and Invest Tech.



**DEEP  
KNOWLEDGE  
VENTURES**

**Deep Knowledge Ventures** - a data-science driven investment fund focused on the synergetic convergence of specific DeepTech verticals. Investment sectors include AI, Precision Medicine, Longevity, Blockchain and Invest Tech.



**LONGEVITY.CAPITAL**

**Longevity.Capital** - specialised hybrid investment fund for the Longevity industry that uses novel InvestTech solutions to provide liquidity similar to hedge funds with venture fund style objectives, thus significantly de-risking the interests of LPs and providing the best and most promising Longevity companies with adequate amounts of investment.

# Aging Analytics Agency - Scope, History, Agenda

**Aging Analytics Agency** has been developing enhanced iterations of its proprietary methodology and analytics system since 2015, and serve as the main source of market intelligence for the specialized hybrid index hedge fund **Longevity.Capital**, helping to establish pragmatic portfolio company valuation and efficient due-diligence procedures, and to structure advanced investment strategy in the overly-complex Longevity industry. The agency's ongoing proprietary analytics have consistently been accompanied by the production of dozens of vast open-access landscape overview reports on the Longevity industry of particular geographic regions, and on specific technological domains, that are tens of thousands of pages in combined length.

Today, these analytical methodologies have evolved to the level of 3D and 6D frameworks where metrics and submetrics can be visualized simultaneously, as well as the implementation of "timeline machines" that allow to analyze the changing state of industry players' strengths in specific areas ranging from scientific validation to business development, R&D, technological prowess, IP, etc. to be visualized over time, and projected into the future based on the statistical properties of its past behaviour based on machine learning, big data analysis and other advanced statistical tools. **Aging Analytics Agency** is a subsidiary of **Deep Knowledge Ventures**. It works closely with a consortium of non-profit and for-profit organizations including **Longevity.Capital**, **Longevity.International** and **Deep Knowledge Analytics**.

## Major Topics of Reports

**Science of Ageing** | **Precision Health** | **Artificial Intelligence**  
**Advanced Biomedicine** | **Preventive Medicine** | **Data Driven Medicine**

## Types of Analytics

**Open Source Analytics** | **Special Case Studies** | **Proprietary Analytical Reports**

Aging Analytics Agency is the main source of data and analytics for the UK-based **All-Party Parliamentary Group for Longevity**, an official member organization of the **United Nations NGO Committee on Ageing**, and regularly and systematically submits policy and strategy proposals to the **World Health Organization**, **World Economic Forum**, the **UK House of Lords** and other Longevity policy and governance organizations.

## Aging Analytics Agency Predicted the Rise of the Longevity Industry 3 Years in Advance

Aging Analytics Agency is the only specialized analytics agency in the world that focuses exclusively on the emerging Longevity Industry. They are recognized internationally as the premier analytics agency for advanced data analysis, industry reports and next-generation infographics on the topics of Aging and Longevity.

*Now in its 5th year, Aging Analytics Agency has been on the frontlines of Longevity Analytics since the inception of the industry.*



Dmitry Kaminskiy, co-founder of Aging Analytics Agency, boldly predicted in 2014 that the Longevity Industry would see an inflection point in its development in 2017, becoming a recognized industry in the eyes of conservative investors, business analysts and top business media. This was at a time when investors and gero-scientists alike were highly skeptical of the industry's emergence within the next decade.

This prediction turned out to be true. 2017 witnessed an unprecedented rise in the number of Longevity-focused companies and investment deals, the emergence of half a dozen of geroscience-focused VC firms, coupled with widespread coverage of Longevity as a topic by mainstream media including The Economist, Financial Times and Bloomberg.

## Uniquely Positioned to Provide World-Class Longevity Analytics Reports and Services

Aging Analytics Agency not only forecast the true dawn of the Longevity Industry years before its mainstream recognition, but was willing to put its reputation at stake with a bold yet precise prediction when no one else saw it coming. Their confidence stems from their reliance on tangible and quantitative predictive metrics, including the use of cross-disciplinary and synergetic analytical tools and frameworks to map the enormous diversity and complexity of the Longevity Industry.

Today, the fruits of their labor significantly contributed to the exponential growth of Longevity as a topic in the mainstream, including its acceptance by business experts, media and even governments. The UK, for example, has listed Aging Population as one of its four grand challenges and launched a government-backed Healthy Aging Industrial Strategy Challenge Fund. Other governments have also launched similar strategic national development plans devoted to Longevity. Leading media brands, including TIME, Forbes, Bloomberg and others regularly publish Longevity-oriented cover stories. High-profile conferences on the subject of Longevity are more numerous than ever before.

Aging Analytics Agency has been involved in charting the rise of the Longevity sphere since its inception and remained at the forefront throughout the past half decade. Thus, they are uniquely positioned to produce both broadly-accessible reports and specialized case studies for specialized clientele including companies, investment firms, family offices and government agencies.

# EXECUTIVE TEAM



**Franco Cortese**  
Director

Franco Cortese is the Deputy Director of Aging Analytics Agency. Having joined the team in 2015, he has overseen the production of the majority of the agency's Longevity Industry Reports.



**Dmitry Kaminskiy**  
Founder

Dmitry Kaminskiy is the Founder of Aging Analytics Agency, Managing Partner of Deep Knowledge Ventures, and a prominent Longevity Investor and Thought-Leader.



**Eric Kihlstrom**  
Strategic Director

Eric Kihlstrom is Head of Policy and Government Relations of Aging Analytics Agency and the former Interim Director of the £98 million Healthy Ageing Industrial Strategy Challenge Fund.



**Kate Batz**  
Business Development  
Director

Kate Batz is Vice President of Business Development of Aging Analytics Agency. She is a corporate attorney by background with extensive sales and marketing experience.

In order to accommodate its significantly expanded scope of activities planned throughout 2019-2020, Aging Analytics Agency has also enhanced its executive management team with the addition of several experienced Longevity Industry experts and influencers, including the appointment of Eric Kihlstrom (former Interim Director of the UK Government-led £98-million Healthy Ageing Industrial Strategy Challenge Fund) as the new Strategy Director of Aging Analytics Agency.

# Strategic Consulting and Analytics for Longevity

## Governance, Policy, Politics and Industrial Strategies

In early 2019, Aging Analytics Agency began shifting increasingly large proportions of its resources away from open-source landscape overviews and special case studies of the Longevity industries of various nations and towards **benchmarking** and **ranking** of the strength, relevance and proactivity of various entities including companies, investors, financial institutions and government initiatives within the Longevity sphere, leveraging the very broad and deep understanding of the global Longevity industry created through the production of tens of thousands of pages of global and regional landscape overviews from 2013 - 2018 in order to begin conducting **deeper, more targeted analytics**.

In Q2 2019, following the appointment of Eric Kihlstrom (former Director of the **government-led £98 million Healthy Ageing Industrial Strategy Challenge Fund**) as its new Director, and becoming the main source of data and analytics for the **UK All-Party Parliamentary Group for Longevity**, Aging Analytics Agency also began expanding the scope and focus of its efforts relating to deep industry analytics on the emerging front of the **Longevity Financial Industry**, and on **benchmarking** and **strategic consulting services** relating to government-led Longevity Industry development and **national policy** efforts of various countries.

Aging Analytics Agency is currently cooperating with a number of government departments and public sector bodies and authorities in the **UK, Singapore, Switzerland, Israel** and the **US** to create advanced IT solutions, deep analytics, special case studies and composite sets of tangible recommendations and development plans for national **industrial strategies**, science and technology **policy**, modernization and **reforms** in **healthcare**, frontier-technology sectors including Longevity, AI and Precision Health, and **financial reforms** relating to **pension systems** and **insurance companies** looking to transform the problem of ageing population into the opportunity of Healthy Longevity.

More specifically, many of these efforts are currently focused on the topics of **Longevity policy, politics** and **governance**, the formulation and development of **National Longevity Development Plans**, and targeted recommendations regarding decreasing the **gap** between life expectancy and **health-adjusted life expectancy** (HALE), developing various nation's Longevity industry to scale, and fostering sophisticated innovation ecosystems around the convergence of **Longevity, AI, Precision Health** and the **Longevity Financial Industry**.

Longevity Governance

Recommendation Packs | Industrial Strategies | Precision Health  
Advanced IT Solutions | Analytics & Benchmarking | Modernization & Reform

Longevity Financial Industry

Pension Systems | Insurance Companies | Novel Financial Derivatives

# Proprietary Report: Advancing Financial Industry - Longevity / AgeTech / WealthTech

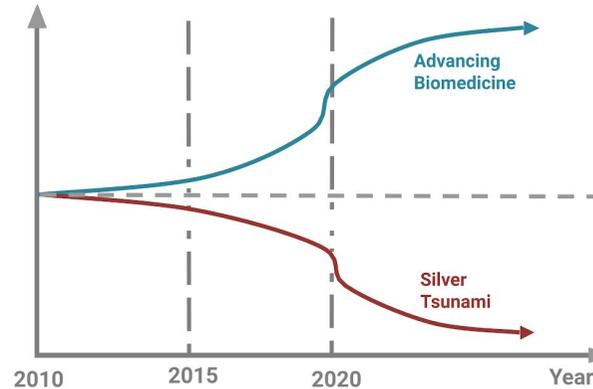
Aging Analytics Agency is currently producing a new proprietary report on the Longevity Financial Industry, titled **Advancing Financial Industry - Longevity / AgeTech / WealthTech**, which will offer key strategic insights on how large financial corporations can tap into the multi-trillion market of people in retirement, and retune their existing business models avoid stagnation under the economic pressures of a rapidly ageing population, transforming Ageing from a challenge to an opportunity.

The parties who gain early access to this report will acquire deep expertise on how their strategic agendas can be optimized and stabilized in order to manage and hedge Longevity risks, to surpass the challenges and to utilize the opportunities related to progressive biomedicine, ageing population and advancing financial technologies.

## 1 Billion People in Retirement Globally - a New Multi-Trillion Opportunity



*"The global spending power of those aged 60 and over will reach \$15 trillion annually by 2020"*  
 ~ Bank of America Merrill Lynch.



The acceleration of biomedicine has been mainly spurred by advances in the collection, gathering, and analysis of data. The industry is poised to witness a quantum leap in the near future, particularly in light of the upcoming paradigm shift from treatment to prevention.

Meanwhile, the inevitable Silver Tsunami will further burden the working population and relevant financial systems. It will increase the costs associated with old age.



### Top-150 Financial Institutions Advancing Financial Industry Longevity / AgeTech / WealthTech

Asset Management Firms - 30  
 Pension Funds - 40  
 Reinsurance Companies - 15  
 Insurance Companies - 30  
 Banks - 35



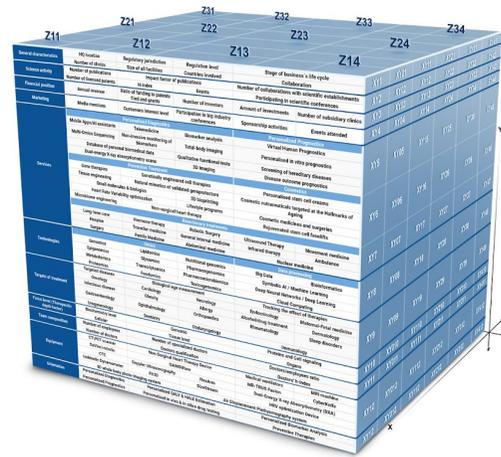
# Proprietary Report: Precision Medicine Clinics Landscape Overview 2019: Most Advanced Clinics, Technologies and Methods

Aging Analytics Agency is producing a 1000+ page report, [Precision Medicine Landscape Overview 2019: Most Advanced Clinics, Technologies and Methods](#), which will feature a list of the Top-100 precision (personalised and preventive) medicine clinics globally, as chosen according to a multidimensional analytical framework that uses tangible, quantitative metrics to rank the level of clinics' scientific validation and technological sophistication. The report will also contain pragmatic, strategy-focused materials on the optimal configuration of integrated preventive and precision medicine service pipelines, as well as a better understanding of industry benchmarking and competitive landscape, targeted towards investors and business development executives, answering several key questions including the parties who will have early access to this report will gain deep expertise on how they can optimize their clinics' strategic, technological and scientific prospects in order to deliver the most sophisticated and comprehensive precision health products and services for their clients.

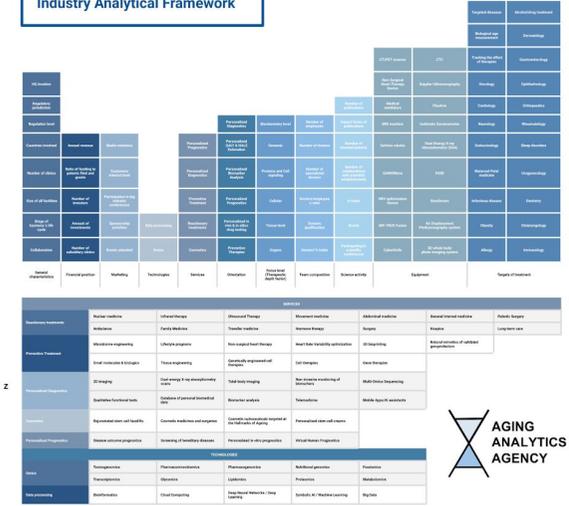
## Sophisticated Comparative Analytical Framework for Precision Medicine Clinics Ranking and Assessing the Breadth, Depth and Optimal Integration of Precision Health Pipelines

Aging Analytics Agency believes that the effective analysis of as complex and multidimensional industry as Precision Medicine Clinics requires the application of an equally multidimensional analytical framework. This analytical framework presented in the present white paper includes metrics for identifying the breadth of the industry, identifying the degree of technological development, staff professionalism, range of provided services, financial position and scientific activity. Here is also presented Precision Medicine Clinics Global Landscape Overview.

Precision Medicine Clinics 3D Analytical Framework



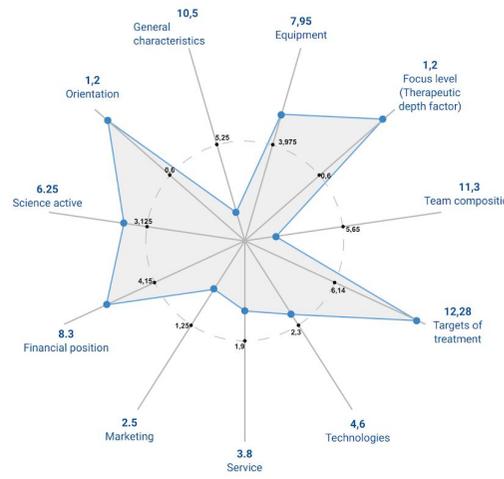
Precision Medicine Clinics Industry Analytical Framework



**Top-100 Precision Medicine Clinics Global Overview 2019**  
**Most Advanced Clinics Technologies and Methods**

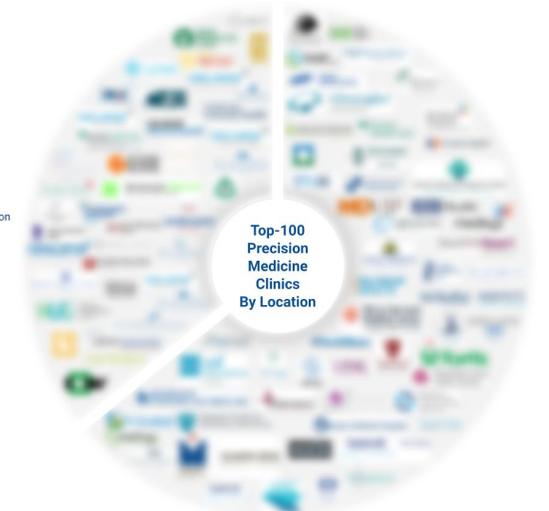


Precision Medicine Clinics Analytical Framework: Clinic Harmonization Analysis



Precision Medicine Clinics Global Landscape Overview 2019

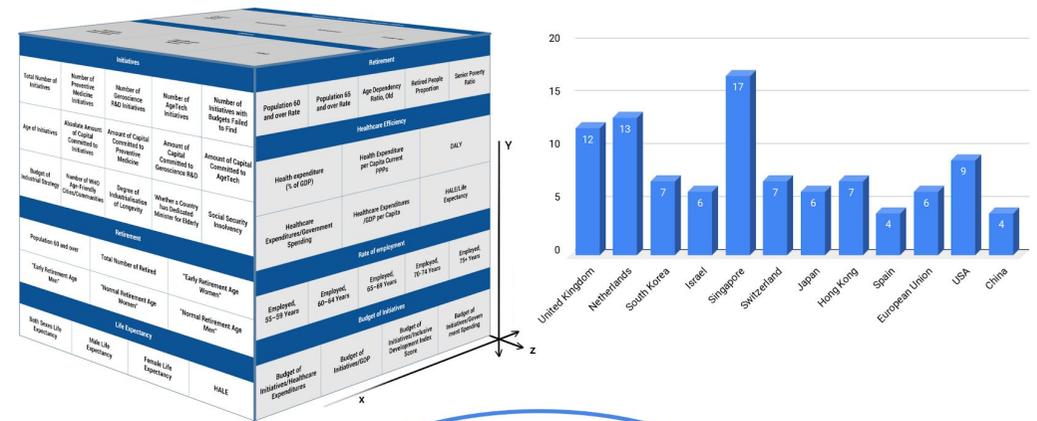
Switzerland and Surrounding Regions - 40 Global - 60



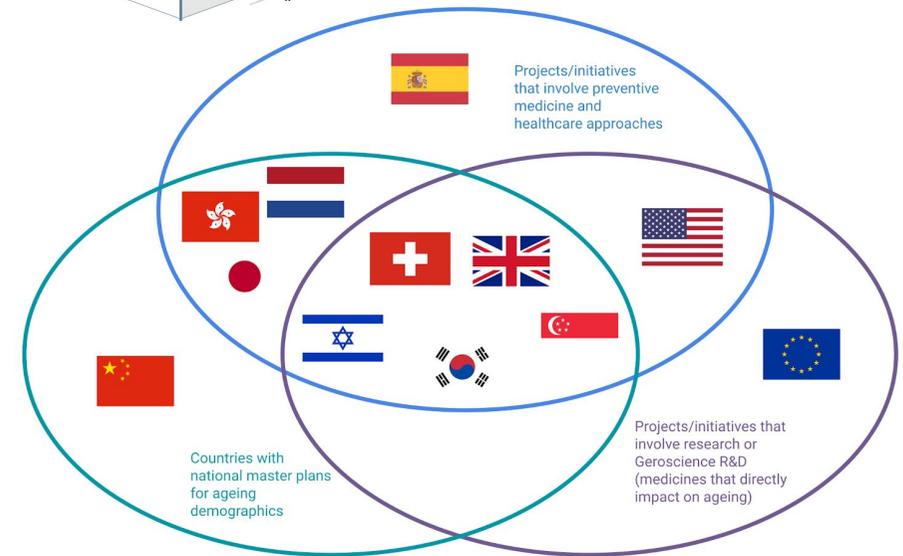
# National Government Development Plans Report Presented in UK Parliament

Because Aging Analytics Agency is the main source of Longevity industry data and analytics for the recently-established [All-Party Parliamentary Group for Longevity](#), representatives of the agency [presented](#) some of the major conclusions of its recent [“National Longevity Development Plans Global Landscape Overview 2019”](#) report at the All-Party Parliamentary Group for Longevity **Strategic Advisory Board** meeting in **UK Parliament** on April 30th, arguing that the UK Government needs to extend existing efforts and create a framework to change the **deficit model** of the ‘Ageing Society’ to an **asset model** around ‘Longevity’ and be bold with a national strategy to harness the ‘Longevity Dividend’ to benefit all people in society.

National Government Longevity Development Plans: Country Scoring					
POSITION	COUNTRY	COUNTRY SCORE	POSITION	COUNTRY	COUNTRY SCORE
1	United Kingdom	5.29	7	Hong Kong	3.41
2	Netherlands	4.36	8	Japan	3.10
3	Singapore	4.15	9	USA	3.07
4	South Korea	4.00	10	Spain	1.94
5	Israel	3.94	11	European Union	1.88
6	Switzerland	3.93	12	China	1.85



## NATIONAL LONGEVITY DEVELOPMENT PLANS: GLOBAL OVERVIEW 2019 (First Edition)



# Aging Analytics Agency is Now the Main Source of Longevity Industry and Economics of Ageing Data and Analytics for the UK All-Party Parliamentary Group on Longevity

## All Party Parliamentary Group for Longevity



Preventive Medicine  
Innovations in Healthcare  
Problem of Ageing Population  
Financial Reform for Pension System



[www.parliament.uk](http://www.parliament.uk)

**LongevityUK**

[www.longevityinternational.org](http://www.longevityinternational.org)

## Supporting Partners



## APPG for Longevity Officers



Rt Hon Damian Green MP  
**Chair**



Rt Hon Norman Lamb MP  
**Vice-Chair**



Sir Peter Bottomley MP  
**Vice-Chair**



Jonathan Lord MP  
**Vice-Chair**



Kevin Foster MP  
**Vice-Chair**



Lord Andrew Stone  
**Secretary**



Baroness Sally Greengross  
**Treasurer**



Lord Geoffrey Filkin

## Executive Team Longevity International UK APPG for Longevity



Eric Kihlstrom  
Head of Industry  
Collaboration



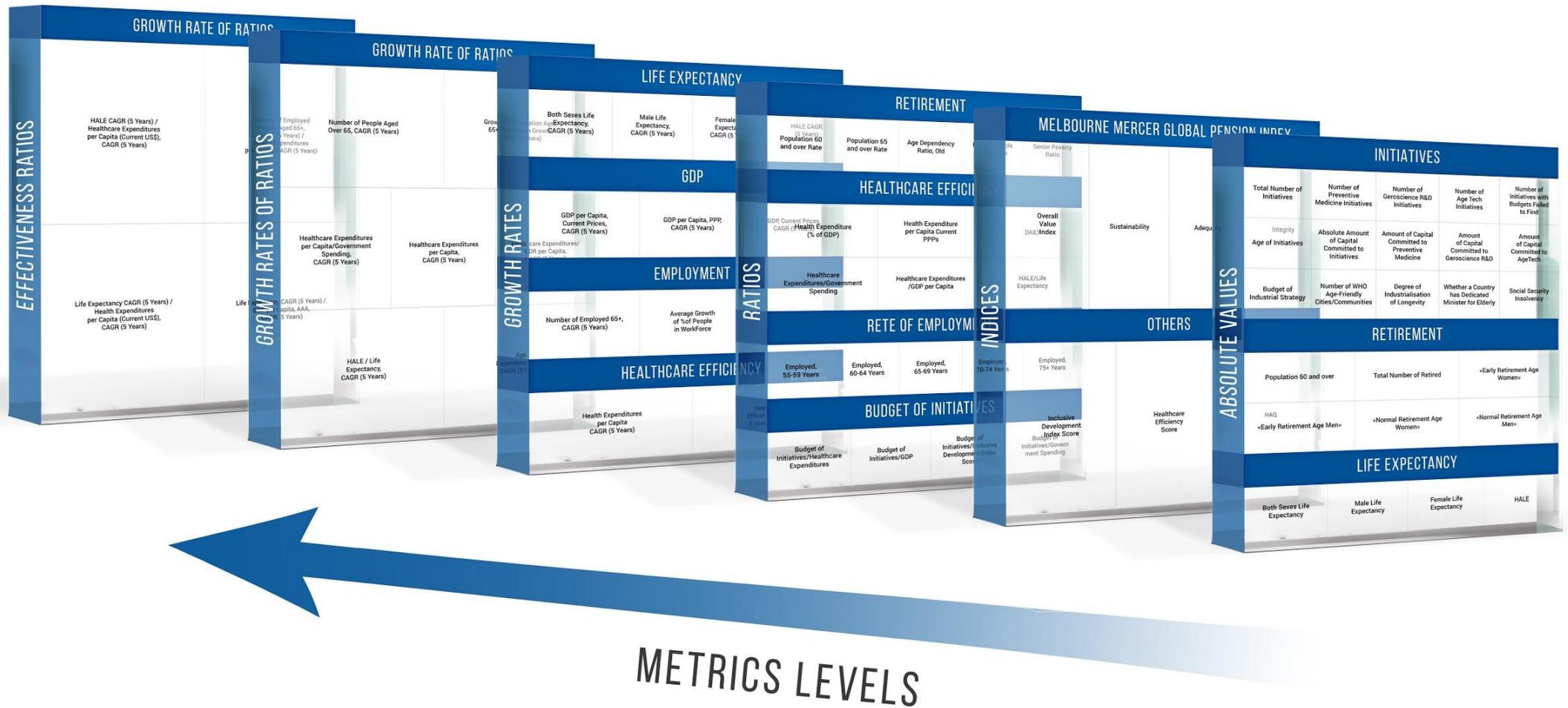
Tina Woods  
CEO & Co-Founder  
Secretariat Director



Dmitry Kaminskiy  
Head of International  
Cooperation Division



# Sophisticated Multi-Dimensional Analytical Frameworks



The metrics developed for and used in Aging Analytics Agency's [National Longevity Development Plans: Global Overview 2019](#) report, [presented](#) in UK Parliament at the official launch event of the [All-Party Parliamentary Group for Longevity](#), are broken down into 6 distinct layers, with specific ratios being derived from 1st layer metrics, specific metric ratios and growth rates of ratios being derived from 3rd-layer metrics, effectiveness measures being derived from 4th layer metrics, and effectiveness measure growth rates being derived from 5th layer metrics.

# Longevity, Preventive Medicine and Precision Health Analytics, Benchmarking & Forecasting

Aging Analytics Agency is the analytical engine driving and structuring the Longevity-related investment target identification and due diligence activities of Deep Knowledge Ventures, using multi-dimensional, quantitative, data-driven analytical frameworks and algorithmic methods that combine hundreds of specially-designed and specifically-weighted metrics and parameters to deliver practical industry analysis, pragmatic forecasting and tangible industry benchmarking, with a focus on analyzing frontier technologies and the convergence of deep science and technological megatrends.

The specific focus of the company's public and proprietary analytics focused on the convergence of advanced science and technology-driven industries and domains was a deliberate choice. The complexity of such sectors as AI in Healthcare and Longevity as well as their pace of change and innovation, are increasing precisely due to the intersection of multiple scientific and technological domains.

Whereas five years ago it was feasible for industry innovations to be driven by advancements in a single domain or sector, today it is simply impossible, with the vast majority of such changes occurring at the intersection of two or more scientific and technological domains. And this is just the beginning of a rapidly growing trend, because the degree of complexity of these fields as well as the number of points at which they are converging and intersecting, are increasing at an exponential pace.

Aging Analytics Agency has been working over the course of the past five years on designing and validating increasingly quantitative and multidimensional approaches to industry analytics so as to serve as the leading tools and solutions for strategic decision making, with the aim of developing corresponding frameworks to the levels necessitated by the rapidly complexifying nature of the global healthcare system.

Over the past several years, Aging Analytics Agency has published tens of thousands of pages of open-access, free-of-charge reports on the Longevity industry, which were created with the primary purpose of gaining a broad understanding of the entire scope of such industries, in order to lay the groundwork for identifying the active players in the field, their activities and progress. Based on the previous traction achieved by these analytical reports, both agencies are now working on expanding the application of the aforementioned analytical frameworks to new topics and sectors, further solidifying its deep industry intelligence by creation of the robust, compact, adaptable analytical systems, equations, algorithms, approaches and methods.

## Technology Readiness Level (TRL)

9	Commercialized
8	Pre-Production
7	Filed-Production
6	Prototype
5	Bench/Lab Testing
4	Detailed Design

# Sophisticated Multi-Dimensional Analytical Frameworks



Aging Analytics Agency's 3-D Longevity Industry Analytical Framework, the production of which was necessitated by the complexities of the sector, and required in order to obtain a tangible and pragmatic understanding of the industry in order to structure investment strategy in a relevant way. Aging Analytics Agency has been working over the course of the past five years on designing and validating increasingly quantitative and multidimensional approaches to industry analytics so as to serve as the leading tools and solutions for strategic decision making, with the aim of developing corresponding frameworks to the levels necessitated by the rapidly complexifying nature of the global healthcare system.

# Developing Advanced Industry Analytics Since 2013 for Longevity

## Industry Benchmarking, SWOT and Competitive Landscaping

Aging Analytics Agency has, since its inception in 2013, been applying systematic methodologies to create various types of analytical frameworks that clearly define and classify distinct scientific domains, technologies and applications in a way that allows them to be quantitatively compared, continually refining them to maintain their relevance against the changing dynamics of the industry sectors they are applied to. Since then, the company has continued to improve these comparative analysis systems, both in terms of the specific metrics used to conduct its market studies and the mathematical formulas used to combine them as well as created advanced visualization techniques for making forecasts, rankings and determinations maximally understandable.

These ongoing proprietary analytics have consistently been accompanied by the production of open-access landscape overviews covering Longevity industry in certain geographic regions as well as specific technological domains, with corresponding reports often exceeding more than 1,000 pages in length. The purpose of producing such broad landscape overviews is to widely disseminate ongoing developments in innovation-driven industries in order to promote its continued growth, expansion and refinement.

However, the reports also serve an important secondary purpose - laying the groundwork for a comprehensive understanding of the entire scope of the Longevity industry across the globe and facilitating a greater comprehension of the specific industry players, their activities, and their interconnections. In other words, these reports establish the necessary foundation upon which more targeted, relevant and complex analyses can be implemented.





# Reports by Aging Analytics Agency 2017 - 2018



**Longevity Industry Landscape Overview 2018**



**Longevity Industry Landscape Overview 2018 Volume I**



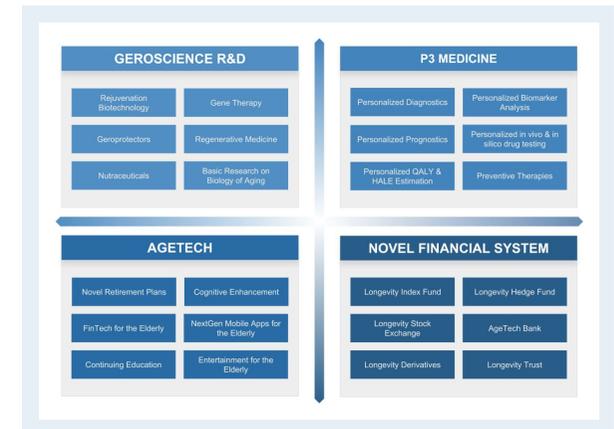
**Longevity Industry Landscape Overview 2018 Volume II**



**Longevity Industry in UK Landscape Overview 2018**



**AI for Drug Discovery Landscape Overview Q2/2018**

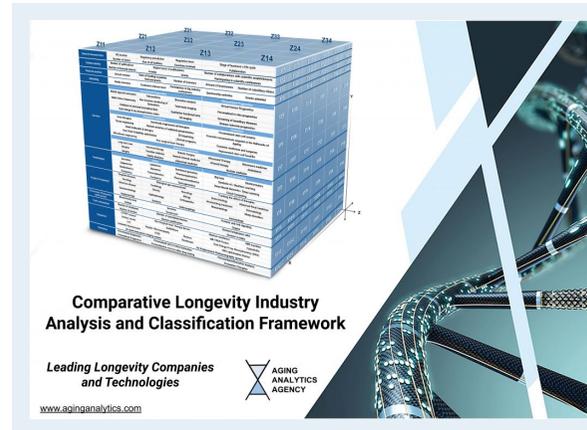


**Longevity Industry Classification Framework**

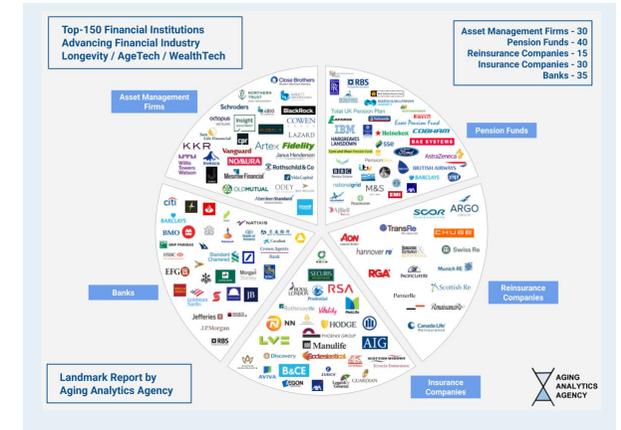
# Source of Market Intelligence and Data to Structure Investment Strategy for Longevity.Capital



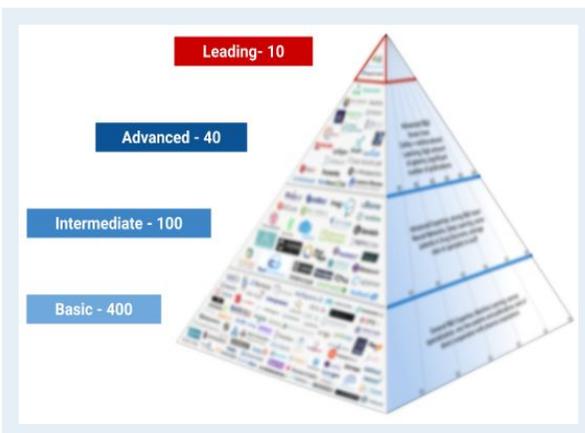
Enhanced Analysis of Leading Longevity Companies as Prospective Investment Targets for Longevity.Capital



Comparative Longevity Industry Analysis Classification Framework



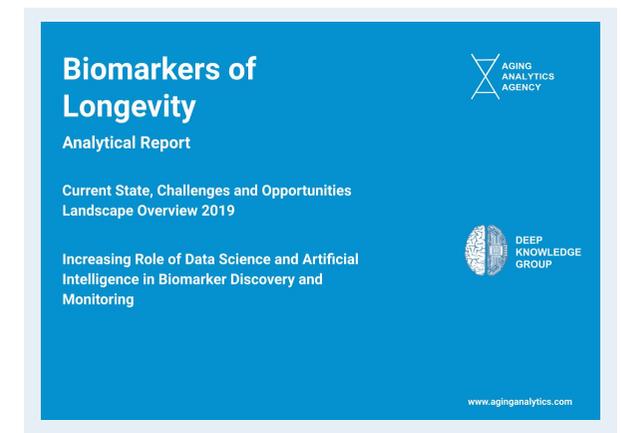
Advancing Financial Industry - Longevity / AgeTech / WealthTech



Defining Hype vs. Reality in the Longevity Industry



Top-20 Leading Longevity Investors Comparative Analysis



Biomarkers of Longevity Current State Challenges and Opportunities

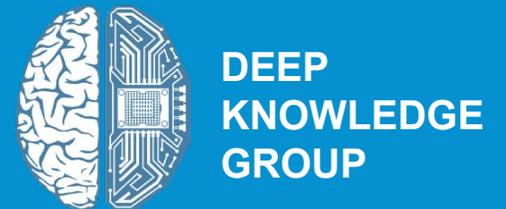


# Biomarkers of Longevity

## Analytical Report

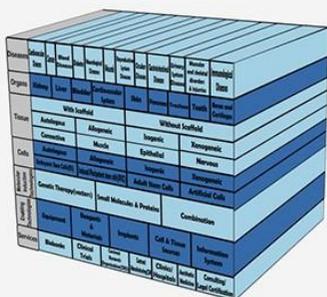
Current State, Challenges and Opportunities  
Landscape Overview 2019

Increasing Role of Data Science and Artificial  
Intelligence in Biomarker Discovery and  
Monitoring



# Reports by Aging Analytics Agency 2013 - 2015

## SPECIALIZED LONGEVITY INDUSTRY REPORTS

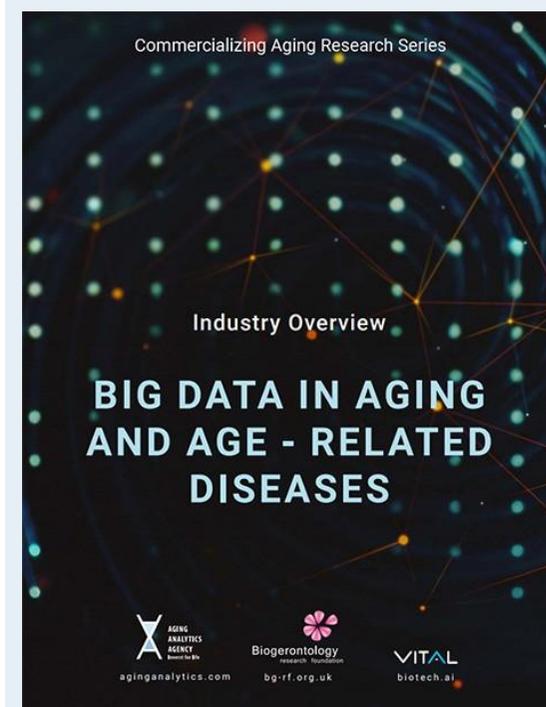


Analytical Regenerative  
Medicine Industry Framework

2013



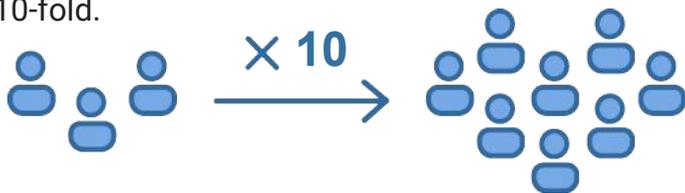
2014



2015

# Aging Analytics Agency Produced Longevity Reports 10x Faster in 2018

In 2018, Deep Knowledge Ventures injected additional financing to support Aging Analytics Agency's ongoing and future projects. This enabled Aging Analytics Agency to extend the size of its analytics team by 10-fold.



This growth in brain power allowed us to proportionally increase the rate of production of their reports. Just in the past year, Aging Analytics Agency have doubled the number of high-quality reports compared to previous years, which include:

- Global Longevity Industry Overview, totaling over 1200 pages, which offers in-depth profiles of the top 100 companies, investors, non-profits and research labs active in the sphere;
- 850-page specialized case study on the Longevity Industry Landscape in the United Kingdom.

In line with this expansion, they are on track for publishing a greater number of diverse and in-depth reports in the coming year, with some reports expanding further in their prior scope whereas others will be targeting particular topics and niches within the Longevity Industry.



Longevity Industry in Singapore 2018



Longevity Industry in the UK Q4 2018



Longevity Industry in Israel 2018



Longevity Industry in California 2019

# Multiple Special Regional Case Studies Planned for 2019

Following the success of their *Longevity Industry in UK 2018 Landscape Overview* report, they are planning to publish a number of additional regional case studies aimed at countries where the topic of Longevity is experiencing a particularly rapid development.

Such region-specific focus is present due to a number of factors, including the emergence of new Longevity sectors in specific countries, the rise of particularly powerful geroscience tech hubs and R&D nexuses as well as the launch of strategic national development plans proposed by progressive governments.



Longevity Industry in UK Q4 2018



Longevity Industry in Israel 2019



Longevity Industry in Singapore 2019



Longevity Industry in Switzerland



Longevity Industry in Japan



Longevity Industry in Hong Kong



Longevity Industry in Taiwan

# Open Access Analytical Reports by Aging Analytics Agency

## Published / Q1 2019



Longevity Industry in California  
Landscape Overview 2019



Longevity Industry in Singapore  
Landscape Overview 2019



Longevity Industry in Israel  
Landscape Overview 2019



Longevity Industry in UK  
Landscape Overview 2019

## Published / Q2 2019



Top-50 Women  
Longevity Leaders



Top-100  
Longevity Leaders



FemTech Healthcare Landscape  
Overview Q1 2019



National Longevity Development  
Plans: Global Overview 2019  
(First Edition)

# Upcoming Analytical Reports by Aging Analytics Agency



Longevity Industry and the Microbiome Landscape Overview 2019



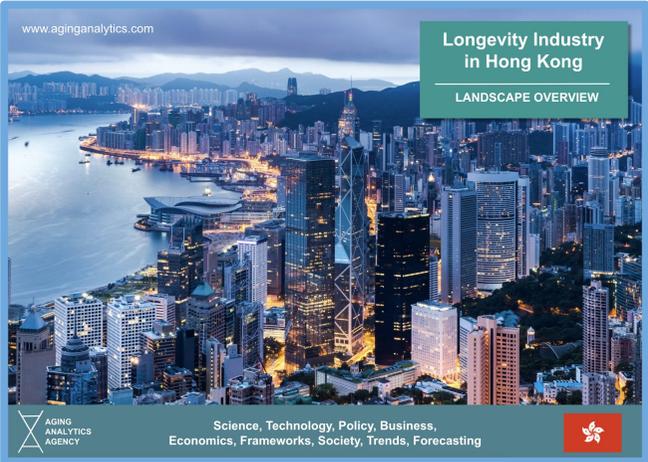
Top-100 Supercentenarians



Metabesity & Longevity USA Special Case Study



Longevity and Advanced Cosmetics Industry



Longevity Industry in Hong Kong Landscape Overview 2019



Longevity Industry in Japan Landscape Overview 2019

# Aging Analytics Agency

## Upcoming Proprietary Analytics Q2 & Q3 2019

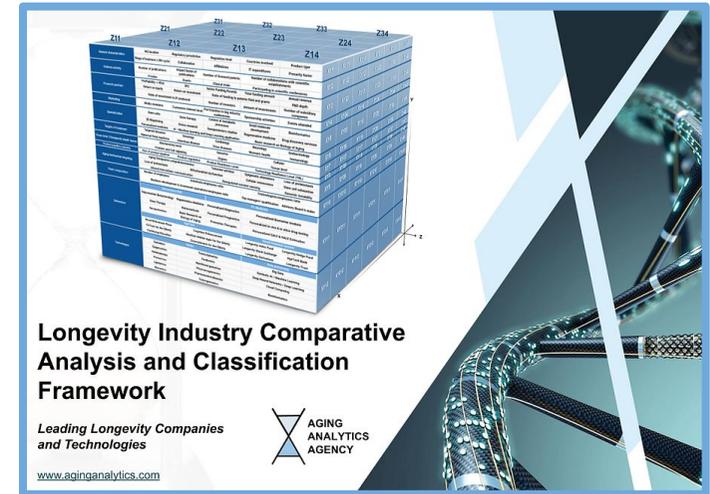
Web: Aging Analytics Agency Proprietary Analytics



Precision Medicine Clinics Landscape Overview 2019



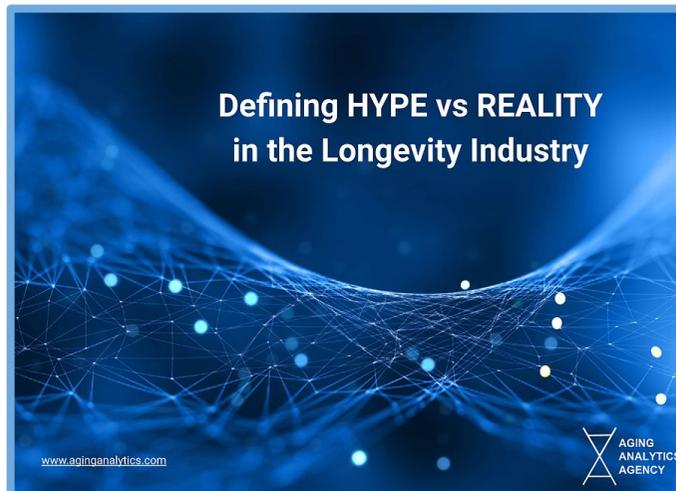
Advancing Financial Industry Longevity / AgeTech / WealthTech



Longevity Industry Comparative Analysis and Classification Framework



Top-20 Leading Longevity Investors Comparative Analysis



Defining Hype vs Reality in the Longevity Industry

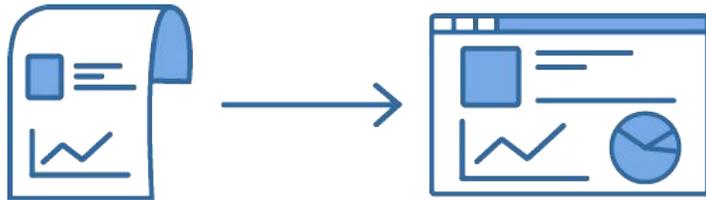


Enhanced analysis of Top-40 Leading Longevity Companies



# Online Longevity Analytics Platform to Enable a Framework for Cross-Industry Stakeholder Dialogue and Industry Optimization

In 2019, to compliment these reports, Aging Analytics Agency is releasing an advanced online Longevity Analytics Platform and database featuring interactive visuals which can transform static analytical reports into dynamic infographics updated in real-time. This platform will enable complex interactions between industry entities and stakeholders to be visualized, filtered, searched and thus more easily understood.



Once created, this platform will be continuously updated with real-time industry developments and will be significantly upgraded with the integration of elements including:

- A stakeholder smart-matching engine
- Supply chain analysis
- Tools for the syndication of investment rounds
- Customized report production
- Peer-to-peer, distributed stakeholder ranking systems
- Big data analytics and other advanced tools and techniques

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## IT-Platform as the Investment Knowledge Nexus for Longevity.Capital

The platform will be open to qualified stakeholders, and will serve as the framework for industry optimization and cross-disciplinary dialogue and collaboration between companies, investors, entrepreneurs, scientists and government officials. The overarching aim of the platform is to promote the synergistic and integrated development of the Longevity Industry to maximize the benefits of all industry stakeholders.

The Longevity Industry continues to grow in size but remains highly fragmented, with different stakeholders displaying disparate opinions on where it is headed and how long it will take to get there. their platform aims to deliver a framework for proper industry unification. In prototype development for over a year, this interactive platform will ultimately serve as the investment knowledge epicenter of Longevity.Capital.

Moving forward, Aging Analytics Agency will serve as the main source of expertise behind Longevity.Capital, providing sophisticated Longevity Industry analytics in order to develop and de-risk the fund's investment strategies. Meanwhile, Longevity.Capital will follow through on and execute the strategy.

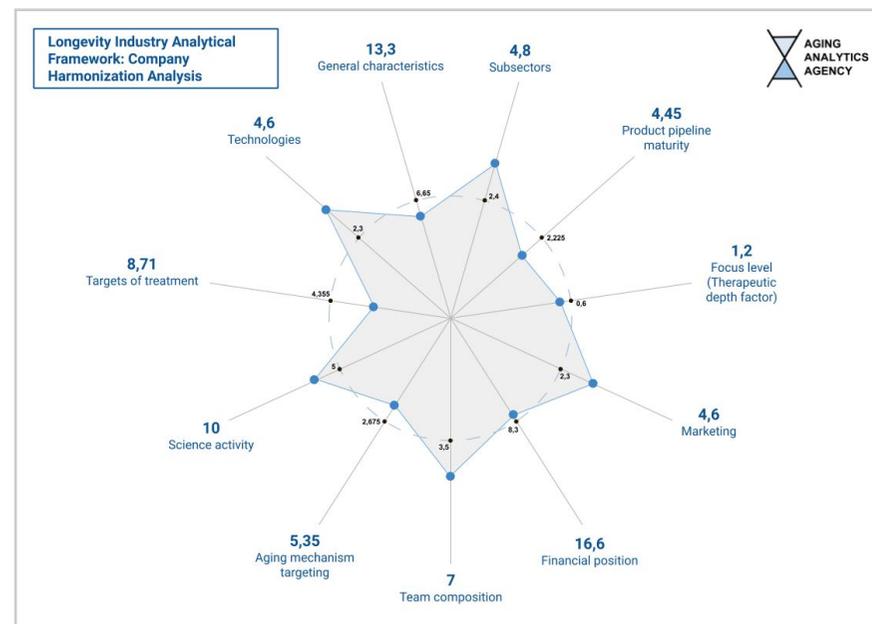
# Industry Benchmarking and Next-Generation IT-Solutions

Today, these analytical methodologies have evolved to incorporate 3D frameworks where metrics and sub-metrics can be visualized simultaneously, as well as the development of “timeline machines” which enable the review and visualization of the changing state of a company’s strength in specific areas ranging from scientific validation to business development, R&D and related metrics as well as projections into that company’s future based on the statistical metrics of its past behaviour.

Furthermore, in 2019 Aging Analytics Agency launched beta versions of online, [dynamic and interactive IT-platforms](#), aggregating the large volume of data contained in their analytical reports into online Analytics Platforms and databases featuring interactive visuals which can transform static analytical reports into dynamic infographics updated in real-time.

This IT-platform enables complex interactions between industry entities and stakeholders to be visualized, filtered, searched and more easily understood thus providing a dynamic tool which enables identifying emerging trends and activities in global DeepTech industries. The platform is being continuously updated with real-time industry developments and will be significantly upgraded in the coming months with the integration of additional advanced visualization, data analysis and stakeholder smart-matching capabilities.

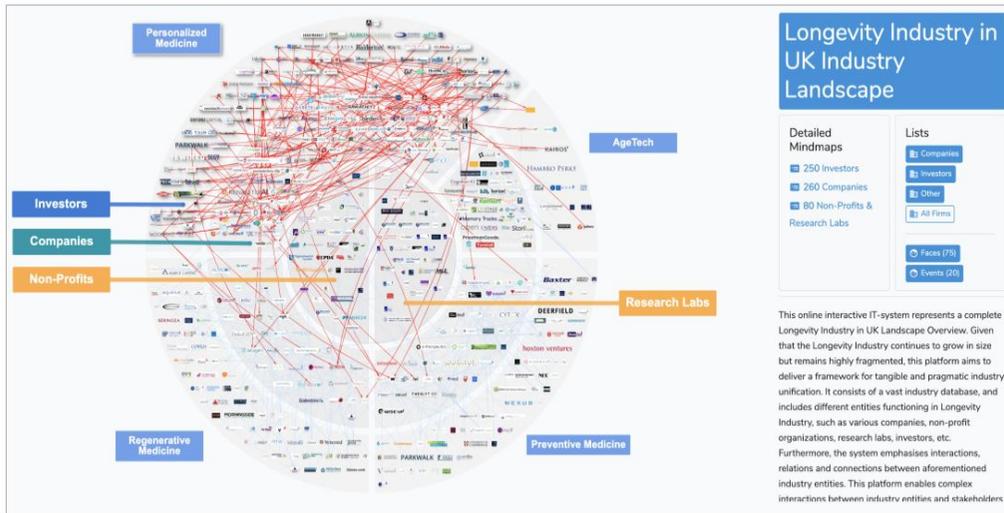
Ultimately, the activities of Aging Analytics Agency has resulted in the development of sophisticated, multidimensional comparative analysis frameworks and methodologies, further enhancing their good reputation among industry stakeholders with respect to ranking, benchmarking and identification of industry market trends as well as tangible, quantitative forecasting. Such activities helped establish the company’s position as the primary source of industry data and analytics for a number of leading organizations, including the Longevity-focused hedge fund [Longevity.Capital](#) as well as the recently-formed [UK All-Party Parliamentary Group for Longevity](#).



Longevity Industry Analytical Framework										Profitability -> ROA		Stem cells																	
AGING ANALYTICS AGENCY										IPO		Gene therapy																	
										Series Funding Rounds		Control of metabolic processes																	
										Total funding amount		Small molecule development																	
										Regulatory jurisdiction		Annual revenue																	
										Regulation level		Return on equity																	
										Countries involved		Return on investment																	
										Product type		Ratio of funding to patents filed and grants																	
										Stage of business's life cycle		R&D depth																	
										Collaboration		Ratio of investment to IP produced																	
										Affiliations		Number of investors																	
										IT expenditures		Amount of investments																	
										Precarity factor		Number of subsidiary companies																	
										General characteristics		Geoprotectors studies																	
Team composition										Subsectors		Technologies		Product pipeline maturity		Marketing		Focus level (Therapeutic depth factor)		Science activity		Targets of treatment		Aging mechanism targeting		Financial position		Specialization	
Number of employees										Number of publications		Cardiology		Trauma section		Targeted diseases		Aging therapeutic interventions		HQ location		Total funding amount		Small molecule development					
Scientists/employee ratio										Impact factor of publications		Neurology		Ergonomics interventions		Oncology		Genomic sustainability		Regulatory jurisdiction		Annual revenue		Bioinformatics					
Technologists/employee ratio										Biochemistry level		Number of licensed patents		Endocrinology		Links of processes		Deregulated nutrient sensing		Countries involved		Return on investment		Omics research					
Business development & investment specialists/employee ratio										Media mentions		Genomic		Number of collaborations with scientific establishments		Maternal-Fetal medicine		Mitochondrial dysfunction		Stage of business's life cycle		R&D depth		Regenerative medicine					
Top manager's qualification										Proteins and Cell signaling		H-index		Infectious disease		Cellular senescence		Affiliations		Number of investors		Personalized medicine							
Advisory Board /sides										Tissue level		Participating in scientific conferences		Urogynecology		Stem cell subfields		IT expenditures		Amount of investments		AI - Machine learning and Deep Learning application							
Novel Financial System										Organs		Clinical trials		Immunology		Altered intercellular communication		Precarity factor		Number of subsidiary companies		Geoprotectors studies							
Data processing										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Product pipeline maturity										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Marketing										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Focus level (Therapeutic depth factor)										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Science activity										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Targets of treatment										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Aging mechanism targeting										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Financial position										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Specialization										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
SUBSECTORS										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Geroscience R&D										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Regenerative Biotechnology										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Gene Therapy										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Geroprotectors										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Personalized DAILY & HALE Estimation										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Personalized Biomarker Analysis										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Personalized in vivo & in silico drug testing										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Preventive Therapies										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Novel Financial System										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Novel Retirement Plans										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
FinTech for the Elderly										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Continuing Education										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Cognitive Enhancement										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Near/On Mobile Apps for the Elderly										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Entertainment for the Elderly										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Longevity Trust										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
TECHNOLOGIES										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Omics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Genomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Transcriptomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Epigenomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Foodomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Nutritional genomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Pharmacogenomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Lipidomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Pharmacocombiotics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Glycomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Toxicogenomics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Data processing										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Big Data										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Symbolic AI / Machine Learning										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Deep Neural Networks / Deep Learning										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Cloud Computing										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							
Bioinformatics										Events attended		Focus level (Therapeutic depth factor)		Targets of treatment		Aging mechanism targeting		General characteristics		Financial position		Specialization							

# Longevity in UK Industry Landscape

## 600 Elements



<https://mindmaps.aginganalytics.com/reports/longevity-industry-in-uk>

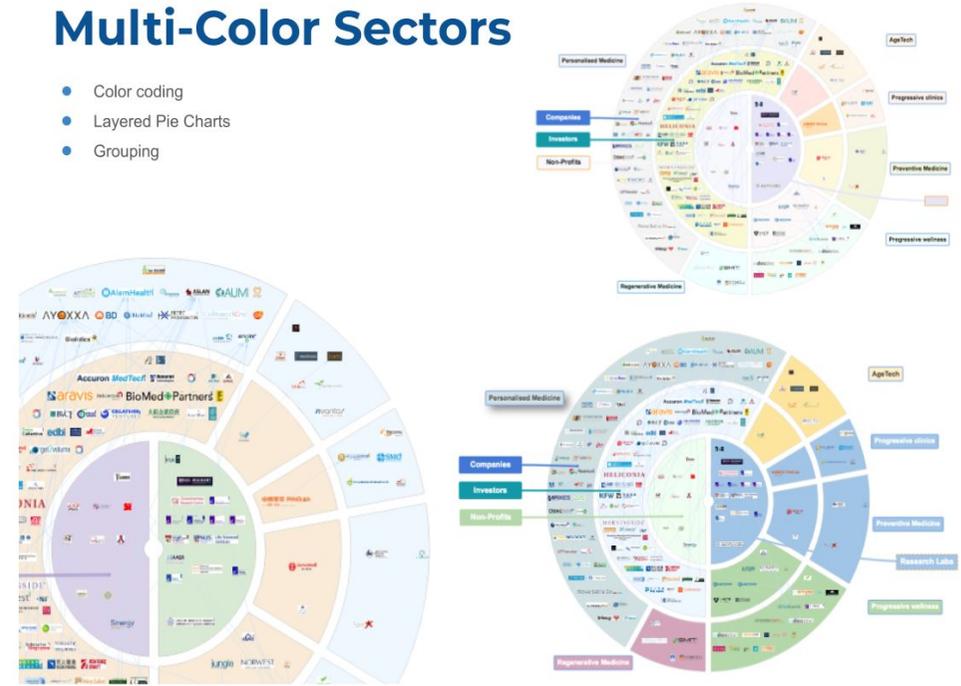
## Investments as Arrows

- Our team puts efforts to keep facts of investments to be up to date
- Any new investments will be instantly visible on our reports



## Multi-Color Sectors

- Color coding
- Layered Pie Charts
- Grouping



## Interaction instead of static content

Zoom in, pan, visualize investments, get details on the Report Mindmap



# Longevity Analytics Platform Development Q2 2019: Filterable Company & Investor Listings, Interactive MindMaps

## Quick Searches

A screenshot of a company listing table. A search filter is applied to the 'Technology' column, showing 'AgeTech'. The table lists various companies with columns for Name, Type, Industry, Location, and ID#.

Name	Type	Industry	Location	ID#
Advent Access	Company	Perioperative Medicine	Central Region, Singapore	2
Bio3D Technologies	Company	AgeTech	Central Region, Singapore	13
Cornea Biosciences	Company	AgeTech	Singapore, Central Region, Singapore	25
HealthSTATS	Company	AgeTech	AgeTech	38
HOYA Surgical Optics	Company	Personalized Medicine	Singapore, Central Region, Singapore	42
Juvo Labs	Company	AgeTech	Singapore, Central Region, Singapore	53
Menicon *	Company	Personalized Medicine	Clichy, Ile-de-France, France	62
Wavemaker Partners	Investor	AgeTech	Los Angeles, California, United States	172

## Autocompletes

A screenshot of an autocomplete dropdown menu for the 'Technology' field. The dropdown shows a list of categories including Cardiac Therapeutics, Devices, Diagnostics, Drug development, Drug Development, Drug Discovery, Other (biomedical equipment), Other (distribution), and Personalized Medicine.

## Drag and Drop interfaces

A screenshot of the 'Logos Upload' interface. It features a large drag-and-drop area with the text 'Drop files here to upload'. Below the area, there are instructions: 'Just drag and drop image files and they will be automatically uploaded.' and 'If file with same name exists, it will be overwritten.' A file named 'dka.png' is shown being uploaded.

## Filtering & Sorting

A screenshot of the 'Firms Pool' interface. It includes a 'Filter' button, input fields for 'Investor' (Personalized Medicine) and 'Location Filter', and a 'Technology Filter' dropdown. A button labeled 'Move All visible to Group' is also present. Below the filters, a grid of firm logos is displayed, including Accuron MedTech, Accuron Technologies, Apax Partners, aravis, Aurelia Pr, AVIVA, Baidu.ventures, BioMed Partners, BioVeda Capital, BVCF, and BLUME VENTURES.

# Longevity Analytics Platform Development Q3 2019

## Bottom-Up Smart Matching & Syndication of Investment Rounds

- Automatically connects and provides network suggestions
- Smart-matching between relevant entities and stakeholders
- Accelerates the adoption and deployment of new technological solutions



Aging Analytics Agency's beta prototype Longevity Industry Analytics Platform is live and available at [mindmaps.aginganalytics.com](http://mindmaps.aginganalytics.com). The official version will launch in **Q3 2019**, featuring **10,000 entities** classified into the four key sub-sectors. Built to serve as the next-generation solution for industry optimization, it will equip all participants with tangible tools for stakeholder smart-matching, with a strong focus on cross-discipline dialogue and synergetic cooperation.

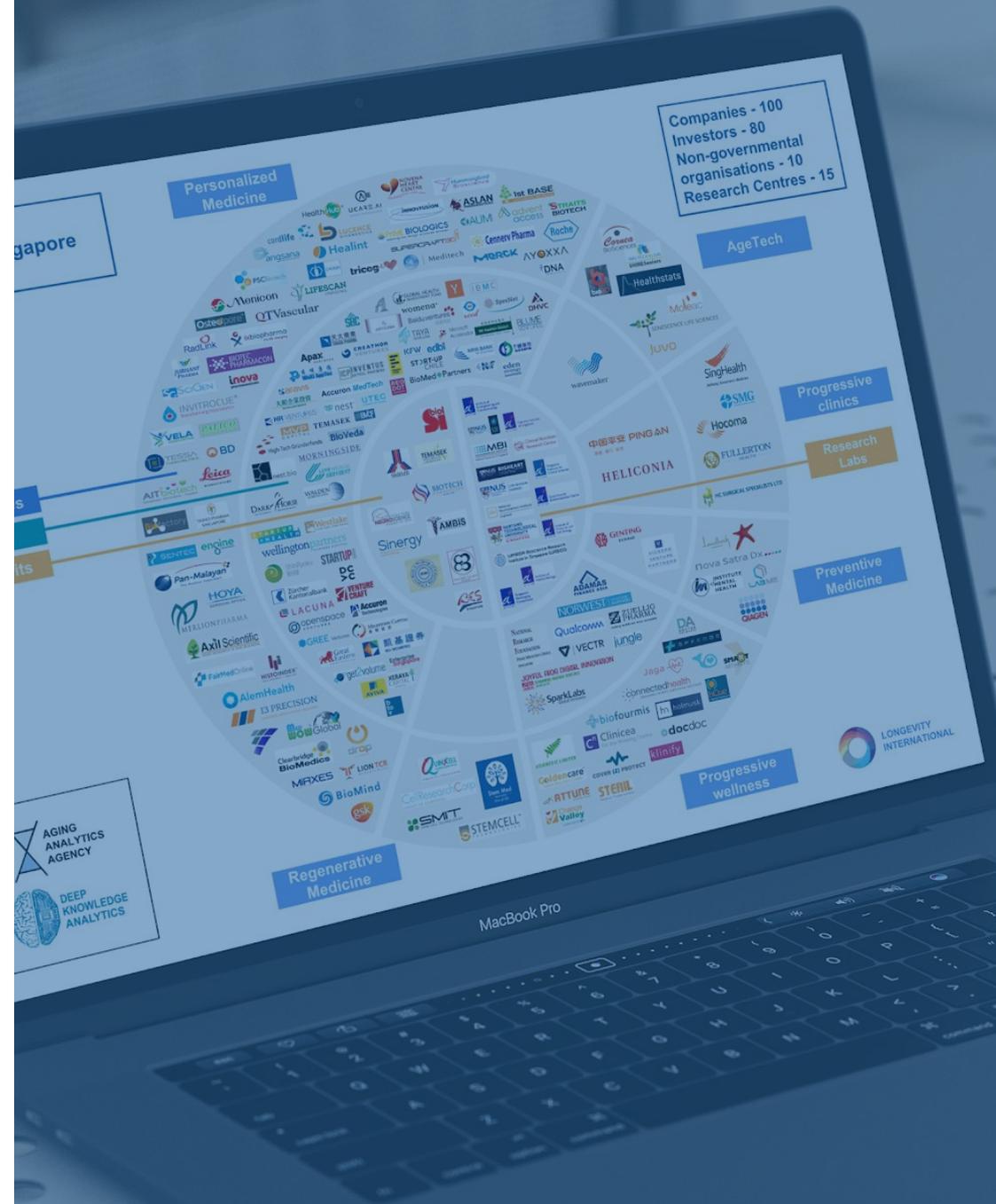
The screenshot shows a web interface with a sidebar on the left containing category icons: Progressive clinics, AgeTech, Preventive Medicine, and Regenerative Medicine. The main content area displays the profile for "Bio3D Technologies" (Company). The profile includes the company logo, a detailed description of their 3D printing technology, and contact information.

**Bio3D Technologies** (Company)

Bio3D Technologies have created world's first and Singapore's first true scientific and biological 3D printer with multiple print heads, modular design, nozzle-to-platform auto-alignment, remote viewing and control etc. They are also the first to integrate an anti-vibration levitating platform into a 3D printer. With the introduction of Bio3D Explorer, they made 3D bioprinting even more affordable and accessible. Once again, they created the world's first portable, foldable bioprinter.

Technology: AgeTech  
 Industry: AgeTech  
 Headquarters: Singapore, Central Region, Singapore  
 Funding Status: N/A

<https://www.bio3d.asia/>  
 sales@bio3d.asia



# Next Multi-Trillion Underdeveloped Market for Financial Institutions

## AgeTech Market

```
graph TD; A[AgeTech Market] --> B[Globally  
1 Billion in Retirement]; A --> C[In the UK  
10 Million in Retirement];
```

Globally

1 Billion in Retirement

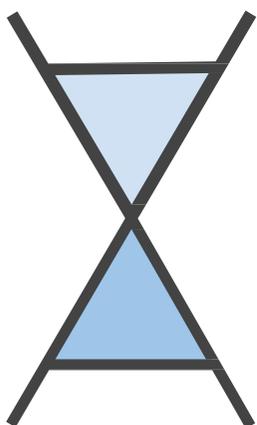
In the UK

10 Million in Retirement

“ The one billion retired people globally are a multi-trillion dollar opportunity for business ”

— *Dmitry Kaminskiy interview in the Financial Times.*

Ageing represents not only one of the most pressing problems of our time, but also one of the most promising opportunities. Financial institutions such as investment banks, pension funds and insurance companies can either sink or swim when hit by the oncoming Silver Tsunami. Whether they succeed to ride the wave or drown under it will depend not only on their willingness to deploy new business models adapted to an ageing population and the emerging industries of AgeTech, WealthTech and Longevity Finance, but also on the quality of Longevity Analytics that they use to formulate such business models.



# AGING ANALYTICS AGENCY

**Aging Analytics Agency** is primarily interested in strategic collaboration with international corporations, organisations and governments of progressive countries on projects and initiatives related to Longevity.

**Aging Analytics Agency** is open to engage with strategic clients via a variety of approaches, including:

- Conducting customised case studies, research and analytics for internal (organizational) use, tailored to the precise needs of specific clients;
- Producing open-access analytical reports;
- Offering customised analysis using specialised interactive industry and technology databases and IT-platforms.

In certain specific cases, if it fits our interests, Aging Analytics Agency is open to co-sponsoring research and analytics for the production of both internal and openly-access industry reports and special case studies on the topics of Longevity, Precision Health, Personalized Medicine, Digital Health, Blockchain in Healthcare as well as other advanced topics.

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