



התנועה לאיכות ואריכות חיים (ע"ר)
Seniority-The Movement for
Longevity and Quality of Life



Biogerontology
Research Foundation
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LONGEVITY
INTERNATIONAL

Longevity Industry Ecosystem in Israel, 2023

Teaser

www.longevityisrael.info



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Executive Summary

Israel is one of the leading nations in technology innovation in the world today with one of the highest venture capital investment on a per capita basis. It's high-tech ecosystem attracts billions of U.S. dollars in funding every year. Multinational corporations such as Microsoft, IBM, Intel, Samsung, Cisco, Siemens, and SAP are invested in research centers and startups alike in Israel with Tel Aviv ranking amongst the top tech and innovation clusters worldwide. So what are the reasons behind Israel's success as a tech innovation nation?

This report provides the reader with an entry point to answer this question.

We also examine the potential obstacles to the growth of the Longevity Industry in Israel. There is plenty of signs that the healthcare sector will be able to overcome these challenges and grow stronger than ever before.

Main Features of the Analytical Case Study

Robust Market Players Database

Overview of Clinical Trials in all Phases

Comprehensive Analyses of the R&D Sector

In-Depth Study of BioPharmaceutical Market Players

Unique Advanced Clinics Services Examination

Innovative Digital Health Solutions Representation

Approach of the Report

Database

**>1500
Companies**

**>350
Investors**

**>145
R&D Centres**

The database was formed by:

- **identifying the healthcare companies, institutes, clinics, diagnostic centers, biopharma companies, and CRO** in Israel; and
- **distinguishing the investors** that contributed money to these companies.

Applied Research and Analytics Methods

**Descriptive
Analysis**

**Mixed Data
Research**

**Data
Triangulation**

**Comparative
Analysis**

**Qualitative Data
Collection**

**Data
Filtering**

Data Sources

**Media Overview
(Articles, Press Releases)**

**Industry-Specialised
Databases**

**Patent
Analysis**

**Publicly Available Sources
(Websites)**

**Industry Reports and
Reviews**

By utilizing various research methodologies and analytical techniques, the analytical report provides a comprehensive overview of the Healthcare Industry in Israel. However, it should be noted that this approach does have limitations, particularly when relying on publicly available data sources and conducting secondary research. While Aging Analytics Agency cannot guarantee the quality of the secondary data presented in the report, we have taken measures to mitigate the associated risks by using different analytical techniques and cross-checking data. We want to clarify that our analysis did not intentionally exclude certain companies, nor were they excluded as a result of the data-filtering method or any encountered difficulties. The primary reason for their exclusion was due to incomplete or missing information in the available sources.

Longevity Market in Israel Framework

Before creating the database, we picked the **most significant sectors of the Longevity Market in Israel**. The categorisation of companies in the report is based on the type of service, that the company or institute provides. We have analysed every sector and compared companies and institutes within each one. Based on this data, companies and institutes have been ranked and the most perspective ones have been selected.

By Sector

R&D Centers

BioPharma
Companies

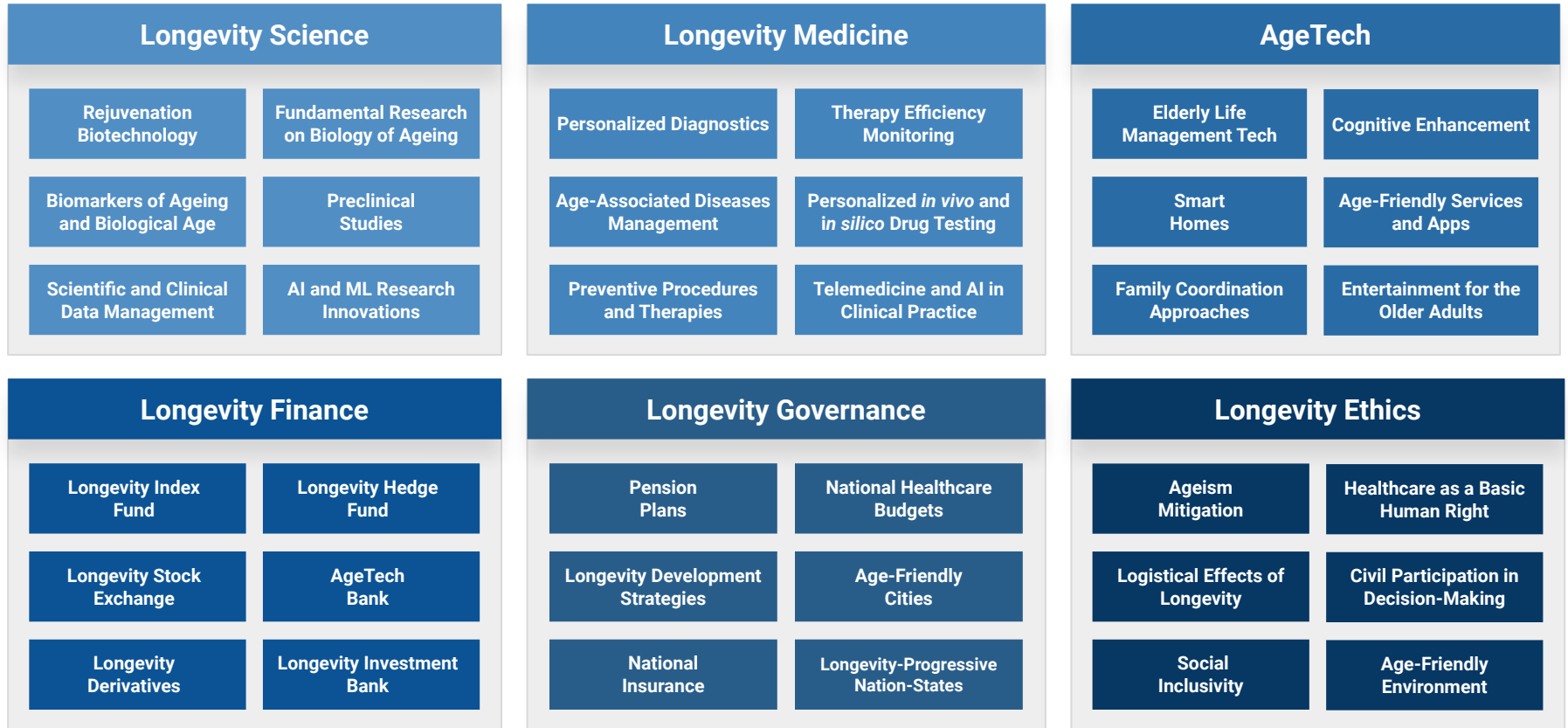
CRO

Advanced
Clinics

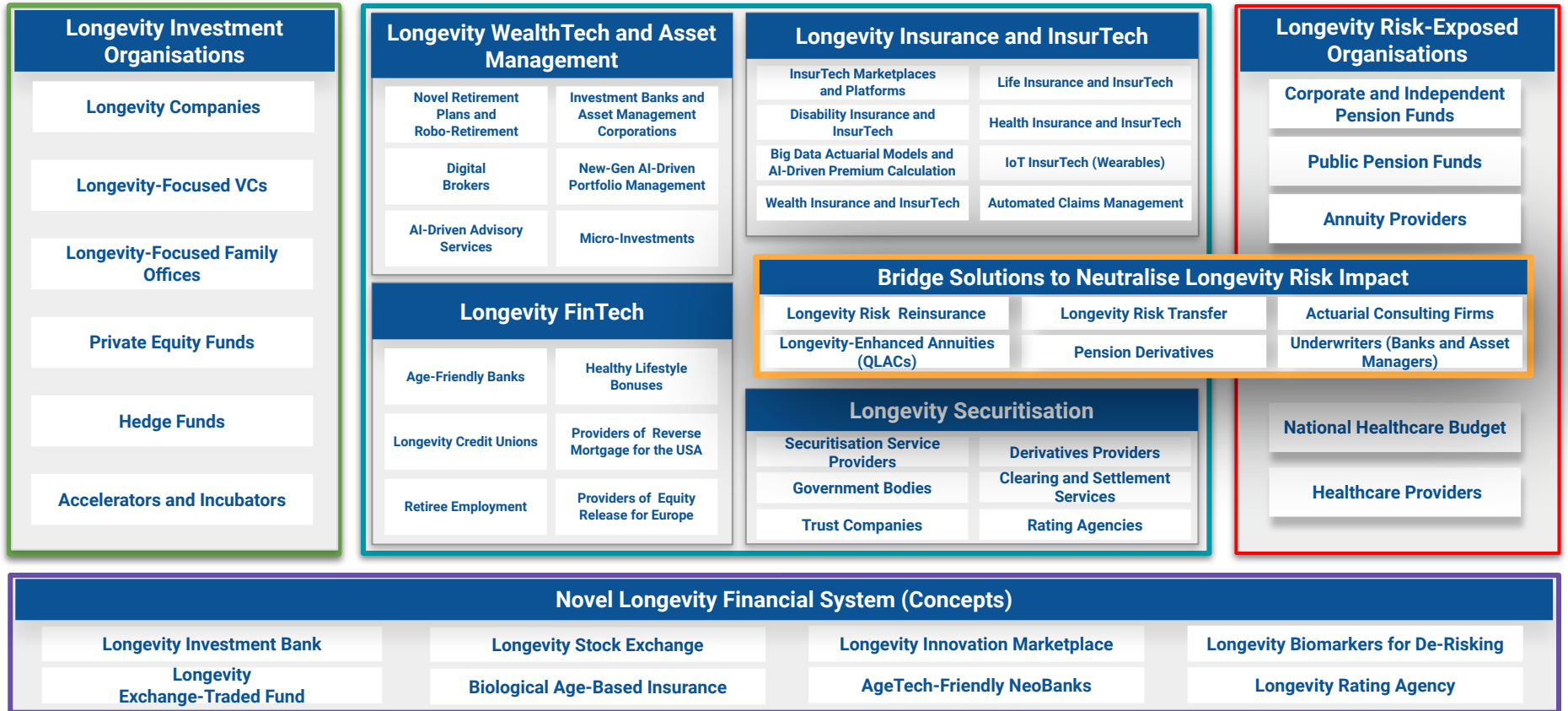
Diagnostics

Digital Health

Longevity Industry Ecosystem Framework



Longevity Financial Industry Framework



Longevity Economy in Israel, 2023

The Israeli life sciences industry is comprised of four main divisions: **Telemedicine**, **Medical Devices**, **Biotechnology**, and **Pharmaceutical therapeutics**.

In the past and even today, the **Medical Devices** sector is dominant, accounting for **about 36%** of Longevity R&D companies in 2021, although there was a 4% decrease from 2020.

Telemedicine, the second largest sub-sector, has a **30% representation** in the life science companies, which saw a 3% increase from 2020, making it the fastest growing sub-sector in 2020 and 2021.

Meanwhile, the number of companies in **Biotechnology** and **Pharmaceuticals** has remained consistent with 2020 levels. In the first nine months of 2022, the distribution of the sub-sectors has remained unchanged from 2021.

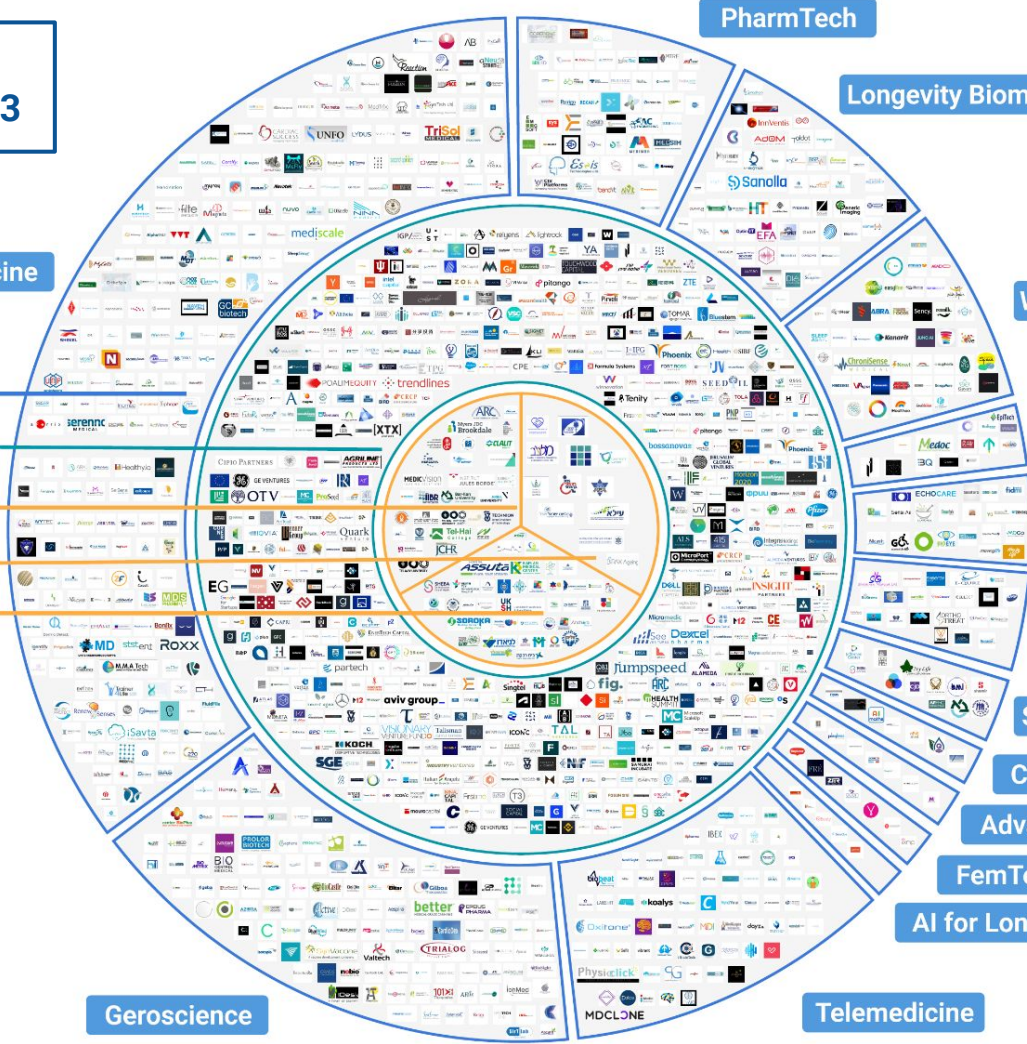
Israel Longevity Network by Sub-Sectors, 2023



© Daniel Singer 2018

Longevity Industry Ecosystem in Israel 2023

Companies - 750
 Investors - 680
 R&D Centres - 40
 Medical Centres - 40
 Non-Profits - 12



- Companies
- Investors
- R&D Centres
- Non-Profits
- Medical Centers

- Wellness & Fitness
- NeuroTech
- AgeTech
- Regenerative Medicine
- Science and Medicine
- Clinical Data Magement
- Advanced Cosmetics
- FemTech
- AI for Longevity

Geroscience

Telemedicine

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The Maturity Stage of Longevity Companies, 2023

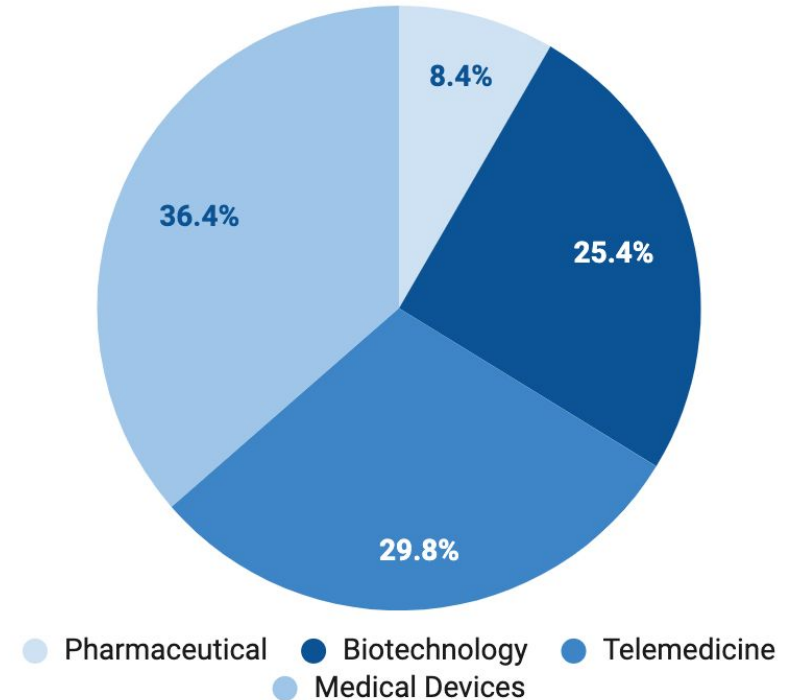
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Israel Longevity Industry Sub-Sectors, 20223

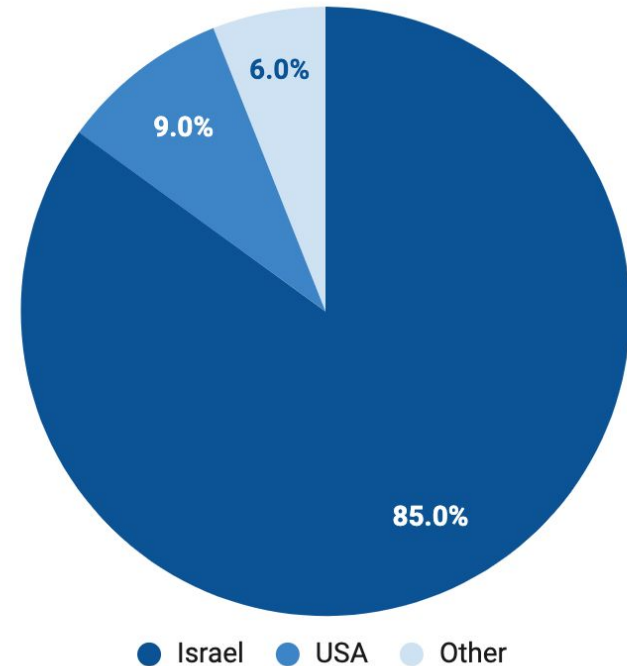


Israel Longevity Industry by Geographic Location, 2023

It was previously stated that there are around 1,800 operational life sciences companies in Israel. These companies, established by Israeli entrepreneurs and primarily carrying out operations in Israel, have their incorporation in the country. However, a small proportion of these companies, only 15%, have their headquarters situated in foreign nations. The vast majority, 85%, have their headquarters situated within Israel.

The Israeli government sees the establishment of industrial zones in peripheral areas as a driving force for the country's economic growth. To incentivize entrepreneurs to establish their companies in these regions, the government has designated National Priority Areas and Development Zones, where companies can receive certain economic benefits. Despite these benefits being substantial for some companies, 80% of the life sciences companies in 2021 opted not to locate their headquarters in these areas.

Headquarters' Location of Israeli Longevity R&D Companies by Country, 2023



R&D in Israel Overview

2023

Key R&D in Israel, 2023

Biotechnology



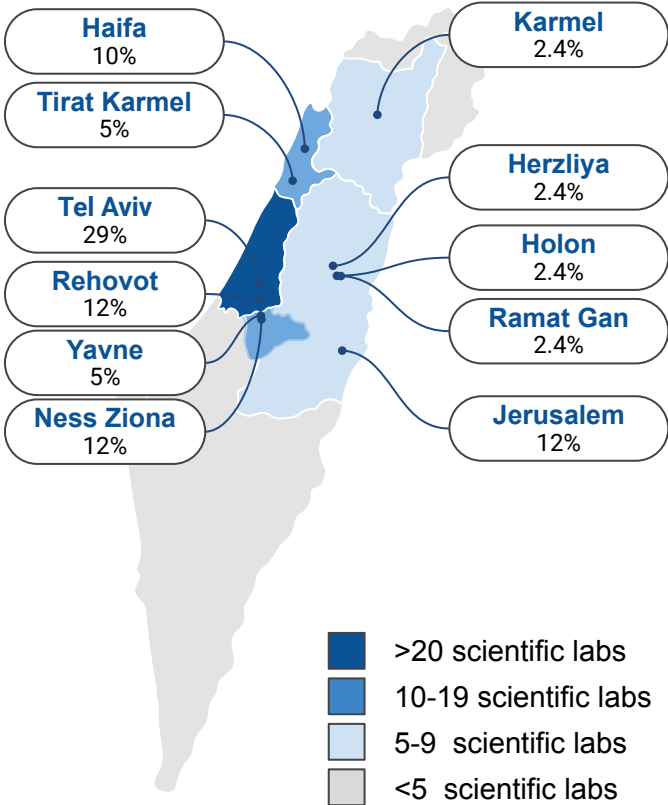
Biobanks & Cell Therapy



Medicine



Geography of R&D and Scientific Labs in Israel, 2023



These percentages represent the geographic distribution of research and development (R&D) centers in Israel. The city of Tel Aviv has the largest concentration of R&D centers, accounting for 29% of the total. Jerusalem, Ness Ziona, and Rehovot each have 12% of the R&D centers, while Haifa has 9.8%. Tirat Carmel and Yavné each have 5% of the R&D centers.

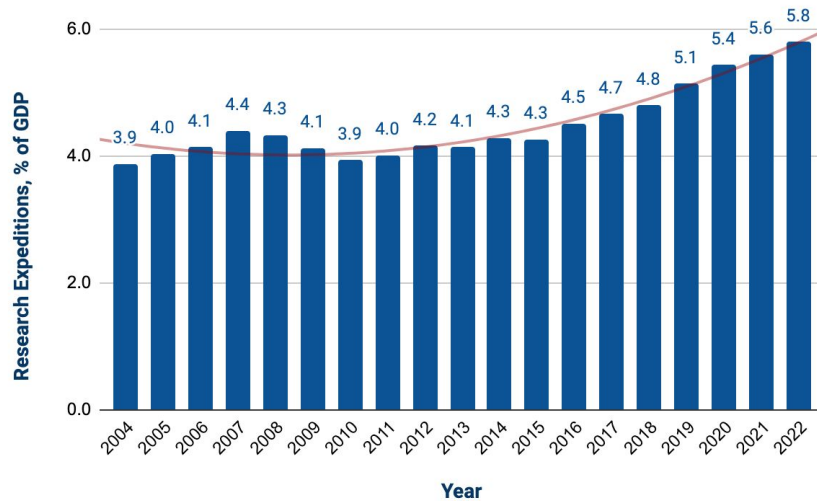
The biggest Longevity research center is Shaare Zedek Medical Center, Rabin Medical Center, Rambam Health Care Campus and The Chaim Sheba Medical Center.

There are also commercial research labs and biotech companies as Neotx Therapeutics, Metabomed, MediWound etc.

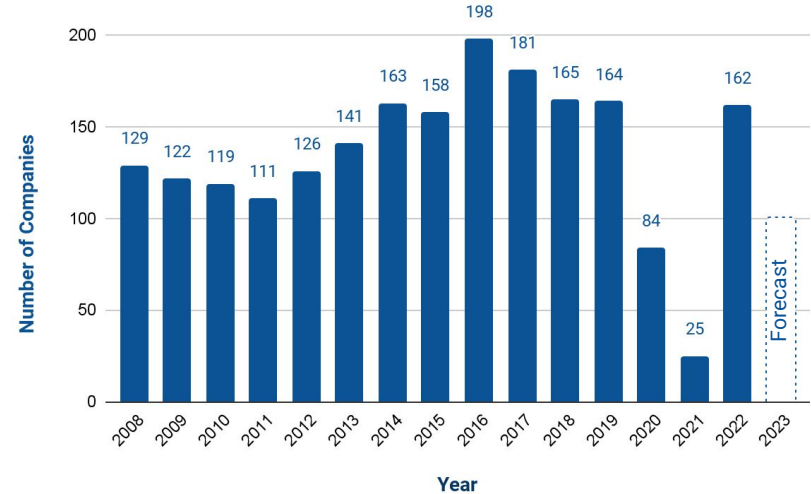
Important role in the Israel R&D market development plays IT companies that create digital products for diagnostics and telemedicine: Healthy.io (deep diagnostics), Cordio Medical (vocal biomarkers), Protai (AI for proteomics), Memed (AI for proteomics) and Neuralight (ocular metrics).

Expenditures for Research and Science

Total expenditure for scientific activities



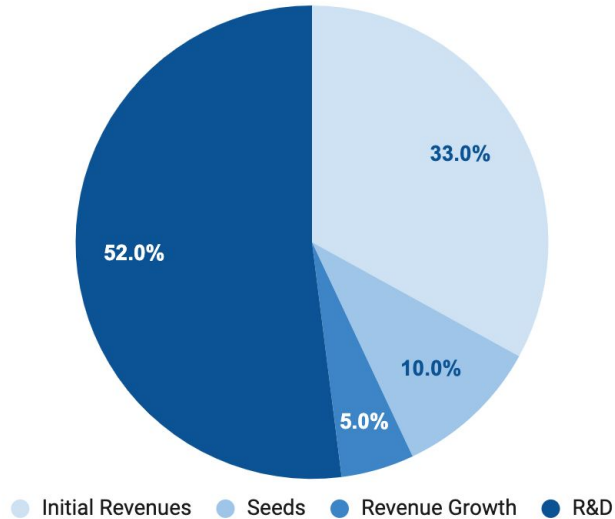
Number of Longevity Startups in Israel, 2008-2023



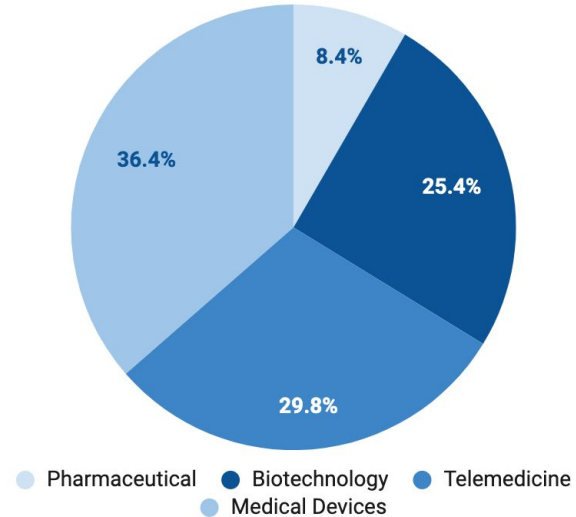
Israel boasts a sophisticated and established National Science and Innovation System. The private sector plays a crucial role in the decision-making process of research policy at various stages. Due to the scarcity of national resources, Israel positions itself as a "brain" and knowledge-exporting economy, with a strong international orientation both in its scientific community and its economic activities. National expenditure on civilian R&D in 2021 amounted to NIS 87.7 billion – 5.6% of the GDP (5.8% in 2020). The national expenditure on civilian R&D per capita in Israel, in 2021, amounted to 2,469.3 dollars (at current prices, in PPP terms of GDP). Approximately 1,600 life sciences companies are active now in Israel, employing more than 83,000 people all across the country.

The Maturity Stage of Longevity R&D companies, 2023

Number of Active Israeli Life Science Companies by Stage



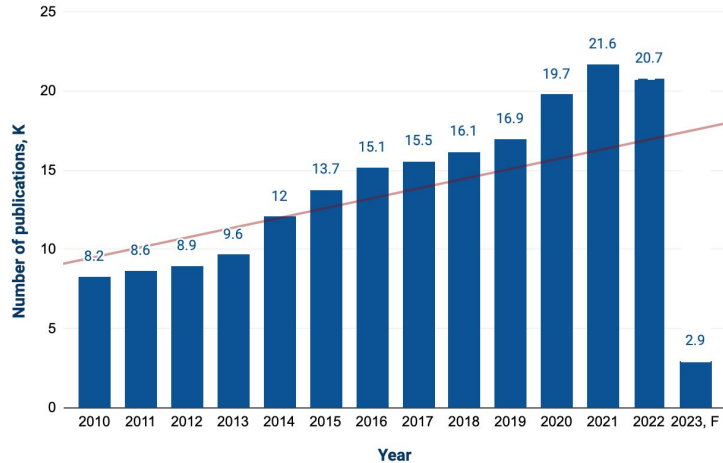
Israel Longevity Industry Sub-Sectors, 20223



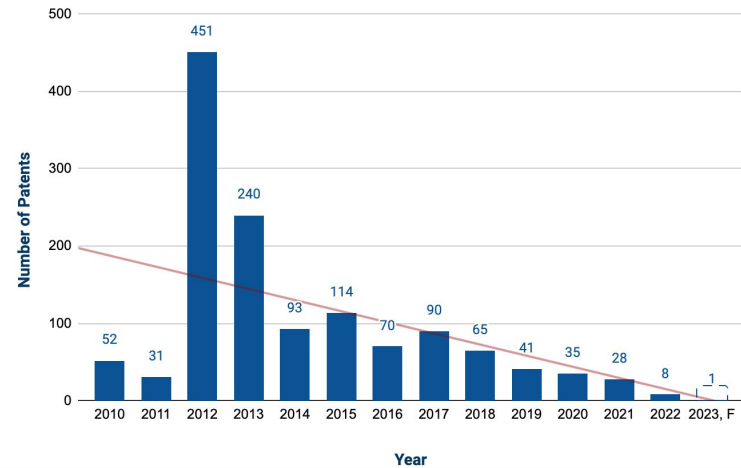
The maturity stage of Longevity R&D companies did not change much over the last few years. 38% of the total active Longevity R&D are in advanced stages. This percentage is stable over the last few years, as well as the percentage of companies in initial revenue and revenue growth stages (included in the advanced stages), with 33% and 5%, respectively. The remaining of the companies are mainly in R&D stage, representing 52% of the total active life science companies.

Dynamic of Patents & Scientific Publication Number, 2010-2023

Number of Scientific Publications, 2010-2023 years

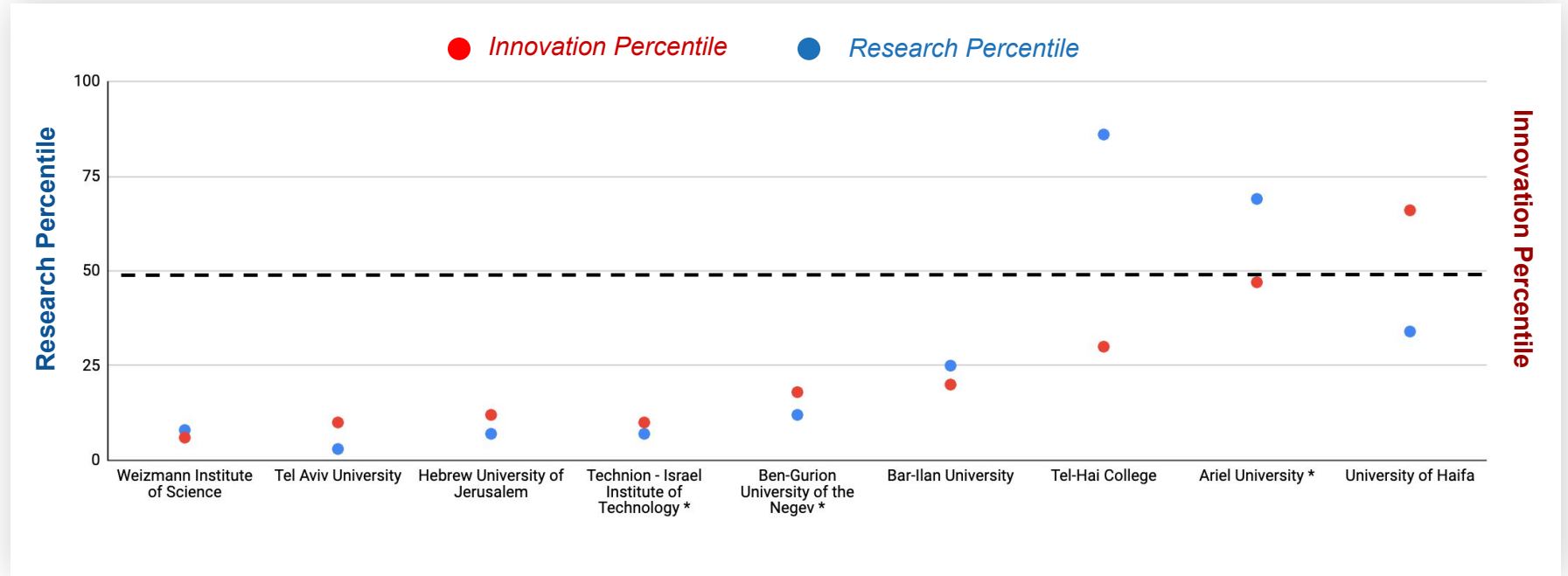


Number of Anti-aging Patents, 2010-2023 years



In Israel, the number of scientific publications related to longevity has grown significantly in recent years. In 2016, a total of 107 scientific papers were published related to aging and longevity, compared to just 16 in 2010. This research is being conducted in a variety of fields, including genetics, biochemistry, neuroscience, and social sciences. In addition, numerous clinical trials are underway to evaluate the efficacy of various interventions related to longevity. As the research continues to advance, so too does the prospect of finding new ways to extend human life. Israel is on the 6th place in the world ranking by number of patented anti-aging technologies. Since 2010 year, there were submitted more than 1,300 patents. Unfortunately, common trend shows negative dynamic of patent's publication.

Research and Innovation Ranking of Top-10 Universities



The SCImago Institutions Rankings (SIR) is a classification of academic and research-related institutions ranked by a composite indicator that combines three different sets of indicators based on research performance, innovation outputs and societal impact measured by their web visibility. For comparative purposes, the value of the composite indicator has been set on a scale of 0 to 100.

Israel PharmTech Market

Overview

2023

Key Market Players in Israel, 2023

Medicines



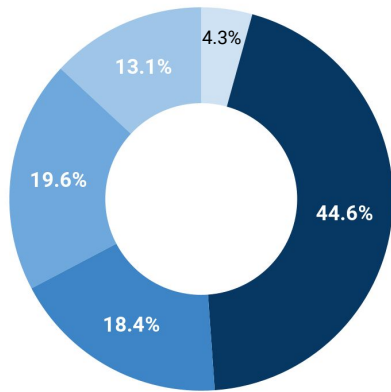
Medical Devices



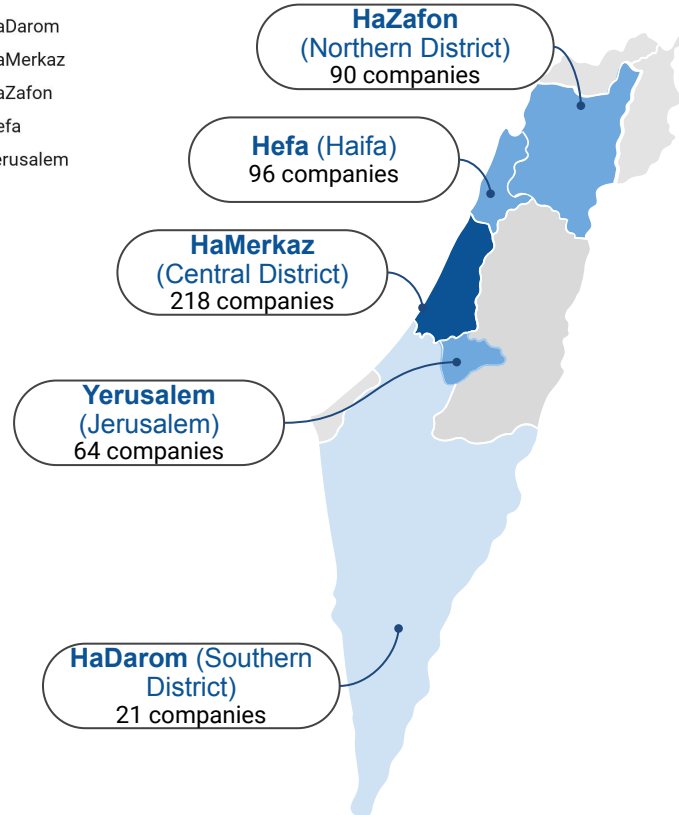
Cosmetics



Geography of Pharmtech Companies in Israel, 2023



- HaDarom
- HaMerkaz
- HaZafon
- Hefa
- Jerusalem



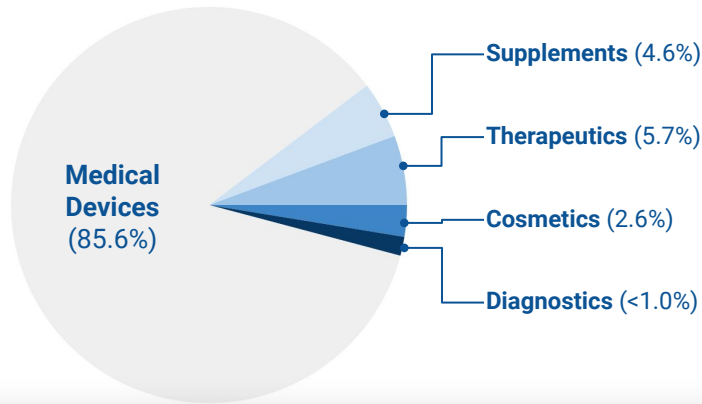
- >200 companies
- 100-200 companies
- 50-100 companies
- 10-50 companies
- <10 companies

Since the early 2000s, the pharmaceutical industry has revived growth. Distribution created a new business development model – vertical integration of the wholesale operator and the pharmacy chain. Now **Tel Aviv, Jerusalem** and **Haifa** are **the major centers** of biopharmaceutical production and drug development in Israel. Geographic distribution of companies based on localisation of **industrial chemical complexes** and **logistic hubs**. The biopharmaceutical market in Israel is an important and rapidly growing sector of the country's economy.

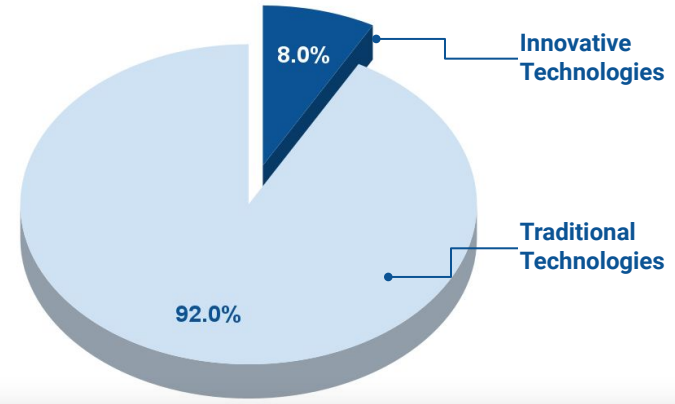
In addition, the country's highly skilled workforce, advanced infrastructure, and strong intellectual property protection have helped to make it an attractive location for biopharmaceutical companies.

Israel Pharmtech Market Structure, 2023

Proportion of Israel Pharmtech Companies by Type, %



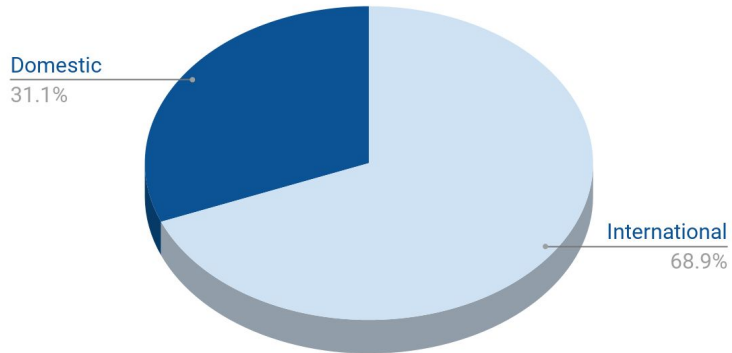
The Innovativeness of the Pharmaceutical Market, %



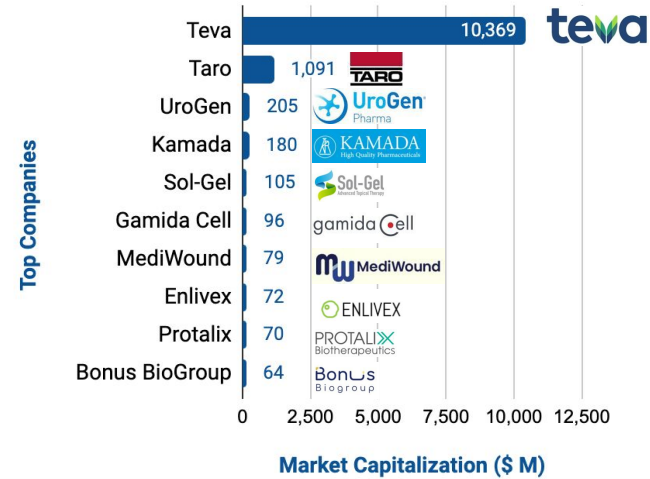
Israel's **Longevity Market** is a **significant player in the Middle East**, with a particular focus on health technology, research and development, and improving medical infrastructure. In 2022, the country's pharmaceutical market was valued at \$3.2 billion at CAGR of 3.4%. The major part of the Pharmtech market is a **Medical Devices sector (85% of companies)**. In 2022, the Medical Devices market in Israel was valued at **\$1.5 billion**. The market is projected to grow at a **CAGR of 2.7%** and **reach \$1.8 billion by 2028**. The majority of the medical device market (65%) is **import-driven**, with the top imports being **surgical instruments** and **medical electronics, lab reagents, diagnostic equipment, and catheters**. Israel has a thriving **Pharmtech ecosystem**, which is one of the most innovative and dynamic in the world. It has a large number of startups and established companies that are involved in the development of novel biotech products and services. Some of the key factors that have contributed to the growth of the biotech industry in Israel include the **availability of venture capital**, a **highly educated and skilled workforce**, **strong academic** and **research institutions**, and a **supportive government**.

Development of Domestic Companies in Israel, 2023

Proportion of Local vs International PharmTech Companies



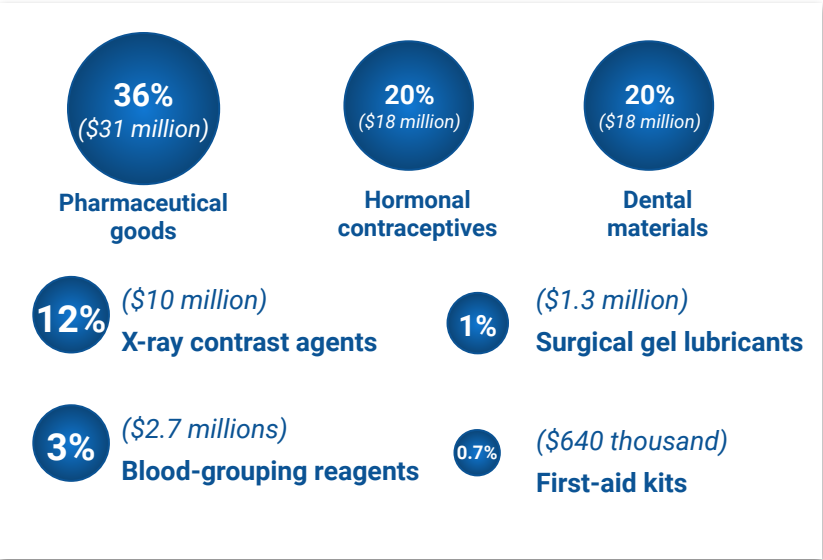
Top of PharmTech Companies on the Israel Market



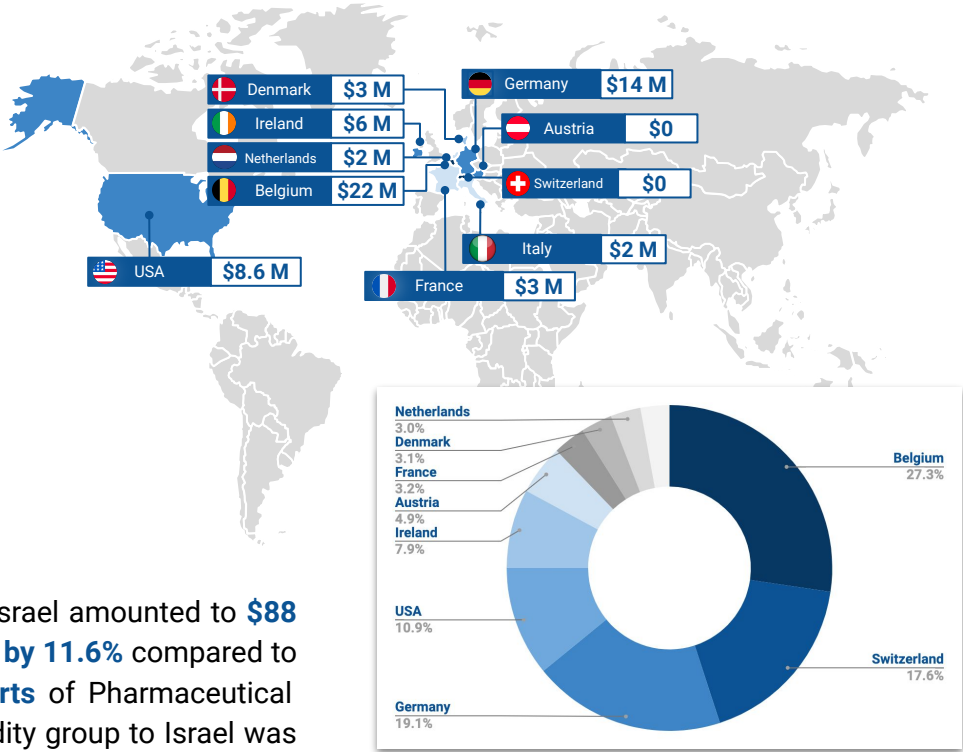
Teva Pharmaceutical Industries Ltd, Taro Pharmaceutical Industries Ltd, Kamada Pharmaceuticals, Compugen Ltd, UroGen Pharma Ltd, and Gamida Cell Ltd are the top 5 pharma companies in Israel in 2021 by market capitalization (as of September 30, 2022). Cumulatively, the top 10 pharma companies in Israel had a market capitalization of \$10,668 million (as of September 30, 2022), where Teva Pharmaceutical Industries Ltd (\$8,651 million) has the highest followed by Taro Pharmaceutical Industries Ltd (\$1,127 million) and Kamada Pharmaceuticals (\$198 million), while BioLineRx Ltd stood lowest (\$59 million).

Pharmaceutical Import in Israel

Structure of Medicine Import, % of Total Value



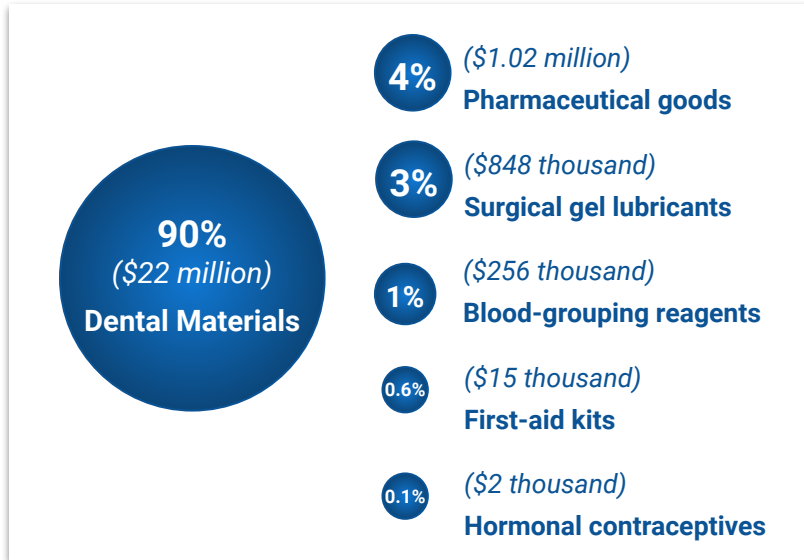
Main Import Directions of Israel Pharmaceutical Goods



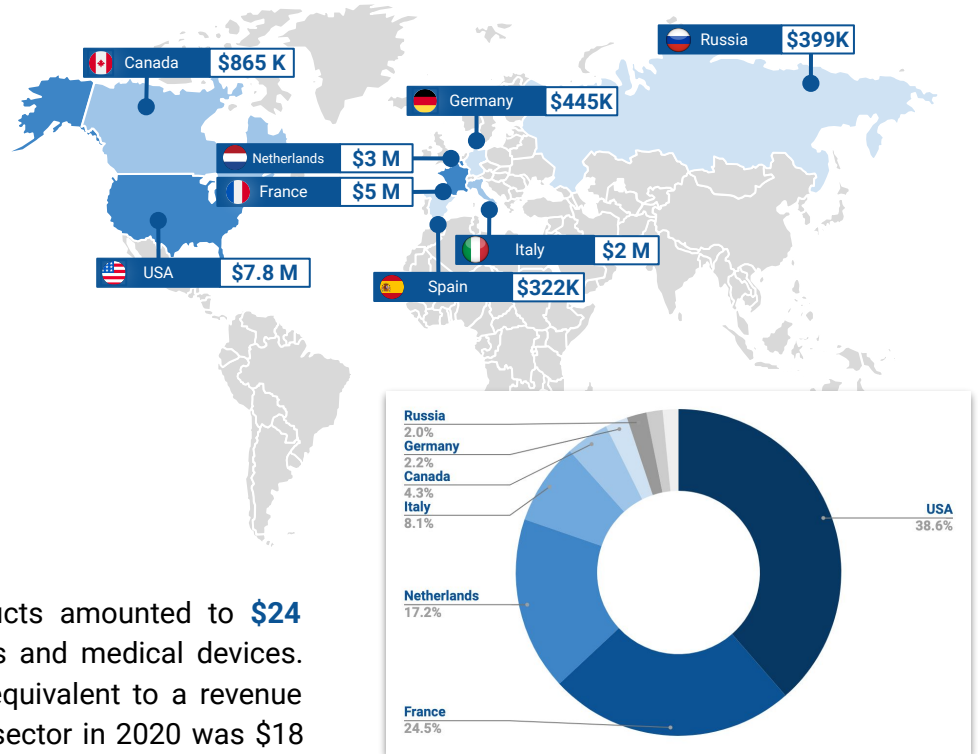
In 2021, the total value of **Pharmaceutical goods** imported by Israel amounted to **\$88 million**, indicating an **increase in sales** of this commodity group **by 11.6%** compared to the previous year. Specifically, there was an **increase in imports** of Pharmaceutical goods **by \$9.18 million**, as the value of imports of this commodity group to Israel was \$78 million in 2020.

Pharmaceutical Export in Israel

Structure of Medicine Export, % of Total Value



Main Export Directions of Israel Pharmaceutical Goods



In 2021, Israel's **export revenue** from pharmaceutical products amounted to **\$24 million**, reflecting a significant increase in sales of medicines and medical devices. Specifically, compared to 2020, these exports **rose by 35%**, equivalent to a revenue **increase of \$6.42 million**. The total export revenue from this sector in 2020 was \$18 million, making the growth in 2021 particularly impressive.



Clinical Trials in Israel

2023

Clinical Trials in One Sight, 2010-2023

~150

clinical trials ongoing in Israel annually

>1,750

clinical trials are on the active stage in 2023

>250

*of well-equipped public medical facilities with
experience in running international trials*

40

*countries collaborate with Israel clinical sites that
provide research of new therapies*

5.3

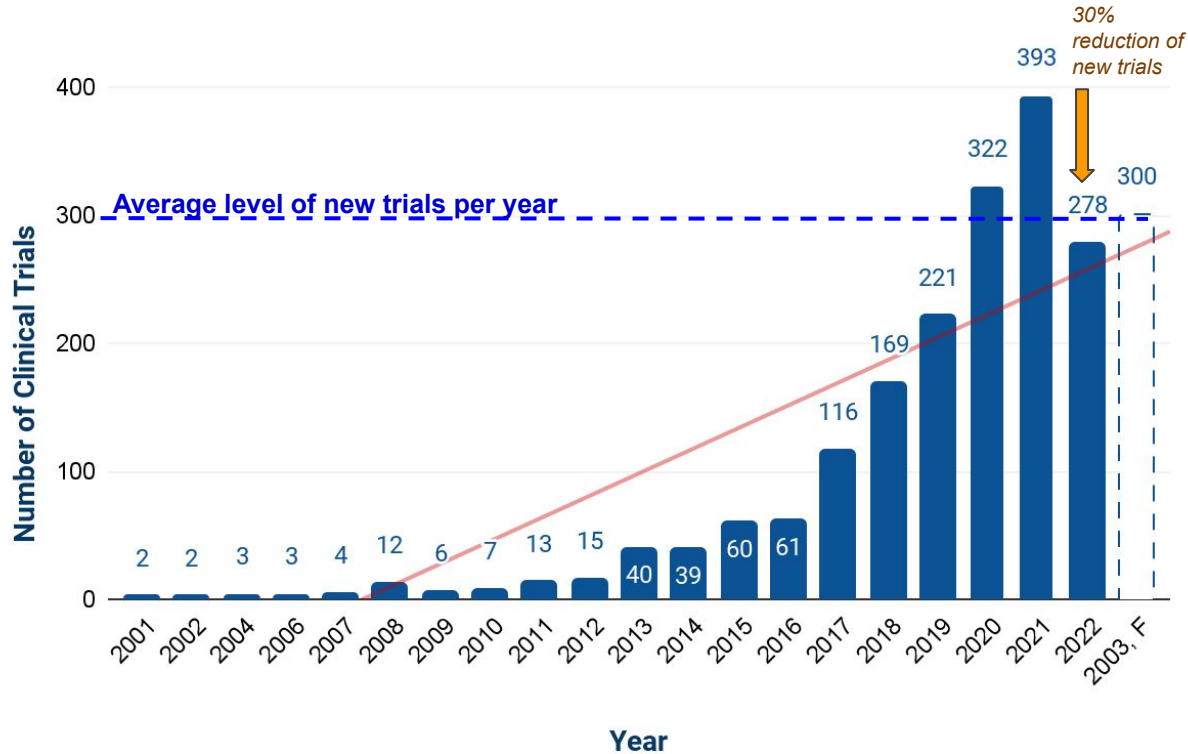
*clinical research were conducted in Israel per
100,000 people*

>70

*local sponsors with 330 active trials ongoing in
Israel*

Dynamic of Clinical Trial in Israel, 2001-2023

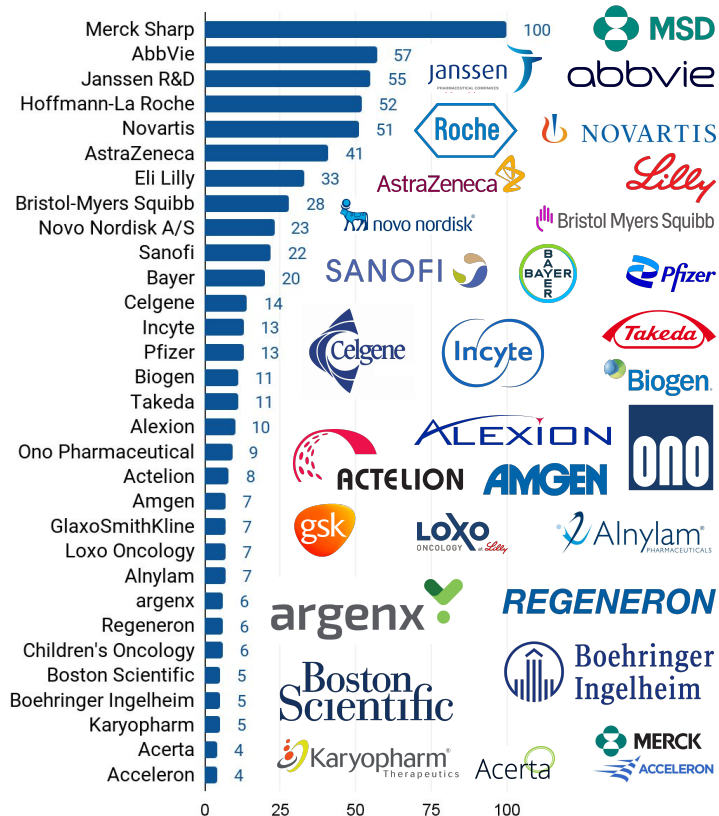
Number of Active Clinical Trials in Israel



Since 2000, ClinicalTrials.gov listed nearly more than **1,766 trials** with sites in **Israel**. The country has attracted pharmaceutical companies from around the globe that want to conduct clinical trials of their products. The **average level** of clinical studies until 2022 was pretty stable, **around 300 trials per year**. However, as a result of the COVID19 restriction, the clinical research has been temporarily reduced in 30% in 2021 year. From the **beginning of 2022**, **278 new trials** are registered and 16 of them continue recruiting. In 2023 year, the number of clinical trial will be at the same level.

Top International Companies Provided Clinical Trials in Israel, 2023

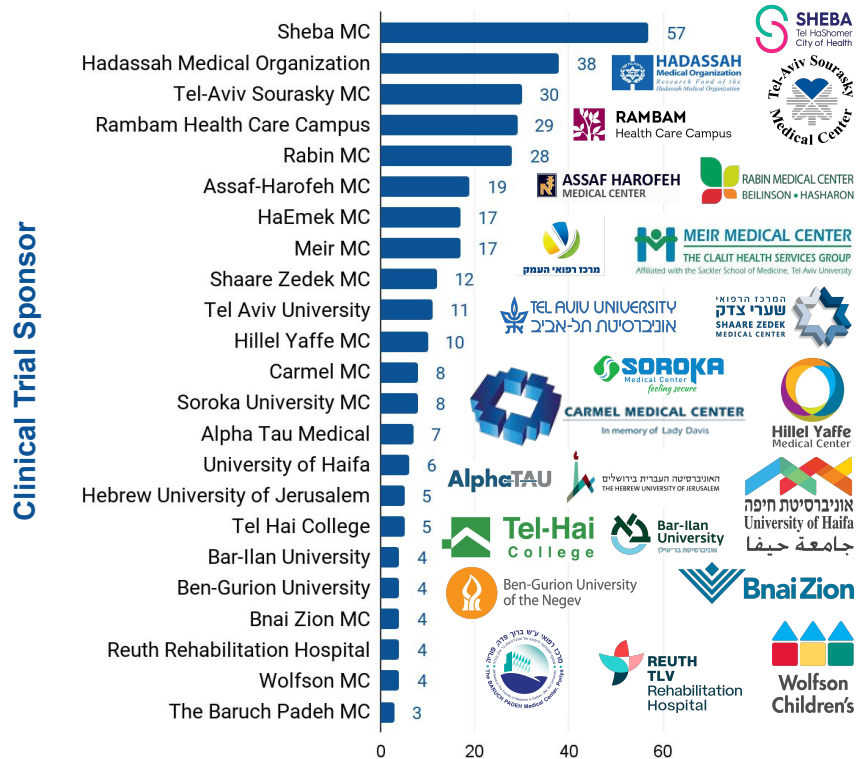
Companies by Number of Active Clinical Trials in Israel



Israel is a **major hub in the Middle East region** for pharmaceutical companies to conduct clinical trials. Most companies have 1-3 active trial in Israel in 2023. Among them we found lead international companies that have **>10 simultaneously ongoing trials**. **Merck, AbbVie, Janssen R&D**, and other provide their clinical research in Israel location for **cancer, heart failure, kidney disorders** and other **chronic disease** in **Phase 2-3**, which is toward the end of the process where safety and effectiveness are measured against existing standard treatments. Five of the pharmaceutical companies with the most clinical trials in Israel - Merck, AbbVie, Janssen, Roche and Novartis - have about 50-100 clinical trials underway there. Roche alone has 33 trials underway in Israel accounting for 1.5% of the active trial population across its global studies.

Top Israel Companies that Provide Clinical Trials, 2023

Domestic Sponsors by Number of Active Clinical Trials in Israel



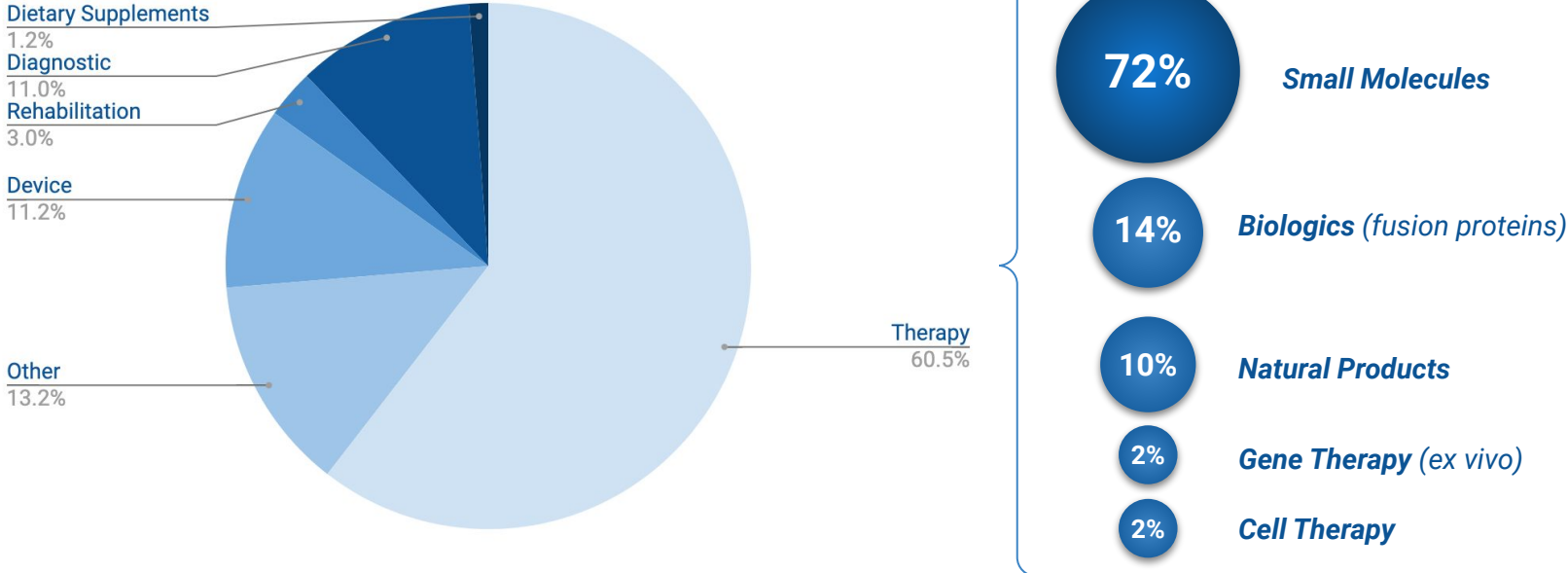
Among **1,766 clinical trials** that are provided in Israel from 2010 to 2022, only **330 trials** are sponsored by Ukrainian organisations. On Clinicaltrials.gov are listed **70 Israel sponsors** with **domestic trials**. They develop own innovative technologies for treatment and diagnostics systemic disorders.

Among medical institutions of Israel, the **Sheba Medical Center** Sheba Medical Center was the first Israeli hospital to earn the Joint Commission International (JCI) Gold Seal as an academic and clinical medical center.

Hadassah Medical Organisation is a second hub for clinical research. This center operates two hospitals, is at the forefront of medical research in Israel. With a team of approximately **300 doctors and researchers**, Hadassah is involved in all levels of medical research - basic, translational, and clinical. The research laboratories at Hadassah are fully integrated into its medical departments, and the organization also hosts several interdepartmental research centers. These include the Institute of **Genetic Therapy**, the **Center for Embryonic Stem Cell Research**, the **Experimental Surgery Unit**, and the **Cyclotron Unit** for New Imaging Materials, among others.

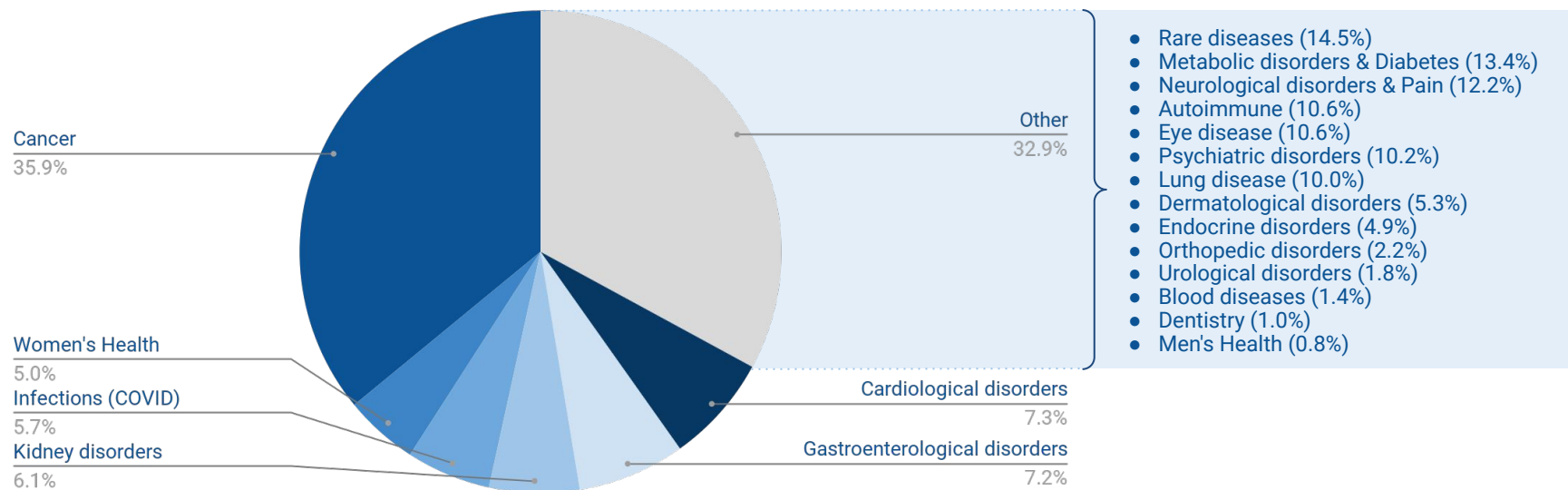
Clinical Trials Structure, 2023

Proportion of Clinical Trials by Approach



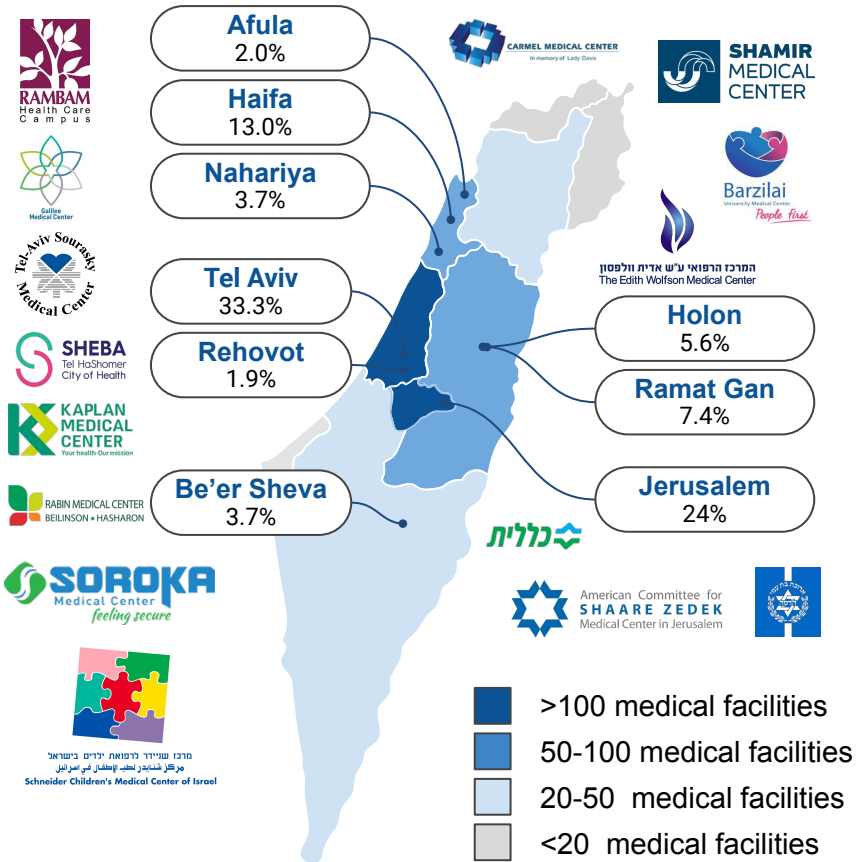
Nearly half of all domestic trials sponsored by Israel involve the exploration of novel therapeutic methods, with small molecules being the subject of over 70% of these trials, while the remaining 30% focus on other approaches, such as cell therapy, gene therapy, and natural products.

Proportion of Clinical Trials in Israel by Indications, Q2 2022



In Israel, clinical trials covering various medical conditions are being conducted, with **Cancer** having the most number of trials (more than 650), followed by **Cardiological disorders** (over 132), **Gastroenterological disorders** (more than 130), and **Kidney disorders** (110). More than 100 clinical trials are focused on the treatment of **Infectious diseases**, with approximately 30% of them **specifically studying COVID19**. **Women's Health** is also an important area of clinical research, with around 90 trials exploring issues such as infertility, labor, and preeclampsia during pregnancy.

Clinics and Hospitals that Provide Clinical Trials by Region, 2023



Now in Israel is active more than **500 clinical sites** where are going on trials for new medicines, devices, biomarkers or treatment approaches. The biggest hubs are **Tel Aviv** (110 clinical sites), **Jerusalem** (93 clinical sites), **Haifa** (56 clinical sites), **Ramat Gan** (26 clinical sites) and **Holon** (20 clinical sites).

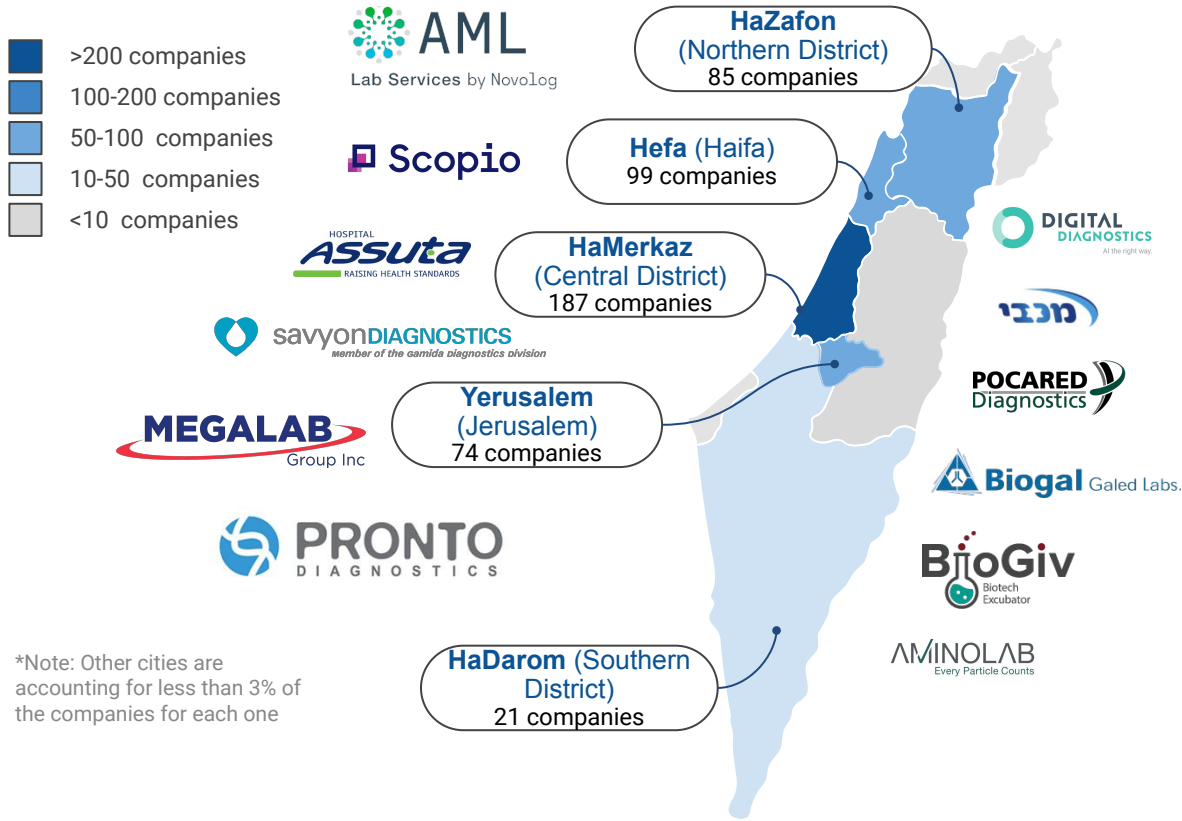
The most significant places are **Tel Aviv Sourasky Medical Center** (Tel Aviv), **The Chaim Sheba Medical Center** (Tel Aviv), **Kaplan Medical Center** (Rehovot), **The Edmond and Lily Safra Children's Hospital** (Ramat Gan), **Sheba Medical Center** (Ramat Gan), **Schneider Children's Medical Center of Israel** (Petah Tikva), **Rabin Medical Center** (Petah Tikva), **Galilee Medical Center** (Petah Tikva), **Shaare Zedek Medical Center** (Jerusalem), **Lev Talpiot Clinic** (Jerusalem), **Wolfson Medical Center** (Holon), **Rambam Medical Center** (Haifa) and **Lady Davis Carmel Medical Center** (Haifa).



Diagnostics in Israel

2023

Geography of PharmTech Companies in Israel, 2023



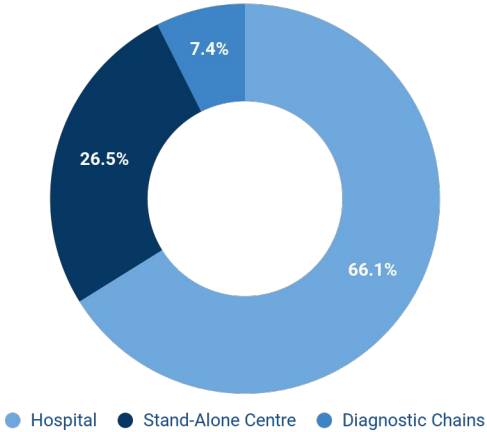
*Note: Other cities are accounting for less than 3% of the companies for each one

Since the early 2000s, the diagnostic market has witnessed growth. Distribution created a new business development model – vertical integration of the stand-alone laboratories and diagnostic chain operators. Nowadays, **Tel Aviv, Jerusalem, and Haifa** are the **major centres** of diagnostic hubs in Israel. Geographic distribution of companies is based on localisation of **large medical centres** and **hospitals**. The diagnostic market in Israel is an important and rapidly growing sector of the country's economy.

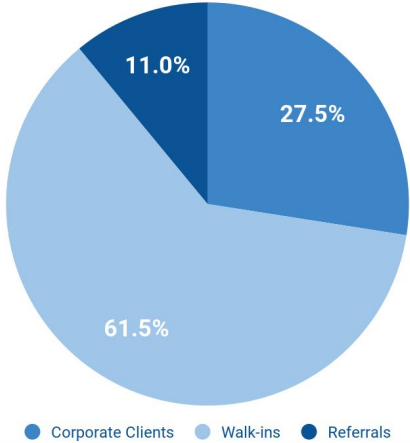
Additionally, the country's international investments in this sector, advanced infrastructure, and high activity in clinical research and medical tourism development improve the share diagnostic market in the country economy.

Number of Companies in Diagnostic Subsector in Israel

Israel Diagnostic Labs Market, By Provider Type



Israel Diagnostic Labs Market, By End User

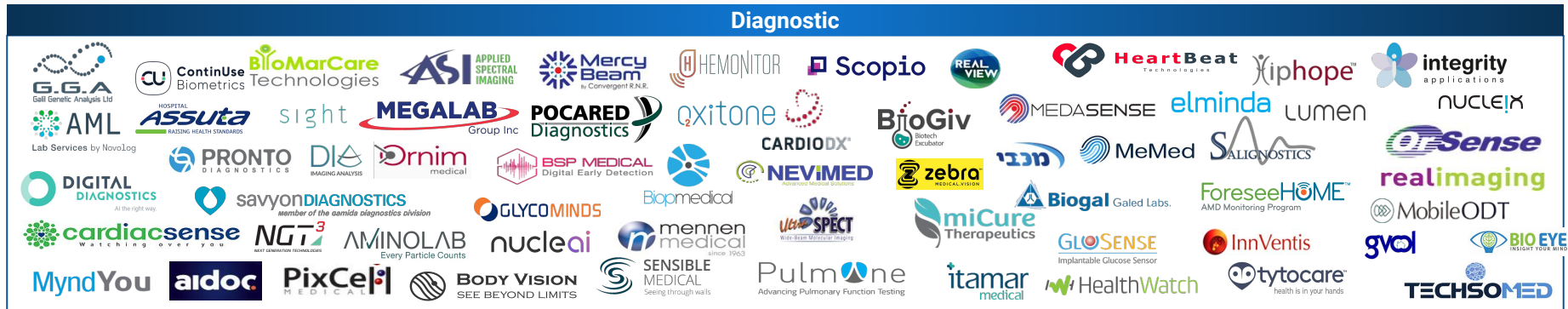


The Israel market for diagnostic labs is projected to experience a steady growth rate throughout the forecast period spanning 2023-2027. This growth is likely to result from multiple factors, including a rise in the number of patients afflicted by various illnesses and an increased understanding among patients of the advantages of early detection. In addition, there is expected to be an upsurge in demand for the Israel diagnostic labs market due to the pressing need for rapid diagnosis during emergency situations and considerable investments in healthcare infrastructure. The prevalence of chronic diseases, including stroke, cancer, cardiovascular disease, obesity, diabetes, and arthritis, has resulted in an increase in the number of tests performed to identify the presence of such ailments. Lifestyle factors, unhealthy eating habits, and communicable diseases are the primary drivers behind the high number of patients in Israel.

Top Diagnostic Laboratories in Israel

Among Top-10 Israel diagnostic laboratories all of them offer **classic genetics tests** for various conditions, including **prenatal diagnostics**. Although, only 3 laboratories in Israel provide advanced genetic testing, i.e., **Next Generation Sequencing**. Beside genetics, Israel diagnostic laboratories provide a wide range of **blood and other liquids analysis**. A lot of laboratories, including a few from the Top list, possess also a medical center, that offers **instrumental diagnostics** (Ultrasound, ECG, MRI, etc.). It is worth noting, that few laboratories provide **microbiome analysis**, which is rare offer among regular diagnostic laboratories in Israel.

G.G.A. Genetic Center (Galil Genetic Analysis Ltd.) deserves special attention. is a leading genetic center and laboratory certified by the Ministry of Health in Israel, that performs advanced genetic, medical and clinical tests, genetic counseling and genetic research services since 2009. G.G.A. is a significant player in the process of implementation and **transition to genomic medicine** and **personalized medicine**, through an advanced genetic center, which routinely provides advanced genetic testing services - on the one hand, and **constantly develops new tests and participates in leading research in these fields** - on the other hand.





Digital Health in Israel

2023

AI for Healthcare in One Sight, 2010-2023

~140

Israeli AI startups in the market segment

\$845 M

raised cumulative funding for Israel AI startups

~70

Israeli AI healthcare startups have raised one or more funding rounds

~20%

of the total group are presented by medical imaging sub-sector

~\$100 M

the biggest acquisition deals (Nutrino by Medtronic)

~\$106 M


































of total funds for EarlySense startup

AI for Healthcare in Israel



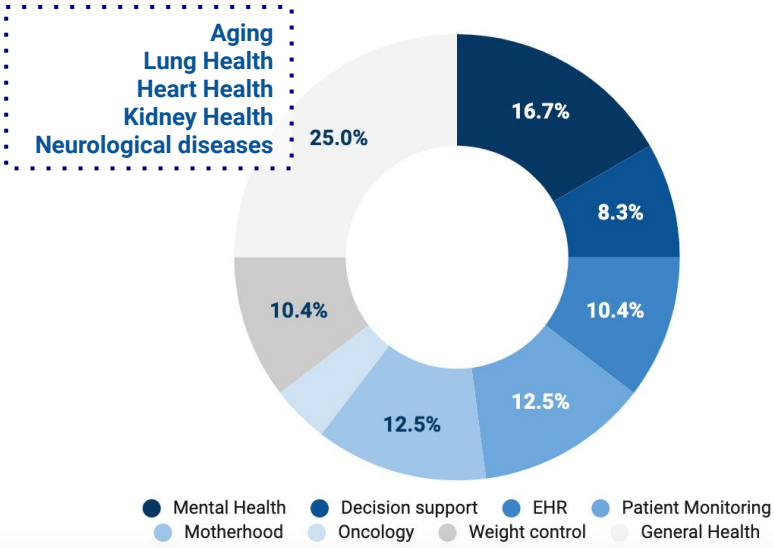
The progress of AI is already revolutionizing health and well-being, and in the years ahead, we can anticipate additional advancements and innovations that will enhance healthcare for billions of individuals globally. Machine learning is providing opportunities for breakthroughs in multiple medical disciplines, including personalized healthcare using genomics, early disease detection through imaging and diagnostics such as breast cancer and diabetic retinopathy. Teams of researchers and technology companies, like Google, as well as conventional pharmaceutical and life science firms, are dedicating resources to developing these types of AI technologies and applications. These can help medical professionals deliver better care and increase accessibility to care for patients worldwide.

Digital Health Companies Categories

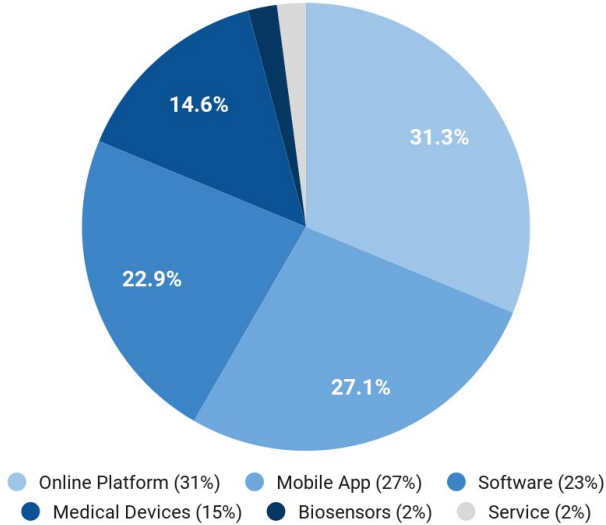
>\$600M		No companies	No companies	No companies	No companies	No companies
\$100M-\$600M	 	  <small>The Future of Clinical Intelligence</small>		No companies	No companies	
\$10M-\$100M	   	  <small>Artificial Pharmacology Intelligence</small>	  <small>Realtume Renal Diagnostics</small>	 	 	
\$1M-\$10K	 	 	 			
\$1M<			 Derma Detect	No companies	No companies	 GGTUDE
	Medical Devices	Telehealth	At-Home Diagnostics	Software	Wearables	Wellness

Digital Health in Israel by Product Type

Proportion of Digital Products by Health Areas



Proportion of Digital Products by Health Areas



Among all selected Digital health startups in Israel, the biggest share of them offer mental health solutions, which are mostly telehealth options. The second place takes general health solutions, which are not only patient-centric as most companies in the list, but also clinics-centric (e.g., Ademrius). The even percentage of digital health companies in Israel provide diagnostics, cardiology, and rehabilitation services. They are medical devices, software, mobile app and online platforms. The other health areas covered by digital health companies are obesity management, orthopedics, diabetes, and addiction management are accounting for less than 10% of the market for each one.

Digital Health in Israel: Top Startups

The logo for Noom, featuring the word "noom" in a lowercase, rounded font where each letter is composed of a grid of orange dots.

Headquarters location: New York, USA

Founders: Artem Petakov (Israel), Saeju Jeong (South Korea)

Founded Year: 2008 (app launch: 2016)

Funding Status: Late Stage Venture

Number of employees: 1001-5000

The logo for Racoon World, featuring the word "racoon" in a lowercase, rounded font with green eyes on the 'o's, followed by "WORLD" in a white, uppercase, sans-serif font inside a dark grey rounded rectangle.

Headquarters location: New York, USA

Founders: Alex Radovichenko (Israel), Svitlana Malovana (Israel)

Founded Year: 2017

Funding Status: Seed

Number of employees: 1-10

The logo for ComeBack Mobility, featuring the words "ComeBack" and "Mobility" in a bold, sans-serif font, with a small upward-pointing arrow above the 'k' in "ComeBack".

Headquarters location: New York, USA

Founders: Ilya Popov (Israel)

Founded Year: 2020

Funding Status: Seed











Number of employees: 11-50

Top companies in the Digital Health sector in Israel are Noom, Racoon, ComeBack Mobility. Noom is a famous startup of the Ukrainian entrepreneur, which offers app for weight management and uses AI to offer personalized service. Racoon and ComeBack Mobility are young startups with a small team (less than 50 employees), which are at the start of their development. Both of them offer rehabilitation solutions: Racoon provides telehealth service in the app along with specialized exercises, and ComeBack Mobility developed unique device to facilitate recovery of the patient after leg injury.

10 Longevity Non-Profits

2023

10 Longevity Non-profits

<p>1. Eshel: Planning and Development of Services for the Aging eshelnet.org.il</p>		<p>6. Israeli Foundation for Osteoporosis and Bone Diseases bone.org.il</p>	
<p>2. Israel Association for Geriatric Medicine geriatrics.org.il</p>		<p>7. Briah Foundation briah.org</p>	
<p>3. Israel Cancer Association en.cancer.org.il</p>		<p>8. Melabev - Caring for people with dementia and their families melabev.org.il</p>	 <p>Leader in Eldercare, Specializing in Alzheimer's since 1981</p>
<p>4. Israel Gerontological Society gerontology.org.il</p>		<p>9. The Taub Center for Social Policy Studies in Israel taubcenter.org.il</p>	
<p>5. Enosh – The Israeli Mental Health Association enosh.org.il</p>		<p>10. Vetek (Seniority) - the Movement for Longevity and Quality of Life longevityisrael.org</p>	 <p>תנועת הוותק (התנועה למידת חיים בריאה) Vetek (Seniority) - the Movement for Longevity and Quality of Life</p>

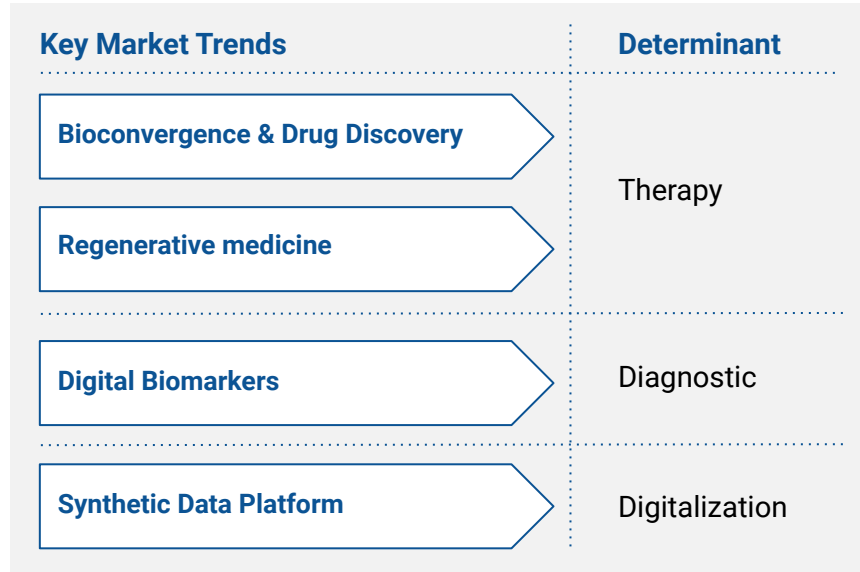
Israel Longevity Industry:

Trends

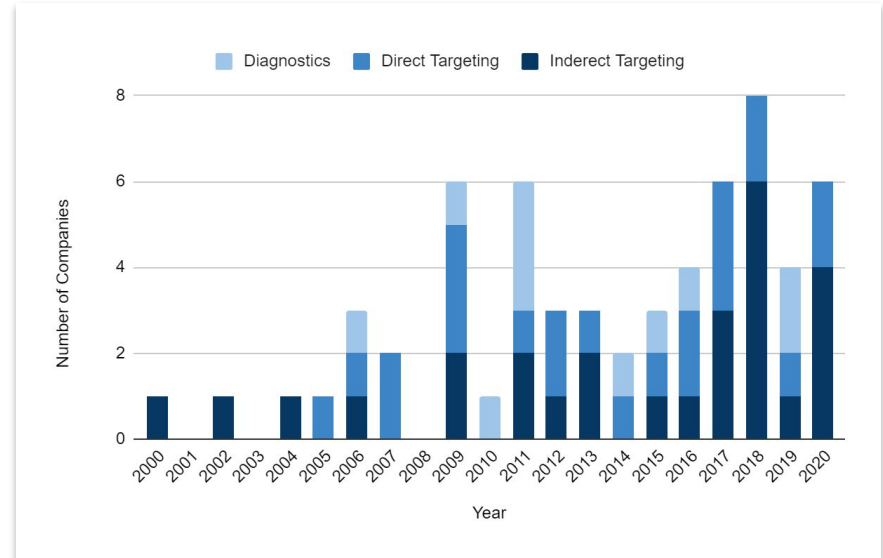
2023

Market Trends

The graph opposite illustrates the growth in the number of companies on the market since 2000. Recently, the increase in the number of projects working in Israel for longevity has been **caused by the synergy of four key factors**:



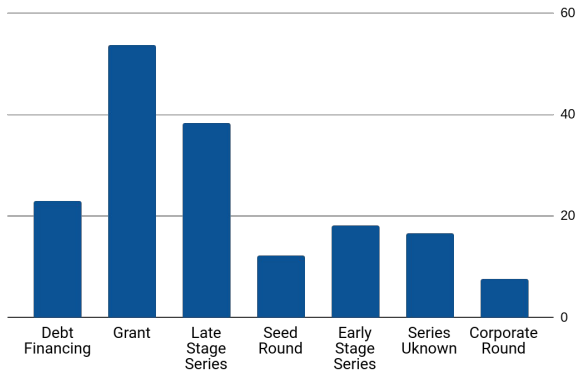
New Longevity Companies in Israel



Note: Perhaps ~100 BioTech companies and startups are carrying out work that may lead to a form of rejuvenation or are focused on interventions that target the mechanisms of ageing. Nearly all of these companies are at most a few years old, in preclinical development or in early trials, and Big Pharma has yet to become earnestly involved in the Longevity Industry.

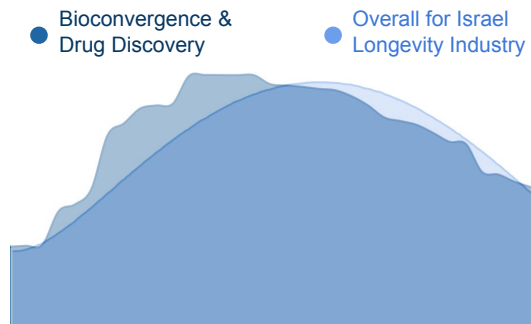
Bioconvergence & Drug Discovery

Average funding per round
(in million of USD)



Funding per company		
Max	Average	Min
\$120M	\$45M	\$0.08M

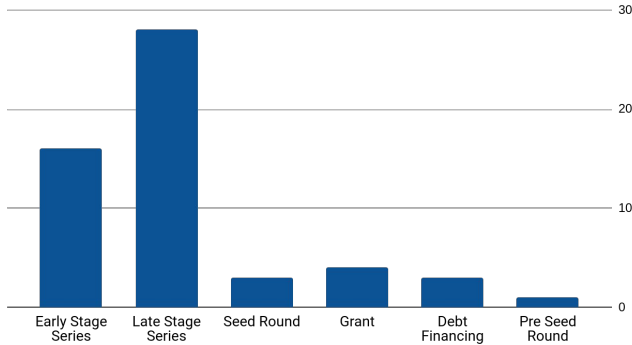
Companies relative distribution by total funding amount



Bioconvergence involves the integration of different scientific disciplines, such as biology, chemistry, physics, and computer science, to develop new solutions for drug discovery. This approach enables researchers to combine knowledge and technologies from different fields to create more effective and efficient drug development processes. Israel is a leader in biotechnology and has a strong ecosystem of startups and research institutions that are working to develop innovative drug discovery solutions. Several Israeli companies are using bioconvergence to develop new drugs, with a focus on precision medicine and personalized treatments.

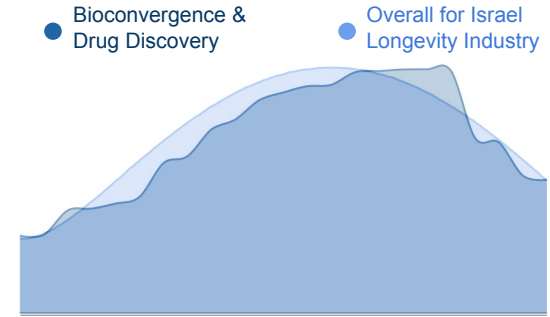
Regenerative medicine

Average funding per round
(in million of USD)



Funding per company		
Max	Average	Min
\$128M	\$17M	\$0.06M

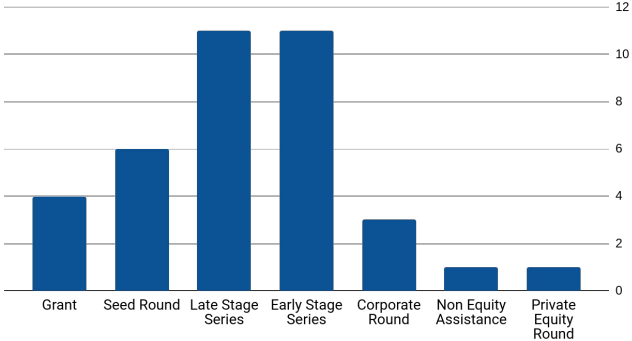
Companies relative distribution by total funding amount



Regenerative medicine includes stem cell therapy, tissue engineering, and gene therapy. Israel is a leader in stem cell research and has made significant advancements in this field, including the development of a way to produce stem cells from skin cells without using embryos. Israeli companies are also exploring the potential of tissue engineering to create new organs and tissues for transplantation, which also lies in frame of bioconvergence emerging trend.

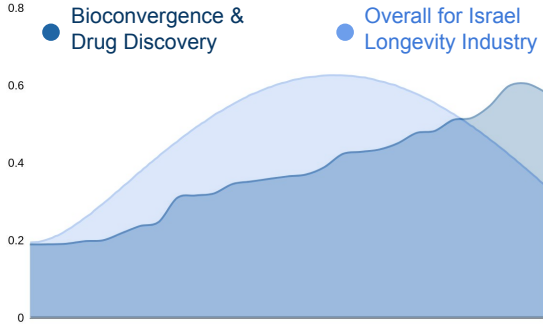
Digital Biomarkers

Average funding per round (in million of USD)



Funding per company		
Max	Average	Min
\$172M	\$22M	\$1M

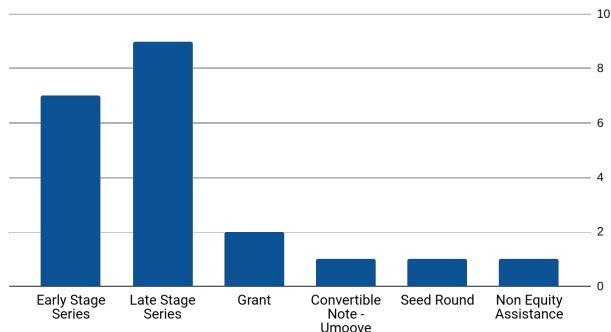
Companies relative distribution by total funding amount



Digital biomarkers can include data from wearable devices, mobile apps, and other sensors. Israel is home to a growing number of digital health startups that are developing new ways to collect and analyze data, including the use of artificial intelligence and machine learning. These technologies offer the potential to identify early signs of disease, monitor disease progression, and optimize treatment plans for individual patients. As the use of digital biomarkers continues to grow, they are expected to play an increasingly important role in the longevity industry, helping to improve patient outcomes and reduce healthcare costs.

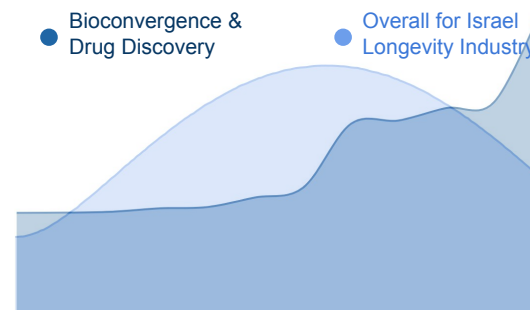
Biotech & Food Technology

Average funding per round
(in million of USD)



Funding per company		
Max	Average	Min
\$51M	\$10M	\$0.03M

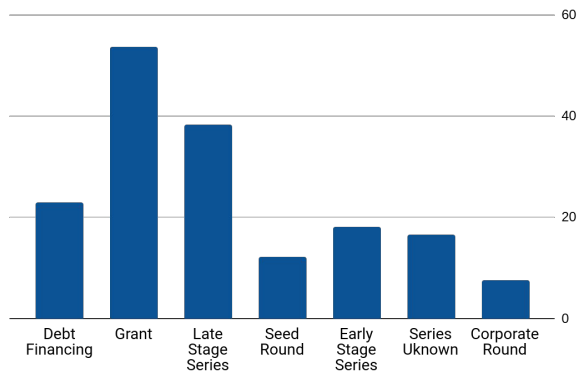
Companies relative distribution by total funding amount



Precision fermentation takes this a step further by using advanced biotechnology to produce more complex compounds, such as pharmaceuticals, with greater precision and at a lower cost. Israel is home to several precision fermentation startups that are developing new ways to produce these high-value compounds, using advanced technologies such as CRISPR gene editing and synthetic biology. As the demand for sustainable, cost-effective, and innovative ways to produce complex compounds continues to grow, precision fermentation is expected to play an increasingly important role in the longevity industry.

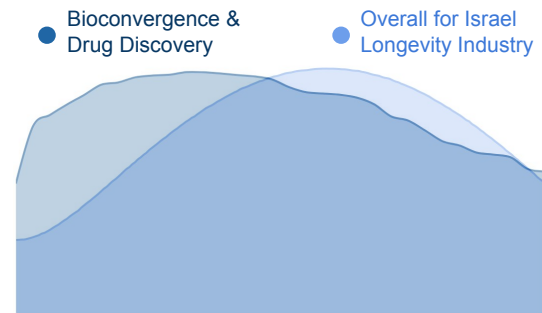
P4 Medicine

Average funding per round
(in million of USD)



Funding per company		
Max	Average	Min
\$150M	\$21M	\$0.1M

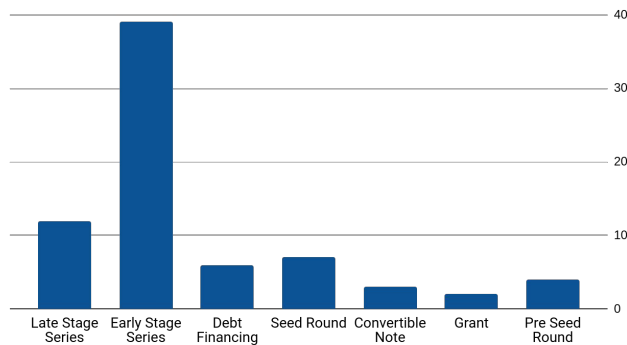
Companies relative distribution by total funding amount



P4 Medicine, which stands for Predictive, Preventive, Personalized, and Participatory Medicine, aims to shift the focus of medicine from reactive to proactive, by using advanced technologies and data analysis to predict and prevent disease before it occurs. This approach is highly personalized, taking into account a person's unique genetic makeup, lifestyle, and environmental factors. Patients are also encouraged to participate actively in their own healthcare, with a focus on prevention and early intervention. Israel is well-positioned to be a leader in P4 Medicine, due to its strong expertise in genomics, biotechnology, and digital health.

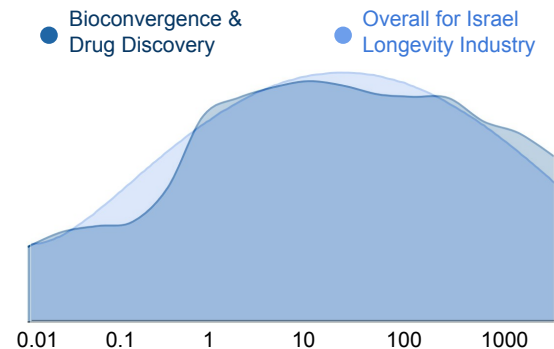
Synthetic Data Platform

Average funding per round
(in million of USD)



Funding per company		
Max	Average	Min
\$51M	\$10M	\$0.03M

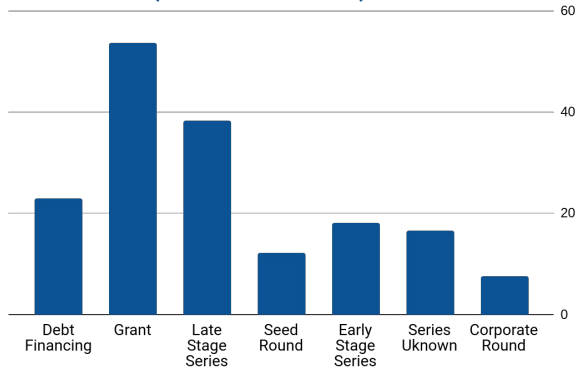
Companies relative distribution by total funding amount



Synthetic data platforms offer several benefits, such as protecting patient privacy, enabling rapid prototyping and testing, and reducing the need for expensive and time-consuming clinical trials. Israel is home to a growing number of digital health startups that are developing synthetic data platforms for various applications, including drug discovery, medical imaging, and disease diagnosis. These platforms use advanced algorithms and data modeling techniques to create highly realistic synthetic data sets that can be used to train machine learning models and simulate different scenarios. Synthetic data platforms are expected to play an increasingly important role in accelerating research and development.

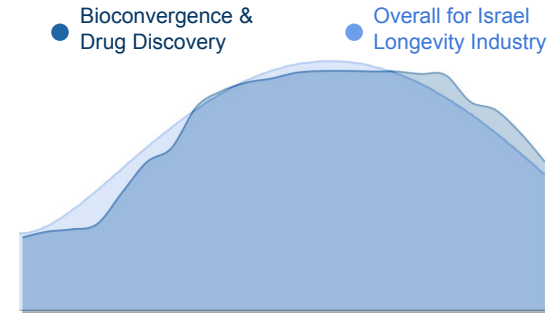
Remote Care

Average funding per round
(in million of USD)



Funding per company		
Max	Average	Min
\$90M	\$13M	\$0.03M

Companies relative distribution by total funding amount



The COVID-19 pandemic has accelerated the adoption of remote care in Israel and around the world, as it offers a safer and more convenient way for patients to receive medical care. Israel has a strong startup ecosystem focused on digital health, and several companies are developing innovative remote care solutions. The trend towards remote care is expected to continue to grow in the coming years, as the demand for convenient and accessible healthcare continues to rise.

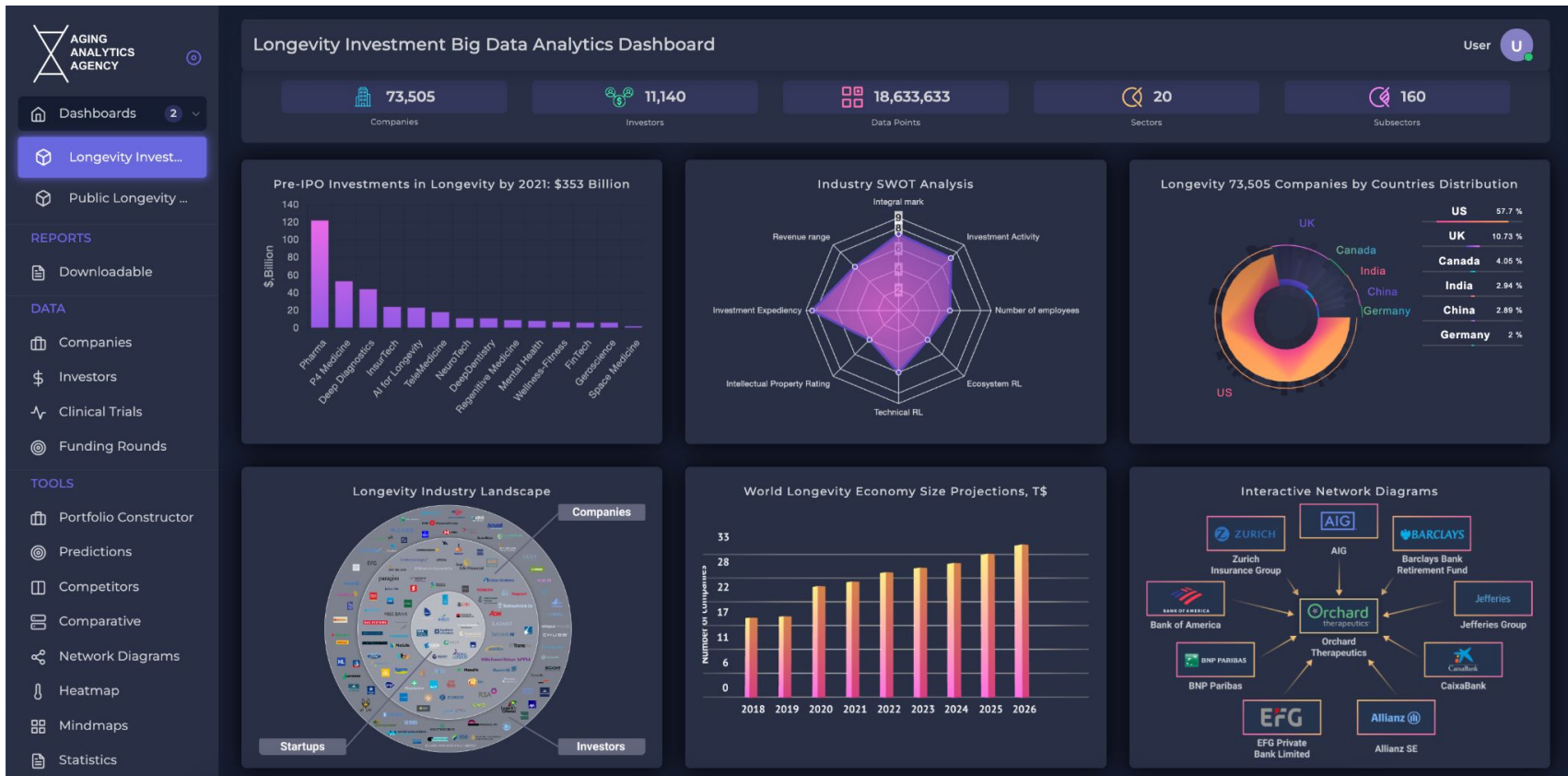
Innovative Healthcare in Israel: Conclusions

2023

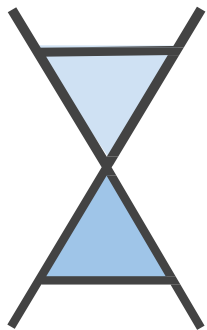
Innovative Healthcare in Israel: Conclusions

- The vast majority of the approximately 1,800 operational life sciences companies in Israel, established by Israeli entrepreneurs, have their headquarters located within the country, with only 15% having their headquarters situated in foreign nations. The Israeli government has designated National Priority Areas and Development Zones in peripheral areas as a way to stimulate economic growth and incentivize entrepreneurs to establish their companies in these regions. However, despite the substantial economic benefits that these areas offer, such as tax incentives and other government support, 80% of the life sciences companies in 2021 chose not to locate their headquarters in these areas;
- The capital of Israel, Tel Aviv, took the first place in every sector of the Longevity market of Israel. It possess the biggest number of R&D hubs, BioTech companies, clinics and hospitals that provide clinical trials. Advanced clinics, and diagnostic centers;
- The Medical Devices sector has historically been and continues to be the dominant sub-sector, accounting for approximately 36% of Longevity R&D companies in 2021, despite a 4% decrease from 2020. Telemedicine, on the other hand, is the second largest sub-sector and experienced a 3% increase in representation in life science companies in 2020, making it the fastest growing sub-sector. Biotechnology and Pharmaceuticals, however, have remained consistent with 2020 levels in terms of company representation. Looking towards 2022, the distribution of sub-sectors remains unchanged from 2021 during the first nine months of the year;
- Pharmaceutical companies from all over the world have been drawn to Israel for the purpose of conducting clinical trials of their products, with a consistent annual average of approximately 350 clinical studies being conducted up until 2022. The primary areas of focus for clinical research in Israel are oncology, cardiological disorders, and gastroenterological disorders;
- Israel is leading the way in the technological development of the digital health sector, with a particular focus on the implementation of artificial intelligence (AI) in healthcare. As a result, a large proportion of digital health companies in Israel are utilizing AI in their products, with 146 Israeli AI startups operating in the healthcare market segment. The cumulative funding raised by Israeli AI healthcare startups is a total of \$847M, with 67 of these startups having raised one or more funding rounds.

Longevity Investment Big Data Analytics Dashboard



About Ageing Analytics Agency



**AGING
ANALYTICS
AGENCY**

www.aginganalytics.com

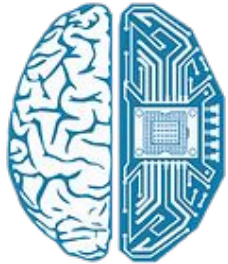
Ageing Analytics Agency is primarily interested in strategic collaboration with international corporations, organisations, and governments in Longevity-related projects and initiatives.

Ageing Analytics Agency is open to cooperation with strategic clients via a variety of approaches, including:

- Conducting customised case studies, research and analytics for internal (organisational) 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 meets our interests, Ageing Analytics Agency is open to co-sponsoring research and analytics for the production of internal and open-access industry reports, as well as special case studies for a variety of governmental, international, and corporate clients. Their topics of interest may include Longevity, the Longevity Financial Industry, Longevity Policy and Governance, and the development and execution of fully-integrated National Healthy Longevity Development Plans tailored to the specific needs of national governments and economies.

About Deep Knowledge Group



DEEP
KNOWLEDGE
GROUP

www.dkv.global

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

As a mathematical corporation focused on building the bridge to the 5th Industrial Revolution, Deep Knowledge Group is decisively committed to DeepTech for Social Good, Techno-Philanthropy and DeepTech and Longevity Industry Financial Commoditization.

About Vetek (Seniority) Association



www.longevityisrael.org

The Vetek Association has been at the forefront of aging research and advocacy in Israel. It has organized or co-organized several national and international conferences on biomedical aging and longevity research in Israel, such as the conference in Bar Ilan University in 2017 co-sponsored by the Israel Ministry of Science and Technology, and the conference in Weizmann Institute of Science in 2019 co-sponsored by the US NIH National Institute on Aging.

The main aim of Vetek (Seniority) Association – the Movement for Longevity and Quality of Life is to act for the advancement of healthy longevity for the entire population through scientific research, technological development, medical treatment, public health and educational measures, advocacy and social activism.

Within this general aim, the Vetek Association emphasizes and promotes the amelioration of the deteriorative aging process as the main factor undermining healthy longevity.

About Longevity International



www.longevity.international

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.

The platform utilizes sophisticated data-driven analytics provided by Aging Analytics Agency and advanced IT solutions (including interactive industry databases with intelligent multi-parametric search and filter capabilities) sponsored by Deep Knowledge Group.

Longevity.International is a unique platform that **brings together various stakeholders** from the Longevity Industry to collaborate, share knowledge and ideas, and work towards a common goal of promoting healthy longevity. With advanced IT solutions and data-driven analytics provided by Aging Analytics Agency and Deep Knowledge Group, the platform provides an intelligent and interactive database that facilitates efficient cooperation and discussion. Non-profit and non-commercial organizations that share the vision of transforming the challenge of aging into an opportunity for longevity are encouraged to join as institutional partners, while commercial organizations can support the platform as sponsors.

About Biogerontology Research Foundation



Biogerontology
Research Foundation
Prevent. Restore. Preserve.

www.biogerontology.info

The Biogerontology Research Foundation is the UK's leading non-profit focused on Longevity and on expediting the coming paradigm shift from disease treatment to personalized precision prevention.

It was the main initial donor that provided financial and organisational support to Longevity International UK for the purpose of establishing the APPG for Longevity.

It was also actively involved in the successful initiative of adding a new extension code for “ageing-related diseases” accepted in 2018 by the World Health Organization during the last revisions of its International Classification of Diseases framework - the closest any group has come to classifying ageing as a disease.

The Biogerontology Research Foundation has always made progressive policy proposals relating to Longevity a core element of its activities, and has recently made the decision to significantly expand its scope of activities in this regard, interfacing with both national and international policy-related organizations to further the United Kingdom's activities relating to Longevity politics and governance.

About ATLAS (Assistive Technology, Longevity and Ageing Society)



www.at-las.org

ATLAS (Assistive Technology, Longevity and Ageing Society) is an Advocacy for the prioritisation of frontier technologies in AssistiveTech and AgeTech to impact lives on a global scale. We believe that technology is a major enabler of social inclusion in the world, and so we leverage partnerships via tech founders, venture philanthropy and impact investment to deliver a future of technology for all.

ATLAS pledges to:

- Champion the AssistiveTech Ecosystem and its potential to drive social inclusion
- Promote healthy Longevity and its importance to society and ecosystem
- Restore the Technological Rights of our senior community

ATLAS is a non-profit organization that aims to create a world where technology is accessible and inclusive for people of all ages and abilities. Their focus is on advocating for the use of frontier technologies in the fields of AssistiveTech and AgeTech, promoting healthy longevity, and restoring the technological rights of senior citizens. By partnering with tech founders, venture philanthropy, and impact investors, ATLAS is working towards delivering a future of technology that benefits everyone.

About Longevity Industry Ecosystem in Israel IT-Platform

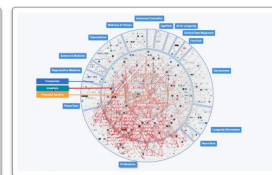


- The platform and report together provide an extensive overview of the companies, investors, and R&D activities in Israel's Longevity Industry, aiming to inform and guide stakeholders such as investors, entrepreneurs, and policymakers.
- Our commitment to advancing this industry is showcased by the platform's aggregation of materials on the Longevity ecosystem in Israel and beyond.

Welcome to the Aging Analytics Agency's IT Platform, developed in collaboration with the Biogerontology Research Foundation and Vetek (Seniority) Association. As a central hub for resources and information on Israel's Longevity Industry, our platform complements the "Longevity Industry in Israel 2023" report, which offers a comprehensive analysis of the sector.



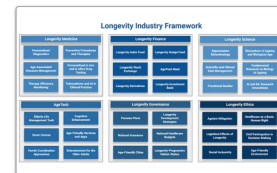
Longevity Industry in Israel Report



Interactive Mindmaps



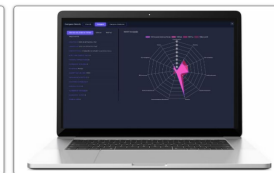
Leaders Database



Longevity Industry Framework



Mindmap



Longevity Industry Dashboard

Longevity Industry Ecosystem in Israel

Introduction the new Longevity Industry Ecosystem in Israel: Longevity Industry Ecosystem in Israel 2023

Access now!

Navigate Longevity Ecosystem in the Israel and more

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Interactive Mindmaps

Leaders Database

Longevity Industry Framework

Top-200 Longevity Industry Companies in Israel 2023

Mindmap

Longevity Industry Dashboard

Longevity Industry Framework

Mindmap

Longevity Industry Dashboard

Longevity Nation Conference – international collaboration

Longevity Nation Conference is taking place 26 - 27 March in Bar-Ilan University, Israel. This event aims to increase the synergy between the scientific research, novel technologies and aging society to find new solutions for healthy longevity progress.

Aging Analytics Agency is proud to collaborate with with the world leaders in longevity and aging including **Vetek**, **International Longevity Alliance**, **Biogerontology Research Foundation**, **ESAAM**, **Shlomo Tyran Foundation** and others. Such cooperation brings together the loudest voices to promote and develop the longevity ecosystem in Israel and worldwide.



התנועה לאיכות ואריכות חיים (ע"ר)
Seniority-The Movement for
Longevity and Quality of Life





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Biogerontology
Research Foundation
Prevent. Restore. Preserve.



DEEP
KNOWLEDGE
GROUP



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