



In partnership with



2022

IATI Israel's Life Science Annual Industry Report

➤ *Connecting Israel's Tech Ecosystem*

Israel Life Sciences Industry Rising Sectors-Wellness

With the support of Welltech Ventures

With the support of



In cooperation with



IATI is the umbrella organization of Israel's tech ecosystem with the mission of generating impact across all value chains of the Israeli economy and society



 **Connecting Israel's tech ecosystem**

To learn more about joining IATI:

T: +972 73713 6313 / iati@iati.co.il / www.iati.co.il

Herzliya Pituach, Israel





**MIXIII IS BACK
IN JERUSALEM**

THE INTERNATIONAL LIFE SCIENCE & HEALTH-TECH WEEK IN ISRAEL

Conference | Exhibition | Networking | Social Events



NOVEMBER 9-10, 2022 | ICC Jerusalem



In Cooperation:



In Partnership:



Diamond Sponsor:



Gold Sponsors:



Silver Sponsors:



Sponsored by:



In Collaboration:



Executive summary

IATI Israel's Life Science Annual Industry Report provides the broadest, deepest view of this thriving industry. The continuity, the annual comparison and the long-term view, all make the Report the most comprehensive take on the Israeli Life Science Industry. As the Israel's Umbrella Organization of the High-Tech & Life Science industries, IATI continuously acts to connect and promote the country's massive resources of academic and technological prowess towards creating a fertile ecosystem which will nourish growth in the coming years as well.

The Israeli life science industry kept growing in 2021 despite the COVID-19 pandemic. Continuance increase in the number of companies, stable maturity levels and innovation in new and developing sectors, all contribute to the industry's success and its significant role in the Israeli economy. 2021 was a record year in capital raising from VCs, public offerings and other investors with a challenging H1 of 2022 in these aspects.

After putting a spotlight on the industry's rising sub-sectors in our prior report, we focus this time on some new promising sub-sectors and following up on those we have identified in the past. This is in addition to the traditional sub-sectors discussed in our prior reports. The spotlight is put on those sectors not only because they are fast populated by new companies and attract more investments, but mainly as being leaders in innovation and multidisciplinary abilities, demonstrating the industry's ability to take advantage of the excellence in academic research, deep government support and the innovative ecosystem in Israel.

The healthtech industry has been experiencing dramatic changes due to the COVID-19 pandemic. From unique collaborations with players coming outside of the life sciences industry through fast paced adoption of digital health and remote health solutions, the pandemic had a huge impact on the industry. This also led to a record year when it comes to funding, as aforementioned.

The healthcare landscape is continuing to shift towards a more integrated ecosystem, converging biopharma, medtech, digital health and healthcare into a single bioconvergent industry. This emerging bio-convergent healthtech space holds great potential to make a transformative impact on health and healthcare practices. When it comes to holding a leading position in this emerging bio-convergent field, Israel has substantial strengths and capabilities. The new shifts and trends in the Israeli Health Tech space were all demonstrated for the first time in a conference driven by IATI by the industry and for the industry in continuation of the legacy of the MIXIII conference.

A broader discussion on Israel's value proposition in the bio-convergence sphere can be found in the "Bio-Convergence Revolution" chapter of this report.

The healthcare system is confronting skyrocketing costs, while the biopharma industry is coming up against aggressive pricing pressures. In an effort to meet these challenges, the healthtech industry is seeking new innovation growth engines.

Israeli life science companies can play, and in many ways already are playing, a leading role in facing the coming challenges. Fostering digital health innovation to address actual needs and not perceived ones, for example, can lead to significant improvements in integrating technological solutions, even from sources outside of traditional healthcare. We invite you to read insights from the field in the "How Can the Israeli Health-Tech Industry Reduce the Cost Burden" chapter and throughout the report.

We would like to warmly thank Omer Gavish, Partner, Pharmaceuticals & Life Sciences Leader at PwC Israel, for all the support in preparing this Report; Dr. Ami Appelbaum Chairman and Dror Bin, CEO of The Israeli Innovation Authority for supporting our Report and for partnering with us on promoting the industry throughout the year; Prof. Yossi Matias, Vice President, Engineering & Research, Google; Dr. Yair Schindel, Co-Founder & Managing Partner and the team of aMoon Fund; Oded Har-Even, Co-Managing Partner, Sullivan & Worcester Tel-Aviv; and Dr. Ruth Dagan, Partner, Head of Environment & Climate Change, Herzog Fox & Neeman.

Here's to another year of Israeli Health- Tech pride!

Karin Mayer Rubinstein

CEO & President

IATI

Yaacov Michlin

Chairman

MIXiii Health-Tech.IL

All rights reserved for IATI - Israel Advanced Technology Industries (R.A)© ("IATI") . No part of this publication may be reproduced, copied, photocopied, stored in retrieval system, transmitted by electronic, mechanical, photocopying or recording means in any form in whole or in part - without the prior written permission of IATI.

Israel Life Sciences Industry Rising Sectors

The following sectors, typically included under various sub-sectors and not identified separately in the data shown in this report, are a few of the sectors identified by us as the rising sectors in the Israeli life sciences industry. We believe that these sectors, together with these identified by us in our prior reports, will be the future engines of the Israeli Life Science Industry and will draw a larger portion of investments, efforts and support.

Wellness¹

Why Wellness, Why Now?

Wellness is defined as “the active pursuit of activities, choices, and lifestyles that lead to a state of holistic health”.² This pursuit is often individual but influenced by one’s surroundings. It comprises many spheres, including emotional, spiritual, mental, social, physical, vocational, and sometimes financial. Therefore, the pursuit of leading a healthy life is where all of these components are considered. The Global Wellness Institute defines wellness as a *process* of building habits, not a state of being (i.e. being happy) or an ultimate destination.

Today, this holistic view of health is not exclusive to the wellness world. The World Health Organization defines health as a state of complete physical, mental and social well-being and not merely *the absence of disease or infirmity*. This paradigm shift, where the holistic philosophy of wellness converges with the world of health, has been years in the making due to increased healthcare expenditures³. Chronic noncommunicable diseases have become the leading source of early mortality rates, surpassing those of communicable diseases. Noncommunicable diseases⁴ kill 41 million people annually (equivalent to 74% of all deaths globally), 77% of which occur in low and middle income countries⁵. Chronic disease going undiagnosed until it is too late has led to a fundamental change and focus on preventative care and wellness rather than curative care in traditional healthcare.

Promoting wellness to prevent chronic disease has become a priority all across the board, from the individual consumer to employers, insurance companies, governments, academia, hospitals, and the healthcare system, bringing together many disciplines under the wellness umbrella. This crossover also includes Biopharma, Medtech, Digital Health, and Healthcare into a single bio-convergent industry.

¹ With the support of Welltech Ventures

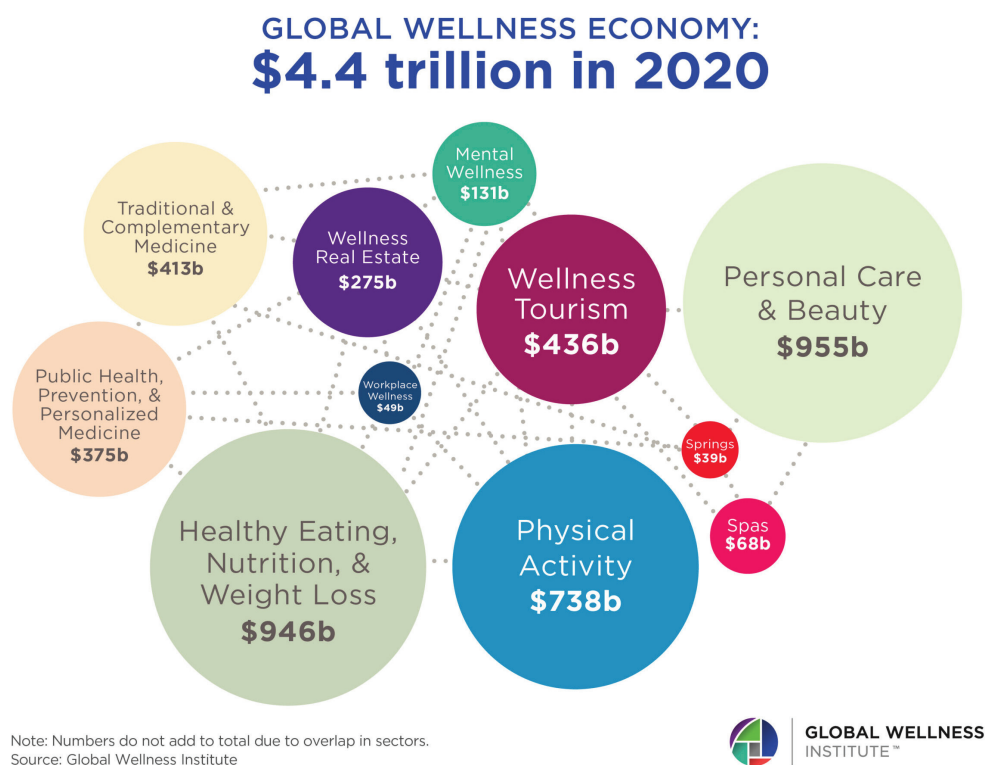
² <https://globalwellnessinstitute.org/what-is-wellness/>

³ <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet>

⁴ <https://www.cdc.gov/globalhealth/healthprotection/ncd/global-ncd-overview.html>

⁵ <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>

Figure 10 - Global Wellness Industry in Size



Global Wellness Industry Size

The Global Wellness industry has been on the rise in recent years. In 2020, the global wellness economy was valued at \$4.4 trillion, and the figure is only increasing post-Covid 19 pandemic. It is predicted to reach nearly \$7.0 trillion in 2025, with a 10% annual growth rate⁶. This growth is spurred by increased adoption of preventative care to reduce healthcare expenditures caused by chronic diseases and by groundbreaking technologies that make wellness accessible to the masses.

Technology - The Wellness Enabler

Technology can support individuals and organizations in their pursuit of wellness. It can range from apps to reduce anxiety, improve sleep and fitness, to telemedicine and digital health solutions to promote and improve one's physical and mental wellness.

Today, the lines between health and wellness startups are blurred as more wellness technologies rely on clinical trials and science-backed claims to bring their products to market. This blurring of lines has led to a whole new field that brings together engineering and life sciences, known as bio-convergence, which is of particular significance to startups.

⁶ <https://globalwellnessinstitute.org/industry-research/the-global-wellness-economy/>

The past decade has seen the rise of groundbreaking technologies that rely on AI, big data, and machine learning to bring wellness to the masses. Today, some wellness startups have already

Israel - A Fertile Ground for Innovation & Wellness

While Israel has been a world leader in tech for the past two decades, it is only in the last couple of years that the Israeli ecosystem has seen rapid growth in wellness. This rapid increase in wellness technologies is due to global trends, market demands, and the Israeli ecosystem's legacy as a fertile ground for innovation. Furthermore, due to Israel's centralized healthcare system, clinical trials are relatively easier to complete in Israel, an attractive option for wellness startups. Another trend we've identified at Welltech Ventures is experienced founders and serial entrepreneurs from more traditional Israeli tech sectors, such as Cyber and Fintech entering the wellness and health tech arena.

There are hundreds of wellness-specific startups in Israel today and thousands of more that touch upon the wellness space - from digital health, sports tech, agrotech, climate tech, and food tech companies. For example, when food tech companies are built on the concept that "food is medicine", it feeds into the holistic concept of wellness and preventative care, thus making it part of the wellness ecosystem even though they may not be classified as such on public record.

Emerging Global Wellness Trends

- **Remote Care & Preventive Medicine, Telehealth & Telewellness**

The COVID-19 pandemic undoubtedly accelerated the need and adoption of remote care, a trend gaining traction in the last decade. Between 2017-2020 alone, 20% of startups founded Remote care, mainly made up of "monitoring" and "telehealth" are also significant pillars of preventative care.

Remote care technologies offer patients a virtual HMO solution for primary care, mental health, monitoring, and preventative care.

The widespread adoption of these technologies has also given way to the digitization of care and the aggregation of data otherwise not accessible, using machine learning that allows for more precise, personalized care based on shared parameters.

- **Mental Health, Neuro-Wellness & Sleep Wellness**

Mental health is perhaps one of the most talked about trends in the media and popular culture of today. While there was an increase in new mental wellness startups in both 2019 and 2020, the true growth has occurred post-pandemic. In 2021, global mental health apps market size was valued at USD 4.2 billion and is expected to expand at a compound annual growth rate of 16.5% from 2022 to 2030⁷. Mental health app downloads increased during the pandemic as people felt lonely and depressed, offering significant growth opportunities in the digital health and mobile health space.

Mental health apps also offer personalized and accessible care, with solutions such as one-on-one therapy, anxiety management apps that generate a daily mental health score based on how people interact with their phone, and therapeutic games to maintain overall health and stress to a minimum. Technologies also exist to improve symptoms of mild-to-moderate depression and anxiety through the use of Facilitating Thought Progression (FTP), integrated into a mobile gaming solution that requires only a few minutes each day to deliver results. In addition, devices and wearables that reduce stress hormones by activating the parasympathetic nervous system, providing immediate drug-free relief are also entering the market.

With 1 in 6 people in the UK alone having a neurological condition, another field gaining traction is neuro-wellness (neurological wellness). This focuses on emotional wellbeing, mood enhancements, and innovation. Both academic researchers and startups are studying the scientific relationship between our body's control center (the brain) and emotional health, bringing drug-free innovations such as devices and apps into this space. One example is an app that offers motor and cognitive evaluations that can lead to Parkinson's and Alzheimer's early diagnosis with nothing more than a smartphone.

Quality of sleep is also being addressed by wellness technologies. With 1 in 3 Americans not getting enough sleep, sleep represents a space in desperate need for innovation. Wireless technologies are being developed to monitor medical-grade sleep patterns using multimodality measurements of EEG, EOG, EMG, and ECG to diagnose sleep disorders based on an advanced cloud machine learning algorithm, all in a natural, at-home sleep environment. Sleep wellness solutions are becoming more accessible and readily available as technology advances.

⁷ <https://www.grandviewresearch.com/industry-analysis/mental-health-apps-market-report>



Israel Advanced
Technology Industries

IATI - Israel Advanced Technology Industries

89 Medinat HaYehudim St., Bldg E, Herzliya Pituach, Israel

Tel: +972 (0)73 713 3401

iati@iati.co.il, www.iati.co.il

