

IATI Israel's Life Science

Annual Industry Report 2023-24

In cooperation with:

●●● Connecting Israel's Tech EcoSystem



Executive Summary

The life sciences industry in Israel - a look to the future

The Israeli life sciences holds enormous opportunities. The special abilities that have been acquired and accumulated in recent years among Israeli life sciences companies in general and in particular in the fields that combine engineering, biology and remote medicine - all of these provide a tremendous opportunity for the life sciences industry, if we only know how to take advantage of it. The Israeli life sciences industries has grown consistently in recent years, but in 2023 there has been no significant increase in the number of new companies and as of today there are still approximately 1,800 companies operating in Israel in the life science space while about 59% of them are in the R&D and seed stages.

From this comprehensive annual Report of IATI, in collaboration with PwC Israel and the Israel Innovation Authority, which was presented by IATI at the MIXiii Health-Tech.IL conference, it appears that in 2023 approximately 1.7 billion dollars were invested in private companies, a big drop compared to the 3.3 billion in 2022. However, ~432 million dollars were raised by Israeli companies in a follow-up fundraising on the US stock market and this amount represents an increase of 66% in relation to 2022. Out of the total private investments of about 1.7 billion dollars in life science companies in 2023, over a billion dollars were invested by foreign investors - a drop of almost 50% compared to 2022, but still higher than the amount of foreign investments every year up to and including 2019.

It means that foreign investors keep supporting and appreciate the Israeli Life Science sector – but this is a fragile situation that might change fast.

Almost every scientific medical breakthrough has some Israeli connection, whether in research, involvement in the leadership of the developing company, and more. The contribution of the field of life sciences to the Israeli economy is enormous, both in exports from Israel, and in the quality of approx. 78,000 jobs it provides and no less important in stability over the years. Despite the drop and relatively slow pace of recovery in investments in Israel in the health sector, we are optimistic about the present and future of life sciences in Israel and the expected growth in this field.

immediately after the end of the war of iron swords that we so long for Israel has global leadership in many fields, including the interfaces between hardware, software and biology and AI-based research. Those are used to develop drugs, make the best decision for the patient care and even predict success based on past results of experiments. The high-quality databases in Israel as well as the many studies in rare diseases and other fields such as neurology, cancer and eye diseases - all of these contribute significantly to the Israeli innovation system in the field.

At the conference in March 2024, we decided to focus on the aforementioned strengths of Israel, and in the spirit of unity these days, we combined a number of sub-conferences into our main conference: a special session on digital medicine that includes a startup competition in the field, a special session on innovation in the field of eyes with the global OIS organization, as well as a conference that will discuss the strengths and commercialization capabilities of The Israeli research institute together with the ITTN Association.

Israeli life sciences companies can play, in many ways, a leading role in dealing with the many challenges that will come along the way and a provide a stable critical growth engine.

We wish the entire life sciences and health-tech industries, continuous growth, lots of innovation and collaborations and maximum benefits from the MIXIII conference of 2024.

We would like to warmly thank Omer Gavish, Partner, Pharmaceuticals & Life Sciences Leader at PwC Israel, for the cooperation in preparing this Report 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!

Karin Mayer Rubinstein
CEO & President
Israel Advanced
Technology Industries
Association IATI

Yaacov Michlin
CEO Biolight Life
Sciences
Chairman
MIXiii Health-Tech.IL

Israeli Life Sciences Companies **in numbers**



~1,800

**Active Israeli
Life Sciences Companies**

No significant change compared to prior year



~78,000

**Employees in Israeli Life
Sciences companies**



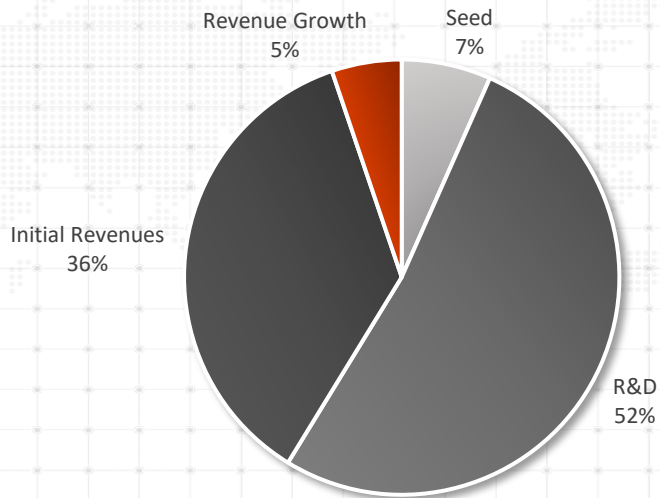
53

**Companies Established
in Israel 2023**

A drop of 51% compared to 2022

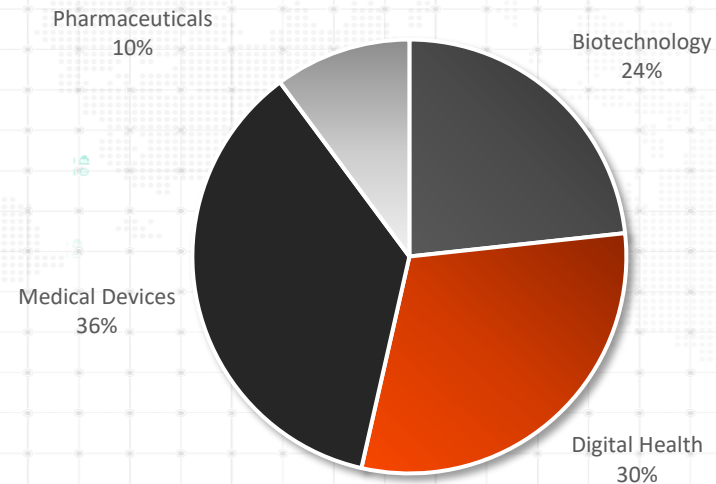
Israeli Life Science Companies breakdown

By Stages



No significant change in the percentage of the industry's sub-sectors and growth stage

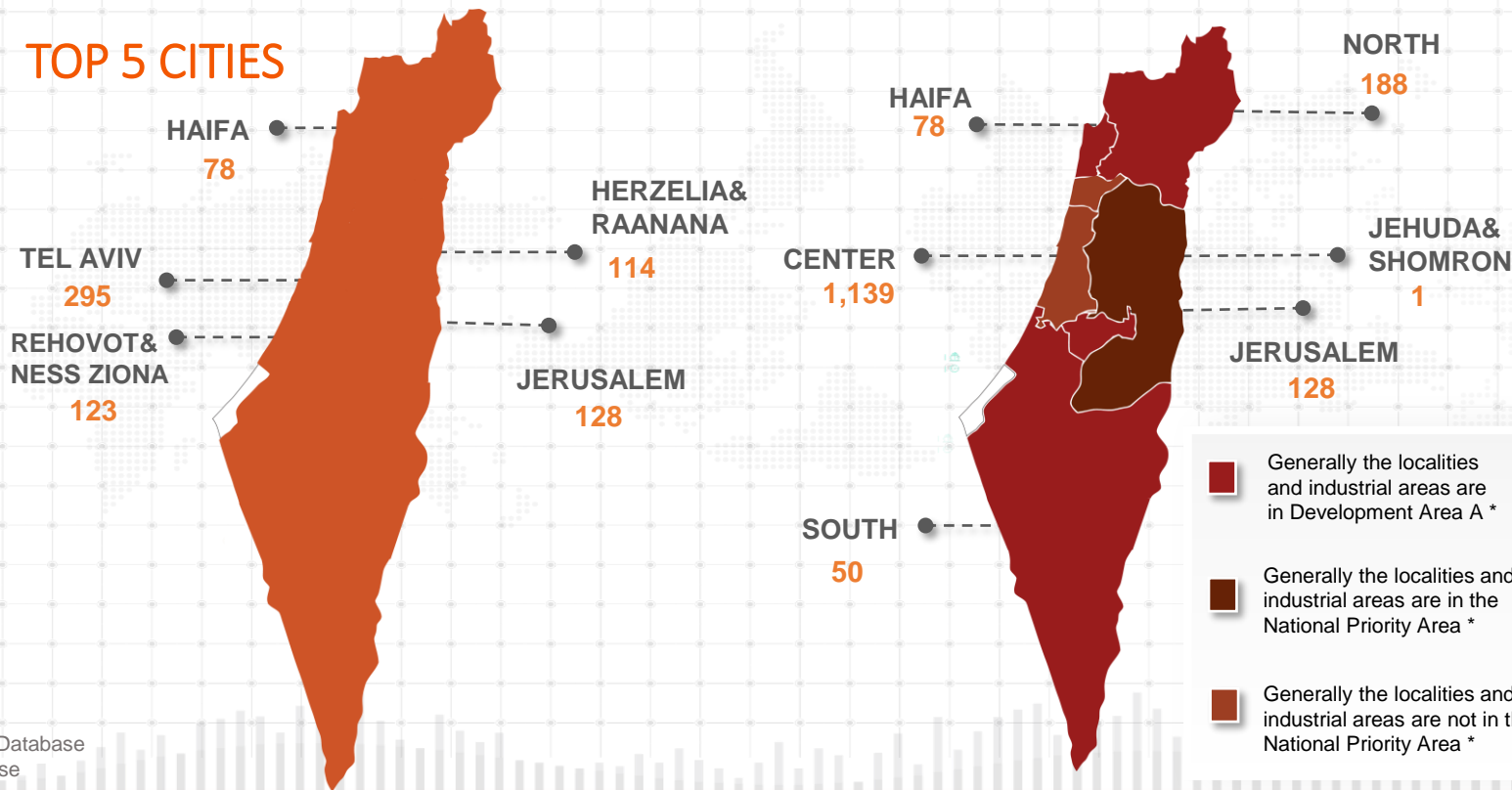
By Sub-Sectors



Source: IVC Online Database
IATI Database

Israeli Life Sciences Companies by Location

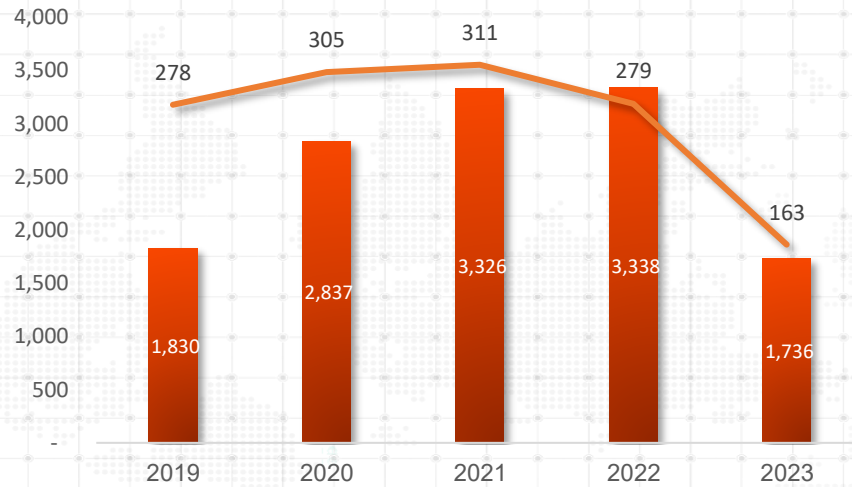
TOP 5 CITIES



Source: IVC Online Database
IATI Database

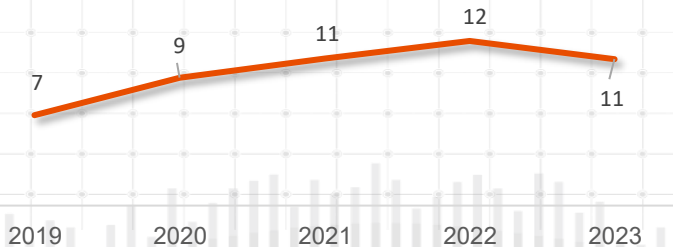
Capital Raised by Israeli Life Sciences Companies - Private equity (\$ million)

Total amount raised in the first weeks of 2024 was less than \$100 million, continuing the trend from 2023. With an average deal size of \$7 million, the average deal size in 2024 is the lowest since 2019.



Capital Raised \$m # of Life Science Deals

Average Deal size (\$ million)

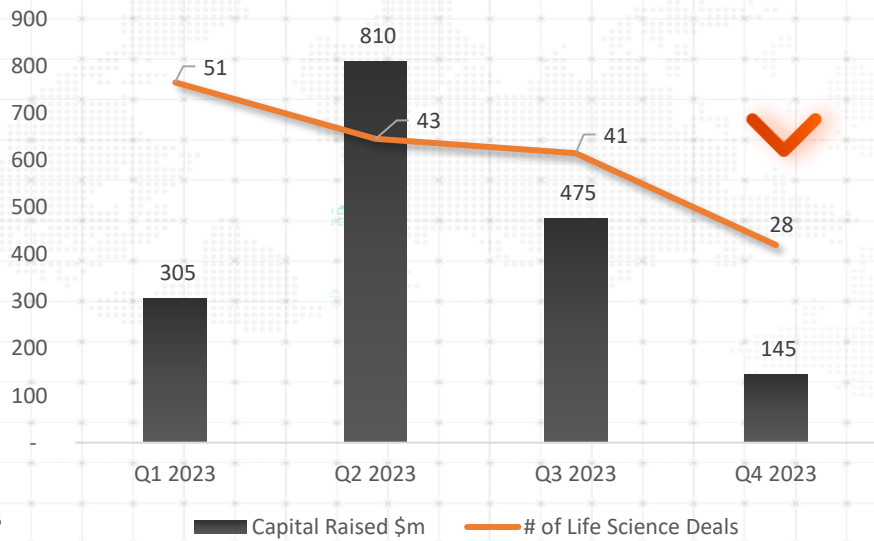
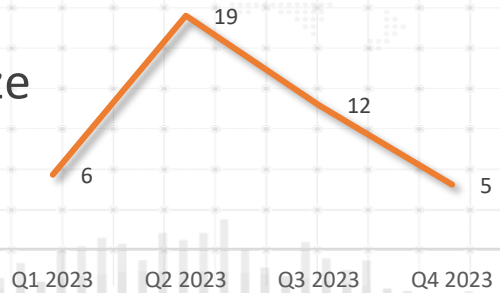


Source: IVC Online Database
IATI Database

Capital Raised by Israeli Life Sciences Companies in 2023 – Private equity (\$ million)

In the fourth quarter of 2023, there is a significant decrease in the total amounts raised, presumably due to the Iron Swords war in Israel. The trend continued in 2024.

Average Deal size (\$ million)

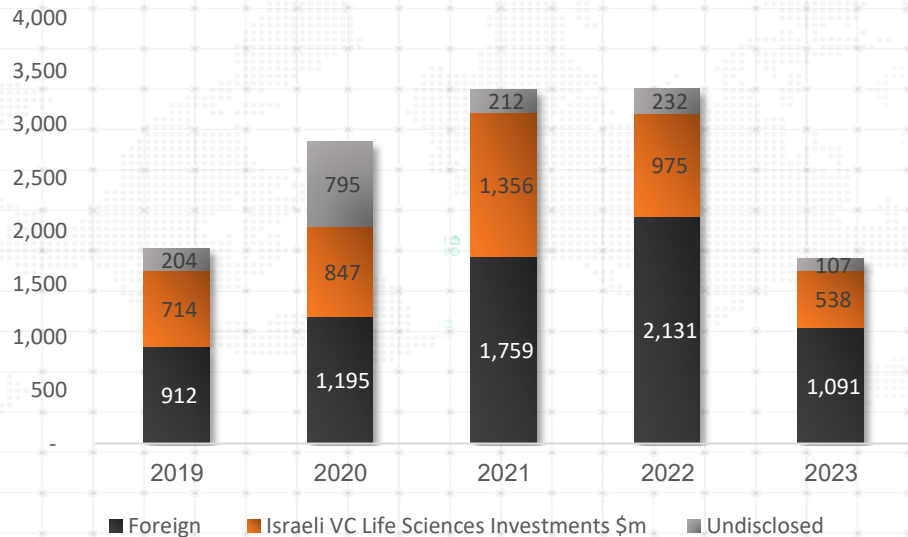


Source: IVC Online Database
IATI Database

Q1 2023 Q2 2023 Q3 2023 Q4 2023

Capital Invested in Israeli Life Science Companies: Israeli vs. Foreign Investors - Private equity (\$ million)

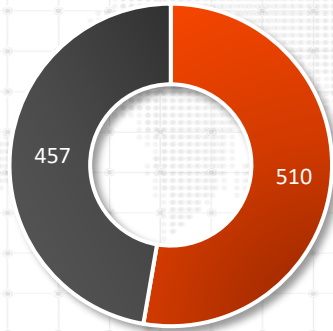
While the total amount raised from foreign investors decreased, their percentage out of the total investments has increased in 2022 and 2023.



Source: IVC Online Database
IATI Database

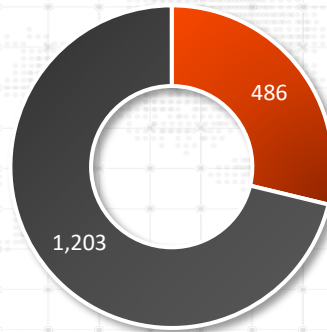
VC-Backed vs. Non-VC-Backed Life Science Financing – 2014, 2018, 2024 Snapshot

2014



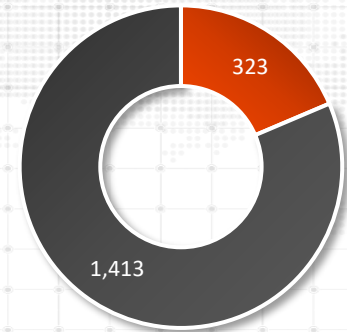
■ Non VC-Backed ■ VC-backed

2018



■ Non VC-Backed ■ VC-backed

2023



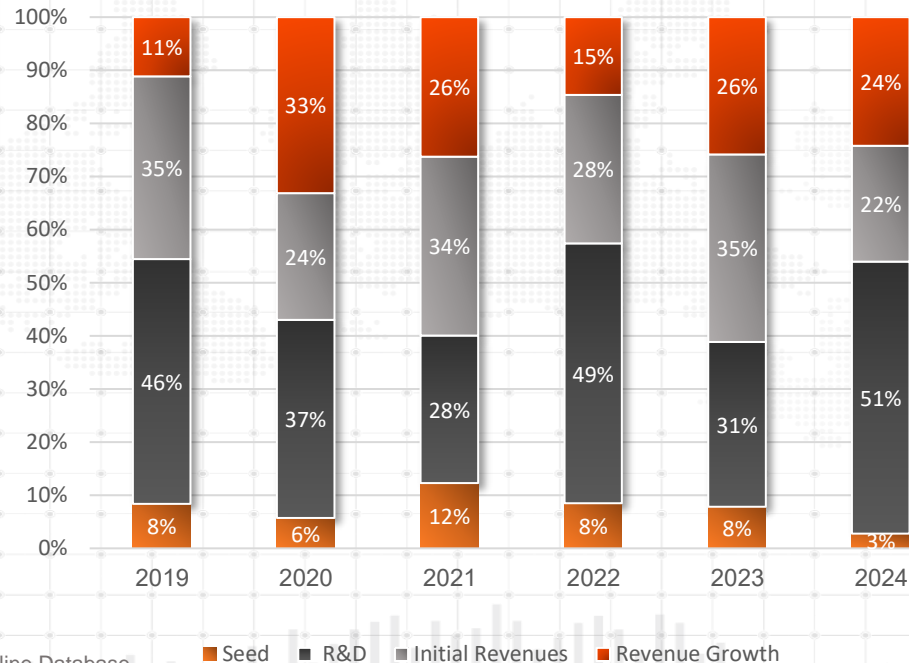
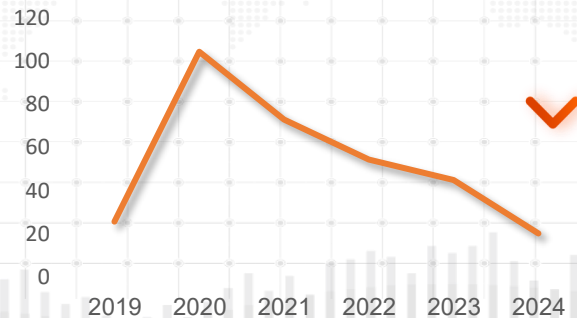
■ Non VC-Backed ■ VC-backed

Source: IVC Online Database
IATI Database

Capital Raised by Israeli Life Sciences Companies by Stage – Private equity

Average deal size in revenue growth companies continue to decrease in 2023, while in companies in other stages the average deal size remains stable comparing to 2022.

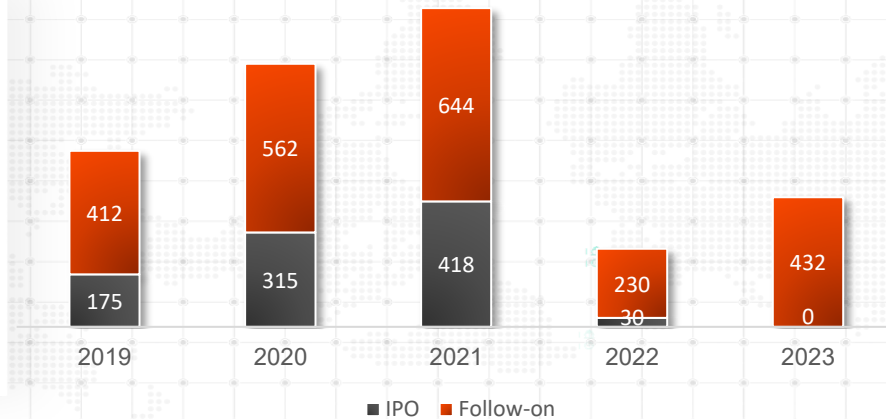
Revenue Growth Stage - Average deal size (\$ million)



Source: IVC Online Database
IATI Database

Public Offerings by Israeli Life Science Companies on Wall Street

On the first weeks of 2024, approximately \$10 million was raised in Wall Street in 2 follow-on investments, representing the lowest average deal size in the last decade



Source: IVC Online Database
IATI Database

Top 5 Deals

in 2023:

gamida Cell

89bio

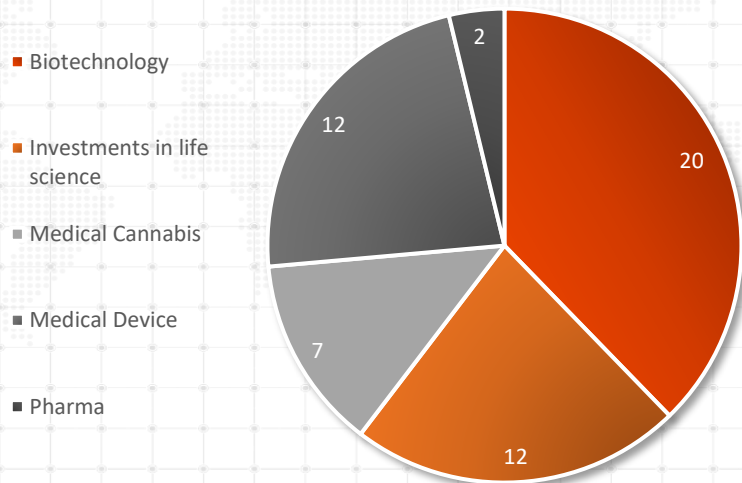
Sol-Gel
Advanced Topical Therapy

MW MediWound

NANOX

Life Science Companies on Tel Aviv Stock Exchange (TASE) by sector*

Number of Companies by Sub-Sector



Funding Snapshot

\$208.5 million
2021

\$2.1 million
2023

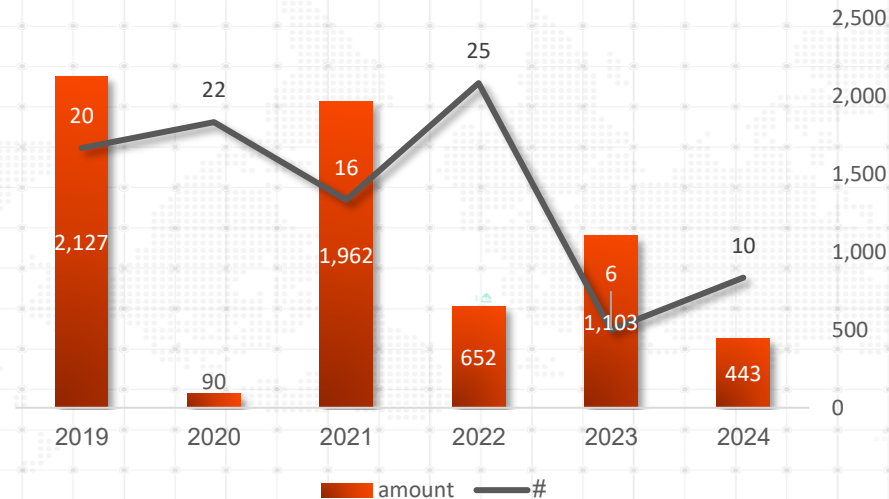
After 2021, which was a record year for Life Sciences companies in TASE, both IPOs and follow-on offerings, the activity in 2022 & 2023 decreased significantly.

Source: Tel Aviv Stock Exchange

(* There may be differences between sub-sectors definitions in this figure compared to the other sections in this report

Acquisitions of Israeli Life Sciences Companies – \$ millions, # of Companies

2023 is the fourth year
in a row with a single
acquisition exceeding
\$0.5 billion



Source: IVC Online Database
IATI Database

Top 3 Deals in 2023 and 2024:



\$348 million

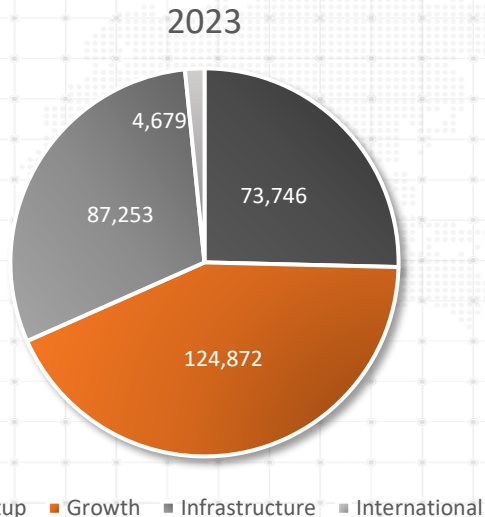


\$330 million



\$650 million

Total approved grants **by division** (NIS in thousands)

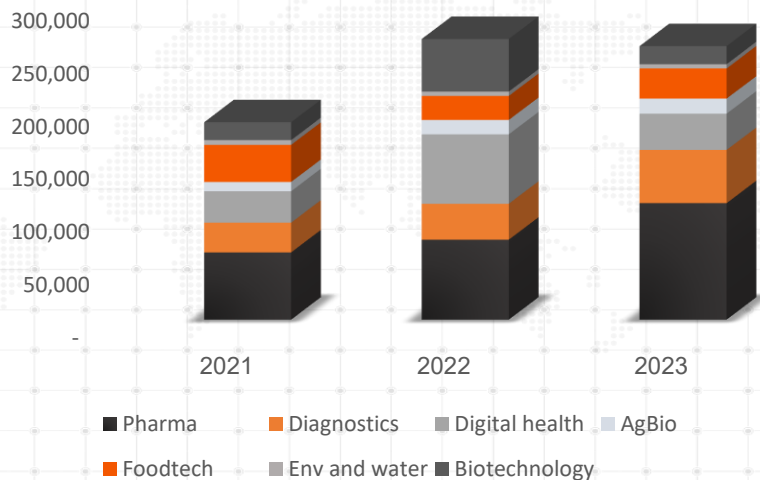


Source: Israel Innovation Authority

The IIA provides supports Israel's innovative programs and companies through various channels: The **startup division** provides the first opportunity for creative entrepreneurs and inventors to demonstrate their ideas, the **growth and advanced manufacturing division** supports emerging and mature companies enhancing their position in the market and designing their next product, the **technological infrastructure division** stitches academic research into industrial projects and initiates large consortia to tackle next generation challenges, and the **international collaboration division**, enables the exposure and synergy of Israeli developments with partners abroad and into global programs.

Total Israel Innovation Authority approved grants by sub-sector (NIS in thousands)

Percentage of approved grants from total applications (exc. Tnufa program):



52%
2021

53%
2022

46%
2023

Source: Israel Innovation Authority

Highlights of Israel Innovation Authority activities of 2023 and into 2024

- **Ongoing support through the war** - Shortly after October 7th, a new 'fast path' funding program was announced, designated to keep Israel's promising tech start-ups afloat as their funding sources become less stable. Tens of Life Sciences companies are now supported by this program, build upon a similar 'lifeline' program applied in 2020 during the COVID19 crisis. These grants extend recipients ability to achieve meaningful results, complete pilot studies and reach development milestones, so they can secure their next round once the right funding conditions are met again.
- **Extended budget, new programs** - In January 2024, Israel's government approved a significant increase in the IIA budget, a transformative stimulus package aimed at elevating Israel's standing as a global high-tech hub. These steps will also bolster life sciences and healthcare industries through several new initiatives, depicted below.

2024 – Israel Innovation Authority new funds and updates

- **A new Startup Fund:** The Fund will collaborate with private investors to inject over half a billion shekels to startups in Pre-seed, Seed, Round A rounds, with variable budget ceilings from NIS 2.5-50 million and grants covering up to 60% of total funding.
- **Updated Tnufa Fund:** The updated program was expanded to a total budget of NIS 250,000 per single application, at a grant rate of 80% (NIS 200,000) - to promote idea development, initial prototyping, preparation for the Proof of Concept (POC) stage and initial funding - even prior to the establishment of a company.
- **Nationwide Innovation Centers:** Nine new innovation centers will be established across the country, from the Upper Galilee down to the Negev, Gaza envelope and Eilat at a NIS 100 million budget, combining Israeli and foreign corporations, regional clusters and investors, to promote startups with strong regional connections and foster high-tech employment. The centers will leverage the region and Israel's competitive advantages, including life sciences technologies such as Health-tech, Agri-tech, Food-tech and Climate-tech.
- **New YOZMA:** 30 years after the first YOZMA fund transformed the face of Israeli tech sector, a new YOZMA Fund to encourage Israeli institutional entities to invest in Israeli venture capital funds, utilizing a Fund of Funds model. Over 4 billion shekels will be invested jointly over a 5-year period, bolstering the high-tech ecosystem, from which a significant slice would be dedicated to healthcare, healthtech and life sciences projects.

Growth vectors of the life sciences industry

ISRAELI INNOVATION AUTHORITY SUPPORT



Translational science



Digital Health



Bioconvergence



Food-Tech

OUR TAKE



Neurotech



AI for drug discovery



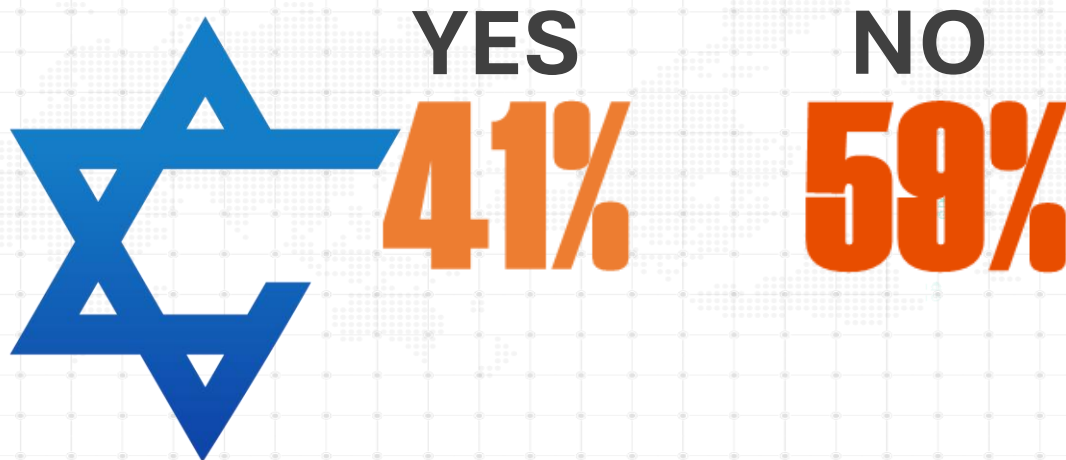
Fertility



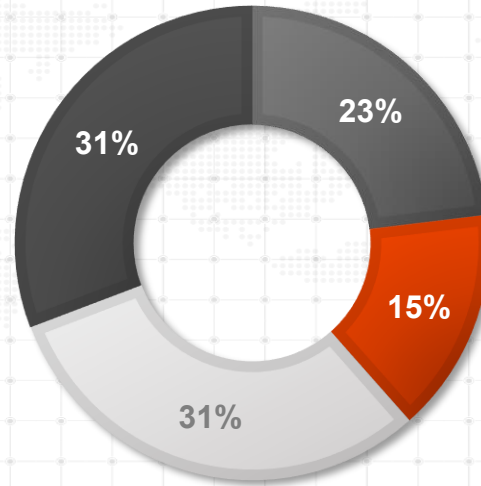
Eye & Vision Technologies

IATI Israeli HealthTech Venture Capital Funds Survey Q1 2024

Are you expecting that the Iron Swords war will affect your 2024 investment decisions?



What are your expectations regarding the proportion of the fund's investments in Israeli companies out of the total portfolio investments in **2024**?



■ 10%> ■ 50%-10% ■ 90%-50% ■ 90%<

IATI Israeli HealthTech Venture Capital Funds Survey Q1 2024

In your mind, what are the three greatest challenges for Life science companies for 2024?



Funding

52%



Go 2 Market

13%



Recruiting

10%



International
collaborations &
clinical trails

10%

Life Sciences Sub-sectors glossary

Biotechnology

Biotechnology companies use biology to create products based on technological developments involving living systems and organisms. Bioinformatics, biologicals, industrial life science, diagnostics and therapeutics companies, with biological research at core are included.

The terms bioinformatics and computational biology are often used interchangeably. However bioinformatics more properly refers to the creation and advancement of algorithms, computational and statistical techniques, and theory to solve formal and practical problems inspired from the management and analysis of biological data. Relevant research in the field include sequence alignment, gene finding, genome assembly, protein structure alignment, protein structure prediction, prediction of gene expression and protein-protein interactions, and the modeling of evolution. However, applied research usually focuses on DNA sequencing, and the study of gene regulation using data from microarrays or mass spectrometry.

Biologics or Biological science classifies and describes the various forms of organisms, how organisms function, how species come into existence, and interact with each other and with the environment. The science of biology as a whole includes such fields as botany, zoology, entomology, ecology, evolution and more. However, in the context of applied research and development, the term is generally used to refer mostly to companies active in the fields of microbiology, cellular biology and genetics.

Diagnostics using a biochemical process for medical diagnosis - the process of identifying a medical condition or disease by its signs, symptoms, and from the results of various procedures such as blood or urine tests. Included in this sub-sector are technologies specifically targeted at the diagnosis of a physical situation or a disease such as biopsies and various biochemical tests.

Industrial - in the case of Life Sciences this term is used to refer to industrial and consumer goods manufactured wholly or in part from renewable biomass (plant based resources) applied to produce lubricants, animal feed, polymers, solvents, emulsifiers as well as natural fiber composite materials.

Therapeutics is the field of the various remedies that can be used to treat disease and promote health. The drug companies that use biological technologies and products in the process of pharmaceutical development belong to biotechnology field.

Digital Health

Digital health uses digital technologies to promote health, healthcare, living, and patient treatment to enhance the efficiency of healthcare delivery turning medicine more personalized and precise.

Health information technology is any software used by healthcare services which allows comprehensive management of medical information and its secure exchange between healthcare consumers and providers. This includes local systems used by hospitals or healthcare providers, as well as vertical systems used by HMOs and care providers to exchange information about patients and clients.

Telemedicine refers to any medical situation where a patient and healthcare provider (or even two healthcare providers) communicate in real time via telephone, teleconference or satellite. These include such scenarios as medical consultation via phone or video-conferencing, patient monitoring using tele-otoscopes, tele-stethoscopes and halters, and even robotic surgery in remote or hard-to-access locations, including space.

Medical Devices

This term is used to refer to an instrument, apparatus, appliance or other article, used on human beings for the diagnosis, prevention, monitoring, treatment or alleviation of disease, injury or handicap. It is also used for items with medical purposes such as investigation, replacement or modification of the anatomy (like replacement joints) or of a physiological process (like heart defibrillators and stents). Medical devices may be as simple as a plastic syringe or as complex as an MRI system or a robotic surgical arm. Complex medical device systems may or may not include embedded software and may be used externally (ultrasound), internally (endoscope) or both (hearing aids). Due to the width of this sector, it is recommended to use medical or technical key words when searching a medical devices company.

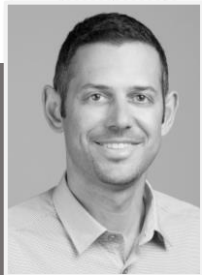
Diagnostics is used to refer to a device used for medical diagnosis - the process of identifying a medical condition or disease by its signs, symptoms, and from the results of various procedures such as blood or urine tests. Included in this sub-sector are technologies specifically targeted at the diagnosis of a physical situation or a disease such as EKG, EEG, medical imaging.

Pharmaceuticals

Pharmaceutical companies research, develop, and market medicines made primarily from artificial sources, using chemical materials. It is the field of the various remedies that can be used to treat disease and promote health. Drug companies of all kinds, including generics and medical Cannabis development are included in this sub-sector.

PwC Israel Pharmaceutical & Life Sciences

PwC's Pharma and Life Sciences practice helps digital health, pharmaceutical, biotech and medical device clients develop future focused business strategies and to implement the time critical plans essential to success.



Omer Gavish
Pharmaceuticals & Life
Sciences Leader
T: +972-3-7954896
M: +972-54-8117803
E: omer.gavish@pwc.com



Guy Preminger
Technology Leader
T: +972-3-7954857
M: +972-54-4954546
E: guy.Preminger@pwc.com



Nofar Shilian
Life Sciences and Hi-Tech manager
T: +972-3-7955045
M: +972-54-7984342
E: nofar.shilian@pwc.com



With the support of:



רשות החדשנות
Israel Innovation
Authority

IATI - Israel Advanced Technology Industries Association

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

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

●●● Connecting Israel's Tech EcoSystem