

ISRAELI TECH

EMPOWERED BY NEW SPACE

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Introduction

When one envisions space technology, images are often evoked of astronauts and spacecraft. Similarly, when contemplating the space industry, giants like SpaceX and government agencies like NASA typically spring to mind. A similar perception exists in Israel, where space is often associated with Ilan Ramon, the first Israeli astronaut, and space tech is closely linked to various traditional aerospace companies.

Over the years, Israel has been a key player in the international space arena, marked by milestones such as being the eighth nation to send a satellite into orbit and the seventh to achieve a lunar landing. More recently, the Israeli space sector is following the international trend and experiencing a significant shift, embracing a wide variety of new participants and diversifying its reach.

This report is designed to shed light on the burgeoning space tech sector in Israel, with a specific focus on the industry's potential for evolution and expansion through 'Dual Application'- startups whose technology can address specific needs in Earth-based industries while simultaneously tackling Space-related challenges, utilizing space resources and technologies, or leveraging insights or capabilities derived from space.

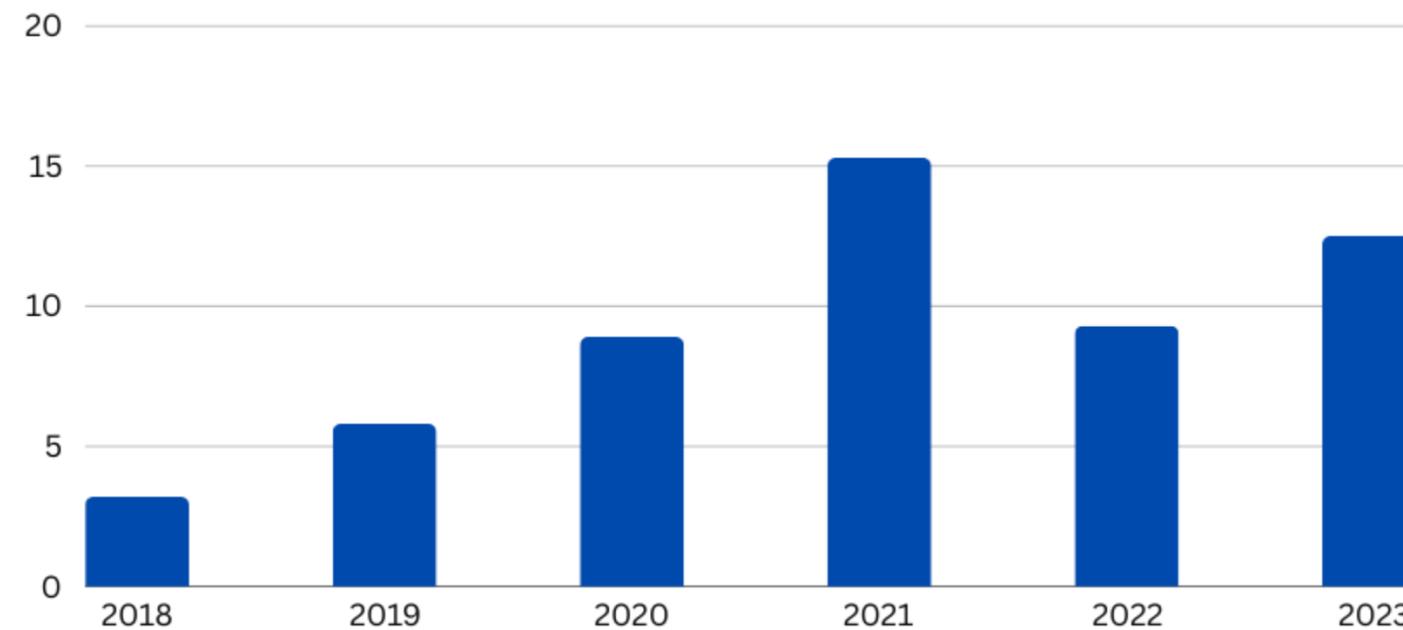
The entry of private companies into the space industry or utilizing assets in space to tackle "earth" challenges, coupled with sustained public sector investments, paves the way for unprecedented opportunities that were formerly unattainable. By understanding and utilizing dual-application opportunities, startups and entrepreneurs can strategically integrate space innovation into their technology development, gaining a potential competitive advantage in increasingly complex commercial markets.

The Global Space-Tech Landscape

In recent years, space tech globally has witnessed significant growth in investment and innovation, accompanied with increased interest from venture capital funds and a growing ecosystem of space tech startups. Space technology not only offers solutions to earthly challenges but also propels scientific advancements and nurtures a shared vision for humanity's future.

~\$1.1T
Market Size by 2030*

Total Global Investments (In \$ Billions)**



*Bank of America

**Data Gathered from Space Capital Reports

Key Drivers of the Transition from Traditional Space to New Space

Reduction in Payload Sizes

Smaller, lower orbit satellites, enhancing cost-effectiveness and accessibility of space.

Decrease in Launch Costs

Major cost reductions led by companies like SpaceX are transforming economics and lowering financial barriers to space exploration and utilization.

Shift from Public to Private Sector

From a government led industry to one increasingly driven by private enterprises, which expands the customer base and partners' network.

Focus on Everyday Applications

Shift in space technology development beyond traditional space exploration towards practical applications for solving global earth challenges and daily life improvement.

Tech Giants' Involvement

Expanding the domain beyond traditional aerospace firms and primes, to new space innovators like Blue Origin and SpaceX, to the participation of mainstream tech giants such as AWS.

Increase in Satellite Data Gathered

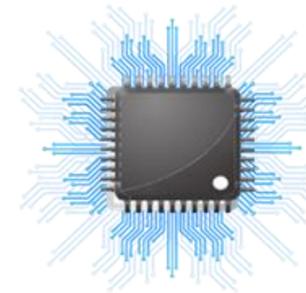
With more satellites launched to orbit every year, and with the rapid development of AI and predictive analytics, satellite data will play a crucial role in helping solve problems on earth.

Dual Application refers to the development of technologies by startups that address specific needs in earth-based industries while simultaneously tackling space-related challenges, utilizing space resources and technologies, or leveraging insights derived from space.

Earth Industries



Core Technology



Space Applications



In Israel, the notion on Dual Application underscores significant untapped potential amongst numerous startups. These companies excel in bridging the realms of earth and space domains, showcasing their agility and innovative spirit. Diverging from the norm of focusing on a single tech sector, Israeli startups demonstrate proficiency in creating a wide range of foundational technology components.

Based on this approach, Israeli startups are increasingly being recognized as prime candidates for partnerships, acquisitions, or investment opportunities by larger entities in the space sector. This trend is reminiscent of Israel's journey in the smart mobility industry, where it emerged as a global frontrunner despite not manufacturing any vehicles. This success story is a harbinger for the space sector, where the focus on specialized components and technologies positions Israel on the verge of introducing a "Space Unicorn".

Dual Application: Bridging Earth & Space

Space Sectors

Delving into the realm of space applications, we have categorized them into eight distinct segments:



SPACE INFRASTRUCTURE

Physical and technological systems or components necessary to support space exploration, research, and commercial activities.



IN-SPACE OPERATIONS

Activities with a purpose to serve missions in space, including satellite assembly, maintenance, and scientific experiments.



COMMUNICATIONS & NAVIGATION

Technologies in satellites and spacecraft for data transmission, signals, location determination, and movement guidance.



EARTH OBSERVATION

Using remote sensors to collect and analyze Earth's data for scientific, environmental, and commercial purposes.



IN-SPACE MANUFACTURING

Development and production of various goods, materials, and equipment within the space environment.



COMPUTING & SOFTWARE

Systems, hardware, and software used for processing, managing, and storing data of space missions, research, and exploration.



SPACE SERVICES

Commercial and government services provided in and for space to support exploration, research, or activities like satellites launch and debris removal.



EXPLORATION & RESOURCES

Utilizing space technologies and resources to conduct extensive research and exploration.

ISRAELI TECH EMPOWERED BY NEW SPACE

100+ Israeli startups each showcasing their **SPACE APPLICATION** & main **EARTH INDUSTRY**

In-Space Operations

Space Infrastructure

Communications & Navigation

Exploration & Resources

Space Services

Earth Observation

In-Space Manufacturing

Computing & Software

105

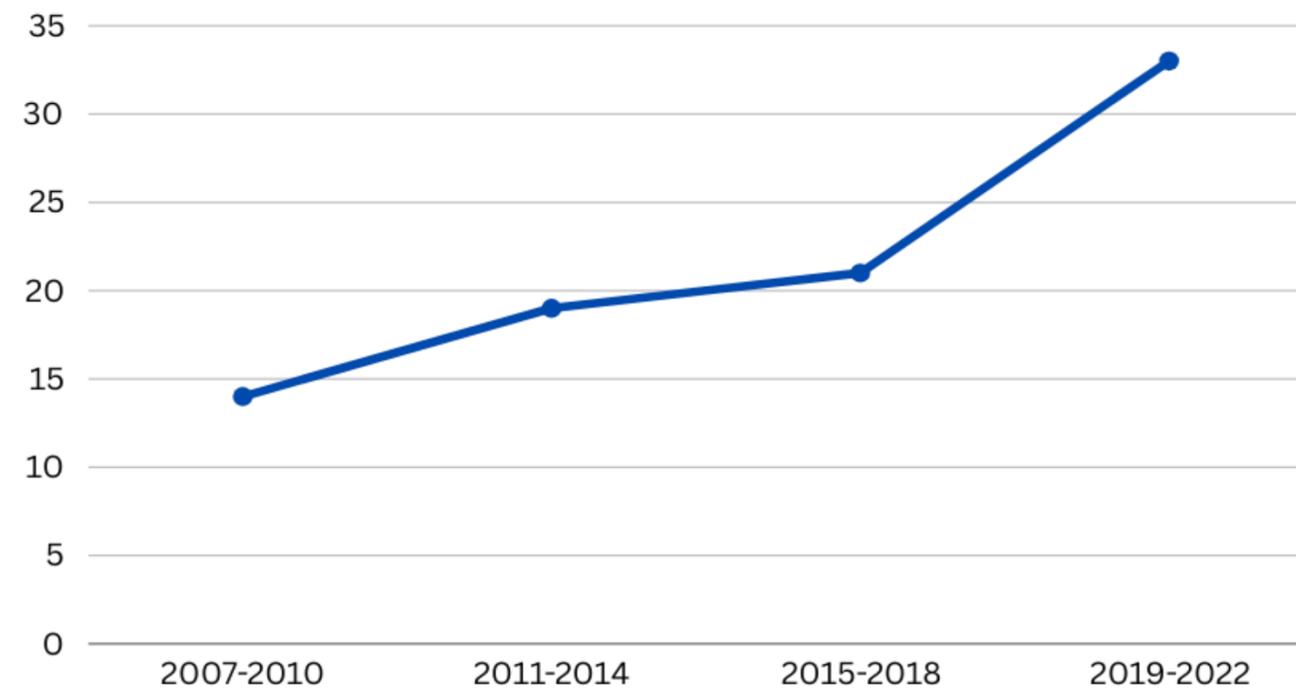
ISRAELI STARTUPS

\$314M

RAISED DURING 2023

The Map in Numbers*

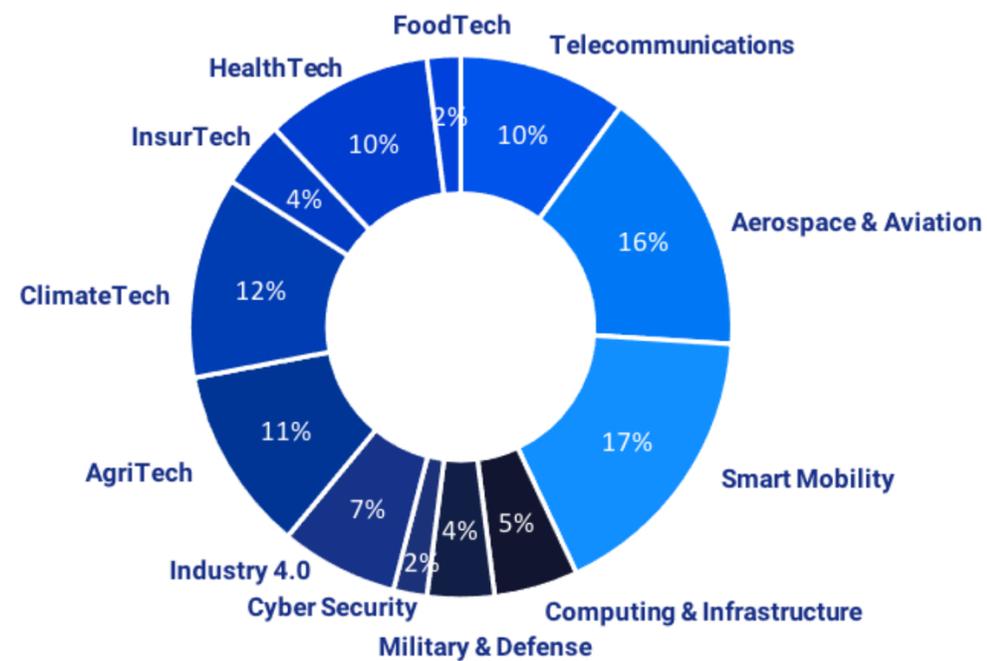
Startups Founded by Years



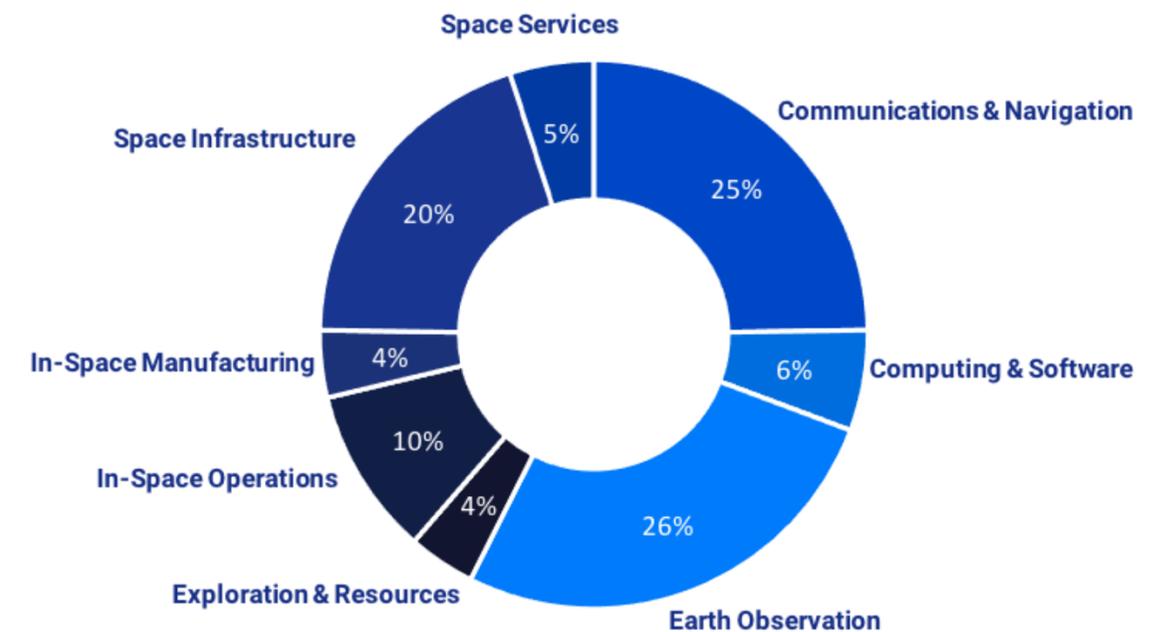
* The data is processed from the map database and [Startup Nation Central's Finder Business Platform](#)

The Map in Numbers*

Startups by Earth Industry



Startups by Space Category



* The data is processed from the map database and [Startup Nation Central's Finder Business Platform](#)

What's Next for Israel

The ever-expanding boundaries of what can be achieved in space, coupled with the growing demand for space-based or space-sourced solutions, create a conducive environment for the emergence of fresh, forward-thinking ventures in the space sector.

More Space-Related Startups:

As Deep Tech startups grasp the untapped business and technological potential within or by means of space, they may seamlessly integrate space as an essential component of their overall business strategy, complementing their activities in various conventional industries.

Growing Interest from VC Funds in Deep-Tech and Space:

In their pursuit of innovative technologies, a continued increase in the number of VC firms redirecting their investments toward deep tech and space tech may take place. Additionally, we expect the emergence of new funds exclusively dedicated to deep-tech and space ventures.

Expanding Reach of Space Technologies Across Industries:

The application of space technologies expands into a broader range of Earth industries. In our mapping, we identified industries such as smart mobility, health tech, climate tech, and we can point out additional industries it may extend into such as AI, cybersecurity, and more.

Broader Range of Customers in the Space Industry

An increasing range of companies are progressively integrating space tech into their operations, and as it increases, other players explore this domain and their ability to be part of the space economy. This may bring new players and expand the trend.

Summary

In recent years, the space industry has witnessed substantial growth, as demonstrated from the data showcased above. With its advanced capabilities in this field, Israel is well-positioned to assert itself as a vanguard in this evolving sector. This can be achieved through the establishment of technological leadership and the extensive deployment of emerging technologies. As the Space Technology landscape continues to mature and flourish, entrepreneurs and investors in diverse sectors such as ClimateTech, FoodTech and Cyber Security can leverage this growth. By incorporating space-related applications or space-originated capabilities into their operations, they can expand their scope and benefit from the resulting new potential.

WANT TO JOIN THE MAP?



Deloitte **CATALYST**

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https://www2.deloitte.com/il/en/pages/finance/topics/Deloitte_Catalyst.html



Earth & Beyond Ventures is an early-stage VC fund investing in deep-tech innovations that extend beyond the ordinary. The venture is committed to identifying, nurturing, and investing in groundbreaking startups and research projects that have the potential to build a better and more sustainable earth and beyond. The fund is specialized in deep-tech sectors such as new space, sensors, optics & photonics, quantum computing, advanced materials, nanotech, semiconductors, and new energy. It is supported by top-tier corporate and financial investors and partnered with the Israel Innovation Authority (IIA) to operate a deep-tech and new-space incubator.

<https://www.earthandbeyond.ventures>

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