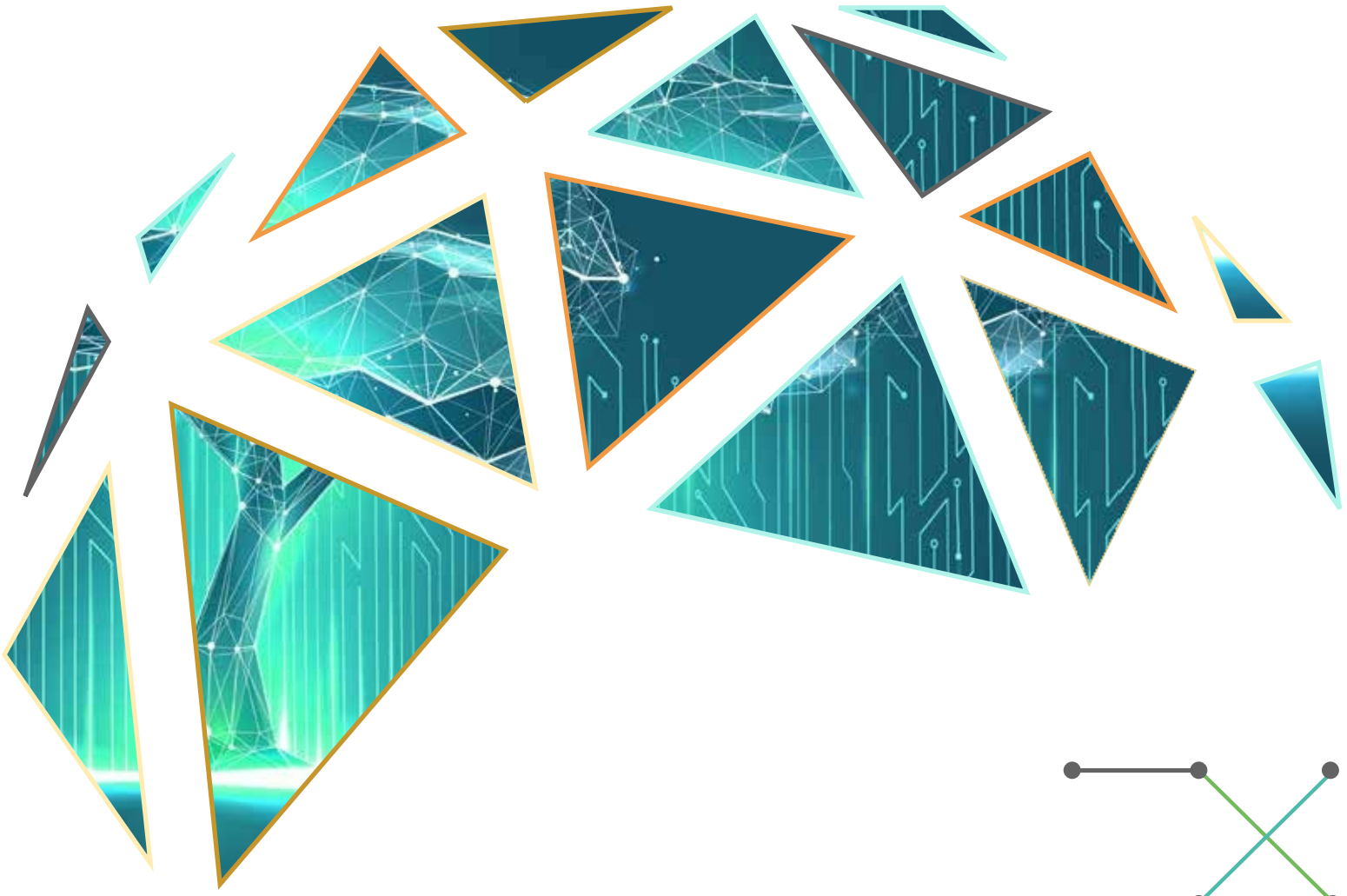

MAPPING TOMORROW

ISRAEL'S **DATA AND AI** ECOSYSTEM

2024 - 2025

DatA-IL

MAPPING TOMORROW

ISRAEL'S **DATA AND AI** ECOSYSTEM

We are thrilled to present the first-ever DatA-IL Ecosystem report

This report follows two years of significant engagement and growth within the community, reflecting a strong recognition of the vital role that data and artificial intelligence play in Israel's current era. It is widely understood that we stand at the threshold of a data and AI revolution - one that will transform every aspect of life.

Israel's data and AI ecosystem is evolving rapidly, driving innovation, economic growth, and enhancing public and social services. At DatA-IL, we believe that a deep and precise understanding of this ecosystem is critical for advancing projects and initiatives that will benefit Israeli society and the national economy as a whole.

DatA-IL is a joint initiative of the Israel Finance & Social Forum (SFI), the Ministry of Economy and Industry, the Israel Innovation Authority, and Israel National Digital Agency. Our mission is to bring people and ideas together, highlight real needs from the field, identify opportunities, and create, curate, and share knowledge - strengthening and advancing the growth of Israel's data and AI ecosystem.

This work is built on a deep understanding of the companies operating in these fields and of all the key players shaping them. We hope this report will serve as a valuable step toward achieving those goals, offering a clear and accessible snapshot of the state of data and AI in Israel for a broad range of stakeholders across the ecosystem.

The report is intended for several key audiences, including public-sector decision-makers working to shape policy and support data and AI infrastructure. It also targets investors seeking opportunities in the Israeli market; technology companies at various stages of growth looking to better understand the business and regulatory landscape; non-profit organizations active in the field; and researchers aiming to strengthen collaboration between academia, industry, and the public sector.

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On behalf of DatA-IL, we would like to thank all our partners: the Ministry of Economy and Industry, the National Digital Israel Initiative, the Israel Innovation Authority, and SFI - our community's home, as well as our additional partners, Israel Central Bureau of Statistics and the Governance and Social Affairs.

We hope this report will serve as a valuable tool, helping readers gain a deeper understanding of the rich environment we all operate in, identify new opportunities, and plan their next steps within the Israeli economy and beyond, so that together we can influence and drive meaningful, positive social and economic change.

Sincerely,
The DatA-IL Team

Table Of Contents

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Introduction & Executive Summary

> The rapid growth of data and artificial intelligence is transforming every aspect of life - from healthcare and transportation to public policy and social resilience.
> Israel is a global innovation leader, but to keep that edge we must also strengthen our local ecosystem.
> At DatA-IL, we build cross-sector connections and collaborations to make Israel's data and AI.

Rona Perry, Executive Director, DatA-IL

The field of artificial intelligence (AI) and data, particularly generative AI (GenAI), has emerged in recent years as a central and highly influential domain in Israel and around the world. Its growing importance extends far beyond the purely industrial or technological, touching nearly every aspect of life and taking center stage on the global agenda. Success in this field carries strategic weight for any nation, especially for Israel, which faces uniquely complex geopolitical challenges.

Israel has successfully cultivated a unique ecosystem, earning its reputation as the "Startup Nation". This success provides a strong foundation for building a world-class data and AI ecosystem. However, securing a leading position will require strategic investment from all relevant stakeholders, particularly at the national level. As global competition in this domain intensifies, we must stay vigilant and proactive, ensuring we continue to advance and never slip into complacency.

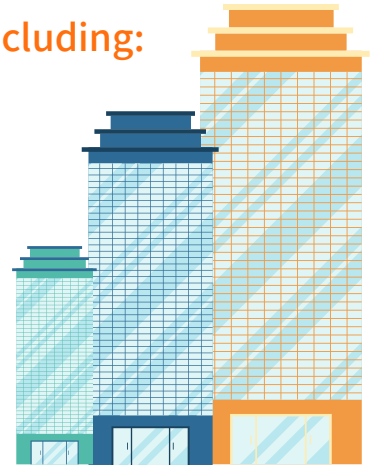
"It takes a village to raise a child". Similarly, it takes a thriving ecosystem to nurture each of its individual components. This report offers a comprehensive overview of Israel's data and AI ecosystem - one that will help every participant understand not only how to benefit from it, but also how to contribute to its growth.

Key Findings

Over the past two years, distinct characteristics of a dedicated ecosystem have taken shape. These include intense competition, the formation of a tailored regulatory environment, rapid development and distribution opportunities for individual entrepreneurs, a strong reliance on data, innovative business models, and more.

Israel's Data and AI Company Directory

The ecosystem comprises 2,652 companies in total, including:



2,060 AI companies
1,500 data companies
908 companies operating in both fields

- Most companies are in the early-stage category, with a steady increase compared to previous years in those offering cross-sector services or solutions that support the integration and development of AI - clear evidence of an emerging, independent ecosystem.

- Cybersecurity, healthcare, and information infrastructure have emerged as sectors with a particularly high concentration of startups whose core products are built on artificial intelligence.

- Access to computing resources for training large models remains costly and challenging for startups. This issue is expected to be addressed with the establishment of a national supercomputer in Israel, funded by the National AI Program, which is planned to begin providing services in early 2026.

Investments

- Between $4 billion and $6 billion were invested in data and AI startups during the reviewed period.
- In addition to direct equity investments in tech companies, a substantial portion of R&D funding in Israel's data and AI sector between 2023 and 2025 came from the investments and activities of the Israeli branches of leading global corporations.

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Public Sector

- More than 70 AI implementation projects are currently underway in Israel's public sector
- While adoption efforts are advancing on multiple fronts, government investment in the field remains modest compared to leading OECD countries - approximately 1 Billion NIS allocated to the National AI Program, versus more than $1 Billion invested by Germany, UK, and the United States.
- The government cloud platform, Nimbus, offers AI tools and infrastructure, with adoption steadily on the rise.

International Comparison

- Israel maintains a strong standing in multiple global rankings.
- It ranks 1st worldwide in AI human capital density and 4th in private investment in data and AI startups.

Academia

- Israel ranks 9th globally in research output at leading artificial intelligence conferences.
- The country hosts advanced research centers and leading experts in the field, concentrated across eight key institutions.
- There are 22 undergraduate programs offering specializations in data and AI, along with 6 graduate programs dedicated to these disciplines.

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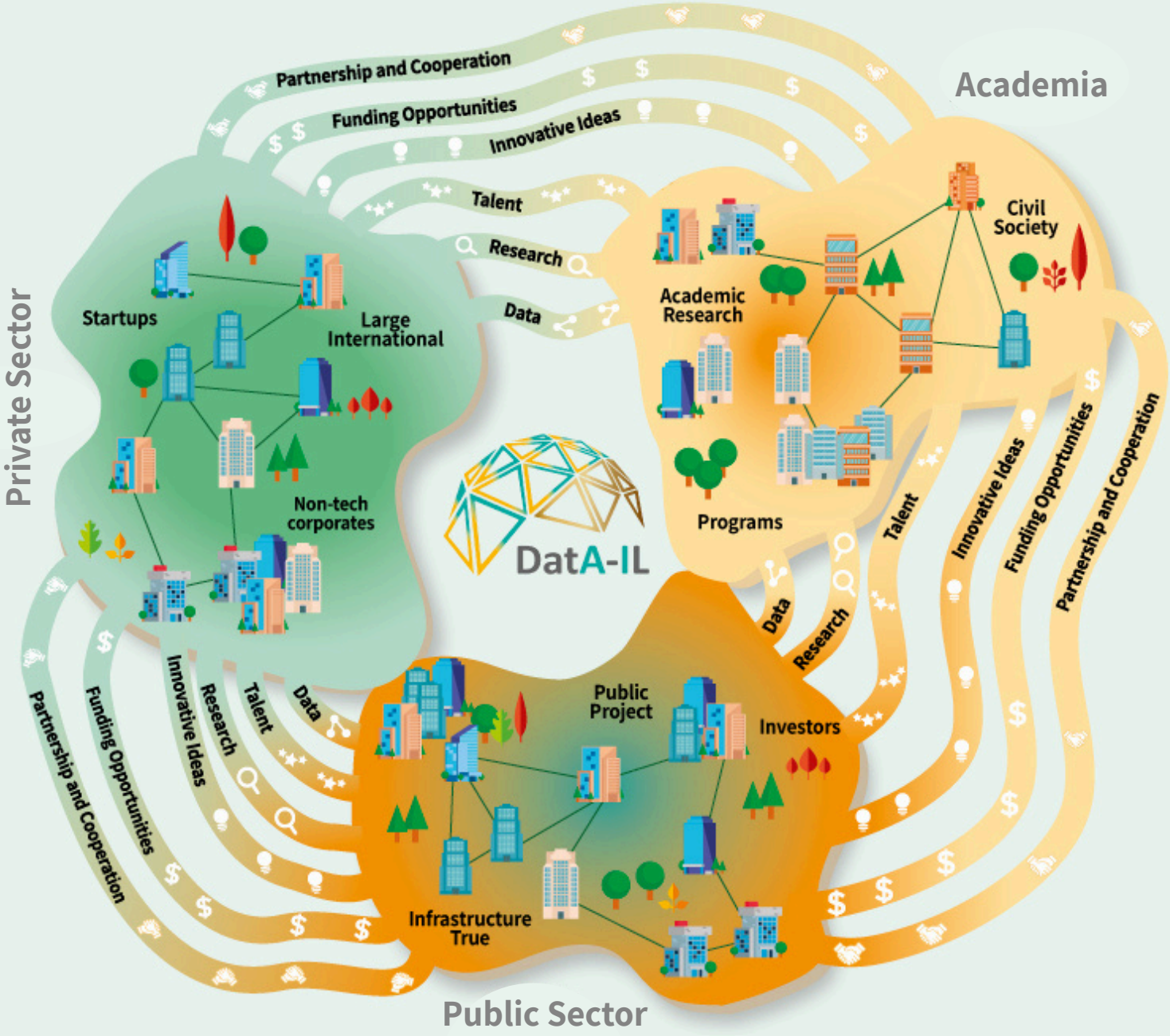
Conclusion & Insights

Israel's data and AI ecosystem is thriving, standing as a cornerstone of innovation across all sectors. The field holds a strategic position in the Israeli economy and is advancing rapidly, with AI-driven solutions increasingly embedded into the public, business, and academic spheres.

National infrastructure continues to expand, fueled by ongoing government investment, strengthened technological capabilities, the advancement of national initiatives, and the growth of productive cross-disciplinary and cross-sector collaborations.

At the same time, partnerships between academia, industry, and the public sector are emerging as key pillars of innovation - driving improvements in quality of life in Israel and fostering the responsible, ethical, and effective use of advanced technologies for the benefit of society

The Data & AI Ecosystem in Israel



by DatA-Il Innovation Community

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Research Methodology

The report brings together major review studies published in recent years on AI in Israel and worldwide, most notably those of Startup Nation Central (SNC)[1], Deloitte[2], the Israel Innovation Authority[3], and the OECD[4]. Additional data was also drawn from reports by Stanford[5] and Dealroom[6], which also support the report's findings. For the analysis of companies and investors, we relied on data from SNC's Finder platform, which combines SNC's own analysis with self-reported information provided by the companies.

In this report, we address both data and artificial intelligence (AI), recognizing that the two are deeply interconnected and form part of a single technological evolution. Over time, the boundaries between these domains have continued to blur, as the tech world increasingly views AI as a field in which data is a central and indispensable component.

That said, for the sake of clarity and precise analysis, we have chosen to distinguish between three separate categories in this report: Data, Artificial Intelligence, and the intersection of Data & AI. This division reflects the different focal points of activity across the ecosystem, where some organizations and initiatives operate clearly within one domain, while others work at the intersection of both.

The identification and classification of companies in the data domain were carried out based on Core Technology and existing system tags - such as Artificial Intelligence, Data, Data Storage, Big Data, Analytics, Machine Learning, and Deep Learning. In the AI domain, companies were categorized by type of learning technology (e.g., Machine Learning, Deep Learning), with duplicates carefully removed to ensure accuracy. For the investments section, companies were analyzed by their investment fields and funding sources.

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[1] Israel's World-Class AI Powerhouse: Leading Through Applied Innovation (November 2024).
[2] Future Forward: Israel's AI Expansion Blueprint (2024).
[3] Gen-AI Companies in Israel Research Report (June 2024)
[4] OECD Economic Surveys: Israel 2025, April 2025.
[5] AI Index Report Stanford QUID 2024.
[6] Dealroom Gen AI report 2024.

For the academic review, we manually searched for study programs, academic centers, and leading researchers in the fields of data and AI. The data collection process included identifying research institutes and academic centers through university and college websites, as well as mapping out prominent researchers, program heads, department chairs, and institute directors. This review did not include research divisions within large corporations. While we noted non-academic research, it was not the primary focus of this analysis.

For the public sector section, we relied on open-source data, the WATCH AI database of the Israel National Digital Agency, and consultations with government representatives.

Market Value of Data and AI

The data and artificial intelligence sector is critical not only for strategic, security, and social reasons - but also for economic ones.
According to an OECD report[7], artificial intelligence has the potential to be a major driver of Israel's GDP growth.

Market Value

The estimated global market value of artificial intelligence in 2025 ranges from $371.7 billion[8] to $757.6 billion[9], with growth forecasts varying between a compound annual growth rate (CAGR) of 19.2% through 2034 and 30.6% through 2032. According to estimates by the U.S. International Trade Administration (ITA)[10], Israel's annual AI market was valued at $1.94 billion in 2024 and is expected to grow at a rate of 16% annually through 2030. Reports by McKinsey and Accenture further suggest that this market could add between $100 billion and $200 billion to Israel's GDP within the next five years.

Investments

According to McKinsey[11], global investment in generative AI soared from $5 billion in 2022 to $36 billion in 2023. It is further estimated that AI software and services could add as much as $23 trillion to the global economy by 2040[12]. In Israel, investment in artificial intelligence was estimated at approximately $5 billion in 2023[13].

Efficiency & Productivity Gains

As of 2024, AI tools were estimated to hold the potential to generate trillions of dollars in efficiency gains for private companies, in addition to driving profound changes across multiple industries and the labor market as a whole. A study by Accenture[14] suggests that productivity improvements from AI adoption could add as much as $3.8 trillion to the U.S. economy by 2038.

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[7] OECD Economic Surveys: Israel 2025, April 2025.
[8] Artificial Intelligence Market Summary, (Grand View Research).
[9] Artificial Intelligence (AI) Market Size, Share, and Trends 2025 to 2034 (Precedence Research).
[10] The next big arenas of competition, MacKinsey Global Institute, Oct. 2024.
[11] Superagency in the workplace: Empowering people to unlock AI's full potential, McKinsey Digital, Jan 2025.
[12] Israel Artificial Intelligence Partnering Opportunities, International trade administration.
[13] Future Forward: Israel's AI Expansion Blueprint, Delloite 2024.
[14] Unlocking the Economic Potential of the US Generative AI Ecosystem, Accenture & Microsoft, Nov .2024.

Data & AI as a New Vector

Data and AI as an Independent Sector

Unlike other enabling technologies, data and AI are not merely infrastructure - they are independent engines of innovation. They drive the creation of new solutions, the improvement of existing processes, and applications across diverse domains and sectors.

Data and artificial intelligence are not just a “horizontal capability”, they also define a field where companies are founded to develop and implement a broad range of capabilities - sometimes independent of any specific industry focus. In other words, these are technologies in search of use cases, rather than the other way around. As such, they represent a new and distinct business category.

Distinct Dynamics

Startups operating in the AI space function within a unique environment, shaped by independent sector-specific characteristics. We are witnessing the emergence of distinct patterns:

- **Rapid development cycles**, especially among companies building large models (Google, OpenAI, Anthropic), which can sometimes render a startup’s value proposition obsolete overnight. This raises the “moat” question: how defensible is the startup’s proposition in terms of technology, data, or customer access?
- **Ethics and regulatory frameworks**, with new questions and structures beginning to take shape.
- **Fast-track opportunities** for development and distribution available even to individual entrepreneurs.
- **High infrastructure costs** (GPUs) and extreme concentration of control over these resources - almost to the point of monopoly by a single provider.
- **Critical dependence on data**, its quality, uniqueness, and proper labeling.
- **Emergence of new roles**, blending software development with data science, or specializing in building LLMs. At the same time, there is a significant shortage of advanced research talent with graduate degrees.
- **Evolving Business model**, with experimentation in novel monetization approaches.
- **High uncertainty**, driven by strong demand in a fast-changing environment, all while regulation remains in flux.
- **Reliance on partnerships** with major cloud and model providers.
- **A fast-evolving vocabulary** - terms like agentic, MCP, vibe coding - reflecting the field’s rapid cultural and technological shifts.

Additional Aspect of the Emerging Sector

New economic and technological infrastructure

Dedicated VC funds focused on AI are emerging rapidly, alongside a sharp increase in the number of startups treating AI as their primary domain rather than merely a supporting tool. At the same time, a specialized labor market is evolving, with rising demand for data scientists, prompt engineers, machine learning engineers, and more.

A full value chain emerging around the field

Cloud and computing infrastructures (NVIDIA, AWS, Hugging Face), tools and protocols for model development (MLOps, LLMOps, MCP), annotation platforms, data management solutions, and ethical oversight frameworks are becoming core elements of the ecosystem.

Governmental and national activity

The Israel National AI Program, regulatory and ethical initiatives (led by the Ministry of Justice and the Ministry of Innovation, Science and Technology), grants and scholarships, the release of public datasets for model training, and data & AI implementation projects in the public sector (led by the Israel National Digital Agency) all play a key role in shaping and strengthening the sector.

Definition and Classification of Startups and Companies in Data and AI

Following research, consultation, and a review of classification methods used in comparable reports, we decided to adopt a three-layer framework for categorizing AI applications:

Layer 1: Infrastructure - software, hardware, and foundational tools

Global examples: Meta, Google, NVIDIA, Snowflake.
Israeli examples: Run:AI, JCRU, NeuReality, Deci - companies developing optimizations for runtime efficiency, models, or various tools.

Layer 2: Foundation Model Companies

Global examples: OpenAI, Anthropic.
Israeli examples: AI21 Labs, BRIA.

Layer 3: Application & Vertical AI Companies

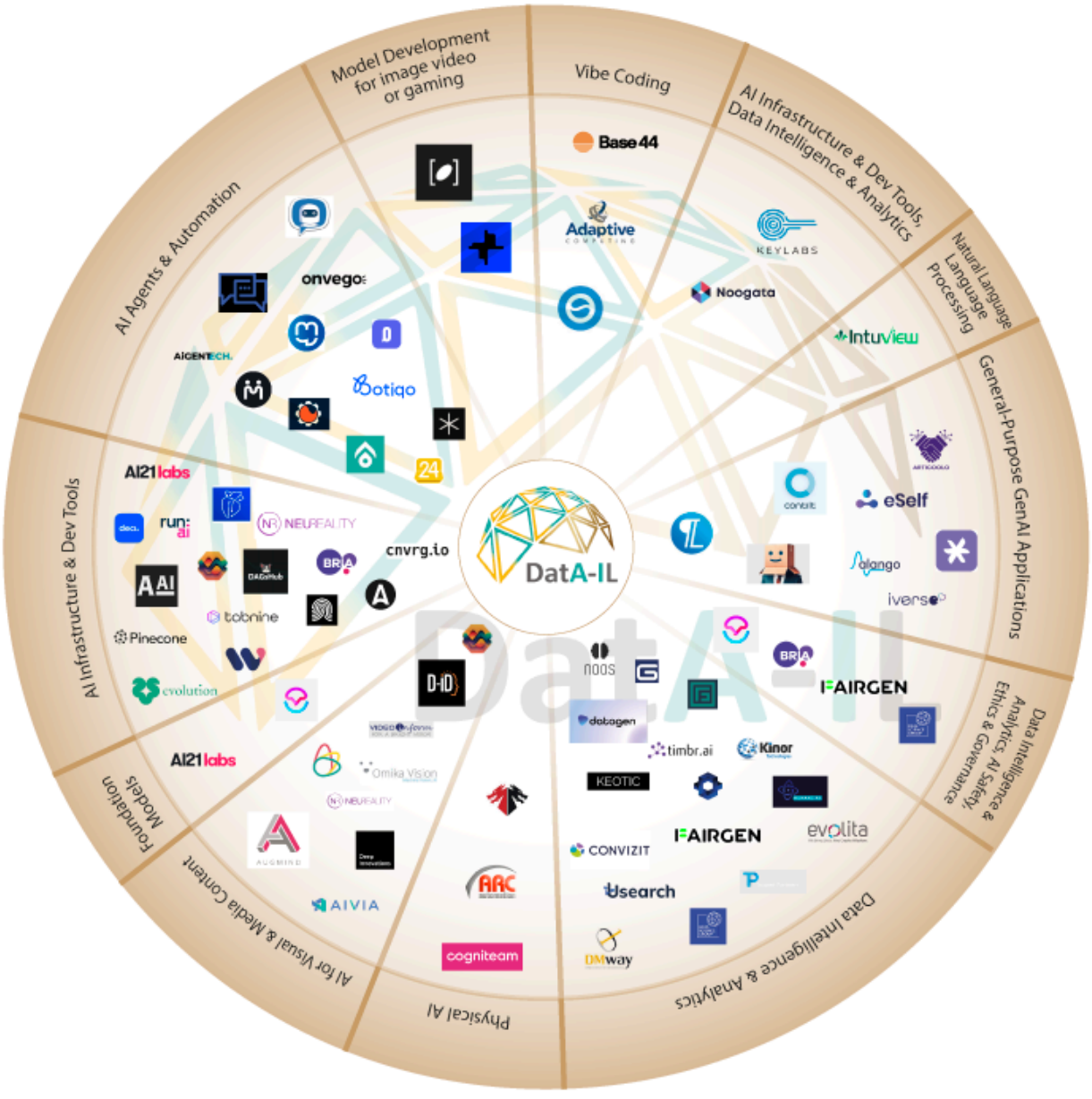
Global examples: Jasper (content creation), Hippocratic AI (healthcare), Harvey (legal services).
Israeli examples: Brodmann17 (security and AI for autonomous driving), Sight Diagnostics (healthcare), Dataloop (annotation tools for applied use cases).

*Recent reports mapping AI ecosystems, as cited in the methodology section, have applied a similar classification. The Israel Innovation Authority (June 2024) distinguished between generative AI companies developing advanced models, companies creating domain-specific advanced AI models, and application companies leveraging models developed by others. The Deloitte report (November 2024) adopted a comparable framework

Mapping Israel's AI Ecosystem

The companies featured in this map were selected from the broader pool of Israeli startups active in artificial intelligence (see previous section). The selection is based on SNC's database, open sources such as media coverage, conferences, and professional reports, as well as DatA-IL's fieldwork and insights.

The companies highlighted here fall under Layers 1 and 2, as defined in the classification section. Of course, they're not the only cross-sector or AI tools companies active in Israel. We regularly update the database, and invite our readers to let us know about other companies that should be included in the map.

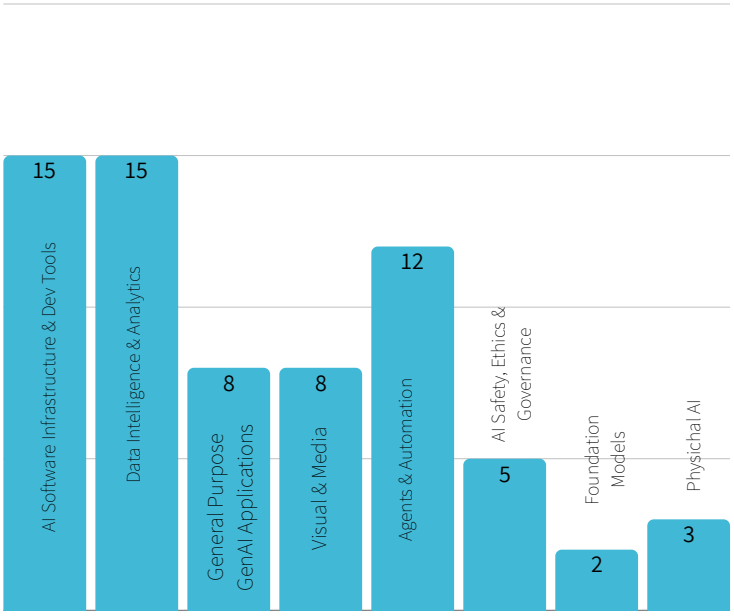


Startup Breakdown by Area of Activity

Number of companies featured on the map: 70

The largest domain represented is Data Intelligence, and Analytics, which also happens to be the most established. Among the newer fields on the list, AI Infrastructure & Dev Tools leads, followed closely by companies focused on visual AI and AI tool-building (including agentic approaches and automation). In addition, some companies span multiple categories.

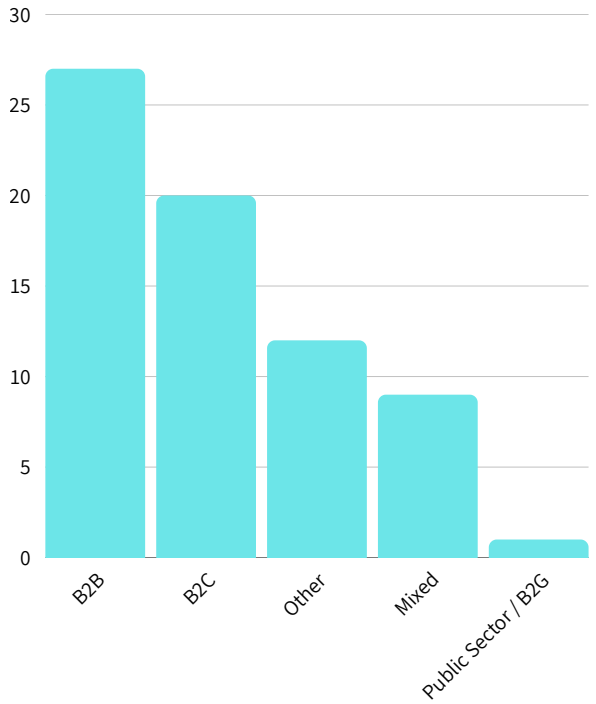
The map also highlights underrepresentation in categories tied to trust, explainability, responsible use, and bias mitigation - areas less developed in Israel at present.



Startup Breakdown by Customer Segments

The broadest customer segment, in terms of the number of companies active in it, is B2B (business solutions), reflecting the overall trend in Israel.

By contrast, there are very few solutions aimed at B2G (government solutions) and the public sector.



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Key Insights

Leadership in Infrastructure and Data - The core categories are infrastructure, development tools, and data & analytics. This reflects the fact that many companies operating at the foundational layer of the ecosystem are focused on building core rails: infrastructure, specialized tools, and high-quality datasets. These building blocks are what will ultimately allow AI to scale, seamlessly integrate into daily workflows, and become a widely adopted work tool.

Limited Focus on Oversight and Ethics - Only 5 out of the 70 companies explicitly address oversight, transparency, or bias mitigation.

Proliferation of Generic Tools for Assistants, Text, and Code - An increasing number of companies are developing generic applications such as text summarization, personal assistants, or code completion. Some of these offerings overlap, which may signal a crowded market where offerings blur together, pointing to either intensifying competition or an urgent need for sharper specialization.

Growth in Video and Visual AI - A relatively large number of companies are active in the visual AI domain - from image generation and video analysis to avatars and augmented reality.

From Algorithm to Exit - Startups, Investors, and Investments

> Artificial intelligence is a key growth engine for Israel's economy, with the power to boost productivity, improve services, and secure a competitive edge in global markets. The Ministry of Economy views AI technologies as strategic infrastructure for national growth and innovation, investing in core foundations, supporting startups, strengthening academia-industry ties, connecting to overseas markets, and helping small and medium businesses adopt AI. I would like to thank the DatA-IL team for leading this report and their professional work in the field, as well as our partners: the Israel National Digital Agency and Israel Innovation Authority, for their meaningful contribution to advancing this domain.

Michal Fink, Head of Strategy, Economy, and Innovation Division, Ministry of Economy and Industry

Startups and Growth Companies

How many startups are there?

Building on the classification framework discussed in the previous section, this report applies a broad definition of AI-related startups, including Israeli companies across all three layers.

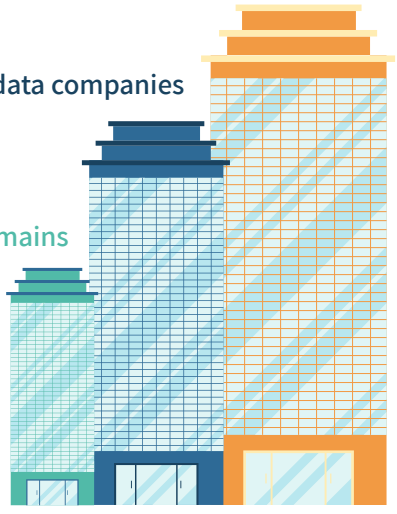
Total number of data and AI companies in Israel:

2,652 companies overall:

2,060 AI companies

1,500 data companies

908 companies active in both domains



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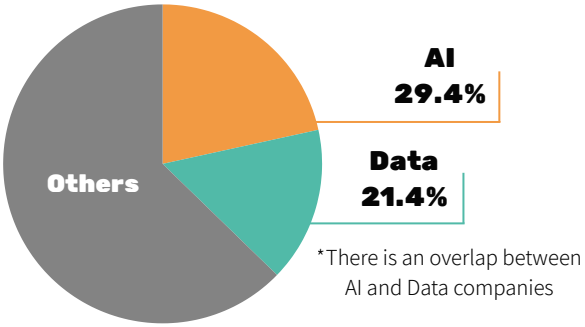
Other reports have mapped a similar number of companies. Deloitte identified more than 2,150 AI companies, while a joint study by RISE Israel institute and Google Israel[15] counted around 2,300 AI startups. The difference from our findings likely reflects the use of more recent data in our mapping, which captures the addition of new companies now defining themselves as data or AI companies. This aligns with the Startup Nation Central (SNC) report, which shows a 170% increase in the number of active data and AI companies since 2014.

Share of AI Startups in Israel's Ecosystem

According to SNC's Finder, Israel is home to 7,016 startups, of which 2,652 define themselves as operating in the data or AI domains. This means that data and AI startups now account for 29.41% of all Israeli startups. These figures are consistent with other reports: Deloitte estimated that AI startups represent about 30% of all local tech companies, and the Israel RISE report reached a similar conclusion. Approximately 120 of these are classified as "infrastructure" or cross-sector startups, including companies developing AI infrastructure and GenAI building tools.

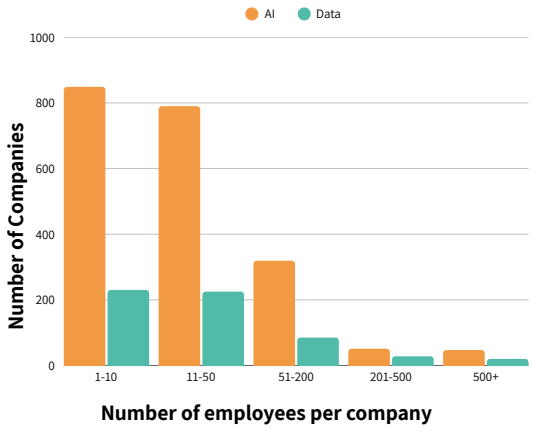
The Proportion of Data and AI Companies Out of All Startups



Company Size and Funding Stage

An analysis of lifecycle stages shows that most companies are still in their early phases (Pre-seed to Series A) employing fewer than 50 people. This pattern reflects the wider Israeli startup ecosystem, where small, early-stage ventures dominate the industry landscape.[16]

Company Size by Number of Employees



[15] Based on manual counting, consistent with data published by Startups Reimagine (excluding sectoral GenAI) in May 2024

[16] According to data from Israel's Central Bureau of Statistics, 90% of companies in the category of programming,
computer consulting, and information services employ between 10 and 15 workers

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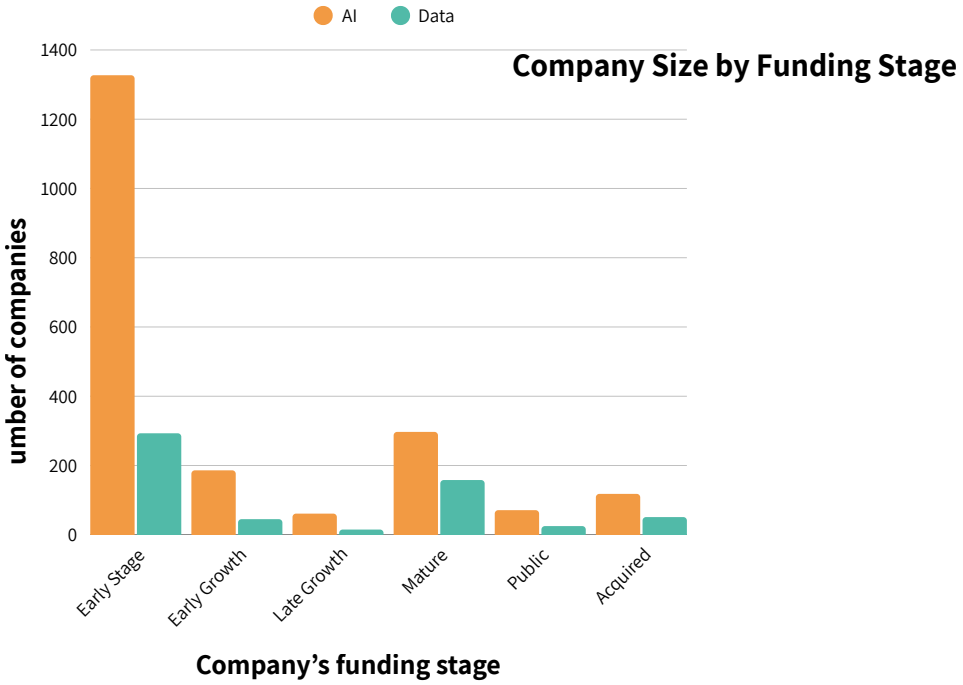

Success in Fundraising

According to SNC, 68% of data and AI companies succeed in raising funding within their first two years of operation. The same source[17] reports that in 2024, AI companies attracted 47% of total investments and accounted for 40% of funding rounds.

Data and AI startups showed greater resilience than other sectors during 2023-2024, a period marked by declines in overall investment in Israel. Fewer companies in this domain shut down compared to the average, while the number of active firms continued to rise, fueled by both new ventures and pivots of existing ones.

Several venture funds, including Grove Ventures, note a unique trend in this space: seed stages often progress quickly, sometimes without formal fundraising, with companies raising capital later than in other sectors - particularly B2C companies, which often launch without a structured marketing and sales operation.[18]

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[17] Israel's Tech Ecosystem Leads in AI Focus, SNC

[18] Lecture at InvestAI Conference, May 2025

Data and AI Across Sectors

Although data and AI form a sector of their own, they play a critical role in driving growth across many other sectors in Israel. While this report focuses primarily on the key players within the data and AI ecosystem, it also examines the presence of data and AI in Israel's leading industries. The aim is to better leverage the economy's strengths and resources, while identifying where data and AI are most (or least) impactful.

Companies were classified into sectors, with adjustments made for those operating in multiple sectors. The analysis focused on the 10 leading sectors (ranked by the number of unique companies), ensuring that each company was counted only once.

This trend is also reflected in the SNC report, which identifies three leading sectors: medical technology, robotics, and climate tech. Similarly, a Deloitte report examining sectors from an investment perspective found that 50% of all AI investments were directed toward vertical application - particularly in medical technology, fintech, science, and healthcare. Together, these earlier findings reinforce our conclusion that healthcare is a dominant field and is likely to remain at the forefront of AI adoption.

Number of Startups Across Sectors

Based on a combined calculation from several sources (SNC, IVC, PitchBook), we see that the current "power couple" of the Israeli industry is startups operating at the intersection of cybersecurity and AI. Equally noteworthy is the importance of health-tech startups that apply a range of AI technologies - including generative AI, computer vision, and predictive modeling. In addition, enterprise-oriented startups offering data and AI solutions stand out, with the Deloitte report also identifying this domain as one with significant growth potential.

Sector Size in Israel and Share of AI Startups Within It

% of startups in the sector that focus on AI	% of all startups in Israel	
25%	15%	CyberSecurity
18%	9%	HealthTech
6%	7%	Mobility
5%	8%	AgriTech
15%	8%	SaaS
3%	4%	Defense
12%	10%	FinTech
3%	2%	Web3
8%	5%	Retail
5%	17%	Other

AI Startup Map - Sector Breakdown

Investments and Investors

Over the past year, four major reports by Deloitte, SNC, and the Israel Innovation Authority, as well as a recent report from the Israel National AI Program[19] - have examined investors and investment trends from different perspectives. Most of these reports highlight the scope of AI-related investments in Israel compared to the global landscape.

Investments in Data and AI vs. the Broader Market

The Israel Innovation Authority's report, which analyzed long-term investment in Israeli companies, shows a significant and steady increase in capital inflows. According to the SNC report, which also examined investment growth over time, AI companies attract a disproportionately large share of funding compared to companies outside these domains.

Deloitte's report highlights the scope of AI-related startup investments, estimating approximately $13.5 billion during the reviewed period, with AI companies accounting for 60% of all capital raised by Israeli startups. A similar report by RISE places this figure closer to 50%[20], while a study by Vintage Investment Partners attributes 41% of all Israeli startup investments to AI companies - up from 31% in 2023[21].

On a macroeconomic level, the European Parliamentary Research Service (EPRS), drawing on OECD data, estimated that venture capital investment in AI companies in Israel amounts to roughly 11% of the country's GDP[22]. According to the RISE report, nearly 70% of active AI companies in Israel have successfully raised capital, compared to about 55% of companies in other high-tech sectors. Notably, approximately one in four new companies in the field focuses on generative AI. That said, the data also indicate that investment growth in Israel lags behind the United States and Europe.

In the Israel National AI Program report, it was noted that investment in AI began to rise sharply in 2019, reaching its peaking in 2021.

[19] Israel National AI Program - Status Report, April 2025
[20] Israel's Position in the AI Race, RISE Israel, May 2024
[21] The State of the Venture Market 2024, Vintage
[22] AI Investment: EU and Global Indicators, European Parliament

Where Does the Money Come From?

It is difficult to pinpoint the exact sources of larger investments (which also include activity by major international corporations). However, according to Statista[23], most of the capital invested in Israel comes from foreign sources. Estimates suggest that in Q1 2024, about $1 billion in foreign capital was invested in Israel overall, compared to only around $700 million in domestic capital.

A report by Vintage Investment Partners also highlighted that in 2024, 78% of acquisition deals in Israel involved international buyers, underscoring the dominant role of foreign investors in fueling the Israeli tech and AI ecosystem.

Unique Fundraising Characteristics

Beyond the above-average success rates in securing funding, several interesting investment patterns stand out in this space.

AI startups tend to raise capital at later stages than is typical in other sectors. Another phenomenon, highlighted in Fusion VC's annual report (March 2025), is the unusually high number of investors joining early rounds, suggesting that investors prefer to collaborate on promising AI teams rather than go it alone.

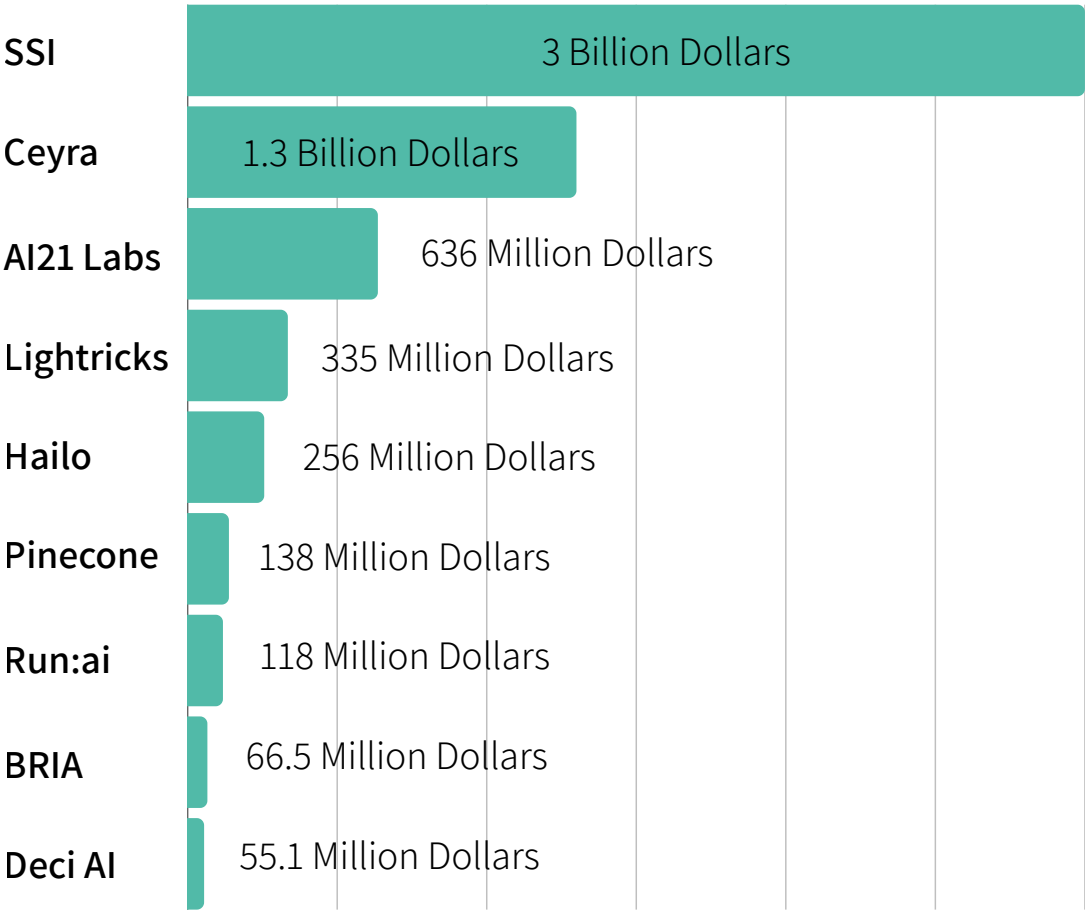
Fusion also identified that around 20% of investors chose to avoid AI altogether, either out of concern that it represents a bubble or due to the sector's intense competition. Meanwhile, only about 10% of investors expressed interest in deep AI technologies (Layer 1).[24]

[23] Statista, Number of Start-Up Investors in Israel, by Type (https://www.statista.com/statistics/1473066/israel-number-of-start-up-investors-by-type)

[24] Fusion, The 2024 Pre-Seed Investment Landscape Report: A Survey of Active VCs and Angels by Fusion VC.

The Biggest Investments in AI Startups

Capital Raised by Israeli AI Startups in Recent Years (Excluding M&A):



[24] Fusion, The 2024 Pre-Seed Investment Landscape Report: A Survey of Active VCs and Angels by Fusion VC.

Company Name	Year	Last Funding Round	Amount Raised	Key Investors
SSI	2025	B	$3 billion	Greenoaks Capital, Alphabet (Google's parent company), Nvidia
Cyera	2024	E	$540 million ($1.3 billion total)	Coatue ,Sequoia, Accel, Spark, AT&T
AI21 Labs	2025	D	$300 million (May 2025) $636 million total	Nvidia, Google, Intel Capital, Pitango, Comcast
Lightricks	2021	D	$335 million	Insight Partners, Goldman Sachs Asset Management, ClalTech, Greycroft, Hanaco Venture Capital, Altshuler Shaham Investment House, Harel-Hertz Investment House, Migdal Insurance and Financial Holdings, Shavit Capital
Hailo	2024	C (והרחבה)	$256 million	Poalim Equity, ABB, OurCrowd
Pinecone	2023	B	$138 million	Andreessen Horowitz
Run:ai	2023	C	$118 million (later acquired by Nvidia)	Insight Partners, TLV Partners, S Capital, Tiger Global
BRIA	2025	B	$40 million (March 2025) $66.5 million total	Red Dot Capital, Entrée Capital, GFT Ventures, Intel Capital, In-Venture, Maor Investment
Deci AI	2023	B	$55.1 million (later acquired by Nvidia)	Insight Partners, Square Peg

Global Giants, Local Impact - R&D Activities and Investments of Major Multinational Companies

R&D Activity in Israel

Beyond the startups and growth companies discussed in the previous section, it is important to highlight the significant role of multinational corporations operating in Israel. Six of the seven technology giants that dominate the US stock market (Microsoft, Alphabet, Amazon, Meta, Apple, and NVIDIA) operate large-scale R&D centers in Israel, with some also maintaining data centers.

These companies are among434 major international corporations with R&D centers in Israel, and they rank among the largest employers and sources of capital in the local tech industry. Examples include Google (approx. 2,000 employees), Microsoft (approx. 2,700 employees), AWS (over 500 staff), NVIDIA (around 4,500 staff), and Apple (just over 1,000 staff). Altogether, these corporations employ about one-third of Israel's total high-tech workforce and account for 40% of the country's total R&D expenditure.

Israel stands out as a global hub for AI research and development within multinational corporations. Google relies on Israel for many of its AI innovations; Apple leverages Israeli expertise for smart chip architectures; while NVIDIA and Intel draw on Israeli teams for complementary AI hardware and software. At the same time, concerns are growing among stakeholders that tightening regulations in areas such as data protection and AI oversight may complicate the operations of these companies in Israel. Close monitoring of regulatory developments will therefore be essential to maintaining Israel's status as a leading AI R&D center.

In addition, these corporations play a key role in strengthening Israel's infrastructure, which is critical for AI development. Google, Oracle, Microsoft, and AWS all operate Israeli cloud regions (including as part of Nimbus, the government cloud project). Meanwhile, NVIDIA is planning on building a major data center in Israel, investing more than half a billion dollars.

These infrastructures add a vital layer to the ecosystem: Israeli companies can now train large AI models on local clouds, sensitive data can remain under Israeli sovereignty, and the government can deploy AI-powered services, such as satellite image analysis or smart city management, on top of modern infrastructure.

Together with newly established supercomputers (NVIDIA providing GPUs, while Google laid a submarine cable to ensure fast data flow), these developments create a robust technological backbone positioning Israel at the forefront of global AI. In addition, Nebius Group has been selected to build a supercomputer in Israel to provide computing power for Israeli startups.

Beyond R&D centers, global tech giants are operating programs designed to support and strengthen local startups, especially in the field of AI. Examples include NVIDIA's Inception program, Meta's AI-focused accelerator, and IBM's annual Trustworthy AI Bootcamp, operated in collaboration with the Technion, Israel Institute of Technology. These are just a few illustrations of how international corporations are actively contributing to Israel's AI ecosystem. In addition to their direct impact, the presence of global tech giants serves as powerful validation of Israel's status as an AI hub.

Leading MNC Activities in Data & AI in Israel

Google

Established local R&D presence in Israel: 2005

Local R&D, Data, and AI Activity: Google's R&D center in Tel Aviv is deeply involved in developing some of the company's leading AI products. Among other contributions, the center has supported the development of the advanced Gemini language model and AI tools such as NotebookLM. The company also operates data teams in Israel focused on analytics, data-driven digital advertising, and building cloud capabilities for big data.[25]

In 2021, Google, together with AWS, won the government's Nimbus cloud tender, valued at more than $1 billion. As part of this project, Google established its Israel Cloud Region, headquartered in Tel Aviv and launched in October 2022. The project includes multi-billion shekel investments in local infrastructure and is expected to add approximately $7.6 billion to Israel's GDP by 2030, creating 21,000 new jobs.[26]

The local cloud region enables Israeli government ministries to move critical computing systems to the cloud while ensuring data remains within national borders, thereby improving service efficiency and reducing response times. After the outbreak of the war in October 2023, Google further expanded its government cloud projects..

In 2025, it was revealed that Google is hiring dozens of engineers in Israel to develop a dedicated Network Interface Card (NIC) chip to manage communication between GPUs and processing cores - a key component for AI workloads in the cloud. Israel also plays a role in developing Tensor Processing Units (TPUs), following Google's acquisition of several local startups in algorithmics and hardware.

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[25]Michael Ordman: This Week's Sanity Report from Israel Mar. 9, 2025, IsraelSeen.com.
[26]Google activates Israel's first local cloud region, Reuters.
[27]Advancing AI for societal impact with Tel Aviv University, Google The Keyword.
[28]Google creates $4 million fund to provide lifeline to Israeli AI startups during war, The Times Of Israel .

Established local R&D presence in Israel: 2013

Local R&D, Data, and AI Activity: Amazon's primary focus in Israel is cloud infrastructure, where it plays a pivotal role in developing core hardware components for both cloud and AI. The Israeli company Annapurna Labs, which became the base for Amazon's local R&D division, is responsible for designing key chips powering AWS (Amazon's cloud business) in artificial intelligence and machine learning applications.

Beyond chips, AWS teams in Israel also contribute to the development of cloud-based data management tools, including services such as AWS Glue and Amazon Macie for sensitive data detection - partly based on Israeli technologies acquired by Amazon. On the software side, Amazon operates R&D groups in Israel focused on commercial AI and intelligent cloud migration automation. AWS is one of the winners of the Nimbus government cloud project, serving dozens of ministries and government bodies. In addition, Amazon collaborates with research institutions, granting researchers access to its cloud computing resources.

Established local R&D presence in Israel: 2016

NVIDIA significantly expanded its presence in Israel with the acquisition of Mellanox in 2020. Today, the company employs around 4,500 people in Israel, and its local development center has become the largest outside the United States[29].

NVIDIA also executed the acquisition of Israeli AI startup Run:AI for $800 million. Jensen Huang, NVIDIA's founder and CEO, frequently highlights Israel's contribution to the company. At the 2022 GTC conference, he stated that the acquisition of Mellanox was a "key move in our success, opening the door for us to the world of end-to-end AI. We could not have built our amazing systems without the technology and people from Israel[30]." Most recently, NVIDIA announced plans to build a new campus in northern Israel, a move that will make it the country's largest high-tech employer, and one of the biggest employers in the region.

[29]Adoption of Artificial Intelligence in Businesses: Findings from the Varying Topic of the Business Tendency Survey - June 2025
[30]Why did Jensen Huang credit an Israeli company for Nvidia's remarkable success?, Ctech by Calcalist

Local R&D, Data, and AI Activity: The company's Israeli R&D center is responsible for developing the next generation of InfiniBand networks and smart network interface cards, critical components that connect NVIDIA's GPUs to storage arrays and processors in large-scale AI systems. In fact, the world's leading supercomputers for training language models rely on chips and switches developed in Yokneam.

Israeli teams have also contributed to solutions for efficient power consumption and GPU-CPU integration. The software group in Tel Aviv develops key parts of the NVIDIA AI Suite, providing an intelligent management layer for maximizing GPU resources in the cloud. In this way, Israel provides the company a competitive edge in the services layer built on top of its hardware. In the autonomous driving space, NVIDIA collaborates with Israeli companies Innoviz Technologies and Arbe Robotics.

Apple

Established local R&D presence in Israel: 2011

Local R&D, Data, and AI Activity: Apple's operations in Israel focus primarily on developing critical hardware components - particularly chips and memory technologies that power AI capabilities across its products. Israeli engineers are credited with developing the Neural Engine, integrated into Apple's latest chips, which accelerates AI-driven tasks such as image recognition, natural language processing, and voice synthesis in iPhones, iPads, and Macs.

The Israeli R&D center also leads advancements in biometric security technologies and contributes to computer vision applications for iPhone cameras. Local teams are believed to have worked on algorithms for HDR Photographic and Deep Fusion, both of which enhance image quality using AI.[31] Behind the scenes, Apple collaborates with leading Israeli institutions such as the Technion and the Weizmann Institute of Science on joint research in hardware and software domains.

[31] SNC Finder

Established local R&D presence in Israel: 1989

Local R&D, Data, and AI Activity: Around 30 product teams in Israel are engaged in areas such as business AI, analytics, and cloud-embedded AI solutions. Local researchers have also contributed to developing AI capabilities in Microsoft Office products (such as the automatic translation project and AI-powered accessibility tools), as well as in operating systems. The Israeli teams are involved in research across diverse domains, including computer vision (for example, HoloLens and AR/VR platforms), natural language processing, and intelligent automation of business processes.[32]

Microsoft also operates the AI Industry Group - Office of the CTO in Israel, led by Dr. Eitam Sheetrit. This group focuses on Responsible AI solutions and on integrating AI into industry[33], developing mechanisms to ensure fairness and privacy in large language models.

Established local R&D presence in Israel: 2011

Local R&D, Data, and AI Activity: A major part of Meta's operations in Israel over the years has focused on AR/VR. One of the company's local units works on Trust & Safety, developing automated tools to detect harmful or problematic content - an area where Israel brings unique expertise, combining AI specialists with former intelligence professionals.

[32]Welcome to Microsoft Israel R&D Center, Microsoft Website
[33]Microsoft and Ben-Gurion University of the Negev announce collaboration on research on security and AI .
[34]Adoption of Artificial Intelligence in Businesses: Findings from the Varying Topic of the Business Tendency Survey - June 2025
Meta launches AI Accelerator TLV to boost Israeli startups, ISRAEL21c[35]

Investments by Global Corporations

Beyond their ongoing operations in Israel, and in addition to external investments by venture funds and private investors discussed earlier, it is important to note that significant capital flows into Israel through multinational corporations. These giants are responsible for a large share of acquisitions of Israeli startups. In 2024, 69% of the value of M&A deals exceeding $10 billion[36] came from them - effectively injecting substantial capital into the Israeli economy and fueling further entrepreneurship.

In 2024 alone, 64 mergers and acquisitions were recorded in Israeli high-tech. Among the largest AI-related deals were NVIDIA's acquisition of Run:AI (GPU optimization) for $800 million, its acquisition of Deci AI for $300 million, and Salesforce's acquisition of Own (a data management company) for $1.9 billion.

Service and Implementation Companies

It is also important to acknowledge the role of service providers in the data and AI domain. These companies play a crucial role in customizing and implementing data and AI solutions for businesses across multiple industries. They include both multinational firms with a strong presence in Israel, such as Deloitte, KPMG, and others, as well as Israeli players like Eternity, Matrix, and more. This report does not provide a detailed review of their work.

[36]Multinational Corporations in Israel: 434 R&D Centers Powering Global Innovation, SNC report

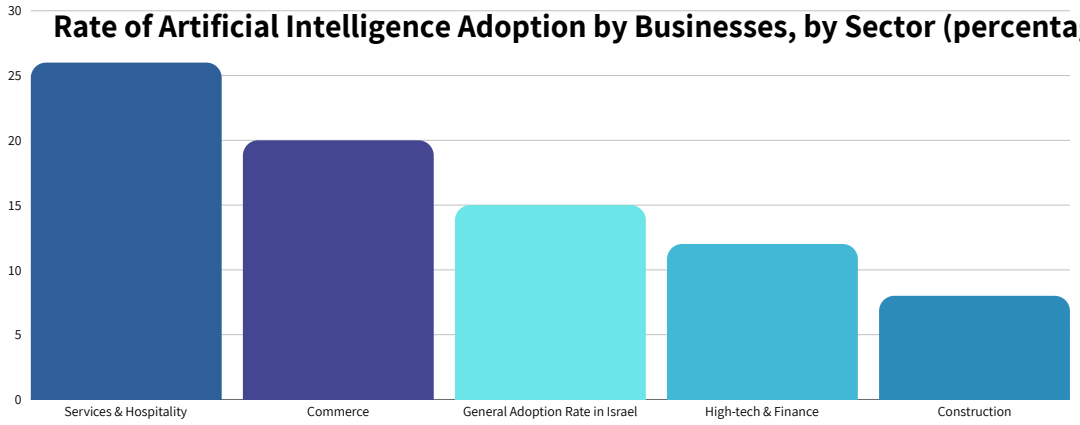
The Business Impact of AI in Israel

Artificial intelligence is reshaping Israel's business sector. A survey conducted by the Central Bureau of Statistics (CBS)[37] in June 2025 examined both how Israeli businesses use AI and the extent of their adoption.

AI Adoption by Industry

According to the survey of more than 34,000 businesses (each employing ten or more workers), 28% of companies in Israel already use AI tools in their daily operations. The local high-tech industry significantly raises this average: within the high-tech and finance sectors, 60% of companies reported AI adoption, while the nationwide rate (excluding high-tech and finance) stands at only 15%. Sector-specific adoption rates are notably lower: around 8% in construction, 20% in trade, and 26% in services and hospitality.

These disparities highlight the dual structure of Israel's economy and the widening digital divide between high-tech and traditional industries. For policymakers, the challenge is clear: while AI adoption fuels national growth, it may also deepen existing socio-economic gaps.



[37] Adoption of Artificial Intelligence in Businesses: Findings from the Varying Topic of the Business Tendency Survey - June 2025

DatA-IL

Types of Use by Industry

Large businesses adopt artificial intelligence at higher rates than small and medium-sized enterprises. According to CBS data, the majority of AI applications (42%) are in routine tasks. However, there is also a smaller but steadily growing group of companies, primarily in high-tech, using AI for more complex tasks. Adoption rates are expected to rise further, especially among larger businesses that invest significant budgets in AI implementation and capability development.

AI's Impact on Jobs: Substitution vs. Complementation

It is impossible to assess the impact of artificial intelligence on businesses without considering its effect on the labor market. About 60% of companies adopting the technology reported that it is being used for tasks previously carried out by employees, mainly routine tasks (44%). Another 16% of companies reported using AI for cognitive tasks. However, only 9% of businesses indicated an actual reduction in their workforce, and in most cases, this reflected slower hiring rather than direct layoffs.

Forecasts from the Bank of Israel[38] and the Taub Center[39] estimate that 20-23% of Israeli workers may eventually be replaced by AI, while 30-50% are expected to benefit from technological complementation that enhances their work. According to the report, Israel is still at a stage where AI complements workers rather than replaces them, though this trend could shift rapidly.

Employee Perceptions of Working with AI

Surveys conducted abroad focused on training and employees' ability to effectively use the new tools. In a BCG survey[40], only 36% of employees felt they had received adequate training, and just 25% believed that company management had provided them with proper guidance. However, employees also recognize that this is not a passing trend - 75% responded that AI agents are an essential technology for future success.

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[38] AI Adoption in 2024: 74% of Companies Struggle to Achieve and Scale Value, BCG
[39] Taub Center for Social Policy Studies in Israel, Artificial Intelligence and the Israeli Labor Market.
[40] BCG, AI at Work: Momentum Builds, but Gaps Remain.

Human Capital

In an earlier chapter, we highlighted the scope of activity in Israel's data and AI sectors - both in startups and in multinational corporations. Here, we turn to the people behind these companies: the developers and data professionals who research, design, and refine the tools that are fueling the AI revolution.

Beyond the technological and scientific importance of this field, the Israel Innovation Authority[43] emphasizes that high-tech has firmly established itself as Israel's most significant economic sector, contributing 20% of GDP in 2023 and more than half of national exports. Within this context, data and AI are becoming an increasingly central component of the Israeli high-tech industry. Israel ranks first in the world in the number of AI professionals[44], Yet despite this impressive ranking, local companies face the same global challenge of recruiting and retaining advanced talent in data and AI.

Demand for machine learning engineers, generative AI researchers, and data analysts continues to grow - driven by startups, large corporations, and even government institutions. Still, there is a significant shortage of these skills. According to CBS data, fewer than 25% of graduates in technological fields currently work in AI-related domains, and 70% of employers in data and AI report difficulties finding suitable candidates, particularly for roles in research, systems solutions, and MLOps.

The insights in this chapter were compiled through a qualitative process that included 15 in-depth interviews with key ecosystem stakeholders (including multinational corporations and small-to-medium Israeli startups), along with the reports cited throughout. In the following chapter on academia, we will examine the link between academic programs, workforce training, and the talent challenges described here.

Global Talent Shortage

The shortage of skilled professionals in data and artificial intelligence is a worldwide phenomenon. This is a unique form of human capital, unlike other technological professions, that requires lengthy and specialized training. Various studies show that many countries, including the United States, China, and several European nations, face similar challenges. The AI Global Talent Report highlights a significant gap between the demand for and supply of talent in the field.[45]

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[43] Employment Status in High-Tech 2025
[44] Israel ranks 4th globally in AI advancements, ISRAEL21c
[45] AI Report - Draup's view on the Global AI Talent Landscape, December 2024

Israel has many advantages - it is a technological powerhouse with a strong ecosystem of startups, local and international tech companies, a robust academic sector, and a large community of professionals working in data and artificial intelligence.
However, the country faces a shortage of skilled professionals, especially in roles that require advanced degrees and research expertise, where competition is global. The competition for talent is particularly fierce against international companies, and there are clear gaps between academic training and labor market demands, which often call for advanced preparation in fields such as algorithmics and higher mathematics. Such training requires a significant investment of time and effort, and is not suitable for everyone.

Industry Demand for Roles

High Demand for Critical Roles in Data and AI

- There is a clear trend of strong demand for machine learning engineers (ML engineers), computer vision and generative AI researchers, and data analysts with advanced analytical skills.
- Roles such as solutions engineers, applied AI engineers, and MLOps engineers are also becoming increasingly important, especially as AI solutions move into broad, practical use. For example, one veteran company in the video field noted a significant need for model trainers and researchers specializing in video and AI, while another company highlighted the growing demand for model engineers focused on accurate lip-synced video generation.

Preference for a Strong Academic Background

- Candidates with advanced degrees in computer science, mathematics, physics, or related fields enjoy a clear advantage in recruitment. In one successful video-tech startup, the entire research team consists of individuals with at least a master's degree, specializing directly in areas such as computer vision, deep learning, and generative models.
- That said, a purely academic research background is not always sufficient. Proficiency in programming languages (such as Python), data platforms (BigQuery or Snowflake), and visualization tools (Power BI or Tableau), as well as experience working in multi-disciplinary teams, are also required.
- Broadening the talent pool may be possible by integrating candidates from other analytical fields (such as economics or chemistry), provided they undergo tailored reskilling programs aligned with industry needs.
- "Soft skills" - such as communication, business needs analysis, and documentation ability, are also highly valued.

Evolving Roles and the Emergence of New Professions

It is clear that roles in the field are undergoing change. On the one hand, data professionals are moving closer to development-oriented positions; on the other hand, developers are moving closer to data-oriented roles. In parallel, we are seeing the rise of specialized positions such as LLM developers and ML engineers.
In recent years, the professional profile of data scientists has clearly shifted.
Alongside the traditional analytical and methodological skills, broader development expertise is now required - with emphasis on integrating with pre-trained models (LLMs), working with advanced model APIs, and building more complex technological environments.

Data scientists with backgrounds in statistics and advanced analytical approaches continue to provide significant value to companies, even when relying on out-of-the-box models. Their ability to apply critical thinking, recognize model limitations, and adapt solutions to specific context gives them a distinct competitive advantage.

Interviews with team leaders working in data and AI reveal that the field of algorithms, especially large language models (LLMs), is increasingly becoming a profession in itself. As a result, there is growing demand for candidates in specialized roles such as NLP experts, LLM researchers, and ML engineers. Employment reports show that AI engineers and algorithm developers are now among the fastest-growing and most sought-after professions.[46]

Additional changes are tied to the very process of AI integration within organizations, which has redefined many roles - for example, from developers to product-driven roles, or from manual operations to prompt orchestration specialists. There is also growing demand for expertise in areas such as language understanding as a foundation for generative AI (GAI) applications, as well as in the fields of law and ethics, addressing new questions raised by the increasing presence of AI - privacy, data usage, and the human-machine interface.

[46] "Amid Demand for AI Experts: The Tech Roles That Experienced a Drop in Salaries This Year", Mako

Academia and Research

This section focuses on the contribution of research centers and academic scholars to the development of technology and innovation in Israel in the fields of data and artificial intelligence. Academia plays a central role in training advanced human capital and generating new knowledge and insights, both of which are essential for the continued growth of existing industries and the creation of new ones. While the emphasis here is on academic studies, it is important to note the significance of training and education at the high school level as well (with the Ministry of Education planning a dedicated AI research program).

Israel ranks 9th in the world (and 2nd relative to population size) in research output at leading AI conferences[47] such as NeurIPS and AAAI. Institutions such as the Weizmann Institute of Science, the Hebrew University of Jerusalem, and the Technion are consistently ranked among the world's top 100 academic institutions in fields like mathematics and computer science. Israeli researchers have been involved in the development of about 4% of the world's most significant machine learning systems - more than 30 times Israel's share of the global population. In addition, Israel ranks first worldwide in the average number of citations per AI-related publication.[48]

[47] THE STATE OF ARTIFICIAL INTELLIGENCE IN ISRAEL, Ministry of Foreign Affairs of Denmark, 2019
[48] National Priority Areas in Science and Technology: Status Report – Artificial Intelligence, Ministry of Innovation, Science and Technology, April 2025

Key Finding

There are approximately 27 academic programs in Israel offering specializations in data and AI, including Master's programs.

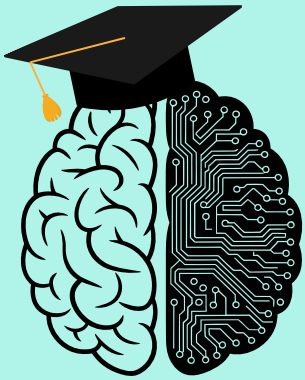
Israel is home to 17 research institutes and academic centers focused on data and artificial intelligence. A total of 103 leading researchers (including department heads, program directors, and institute heads) were identified and included in the database. These academic institutes are spread across eight different universities and colleges nationwide.

On average, each institute or research center has 12.88 senior researchers. Senior researchers were defined based on their role within the research center, professional experience, and academic rank.

Number of Students in Data Science and AI Programs

There is no precise official figure for the number of students pursuing degrees specifically in data science or artificial intelligence, as most of the studies in these fields are conducted as part of broader academic programs. To estimate, we examined the number of students enrolled in computer science, engineering (with an emphasis on software engineering, computer engineering, and electronics), statistics, applied mathematics, and data science - disciplines that serve as the academic foundation for data and AI. This analysis relies primarily on data from the Council for Higher Education (CHE) and the Central Bureau of Statistics, based on reports for the start of the 2023-2024 academic year.[49]

[49] "Despite the War: Increase in the Number of Students in Israeli Academia in the 2024/25 Academic Year," Israel Hayom, 2024



Bachelor's Programs

In the 2023-2024 academic year, approximately 61,000 undergraduate students in Israel were enrolled in relevant fields, representing about 28% of all undergraduate students. This marks a 12% increase over the past four years. Academic colleges (non-research institutions, both publicly funded and private) account for around 40% of undergraduate students, including many studying engineering and computer science. However, their role in graduate-level education is minimal.

Master's Programs

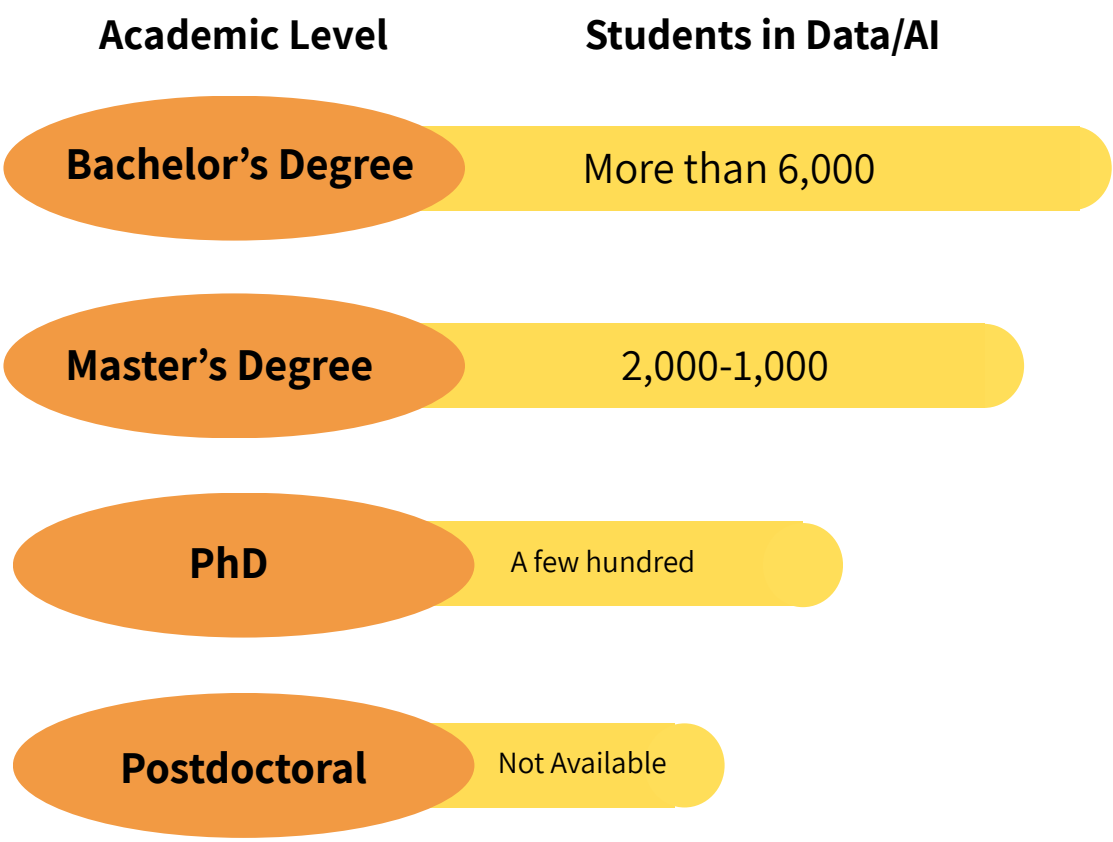
Although there is no precise official figure, it is clear that demand for these fields is sharply increasing. For example, at the Technion, 50% of applicants for advanced degrees in computer science are required to focus on artificial intelligence. According to data from the Council for Higher Education, about 5,665 students are currently pursuing master's degrees in computer science, mathematics, or statistics. A cautious estimate suggests that between 1,000 and 2,000 of them specialize in data science or artificial intelligence.

PhD Programs

In the 2023-2024 academic year, around 12,000 students were enrolled in PhD programs at Israeli universities. At each of the major universities, dozens of PhD candidates specialized in computer science and engineering, adding up to several hundred nationwide. Of these, only a few dozen students are directly engaged in information sciences and artificial intelligence.

Postdoctoral Programs

There is no recent official data on the number of students enrolled in post-phD programs, but each of the major research universities in Israel (the Technion, Ben-Gurion University of the Negev, Tel Aviv University, the Hebrew University of Jerusalem, and Bar-Ilan University) hosts postdoctoral programs in computer science, mathematics, statistics, and engineering, with an increasing emphasis on data science and artificial intelligence. These programs also attract PhD graduates from abroad. Research centers such as the Data Science Research Center at Ben-Gurion University bring together more than 70 researchers and offer structured opportunities for postdoctoral fellows in these fields.



The data shows that at the bachelor's level, students have access to a wide range of programs, but from the master's level and above, both the number of programs and the number of enrolled students declines. According to the OECD report[50], the number of master's graduates in these fields in Israel is lower than the global average. Looking ahead, the report emphasizes that it is essential to establish a strong foundation of skills and competencies, particularly in mathematics, statistics, computer science, and physics - while also expanding academic research in these areas. This requires effectively "broadening the pipeline" into these disciplines.

Academic Programs

Universities and colleges across Israel are introducing dedicated data science programs and, within computer science curricula, allocating specific coursework to teaching the languages and skills needed by the future developers of artificial intelligence systems and models.

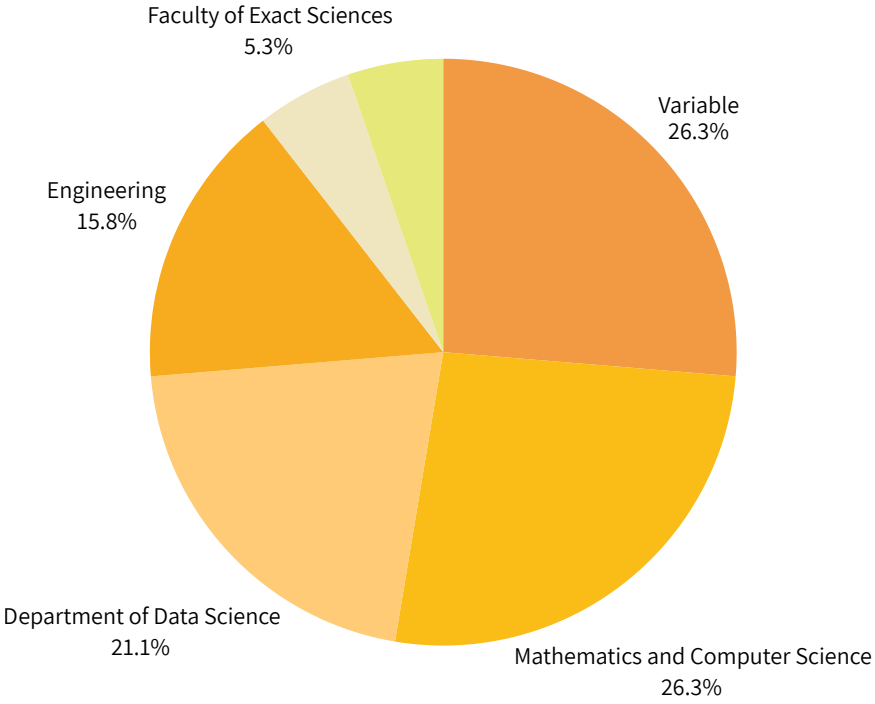
Research conducted by DatA-IL, along with this current review, makes it clear that Israel faces a shortage of senior data and AI professionals with advanced degrees. Therefore, these programs are critical for sustaining and advancing the ecosystem and its startups in these domains.

[50]OECD Economic Surveys: Israel 2025, April 2025.

To assess the number of available programs, we conducted a manual count and reviewed curricula at major universities and colleges. We identified 27 programs offering, as part of broader degrees, a specialization in data or artificial intelligence: 21 at the bachelor's level, five at the master's level, and one combined honors program integrating bachelor's and master's studies.

Most of these programs are offered within the faculties of engineering, computer science, or data science. Some institutions also provide AI and data science specializations in other fields, such as biology, political science, or public policy programs.

Distribution of AI Programs by Faculty



Alongside academic education in software and data, non-academic training tracks have also grown in scale, including bootcamps and professional certifications. Some bootcamp programs, backed by the Israel Innovation Authority, are designed to train industry professionals outside the academic system. This initiative set a goal of training hundreds of graduates per year: 280 in the first year, 350 in the second year, and around 450 in the third year.[51]

In addition, leading Israeli and international companies (such as Google and Microsoft) offer online certification courses and dedicated programs in Israel in the fields of data and AI. While their scale is not officially documented, they serve as an important complementary channel for acquiring skills in the sector.

[51] State Comptroller Report, 2021 - Preparedness for the Changing Labor Market: Government Actions to Increase the Number of Employees in the High-Tech Industry

Academic Research Institutes and Researchers

In reviewing the main academic centers, we identified 19 research institutes and academic centers focused on data and artificial intelligence. Some of them stem from a decision made about five years ago by the Planning and Budgeting Committee (PBC), which allocated substantial resources for establishing dedicated research centers in seven universities. Altogether, these institutes belong to eight academic institutions across Israel.

Within these institutes and universities, we identified 103 senior researchers, including department heads, program directors, and institute leaders, all of whom are defined here as senior researchers.

The University of Haifa's AI Research Center (HiAI)

Weizmann Institute of Science
Moross Research School of Mathematics and Computer Science
Institute for Artificial Intelligence
Center for AI Core Research
Center for Artificial Intelligence in Science
Arthur and Rochelle Belfer Institute of Mathematics and Computer Science

Technion
Artificial Intelligence Hub
Data & Knowledge Lab
The AI and People group (APPL)
Machine Learning and Causal Inference in Healthcare Lab
The Israel Data Science and AI Initiative

The Data Science Institute of Reichman University

The Tel Aviv University Center for AI and Data Science (TAD)

The Data Science Research Center at Ben-Gurion University of the Negev

Bar Ilan Data Science and AI Institute (DSAI)

Applied Research Institute for Responsible Artificial Intelligence at HIT

CIDR - Center for Interdisciplinary Data Science Research at the Hebrew University

DatA-IL

Independent Research Institutes

eyond academic institutions, there are also independent research institutes and centers that focus either on technological research or on studying the societal impact of AI.
Among them are:

- **MOSAIC AI Policy Institute** - specializing in the impact of artificial intelligence on the labor market.
- **Kahn-Sagol-Maccabi (KSM) Research and Innovation Center** and **KI Research Institute** - focusing on healthcare.
- Most major hospitals in Israel operate research and innovation centers that explore smart data use and AI integration in medical services, including:
  - **Sheba's BEYOND Medical Center**
  - **Hadassah Medical Center**
- **I-NEXT DATA | AI center at Tel Aviv Medical Center** - one of Israel's leading medical data hubs, established in 2007. It brings together researchers, data engineers, information-processing experts, a scientific, technological, and entrepreneurial ecosystem, an AI laboratory, a health-tech innovation incubator, startups, and a comprehensive medical data warehouse.

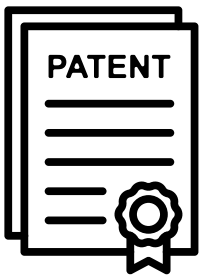
Patents

Patents provide another way to measure research and innovation. Both businesses and academic institutions in Israel actively file patents in data and AI, reflecting a strong focus on applied research. Between 2018 and 2022, Israel submitted an average of 3,500 patents per year to the United States Patent and Trademark Office (USPTO) - the highest rate worldwide relative to population size.

Most patent applicants are large companies, many of them in the defense industry. Among academic institutions, the Technion, the Weizmann Institute of Science, and the Hebrew University stand out with the largest number of registered applications. At the Weizmann Institute, the emphasis is on deep learning and brain science, while at Bar-Ilan University, research focuses heavily on ML and NLP.

Although the USPTO does not include a specific category for AI, keyword searches (such as computer vision, ML, NLP) reveal that in recent years an increasing number of Israeli startups have filed AI-related patent applications, particularly in cybersecurity, healthcare, and hardware - aligning with the sectoral analysis presented earlier in this report.

These figures include patents related both to the core of AI (infrastructure and models) and to the application layer (third-party tools and applications). Common areas and topics for Israeli patent applications include computer vision, machine learning (ML), natural language processing (NLP), model optimization, and AI applications in healthcare, cybersecurity, and the rapidly growing field of hardware.



Of the total Israeli patent applications, between 500 and 700 per year are AI-related.

15-20%

Examples of Israeli Startups Filing Patent Applications

AI21 Labs: model architecture innovations
Deci: efficient model compression and Neural Architecture Search (NAS)
Run:ai: resource allocation planning with deep learning
NeuroBlade: AI-focused computer hardware

Beyond the United States, Israeli companies and academic institutions also file patent applications through WIPO's Patent Cooperation Treaty (PCT) - an international intellectual property system that covers the U.S., Europe, and Asia, as well as through the EPO, which includes EU member states and about 12 additional European countries. In addition, many Israeli companies file directly in China and South Korea, particularly for patents in semiconductors and AI-related hardware.

Government and The Knesset

> Artificial intelligence is a transformative event that will change the way education, healthcare, welfare, transportation, and more are structured in Israel. It meets the urgent need to institutionalize the efficiency and improvement of the public sector in a way that will bring in unconventional players to the field and enable them to lead entire processes.

Shira Lev Ami, CEO of the Israel National Digital Agency

This chapter maps government activity in the fields of data and artificial intelligence, organized across three main axes:

- Internal organizational use focused on improving and streamlining governmental operations.
- Policy-making and regulation at the sectoral and economy-wide levels, designed to foster a competitive market while safeguarding public interests.
- Development and strengthening of national infrastructure, together with the promotion of R&D.

This report focuses specifically on government activity and does not cover other public sector actors such as local authorities or public institutions.

The public sector is active in this field through three main policy channels: economic instruments (such as budgets and incentives), regulatory frameworks, and information-based tools designed to encourage the development, use, and adoption of artificial intelligence through various incentives.

These policy instruments are directed toward different stakeholders to stimulate action: for example, tax incentives and R&D grants target the private sector, initiatives promoting academic programs are aimed at universities, and access to high-performance computing and supercomputing infrastructure is directed at both academia and the private sector. Creating tailored incentives is essential to ensure continuous progress and to foster an environment that supports the adoption of innovative technologies.

Equally important is the integration of these technologies within the public sector itself, in order to improve both the quality and efficiency of services offered to citizens, while increasing government transparency and effectiveness. For instance, AI can be applied in areas such as healthcare, education, and security.

This complex system of regulation, incentives, and integration within public services highlights the potential of collaboration between the public and private sectors.
We now present the activities currently being carried out in the public sector, alongside recommended measures for the continued development and adoption of artificial intelligence technologies in Israel, with particular emphasis on the critical role of the state in leading this process.

Data

Data is a strategic national resource - no less important than oil, water, or electricity. Governments that maintain organized, accessible, and well-structured data infrastructures are able to make more accurate decisions, develop citizen-focused services, respond quickly to crises, and design evidence-based policies. The government is not only a consumer of data but also one of its primary producers. Information collected across governmental bodies, from the Central Bureau of Statistics, through government ministries, to local authorities - forms an essential foundation for training AI models, developing innovative solutions, and driving public sector innovation.

High-quality data is an essential prerequisite for the government's ability to serve the public in the digital age. Without standardization, documentation, openness, and accessibility of data, investments in AI risk failing or producing incomplete and biased outcomes. For example, an AI system designed to detect school dropout risks cannot function properly if the underlying data is outdated, incomplete, or inconsistent. Moreover, high-quality data reduces reliance on external services and strengthens the state's digital sovereignty.

In a small but highly technological country like Israel, investing in data and in the capabilities of collection, analysis, and sharing - framed as both policy and responsibility, presents an opportunity to transform government from a reactive entity into a proactive leader.

Legal Framework

In May 2019, a report by Prof. Isaac Ben-Israel and Prof. Eviatar Matania (The National Initiative for Secured Intelligent Systems)[52] was submitted to the Prime Minister. In February 2020, the Artificial Intelligence and Data Science Committee (headed by Dr. Orna Berry) was appointed by the chairman of Telem (The National Infrastructure Forum for Research and Development) to examine the need for government intervention to accelerate and advance the fields of artificial intelligence and data science.[53]

The committee published its recommendations in December 2020. Following these, and after two government resolutions, the Telem Forum formulated a two-phase program to promote artificial intelligence, aimed at strengthening research and development infrastructure in the field. This forum included the Ministry of Innovation, Science and Technology; the Ministry of Finance; The Directorate of Defense, Research and Development (DDR&D)[1] within the Ministry of Defense; the Planning and Budgeting Committee (PBC) of the Council for Higher Education; and the Israel Innovation Authority. Later, the National Digital Agency also joined the program, which was subsequently expanded to include tasks under the responsibility of the Ministry of Foreign Affairs and the Ministry of Justice.

On August 1, 2021, Government Resolution 212[54] was adopted, launching a national program to promote innovation, encourage the growth of Israel's high-tech sector, and strengthen the country's technological and scientific leadership. The resolution outlined a series of measures designed to remove structural barriers and actively support the expansion of high-tech companies in Israel.

On February 24, 2023, Government Resolution 173 was adopted to reinforce Israel's technological leadership. Building on earlier Telem Forum decisions, the resolution called for the continued development of research, human capital, and infrastructure in artificial intelligence. It also emphasized strengthening Israel's high-tech industry in developing AI-based tools and enhancing public services through the integration of artificial intelligence across the public sector.

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[52] The National Initiative for Safe Intelligent Systems to Enhance National Security and Scientific-Technological Resilience: A National Strategy for Israel

[53] Artificial Intelligence and Data Science Committee

[54] Program for Promoting Innovation, Encouraging High-Tech Sector Growth, and Strengthening Technological and Scientific Leadership

On February 16, 2025, Government Resolution 2762 was adopted to accelerate and advance the field of artificial intelligence at the national level. As part of this resolution, a public committee chaired by Prof. Jacob Nagel was established to evaluate the requirements for creating a national body within the Prime Minister's Office, tasked with driving AI development forward.

The committee submitted its findings in July 2025. The report stressed that Israel currently lacks a coordinated national AI strategy and recommended a series of urgent measures. These include: the immediate establishment of a National AI Directorate under the Prime Minister's Office, with both regulatory and executive authority; the construction of a state-owned national supercomputer within two to three years, with at least 50% of its capacity allocated to academia; substantial investment in human capital through excellence programs; and more. The proposed budget for the entire program amounts to 5 billion NIS per year over five years (a total of 25 billion NIS).

In parallel, multiple stakeholders are undertaking complementary initiatives aimed at fostering the responsible adoption of artificial intelligence.

[55] "Nagel Committee" - Established to Formulate Recommendations for Accelerating Artificial Intelligence in Israel from a National Perspective; Inaugural Meeting Led by Prime Minister Netanyahu

Mapping Public Sector Entities in Data and AI

Government engagement with data and artificial intelligence has been on Israel's policy agenda in recent years, with varying levels of intensity. For methodological clarity, we distinguish here between two streams of activity: implementation and use within the public sector itself, and policy-making, budgeting, and incentives aimed at strengthening activity across the wider economy.

The focus on data as a strategic resource began with Government Resolution 1933 of August 30, 2016, which mandated for improving the transfer of government information and making government databases accessible to the public. The intention was both to improve internal government processes and to open datasets for research, development, and innovation. Since then, multiple government resolutions and policies have been adopted to maximize data resources at the cross-government level, aimed at improving service, operational effectiveness, and evidence-based policy. Notable steps include the establishment of the Government Data Lake at the Central Bureau of Statistics, improved data-sharing processes, and other related initiatives.

Government Resolution 3709 of March 25, 2018 established a national program to promote digital health as both a tool for improving public services and a growth engine, again relying heavily on data as a driver of innovation. Later, Government Resolution 260 of July 26, 2020, focused on accelerating digital services for citizens and promoting digital learning (and amending an earlier government resolution), it was intended to speed up the development of digital services for the public.

Example of Government Entities and Their Areas of Responsibility

Entity	Artificial Intelligence	Data
Prime Minister's Office	Accompanies the public committee for accelerating artificial intelligence in the economy, while simultaneously working to promote the responsible adoption of AI.	Promotes the use of data within government decision-making and operational processes - from establishing the Government Data Lake to improving data transfers.
Ministry of Finance	Responsible for transferring the state budget and allocating it across ministries.	
Ministry of Justice	Designs legal and regulatory frameworks around AI and data, develops principles for governing artificial intelligence (particularly regarding legal liability, transparency, and rights protection), and drafts legislation or policy positions on privacy, data sharing, algorithmic discrimination, AI liability, and broader AI liability issues. Actively participates in inter-ministerial teams and contributes to broader regulatory frameworks for AI in government and the private sector. Within the Ministry: Legal Advisory and Legislation Department - leads AI regulatory policy. Privacy Protection Authority - enforces privacy law, supervises compliance with the Privacy Protection Act, including specific AI-related issues. Publishes guidelines (e.g., on minimizing personal data, anonymization, transparency in AI data use) and carries out audits and enforcement on bodies using sensitive data.	
Ministry of ,Innovation Science and Technology	Responsible for regulation in the field. Hosts the SynergiAI Community. In 2023, established the Center for AI Policy (CAIP), and in 2025 launched an Expert Advisory Committee on AI Policy.	
National Digital Agency	Leads government work in technology, cloud, services, information security, cybersecurity, digital transformation, data, and artificial intelligence. Responsible for driving the AI and data revolution in public services.	
	Supports government ministries in implementing AI within their areas of activity. Active in regulation and AI policy. Develops training programs for the public sector in AI and, together with other ministries, is designing the public sector's national AI strategy.	Encourages data sharing and accessibility, develops data training programs for the public sector, and together with other ministries is drafting the government's public sector data strategy.
National Cyber Directorate	Focuses on the security of critical infrastructure for data and AI.	
Ministry of Foreign Affairs	Promotes international partnerships in AI and participates in shaping international regulation.	

*The entities are presented in random order

Entity	Artificial Intelligence	Data
CHE/PBC	Responsible for advancing AI in academia; members of the Telem Forum.	
Telem Forum and the National AI Program	Implement government resolutions, build AI infrastructure, human capital, and higher education capacity, encourage startups, and more.	
Ministry of Defense	Manages a unique data hub and expertise, leads advanced data and AI programs in intelligence and defense, and operates the DDR&D.	
Ministry of Economy and Industry	Promotes innovation and growth through its various divisions, such as the Foreign Trade Administration, the Growth Directorate, and the Innovation Communities Hub (which includes DatA-IL).	
Central Bureau of Statistics (CBS)	Integrates artificial intelligence into data analysis and the preparation of various reports.	By its very role, it serves as a data infrastructure supporting research and development.
Survey of Israel (SOI)	In charge of the collection, cataloging, and analysis of geographic data, as well as its application for public and governmental needs.	
Israel Innovation Authority	Supports innovation and startups in the data and AI fields, and provides funding and incentives to encourage their growth.	
Civil Service Commission	Developing programs to train government employees in data and AI skills.	
Ministry of Foreign Affairs	Together with the Ministries of Innovation, Justice, Science & Technology, and Economy, it is responsible for protecting Israel's international interests in AI and data.	

*The entities are presented in random order

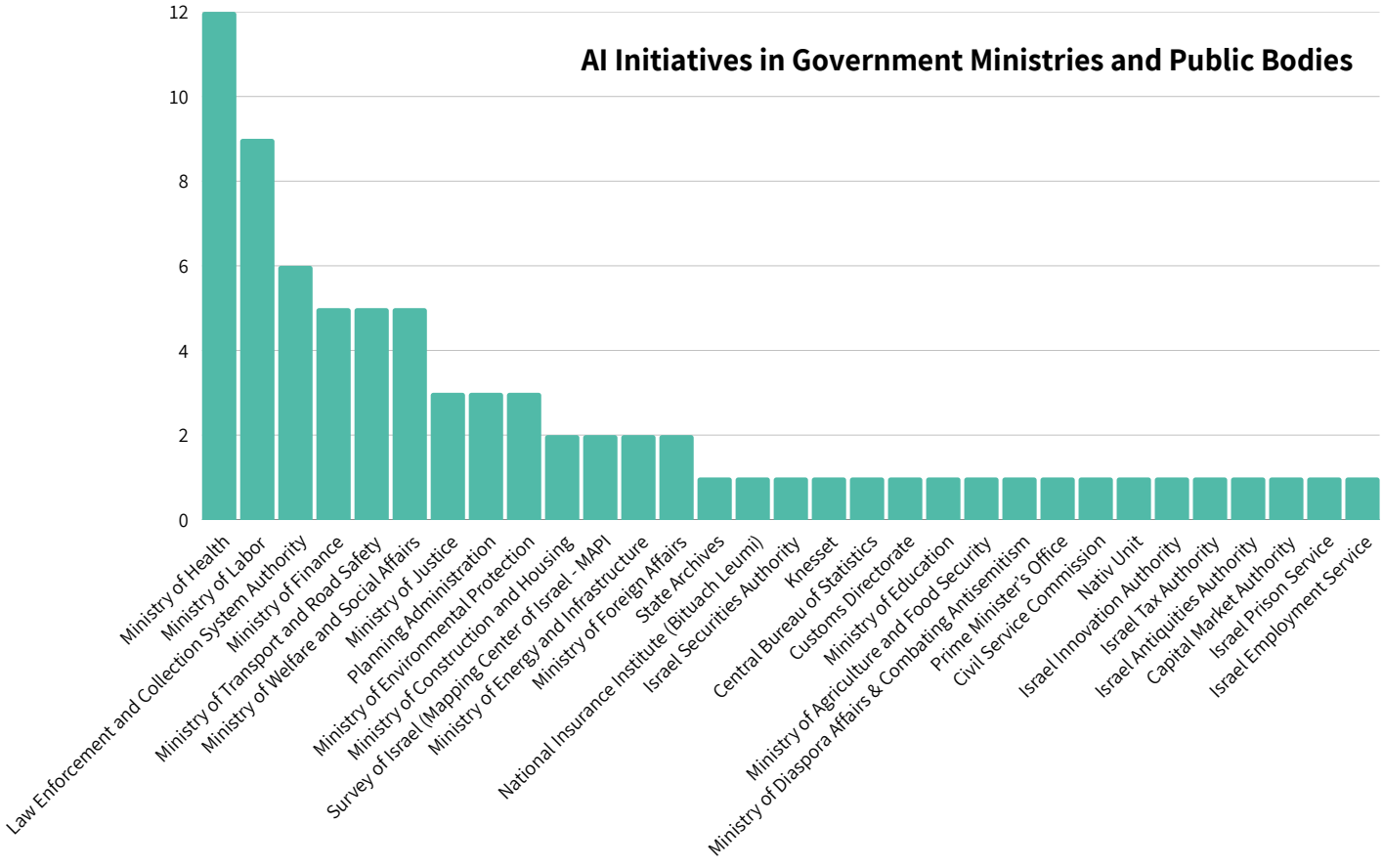
Beyond the entities mentioned here, many government ministries are also initiating various measures to strengthen data and artificial intelligence capabilities.

Internal Uses - AI in Government Ministries

> The ecosystem mapping presented in this report shows that Israel has much to offer in the fields of artificial intelligence and data. Israel's industry is innovative and advanced, Israeli academia promotes groundbreaking research, and solutions born in Israel are making a global impact. AI creates an opportunity to dramatically improve Israel's public systems and to provide residents and businesses with the quality of service they deserve. That is why we are working intensively on numerous data and AI projects for the benefit of the public. Thanks to collaboration with industry and academia, the public sector will be able to adopt data and AI solutions rapidly, in a transparent, fair, and beneficial manner.

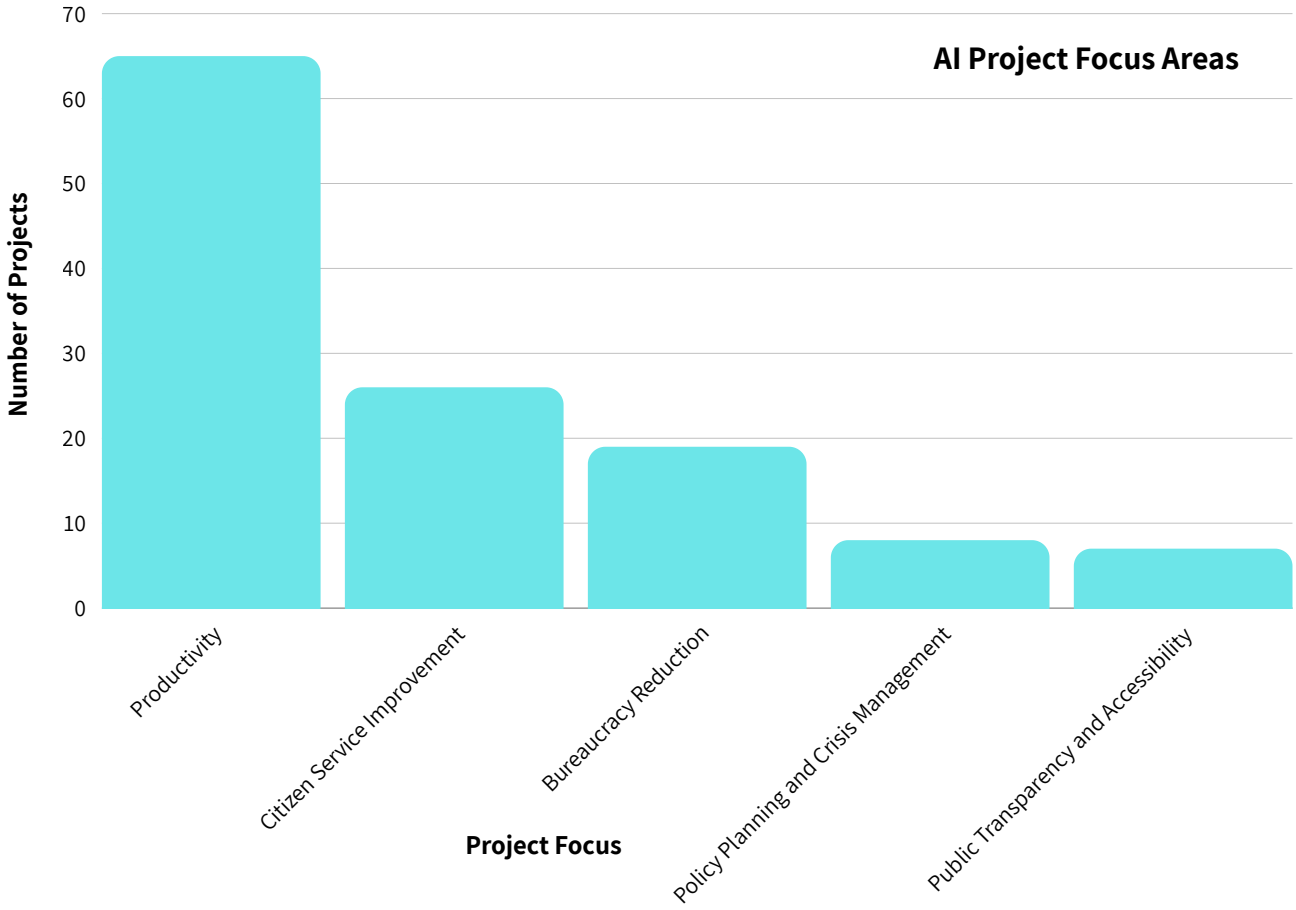
Merav Peretz Belinsky, VP Data & AI at Israel National Digital Agency

More than 70 public sector projects are currently focused on artificial intelligence.[56] Most of them (40 initiatives) were launched in 2024, with many more (32) beginning in 2025. The ministry with the largest number of projects is the Ministry of Health, leading 12 initiatives at various stages. Next is the Ministry of Labor, with 9 initiatives, followed by the Enforcement and Collection Authority, with 6 projects. Most other ministries are running a single project each.

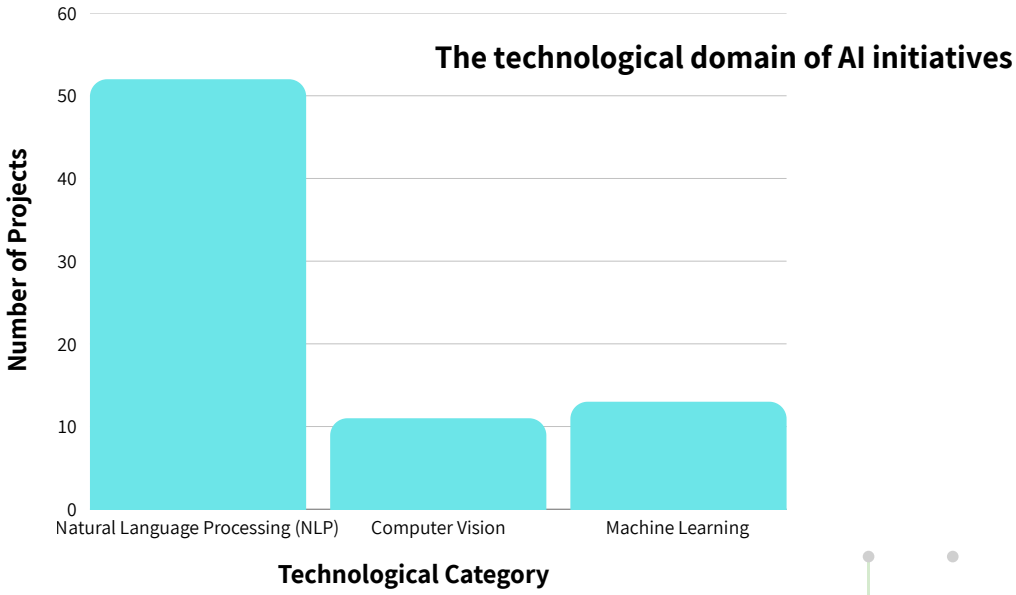


[56] Based on publicly available information from the Watch AI platform of the National Digital Agency

The projects focus on a variety of themes. Most of them are aimed at improving productivity, including initiatives to reduce bureaucracy (65 projects), enhance citizen services (26 projects), promote public transparency and accessibility (7 projects), and support policy planning and crisis management (8 projects).



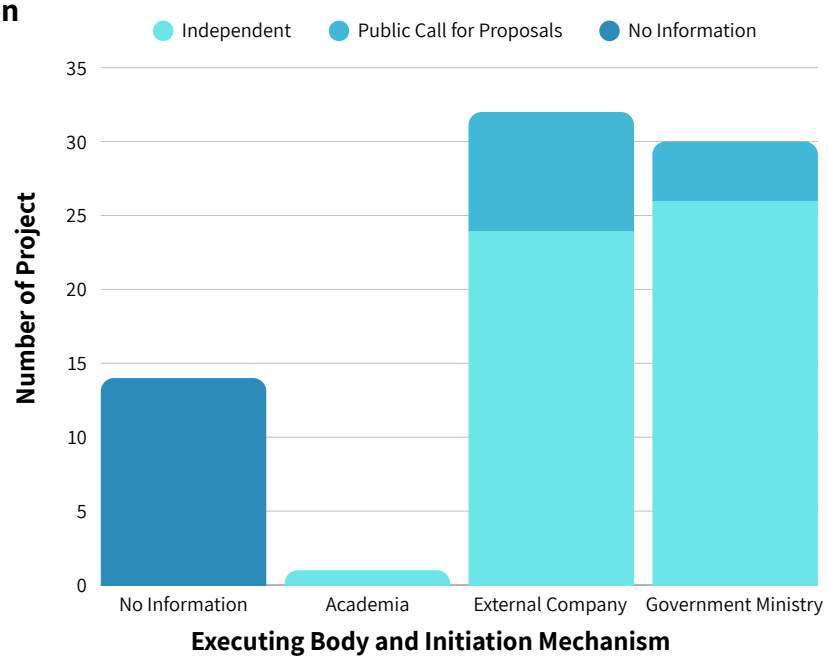
From a technological perspective, most projects focus on language models and rely on natural language processing (NLP) technology (52 projects). In 13 projects, the core technology is machine learning, while 11 projects are based on computer vision. The majority of projects are cloud-based (58), with fewer than ten operating on-premises (On-Prem).



DatA-IL

Some of the projects are initiated directly by the ministries (50), while others are launched through public calls for proposals (12). The number of projects carried out by ministries with the support of external companies (32) is similar to the number of projects executed internally (30). One ministry is conducting its project with academic support.

Ai Project Implementation



Examples of Projects

Ministry of Health - Extracting Insights from Hebrew Non-Medical Texts & Knowledge Management

A bot, based on texts from the 'Kol HaBriut' website, is designed to assist call center agents in providing precise answers to citizens' questions. The project uses LLM-based tools to analyze Hebrew texts and extract insights - for example, how many hours were invested in psychological treatments at a specific child development institute in a given year. After extracting insights with the LLM, a predictive model will be developed to forecast demand for child development professions, enabling data-driven decision-making.

Ministry of Finance - Chatbot for Agreements and Salary Circulars

This POC aims to pilot the development of an advanced chatbot, powered by generative AI, that enables intelligent and focused search across all types of agreements and salary circulars issued by the Wages and Labor Agreements Division. The chatbot will support extracting information from hundreds of thousands of documents and provide fast, accurate answers to predefined questions. It will allow division employees and the legal department to quickly locate relevant documents and agreements, preserve organizational knowledge, and draft new agreements based on precedents and past documents. This will significantly reduce the time required for manual search and review of complex documents, making the division's workflow more efficient overall.

Labor Branch, Ministry of Labor - Smart Career Advisor

An AI-powered advisor developed to recommend career paths or personalized study programs based on an individual's interests, skills, and Ministry of Labor data. The system also provides customized guidance for professional reskilling, all delivered in a clear, simple, and user-friendly way.

Shaping Israel's Data and AI Landscape

> We are actively shaping Israel's technological landscape for the next decade and beyond through a broad range of strategic initiatives. These include establishing shared data assets for academia and industry, launching comprehensive training programs for professionals at all levels, from high school students in unique tracks preparing the next generation of AI scientists to supporting graduate research students, and developing advanced computing infrastructure and innovative technology platforms. Through this multi-layered effort, we are laying the foundations for a thriving and sustainable AI ecosystem. Our goal is to create genuine synergy between the public sector, academia, and industry, ensuring that Israel not only leads in technological innovation and groundbreaking research - but also becomes the first country in the world to fully and responsibly realize the economic and social potential of artificial intelligence for the benefit of all its citizens.

Zvica Goltzman, Deputy Head of the National Program for AI Infrastructure

Budget and Investment

The National Artificial Intelligence Program has been allocated approximately 1 billion NIS (around $270 million). This budget is primarily directed toward building physical infrastructure, creating and opening data repositories, expanding access to natural language processing resources, supporting both basic and applied research, developing human capital, promoting AI adoption in the public and private sectors, and advancing regulatory frameworks. By the end of 2025, between 65% and 70% of the program's budget is expected to be utilized.

This level of investment is considered relatively modest compared to OECD countries (without adjusting for GDP). In the United States, the federal government is the largest investor, allocating $3.5 to $4 billion annually to artificial intelligence. Germany has invested approximately $1.5 billion, the United Kingdom about $1.2 billion, and Canada $2.4 billion. The average AI investment among OECD countries stands at $450-500 million per year. Despite investing slightly below the OECD average, Israel still ranks higher than most OECD countries in the majority of international benchmarks relevant to artificial intelligence.

[57] AI Index Report, Stanford, 2025
[58] When weighted as a percentage of GDP, Israel ranks second, after Canada, and above the OECD average

Recently, the establishment of a National Supercomputer dedicated to the AI research and development community was announced. According to the Israel Innovation Authority, it is expected to become operational by late 2025 or, at the latest, early 2026. The project's total budget amounts to 550 million NIS (about $150 million), of which 160 million NIS (about $44 million) is allocated for the supercomputer itself - marking the Innovation Authority's largest single investment to date. While some argue that Israel lacks sufficient technological infrastructure to support advanced development, one of the most significant gaps has been the absence of large-scale supercomputing capabilities. The upcoming launch of this supercomputer is expected to address this critical shortfall.

The "Iron Swords War" that erupted on October 7, 2023, consumed substantial resources and attention, limiting the government's ability to allocate budgets and make timely investments in this field. At the same time, the war underscored the importance of preserving Israel's technological superiority and independence. Initiatives leveraging advanced data and AI tools proved central to both the war effort and subsequent recovery operations.

AI Policy Regulation

Artificial intelligence poses a challenge to existing regulation. As is often the case worldwide, technology advances faster than regulation, and AI is moving at an even greater speed and scale than before. Israel has adopted the OECD's ethical principles for AI, but has not yet anchored them in legislation or in sector-specific regulation.[59] This is a deliberate choice - the state has opted, at this stage, not to enact overly strict rules that might hinder innovation.

In line with this approach, in 2024 the Ministry of Innovation, Science and Technology established a National Expert Forum to guide AI policy and regulation. The forum addresses issues such as regulation, data and information policy, ethics, international civil cooperation, and AI implementation in the civilian public sector. It operates with the support of the Ministry of Justice's Legal Advisory and Legislation Department, and in coordination with the National Digital Agency, the Regulation Authority, the Ministry of Foreign Affairs, the Ministry of Economy, and other governmental stakeholders[60].

[59] State Comptroller Report
[60] Principles, Policy, Regulation, and Ethics in Artificial Intelligence, 2023

Israel is also a respected and influential partner in most of the key multilateral forums on AI governance, including the OECD, the Council of Europe's CAI Committee, the United Nations, the International Network of AI Safety Institutes, and others. This engagement enables Israel to integrate its perspectives into global regulatory discussions and ensures greater alignment between domestic policy and international standards.

Israel is a signatory, alongside countries such as the United States and the United Kingdom, to the first international AI convention, led by the Council of Europe, which sets binding provisions for responsible AI use while safeguarding human rights, democracy, and the rule of law. The Israeli delegation played a significant role in shaping the final text, ensuring it reflects national regulatory priorities.[61] However, Israel, like the U.S. and the U.K., did not sign the AI Governance Declaration adopted in Paris in February 2025.

[61] OECD Economic Surveys: Israel 2025, April 2025

As of the writing of this report, Israel handles AI regulation and standards on a sector-specific basis rather than through a comprehensive, overarching framework. This approach aligns more closely with U.S. policy than to the European model. An OECD report noted that this strategy has proven effective in fostering development and innovation.

Future Planning

Israel is advancing the fields of data and artificial intelligence through a variety of initiatives aimed at fostering innovation, creating opportunities in industry and academia, encouraging growth via data and AI, enhancing monitoring capabilities with multiple indicators, and more. Some of the current initiatives (led by the National Artificial Intelligence Program) include:

- A call for proposals worth 160 million NIS to establish a national supercomputer for training large-scale models (led by the National AI Program under the Israel Innovation Authority).
- A call for proposals for AI integration in public services (led by the National Digital Agency and the Ministry of Innovation, Science, and Technology).
- A program to encourage advanced AI talent to join companies in Israel (led by the National AI Program under the Israel Innovation Authority).
- Planned future initiatives of the National AI Program include:
    - Integrating AI tools into the public sector to enhance the efficiency of social services, including developing mechanisms to support public bodies, government ministries, and local authorities.
    - Establishing a National Institute for Artificial Intelligence, designed to serve as a hub for breakthrough research, attracting leading researchers from Israel and abroad, and combining academic and industry expertise.
    - Launching “Moonshot” research projects at the forefront of global AI innovation.
    - Bridging the advanced human capital gap, including a dedicated training program in the IDF, attracting high-quality talent from abroad, and expanding the number of advanced degree programs in the field.
    - Providing access to unique data repositories and promoting their use.
    - Investing in disruptive technological initiatives with high potential for transformation.
    - Continuing to develop regulations and standards.

Ecosystem Partners

In a healthy ecosystem, startups, investors, academia, and other players act as central drivers who create connections, drive projects forward, and both generate and share knowledge.

DatA-IL is proud to be such a player, working to promote and strengthen Israel's data and AI ecosystem - from creating opportunities and industry events, to connecting stakeholders, producing knowledge, and driving public-good projects. Yet DatA-IL is only one organization within a larger network of actors and initiatives that help the ecosystem thrive.

DatA-IL

The Impact of the Iron Swords War on the Ecosystem

It is impossible to assess the evolution of Israel's data and AI ecosystem in recent years without considering the broader environment in which it operates. These years, which were critical for the global development of the field, saw Israel's attention directed overwhelmingly toward issues of security, warfare, and a hostile international climate.

Since October 7, 2023, and the outbreak of the Iron Swords War, Israel has invested significant time, resources, and budgets in matters of security (including the evacuation of civilians from combat zones), mental health, and more. At the same time, the war and the Israeli capabilities demonstrated during it, such as the resilience of the local high-tech sector and advances in defense technologies - also opened new opportunities for Israeli data and AI companies.

Challenges Created by the War

The Iron Swords War and the security situation since October 2023 have posed significant challenges to Israel's high-tech industry in general, and particularly to the field of artificial intelligence. The mobilization of more than 350,000 reservists, including many high-tech employees such as founders, CEOs, and R&D managers, left many startups without critical staff. Roughly 20% of young companies reported operational disruptions, especially among small firms with up to ten employees.

The loss of key personnel disrupted day-to-day management and hindered fundraising during a critical period. At the same time, flight restrictions and airspace closures at the height of the fighting delayed international business activity, stalling partnerships and preventing participation in global exhibitions. Applied research collaborations were also affected. For example, trials and pilots in Israeli hospitals were halted, slowing the development of digital health products[62].

[62] Small startups hurt most by wartime challenges - report, Times of Israel
[63] Negative sentiment and fundraising slump: How the war impacted Israel's tech industry, Globes
[64] High-Tech Employment Status Report, Israel Innovation Authority, 2025

Alongside operational challenges came immediate funding difficulties: the outbreak of the war intensified the decline in investments that had already begun in 2023 due to domestic instability. In the six months following October 2023, total investment in Israeli high-tech fell by about 30% compared to the preceding six months. Geography was a significant factor: companies in northern Israel (close to the Lebanon front) incurred unexpected costs due to employee evacuations and security-related disruptions.[63]

Another major challenge concerns human capital and fears of a potential "brain drain." According to an Innovation Authority report[64], about 8,300 high-tech employees (roughly 2.1% of the sector's workforce) left Israel for a year or longer since the outbreak of the war. New hiring also slowed immediately after the war's outbreak, though there are signs of recovery: by the end of 2024, the number of open positions had begun to rise again, reaching around 17,000 by December.

Challenges

Academia has also faced significant delays and now contends with significant challenges, foremost among them a more hostile international environment toward Israeli researchers. The war also highlighted weaknesses in the science-industry interface. Long-term government planning in science and innovation has been severely disrupted, lacking a clear framework: even before October 2023, professional bodies had warned of the absence of a coordinated national AI strategy and of repeated delays in budgetary decisions.

All of these challenges affect the high-tech sector as a whole, but they are felt even more acutely in the data and AI domain, which in recent years has been undergoing rapid global expansion, acute talent shortages, and an unprecedented acceleration in technology and research.

[63] Negative sentiment and fundraising slump: How the war impacted Israel's tech industry, Globes
[64] High-Tech Employment Status Report, Israel Innovation Authority, 2025

Areas of Growth Triggered by the War

Despite the challenges, the war accelerated innovation in specific domains of artificial intelligence and data. The defense establishment and the military, in collaboration with Israeli and international technology companies, developed and deployed advanced AI technologies at an unprecedented pace, effectively turning Israel into a real-time "testbed" for emerging solutions. This included the creation of new AI-powered tools that gave rise to a new generation of so-called "algorithmic weapons". At the same time, countermeasures were developed - such as detecting fake content online - to combat the surge of AI-driven disinformation spread by hostile actors during the conflict.

The demand for technological solutions sparked a wave of both government and private initiatives aimed at reinforcing local innovation. In November 2023, the Israel Innovation Authority[65] launched a rapid emergency grant fund of 400 million NIS to support startups, providing immediate capital (through a fast-track program under the R&D division) for companies with mature products facing fundraising difficulties during the war.

Private funds quickly followed, initiated by investors and organizations. For example, the Safedome fund offered emergency financing for young startups, while Nation Iron (a joint initiative of SNC and InNegev) provided bridge funding of up to $600,000 per company, alongside accelerated mentorship by venture capital experts.

Additional investors and private donors also stepped in: The Shashua Family's Social Solidarity House fund supported businesses in Israel's north and Gaza border communities, while Arieli Capital allocated 5 million NIS to assist southern startups affected by the conflict. These initiatives reflected ecosystem-wide solidarity and determination to sustain Israel's technological momentum despite the crisis.

The state itself increased defense-related procurement from startups, creating new business opportunities for companies in AI, drones, robotics, mental health, cybersecurity, and more. According to data from DDR&D (Directorate of Defense Research & Development), in the first year of the war (October 2023-September 2024), purchases totaling 601 million NIS were made from 86 startups and small technology companies - five times higher than in the same period the previous year.[66]

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[65] Iron Sword Emergency and Impact Funding Sources, SNC
[66] Ministry of Defense procurement data from small companies revealed, Globes

Unlike previous military operations, this time startups stood out as subcontractors alongside Israel's large defense industries. By the end of September 2024, DDR&D was already collaborating with 284 young companies (200 directly and another 84 via incubators and innovation arenas), an increase of 38 from the beginning of the year.

The war therefore accelerated the integration of the military with Israel's civilian tech ecosystem, reinforcing the rise of defense AI (Defense-Tech) as a sought-after specialization. In parallel, Israel's already strong cybersecurity sector faced the added challenge of protecting military AI systems from disruption. Israeli cyber-AI firms featured prominently in large funding rounds during this period. These successes, achieved amid the crisis, boosted global investor confidence in Israel's ecosystem, portraying it as agile and resilient. In recent months, major VC funds have resumed active operations in Israel, and new funds have even been launched with a decision to establish their presence locally.

In academia, knowledge commercialization also accelerated, driven by the urgent need for immediate, field-ready solutions. Processes that usually take years, from lab to market, were significantly shortened, as technology transfer offices (TTOs) in universities and hospitals quickly mobilized to support entrepreneurs.

Health and Resilience Developments

The civilian sector also experienced a surge of accelerated AI developments, driven by urgent operational and humanitarian needs. The healthcare system, which bore the brunt of treating thousands of war casualties, became a focal hub of innovation: "smart money" flowed into startups and initiatives tackling challenges such as physical and mental rehabilitation of trauma victims, rapid treatment of bleeding and wounds, and AI-based detection of post-traumatic stress disorders.

As early as the day after the October 7 attack, doctors at Sheba Medical Center realized that the surge of injured patients would require immediate technological solutions. Within a week, Impact Sheba Innovation Center launched a call for collaboration with rehabilitation-focused startups. The response was unprecedented: 85 startups applied almost instantly. In a groundbreaking move, hospital teams screened the proposals and began joint projects with the most promising candidates - an accelerated and structured process initiated during the war's earliest days.

Entrepreneurs and companies also carried out rapid technology pivots. For example, Kemtai, which had previously developed a virtual fitness trainer, adapted its technology to create a home-based physiotherapy app that provides AI-driven feedback on patient movements. Tengable, a startup led by Tel-Aviv University researchers together with Sheba, accelerated the development of an AI-powered sensor designed to restore the sense of touch, supporting patients suffering from burns and amputations caused by the war.

Mental health initiatives also advanced rapidly, often in collaboration with international companies. These projects were developed quickly, tested quickly, and implemented quickly.

Key Decisions and Progress in Artificial Intelligence

Following the war, in February 2024 the Telem Forum convened an emergency meeting that led to a landmark decision: the separation of Israel's national AI computing infrastructure into a classified system (under DDR&D) and a civilian system, with responsibility for the civilian AI cloud-based infrastructure transferred to the Israel Innovation Authority.

This decision, taken in the midst of the conflict, was accompanied by dedicated budgets and accelerated timelines. It represents a critical step for academia and the AI industry, as it will provide Israeli researchers with access to world-class data processing and large-scale model training infrastructure, without which it is difficult to remain competitive at the global research frontier. These and other measures are intended to help Israel preserve its qualitative edge in AI on the international stage.

The Israeli data and AI ecosystem underwent a historic test of resilience between 2023 and 2025. Amid the turbulence of war and internal upheaval, it demonstrated adaptability, creativity, and resilience - the very qualities that earned Israel its reputation as the Startup Nation. Despite immediate setbacks, quantitative indicators show that the sector is returning to growth and rapidly closing the gaps[67]. Moreover, the war forced Israel to sharpen its comparative advantages (cybersecurity, defense-tech, digital health) and to address its weak points (infrastructure and regulation) - ultimately strengthening its readiness for the next stage of AI development.

The combination of targeted government support, solidarity within the tech community, and a global outlook is essential to ensure that in the years ahead Israel not only keeps pace with the world but also takes a leadership role at the forefront of artificial intelligence.

[67] Israeli Innovation in War: A Year of Resilience, SNC

International Comparison

> Israel continues to solidify its position as a global leader in artificial intelligence. Over the past year, we have taken significant steps on both the technological and policy fronts. We launched the world's first pilot in the education system, in collaboration with the Ministry of Education and the Israel Innovation Authority; advanced an innovative and flexible regulatory approach that fosters responsible innovation; and established a dedicated national supercomputing infrastructure for training large-scale models. While the world grapples with complex regulatory questions and implementation challenges, Israel is leading the shift from theory to practical execution - providing its industry with cutting-edge tools and an advanced operating environment that will secure its technological and competitive edge on the global stage for years to come.

Dr. Ziv Katzir, Head of the National Program for AI Infrastructure

Israel is widely recognized as one of the world's leading nations in data and AI innovation, ranking consistently among the top countries across all major benchmarks - from the number of startups and research outputs to patents and more. It regularly places within the global top ten in artificial intelligence, and in many cases, even within the top five.

Israel Leads Globally Across Key AI Benchmarks

#1 worldwide in AI human capital density, according to the Princeton Index. AI activity in Israel is two to four times higher per capita than in the United States or Europe

#4 globally in the number of active AI companies, following the U.S., China, and the U.K., based on DealRoom and an Innovation Authority analysis of PitchBook data.

#4 in private AI investment, also according to DealRoom.

#9 in overall national AI capability - a composite index measuring investment, infrastructure, and workforce, according to the Tortoise Global AI Index.

#15 in overall national innovation performance, including advanced technologies, according to the Global Innovation Index.

#30 in government AI readiness for public sector adoption, according to the Oxford Government AI Readiness Index.

In the Tortoise index, which measures countries' innovation and adoption of artificial intelligence, Israel in 2024 retained second place relative to its population size, but fell two places in the overall ranking compared to 2023. However, a deeper analysis of the index reveals that in the areas on which the national program has focused on over the past three years, Israel improved its standing - rising from 47th to 32nd in government policy and from 28th to 26th in infrastructure.

Many observers view Israel's recent declines in certain international rankings with concern, even though its overall standing remains high. It is important to understand what is driving these declines and what can be done to close the gaps. Notably, the relative decline in Israel's overall position in the Tortoise index this year is largely due to the significant weight assigned to the existence of dedicated AI legislation.

International Cooperation

Artificial intelligence relies above all on access to high-quality data, computing power, skilled human capital, and advanced development capabilities. For this reason, cross-border, cross-sector, and academia-industry partnerships are essential to advancing the field. Each country brings its own strengths and weaknesses, and cooperation helps bridge these gaps.

International collaboration enables:

- Broader and more representative access to diverse datasets.
- The promotion of shared standards for ethics and regulation.
- Faster research and development processes.

Israel plays a central role in the global AI arena and is engaged in several key international collaborations:

AION Labs - An international Bio-AI collaboration. This pioneering laboratory is jointly owned by Pfizer, AstraZeneca, Merck, the Israel Innovation Authority, and others. It connects medical data, researchers, and an entrepreneurial ecosystem to develop AI-based solutions in pharmaceuticals and healthcare.

Horizon Europe Program - Israel actively participates in this multinational program, which includes research projects in AI, robotics, digital health, and ethical AI. This collaboration provides Israeli academia and industry with access to European partners and funding opportunities.

Hospital-Academia-Startup Partnerships - Projects such as Clalit Health's Innovation Division collaborate with companies like Aidoc to leverage anonymized medical data for the development of algorithms that enable earlier and more accurate diagnostics.

Summary

The DatA-IL ecosystem report highlights the extensive activity currently taking place in the fields of data and artificial intelligence in Israel. It emphasizes the significant and dual potential of these domains - both as independent business and research sectors, and as foundational, cross-cutting technologies shaping and transforming a wide range of industries. The report offers valuable insights into current and future trends through a comprehensive mapping of companies, human capital, and infrastructure.

Key Insights

Regulation and Ethics

Israel has chosen not to establish a strict, overarching regulatory framework for artificial intelligence. This approach offers clear advantages in fostering innovation and flexibility, but also introduces uncertainty and potential risks.

Investments and Investors

Israel benefits from substantial and diversified investments, with a mix of local and international investors. Venture capital funds remain pivotal, providing the backbone of financing for the sector.

Academia and Research

Israel ranks among the global leaders in groundbreaking research in data and AI. However, a key challenge remains the creation of a sustainable pipeline of graduate students, ensuring that advanced academic talent transitions effectively into the industry.

Government Involvement

The public sector is actively engaged - both in incentivizing the private sector and in integrating AI technologies into public institutions and services. Various ministries allocate significant resources, though better coordination and strategic alignment remain necessary.

Leading Sectors

Digital health, data infrastructure, and cybersecurity continue to dominate as focal points for investment and innovation, reinforcing Israel's strengths in these fields.

Ecosystem Growth

The field keeps expanding in Israel, with more than 2,600 active companies. The prominence of startups underscores its importance, and this number is expected to grow. The sector is increasingly emerging as a self-sustaining ecosystem with distinct characteristics, a unique regulatory approach, and strong momentum.

We are at the dawn of a revolution that will reshape the way we live, consume public services, think, and work. Israel is well-positioned not just to participate but to lead and thrive in this new era. The hope is that this report, by identifying both strengths and gaps, will help refine budgets and policies, enabling Israel, its entrepreneurs, and its technologies to drive growth and claim global leadership.

The report underscores the vitality and dynamism of Israel's data and AI ecosystem, the key players driving it forward, and the interactions that fuel resilience and innovation.

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Note:

The companies mentioned in this report do not necessarily represent all entities operating in the field in Israel and were not selected with the intention of favoring any particular party. The report was prepared for review purposes and does not constitute an exhaustive list. Companies interested in being included in future reports are welcome to contact us and present their activities.

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We pray for the safe and swift return of all the hostages to their homes