State of Israel
Ministry of Health

Digital Health as a Growth Engine



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Health Tech - Israel's Unique Strengths

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Information as a strength

- Over 25 years of digital information
- Integrated and shared digital EMR
- Genetically heterogenic and an exceptionally diverse population



Advanced health system

- Centralized but competitive
- Mostly public health system
- Full coverage by HMO



Start-Up Nation

- Leading in R&D in technology and medicine
- Organizational culture that facilitates innovation and change
- Suitable training and manpower



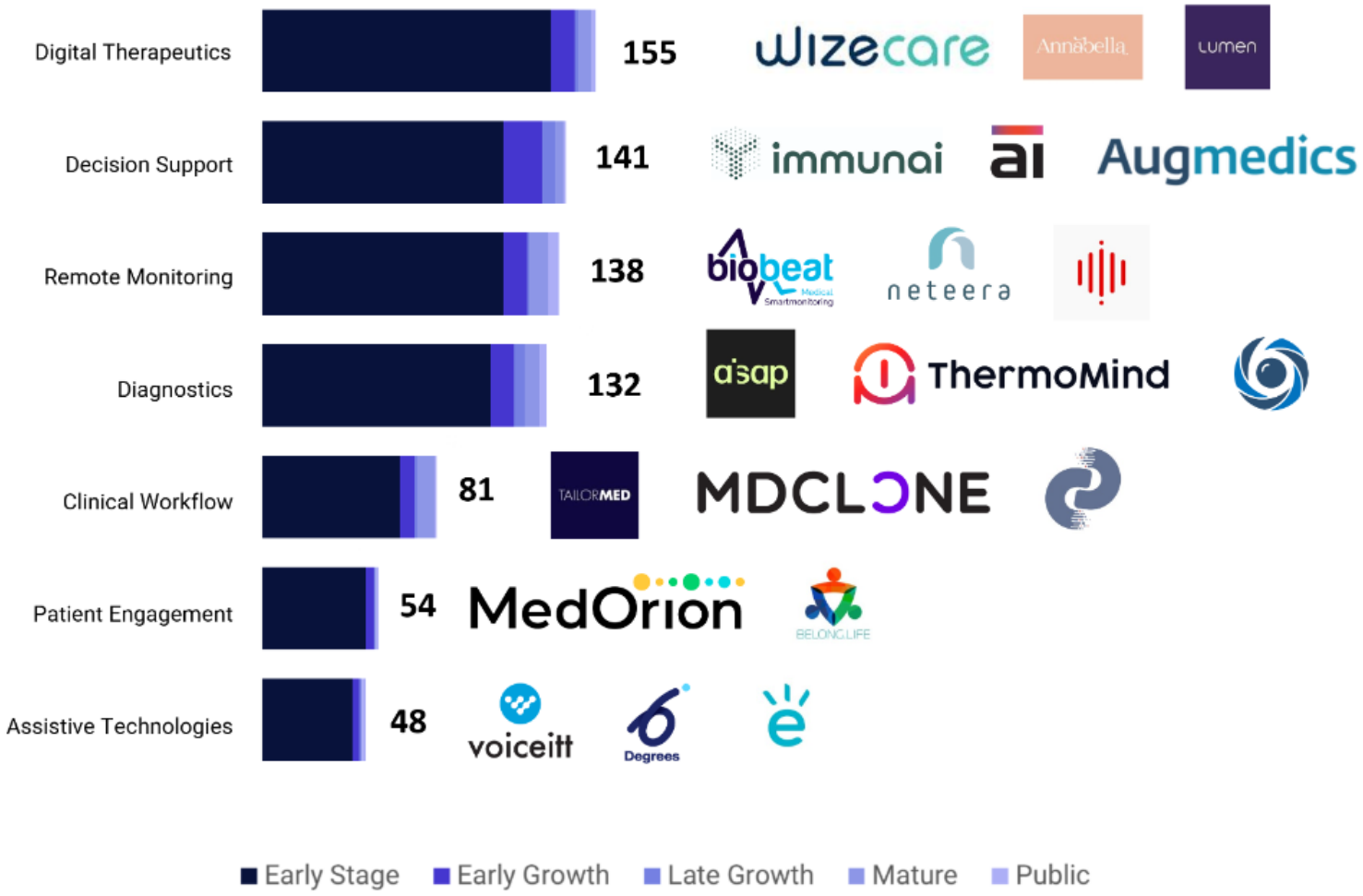
Government Support

- Ministry of Health
- Innovation Authority
- Ministry of Finance
- Ministry of Justice
- Council for higher education

Israel's Unique Strengths

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Number of active companies, divided according to funding stage



Source: Start Up Nation Central , 2023



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What Is The Role of Government in the Digital Health Ecosystem?

Data Strategy:

*A world in which **everyone** can **securely access and use** the **right** atad htlaeh **when and where they need it**.*

MINISTRY OF HEALTH
For a healthier life

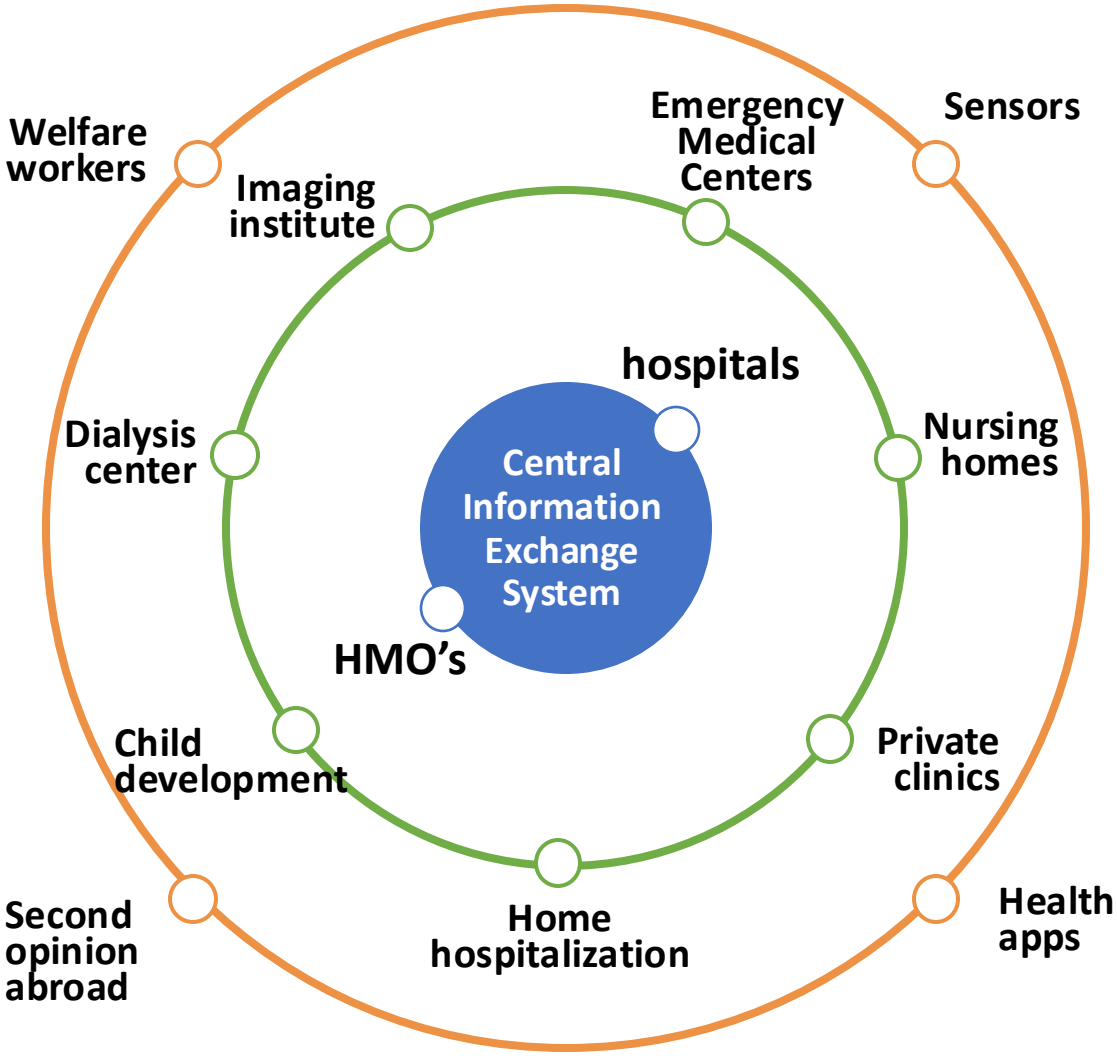
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Central Exchange mechanism managed by the ministry has its limitation:

- Integrating new solutions is hard
- Paternalism

Interoperability 2.0:

- Moving to an Open Network
- Gov. as a Regulator instead of IT vendor





Data Portability Act: Two Layers

Technology Regulation:
Data exchange standards

Data Access Rights: giving patients the ability to share their data with 3rd parties


API Economy
Proactive
Personalized care
Public Trust
GOALS
Patient
Empowerment
Reducing
Bureaucracy
Competition

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AI Regulation

- Regulation will probably be officially set by other regulators
- Israel can be a great beta site
- Since we are small (but agile), we can either

  be the first to implement or the last to do so.

  We prefer the first…..
- Giving clear guidance to IRB committees



Israel can be a great beta site - AI in Radiology

Accurate detection, faster diagnosis, and improved treatment planning

Israel is a frontrunner in AI technology for radiology, with its companies achieving multiple FDA approvals and being incorporated into reimbursement plans.

This reflects robust collaboration with Israeli health organizations. Moreover, the nation's dedication to fostering AI implementation and experimentation in radiology is evident through various government initiatives.

VIZ.AI specializes in AI applications for stroke care coordination and intervention, providing real-time analysis of medical images to improve outcomes in stroke patients

DIA's expertise lies in utilizing AI to enhance ultrasound analysis, contributing to improved diagnostic accuracy and patient care across various medical fields

AIDOC focuses on AI-powered radiology solutions, specifically assisting radiologists in identifying critical findings in medical images quickly and accurately

Nanox aim to make early detection and diagnosis of diseases more accessible and cost-effective with its innovative medical imaging system that combines nanotechnology and AI

Israel can be a great beta site - AI in Cancer treatment

AI is transforming cancer care, from early detection to personalized therapies

Israel excels in AI for cancer care. Innovations span early detection through imaging analysis, pathology assistance, personalized treatment planning based on genomics, clinical trial matching, and predictive monitoring for remote care.

The nation's collaborative startup ecosystem and global contributions underscore its significant role in shaping AI-driven advancements in cancer research and treatment.

Nucleai uses AI to analyze tissue biopsies to predict the progress of cancer and the patient's immune system response, in order to determine the most effective treatment

Imagene uses AI to quickly and accurately profile cancer biomarkers from H&E images, making precision medicine more accessible to patients

Medial EarlySign's expertise lies in leveraging AI for predictive analytics and risk assessment, particularly in identifying early signs of various medical conditions, including cancer

IBEX focuses on AI-powered solutions for pathology, specifically automating and improving cancer detection in pathology slides

Key principals for evaluating AI-driven interventional trials

Question	Significant issues
Does the title of the study state that the clinical intervention is based on AI, machine learning or an algorithmic model?	It is important to consider the degree of autonomy/automation of the tool (fully autonomous, partially autonomous or non-autonomous).[8]
Does the informed consent form state that the technology being tested in the clinical trial is based on AI?	Make sure that the wording in the informed consent form is in understandable language and that there is a concise explanation of the significance of using AI in the context of the study.
What is the version of the model/tool used?	
What is the intended use/purpose of the AI tool?	In the intended use/purpose, the following points should be addressed: • The medical purpose. • Intended users (clinicians, patients, the general public, etc.). • The intended clinical environment. • The role of outcomes in the clinical process. • Mode of use (including the degree of autonomy of the tool). • Characteristics of learning and update of the model (proactive or continuous).
What are the inclusion and exclusion criteria at the participant and input data level? What is the reasoning for these criteria? - Do these criteria correspond to the designated population for the tool?	• The reasoning for the criteria can relate to the limitations of the model, risk management of bias, etc. • The entrepreneur should justify the sample size with the ability to reach statistical significance, and take into account the possible risk to patients.

הקמת ועדה מייעצת חדשה לניסויים קליניים באמצעים רפואיים דיגיטליים (אר"ד)

הקמת ועדה מייעצת חדשה שתפקידה לספק הדרכת מומחים למחלקת הניסויים הקליניים ולוועדות הלסינקי המוסדיות בתחום המתפתח במהירות של אמצעים רפואיים דיגיטליים

סוג: חדשות • **נושא:** אמצעים רפואיים דיגיטליים (אר"ד) • **תאריך פרסום:** 21.04.2024 • **תאריך עדכון:** 29.04.2024

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GIHF AI

German Israeli Health Forum for Artificial Intelligence

ELNET

Health Diplomacy boosts Europe-Israel relations

The **digitalization of healthcare** is one of the key challenges of our time. Among other advances, the use of artificial intelligence (AI) and machine learning (ML) offers enormous opportunities for improving healthcare. **Israel is a pioneer in this area**, as the country's healthcare system has been successively digitized for over 25 years, which has led to a wealth of data in the healthcare sector. Against this background, in 2021, the **European Leadership Network (ELNET) established** the **German Israeli Health Forum for Artificial Intelligence (GIHF-AI)** as a key innovation diplomacy program. GIHF-AI advocates for close cooperation between Germany and Israel, strongly involving both health ministries and hosting regular briefings at the Bundestag and the European Parliament. Funded by the German Federal Ministry of Health (2021-2024) and supported by the Israeli Ministry of Health, GIHF-AI thus far has **brought together around 500 policy makers** (including health ministers), experts, and institutions from the German and Israeli health sectors as well as from other European countries.

Our goal is to promote innovation in digital health and foster collaboration between governments and institutions from Israel and Germany.

FACTS, FIGURES & DATA

- Founded by ELNET in 2021
- 19 publications (policy briefings, reports, statements, study) with recommendations for political action
- 21 dialogue events, 3 conferences, 3 delegations with experts and policy makers, 3 trade fairs
- Impactful communication on digitalization and AI in the healthcare sector
- Knowledge transfer and projects between Germany and Israel (including 3 cooperation agreements linking university hospitals)
- Board of Trustees with 29 experts as well as Members of Parliament and establishment of a comprehensive stakeholder network
- Funded by the German Federal Ministry of Health (2021-2024) and supported by the Israeli Ministry of Health

Thank You

GIHF – AI !