

AUD • TAX • TAS • ADV • BPS

**Webinar** 

# Digital Health

As inovações e os desafios de um  
setor em transformação





**HealthIL**  
Digital Health Community

# The Israeli Digital Health Ecosystem: Opportunity and Reality

Yoav Fisher | [yoavf@israelinnovation.org.il](mailto:yoavf@israelinnovation.org.il)





**HealthIL**

Digital Health Community

# About Me

- Currently: HealthIL
- Previously: VC
- Prior to that: Over 5 years experience in business/financial strategy consulting to the Startup Ecosystem – Founders and Investors
- MA Economics – TAU
- Lives in Tel Aviv

# About HealthIL



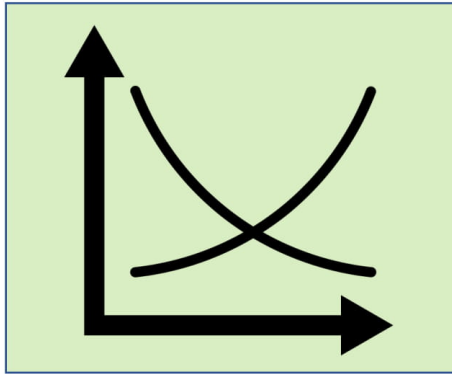
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- Startups
- Tech Cos
- Org/Ops

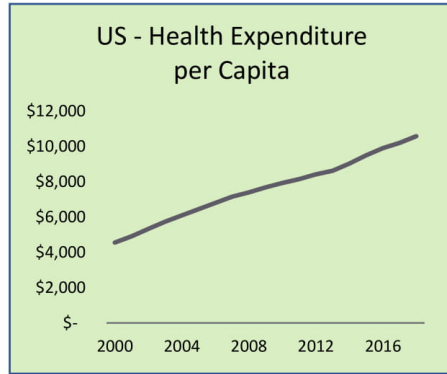
Accelerators - Investors - Incubators - Etc...

# First: Why Digital Health?



Global imbalance between *demand* for healthcare services and *supply* of healthcare services - and it's getting worse

+



Huge global marketplace - Over \$10TRILLION in *annual* spending on healthcare projected for 2022.

Expenditure per capita is rising *everywhere*

=

Global need for solutions that can correct the imbalance between supply and demand

Scalable solutions have the potential to share in the global pie



# Behind the Scenes

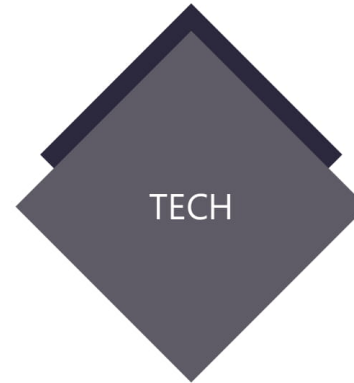
Healthcare  
Players open to  
sharing



Advances in core tech  
drivers, with lower cost  
and faster development



Unprecedented  
sources of  
health data



Users open to  
new forms of  
engagements

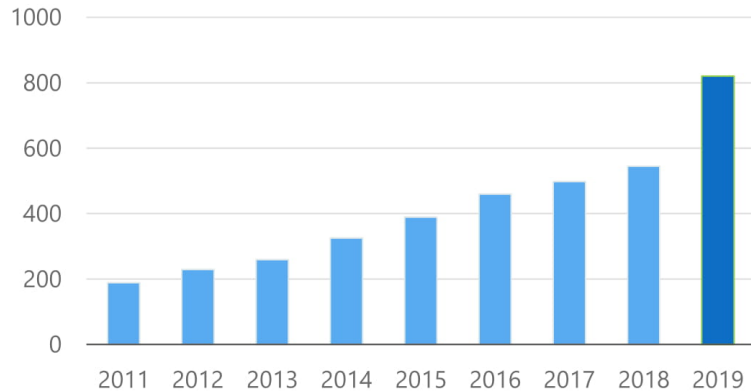
# The Israeli Ecosystem

- Recognized Global Leader in core tech drivers of healthcare innovation
  - ML / DL
  - Cloud
  - Sensors
  - Voice / NLP
  - Computer Vision
  - Big Data / Analytics
  - AR/VR
- Proven Culture of Innovation
- Unrivaled critical density of technical talent
- Unique infrastructure for ideation of healthcare innovation

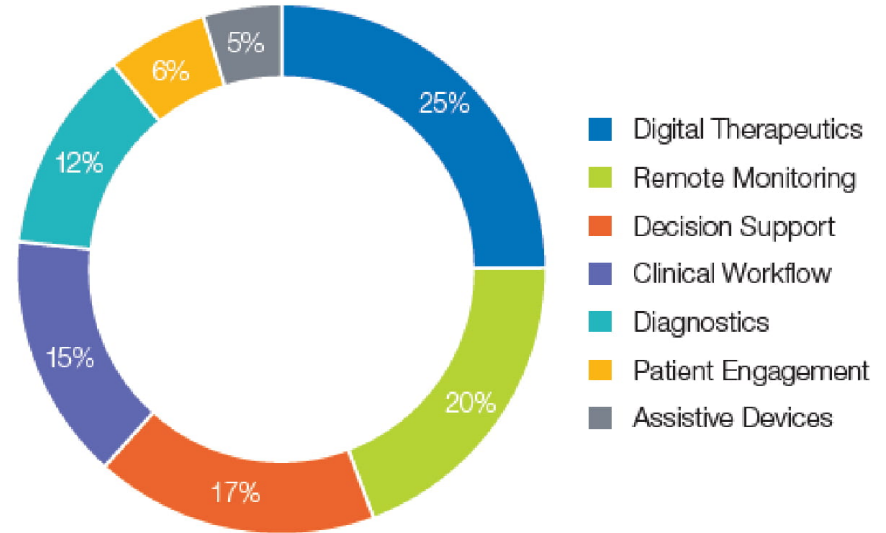


# Israel: Global Ideation Powerhouse For Healthcare Innovation

**Active Israeli "Digital Health" Startups**



**Digital Health Subsectors (by Number of Companies)**





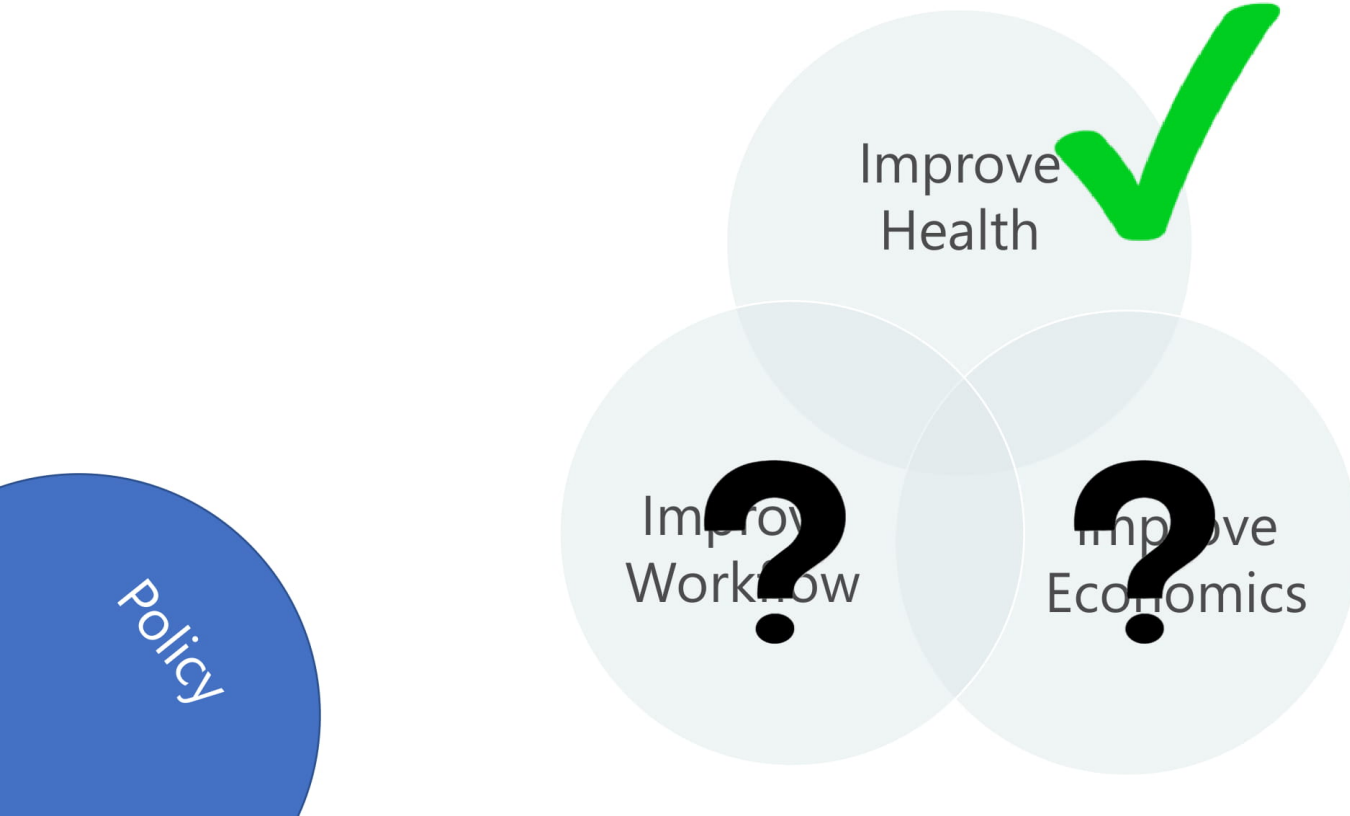


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# But...

There is always a but....

# Tech alone is never enough...



Policy

# Overcoming Hurdles...

## **INDUSTRY**

- Pharma
- Insurance
- Emp. Insurance
- Device Manu
- OEMs
- Retail Giants
- Tech Companies
- Service Providers
- General Manu

## **ORGS**

- Hospitals
- Clinics
- ASCs
- Hospice
- Nursing Homes

## **OTHER**

- Associations
- Academia
- Gov Entities
- Regulatory Bodies
- Local Authorities

## **CARE RECEIVERS**

- Patients
- Caregivers
- Family Members

## **CARE PROVIDERS**

- Doctors
- Nurses
- Therapists
- EMTs
- Administrators
- Social Workers

## Exploring Challenges and Opportunities

- Assessing Needs
  - Understanding Offering
  - Mapping out Resources
- The more you understand them, the more you can help them!

# Overcoming Hurdles...

Exploring Challenges and Opportunities

Challenges	Opportunities
Strained Tiers	Strong Telcom base
Funding Gaps	Increasing Digitization (e-SUS)
Uneven Playing Field	Increasing private investment sources
Inefficiency	Strong Medical Practices
Poor Integration	National Interest
Geopolitical Macro issues	Strong SUS base 2000 - 2014

<https://www.dw.com/en/brazil-suffers-health-care-crisis-as-sus-system-flounders/a-45480379>

“Brazil eHealth – Overview, Trends & Opportunities” – eHealth Mentor Institute, 2016

<https://www.forbes.com/sites/angelicamarideoliveira/2020/01/24/the-brazil-tech-and-innovation-roundup-vc-investment-reaches-new-high/#71403137d896>

# Where we can help...

- NEEDS
- OFFERING
- RESOURCES





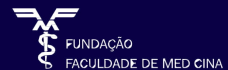
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# THANK YOU!

Yoav Fisher | [yoavf@israelinnovation.org.il](mailto:yoavf@israelinnovation.org.il)



# Inova i4C







**INOVAHC** AIMS TO CREATE AN ECOSYSTEM OF HEALTHCARE INNOVATION INSIDE AND OUTSIDE THE HOSPITAL DAS CLÍNICAS DA FACULDADE DE MEDICINA DA USP.

WE ARE A PROGRAM THAT PROMOTES THE TRANSFER OF SCIENTIFIC, TECHNOLOGICAL AND CULTURAL KNOWLEDGE

# A instituição hoje



INSTITUTO DE MEDICINA FÍSICA E REABILITAÇÃO  
IMREA

HAC  
HOSPITAL AUXILIAR COTOXÓ

HOSPITAL AUXILIAR SUZANO

LIM  
LABORATÓRIOS DE INVESTIGAÇÃO MÉDICA

INSTITUTO DA CRIANÇA E DO ADOLESCENTE

INSTITUTO DE ORTOPEDIA E TRAUMATOLOGIA

INSTITUTO DO CÂNCER

INSTITUTO DE RADIOLOGIA

SECRETARIA DA SAÚDE

INSTITUTO CENTRAL

INSTITUTO DE PSIQUIATRIA

INSTITUTO DO CORAÇÃO

**Hospital das Clínicas**

**Medical School of the University of São Paulo**



FOUNDED IN

**APRIL 19<sup>th</sup> ,1944**

**8 ESPECIALIZED  
INSTITUTES**

**2 AUXILIARY  
HOSPITALS**

**62 RESEARCH LABS**

**+ THAN 20 THOUSAND WORKERS**

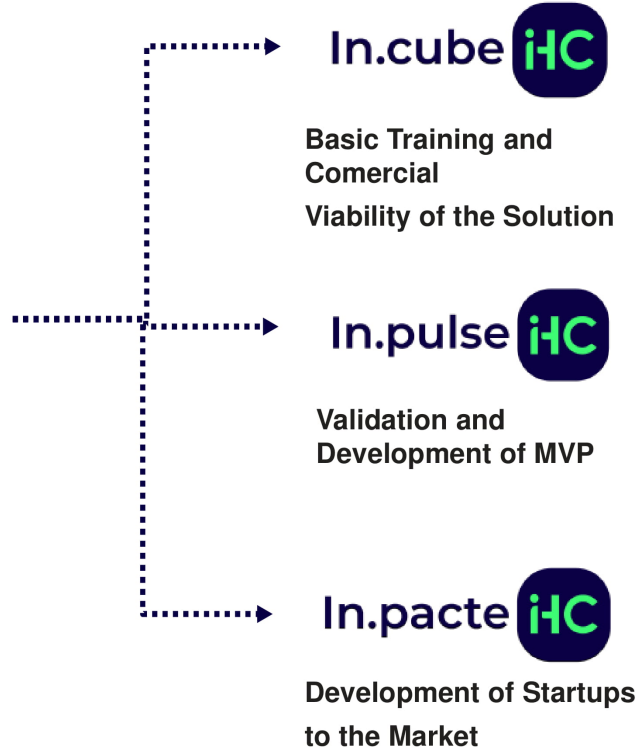
**2.500 HOSPITAL BEDS**

**106 SURGICAL ROOMS**

**1,5 MI AMBULATORY ATTENTION**

**97,5 MI MEDICAL IMAGES STORED**

# Innovation Program







# A. Diagnosis of Images through AI and Workflow – Phase 1



ML - RADVID-19

## A1



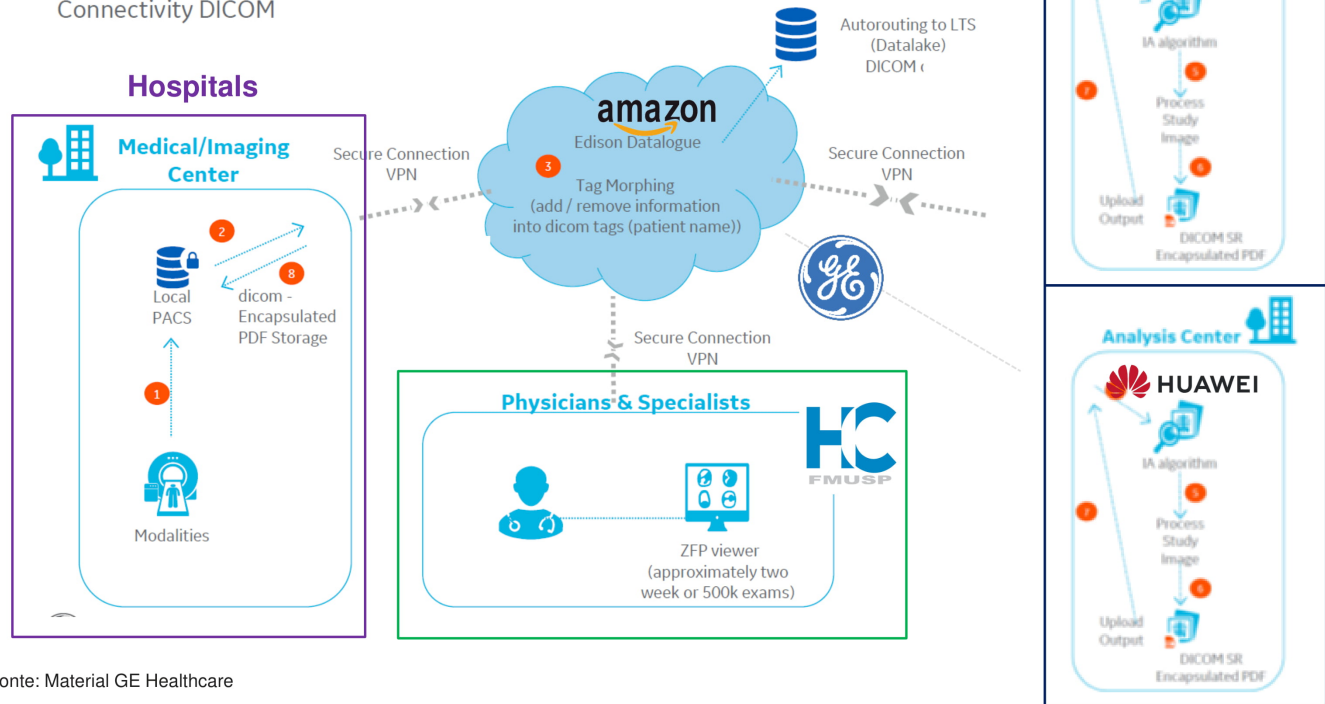
Diagnosis of CT images as screening, prioritization and review report.



- Neural Networks - image recognition international algorithm - Covid19 (Huawei and Siemens)

## Fase 1 – DICOM Workflow (COVID-19)

Connectivity DICOM



Fonte: Material GE Healthcare



# A. Development of the Brazilian ML- Phase 2



ML BR

## A2



### Algorithm Development in Brazil

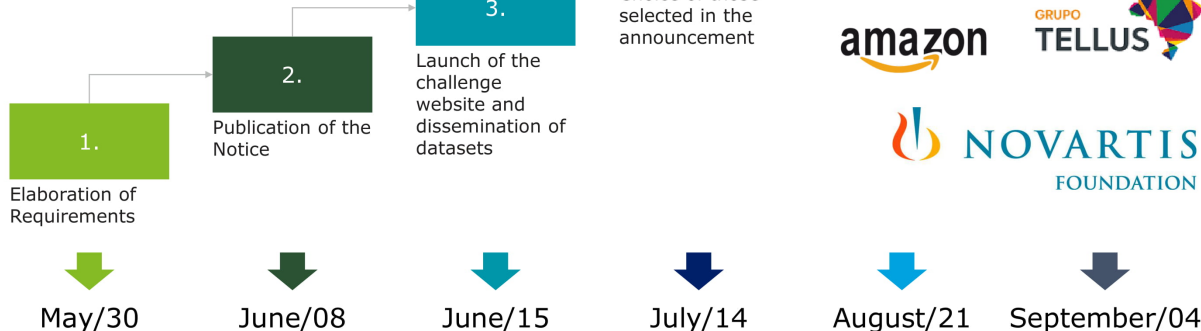


- ML Covid19 Brazilian Algorithms
- Fostering the national ecosystem of AI startups

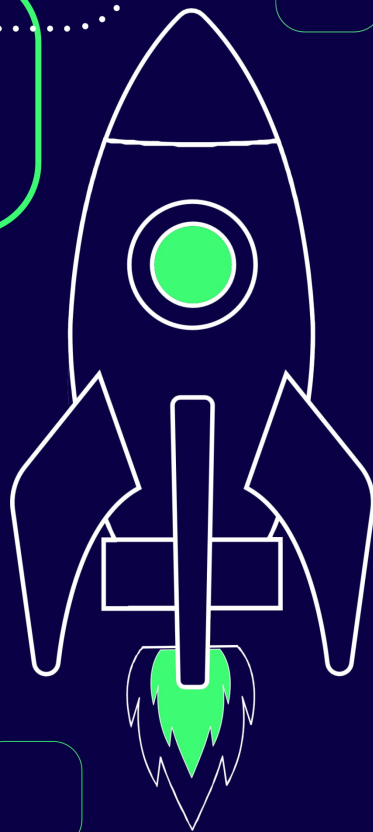
- One of the objectives of the project is to foster the health AI startups ecosystem.
- Based on the experience of using international algorithms, the requirements for the development of national algorithms were developed in order to foster universities, research institutes and startups linked to AI.
- This project is supported by the Secretariat of Economic Development of the State of SP (SDE-SP), Novartis Foundation, AWS and Grupo Tellus.
- One of the objectives of the project is to promote the ecosystem of the health AI startups.



Objetivos de Desenvolvimento Sustentável (ODS)



Inova  
iHC



HC  
FMUSP

MEDICINA  
USP

SÃO  
PAULO  
GOVERNO DO ESTADO

FUNDAÇÃO  
FACULDADE DE MEDICINA

FZ  
FUNDAÇÃO  
ZERBINI



# Contatos



**Yoav Fisher**

Head de Inovação Tecnológica do HealthIL do Israel Innovation Institute

E [yoavf@israelinnovation.org.il](mailto:yoavf@israelinnovation.org.il)



**Alon Lavi**

Cônsul Geral de Israel em São Paulo

E [cg@saopaulo.mfa.gov.il](mailto:cg@saopaulo.mfa.gov.il)



**Bruno Pina**

Chief Digital Officer da Astrazeneca Brasil

E [bruno.pina@astrazeneca.com](mailto:bruno.pina@astrazeneca.com)



**Prof. Giovanni Cerri**

Coordenador da Comissão de Inovação do Hospital das Clínicas

E [giovanni\\_cerri@uol.com.br](mailto:giovanni_cerri@uol.com.br)



**Daniel Maranhão**

CEO da Grant Thornton Brasil

E [daniel.maranhao@br.gt.com](mailto:daniel.maranhao@br.gt.com)



**Hayo Cohen**

CEO do Israel Tech Hub Brasil

E [hayo.cohen@israeltechub.com.br](mailto:hayo.cohen@israeltechub.com.br)