



Diagnostics and AI  
Israeli Dutch Innovation Center symposium

Dr. Efrat Shefer, President Philips Israel

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# Why AI in healthcare matters?

## Healthcare systems face an unsustainable burden



1 in 3

adults worldwide suffer from one or more chronic diseases

World Health Organization



42%

of healthcare professionals report feeling burned out

Medscape survey 2021



18 million

the expected global deficit of skilled healthcare professionals by 2030

World Health Organization



2x

global healthcare spending is projected to double between 2020 and 2040

World Health Organization



By 2025, the amount of healthcare data is expected to grow by 36% per year<sup>11</sup>

- Medical imaging
- Patient monitoring
- Home monitoring
- Pathology
- Genomics
- Personal health tracking

# How AI can enhance the human experience in healthcare?



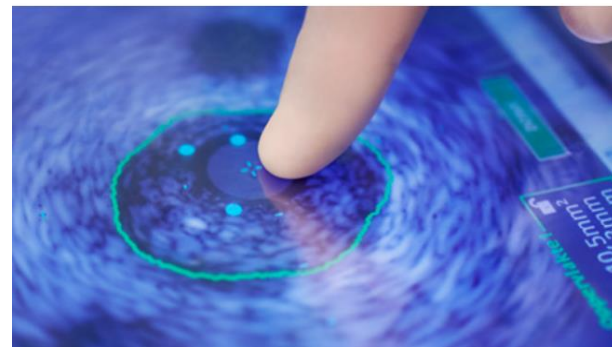
**Augmenting the expertise of healthcare providers** and supporting their decision-making.



**Improving operational efficiency** to help providers focus on patient care.



**Empowering people** to take better care of their health and well-being.



**Medical Imaging**

**Genomics**

**Security**

**Analytics**

**Patient Data**

**Wearable & Devices**

**Adherence**

**Vision Impairment**

**Clinical Trials**

**Other**

**Neurology**

**Senior Care**

**Disease Management**

**Surgery**

**Support**

**Prescription Errors**

**Patient Engagement**

**Monitor**

**Optometry**

**Electronic Health Records**

**Diagnostics**

**Voice**

**Knowledge**

**Infant**

**Drug Discovery**

**Nutrition**

# Scalable AI platform



## Bone health solution

Vertebral compression fractures



Chest / abdomen CT



## Cardiac Solution

Coronary calcium burden



Chest non gated CT



## Neuro Solution

Intracranial hemorrhage



Head CT



## Chest solution

Pneumothorax

Pleural effusion

Free air

Chest X-RAY

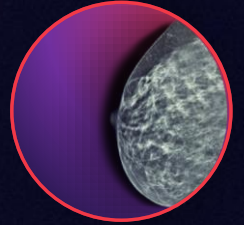


## Orthopedic Solution

3D reconstruction



X-RAY



## Mammo Solution

Mammography



2D





# aidoc

## Category Leader in Enterprise Imaging



Serving over  
**600+ Medical  
Centers**



**Differentiated AI  
offering:** 7 FDA/10  
CE-marked  
solutions, AI OS



**28 studies** showing:  
quality and efficiency  
gains; LoS reduction



**Raised \$140M,  
270+ employees,  
hypergrowth**

Philips Partners with DiA Imaging Analysis to Enhance Point-of-Care Ultrasound Users with Automatic Ultrasound AI Software

Various FDA/CE Approved  
Product Line

Fully Automated Analysis

Quick, Accurate, Reproducible

Commercially Available

Thousands of users



## Revolutionizing Cancer Diagnosis With AI

Israel based startup. A Philips partner

Solution for breast, prostate and gastric biopsies

Clinical grade accuracy; Reduced error rate;  
Improved productivity; Shorter turnaround time

Deployed at pathology labs worldwide and  
used in everyday practice



Accuracy



Efficiency



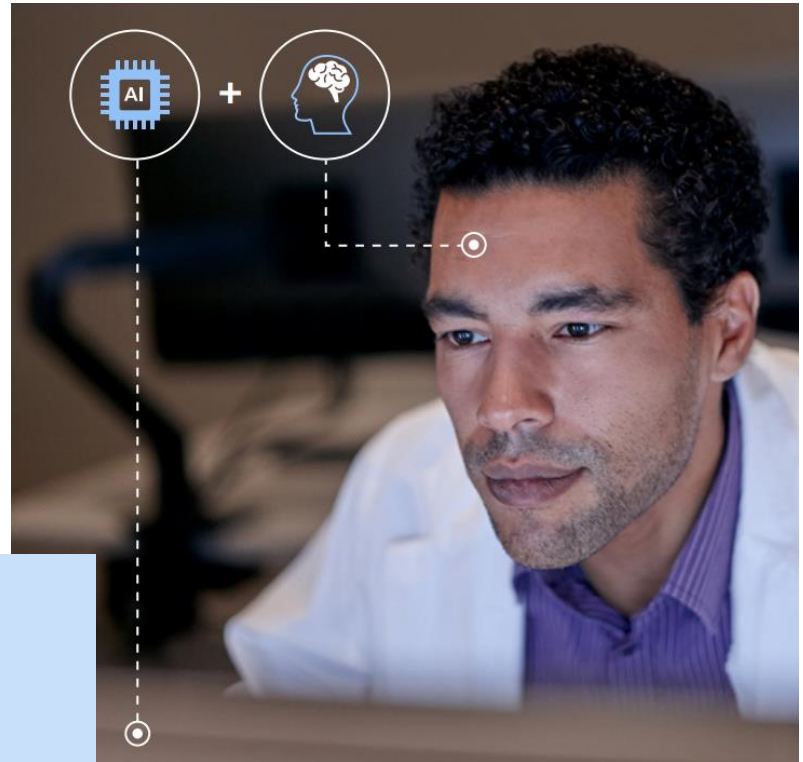
AI Insights



# Combining AI with deep clinical knowledge

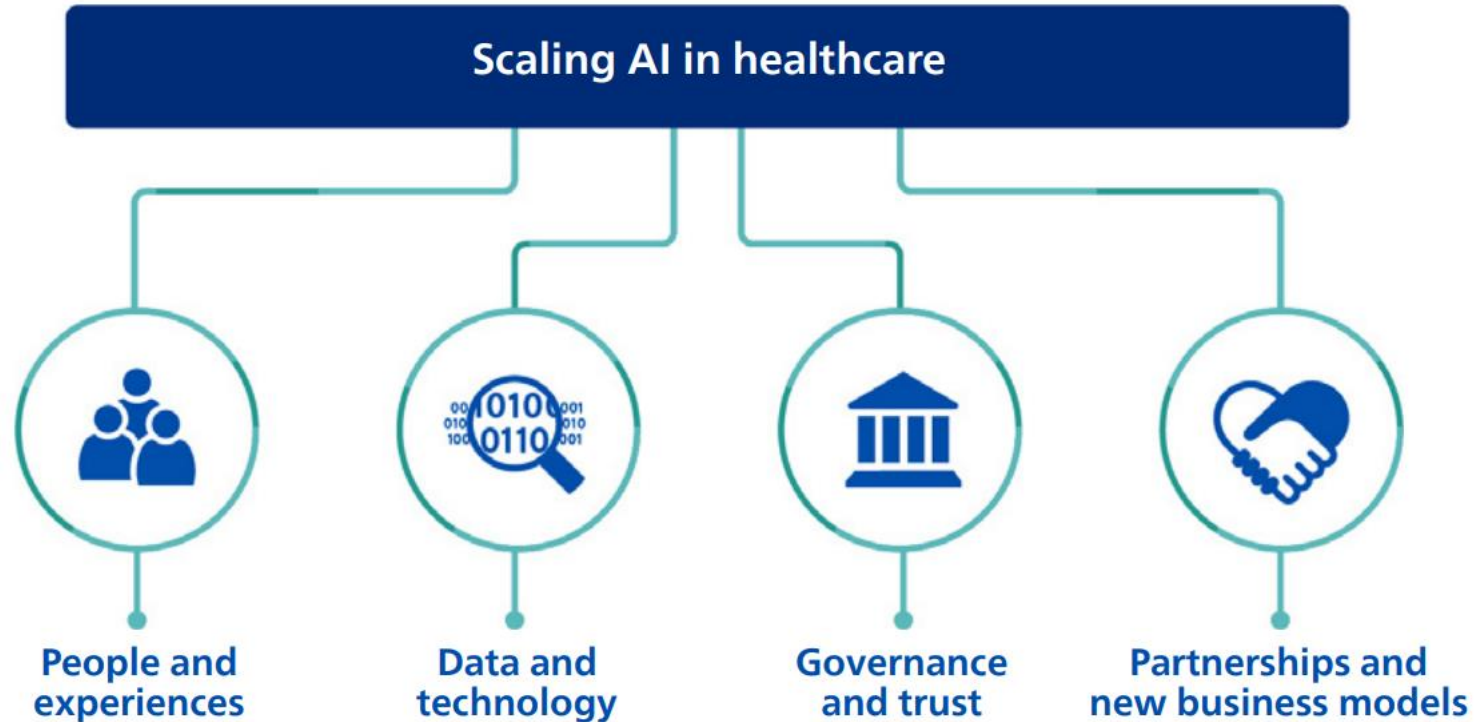
“AI allows us to see more than we ever could with our own eyes. But deep learning is not deep understanding. For AI to have a meaningful impact on patient care, it needs to go hand in hand with with robust scientific insights and deep clinical knowledge.”

**Henk van Houten**  
Chief Technology Officer



# Scaling AI in healthcare

*promote wider adoption*





## People and experiences

The value of AI is only as strong as the human experience it supports. AI innovation should therefore focus on the unmet needs of healthcare providers and patients first and foremost.

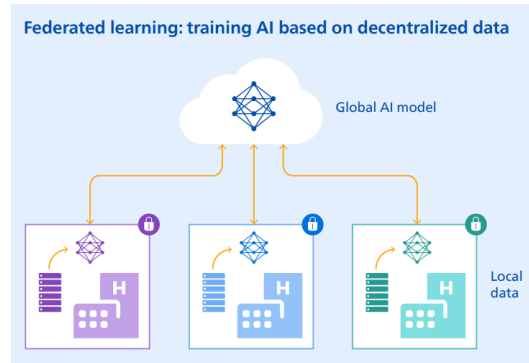
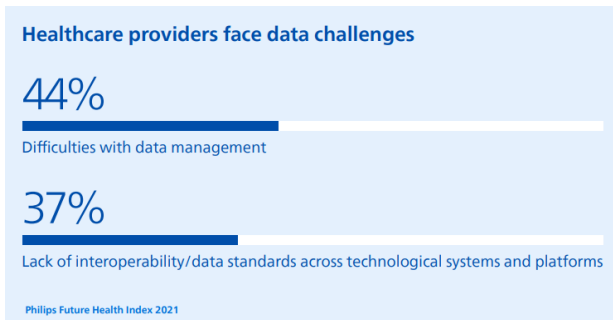
- Seamless workflow integration
- Developing an AI ready workforce



## Data and technology

Developing AI-enabled solutions relies on access to high-quality, properly curated data. The reality, however, is that today's healthcare data is often locked away in disparate and disconnected systems, posing a barrier that needs to be addressed for AI innovation to scale.

- Data sharing and interoperability
- Next generation AI





## Governance and trust

To strengthen public and professional trust in AI in healthcare, technological advances need to go hand in hand with appropriate governance around data privacy, security, and the ethics of AI.

- Fair and bias free AI
- Developing an AI ready workforce

## Philips AI Principles



### Well-being

We design our solutions to benefit the health and well-being of individuals and to contribute to the sustainable development of society.



### Oversight

We design AI-enabled solutions to augment and empower people, with appropriate human supervision.



### Robustness

We develop AI-enabled solutions that are intended to do no harm, with appropriate protection against deliberate or inadvertent misuse.



### Fairness

We develop and validate solutions using data that is representative of the target group for the intended use, and we aim to avoid bias or discrimination.



### Transparency

We disclose functions and features of our offerings that are AI-enabled, the validation process, and the responsibility for ultimate decision-taking.

## Partnerships and new business models

In a sector as complex as healthcare, no individual player has all the solutions. Partnerships, ecosystem integration, and new business models such as SaaS-based software marketplaces are therefore becoming increasingly important in bringing AI into clinical practice.

- SaaS-based AI marketplaces
- Reimbursement and funding

