



Eng. Sergio G. Santoro (Co-Founder)

# USE

Ultrasound Steatosis evaluator

**Artificial Intelligence applied to the ultrasound diagnosis of hepatic steatosis**

***“we do prevention and save lives”***





**WORLD POPULATION - 12 June 2024**

**8,115,309,000**

A light blue world map is visible in the background, showing the outlines of continents and countries. The word 'POPULATION' is faintly visible, written vertically along the left side of the map.

**WORLD POPULATION - 12 June 2024**

**8,115,309,000**

**affected by hepatic steatosis**

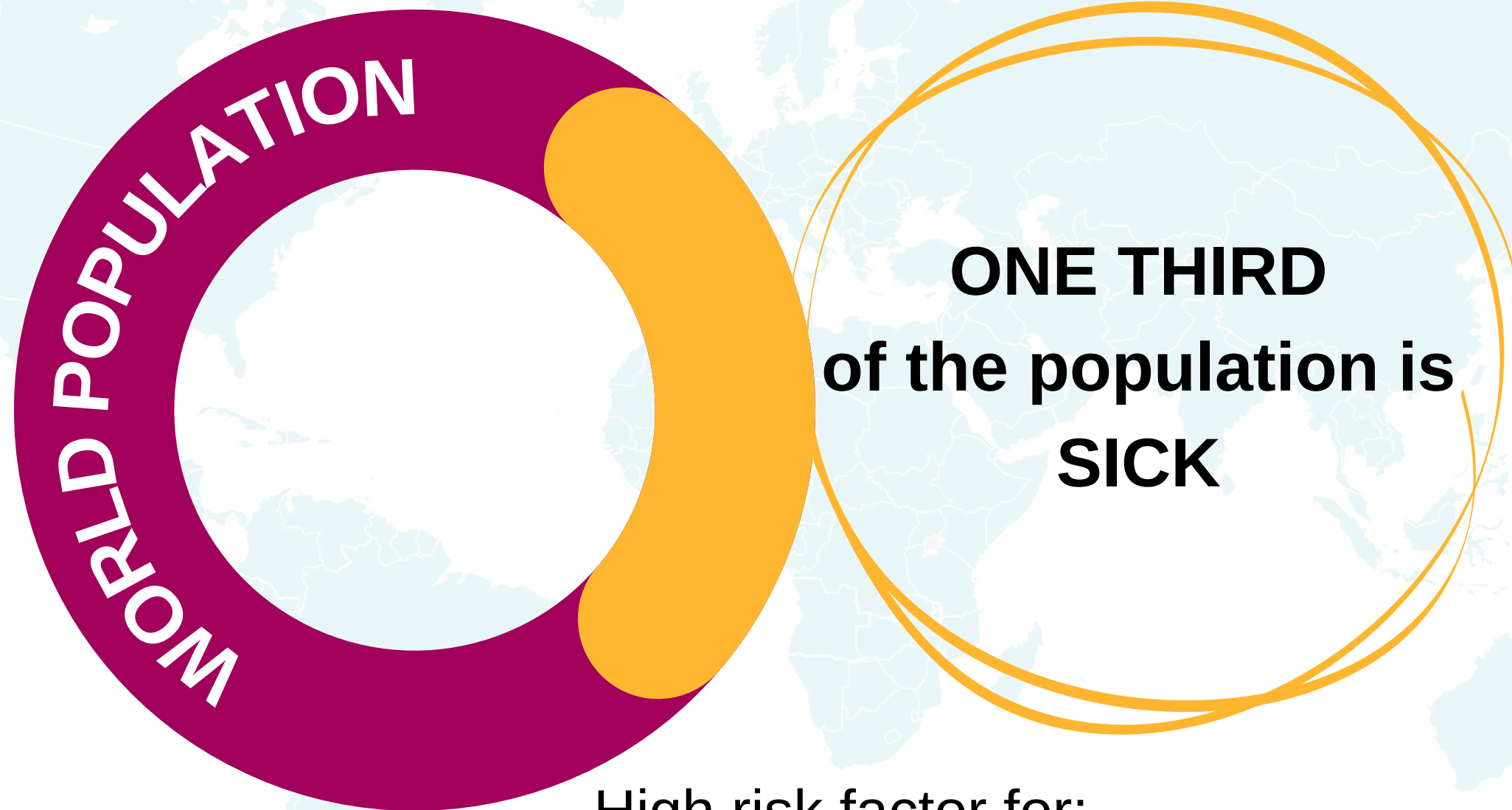
**(fatty liver)**

**2,705,103,000**



# FATTY LIVER

(MOST COMMON HEPATOPATHY IN THE WORLD)



High risk factor for:

- Metabolic diseases (MASLD, MAFLD, NAFLD)
- Cardiovascular diseases
- Liver diseases (Cirrhosis, Hepatocarcinoma)



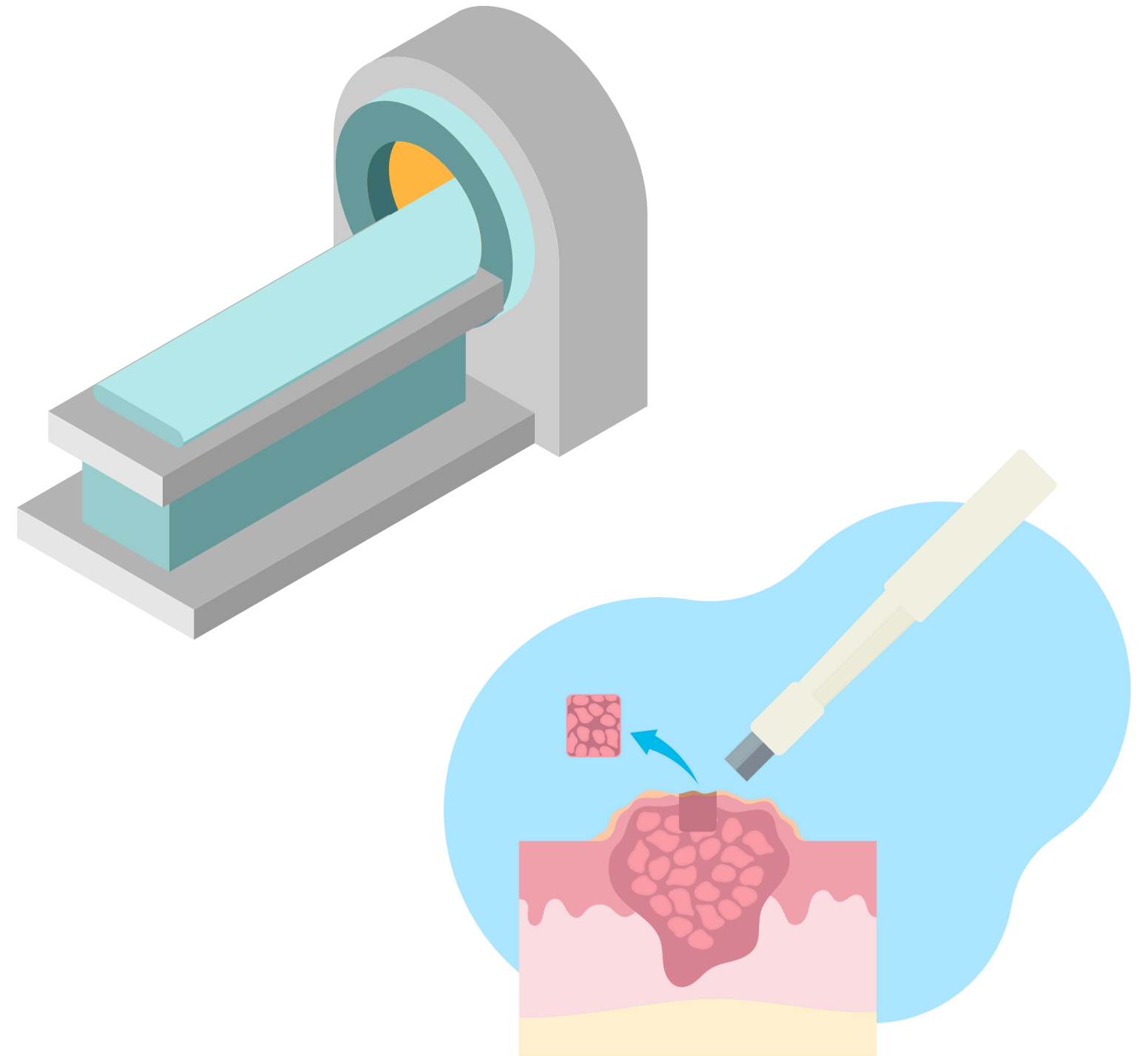


# GOLDEN STANDARDS

The golden standards for the accurate diagnosis of hepatic steatosis are **Magnetic Resonance Imaging** and **Agobiopsy**.

**BUT**

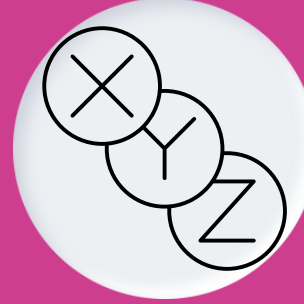
They are **expensive**, **invasive** and/or risky techniques for the patient



Ultrasound as an alternative **economical, rapid and non-invasive, but with limitations**

## Current problems in ultrasound diagnosis

### PROBLEM



**High variability**

15%



**Low reliability**

very dependent on the operator

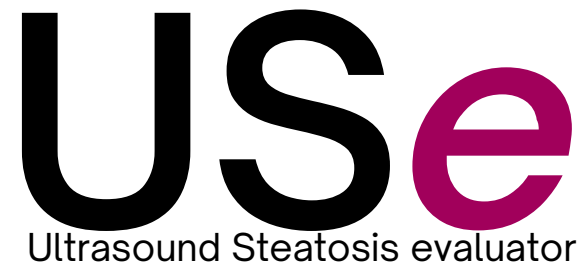


**Limit of the human eye**

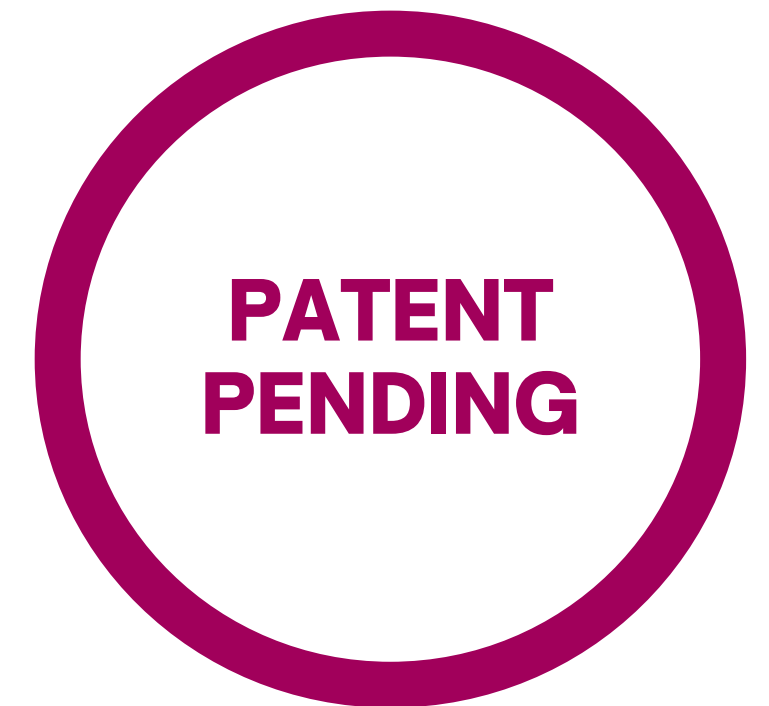
does not detect steatosis < 19%



# EFFECTIVE SOLUTION



The A.I. it allows us to **evaluate fatty liver in 20 seconds** using a single ultrasound image, eliminating variability and dependence on the operator and **detecting fat starting from 7.2%.**



WIPO - PCT/IB2023/055793

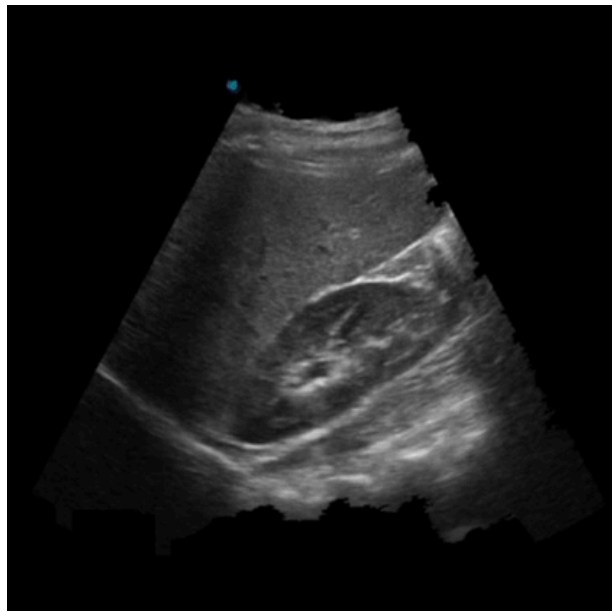
# DETECT FAT STARTING FROM



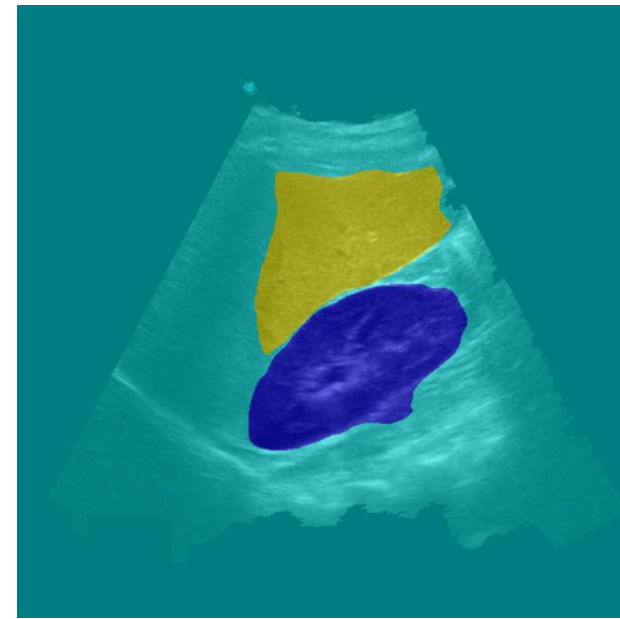


# HOW DOES IT WORK

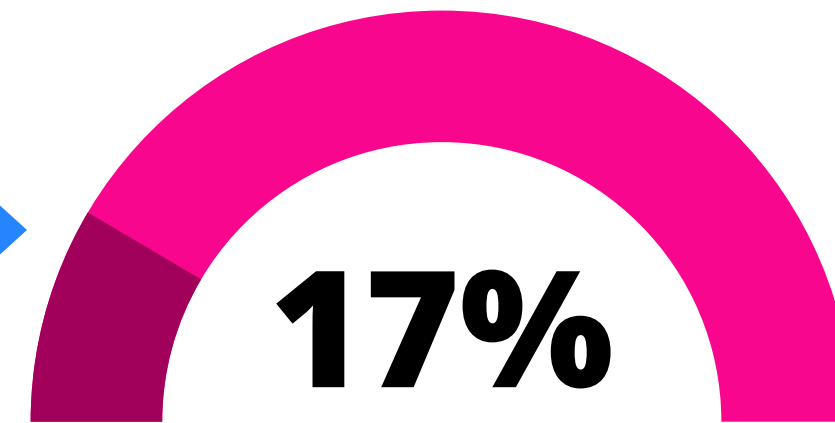
Ultrasound



Deep Learning &  
Machine Learning



% Fat in Liver



=



20 sec.

# SCREENING IN THE MASS

The use of AI allows **mass screening for the first time**



Early diagnosis and prevention of complications



Less costs for the NHS



Education and awareness





# RESULTS

- **European Congress of the ESCI 2023 Prague** (European Society for Clinical Investigation)
- **124th National Congress of the SIMI 2023** (Italian Society of Internal Medicine) **award for Best Oral Communication**
- **22th ECIM 2024** (European Congress of Internal Medicine)
- **1st Prize AI Best in Healthcare** at FORUM SISTEMA SALUTE 2023 (Leopolda - Florence)
- **1st Prize START PITCH** Competition Pisa 2024

**European Journal of Internal Medicine:**

**<https://doi.org/10.1016/j.ejim.2024.03.004>**

**COMPARISON  
MR 3 TESLA  
AUC = 0.87**

**TRL 6**

**Variability  
0%**

**Study  
Power  
>80%**

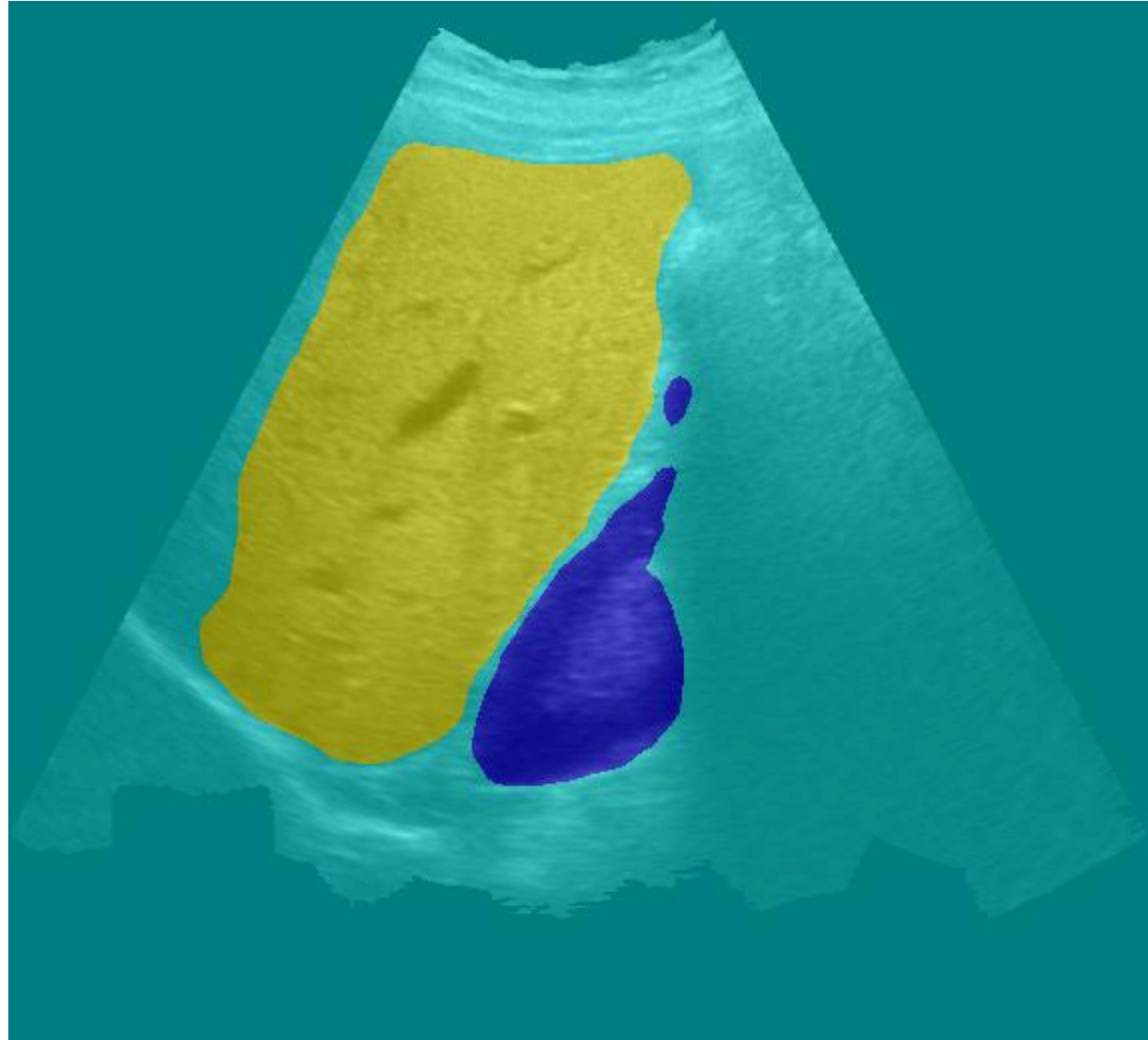
**ACCURACY  
>90%**



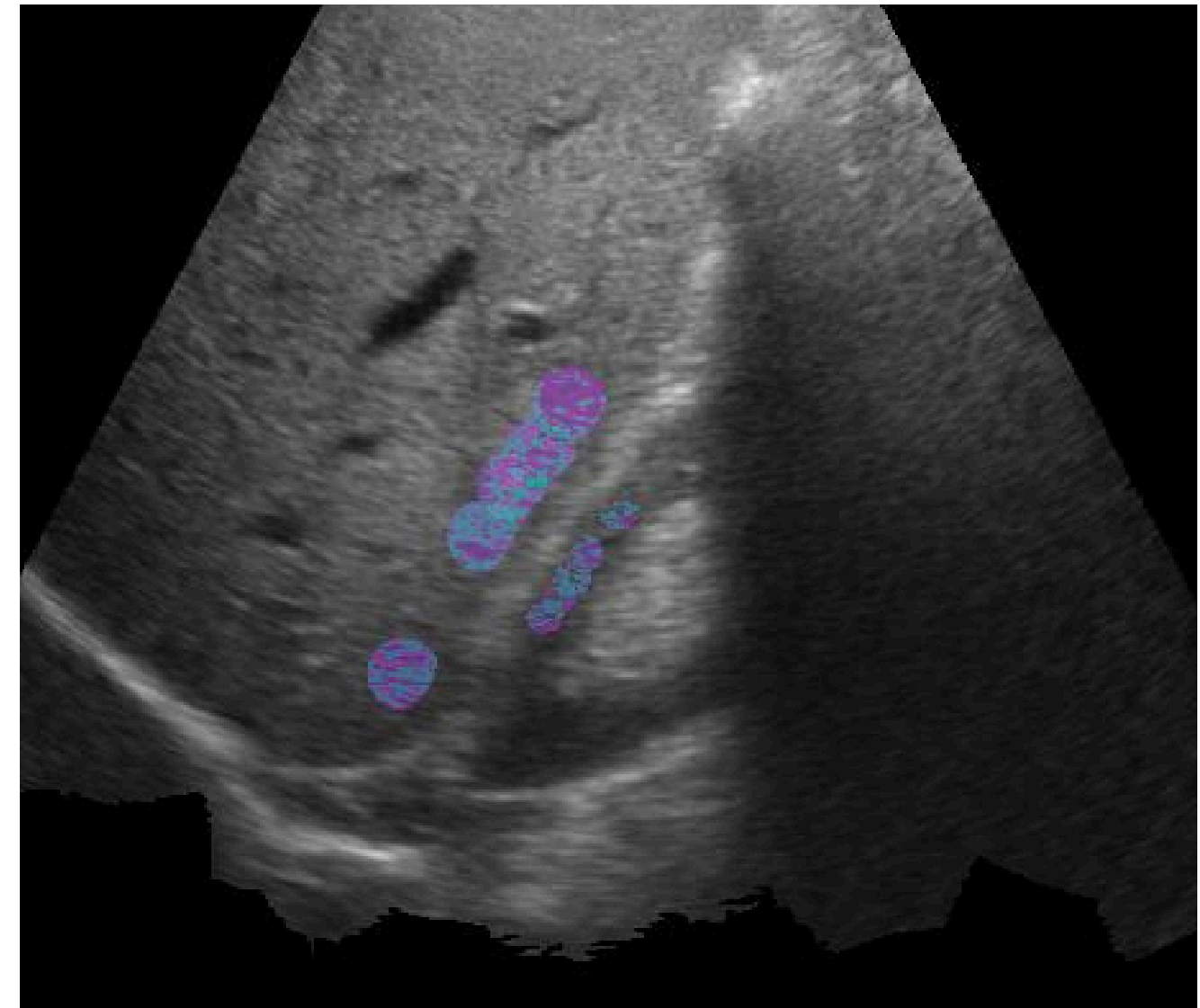
**UNIVERSITÀ  
DEGLI STUDI DI BARI  
ALDO MORO**



# AI AT THE SERVICE OF THE OPERATOR



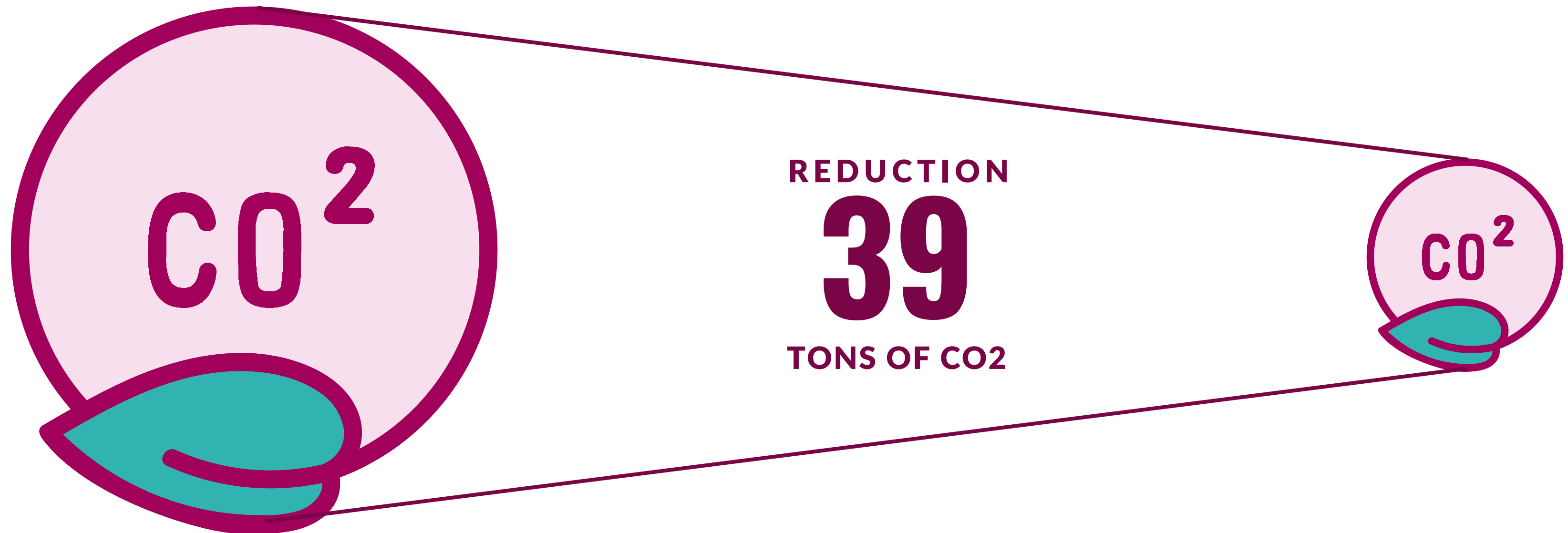
**xAI**



**eXplicable Artificial Intelligence**



# REDUCED CARBON FOOTPRINT



**Screening hypothesis on 1 million people**

# SAVINGS



**120€**

Magnetic resonance imaging of  
the abdomen



**43€**

Ultrasound of the  
abdomen

Costs based on Italian NHS

# TARGET

## B2B

ULTRASOUND  
MANUFACTURERS,  
PROCESSING  
SOFTWARE,  
PHARMACEUTICAL  
INDUSTRIES

## B2C

DIAGNOSTIC  
CENTRES,  
OUTPATIENT  
CENTERS,  
HOSPITALS



# ULTRASOUND MARKET

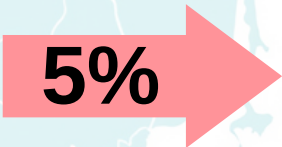
**B2B**  
NEW



**\$8.0B**  
**U270K**



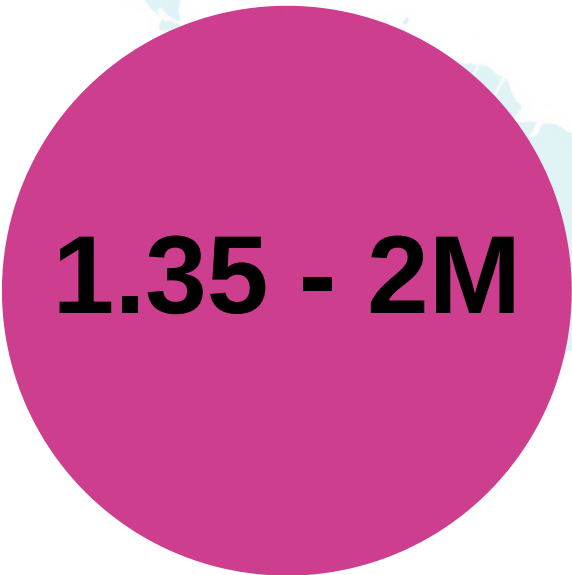
**\$3.1B**  
**U77K**



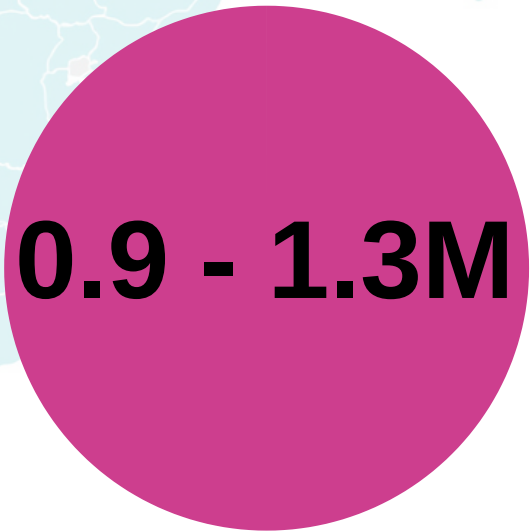
**\$155M**  
**U3.85K**

66% of the world market excluding competitors

**B2C**  
INSTALLED



**1.35 - 2M**



**0.9 - 1.3M**



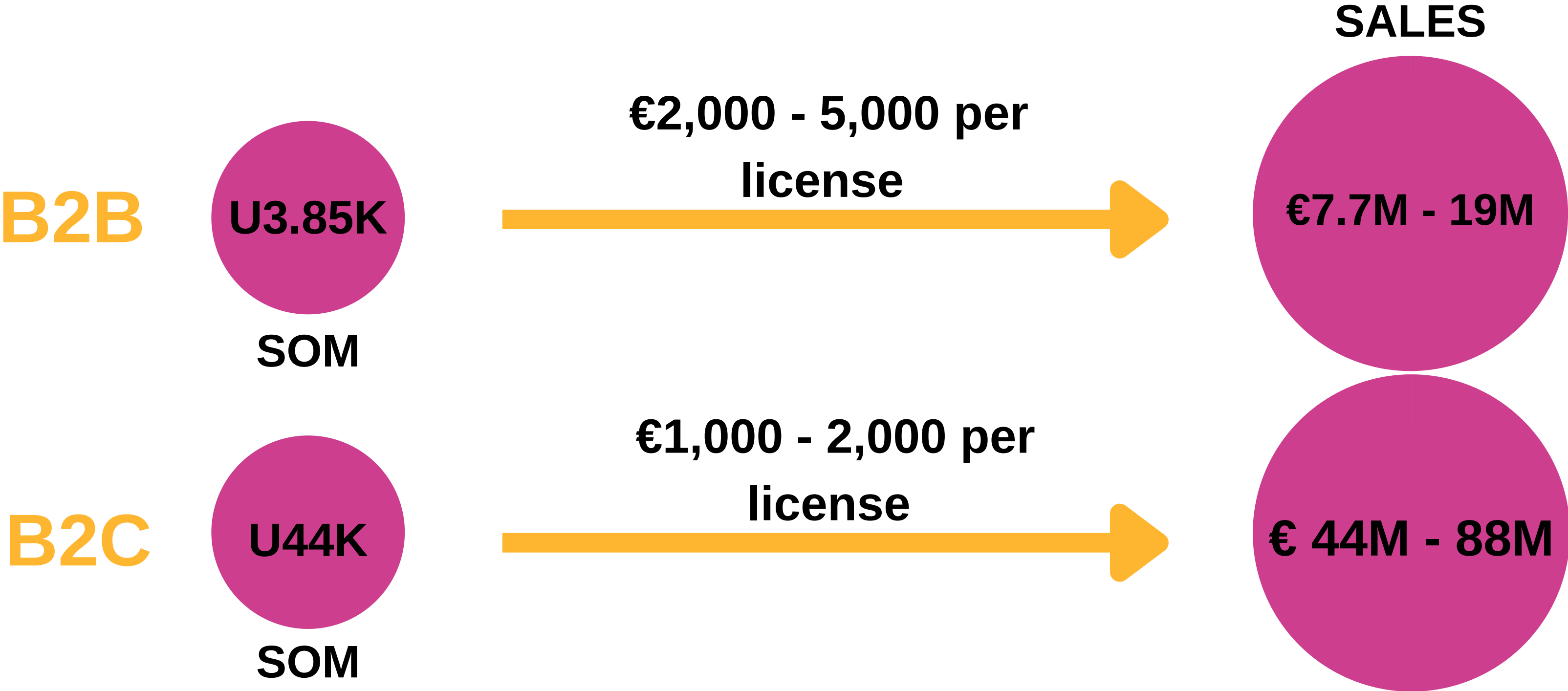
**U45K**

**WORLDWIDE TAM**

**MID-HIGH RANGE SAM**

**SOM**

REVENUE MODEL



# ROADMAP

## 3 MONTHS

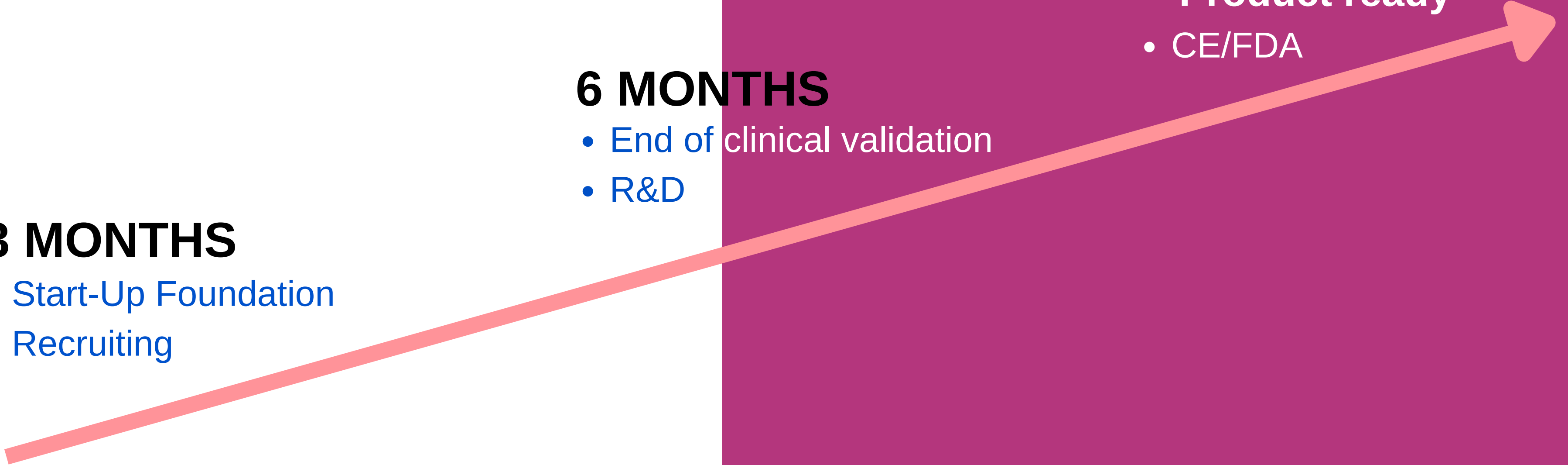
- Start-Up Foundation
- Recruiting

## 6 MONTHS

- End of clinical validation
- R&D

## 12 MONTHS

- Product ready
- CE/FDA







# TEAM



**Roberto Wierdis**

CEO & Co-Founder

**+30 years**



**Eng. Sergio Santoro**

CIO & Co-Founder

**+20 years**



**Eng. Paola de Candia**

Developer Analyst

**+3 years**

## Scientific board



**UNIVERSITÀ  
DEGLI STUDI DI BARI  
ALDO MORO**



**Prof. Piero Portincasa**

MD, PhD Clinical  
director of  
internal medicine  
"A. Murri"



**Dr. Mohamed Khalil**

PhD Researcher  
University of Bari





Unicorn  
US<sup>e</sup>

# Thank You

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