

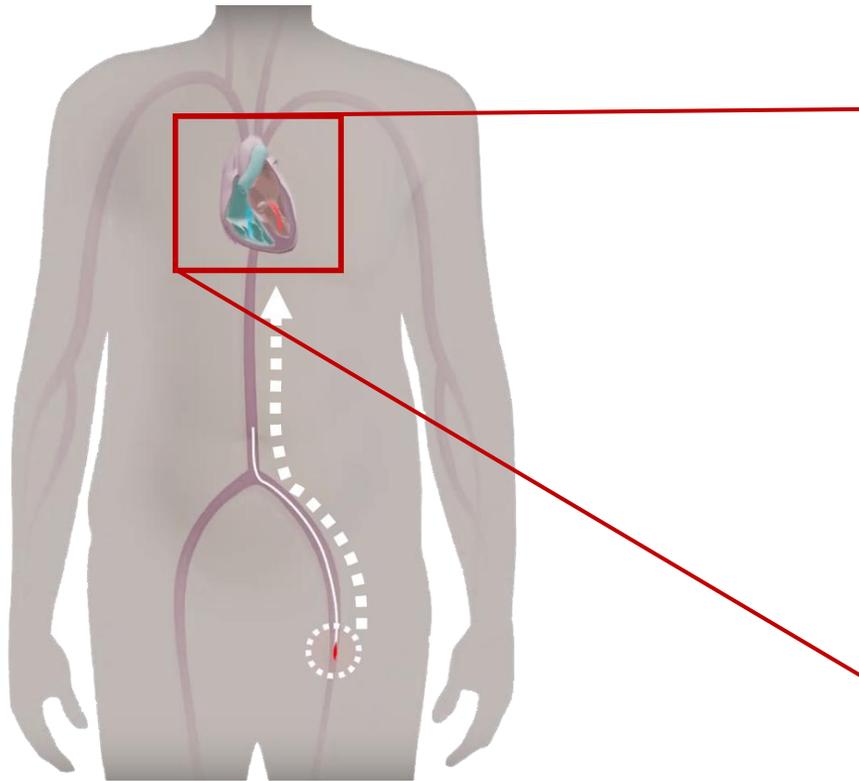


Transforming Structural Heart  
procedures from a human-  
based into a software-driven  
standard of care

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# Challenges in structural heart procedures



- Transcatheter procedures for high-risk patients (often 65y+)
- Procedural execution requires critical decision-making based on the triad **“Anatomy – Imaging – Device”**

# Problem and impact



**Only by expert interventional cardiologists in High-Volume hospitals can solve the triad** because they can

- mentally reconstruct in real-time a 3D structure from fragmented images
- drive a device inside a beating heart towards a desired location
- communicate perfectly with the imagers/echocardiographer

While majorities **of Low-/Mid-Volume hospitals** experience issues related to Anatomy-Imaging-Device\* and expose patients to

**+20-40% longer procedures**

**x3 higher mortality rates (from 1% to 3%)**

**x2.5 higher complications (from 3% to 8%)**

**x5 device-related errors (from 5% to 25%)**

# Solution



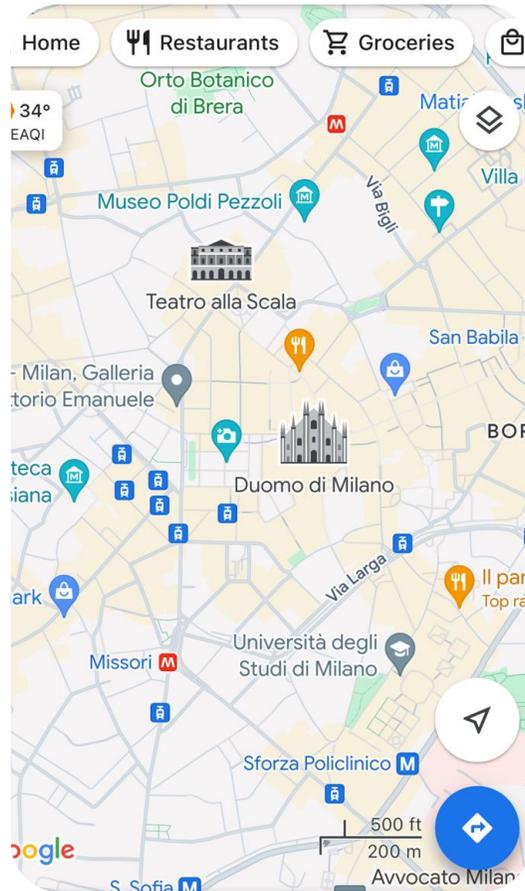
**We elevate standards of care in low-/mid- volume hospitals with ARTICOR, a software platform for structural heart interventions that turns human expertise into a virtual assistant to provide standardized, real-time guidance** suggesting operators what to do and what to see



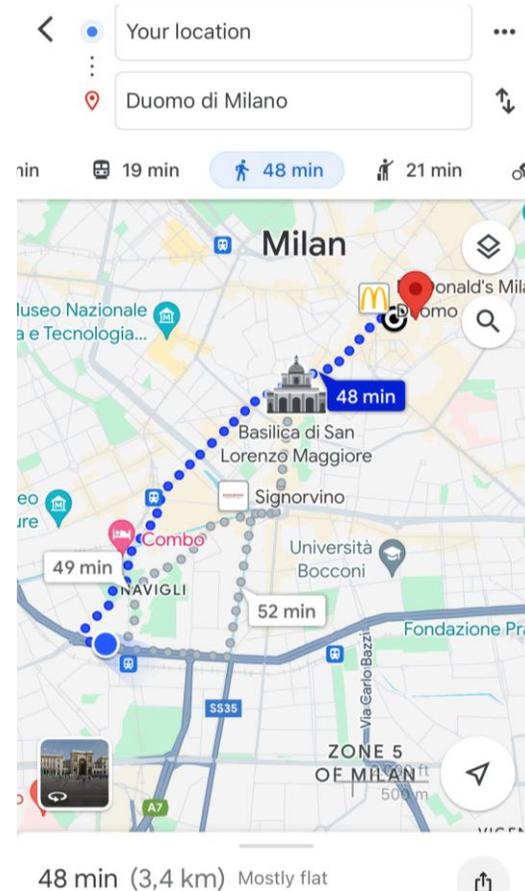
# The analogy



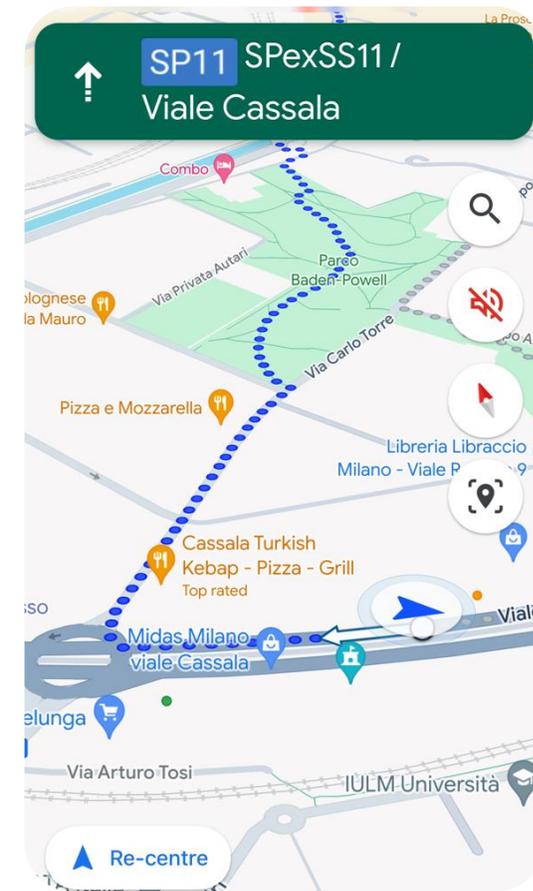
Detailed map



Route planning



Navigation



# ARTICOR platform



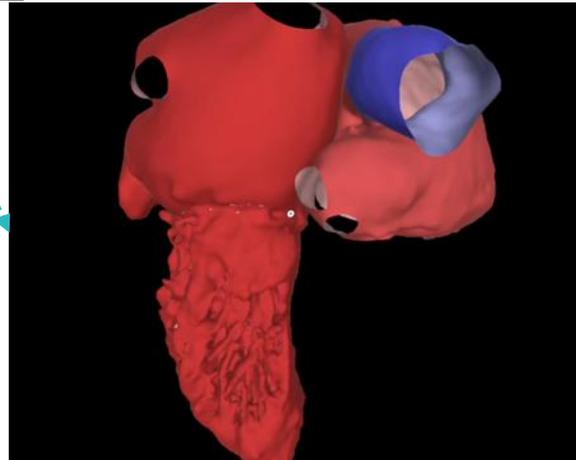
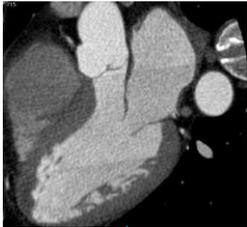
Detailed map



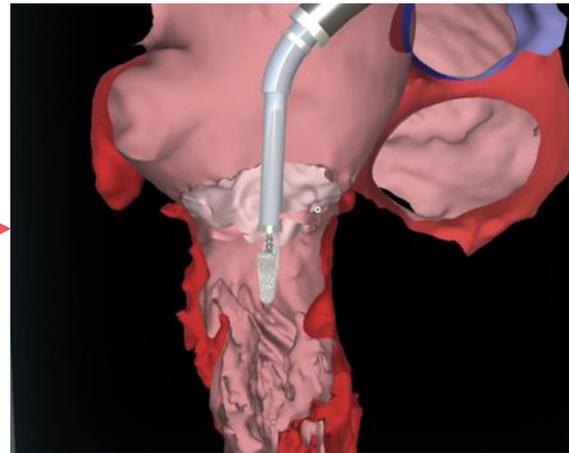
Route planning



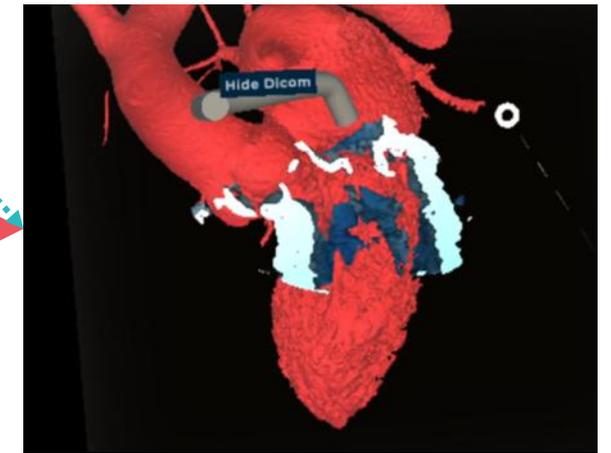
Navigation



AI-based 3D heart reconstruction from CT scan

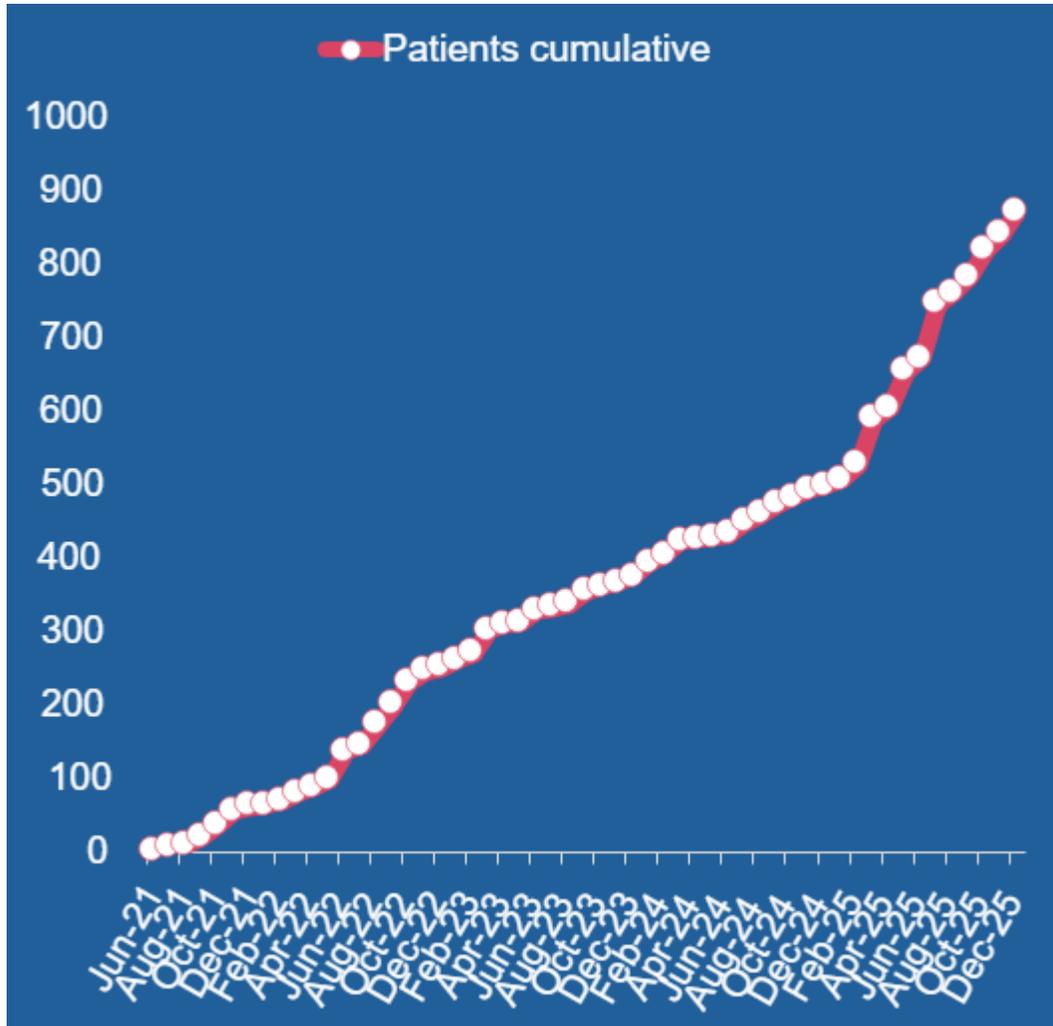


3D virtual planning of device trajectories, implants, imaging



Live integration of 3D Echo for real-time guidance/navigation

# Business dev and commercial



## Users/activities

- M. Chessa**, pediatric cardiologist
- J. E. Zablah**, pediatric cardiologist
- G. Morgan**, int. cardiologist
- G. Casu**, int. cardiologist
- A. Farina**, cardiologist
- I. Pera**, int. cardiologist
- P. Denti**, cardiac surgeon
- E. Zancanaro**, cardiac surgeon
- G. Sangiorgi**, int. cardiologist
- M. Bonanni**, cardiologist
- M. Bergmann**, int. cardiologist
- M. Joner**, int. cardiologist
- C. Skurk**, int. cardiologist
- M. Adamo**, int. cardiologist
- F. Rosati**, cardiac surgeon
- F. Petrella**, thoracic surgeon
- M. Pepi**, cardiologist
- L. Fusini**, cardiologist
- A. G. Cerillo**, cardiac surgeon
- C. Pace**, cardiothoracic surgeon



# Clinical validation: current evidences



## Pre-operative indication

First evidences from a spontaneous prospective study on LAA closure

<b>Complication</b>	<b>ARTICOR group (n=14)</b>		<b>Control Group (n=14)</b>	
	Count	%	Count	%
Peri-device leak	0	0,0%	2	14.3%
Device thrombosis	1	7,1%	1	7.1%
Procedure abandonment	0	0.0%	4	28.6%
<u>No complications</u>	13	92.8%	7	50.0%
Total	14	100,0%	14	100.0%

- No procedural failures in ARTICOR group (vs 28.6% in control group)
- Significant reduction in complications (7.1% vs 21.4%)
- Excellent feedback from users: improved intra-operative management and control

# Company&Team



Oxford  
University  
Hospitals  
NHS Trust



**Filippo Piatti, PhD**  
CEO & co-founder

Bioengineer at Politecnico di Milano  
Research at University of Oxford,  
Stony Brook University



**Giovanni Rossini, PhD**  
COO & co-founder

Bioengineer at Politecnico di Milano  
Research at Sorbonne Université Paris,  
University of Texas at Austin



MAYO  
CLINIC



**Omar Pappalardo, PhD**  
CTO & co-founder

Bioengineer at Politecnico di Milano  
Research at Mayo Clinic, Leiden  
University Medical Center

## Key people



**S. Pozzi, PhD**  
Research &  
Clinical activities  
manager



**M. Pasquali**  
Product &  
Regulatory  
manager



**J. Monti**  
Training & client  
success manager



**C. Grullero**  
Quality  
manager

**+ 4 software developers with High seniority**

## Advisors



**C. Fontana, MBA**

Senior advisor with more than 20 years in Medtech  
strategic and m&a



**A. Radaelli**

Senior advisor with more than 15 years in Medtech  
technology and business development



**B. Rieck**

Senior advisor with more than 20 years in  
Medtech technology and business development



# Thank you and join us

Join our mission to guarantee predictability, efficacy, and equity of care delivery for every heart procedure

## Current main investors



## Awarded and supported by

