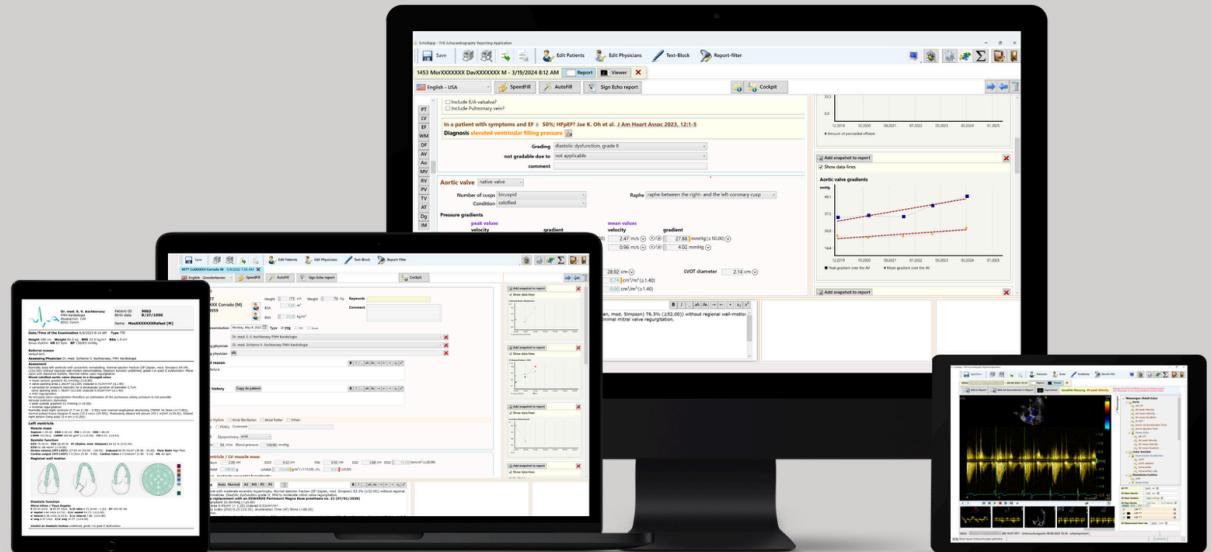




# EchoRapp

Smarter echocardiography for a faster cardiology workflow



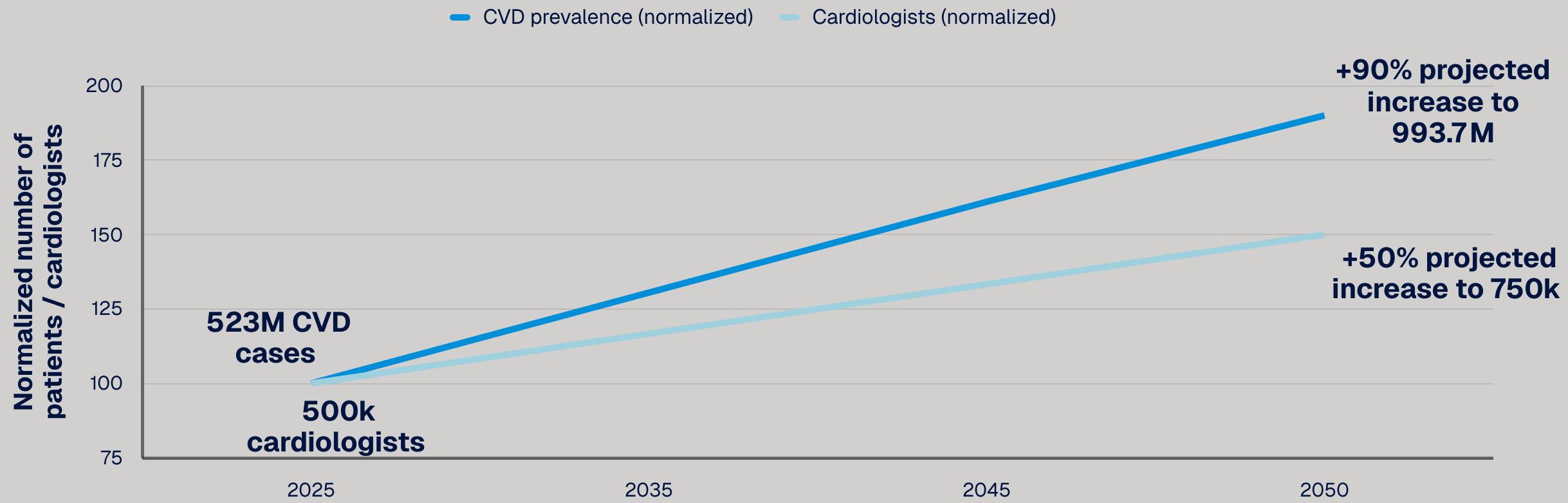
**Start-up innovation project  
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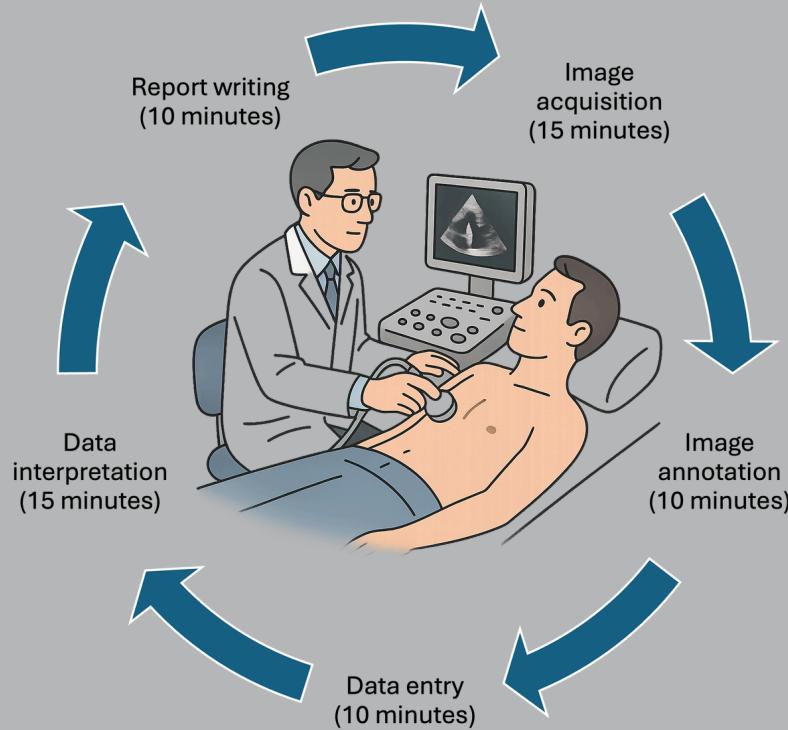


Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra  
Swiss Confederation

**Innosuisse – Swiss Innovation Agency**

# The prevalence of cardiovascular diseases (CVDs) globally is outpacing the growth in cardiologists



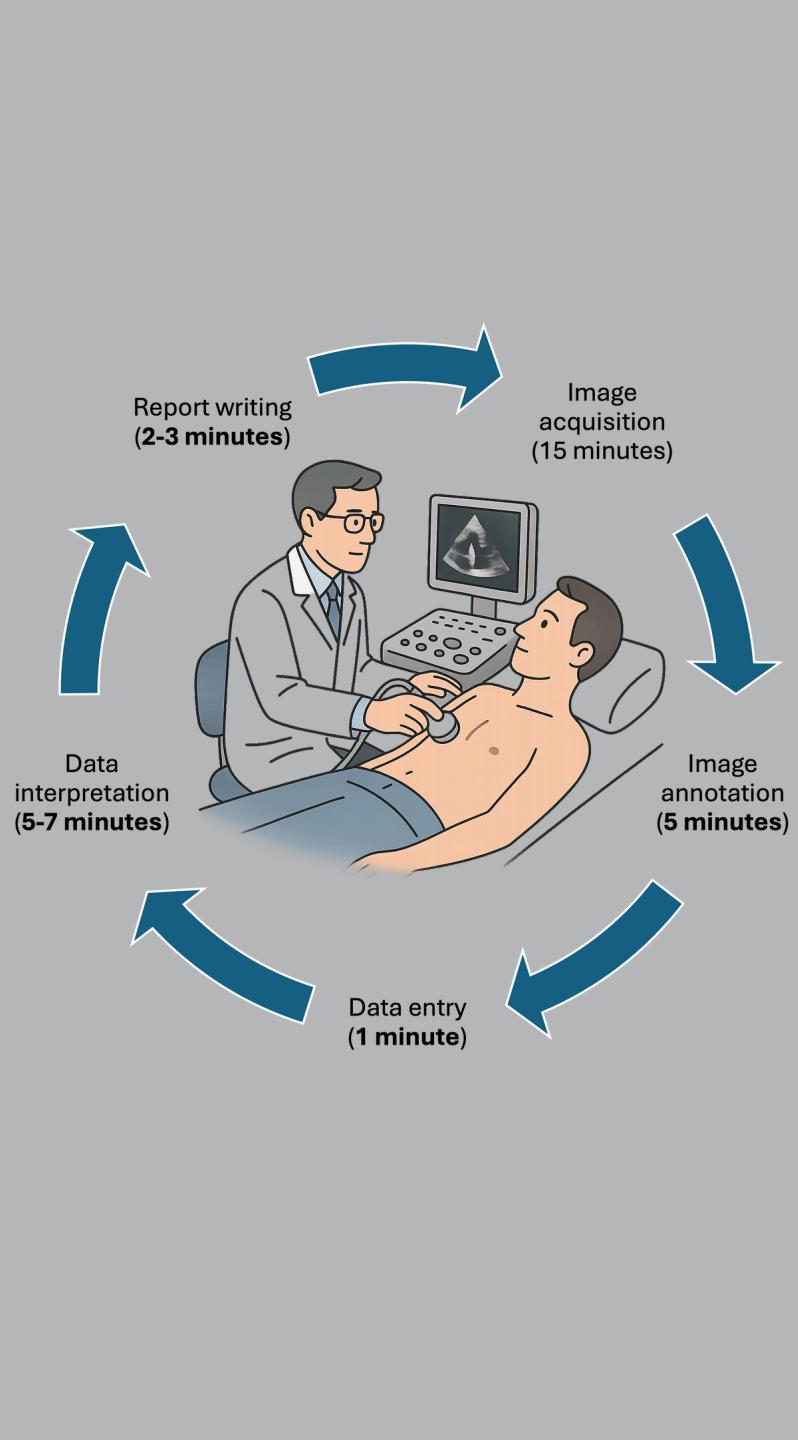


# Echos are needed to detect CVDs, but interpreting them is time-intensive and carries a high cognitive burden

Over 500,000 cardiologists face pressure to perform more echos every day, but are faced with:

- 1) Time-consuming examinations (approx. 1 hour/echo),
- 2) Cognitive load from interpretation (referencing **hundreds of interconnected studies and guidelines**), and
- 3) High rates of misdiagnosis (**16% globally**).

This represents an unaddressed market of **20 billion USD**.



**With EchoRapp, cardiologists can achieve their full diagnostic potential and still devote more time to their patients**

### 50% time savings

Diagnostic procedures from echos are cut down from 60 to less than 30 minutes

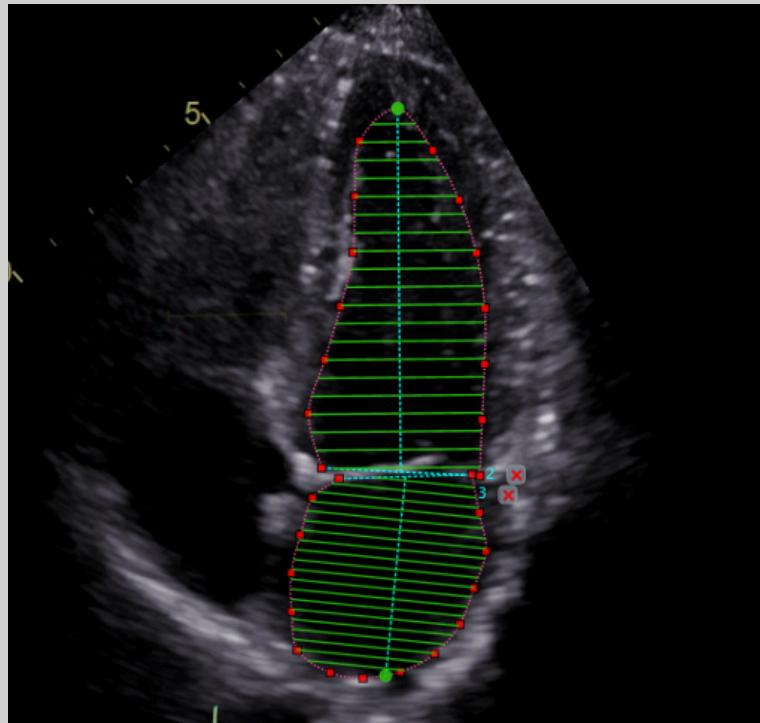
### 3x efficiency

Cardiologists can triple their patient intake by fully occupying echo machines

### >300 measures and guidelines

Real-time diagnostic support powered by AI and grounded in cardiological reasoning

# EchoRapp is a diagnostic support tool created by a cardiologist to think, reason and practice like one



AI-based measurement support for DICOM-acquired echos (vendor neutral)

7789 BocXXXXXX SteXXXXXX M - 6/19/2023 3:31 PM Close X

Deutsch - Schweiz SpeedFill AutoFill Sign Echo report Cockpit

**Patient**  
ID 7789  
BocXXXXXX SteXXXXXX [M] Height 174 cm Weight 97 kg Keywords Comment  
7/2/1957 BSA 2.17 m<sup>2</sup>  
BMI 32.04 kg/m<sup>2</sup>

Date of examination Monday, June 19, 2023 15 : 31 Type  TTE  TEE  Stress

Clinic Dr. med. S. V. Aschkenasy FMH Kardiologie Comment  
Assessing physician sa Aschkenasy Comment  
Referring physician Comment

**Referral reason** Verlauf

**Patient history** Copy to patient  
St. n. AKE biologisch, Inspira Resilia 25mm (SN 6324638)  
Mit OP via Min sternotomie  
Bei verankter bicuspider Klappe mit schwerer Stenosej.

**Rhythm**  
 Sinus rhythm  Atrial fibrillation  Atrial flutter  Other:  
 PVCs  PSVCs Comment Comment  
 LBBB  Dyssynchrony none Comment

Heart rate 68 /min Blood pressure 140/80 mmHg

**Left ventricle / LV-muscle mass**  
Septum 1.23 cm EDD 4.54 cm PW 0.96 cm ESD 1.88 cm EDVi 8.70 mm/m<sup>2</sup> (≤20.00)  
LVMM 176.88 g LVHMi 80.75 g/m<sup>2</sup> (<115.00) rTh 0.42 (<0.42)

**Echo-assessment** Auto Normal AS MS PS PS Comment  
Normal grosser linker Ventrikel ohne Hypertrophie. Normale systolische LV Funktion (EF (biplan, mod. Simpson) 57.3% (≥52.00)) ohne regionale Wandbewegungsstörungen. Normale diastolische Funktion. Mitralklappe mit verdickten Segeln. Leichte Mitralklappeninsuffizienz.

**St. n. Aortenklappenersatz mit einer Inspira Resilia Prothese Nr. 25 (15.01.2019)**  
• mittlerer systolischer Gradient 17.9mmHg (<20.00)  
• Klappenöffnungsfläche 1.28cm<sup>2</sup> (> 1.20) indexiert 0.59cm<sup>2</sup>/m<sup>2</sup>  
• Doppler Velocity Index (DVI) 0.30 (≥0.30), Acceleration Time (AT) 72ms (<80.00)  
• minimale transvalvuläre Insuffizienz.

Comprehensive diagnostic support from studies and guidelines

Height 165 cm Weight 73.0 kg BMI 26.8 kg/m<sup>2</sup> BSA 1.8 m<sup>2</sup>  
Sinus rhythm HR 74 bpm BP 120/70 mmHg

**Referral reason**  
Follow-up for AVS

**Assessing Physician** Dr. med. Schlomo Aschkenasy, FMH Kardiologie

**Assessment**  
Normally sized left ventricle without hypertrophy. Normal ejection fraction (EF (biplan, mod. Simpson) 76.3% (≥52.00)) without regional wall-motion abnormalities. Diastolic dysfunction grade II. Mitralklappe mit verdickten Segeln. Leichte Mitralklappeninsuffizienz.  
Mixed calcified aortic valve disease in a bicuspid valve  
• raphe between the right- and the left-coronary cusp  
• mean systolic gradient 27.9mmHg (≤10.00)  
• valve opening area 1.36cm<sup>2</sup> (≥3.00) Index 0.74cm<sup>2</sup>/m<sup>2</sup> (≥1.40)  
• corrected for pressure recovery for a sinotubular junction of diameter 2.6cm  
• valve opening area 1.85cm<sup>2</sup> (≥3.00) Index 1.01cm<sup>2</sup>/m<sup>2</sup> (≥1.40)  
• moderate regurgitation.  
Minimal tricuspid valve regurgitation, systolic pulmonary artery pressure 43.4mmHg (<38.0). Minimal pulmonal valve regurgitation, systolic gradient over the pulmonal valve 2.9mmHg (<15.00). Normally sized right ventricle (2.5 cm (1.90 - 3.50)) with normal longitudinal shortening (TAPSE 26.0mm (≥17.00)), normal pulsed tissue Doppler S wave (14.1 cm/s (≥9.50)). Normally sized left atrium (29.8 ml/m<sup>2</sup> (≤34.0)). Dilated right atrium (long axis) (5.4 cm (<5.30)). About 100ml of pericardial effusion without signs of hemodynamic relevance.

**Left ventricle**  
**Muscle mass**  
Septum 0.96 cm EDD 4.55 cm PW 0.97 cm ESD 2.09 cm  
LVMM 147.70 g LVHMi 80.75 g/m<sup>2</sup> (<115.00) rTh 0.42 (<0.42)

**Systolic function**  
EDV 96.14 ml ESV 22.82 ml EF (biplan, mod. Simpson) 76.26 % (≥52.00)  
EDVi 52.56 ml/m<sup>2</sup> (<74.00)  
Stroke volume (VTI LVOT) 103.66 ml (51.00 - 109.00) Index 56.67 ml/m<sup>2</sup> (28.00 - 58.00) Flow state Normal  
Cardiac output (VTI LVOT) 7.6 l/min (3.50 - 8.20) Cardiac index 4.2 l/min/m<sup>2</sup> (1.90 - 4.30) HR 74 bpm

**Regional wall motion**

**Diastolic function**

Automatically generates patient reports in multiple languages

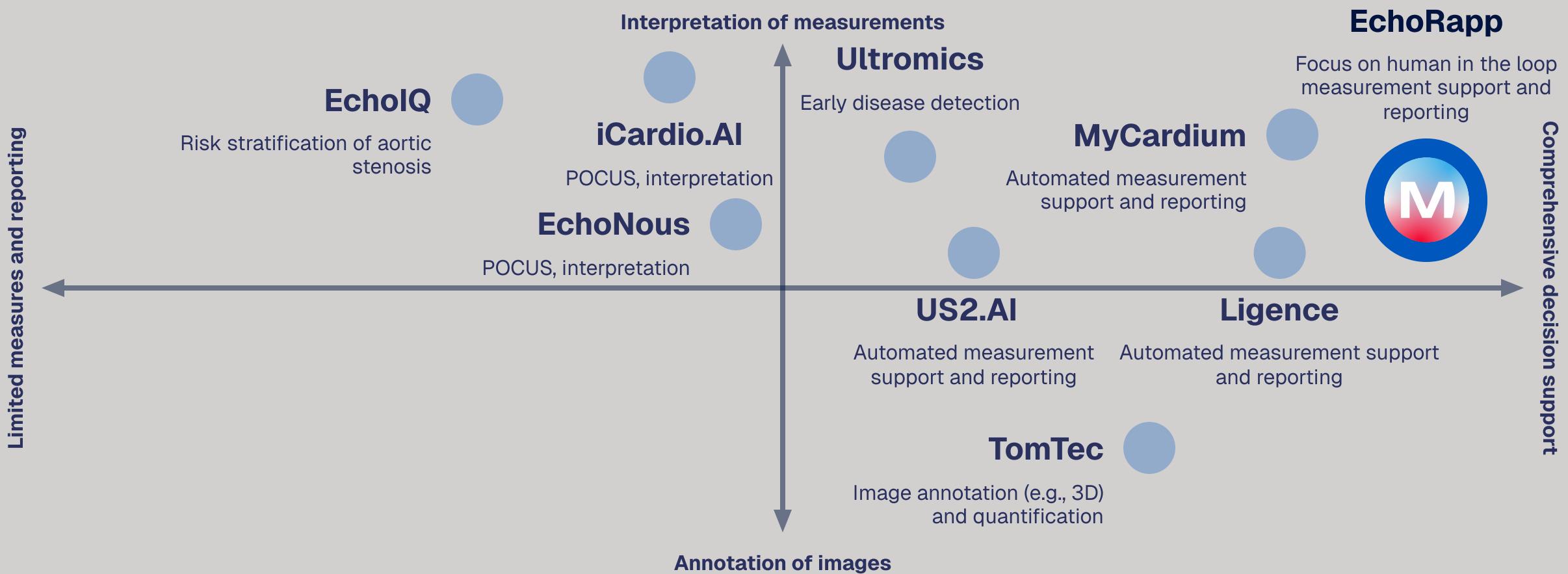
**Every functionality, button, and alert reflect over 9 years of frontline experience from a cardiologist**

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echocardiography is complex

# EchoRapp can capture a large share of the market by focusing on human-in-the-loop reporting



# We have traction from Innossuisse funding, Hirslanden pilot and CE Mark

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Start-up innovation project supported by



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra  
Swiss Confederation  
Innosuisse – Swiss Innovation Agency

Received CHF 1M non-dilutive funding in November 2024 for AI feature development from Innosuisse.

Closed pre-seed funding round (CHF 700k in October 2025).

## Working software app

1. Full product that works on Windows machines
2. New features constantly under development (early detection, stress echo)

## Paid user demand

1. 15 committed licenses (Hirslanden). Key partner: **Dr. Christine Attenhofer Jost**.
2. Have 9 paying user licenses
3. Leads with USZ, UMC+ Maastricht, Lyon, Dubai

## CE marked

1. Received the **CE Mark Class I** in May 2025, starting class IIa and FDA 510(k)
2. Preparing IP process for AI features
3. Focus on regulations and digital trust

# We are in the process of validating our early disease detection models with research and clinical partners

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- **Research collaborations (early HFpEF and amyloid heart disease detection)**

Collaborating sites for HFpEF ([looking for amyloid heart disease collaborations](#)): UMC+ Maastricht, CARIM, Hirslanden clinic, Zurich University of Applied Sciences

- **Clinical collaborations (to test our product and inform new functionalities)**

Current large scale pilots in Hirslanden and UMC+ Maastricht ([looking for new large scale pilots in Europe](#))

# EchoRapp's experienced team possesses a strong founder-market fit and expertise

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**Schlomo Ashkenasy, MD**

Founder, Cardiologist and software developer for 30+ years, elected 'European Cardiologist' by the European Society of Cardiology



**Goran Lazarov**

Software developer (FTE), 10+ years software development experience, BSE computer science and software engineering



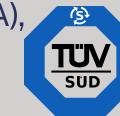
**Paola Daniore, PhD**

CEO, 10+ years in industry (BlackRock, Microsoft), engineering (ETHZ) and academic research in digital health (UZH, EPFL)



**Dieudonné Mbarga**

Regulatory advisor, Quality and regulatory expert for medical devices (CE and FDA), Auditor for notified bodies (TÜV, DQS)



# EchoRapp's team is supported by renowned medical advisors in the advisory board

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**Jae K. Oh, MD**

Head of the Echocardiography Core Laboratory at Mayo Clinic, president of the Asian-Pacific Association of Echocardiography



**Prof.  
Christine Attenhofer Jost, MD**

Cardiologist at Hirslanden, member of the Echocardiography group of the ESC



**Ole Wiesinger, MD**

Chairman and Board member of multiple companies in the MedTech / healthcare sector

**Thank you!**