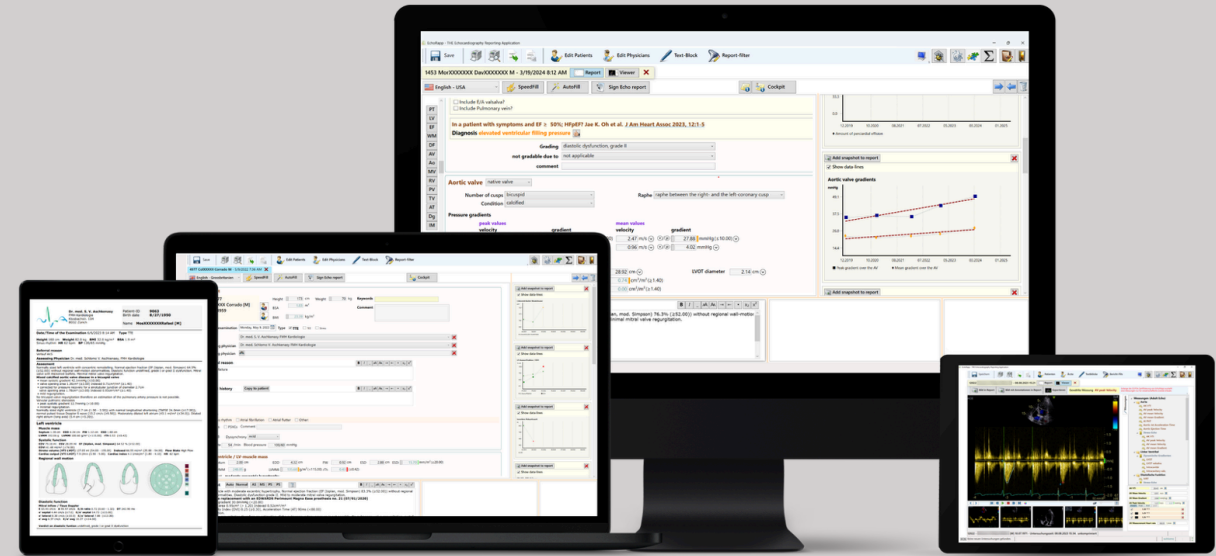




EchoRapp

Smarter echocardiography for a faster cardiology workflow



Start-up innovation project supported by

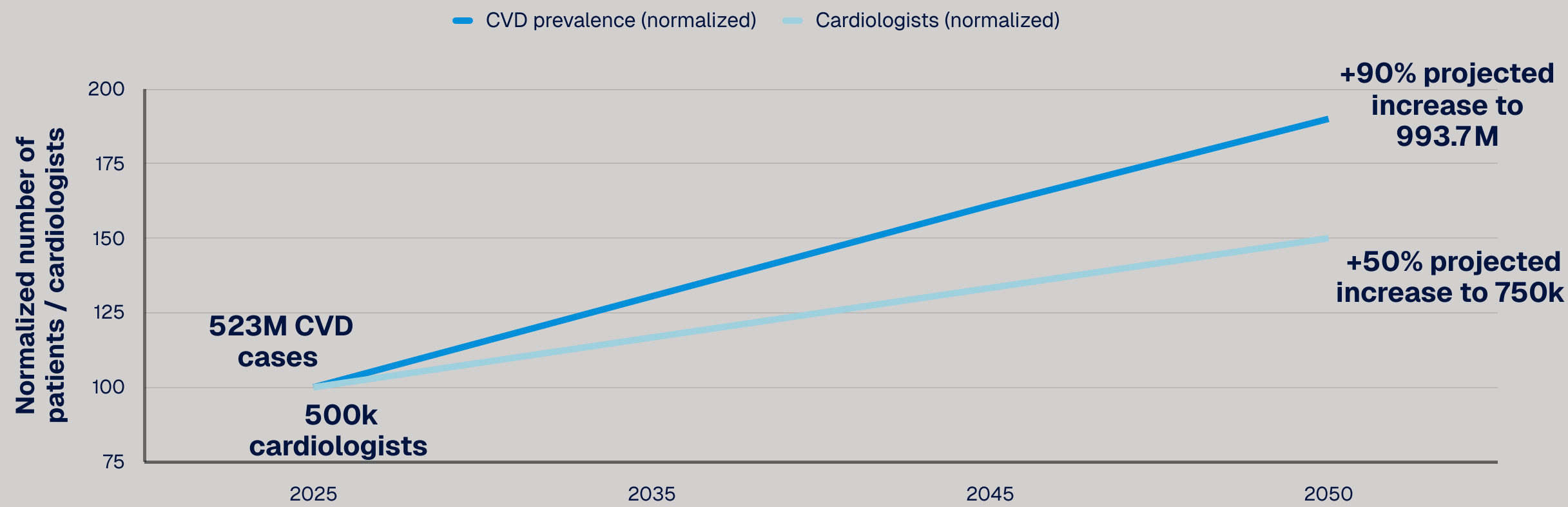


Schweizerische Eidgenossenschaft
Confédération suisse
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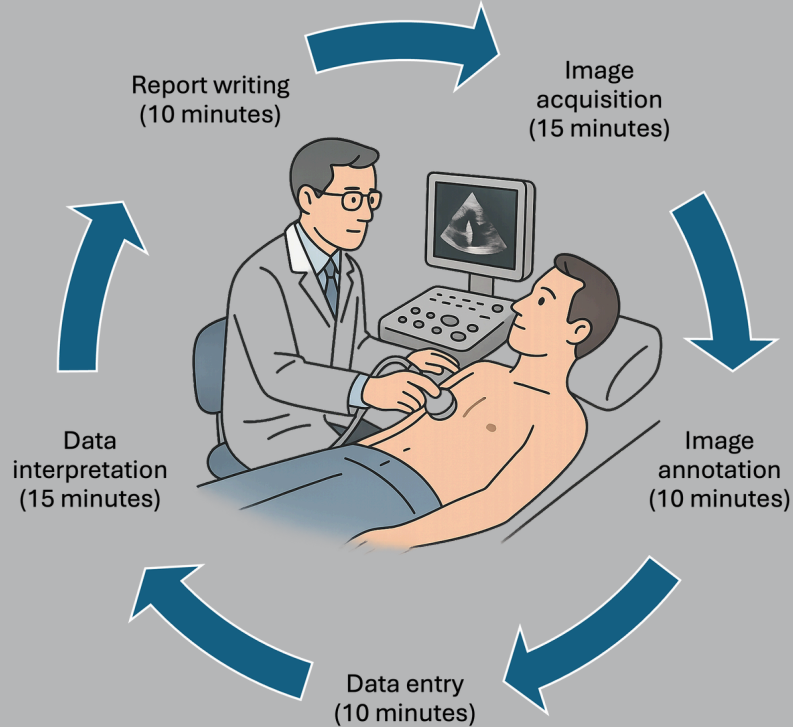
Swiss Confederation

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

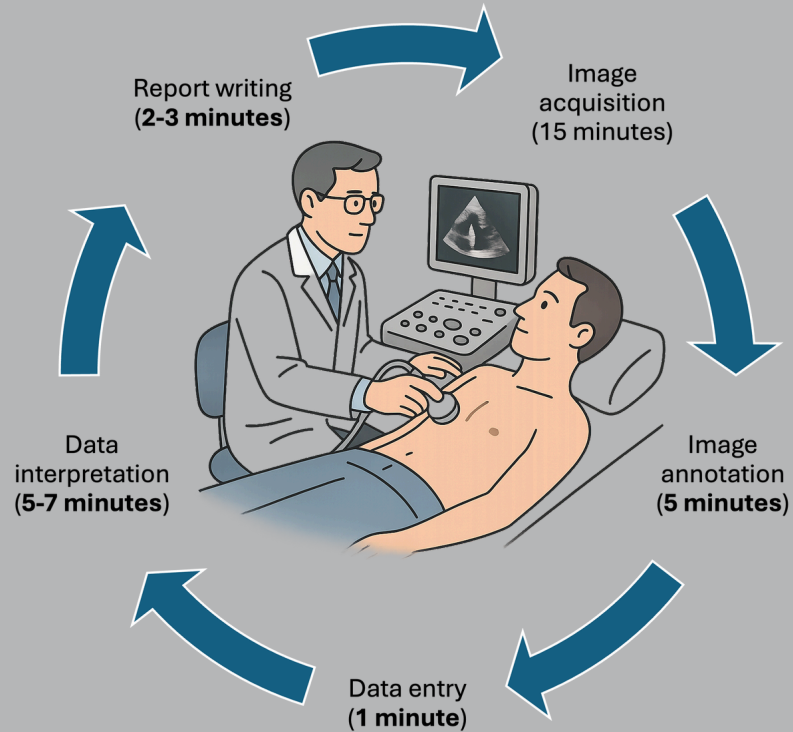


Over **500,000 cardiologists** face pressure to perform more echos every day, but are faced with:

- 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

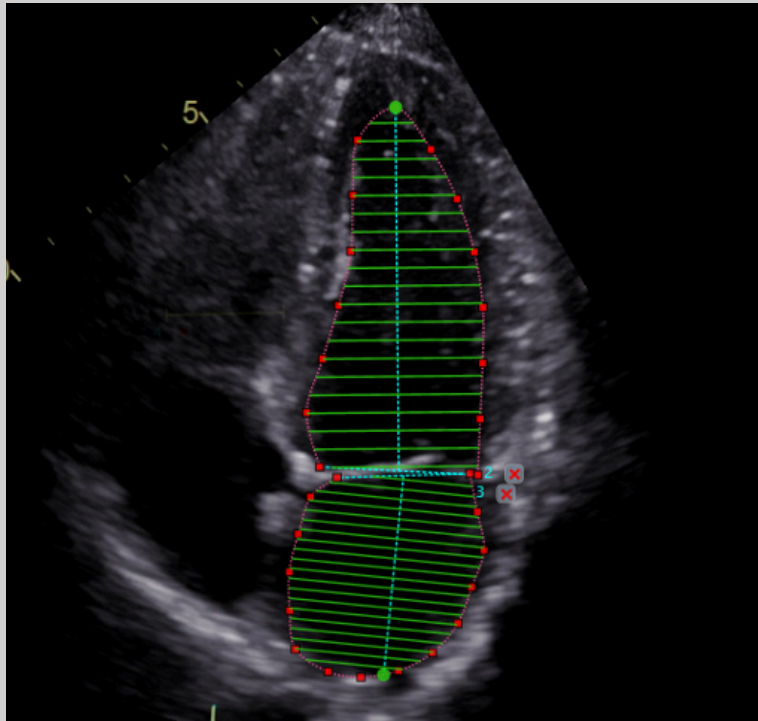
3x efficiency

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 BocXXXXXXXX SteXXXXXXXX M - 6/19/2023 3:31 PM Close X

Deutsch - Schweiz SpeedFill AutoFill Sign Echo report Cockpit

Patient
ID 7789 Height 174 cm Weight 97 kg Keywords
BocXXXXXXXX SteXXXXXXXX [M] BSA 2.17 m² Comment
7/2/1957 BMI 32.04 kg/m²

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

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

Referral reason
Verlauf

Patient history Copy to patient
St. n. AKE biologisch, Inspiris Hexilia 25mm (SN 6324638)
Mit OP via Ministerstomatologie
Bei verkalkter bikuspidaler Klappe mit schwerer Stenose

Rhythm
☒ Sinus rhythm ☐ Atrial fibrillation ☐ Atrial flutter ☐ Other:
☐ PVCs ☐ PSVCs Comment
☐ LBBB ☐ Dyssynchrony none
Heart rate 68 /min Blood pressure 140/90 mmHg

Left ventricle / LV-muscle mass
Septum 1.23 cm EDD 4.54 cm PW 0.96 cm ESD 1.88 cm ESDI 8.70 mm/m² (≤20.00)
LVMM 176.88 g LVMMI 81.65 g/m² (<115.00) rTh 0.42 (≤0.42)

Echo-assessment Auto Normal AS MS PS PS
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 Inspiris Resilia Prothese Nr. 25 (15.01.2019)
• mittlerer systolischer Gradient 17.9mmHg (<20.00)
• Klappenöffnungsfläche 1.28cm² (> 1.20) indexiert 0.59cm²/m²
• Doppler Velocity Index (DVI) 0.30 (≥0.30). Acceleration Time (AT) 72ms (<80.00)
• minimale transkardiale Insuffizienz.

Comprehensive diagnostic support from studies and guidelines

Height 165 cm Weight 73.0 kg BMI 26.8 kg/m² BSA 1.8 m²
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. Mitral valve with thickened leaflets. Minimal mitral valve regurgitation.
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 1.36cm² (≥3.00) Indexed 0.74cm²/m² (≥1.40)
• corrected for pressure recovery for a sinotubular junction of diameter 2.6cm
• valve opening area 1.85cm² (≥3.00) Indexed 1.01cm²/m² (≥1.40)
• moderate regurgitation.
Minimal tricuspid valve regurgitation, systolic pulmonary artery pressure 43.4mmHg (<38.0). Minimal pulmonary valve regurgitation, systolic gradient over the pulmonary 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/m² (≤34.0)). Dilated right atrium (long axis) (5.4 cm (<5.30)). About 100ml of pericardial effusion without sings 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 LVMMI 80.75 g/m² (<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/m² (<74.00)
Stroke volume (VTI LVOT) 103.66 ml (51.00 - 109.00) Indexed 56.67 ml/m² (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/m² (1.90 - 4.30) **HR** 74 bpm

Regional wall motion

Diastolic function

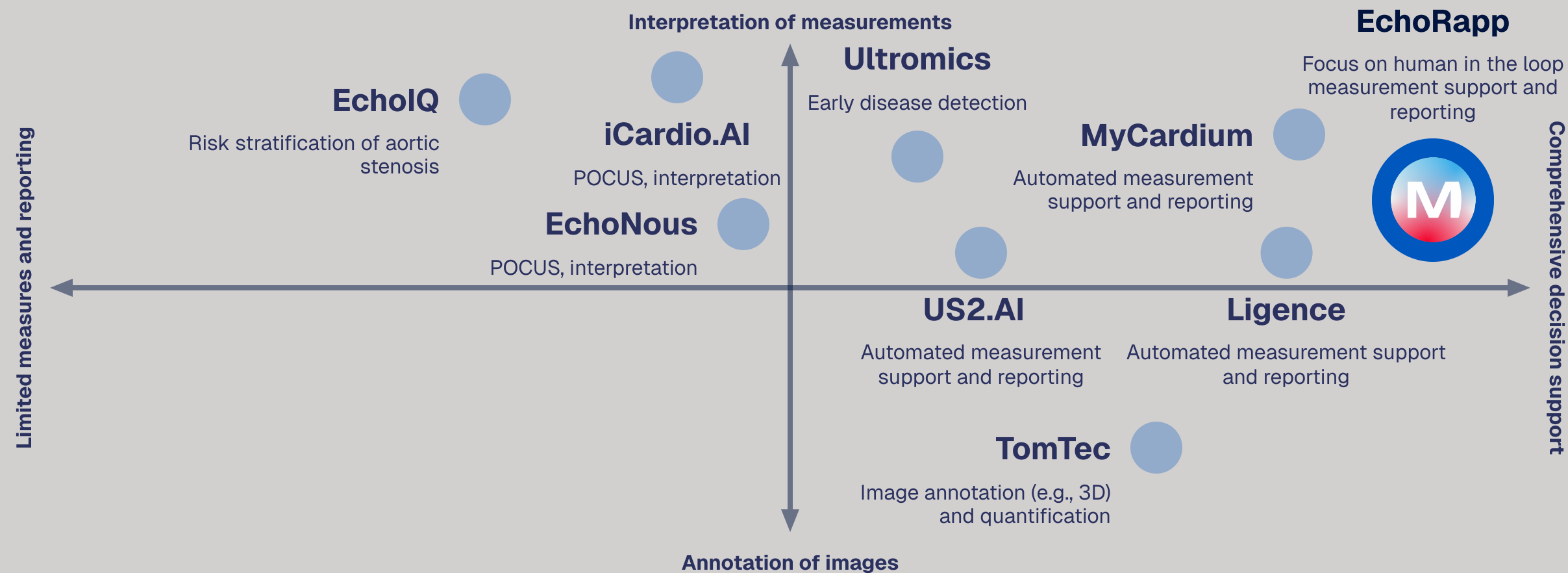
Automatically generates patient reports in multiple languages

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



echocardiography is complex

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



We have traction from Innosuisse funding, Hirslanden pilot and CE Mark

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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).

HIRSLANDEN 

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

- **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



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



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!