

Instant AI Echocardiography Reporting. 130+ Automated Measurements. **Fully Adjustable.**

Key benefits

Accelerated Workflow

Automated analysis of more than 130 validated cardiac parameters, reducing reporting time and improving throughput for busy echo labs.

Consistent Accuracy

AI delivers reproducible measurements across operators and sites, ensuring every scan meets the same clinical standard.

Expert Oversight

Human-in-the-loop design keeps clinicians in control, enabling full review and refinement of all AI-generated results. No black-box.

How it works

EchoConfidence uses deep learning models trained by leading cardiologists to automate cardiac measurements and streamline clinical reporting. Each study is automatically classified, analysed, and measured in seconds, allowing clinicians to focus on interpretation and patient care.

EchoConfidence presents results alongside editable contours and fiducial points, providing transparency and control. Longitudinal tools enable tracking of disease progression, while secure integration with hospital systems ensures efficient reporting and compliance with clinical data standards

Clinician Expertise

Built by clinicians to aid decisions. You have full control to edit values, hide bad scans, or include views the AI excludes. Backed by experts, it's a flexible tool designed for real-world precision and workflow efficiency.

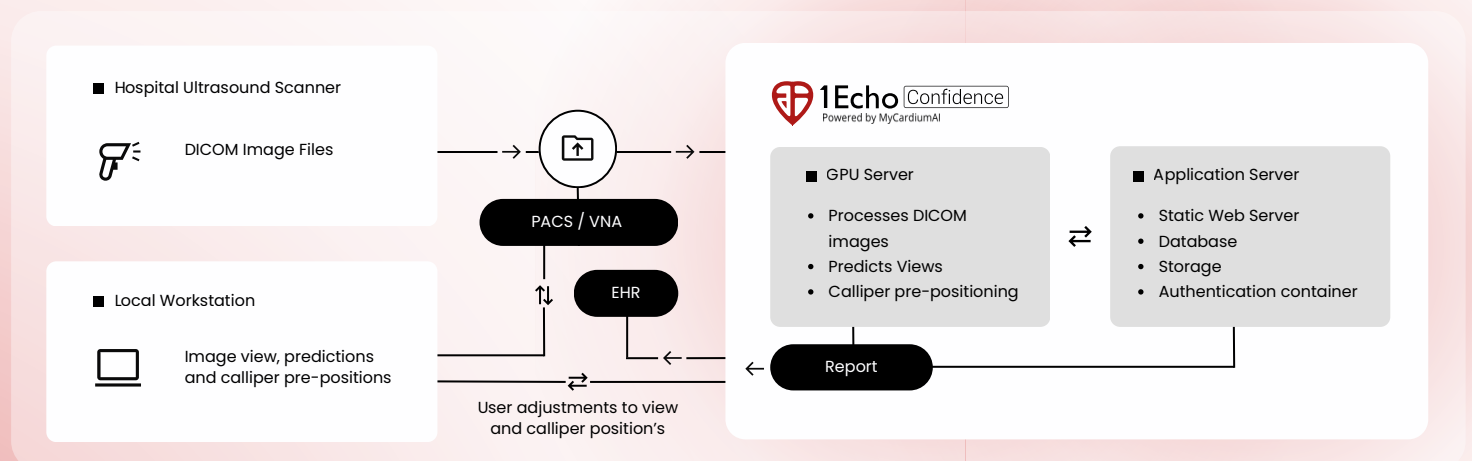
Why EchoConfidence

EchoConfidence transforms echocardiography by combining validated artificial intelligence with clinician expertise. Built on algorithms trained with over 100,000 images, it delivers more than 130 automatic measurements with over 98% accuracy instantly.

The platform accelerates workflows, ensures reproducibility across sites, and integrates seamlessly with existing PACS and EHR systems. Its regulatory-grade design, including FDA 510(k) clearance and CE Class IIb marking, makes it trusted and ready for use in hospitals, research centres, and clinical trials worldwide.

- Developed by leading cardiologists and imaging specialists
- Designed around real clinical workflows and challenges
- Validated against multi-expert consensus for trusted results
- Informed by decades of clinical research and trial experience

For more information email info@mycardium.com



Validation Data

How is the AI in EchoConfidence trained and validated?

The EchoConfidence AI was developed using convolutional neural networks (CNNs) designed for echocardiography. Training drew on a large, diverse dataset annotated by consultant cardiologists and accredited sonographers, with final values determined through multi-expert consensus rather than single-reader annotation.

- 100,000 labelled images used for training
- 20,000 patients included in training population
- Broad range of cardiac pathologies represented
- Data annotated by consultant cardiologists and nationally accredited sonographers
- 8-15 experts per dataset with multiple over-reads, final consensus value applied
- Validation performed against 3-6 experts, tested both against consensus and individual readers

How diverse is the training set?

The dataset incorporated a wide spectrum of patients to ensure generalisability across disease groups, acquisition settings, and institutions. This reflects “real world” practice and supports reliable use across different scanners and populations.

- Broad age spectrum (adult through elderly)
- High prevalence of comorbidities such as hypertension and diabetes
- Multiple disease categories including structural and valvular disease
- Data acquired across different echocardiographic systems and settings
- Designed to be generalisable: “any scanner, any disease, anywhere”

“ Clinician Validation

Far from replacing the human expert, EchoConfidence frees us from feeling like machines on a production line... and gives us back **the time** and **energy** to actually use our expertise.

- Catherine Stowell
Echo Labeller

What independent evidence supports its performance?

EchoConfidence has been benchmarked against six independent experts across more than 130 validated parameters. The AI is required to perform within the natural range of expert variability, with all data analysed against strict statistical endpoints.

The underlying methods and measurement science are published, with these 2 principal publications:

- Howard, JP et al. “Improving ultrasound video classification: an evaluation of novel deep learning methods in echocardiography.” *Journal of medical artificial intelligence* vol. 3 (2020): 4. doi:10.21037/jmai.2019.10.03
- Howard, JP et al. “Automated Left Ventricular Dimension Assessment Using Artificial Intelligence Developed and Validated by a UK-Wide Collaborative.” *Circulation. Cardiovascular imaging* vol. 14,5 (2021): e011951. doi:10.1161/CIRCIMAGING.120.011951

Key points:

- Over 130 validated echocardiographic measurement
- MAE against experts required to be $\leq 25\%$ above expert inter-observer variability
- Bland-Altman limits of agreement calculated for each parameter
- Validation performed separately for direct, derived, calculated, and indexed measures
- Fully documented performance data lodged with regulatory authorities

Is EchoConfidence fully compliant with the EU AI Act?

EchoConfidence has been developed with the provisions of the EU AI Act fully considered. MyCardium AI was the first company in the UK to contract with its notified body (BSI) to undertake separate AI audit elements for medical devices covered by the Act.

All medical devices regulated under the EU Medical Device Regulation (MDR) fall into the High-Risk category of the EU AI Act, due to their potential for patient impact.

EchoConfidence has been formally audited and reviewed against these High-Risk criteria and were found to be fully compliant.