



YOUR PATIENTS RELY ON YOU.  
YOU CAN RELY ON US.


# Vivid T9

ULTRA EDITION





## TODAY'S CHALLENGES

Increasing demand, coupled with limited cardiology staff, results in additional workload challenges for the entire medical community.

 **17 MILLION**  
people died from CVDs  
in 2019<sup>1</sup>

 **1 in 4**  
cardiologists state they  
are burned out<sup>2</sup>

 **>10%**  
increase in Ischemic Heart  
Disease (IHD) alone by 2030<sup>3</sup>

 **20%**  
of sonographers are leaving  
the profession or taking  
premature retirement<sup>4</sup>

 **108 MILLION**  
annual echo exams  
performed globally<sup>5</sup>

 **x2**  
shortage of health workers is  
**set to double**<sup>6</sup>



**YOUR PATIENTS RELY ON YOU.  
YOU CAN RELY ON US.**

Patient care isn't just a job for you. It's a calling. A mission.

Of late, that mission has changed. Increased workloads, fewer skilled staff and increased demands on your time, resources and expertise are now the norm.

Getting the right images under this pressure is challenging.

But this isn't just a job for you and you have no intention of sacrificing quality in your practice when so much is at stake.

The Vivid T9 cardiovascular ultrasound has been designed to meet today's challenges. To allow more quality time with patients, increase diagnostic confidence and reduce inter-operator variability - all at a price point accessible for private practices.

Because your patients rely on you, you can rely on us.

# PIONEERING INNOVATION

## YOUR EXPERTISE. OUR INNOVATIONS.

Building on a history of advancements of cardiac patient care, GE has been a true pioneer introducing breakthrough technologies, such as Color Doppler systems (1986) and 2D and AFI Speckle Tracking (2005).

Discover the latest leading innovative technologies that continue to push the technical capabilities of the Vivid Ultra Edition\* system for the benefit of you and your patient.

2014	2017	2018	2020	2021
<ul style="list-style-type: none"> <li>• AutoEF, AFI</li> <li>• Scan Assist Pro</li> <li>• Shared services imaging applications</li> </ul>	<ul style="list-style-type: none"> <li>• Pediatric TEE probe</li> <li>• Smart Standby mode</li> <li>• 21.5" LCD monitor</li> <li>• L8-18i-RS probe</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced ergonomics, premium applications and probes</li> <li>• Cardiac Auto Doppler</li> <li>• AFI 2.0 &amp; AutoEF 2.0</li> <li>• Windows 10</li> </ul>	<ul style="list-style-type: none"> <li>• AI Auto Measure (2D &amp; Spectrum Recognition)</li> <li>• Automatic View Recognition with AFI 3.0 &amp; AutoEF 3.0</li> <li>• AFI RV</li> <li>• AFI LA</li> <li>• eDelivery</li> </ul>	<ul style="list-style-type: none"> <li>• AutoEF with optional ECG</li> </ul>



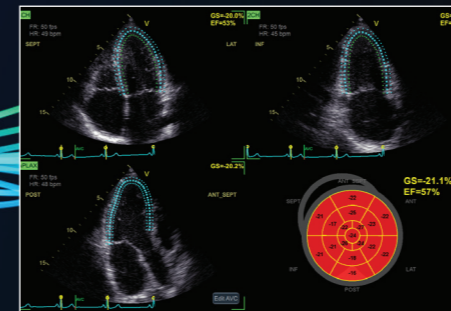
### VIVID T9 ULTRA EDITION

## Designed for your busy practice.

Vivid T9 Ultra Edition\* provides reliable and ergonomic design, powered with AI applications for extreme productivity without compromising quality of care.

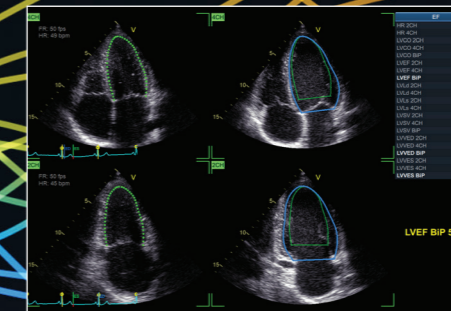
EXTENDED WARRANTY<sup>9</sup>

## LATEST INNOVATIONS



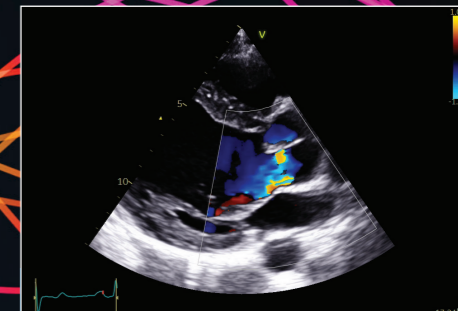
Strain measurements in just 15 seconds (on average) - with **Easy AFI LV**.

**In 15 seconds**  
(on average)<sup>7</sup>



Ejection Fraction and Automatic Region of Interest definition with only 1 click - with **Easy AutoEF<sup>8</sup>**.

**Only 1 Click**



Superb image quality and ultra-wide bandwidth with **M5Sc-RS XDclear<sup>TM</sup> Probe**.

**Matrix probe**

## MODERN ERGONOMICS

### Adjustable to each operator standing and sitting position

- Articulating monitor arm
- Single-hand push for up/down and left-right adjustment
- Ergonomic transport push handle

### Excellent operator interface

- 21,5" ultra-high-resolution, wide format, color LCD screen
- 10.1" high-resolution touch panel
- Integrated alphanumeric keyboard
- Silent system (average 31dB noise level)

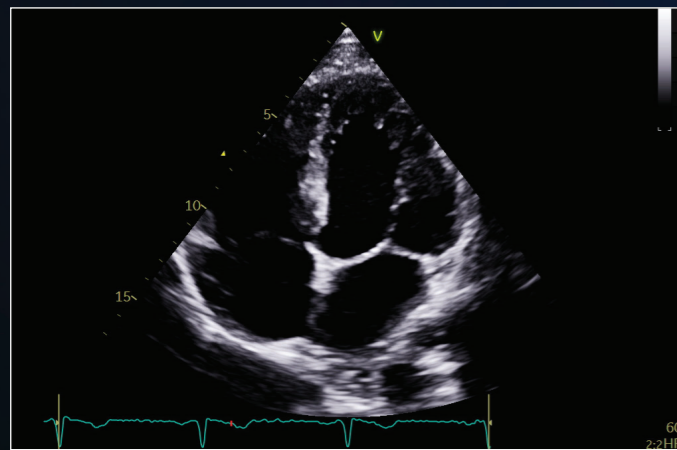
### Compact & easy to maneuver

- Only 60 kg/132 lbs
- Instant scan from Standby mode

YOUR VISION. OUR SUPERB IMAGES.

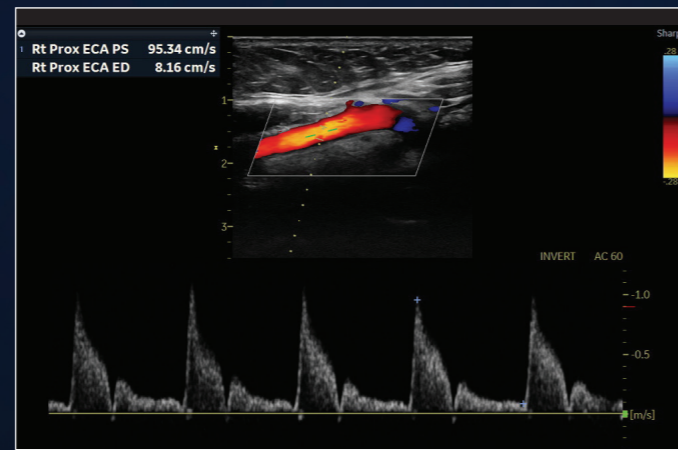
The diagnoses and treatment plans for your patients require a clear picture of their condition. With so much riding on the image, it has to be the best possible quality.

LATEST INNOVATIONS



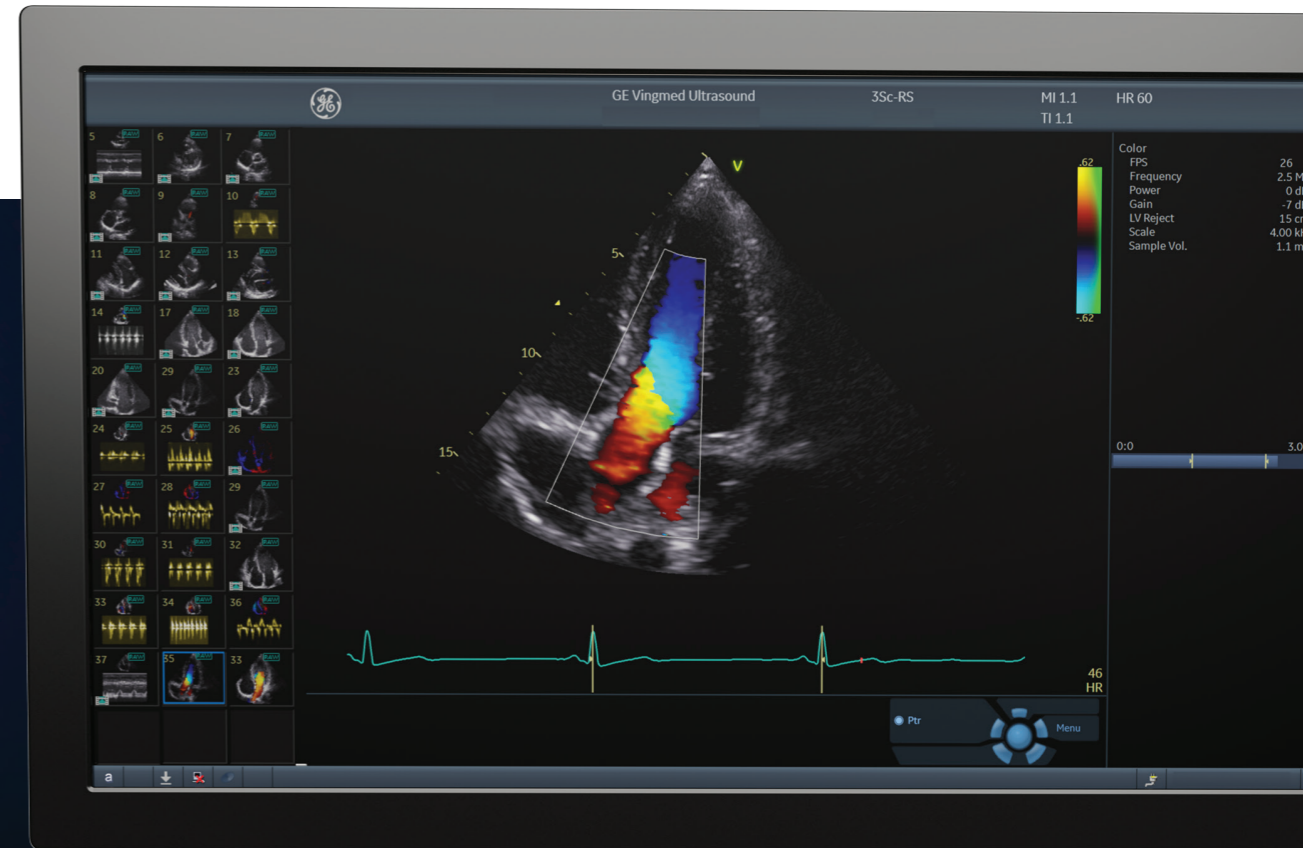
**Penetration QuickApp**  
Helps improve visibility

Optimize penetration in technically difficult studies with one click.



**L4-20t-RS Single Crystal Linear Probe**  
Beautifully clear vascular imaging

Four configurable control buttons allow you to ergonomically position yourself at the bedside, performing essential functions such as Freeze, Store, mode switch, among other functions, away from the scanner.



Benefit from a wide range of clinical applications and image quality improvements for your cardiovascular practice.

*“With Vivid T9 you can achieve an accurate diagnosis with confidence in any cardiac pathology.”*

- Dr. Angela López Sainz  
Cardiologist  
Hospital Clinic in Barcelona




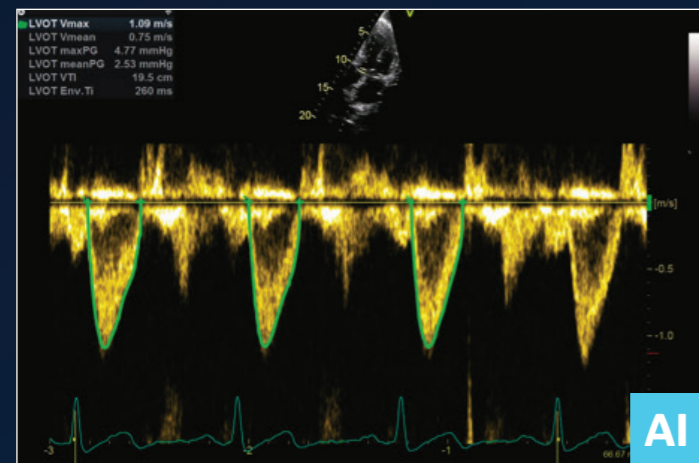
YOUR TIME. OUR WORKFLOW TOOLS.

Vivid T9 Ultra Edition introduces the latest AI-based technology to help reduce tedious tasks and improve workflow efficiency.

**AI Auto Measure 2D**


With the power of AI, a full set of reproducible measurements will instantly appear on the screen.


 **80%**  
Less clicks<sup>11</sup>



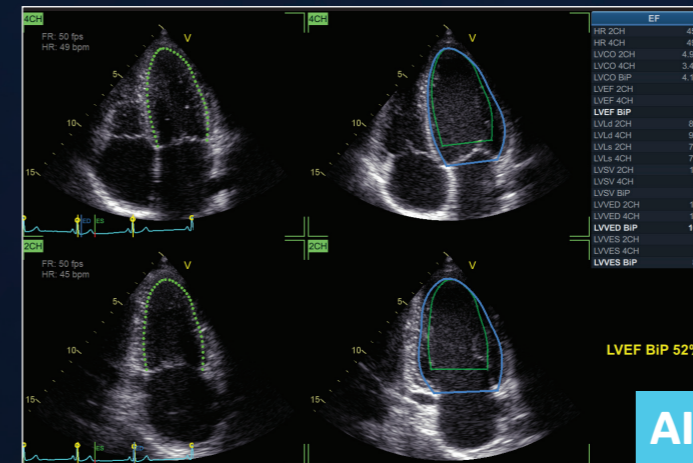
**Cardiac Auto Doppler with AI Auto Measure Spectrum Recognition**

With the power of AI, a wide range of Doppler measurements can be completed with 2 clicks: Freeze – Measure. A Doppler trace and full set of associated measurements will instantly appear on the screen.

 **Up to 93% fewer keystrokes<sup>12</sup>**

 **35%** of cardiac sonographers miss work due to pain<sup>13</sup>

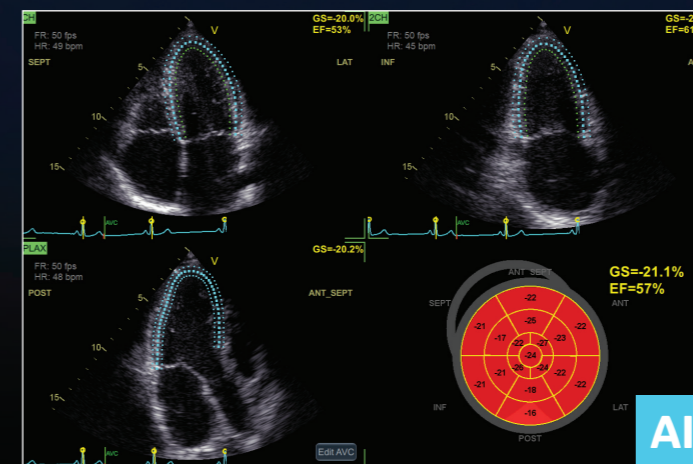
**LATEST INNOVATIONS**



**Easy AutoEF (without ECG)**


Our AI-based Auto ROI detection algorithm allows users to complete ejection fraction, with no manual interaction apart from initiating the tool and approving the results. 2 Chamber or 4 Chamber Ejection Fraction available with or without ECG.

 **EF results in just 1 click**



**Easy AFI LV with View Recognition**

Our AI-based global and segmental strain measurements require no manual interaction apart from initiating the tool and approving the results. Additionally, you will be able to view EF measurements.

 **EF and strain results in 15 seconds (on average)**

*“The Vivid T9 Ultra Edition AI-based automated measurements help my staff complete a standard echo exam faster, and with less variability. The new Penetration button on the touch screen helps give the sonographers the extra boost we often need with challenging imaging windows. As a busy private cardiology practice, we appreciate having these advanced options available on an affordable cardiovascular ultrasound system”*

- **Dr. Adurthy Ananth Shankar, MD**  
 Director Cardiovascular division  
 Essen Healthcare, New-York, USA

YOUR FLEET. OUR SOLUTION.

Patient care doesn't end when the exam is over. Upgrade to EchoPAC™ to optimize your patient time and your post-processing time.



FAST WORKFLOW

- Fully integrated workflow with the EchoPAC Plug-in, DICOM® SR transfers to reporting systems, accelerated data transfers in clinical and research operations
- Featuring Open4D to assess & quantify 3D volumes from multivendor equipment fleets

For 3-Dimensional system vendor-agnostic analysis



EchoPAC exists as **EchoPAC Software Only** and **EchoPAC Plug-in**

EchoPAC Plug-in is available for:

- GE Healthcare Centricity™ Cardio Enterprise with Intelligent Reporting (IR)
- GE Healthcare ViewPoint™ 6 with EchoPAC Suite<sup>14</sup>
- As a Plug-in to third party PACS.



STATE-OF-THE-ART ACCURACY

Full access to all Vivid scanner tools:

- From the most used AI-Powered ones on routine measurements: Easy AFI LV, Easy AutoEF and Auto Doppler Spectrum Recognition
- To the most advanced ones: MyoCardial Work is a unique tool using less load dependent parameters than strain alone

Interested in MyoCardial Work?

Learn more on the publicly available Webinar on the Vivid Club website

COMFORTABLE EXPERIENCE

- Familiar Vivid user interface, faster staff ramp-up
- Analyzing and reporting from the ergonomic comfort of a workstation
- More focus on patient at acquisition

Maximize your entire fleet return on investment

- Transcend your machine performance: regardless of vendor, regardless of machine age, get all the latest Vivid tools
- Save time: get EchoPAC to free-up scanner time and perform your daily analysis off-line including LV quantifications doppler and function assessment

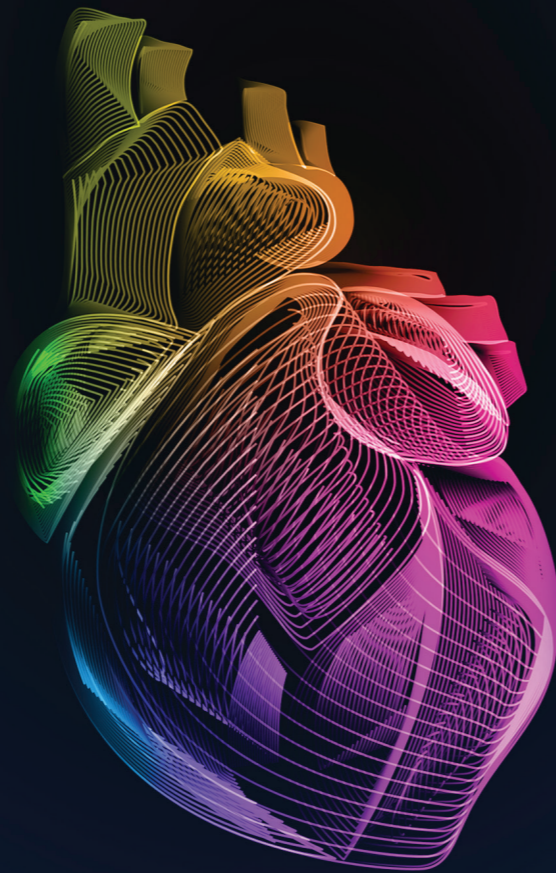
*“I am amazed by the measurements you can perform on EchoPAC after the patient has left!”*

- **Dr. Lamin E.S. Jaiteh**  
 Consultant Cardiologist & Lecturer in Cardiology  
 Department of Internal Medicine  
 Edward Francis Small Teaching Hospital/School of Medicine &  
 Allied Health Sciences, University of the Gambia

YOUR SKILLS. OUR SUPPORT.

In the core echo lab and even beyond cardiology, smart applications support your know-how.

The Ultra Edition applications highlighted in **bold** are referent to our latest release.



VISUALIZATION AND NAVIGATION

Ultra Edition

Curved Anatomical M-Mode

**Pre-Post Compare**

Smart Stress

Scan Coach

LVO Contrast

Blood Flow Imaging

FLOW QUANTIFICATION

Ultra Edition

Cardiac Auto Doppler **AI**

**AI Auto Measure Spectrum Recognition** **AI**

CHAMBER QUANTIFICATION

Ultra Edition

Z-Scores

**Easy AutoEF** **AI**

**AI Auto Measure 2D** **AI**

AFI FUNCTIONAL IMAGING

Ultra Edition

**Easy AFI LV** **AI**

AFI RV

AFI LA

YOUR COMMUNITY. OUR COLLABORATION.

Vivid is much more than just a system. Make the most of your Vivid experience with our community resources and learning opportunities.

[www.gehealthcare.com](http://www.gehealthcare.com)

On our website you will find content available to the general public with top industry Key Opinion Leaders, Learning Academy on Strain including Whitepapers and Case Studies.



**Vivid Talks**

Our "Meet the Expert" sessions (Vivid Talks) on wide-ranging subjects from EchoLab to Interventional.



**Strain Learning Academy**

Our Learning Academy is dedicated to supporting the industry in advancing strain measurement adoption.

**60%** of all strain measurement clinical research publications has been done on a GE device<sup>15</sup>.

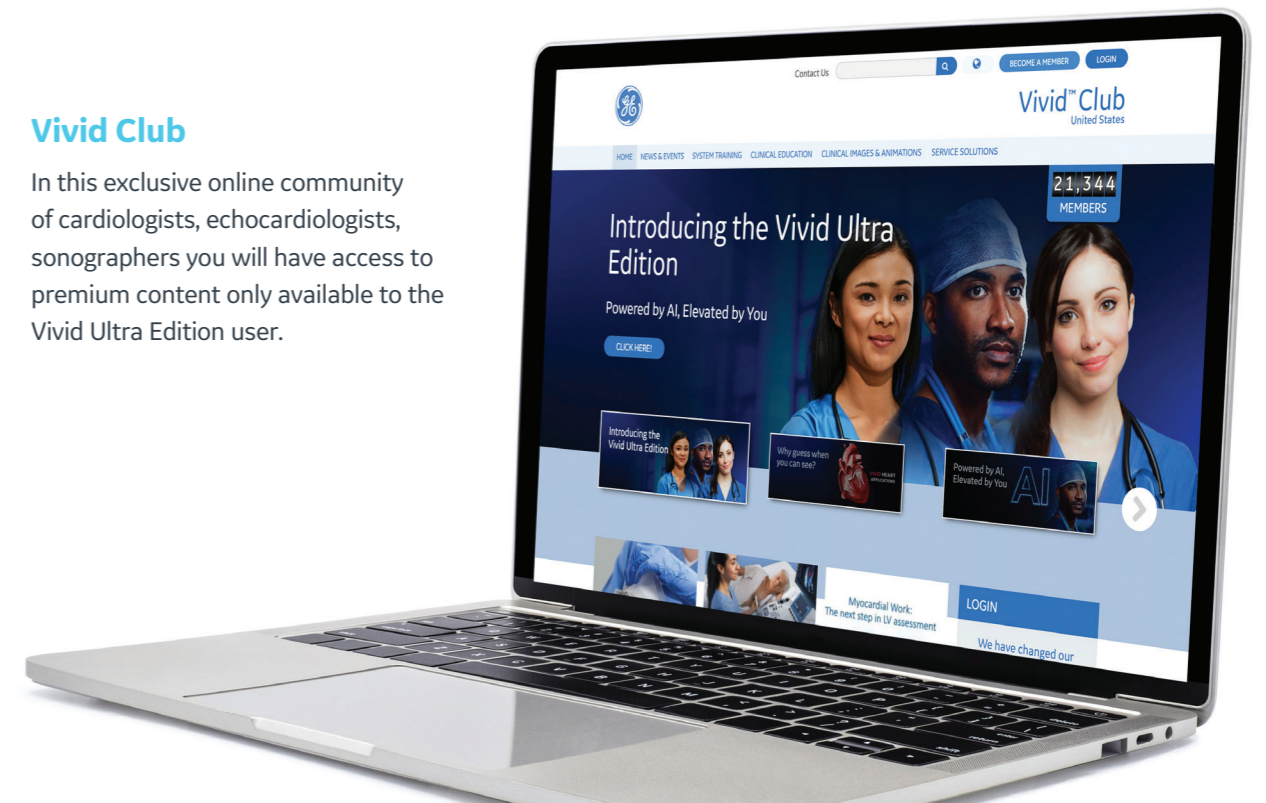


**Whitepapers & Case Studies**

The latest Whitepapers and Case Studies presented by the field experts.

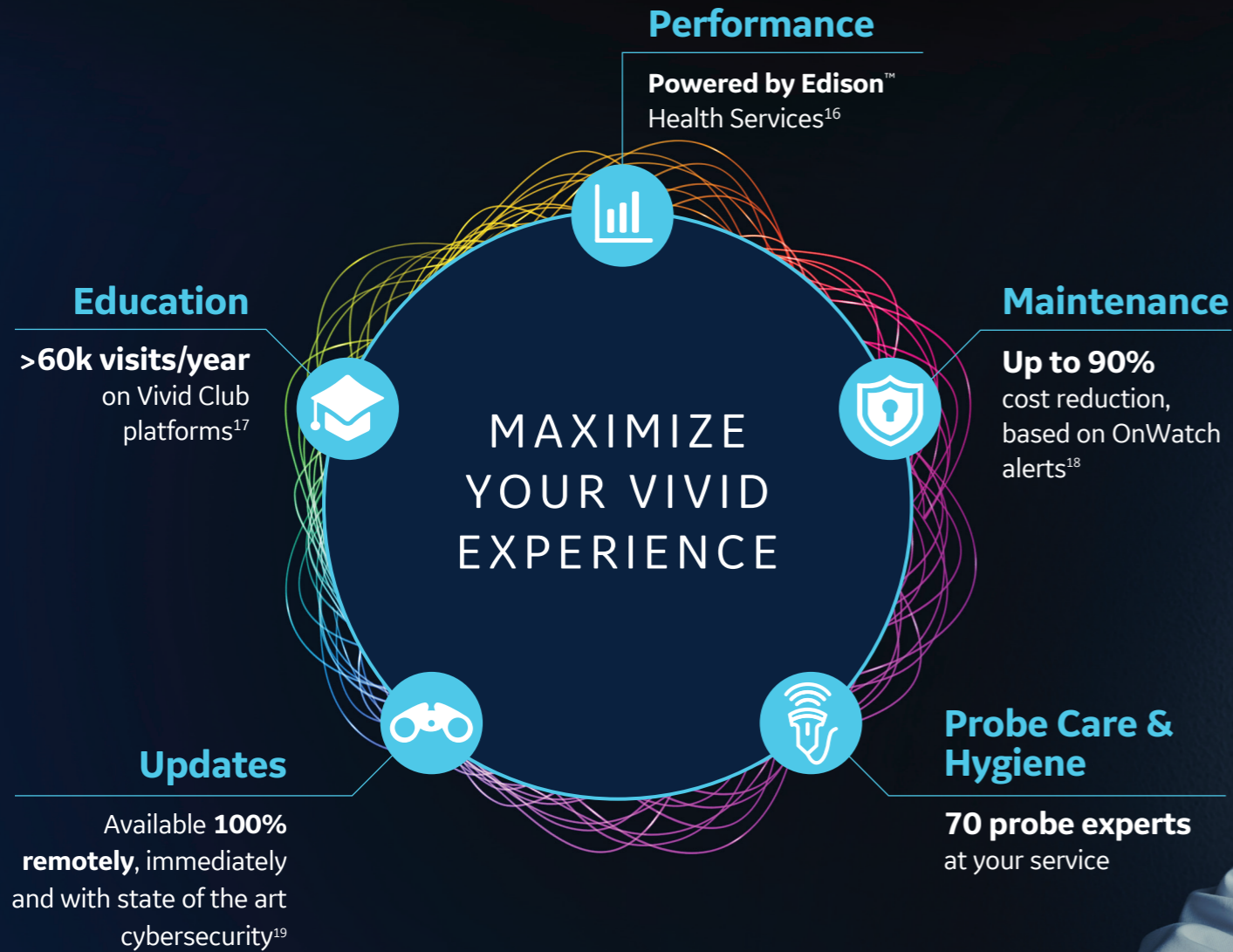
**Vivid Club**

In this exclusive online community of cardiologists, echocardiologists, sonographers you will have access to premium content only available to the Vivid Ultra Edition user.



OUTPERFORM TODAY. PREPARE FOR TOMORROW.

Maximize the Vivid lifecycle experience while minimizing your total cost of ownership.



“The implementation of Imaging Insights/Ultrasound Excellence in my biomedical unit for the cardiology and gynecology departments ultrasound equipment has opened the door to better utilization of my systems and distribution of activity, all of which has allowed me to improve our operational efficiencies, cost investment and service to patients.”

- Mrs Valérie Boissart  
Head of Biomedical Engineering Department  
Luxembourg Hospital Center



DIGITAL EXPERT/STAR\*\*

Digital Expert (and STAR) provides an interactive, real-time, flexible & convenient way to get education and support.<sup>20</sup>

**Live exchange with peers**

SONODEFENSE

SonoDefense is GE Healthcare's six-layer strategic approach to cybersecurity and patient data privacy for ultrasound.

**Advanced cybersecurity & data privacy protection**

AUTOMATED, REMOTE SW DOWNLOADS

Get automated software updates along with safety patches enabled by remote software download. Your system stays up-to-date, making it more reliable.

**Updates 24/7<sup>19</sup>**

IMAGING INSIGHTS

Imaging Insights is an Edison™ application that combines analytics and coaching to help ultrasound management teams to optimize clinical and operational performance.

**Operational Performance**



## About GE Healthcare:

GE Healthcare is the \$18 billion healthcare business of GE (NYSE: GE). As a leading global medical technology and digital solutions innovator, GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 50,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

Follow us on Facebook, LinkedIn, Twitter, and Insights for the latest news, or visit our website [www.gehealthcare.com](http://www.gehealthcare.com) for more information.

### References:

\* Ultra Edition is not a product name, it refers to the 2022 release of the Vivid portfolio

\*\* Only available in the US

1. World Health Organisation | [https://www.who.int/news-room/fact-sheets/detail-cardiovascular-diseases-\(cvds\)](https://www.who.int/news-room/fact-sheets/detail-cardiovascular-diseases-(cvds))
2. Laxmi S. Mehta et.al. | Clinician Well-Being. Addressing Global Needs for Improvements in the Health Care Field | Journal Of The American College Of Cardiology Vol. 78, No. 7, 2021
3. Moien AB Khan et.al. | Global Epidemiology of Ischemic Heart Disease: Results from the Global Burden of Disease Study | <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7384703/>
4. Stephanie David | Importance of Sonographers Reporting Work-Related Musculoskeletal Injury: A Qualitative View | JDMS 21:234-237 May/June 2005 <https://journals.sagepub.com/doi/pdf/10.1177/8756479305274463>
5. Source: Healthcare Infrastructure and Procedural Volume for Ultrasound Imaging, Frost & Sullivan, 2018. Approx. 108.12 million echo exams are performed annually; Calculation based on 26% total global prevalence of CVD cases (422 million) undergoing echo exam; extrapolated from US study indicating roughly 26% of total prevalent CVD cases underwent echo exams percentage value validated from reports.[https://www.prb.org/wp-content/uploads/2015/12/2015-world-population-data-sheet\\_eng.pdf](https://www.prb.org/wp-content/uploads/2015/12/2015-world-population-data-sheet_eng.pdf)
6. World Health Organization | A universal truth: no health without a workforce. Nov 2013. <https://www.bmj.com/content/347/bmj.f6804>
7. Time to strain measurement result may vary with heart rate, frame rate and Vivid system. Verification of performance done by GEHC clinical application specialists using Vivid system (DOC2739637)
8. Easy AutoEF is restricted for use with adult TTE on GE Healthcare raw B-mode data loops of the LV. Easy AutoEF does not support left ventricles with septal bulge
9. Please contact your sales representative for more information
10. Kurt M, Shaikh K, Peterson L, et al. Impact on contrast echocardiography on evaluation of ventricular function & clinical management in a large prospective cohort. J Am Coll Cardiol. 2009; 53(9):802-810
11. The Role of AI in Streamlining Echocardiography Quantification White Paper, Kristin McLeod and Jurica Sprem - JB20789XX
12. Based on results of time and motion study conducted by GE "JB49055XX - Cardiac Auto Doppler"; study results indicated time savings related productivity increase up to ~8 on an annual basis for a facility per sonographer
13. Nicholas M. Orme et.al. | Occupational musculoskeletal pain in cardiac sonographers compared to peer employees: a multisite cross-sectional study | <https://onlinelibrary.wiley.com/doi/10.1111/echo.13344>
14. EchoPAC Suite is the marketing name for EchoPAC Plug-in
15. Whitepaper "AFI - strain imaging from research to clinical routine"- JB16411XX
16. Imaging Insights is an Edison™ application
17. GE internal data - Website analytics from January 2021 to December 2021
18. GE internal data
19. Based on Software eDelivery Software installed
20. Digital Expert is only offered in the USA. Digital Expert is not a functionality provided by Vivid systems. Digital Expert is separate from Vivid systems and is for education and training purposed only



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