



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

# Vivid™ S70N with Dimension


ULTRA EDITION




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


## 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 IHS 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 S70N Dimension cardiovascular ultrasound system has been further developed to meet today's challenges. To allow more diagnosis confidence and better workflows, Vivid S70N Dimension takes a leap forward in image quality with improved color flow, HD live capabilities and full 4D capabilities as well as further AI-enabled automation.

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>cSound software beamforming platform</li> <li>Advanced 4D tool</li> <li>Smart Standby</li> </ul>	<ul style="list-style-type: none"> <li>Cardiac Auto Doppler</li> <li>4D Auto MVQ</li> <li>View-X</li> <li>Micro TEE Probe (10T-D)</li> <li>Enhanced support for DICOM SR</li> </ul>	<ul style="list-style-type: none"> <li>cSound™ 2.0</li> <li>AutoEF 2.0</li> <li>AFI 2.0</li> <li>4D Markers</li> <li>Windows 10</li> </ul>	<ul style="list-style-type: none"> <li>AFI RV</li> <li>AFI LA</li> <li>AI 2D Auto Measure</li> <li>AI Spectrum Recognition</li> <li>AFI 3.0</li> <li>AutoEF 3.0</li> <li>e-Delivery</li> </ul>	<ul style="list-style-type: none"> <li>Biplane/Triplane on 4Vc</li> <li>4D Auto RVQ</li> </ul>



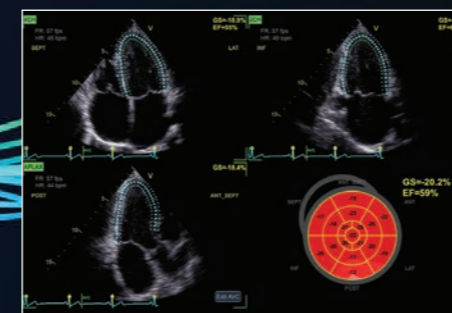
### VIVID S70N DIMENSION ULTRA EDITION\*

## Designed from the echo to the cathlab

Vivid S70N Dimension provides you with uncompromised image quality, advanced visualization capabilities and easy measurements – while helping reduce tedious tasks.

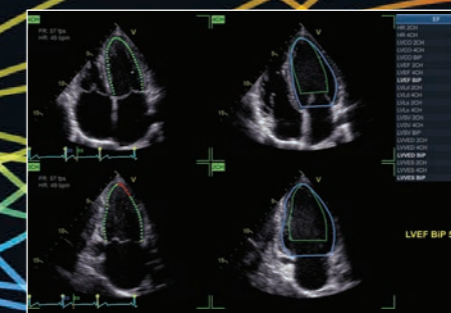
UPGRADE NOW!

## LATEST INNOVATIONS



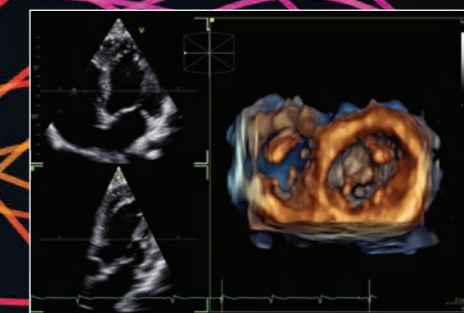
Strain measurements in just 15 seconds (on average) - with **Easy AFI LV**.

**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**



Full 4D capabilities in transthoracic, transesophageal, and even intracardiac\*\* echo.

**4D visualization**

## MODERN ERGONOMICS

### Adjustable to each operator and each sitting position

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

### Excellent operator interface

- 21.5" adjustable monitor
- 12" LCD touch screen
- Alphanumeric keyboard
- Silent system (average 31dB noise level)

### Compact & easy to maneuver

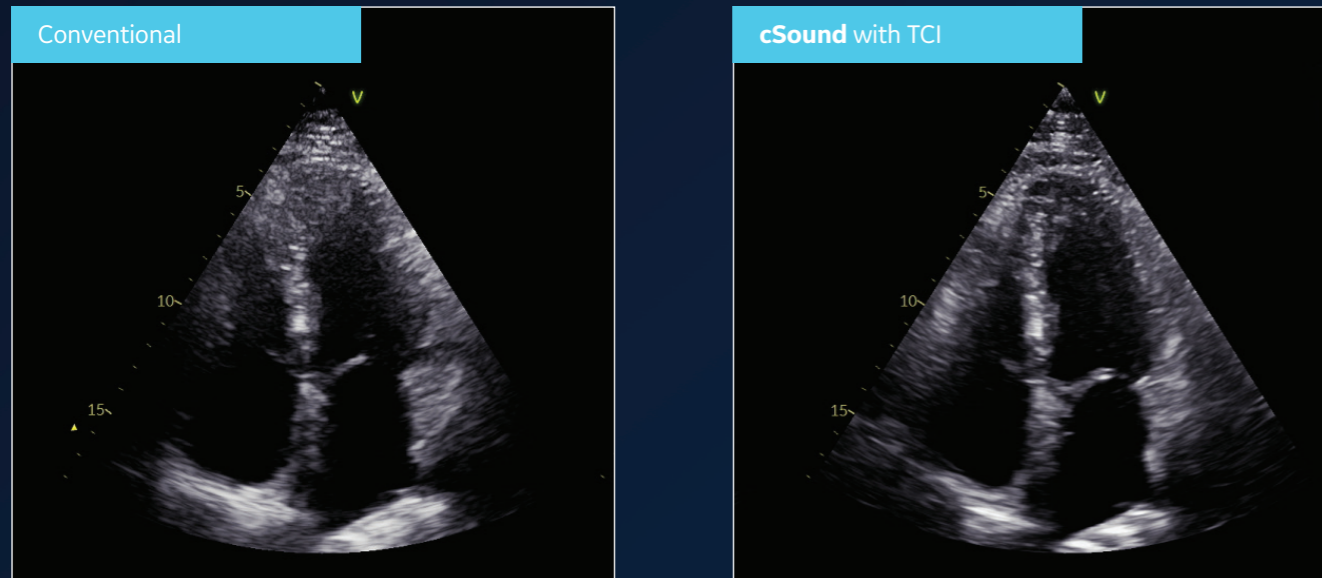
- Only 73Kg/ 161lbs
- With ergonomic, easy to push handle
- Battery powered "standby" function, up and running within few seconds

YOUR VISION. OUR SUPERB IMAGES.

The Vivid System was purpose-built to deliver the highest quality images possible so you can see clearly and diagnose with confidence.

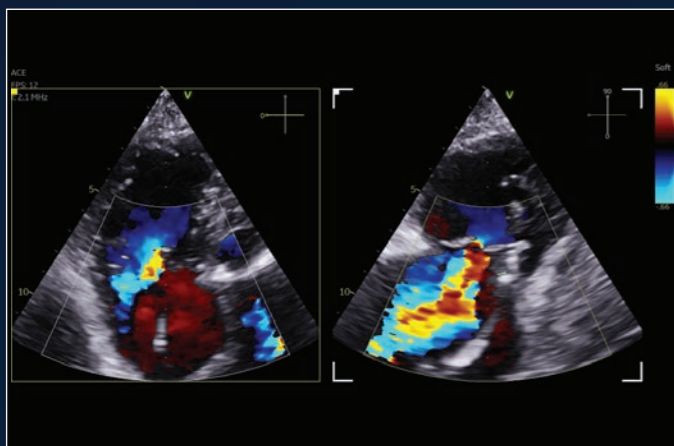
**cSound innovation**

The key innovation of cSound is its extraordinary processing capacity where ultrasound channel data is received and temporarily stored in 'Local Big Data' memory before the image reconstruction is performed. This enables the application of advanced beamformer algorithms, such as True Confocal Imaging (TCI) without the limitation of focal zones or sacrifice of frame rate and spatial resolution.



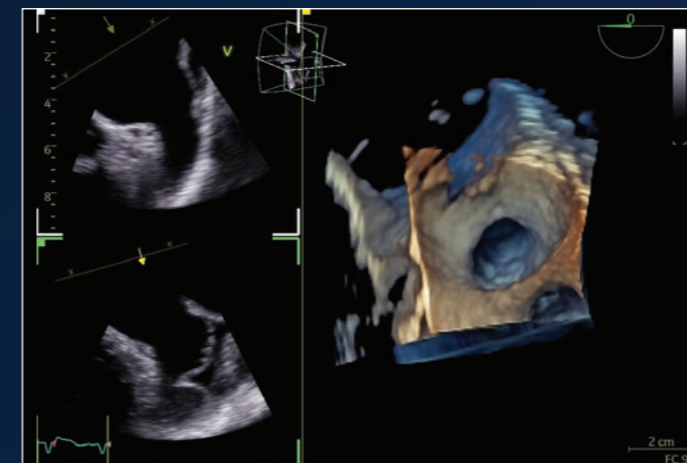
The combined effect of cSound and TCI compared to traditional (Vivid E9) Premium Beamforming.

**Color Flow - Even better image quality!**



**10-15%** of echo exams result in sub-optimal images<sup>9</sup>

**LATEST INNOVATIONS**



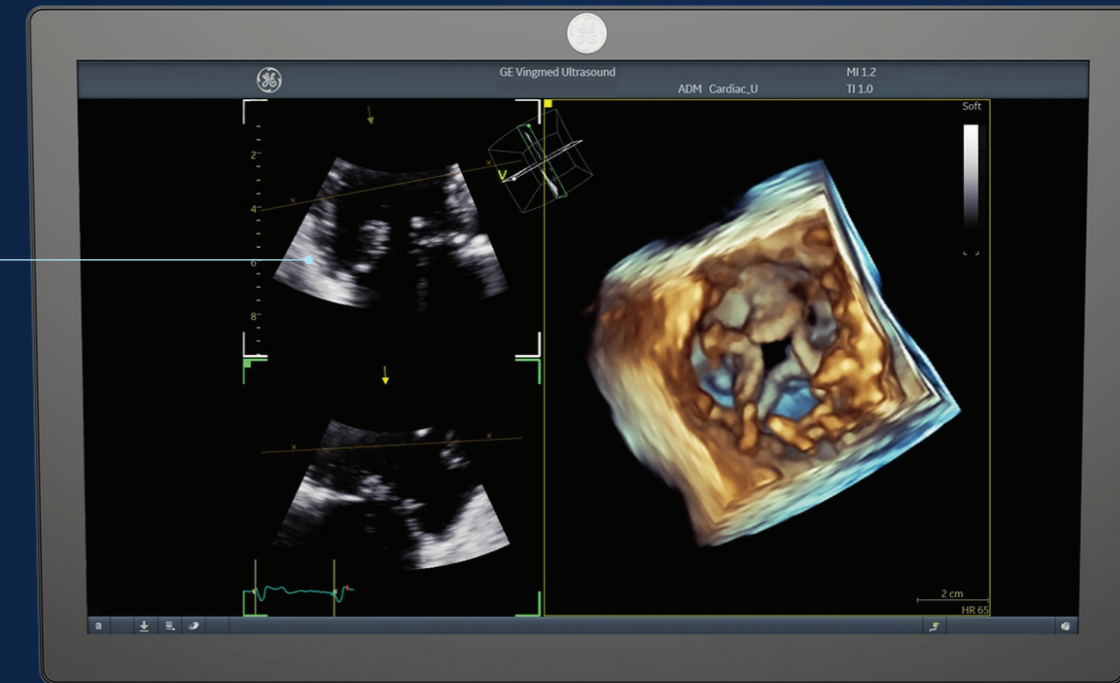
**HDlive™**

**Enhanced 4D tissue render visualization**

Enabled by cSound, HDLive, an advanced visualization tool that simulates light propagation and scattering through tissue, virtually illuminates 4D structures varying the source of light at will, making the understanding of complex 4D anatomy easier. It is available both in live and replay modes and in multiple color maps.

**Full 4D capabilities**

In transthoracic, transesophageal and even intracardiac Echo



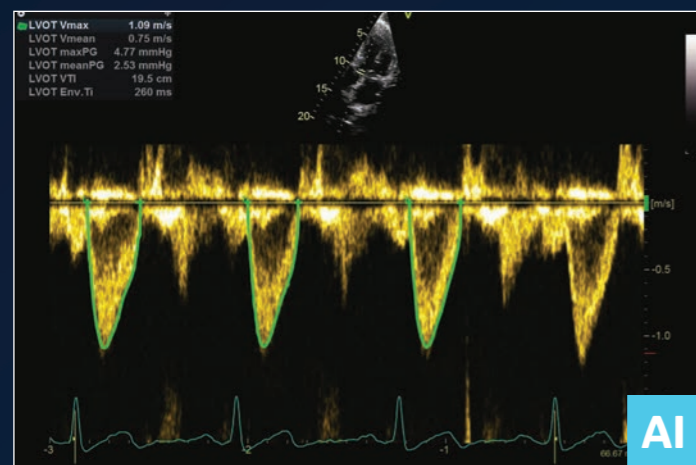
Vivid S70N Dimension Ultra Edition introduces the latest AI-based technology to help reduce tedious tasks and improve workflow efficiency.



**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>10</sup>

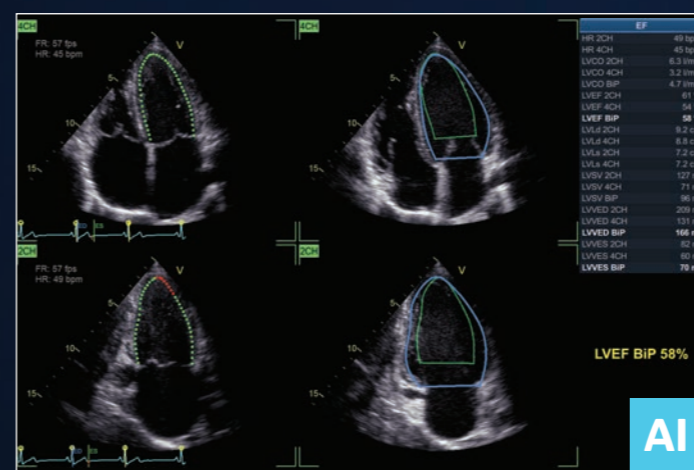


**Cardiac Auto Doppler with AI Auto Measure Spectrum Recognition**

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>11</sup>**

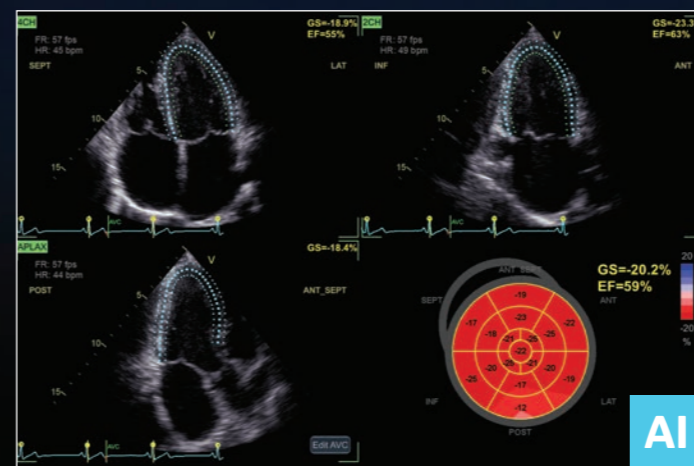
**LATEST INNOVATIONS**



**Easy AutoEF**

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.

**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 simultaneously EF measurements.

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

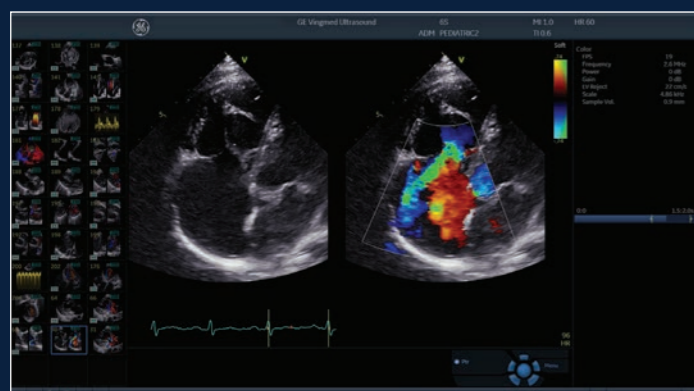
“The new Easy AFI LV expedites strain measurements and simultaneously provides an automated LV ejection fraction measurement.

Once required apical views are acquired, GE’s algorithm provides incredibly robust strain measurements!

–Prof. Erwan Donal  
Cardiologist  
University Hospital Center, Rennes,  
France

BEYOND ADULT ECHOLAB.

Demand for a complete ultrasound system - that is designed for both pediatric and adult patients and scan go from the echoLab to the cath lab - is growing. Be versatile with Vivid S70N Dimension.



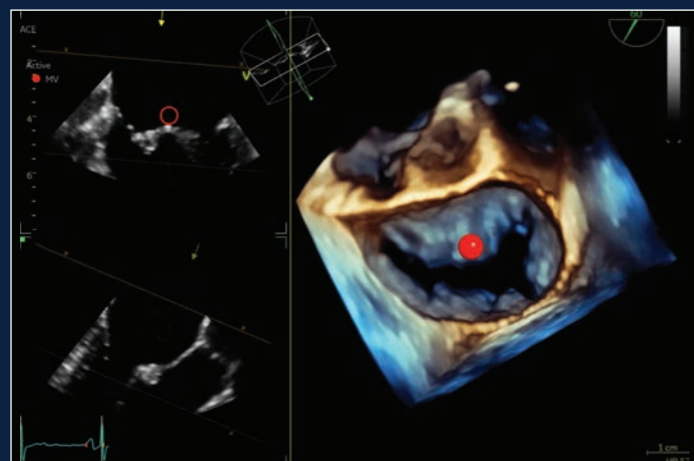
**Pediatric imaging**

Visualize small anatomies with speed, clarity and confidence thanks to Vivid S70N Dimension Ultra Edition's superb high-resolution imaging and dedicated pediatric probes.



**HD Color for Interventional**

HD Color is a 4D color flow rendering technique for volumetric flow perception and semi-transparent visualization of origin and size of high velocity jet.



**4D Markers for Interventional**

Make annotations that are viewable from all angles on 4D ultrasound volume data sets and their 2D views, facilitating communication in the echo lab, cath lab and OR.

BEYOND CARDIOLOGY.

The demand for multi-purpose, cost efficient ultrasound systems with uncompromised image quality is growing. Your Vivid S70N Dimension Ultra Edition will exceed your expectations across a wide range of applications.



**Vascular quantification**

Develop fast and complete quantitative assessment of vascular anatomies, such as the Intima Media Thickness, with dedicated vascular measurement tools.



**Abdominal diagnosis**

Visualize tissues and flow patterns with greater details thanks to Vivid S70N Dimension Ultra Edition's high-resolution imaging.

## INTUITIVE USER INTERFACE

### YOUR NEEDS. OUR DESIGN.

More than ever, you need a powerful ultrasound system with advanced easy-to-use tools, that also is easy to maneuver. Vivid S70N Dimension has a familiar, yet modern and efficient design that is the lightest in its category. and is always ready with an “instant-on” transportation mode.



### Modern Ergonomics

#### Long lasting mobility

- Battery powered “stand-by” function, up and running within few seconds

#### Adjustable to each operator and each sitting position

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

#### Excellent operator interface

- 21.5” adjustable monitor
- 12” LCD touch screen
- Alphanumeric keyboard
- Silent system (average 31dB noise level)

#### Compact & Easy to Maneuver

- Only 73Kg/ 161lbs
- With ergonomic, easy to push handle



Only 73 kg



Silent System



Stand-by Function



21.5” monitor

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 agnostics 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>13</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

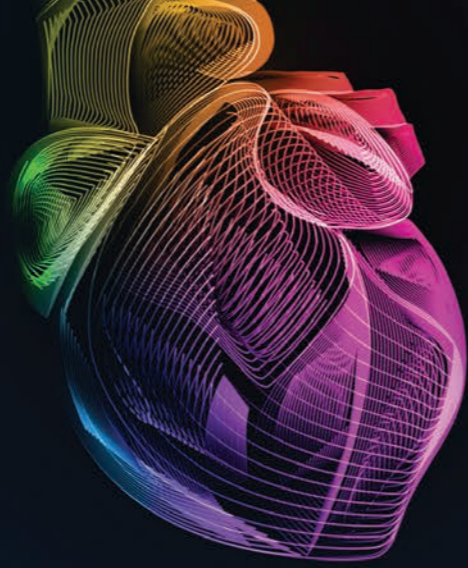
- Familiar Vivid user interface, faster staff ramp-up
- Analyzing and reporting from the ergonomic comfort of a workstation
- More focus on patient at acquisition

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

4D Markers	FlexiViews	<b>HDlive</b>	<b>Pre-Post Compare</b>
View-X		<b>FlexiSlice Extend</b>	HD Color
		<b>Dual Crop</b>	

CHAMBER AND VALVE QUANTIFICATION

4D Auto LVQ	4D Auto AVQ	<b>4D Auto RVQ</b>	<b>Easy AutoEF</b> AI
4D Auto MVQ		<b>AI Auto Measure 2D</b> AI	

FLOW QUANTIFICATION

Cardiac Auto Doppler AI	<b>AI Auto Measure Spectrum Recognition</b> AI
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AFI FUNCTIONAL IMAGING

AFI Stress	<b>Easy AFI LV</b> 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.

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.



Vivid Talks

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



Strain Learning Academy

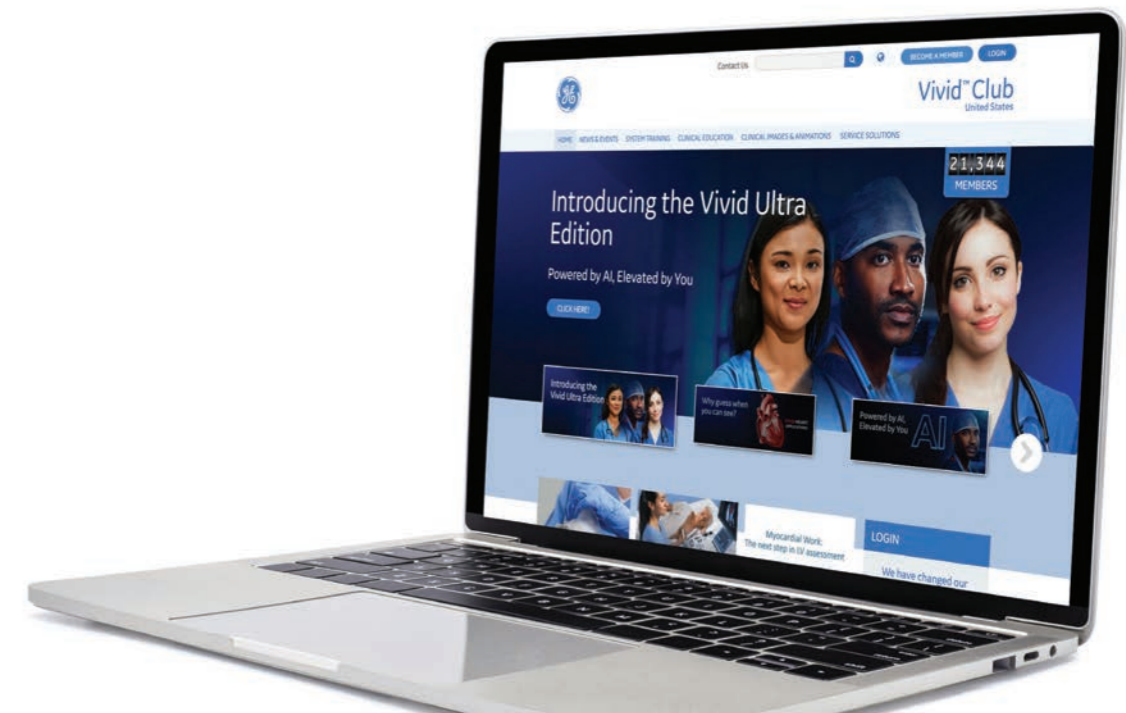
Our Learning Academy is dedicated to supporting the industry in advancing strain measurement adoption.

**60%**  
of all strain measurement clinical research publications has been done on a GE device.<sup>14</sup>



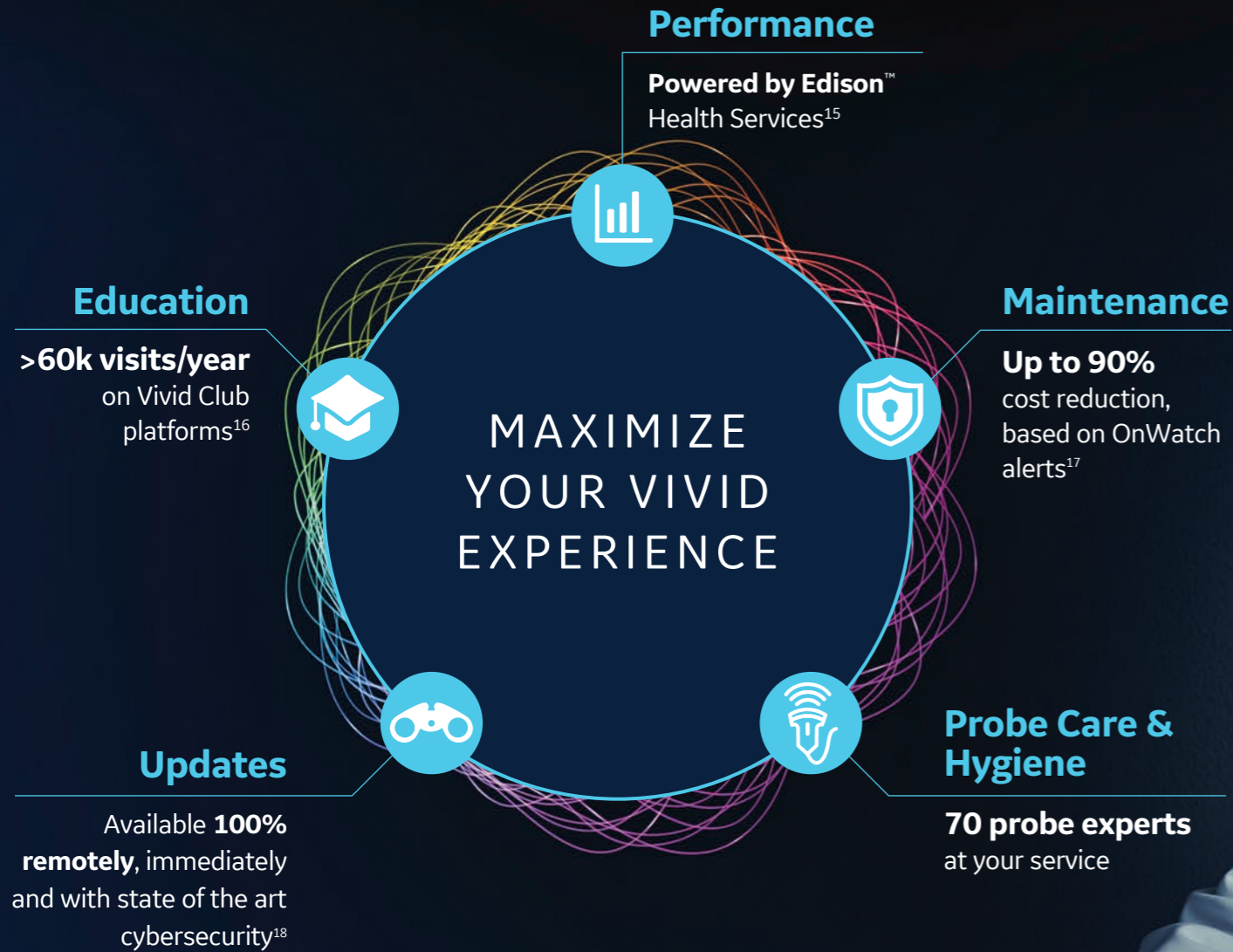
Whitepapers & Case Studies

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



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) provide an interactive, real-time, flexible & convenient way to get education and support.<sup>19</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>18</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

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6. World Health Organization | A universal truth: no health without a workforce. Nov 2013. <https://www.bmj.com/content/347/bmj.f6804>
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12. 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>
13. EchoPAC Suite is the marketing name for EchoPAC Plug-in
14. Whitepaper "AFI - strain imaging from research to clinical routine"- JB16411XX
15. Imaging Insights is an Edison™ application
16. GE internal data - Website analytics from January 2021 to December 2021
17. GE internal data
18. Based on Software eDelivery Software installed
19. 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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