Vivid™ E95 Ultra Edition

for Interventional Cardiology



Vivid

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Structural heart procedure success depends on preparation, collaboration and clear communication within the heart team.

68,9 million people worldwide

will suffer from mitral valve regurgitations by 2025, one of the most serious types of heart valve disease which leads to death if not treated in time.[1]

1 in 10

of the population aged 65 years and above suffers from this deadly condition.[1]

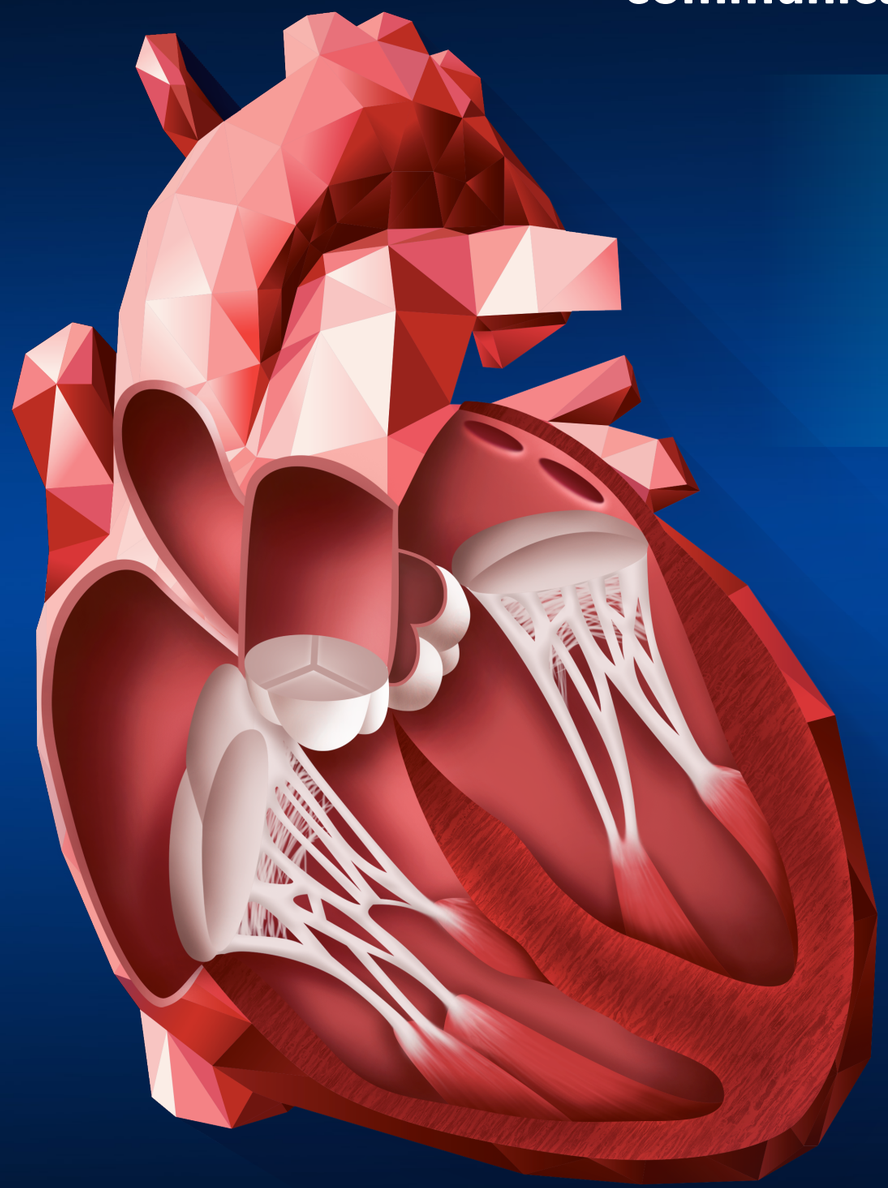
300,000 per year

people worldwide have **open-heart surgery** for the repair of mitral valves, including 44,000 patients in the U.S.[1]

>40% of patients are ineligible for surgery

due to age and complexity of disease (multiple comorbidities), which may lead to procedural risk. [1]

Minimally invasive therapies might offer an alternative for some of these patients.

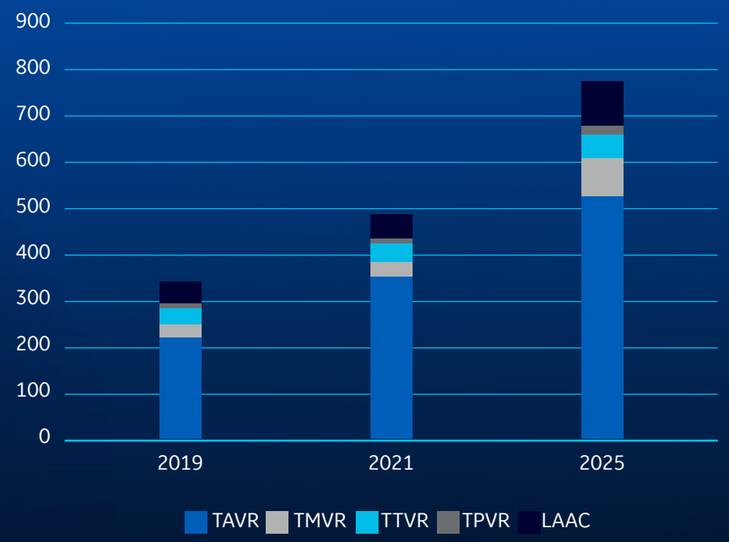


Your complex interventions may often require the use of fluoroscopy, CT and echo images to **plan, guide and assess procedures,** which may generate room for uncertainty & lack of clarity, potentially reducing efficiency and increasing risk for suboptimal interventions.

Compared to open surgery, transcatheter procedures may offer the following benefits:[1]

- Less-invasive approach
- Beating heart vs arrested heart
- Shorter procedures
- Reduced patient time in intensive care
- Shorter recovery time
- Shorter hospital stays

Demand for Minimally Invasive Procedures is growing[2]



Vivid™ E95 Ultra Edition
for Interventional Cardiology

Designed based on **intuitive ergonomics** with easy-to-use navigation tools, Vivid E95 is **adaptable to each procedures' specific needs**, providing precise quantification and photorealistic visualization of the anatomy, as well as unique **CT/Echo Fusion** techniques.

- **Superb image quality** with ***cSound™*** software beamformer
- **Photorealistic visualization of the anatomy** with ***FlexiLight and HD Color***
- ***Fusion of CT & Echo images*** enable physicians see both the anatomical landmarks provided by the CT images, together with live functional images of the ROI provided by the echo images. This may help interventional cardiologists better appreciate the origin of the jet, and position the device with **increased precision to optimize patient outcomes.**
- **Simplified live guidance** and improved quality of communication within the Heart Team with ***4D Markers, FlexiSlice*** and ***View-X***



Adaptable to the specific needs
of each procedure

CLINICAL EXCELLENCE

for Interventional Procedures

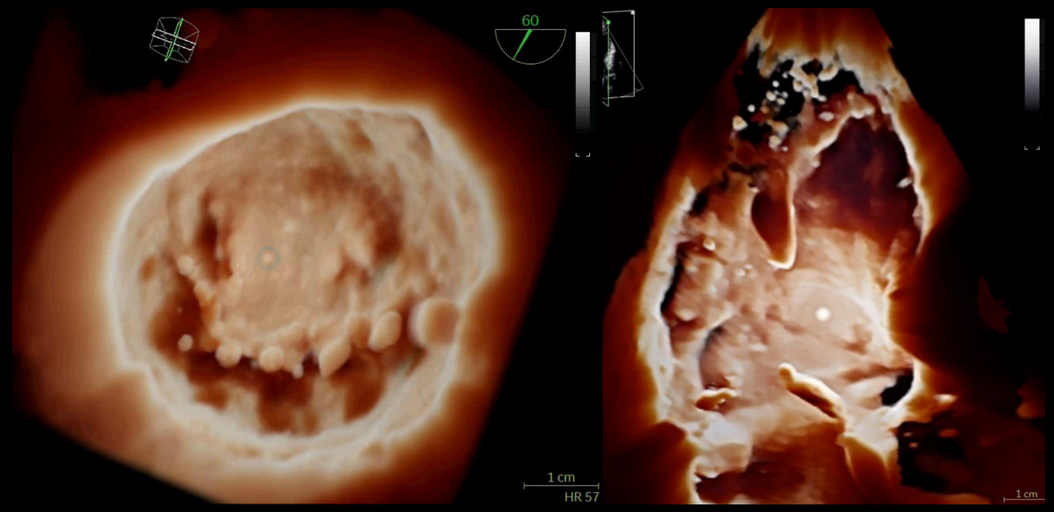
Demand for interventional procedures is growing and so are expectations of the heart team. Grow your capacity and capabilities with advanced ultrasound and conquer difficult cases.

Structural heart procedure success depends on preparation, collaboration and clear communication across the entire heart team.

Vivid E95 Ultra Edition offers precise and uncomplicated tools to plan your interventions. With new visualization and navigation techniques and uncompromised image quality, the heart team can see clearly, communicate quickly, and perform procedures with great precision.

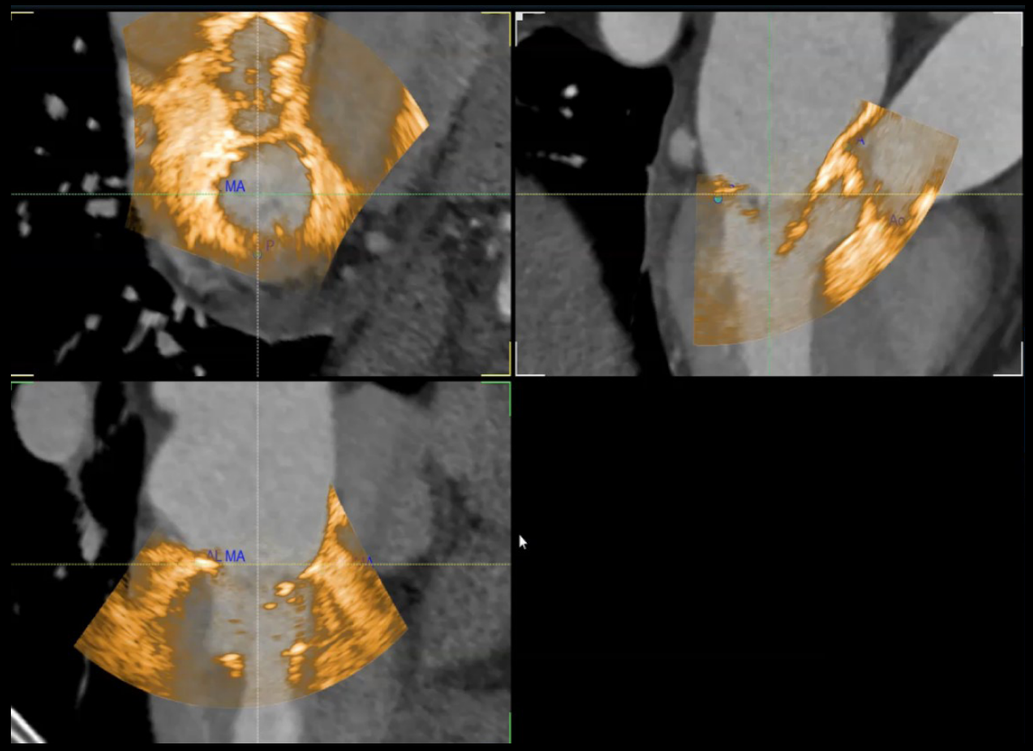
FlexiLight

Rendering technique for photo-realistic light-source based illumination of heart structures.



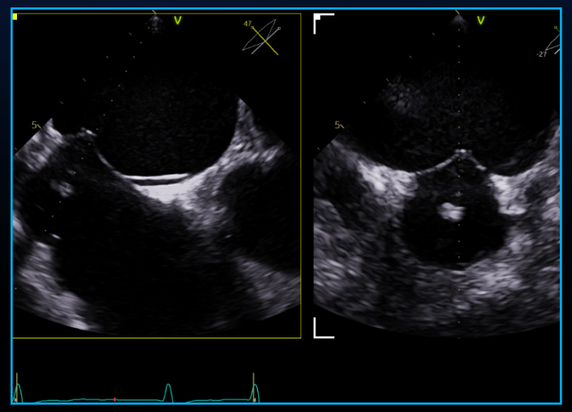
CT Fusion

Live co-registered navigation in 4D ultrasound and CT data helping extend field-of-view beyond 4D ultrasound for better understanding of heart anatomy.

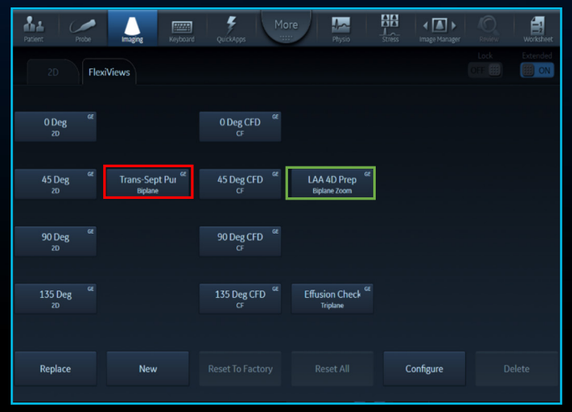


Precision in Transseptal Puncture Location

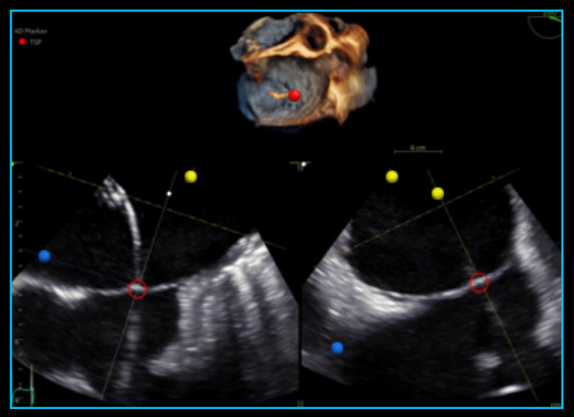
The transseptal puncture (TSP) has become an integral part of many Electrophyisology and Structural Heart interventions. A precise puncture in a prespecified region of the interatrial septum is required, which can be challenging. Imaging guidance can help achieve site-specific puncture, enhancing the success of this procedure.



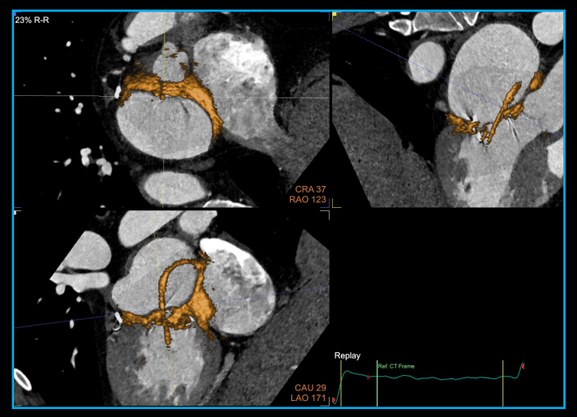
Biplane Tilt and Rotate provides two orthogonal planes to visualize cardiac structures in multiple planes, aiding the understanding of the spatial arrangement of normal cardiac structures and complex disorders of cardiac anatomy. This can prove helpful to guide the catheter, properly aligned in both views, to the correct TSP location.



FlexiViews FlexiViews provides quick access to specific and predefined 4D/Multiplane views which may facilitate the localization of the optimal TSP location, potentially helping reduce the time spent during this complex step of the procedure.



4D markers can be used in combination with FlexiSlice to tag the optimal location of the TSP. The 4D markers will be displayed on the biplane views as well as on the 4D image, which may facilitate the communication within the heart team.

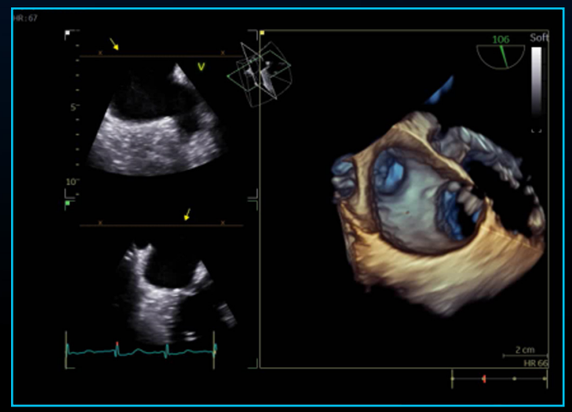


CT Fusion is an overlay of pre-Operative CT images with per-operative echo images. It helps combine the benefits of an extended field of view (CT), and TEE functional images. This may help better understand the cardiac anatomy and orientation of the structures and facilitate needle guidance for the transseptal puncture.

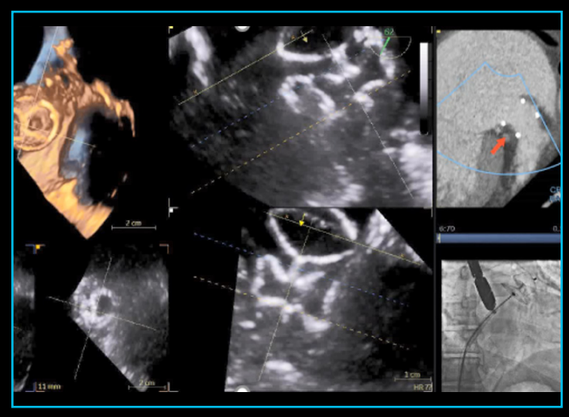
Left Atrial Appendage Closure

The shape of LAA is unique to each patient. The complexity of an LAAC procedure can be very patient dependent. Hence the need for imaging solutions adapted to challenges of the procedure.

4D TEE

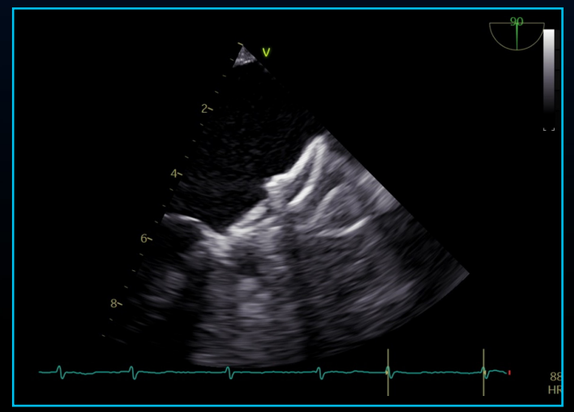


The 4D TEE **(6VT-D)** is the optimal solution for complex LAA closure as it offers superb image quality in 4D, biplane, triplane modes, enabling enhanced visualization of the anatomy with fine details.

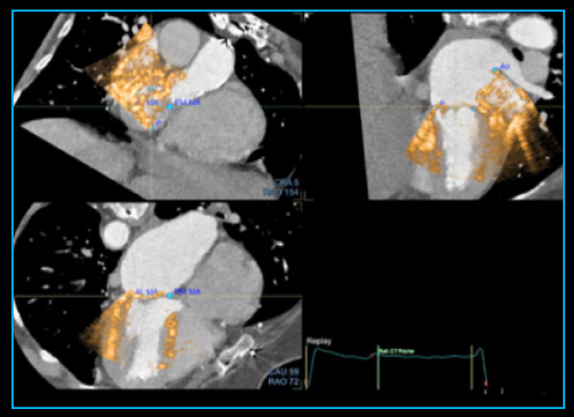


View X helps improve guidance and communication as it displays X-ray from fluoroscopy directly on your echo screen.

2D Micro-TEE



The micro-TEE **(10T-D)** permits interventions with precise visualization in 2D, offering the possibility to perform the procedures under conscious sedation. This may help improve patient management and Cath Lab capacity.



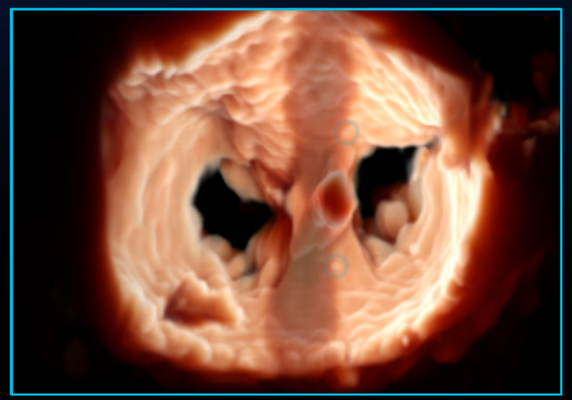
CT Fusion provides an overlay of pre-op CT and the live echo image. Fusion of CT and Echo with the device in place may help improve assessment of the correct deployment of the device before final release.

Vivid™ Heart Applications

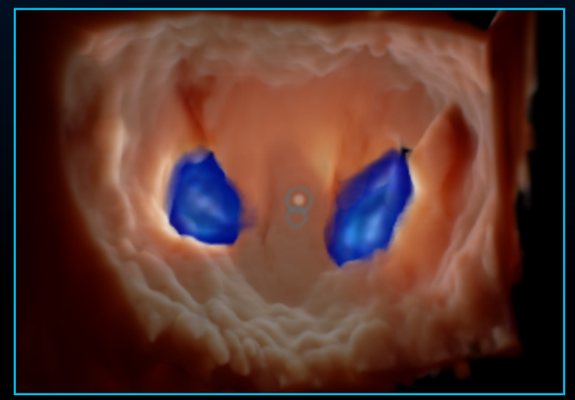
Ultra Fast. Ultra Precise. Ultra Efficient.

Edge to Edge Repair

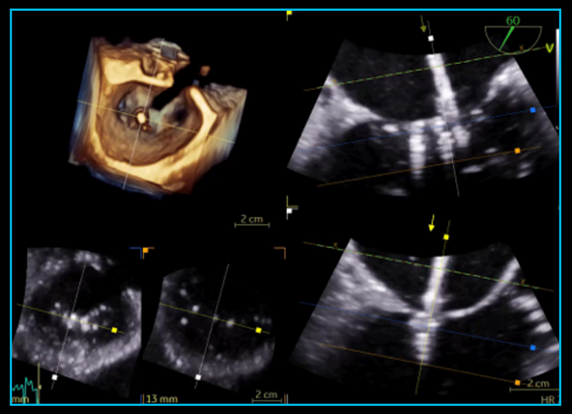
A clear visualization of the mitral valve and the origin of the regurgitant jet, the correct location of the transseptal puncture and positioning of the clips are some of the biggest challenges of Edge-to-Edge Repair Procedures.



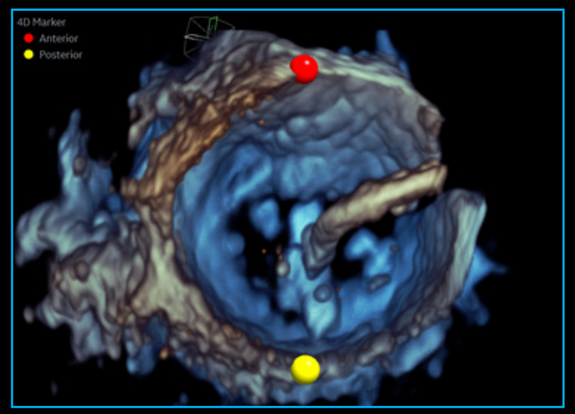
FlexiLight may allow a comprehensive visualization of leaflets and regurgitant orifices while ensuring the proper alignment of the clip towards the mitral valve annulus.



HD Color enhances spatial relationships between flow and the surrounding structures potentially allowing a better visualization of origin of the jets and improving assessment of residual MR accuracy.



Flexi-Slice provides access to the live 3D MPR and the 4D image simultaneously, which may help improve guidance of the delivery catheter and positioning of the clip(s).



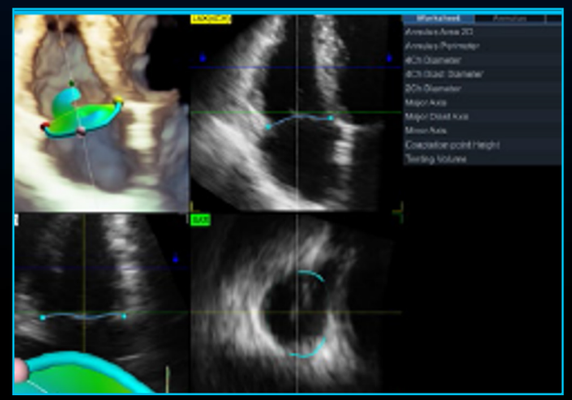
The echo imager can place colored **4D markers** on the cardiac anatomy during the intervention, which may help streamline communication within the heart team. This helps better understand the directions from the echo imager, orientation of the viewed anatomy, to guide the interventional cardiologist with increased precision.

Transcatheter Valve Repair

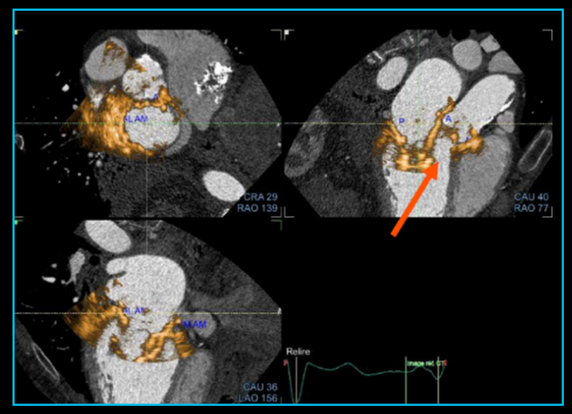
Transcatheter Valve Repair or Replacement procedures can be very complex. In Mitral Valve Replacement, the main challenge is to avoid Neo-LVOT obstruction. In Annuloplasty, positioning of each anchor with extreme precision is key for the success of the procedure and maximize patient outcomes.



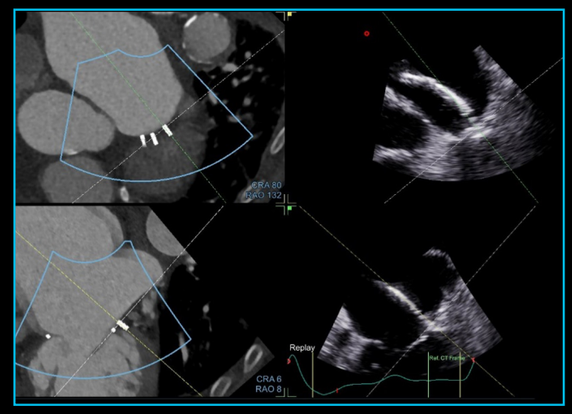
BSI 2.0 gives insights on complex blood flow patterns, which helps visualize if the device is optimally positioned by comparing pre- and post-operative images.



4D Auto TVQ is a semi-automatic software for 4D quantification of the tricuspid valve. It takes into account the saddle shape of the annulus and helps improve sizing accuracy vs. 2D imaging alone.



CT Fusion helps confirm the planning done on the CT, validate the sizing of the device and anticipate potential neo-LVOT obstructions before final release.



CT Fusion may ease the complex workflow as it helps to guide the catheter anchor by anchor according to the CT planning, providing the ability to adjust the catheter position on the fly.

Vivid™ Heart Applications

Ultra Fast. Ultra Precise. Ultra Efficient.

Education for all levels

Your Vivid E95 system comes with a wide variety of education offerings from onsite sessions to virtual learning, for users of all skills levels to optimize system capabilities and help elevate patient care.

Vivid Live Instructor Led class

2 day training innovative education techniques to promote optimization and performance of system's advanced technologies

Digital Expert[3]

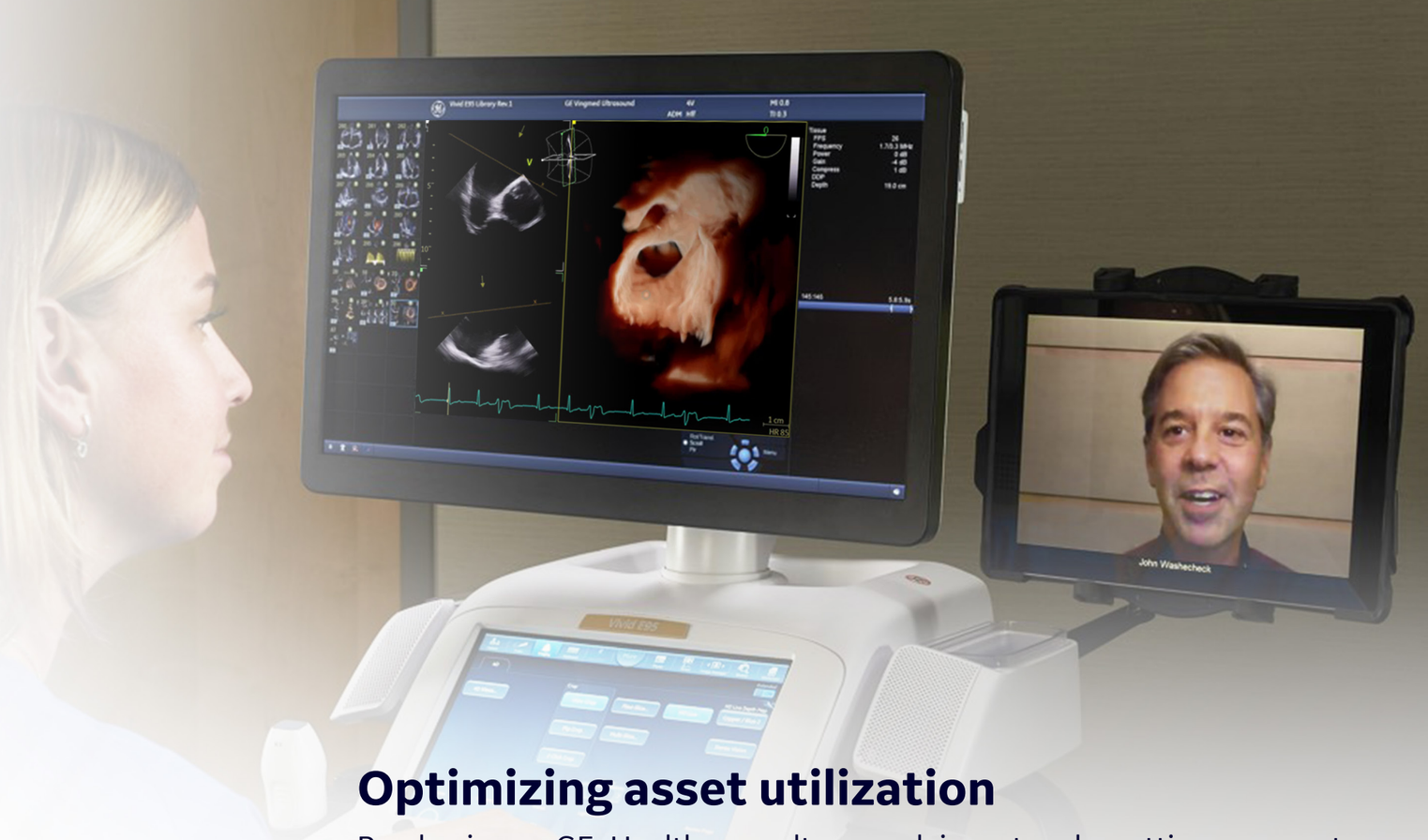
An innovative platform providing interactive, real-time flexible and convenient education and support to increase capacity and efficiency

Onsite Applications Training

Delivered onsite with installation for users to quickly gain clinical confidence and learn optimization techniques

Vivid Club

Online resource providing access to whitepapers, training resources, image galleries and more



Optimizing asset utilization

Purchasing a GE Healthcare ultrasound is not only getting access to a high-technology or remarkable clinical applications. It's about enjoying a new user experience, at every step of ownership. We help you to outperform today, while preparing your department for tomorrow's challenges.

EDUCATION & TRAINING

A comprehensive portfolio of training for clinical and technical users. **Helping you and your team build customized development plans to foster excellence and increased confidence.**

PERFORMANCE OPTIMIZATION

Customizable dashboards for asset utilization and consulting services to provide actionable insights. **Achieving more with your assets to improve patient care and realize department strategic plans.**

MAINTENANCE & REPAIR

Use digital technology and best-in-class repair services to drive uptime. **Proactive monitoring to help reduce total cost of ownership and revenue loss from unplanned and automated updates for peace of mind.**

UPDATES & UPGRADES

Keep your device current with software updates, new applications and security patches. **Optimizing your device to drive clinical and operational benefits and help you stay ahead of the game, without changing your equipment.**

PROBE CARE & HYGIENE

Customizable portfolio of solutions for probe lifecycle needs to improve availability and performance. **Proactive probe care that may help you increase diagnostic quality, decrease cross-contamination risk and expand the life span of the transducers.**

About GE Healthcare

GE Healthcare is 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.

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1. Transcatheter Treatment: Procedures and Heart Valve Market - February 2021 - BCC Publishing - Report Code: HLC204B
2. Analysis of Use of Echocardiography Guidance for Cardiac Surgical and Interventional Procedures – March 2021 - Life Science Intelligence
3. Only available in the USA

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4D ICE NUVISION Ultrasound catheters are only available in the USA.

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