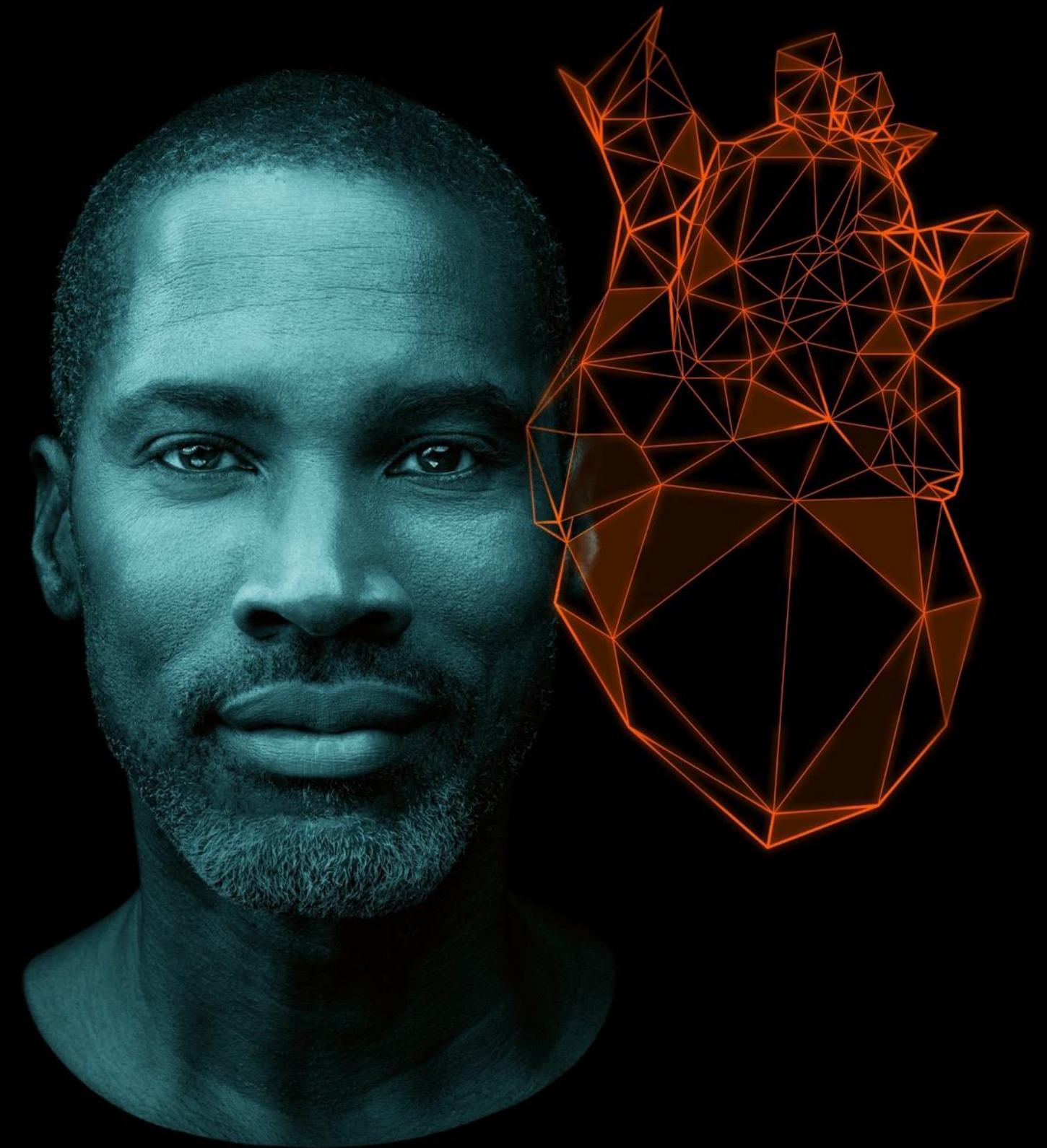
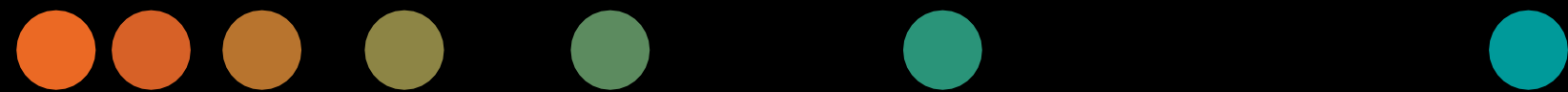


# ACUSON AcuNav™ Volume ICE Catheter

Integral to excellence

Advanced procedures require advanced imaging



For use in the United States only.

**SIEMENS**  
**Healthineers**

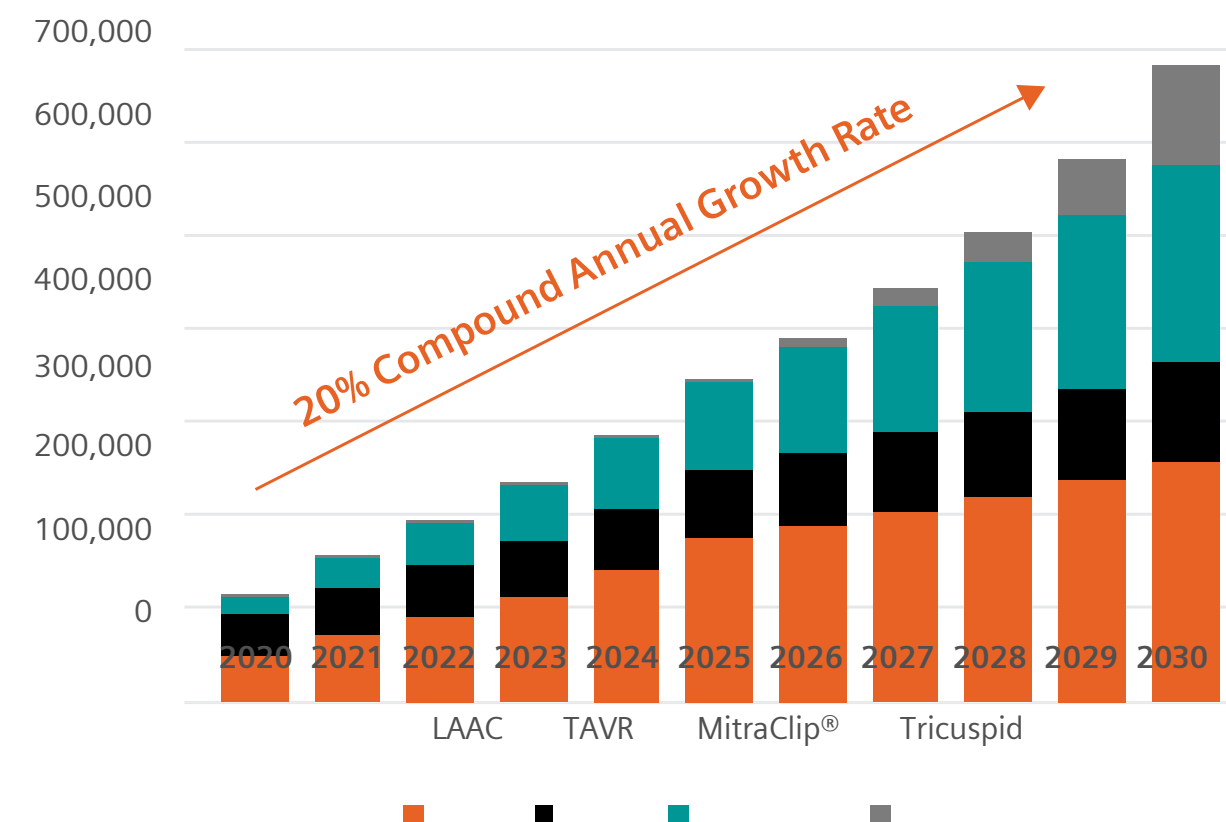
# The future of structural heart procedures is complex

## Your imaging shouldn't be

The next generation of structural heart procedures will require mastery over technique and technology to ensure we maintain amazing outcomes for patients.

More complex procedures require more advanced imaging. The ACUSON AcuNav Volume ICE catheter delivers the excellence and efficiency you require, now and into the future.

Structural heart disease procedures will increase almost three-fold by 2030<sup>1</sup>

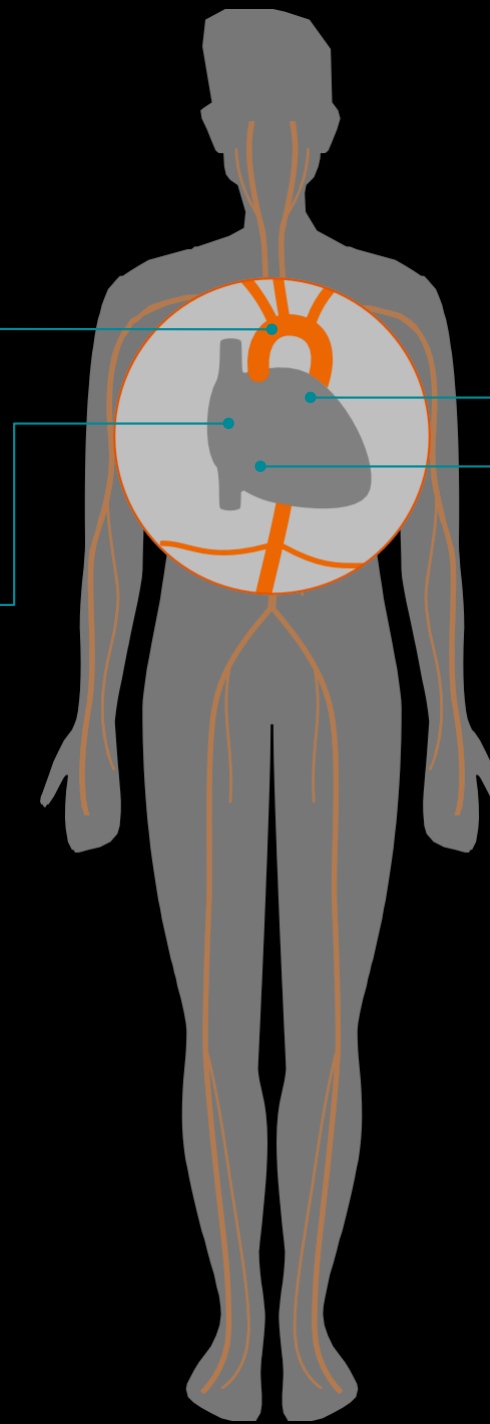


Moderate/Severe  
Aortic Stenosis  
**1 in 8**  
people aged >75 yrs<sup>2</sup>

Moderate/Severe  
Mitral Regurgitation  
**1 in 10**  
people aged >75 yrs<sup>3</sup>

Atrial Fibrillation  
**5X more likely**  
for people aged >65 yrs<sup>4</sup>

Moderate/Severe  
Tricuspid Regurgitation  
**1 in 10**  
people aged >75 yrs<sup>5</sup>



1. Model for 4D ICEv3; 2020-03-19 AcuNav Volume Report
2. Dudek D, Barbato E, Baumbach A, Windecker S, Haude M. Current trends in structural heart interventions: an overview of the EAPCI registries. *EuroIntervention*. 2017 May 15;13(Z):Z11-Z13.
3. Little S. Structural Heart Interventions. *Methodist Debaquey Cardiovasc J*. 2017 Jul-Sep;13(3):96-97.
4. CDC AF Fact Sheet
5. Bhatia N, Basra SS, Skolnick AH, Wenger NK. Aortic valve disease in the older adult. *J Geriatr Cardiol*. 2016 Dec;13(12):941-944.

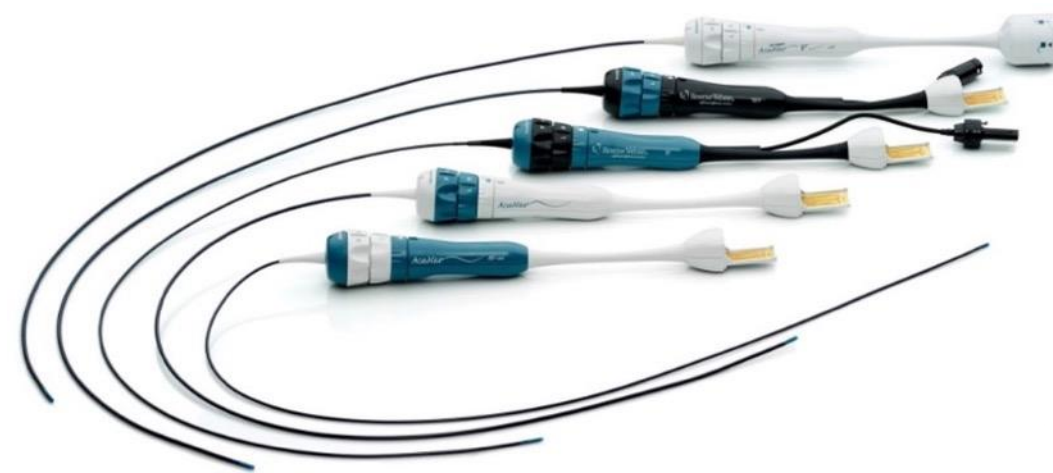


# Visionary leadership

## Integral to excellence

### Leading the pack

As the inventors of ICE, we keep moving the bar and pushing forward. Why? Because you need optimal imaging tools to provide the best outcomes for your patients.



### What's next?

- Next-generation visualization
- Greater efficiency
- Enabled with AI applications powered by ACUSON SC2000™ PRIME for reproducibility and ease of use
- Reliable data for quicker decision-making

2000

2007

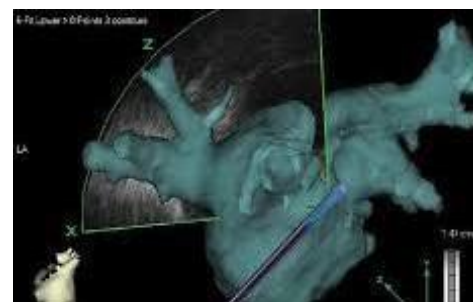
2012

2018

2022



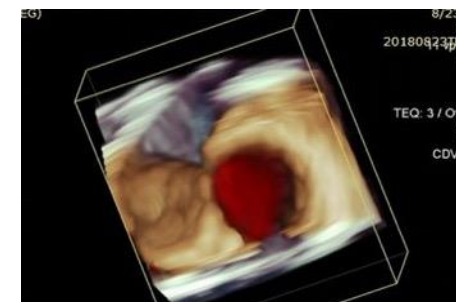
**First  
in 2D  
ICE**



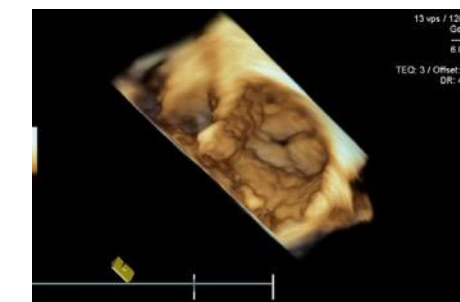
**First  
in 3D  
ICE**



**First in 4D  
Volume ICE**



**4D ICE second  
generation**



**NEW ACUSON  
AcuNav Volume  
ICE catheter**

# Exceptional education

## Integral to excellence

Put the benefits of 4D Volume ICE to work for you and your patients



### Smart Simulator

Your simulated hands-on experience to practice manipulation of the catheter



### Expert Guidance

Dedicated time with an experienced physician for 4D ICE education



### Acunav Academy

Engage in personalized competency-based online education



### Master Class

Connect with leading industry clinicians in a physician-led class



Smart Simulator

### Onsite:

Customized and hands on  
Tailored product education

Classroom training  
Enriching environment

Clinical support  
Didactic and hands-on workshop

Proctorship programs  
Peer-to-peer learning network

### Offsite:

Computer-aided simulators  
Customized learning

Expert roundtable sessions  
Virtual sessions

OnDemand education  
Accessible remotely

## Experts on demand

1,000+

4D ICE procedures supported

200+

years combined team experience

# Advanced accuracy

## Integral to excellence

SIEMENS  
Healthineers

With over 2M patients impacted, Siemens Healthineers is the ICE market leader



Designed to achieve unique views from inside the heart



Safely puts you closer to the anatomy



Provides alternative imaging options for patients with contraindications



### Image Modes

- 2D and 4D
- 2D and 4D color flow Doppler
- Pulsed wave (PW) and continuous wave (CW) spectral Doppler

### Catheter Specs

- Real-time volume (4D) imaging
- Azimuthal, elevation, coronal planes
- 12.5 F, 90 cm
- Up to 40 volumes per second (vps) in 4D B-mode
- Up to 20 volumes per second (vps) in 4D color mode
- One-click MPR



### ACUSON SC2000 PRIME ultrasound system

- Utilize the most complete suite of 2D and 4D AI-powered applications on the market
- Gain precision and speed with advanced imaging and measurement tools
- Stay current with continuous improvement for hardware and software, and new remote service support

### Increase operational efficiency

- Schedule interventions with more flexibility when you don't need to wait on general anesthesia
- Empower yourself to be more autonomous, efficient, and impact more lives

### Dependable delivery

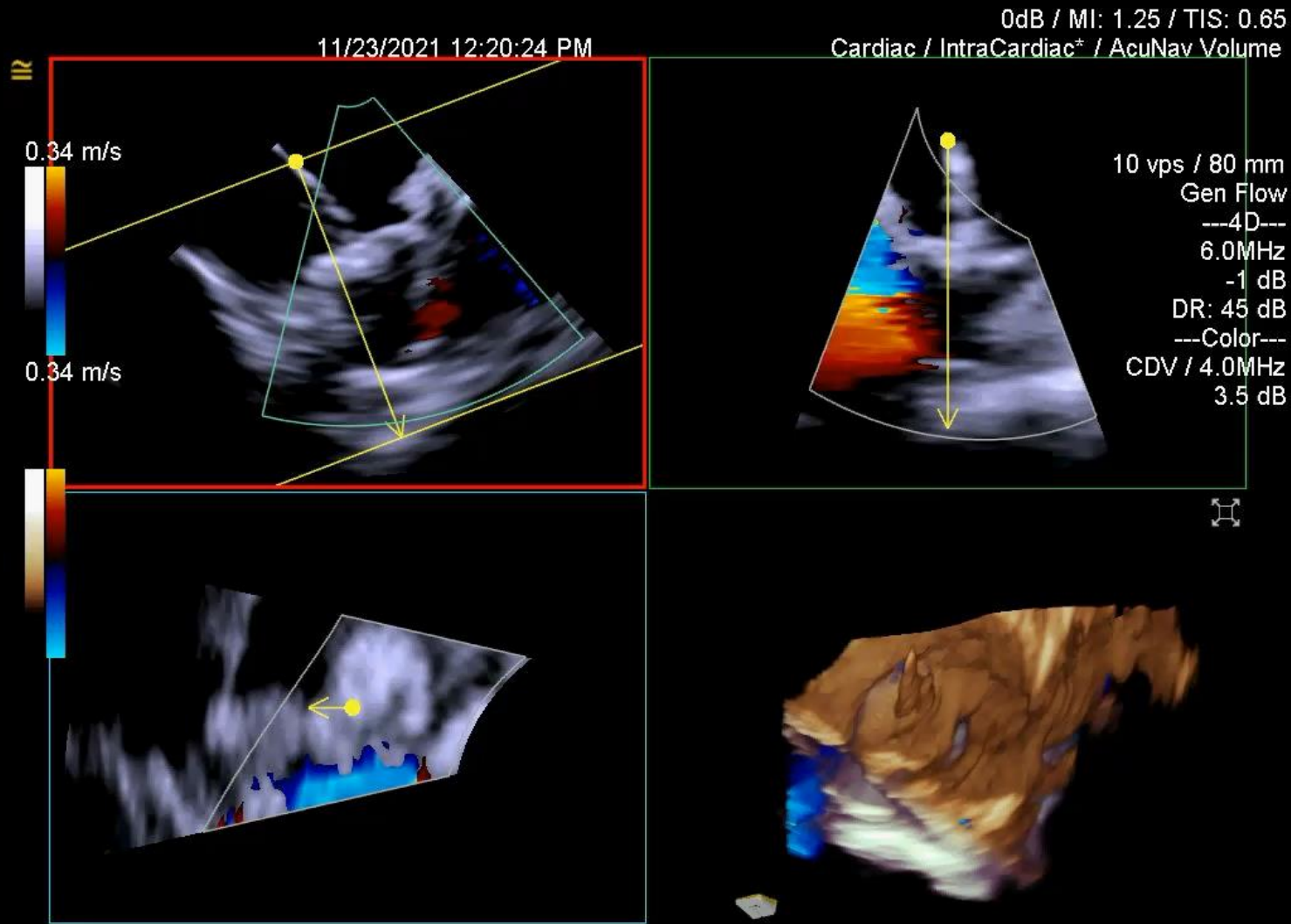
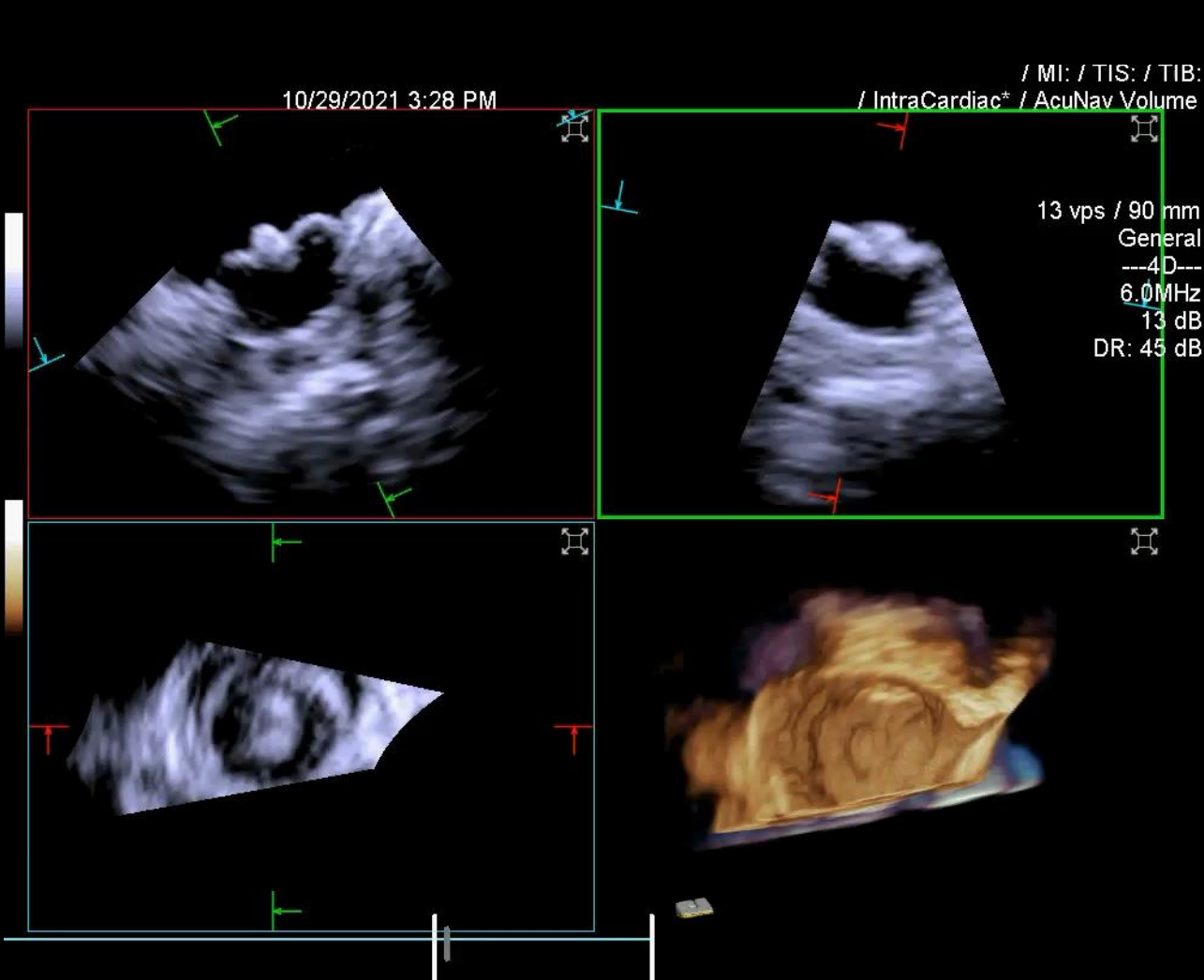
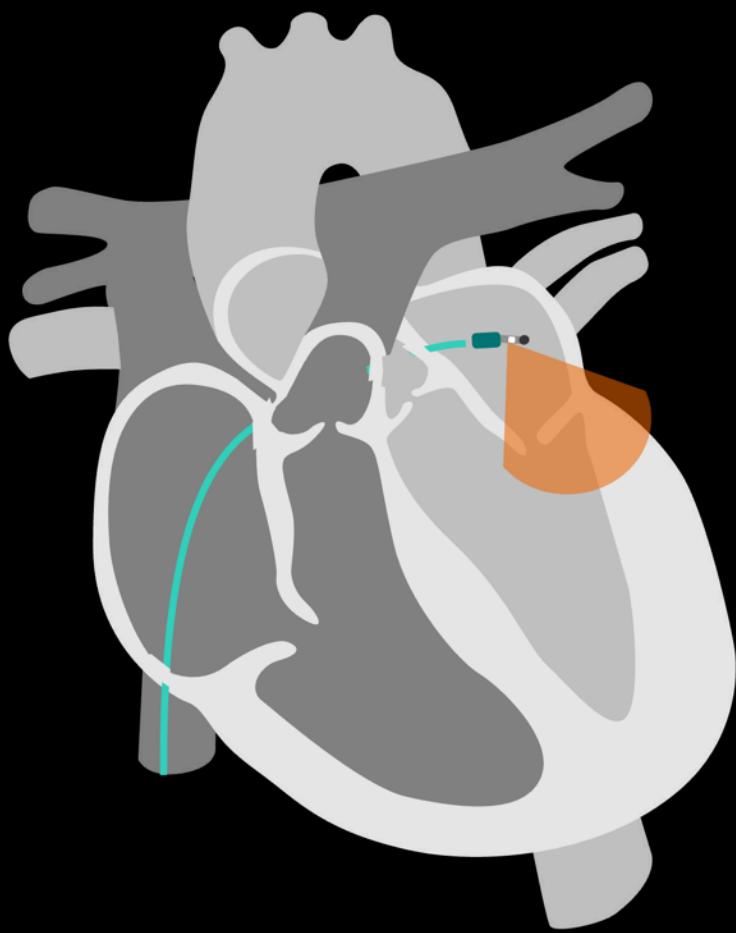
- Production capacity is optimized to meet our customers' growing demand for ICE catheters



# Advanced procedures

## LAA closures

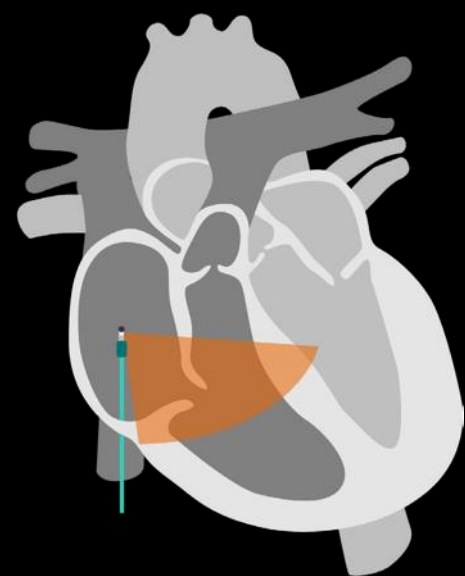
Measure, guide, and deploy in fewer ICE positions. Consistent, reliable data give you confidence to confirm PASS criteria.



# Require advanced imaging

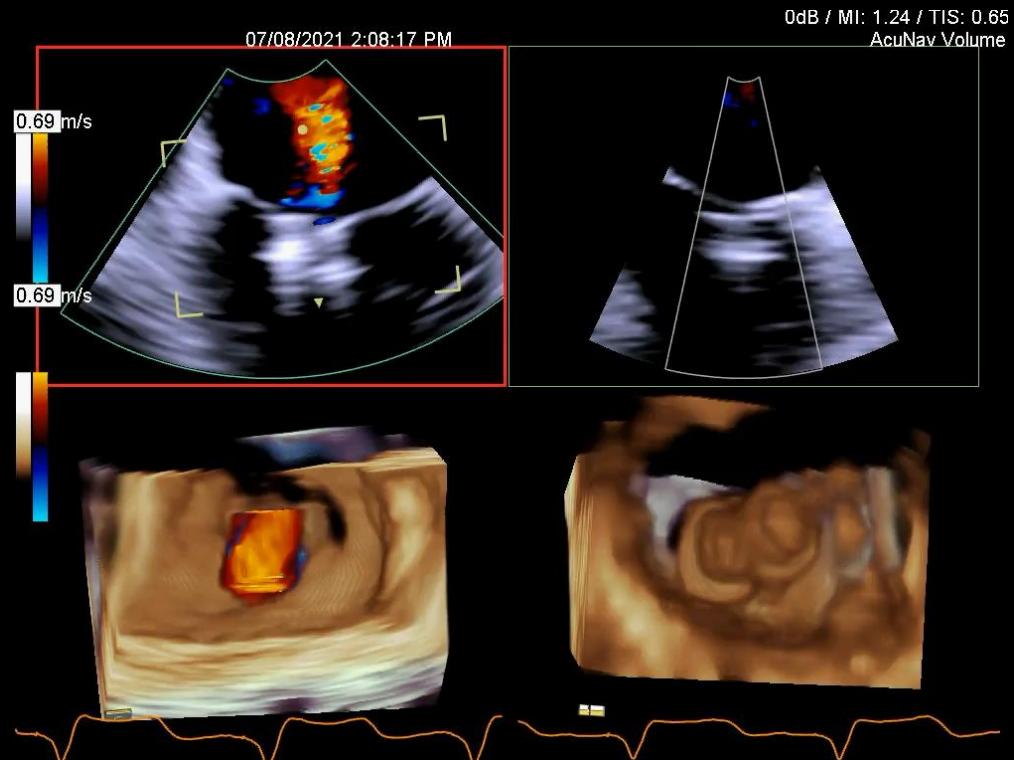
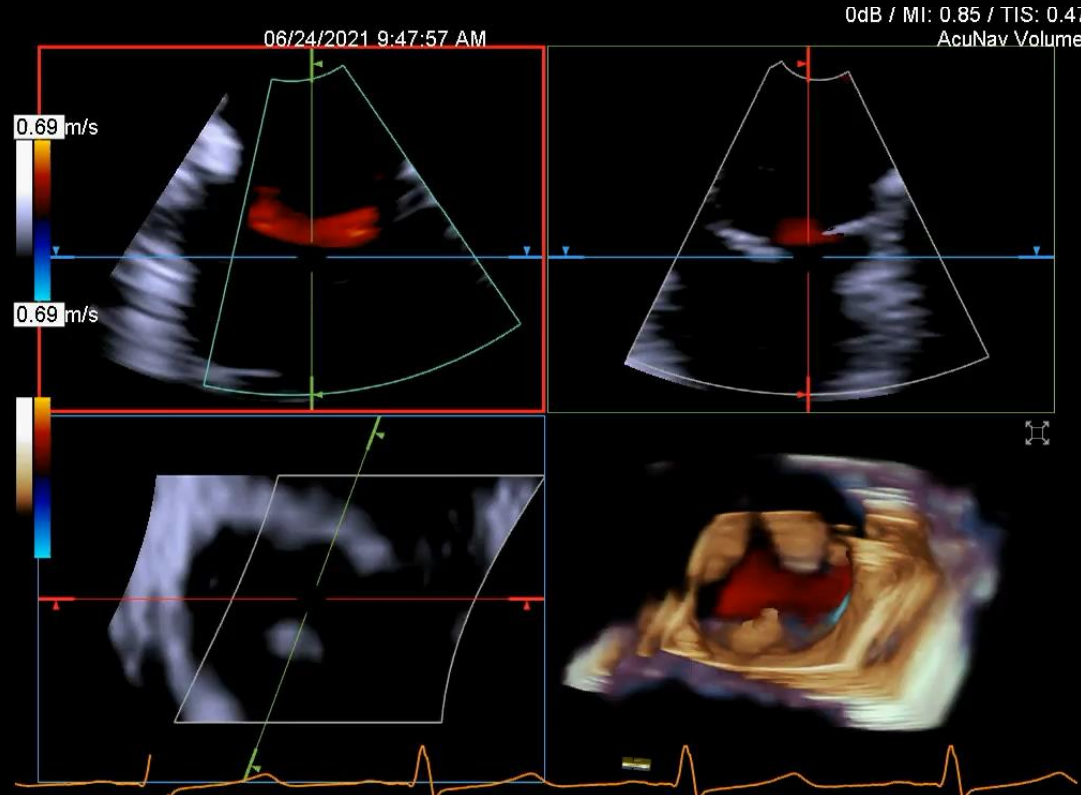
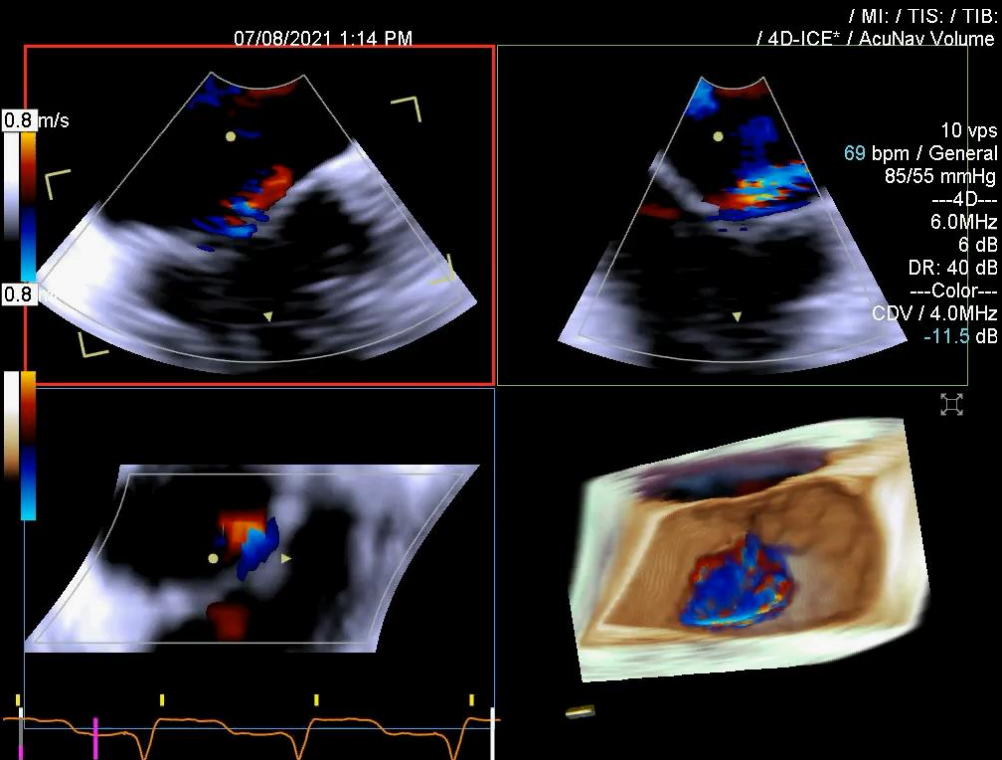
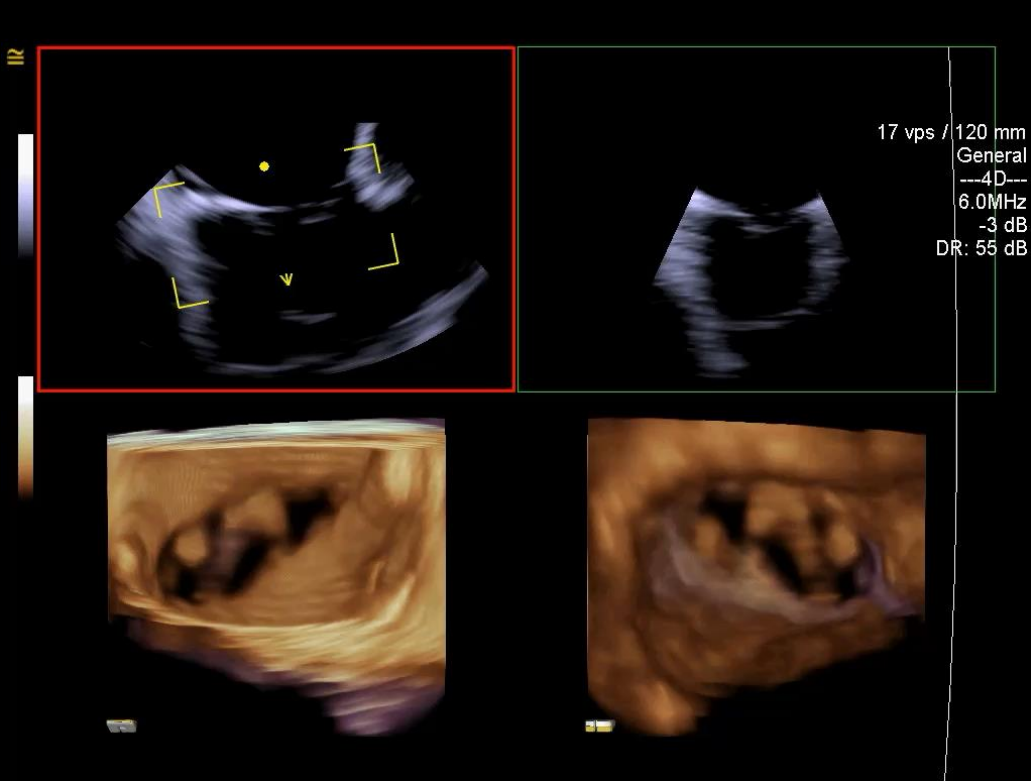
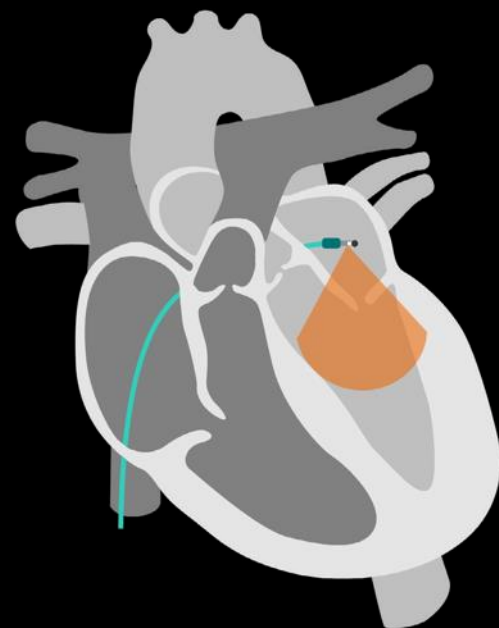
## Tricuspid repair/replacement

Imaging directly from the right atrium enables clear visualization of the tricuspid valve.



## Mitral repair/replacement

Enabling precise device placement and leaflet grasping.

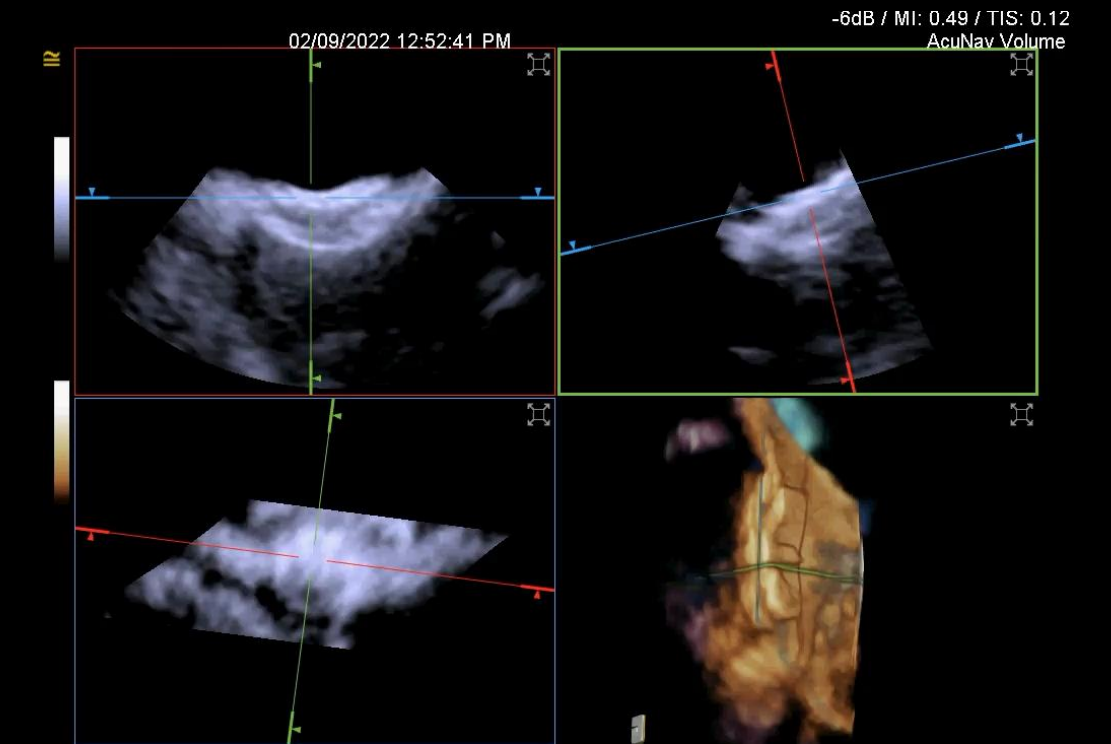
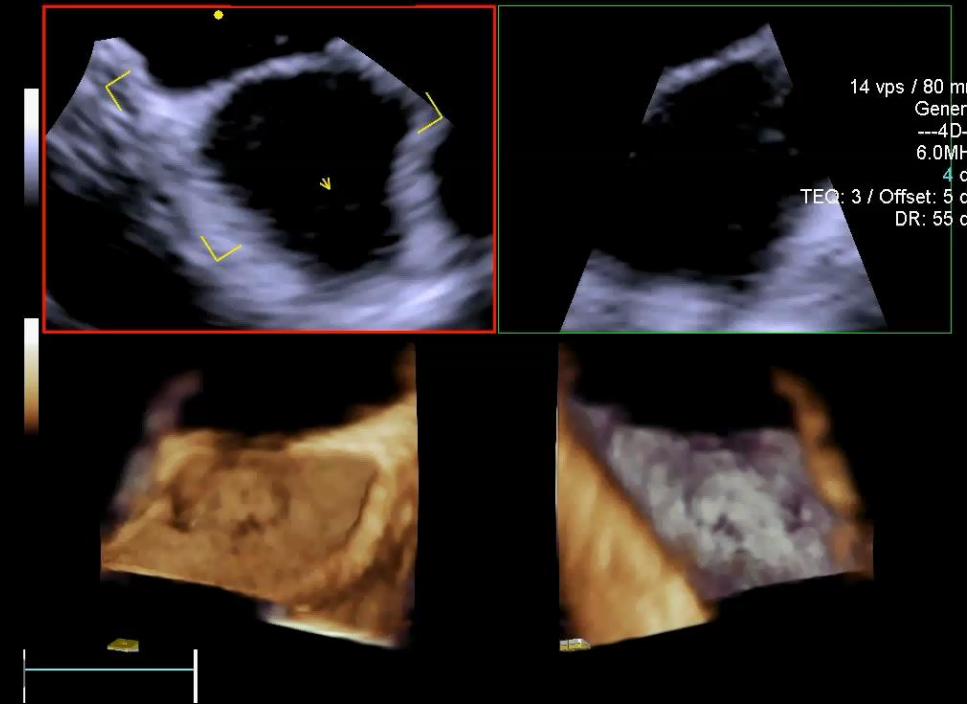
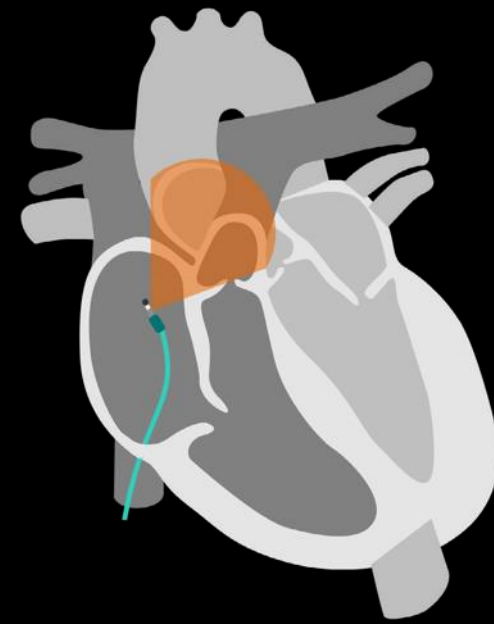




# Advanced procedures

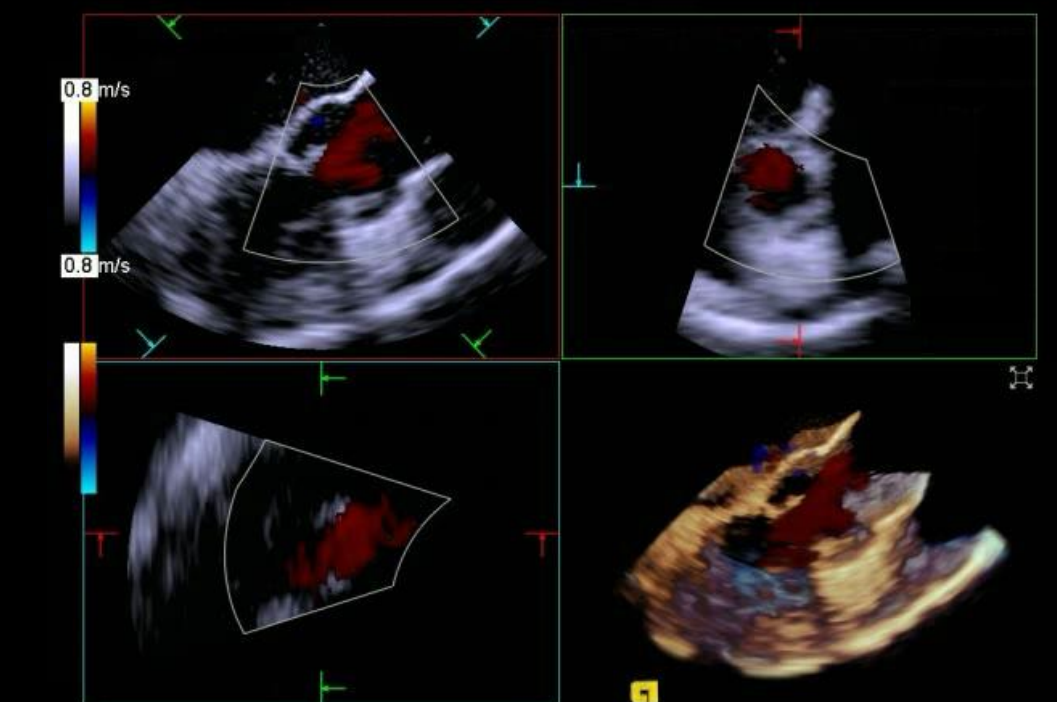
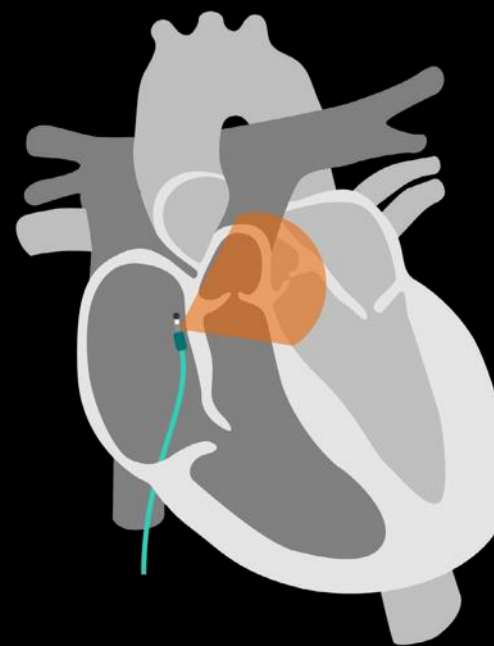
## ASD/PFO closure

View the septal defect with 4D volume with one catheter position.



## TAVR/TAVI

Evaluate paravalvular leak with 4D color flow Doppler in one catheter position.

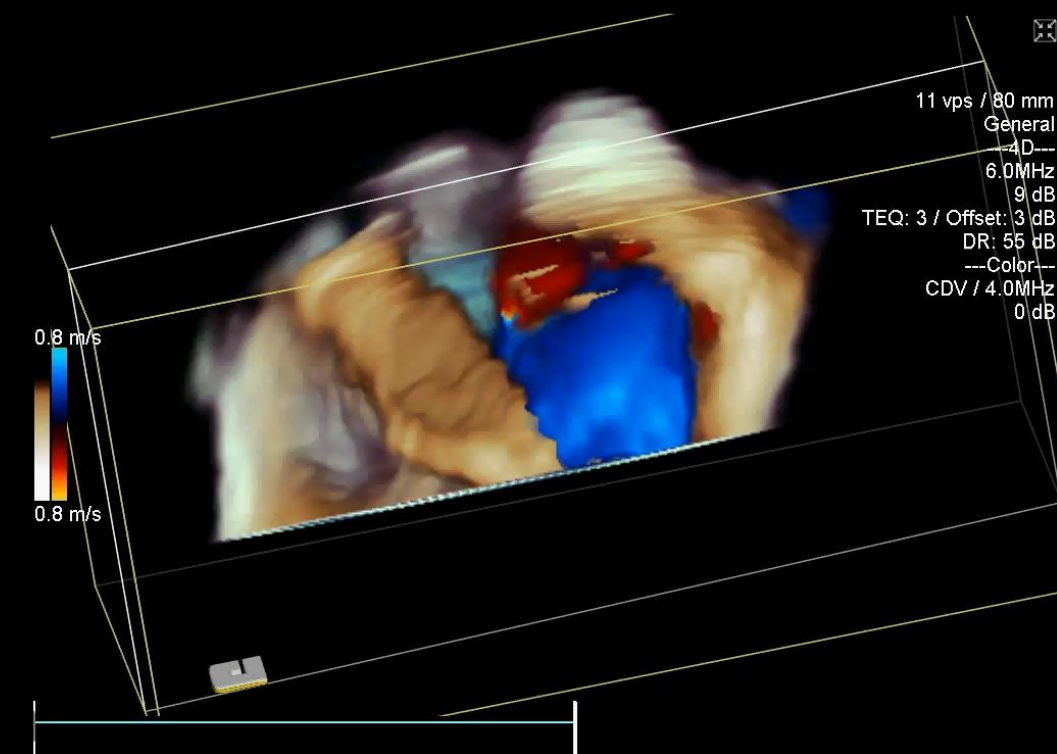
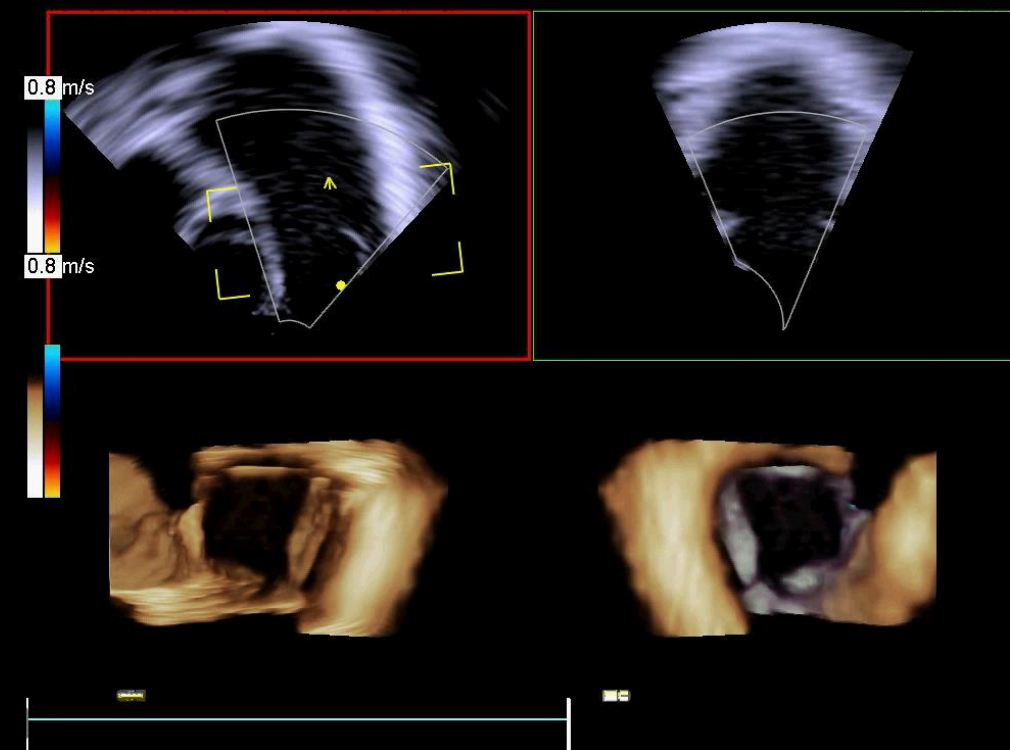
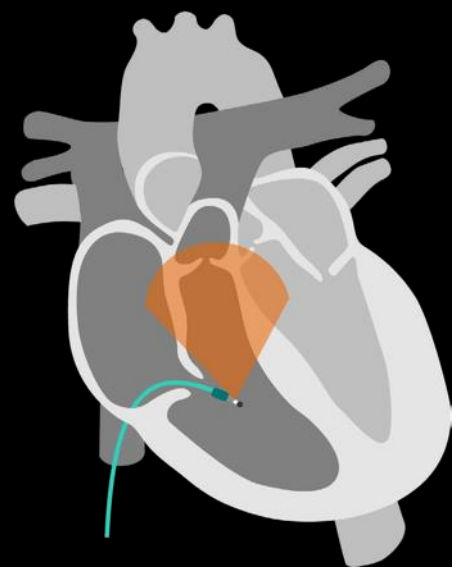




# Require advanced imaging

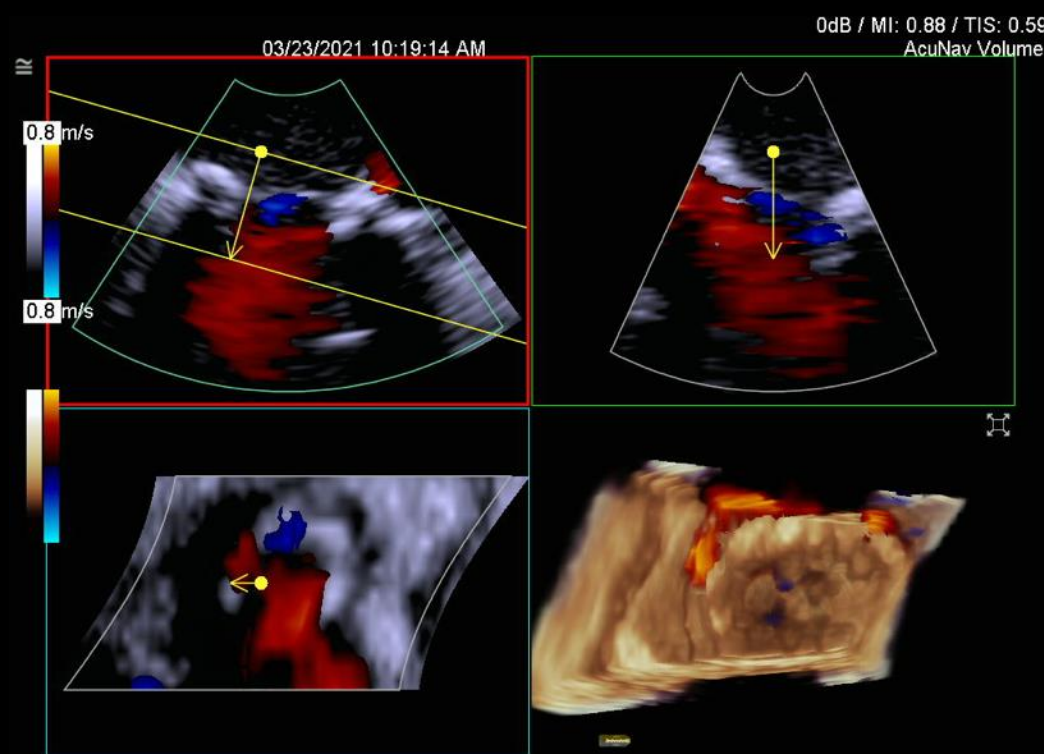
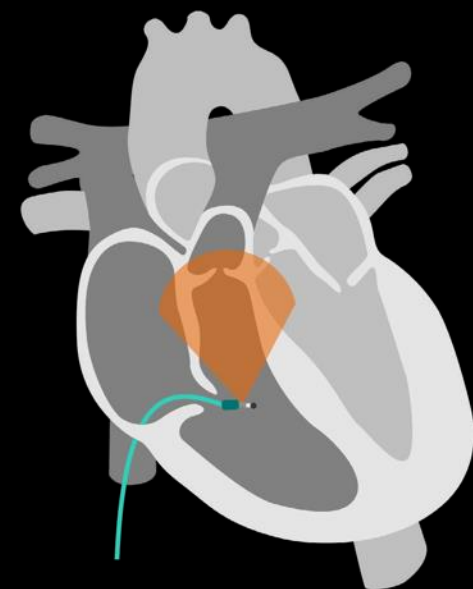
## Pulmonic valve

A clear line of sight reduces shadowing and bypasses anatomical obstructions that can make imaging uncertain.



## PVL closures

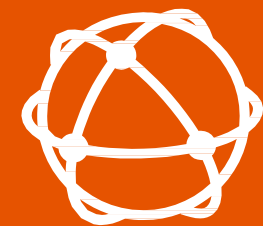
Enable precise leak localization and device navigation.



# Working together

## Integral to excellence

Next-level innovation happens when leaders come together. As industry leaders, it is our responsibility to partner with independent experts in the advancement of 4D ICE for patients and the industry.



## Global 4D ICE Imaging Consortium

**“4D ICE imaging enables visualization of the forgotten valves, guidance of novel structural heart disease interventions, and treatment of the formerly ‘untreatable’ patients.”<sup>1</sup>**

### Six 4D ICE benefits

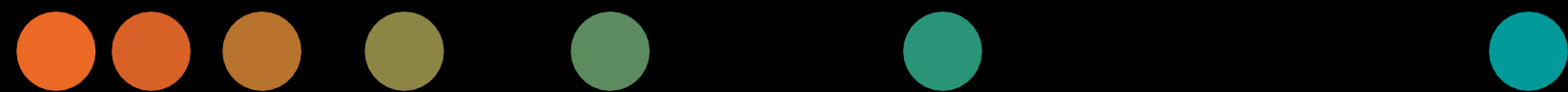
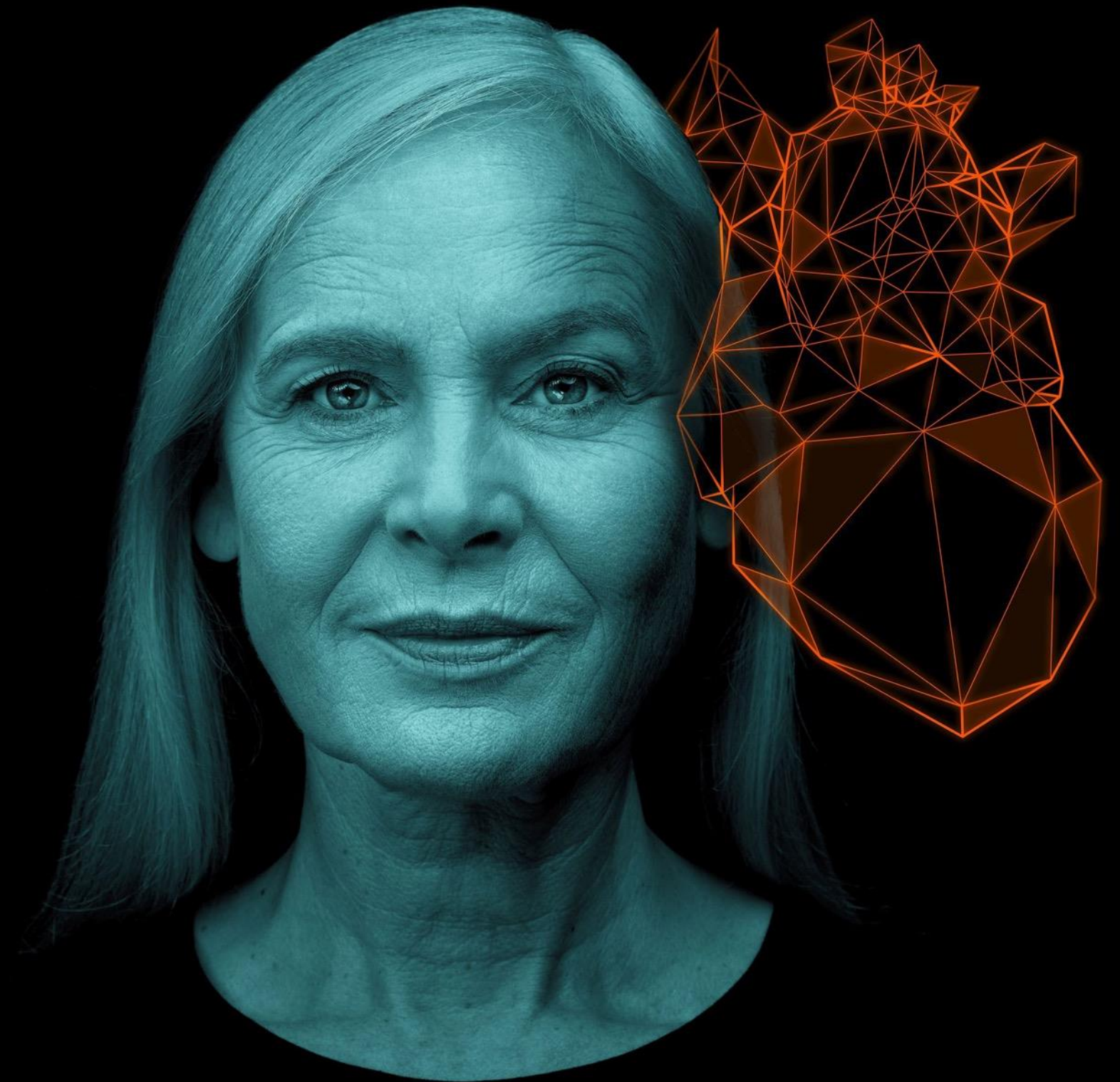
As presented at ACC 2023 by the Global 4D ICE Imaging Consortium:

- Supports the unique challenges and needs of the aging population<sup>1</sup>
- Expands innovative SHD therapy options<sup>1</sup>
- Increases treatable patient profile via conscious sedation<sup>1</sup>
- Overcomes limitations of TEE imaging<sup>1</sup>
- Provides unique viewing angles and acoustic windows<sup>1</sup>
- Improves cost efficiency by avoiding intubation, reducing anesthesiology and nursing staff, and reducing procedure and operating time<sup>1</sup>



# Advanced imaging Integral to excellence

Innovative ICE leadership for over 24 years.  
Mastery through unparalleled education & training.  
Performance through intentional design.



**ACUSON AcuNav Volume 4D ICE catheter**

The products/features mentioned in this document may not be commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for further details.

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An estimated five million patients worldwide everyday benefit from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics and molecular medicine as well as digital health and enterprise services.

We’re a leading medical technology company with over 120 years of experience and 18,500 patents globally. With over 50,000 employees in more than 70 countries, we'll continue to innovate and shape the future of healthcare.

<https://www.siemens-healthineers.com/en-us/ultrasound/cardiovascular/acunav-volume-ice>

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**Siemens Healthineers Headquarters**

Siemens Healthcare GmbH  
Henkestr. 127  
91052 Erlangen, Germany  
Phone: +49 9131 84-0  
siemens-healthineers.com

**Manufacturer**

Siemens Medical Solutions USA, Inc.  
Ultrasound  
22010 S.E. 51st Street  
Issaquah, WA 98029, USA  
Phone: 1-888-826-9702  
siemens-heathineers.com/ultrasound