

**ACUSON SC2000 PRIME**  
Ultrasound System

**Precision at the  
Speed of Life**



# Addressing your challenges in echocardiography

Healthcare professionals in the field of cardiology are facing challenges at many levels. Demanding caseloads, increasing age and diversity of patients, as well as the severity of chronic diseases lead to a rising need for relevant clinical information. This places a new demand for high-quality cardiovascular imaging.

What users need today is a versatile cardiovascular ultrasound platform with intelligent, knowledge-based applications that help you gain quick comprehensive insights.

The ACUSON SC2000 PRIME ultrasound system offers outstanding image quality without compromise and helps increase productivity with one-click measurements, automated protocols and navigational tools. It is a versatile system for your cardiovascular needs, providing the precision and speed clinicians require today.

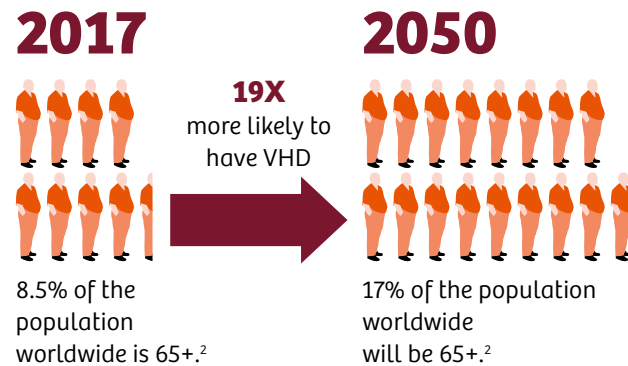


## Facts and figures



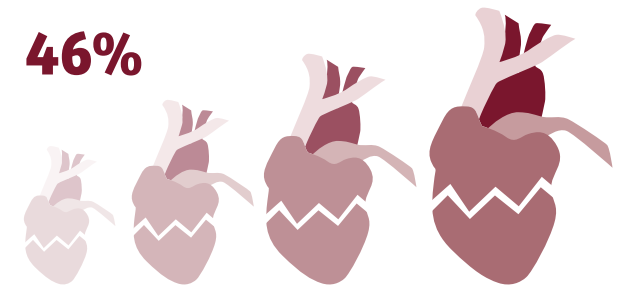
### Structural Heart Disease (SHD):

People who are 75+ are 19 times more likely to have valvular heart disease (VHD) than those who are 18-44.<sup>1</sup>



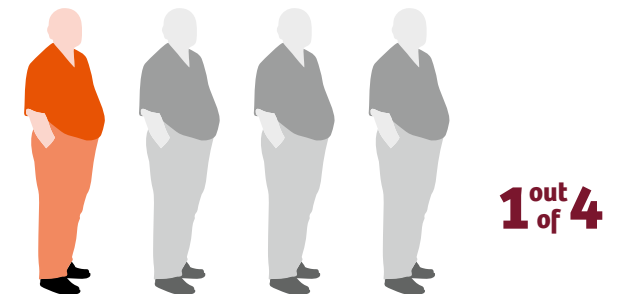
### Heart Failure (HF):

Heart failure incidents will increase by 46% from 2012 to 2030.<sup>3</sup>



### Atrial Fibrillation (AF):

One out of four adults over 40 will develop AF in their lifetime.<sup>4</sup>



# It starts with the power of the platform



The market-exclusive 64-beam technology – four times more than conventional technology – drives extraordinary imaging performance of the ACUSON SC2000 PRIME. Two ground-breaking technologies enable clinicians to see the unseen, quantify every detail, and accelerate their workflow.

IN Focus coherent technology, True Volume and volume color Doppler offer never-before-seen details of anatomy and physiology in real-time without stitching, taking your cardiovascular diagnosis to the next level.\*

## IN Focus coherent technology

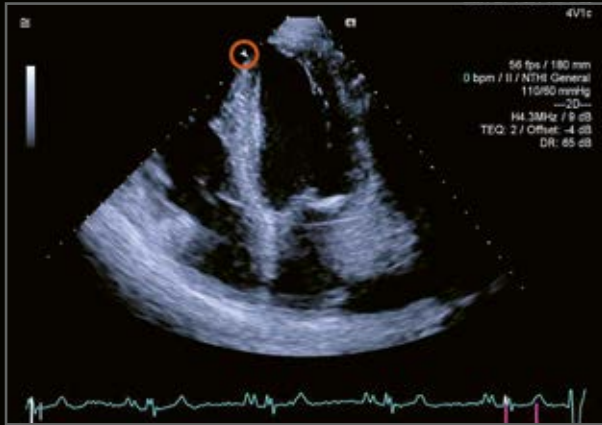
Why only focus on one section of the heart at a time? IN Focus focuses every pixel at every depth at the same time. See increased spatial resolution, precise border definition, and blood flow visualization in the same view, without compromising frame rates.

## True Volume and volume color Doppler

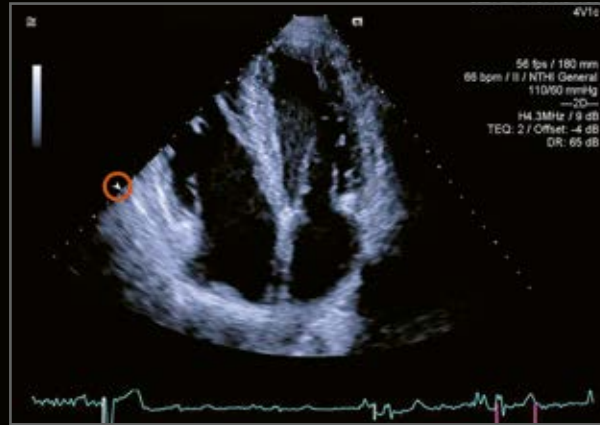
What if your 3D imaging were as easy and as real-time as your 2D imaging? The ACUSON SC2000 PRIME is the only platform on the market today to provide both volume and volume color Doppler imaging – in real-time. Essential for diagnosis and structural heart disease (SHD) interventions, it provides real-time assessment of anatomy and physiology at clinically relevant volume size and volume rates without stitching.

**The system  
with the power to capture  
high-quality 2D & 3D images  
in real-time.**

\* based on competitive data available August 2017.



Conventional apical 4-chamber view with focus on the apex. Notice progressively inferior spatial resolution further away from the focal zone, typical of a conventional focus.



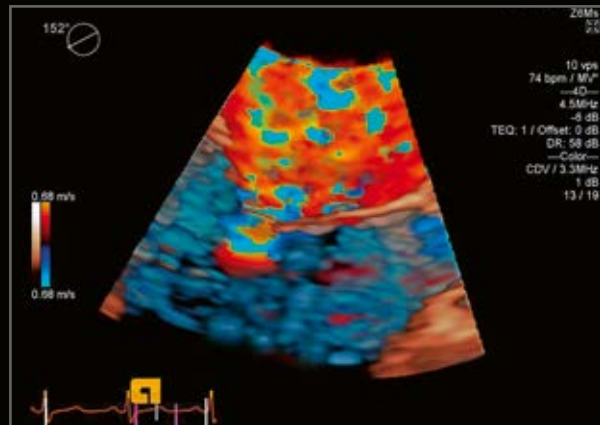
Conventional apical 4-chamber view with focus at the level of the mitral valve. Notice progressively inferior spatial resolution further away from the focal zone, typical of a conventional focus.



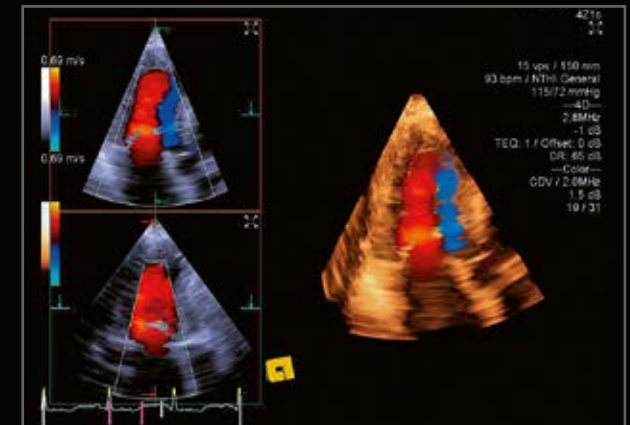
IN Focus apical 4-chamber view with no focal zone highlighting superior detail resolution throughout the entire field of view.



En-face view of the mitral valve from simultaneous ventricular and atrial perspectives using Dual V and volume color Doppler with the Z6Ms True Volume TEE transducer.



TEE view of the mitral valve with True Volume Color Doppler using the Z6Ms True Volume TEE transducer.



TTE view of the mitral valve with True Volume Color Doppler using the 4Z1c TTE transducer.



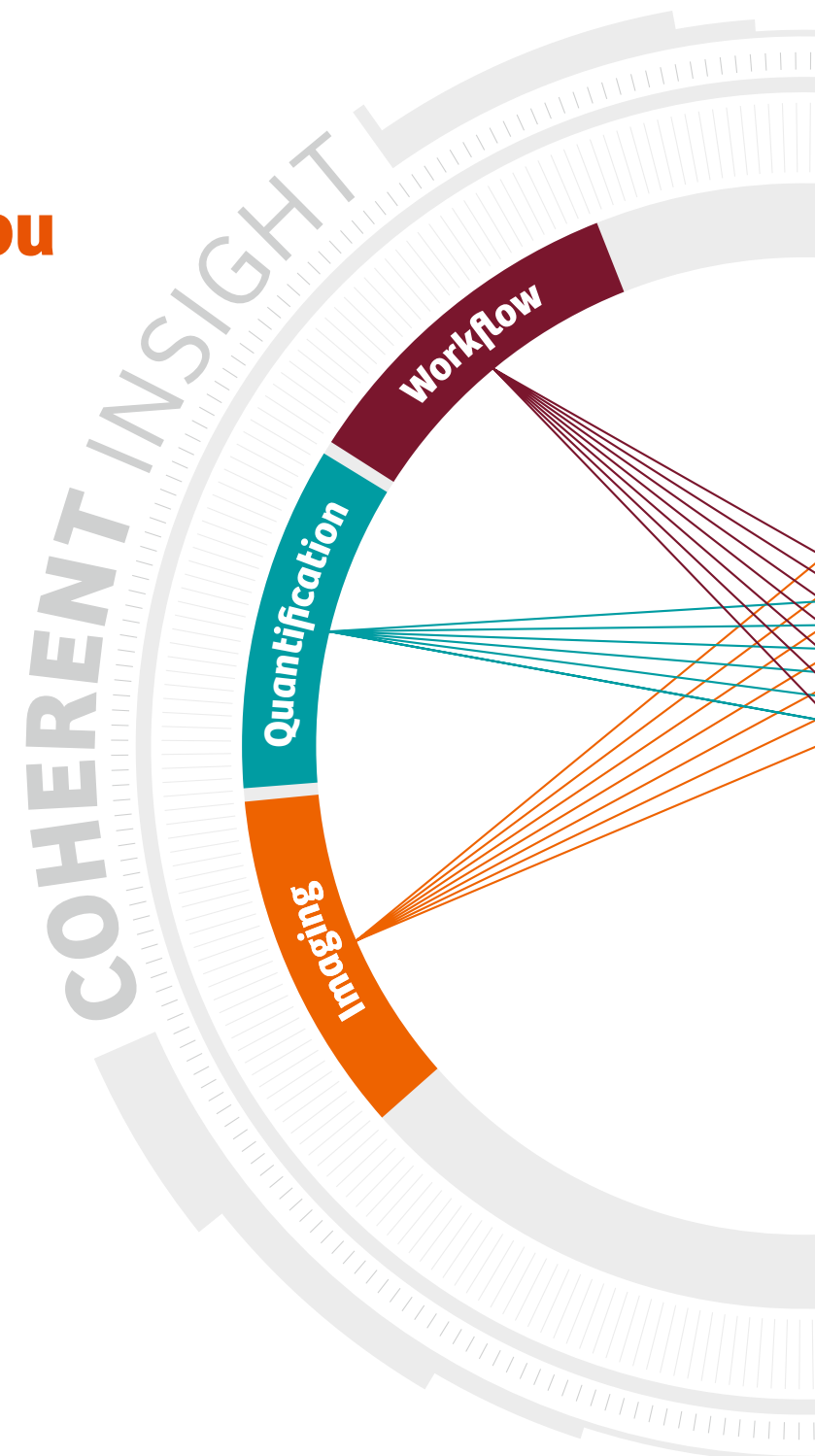
# Coherent insight: working for you, thinking with you

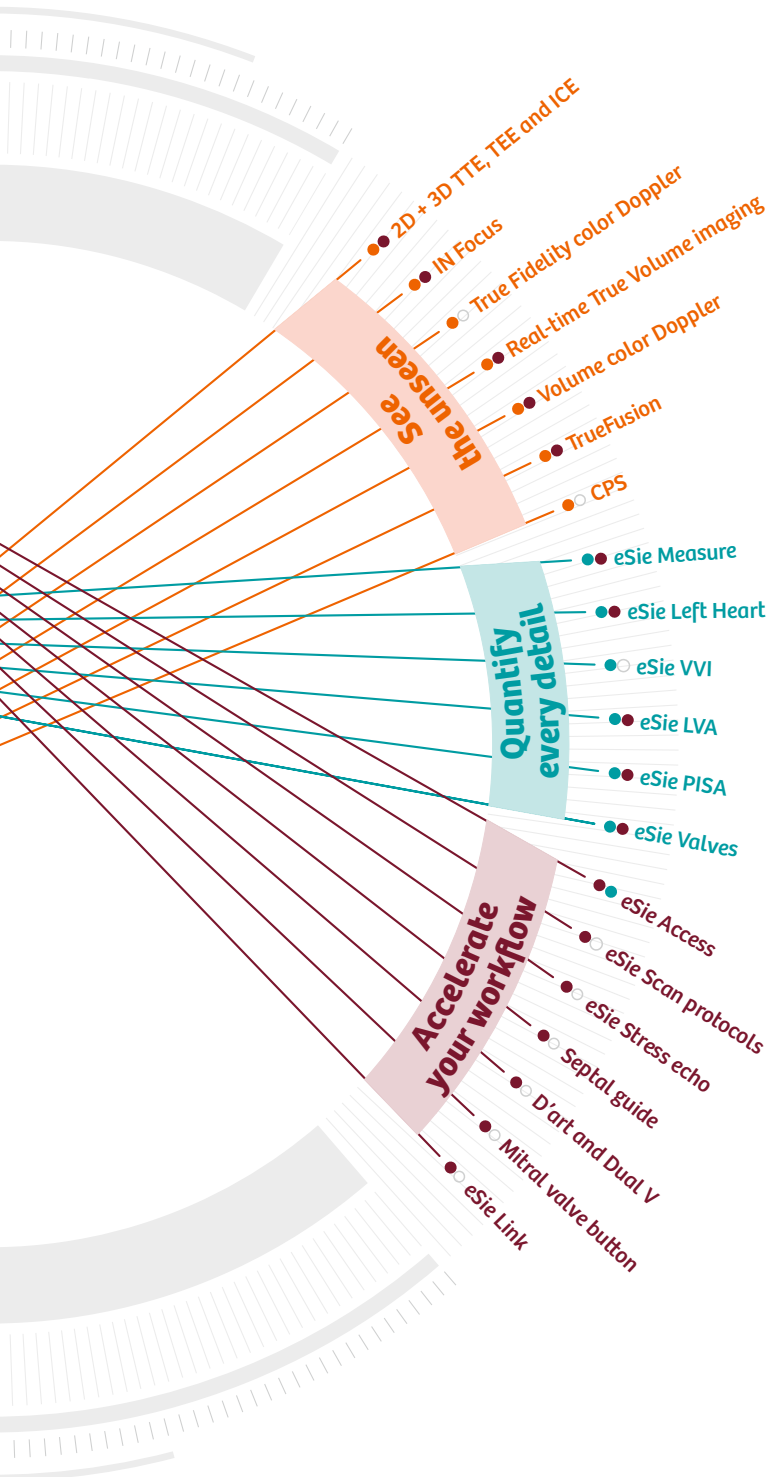
Cutting through non-diagnostic images and imprecise measurements from traditional ultrasound technology, the ACUSON SC2000 PRIME offers coherent insight for today's changing echo environment.

Coherent Insight provides you with coherent imaging, coherent quantification and coherent workflow.

A comprehensive suite of 2D and 3D one-click knowledge-based clinical applications helps you acquire accurate and reproducible images. 2D and real-time True Volume imaging provides clinically relevant physiologic and anatomic information without missing a beat.

With relevant information, consistent image quality and reproducible measurements, the ACUSON SC2000 PRIME connects high-quality imaging and measurements with optimized clinical workflows. All of this improves and accelerates decision making, bringing you *Precision at the Speed of Life*.





### See the unseen

with clinically relevant detail  
in 2D and 3D



### Quantify every detail

with the most comprehensive  
one-click knowledge-based  
2D and 3D applications



### Accelerate your workflow

with one-click automated  
knowledge based measurements



## 2D Imaging

As the only system capable of TTE, TEE and ICE – both in 2D and 3D – the ACUSON SC2000 PRIME can handle all your cardiovascular imaging needs. Outstanding imaging performance makes the ACUSON SC2000 PRIME the system of choice throughout all stages of patient management, improving your workflow, maximizing your system utilization and supporting you in more exams and interventions than ever before.

Now with TrueFusion\* guidance, you can add ultrasound TEE guidance to your live fluoroscopy with ease – enabling more efficient target-oriented device navigation to improve quality of care.

## 3D Imaging

TrueFusion\* takes a truly integrated approach to interventional procedures by combining Artis PURE angiography and ACUSON SC2000 PRIME to harness the advantages of X-ray and ultrasound in one view.

\* TrueFusion represents a workflow consisting of syngo® TrueFusion and TrueFusion™ echo-fluoro guidance.

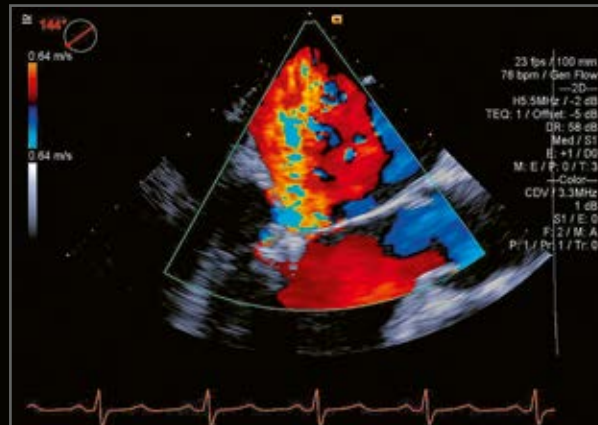






## 2D TTE

Apical 4-chamber view with true Fidelity color Doppler with the 4V1c transducer.



## 2D TEE

Mitral valve imaged with the Z6Ms True Volume color TEE using volume color Doppler.



## 2D ICE

Short axis view of left ventricle for real-time monitoring throughout interventional procedures with ACUSON AcuNav V ultrasound catheter.



## 3D TTE

Apical 4-chamber view using high volume rates, real-time full volume imaging with the 4Z1c transducer.



## 3D TEE

Aortic valve imaged with the Z6Ms True Volume TEE using volume color Doppler.



## 3D ICE

Left atrial appendage closure device visualized in 3D with the ACUSON AcuNav V ultrasound catheter.

Having the right information at the right time is key for successful patient care – from diagnosis to planning, from treatment to follow-up. Providing you with a comprehensive suite of accurate and reproducible 2D and 3D quantification tools, the ACUSON SC2000 PRIME supports you every step of the way...

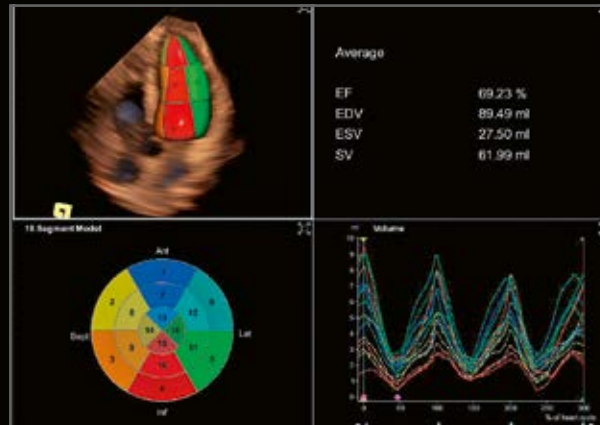
- In the diagnosis stage, improve reproducibility with 118 one-click automated knowledge-based measurements during your TTE exams.
- During pre-procedural planning, improve accuracy for your SHD procedures by modeling and quantifying the aortic and mitral valves in four seconds with over 60 measurements.
- When treating your patients, have quick objective information available in seconds with one-click automated knowledge-based spectral Doppler and volume EF measurements in both TTE and TEE imaging.
- Follow-up and assess myocardial function with eSie LVA.





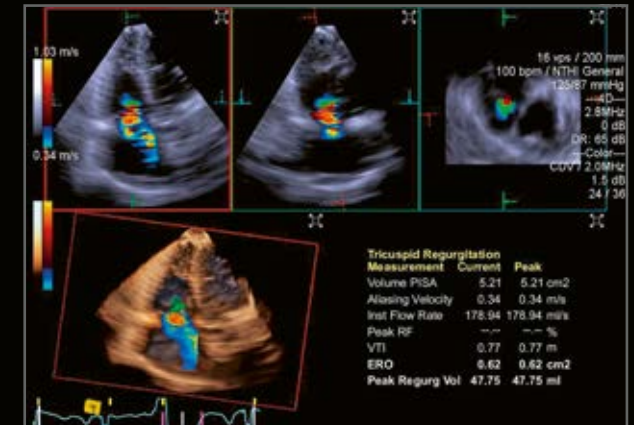
### TTE eSie Measure

Automated measurement of PLAX B-mode image with eSie Measure.



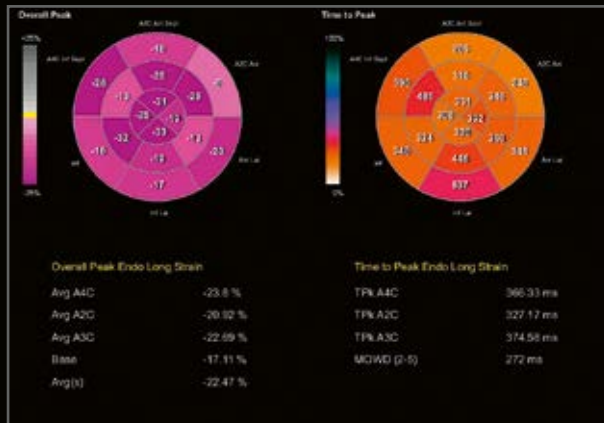
### TTE eSie LVA

Automated multi-beat eSie LVA with automated measurements of beat-to-beat EF, stroke volume and LV volumes.



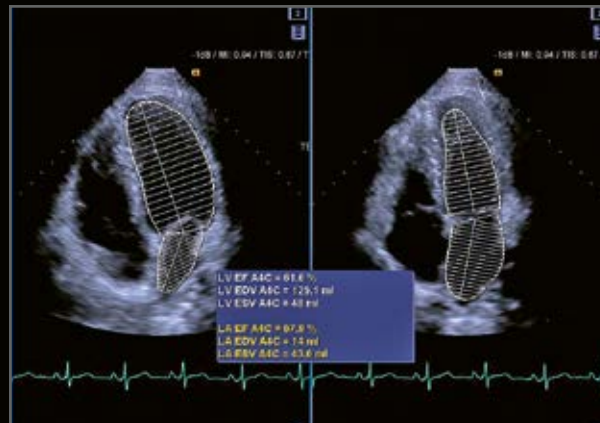
### TTE eSie PISA

3D quantitative assessment of regurgitation using 3D TTE dataset and eSie PISA.



### TTE eSie VVI

Bullseye display of results obtained for strain analysis using VVI technology.



### TTE eSie Left Heart

Automated measurement of volume and ejection fraction for LV and LA function in 2D echo with eSie Left Heart.



### TTE Contrast Pulse Sequencing (CPS)

Apical 4-chamber contrast image with high sensitivity and specificity using CPS.

# Accelerate your workflow

## TEE Imaging

Manual measurements using conventional ultrasound technology can be cumbersome, time-consuming and less reproducible. This may lead to lower overall efficiency and quality of care, lower satisfaction scores and longer patient wait times. The ACUSON SC2000 PRIME has the most comprehensive\* suite of knowledge-based automated measurements on the only system to combine them with automated protocols. This is key when addressing time constraints, reproducibility, and exam quality.

Save 6 minutes per exam with knowledge-based automated clinical applications.



**Save  
6  
mins**

Achieve accurate and reproducible measurements with real-time True Volume and volume color Doppler imaging without stitching.<sup>5</sup>



**No  
Stitching**

The ACUSON SC2000 PRIME offers more than 200 automated measurements for TTE and TEE exams.



**200+**

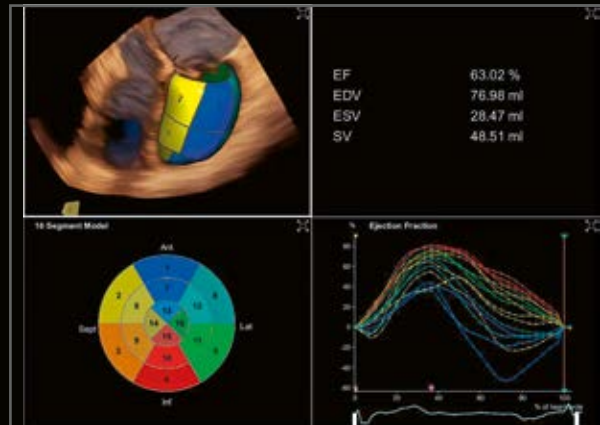
\*based on competitive data available August 2017.





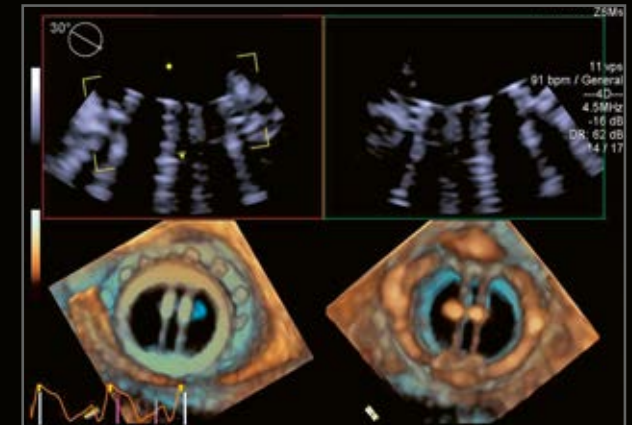
### TEE eSie Measure

One-click measurement of VTI on a mid-esophageal CW Doppler trace of mitral regurgitation (MR) measured using eSie Measure spectral Doppler.



### TEE LVA

Automated multi-beat eSie LVA with automated measurements of beat-to-beat EF, stroke volume and LV volumes.



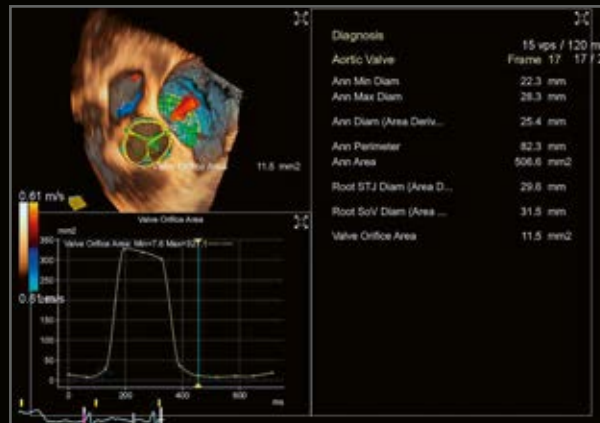
### TEE Dual V

Simultaneous ventricular and atrial perspectives with Dual V visualization of a prosthetic mitral valve.



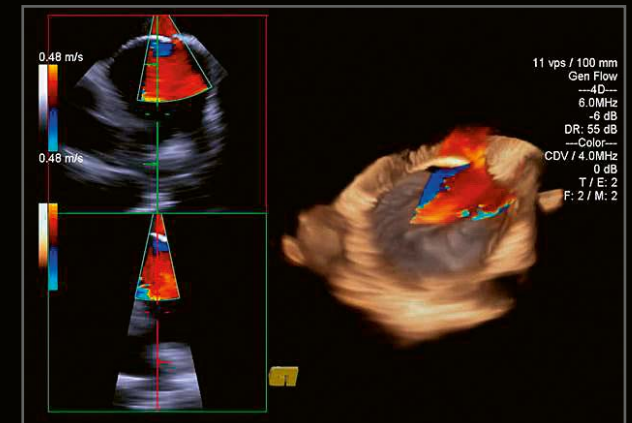
### TEE Septal Guide

Real-time septal Guide for trans-septal puncture during a procedure.



### TEE eSie Valves

Multi-frame dynamic assessment of both aortic and mitral valves using eSie Valves.



### ACUSON AcuNav V Ultrasound Catheter

Patent foramen ovale (PFO) visualized in real-time 3D with color on the ACUSON AcuNav V ultrasound catheter for intracardiac echocardiography (ICE).



# Maximize your investment : ergonomics, service and offline analysis

## Ergonomics

You need to be able to work quickly and efficiently anywhere in the hospital or clinic. The ACUSON SC2000 PRIME ultrasound system was designed with ergonomics and workflow in mind. Its user interface and panel control positions are intuitive, enabling you to move more quickly and work more efficiently anywhere in the hospital or clinic.

Control  
Panel Lock

**62%**

**improvement in turning and  
steering performance**

with the new control panel  
lock and with the system in  
the ideal moving position

Rear  
Handle

**70%**

**improved leverage**  
from rear handle

Casters  
with high-  
end swivel  
bearings

**60%**

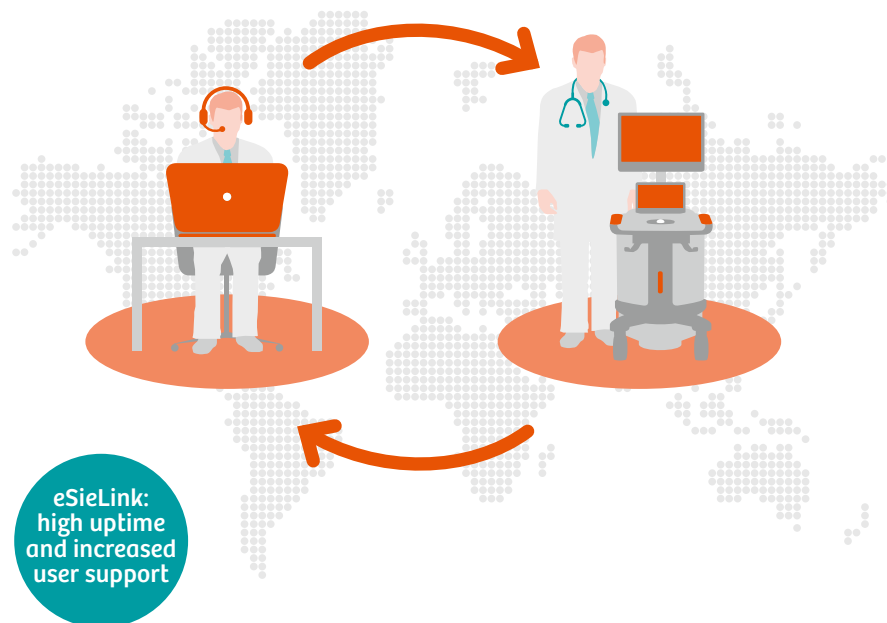
**less turning force required**  
with new casters



\* Mobility improvements derived from mechanical testing on the ACUSON SC2000 system.

## Service: remote assistance technology

You need to know that you have access to support when and where you need it. With eSieLink Remote Assistance technology, you get just that so you can work more confidently. eSieLink enables fast problem resolution and overall increased productivity.



## Offline analysis

To suit your individual needs, Siemens Healthineers offers a range of offline workplace solutions: *syngo*® SC2000 Workplace, *syngo*® Ultrasound Apps Suite, *syngo*® Dynamics, and TOMTEC-ARENA™.

Select from a range of options customizable for single practices as well as entire hospital systems enabling comfortable offline analysis to adapt to changing work environments.



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 organization for further details.

Standalone clinical images may have been cropped to better visualize pathology.

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#### Endnotes

1. Nkomo VT, Gardin JM, Skelton TN, et al. Burden of Valvular Heart Diseases: a Population-based Study. Lancet, September 2006.
2. Wan He, Daniel Goodkind, and Paul Kowal, U.S. Census Bureau, International Population Reports, P95/16-1, An Aging World: 2015, March 2016.
3. Mozaffarian, Dariush, et al. "Heart Disease and Stroke Statistics—2016 Update." Circulation, December 2015.
4. Circ. J American Heart Association 2004: Vol 11; Issue 7.
5. Macron, Laurent, et al. "Single-Beat Versus Multibeam Real-Time 3D Echocardiography for Assessing Left Ventricular Volumes and Ejection Fraction A Comparison Study With Cardiac Magnetic Resonance." Circulation: Cardiovascular Imaging 3.4 (2010): 450-455.

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