



POWERED BY AI
ELEVATED BY YOU

Vivid™ S70N
Ultra Edition



Vivid

gehealthcare.com/vivid

WORKLOAD IS HIGH

Vivid S70N
Ultra Edition

WHILE ENERGY AND DETERMINATION PERSIST

By 2030,

▲ **40.5%**

of the US population is projected to have some form of Cardiovascular Disease (CVD)¹

▲ **~108m**

annual echo exams performed globally²

90%

of sonographers experience symptoms of Work Related Musculoskeletal Disorders (WRMSD)⁴

Generating

▲ **\$120+** billion

yearly in direct and indirect costs for employers⁴

10-15%

of echo exams result in sub-optimal images³

1. Forecasting the Future of Cardiovascular Disease in the United State, AHA Policy Statement, 2011, source: CIR.0b013e31820a55f5

2. 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

3. 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

4. Work Related Musculoskeletal Disorders In Sonography, Society Of Diagnostic Medical Sonography, 2018, Susan Murphey, BS, RDMS, RDCS, CECD <https://www.sdms.org/docs/default-source/Resources/work-related-musculoskeletal-disorders-in-sonography-white-paper.pdf?sfvrsn=8>

Vivid S70N

Ultra Edition



Designed to provide you with uncompromised image quality, advanced visualization capabilities and easy measurements – while helping reduce tedious tasks and inter-observer variability.¹

- 2D TTE and TEE, 4D TEE, and ICE imaging
- Wide range of imaging presets including cardiac, vascular, abdominal, and much more
- Intuitive, familiar user experience
- Automated workflow for streamlined scanning
- AI tools for speed, productivity and reproducibility
- Ergonomic design for user comfort



MODERN ERGONOMICS

A familiar, yet modern
and efficient design.

22" adjustable monitor

12" LCD touch screen

Adjustable keyboard

Convenient alphanumeric
keyboard storage

Convenient cable
management

Low power
consumption

Battery powered
"standby" function,
up and running
within few
seconds

Easy mobility



POWERED BY AI

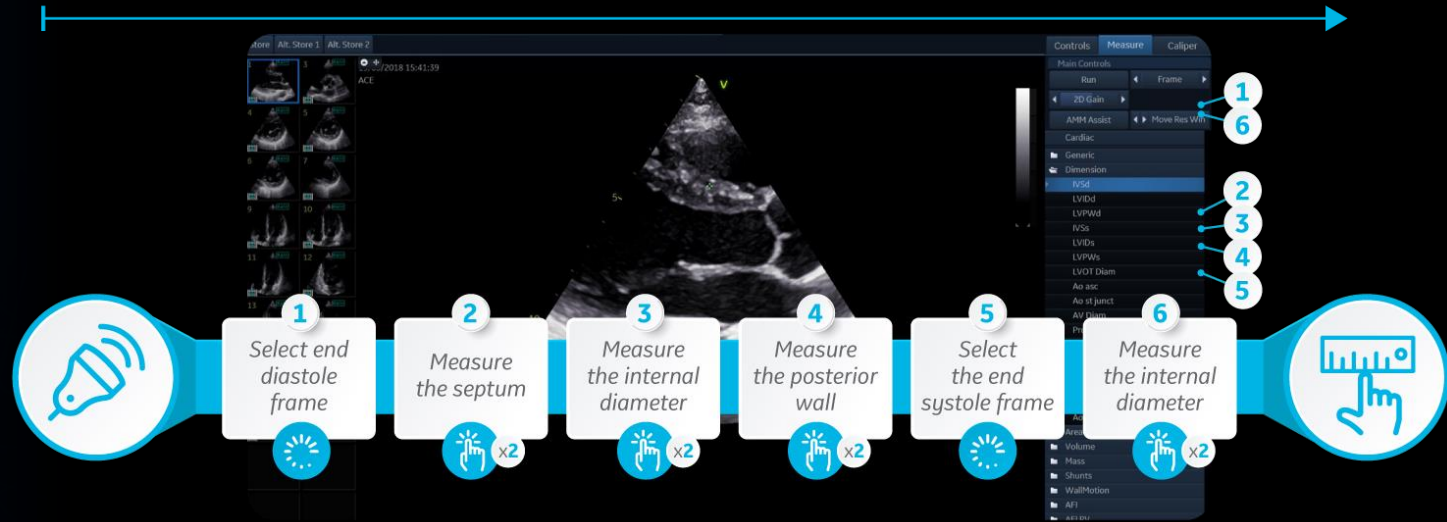
Your time is precious. Save it.

Vivid S70N
Ultra Edition

AI Auto Measure 2D

- Powered by AI
- Caliper measurements can be completed with 3 clicks:
Freeze - Measure - Auto
- Reproducible measurements will instantly appear on screen

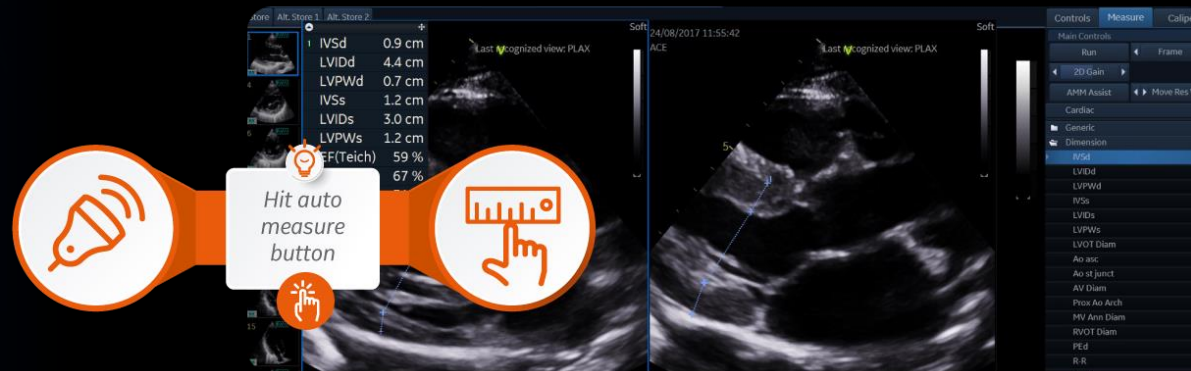
STANDARD WORKFLOW



LESS CLICKS¹
UP TO **80%**



AI-ENHANCED WORKFLOW



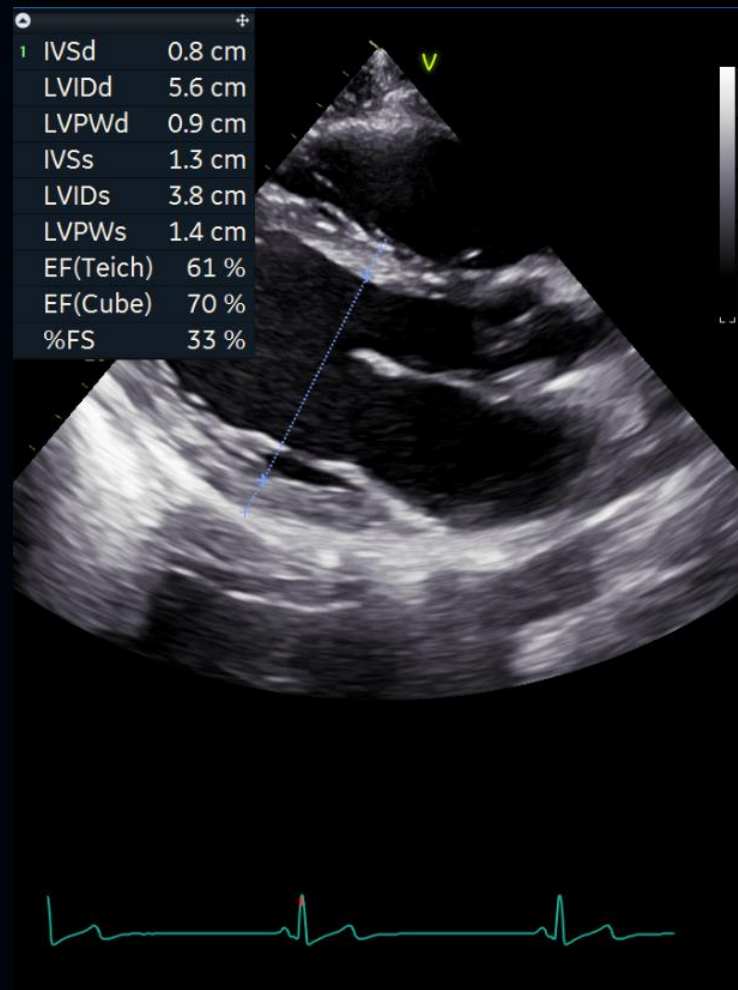
POWERED BY AI

Your time is precious. Save it.

Vivid S70N

Ultra Edition

AI Auto Measure 2D



LESS CLICKS ¹
UP TO **80%**



1. The Role of AI in Streamlining Echocardiography Quantification White Paper, Kristin McLeod - JB80498XX

POWERED BY AI

Your time is precious. Save it.

Vivid S70N
Ultra Edition

AI Auto Measure Spectrum Recognition

- Powered by AI
- Full range of Doppler Measurements in 2 clicks:
Freeze - Measure
- Trace and measurements will instantly appear on screen

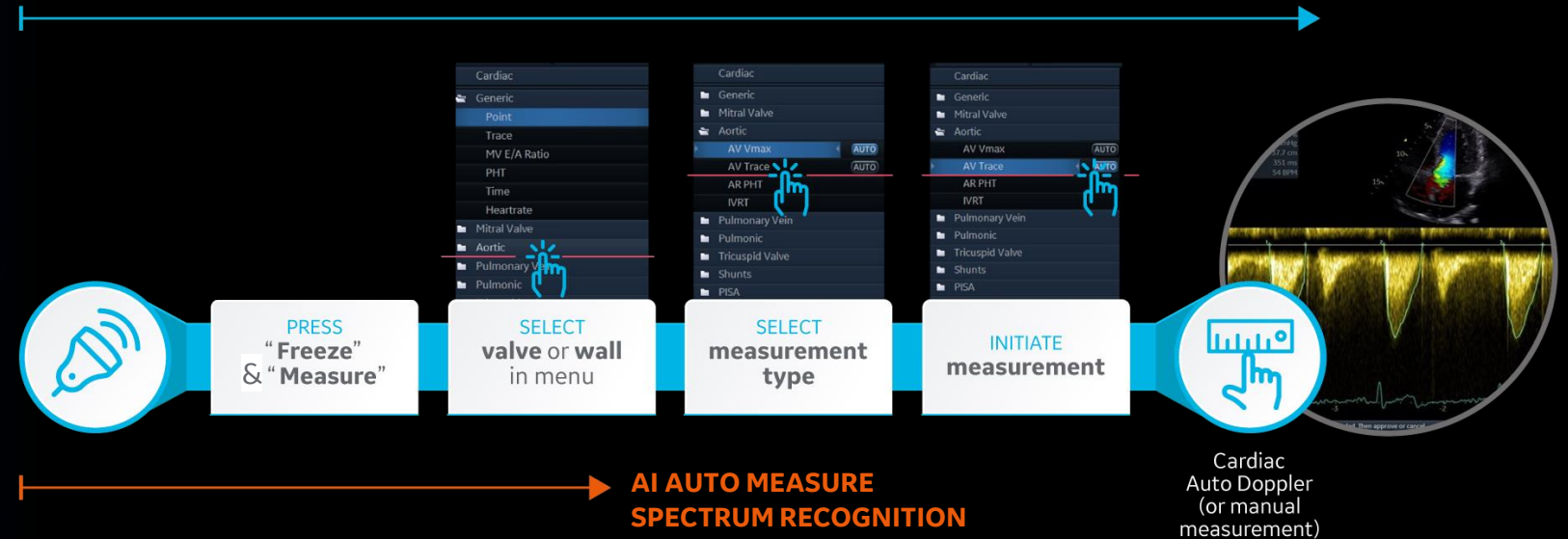
ACCURACY ¹
98%



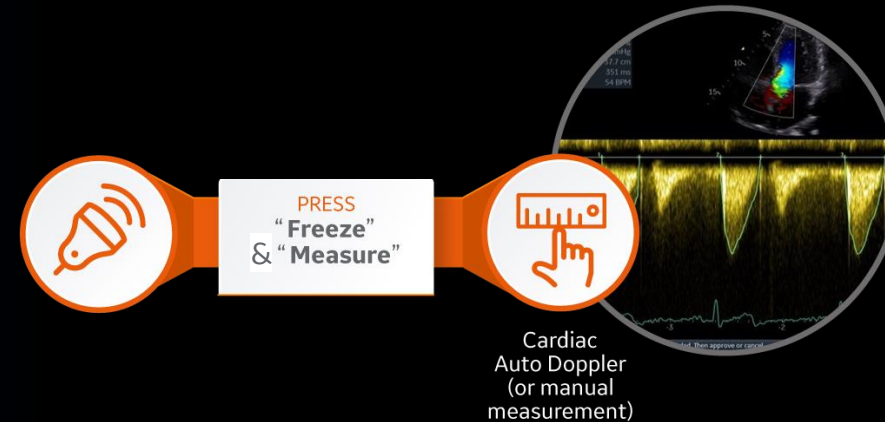
REPRODUCIBILITY ¹
100%



STANDARD WORKFLOW



AI AUTO MEASURE SPECTRUM RECOGNITION WORKFLOW



1. The Role of AI in Streamlining Echocardiography Quantification White Paper, Kristin McLeod - JB80498XX

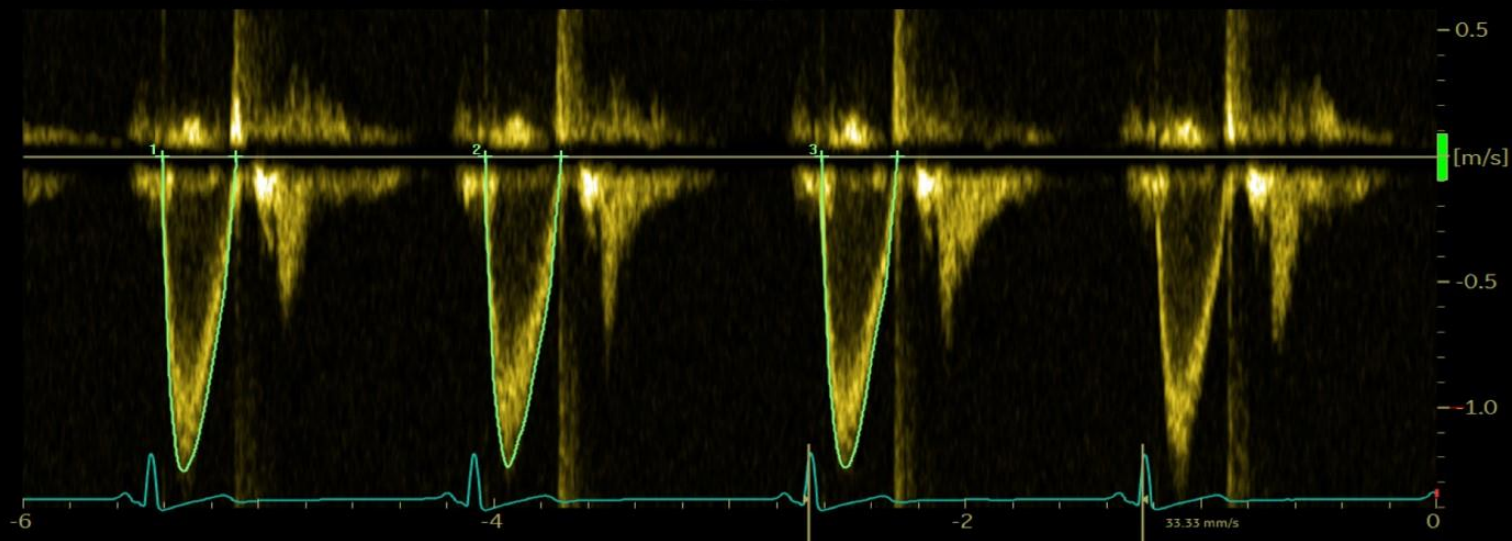
POWERED BY AI

Your time is precious. Save it.

Vivid S70N Ultra Edition

AI Auto Measure Spectrum Recognition

Av	LVOT Vmax	1.24 m/s
	LVOT Vmean	0.84 m/s
	LVOT maxPG	6.19 mmHg
	LVOT meanPG	3.28 mmHg
	LVOT VTI	26.6 cm
	LVOT Env.Ti	318 ms
	HR	43 BPM



ACCURACY¹

98%



REPRODUCIBILITY¹

100%



1. The Role of AI in Streamlining Echocardiography Quantification White Paper, Kristin McLeod - JB80498XX

POWERED BY AI *Your time is precious. Save it.*

Vivid S70N
Ultra Edition

AI AFI LV with AI View Recognition

Fully automatic recognition of the apical imaging views and measurements of GLS and segmental longitudinal Strain for LV.

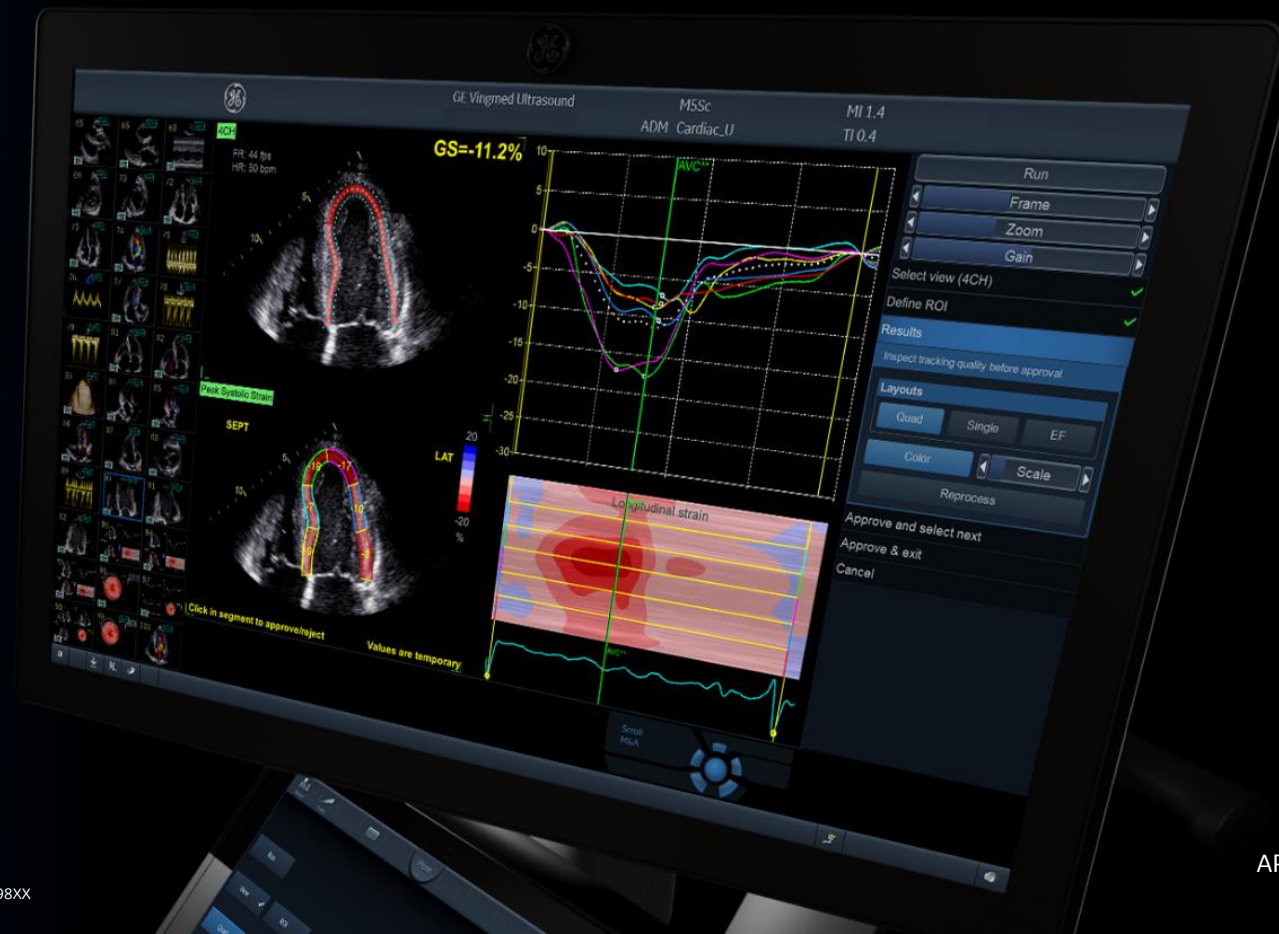
ACCURACY¹

99%



REPRODUCIBILITY¹

100%



1. The Role of AI in Streamlining Echocardiography Quantification White Paper, Kristin McLeod - JB80498XX

POWERED BY AI

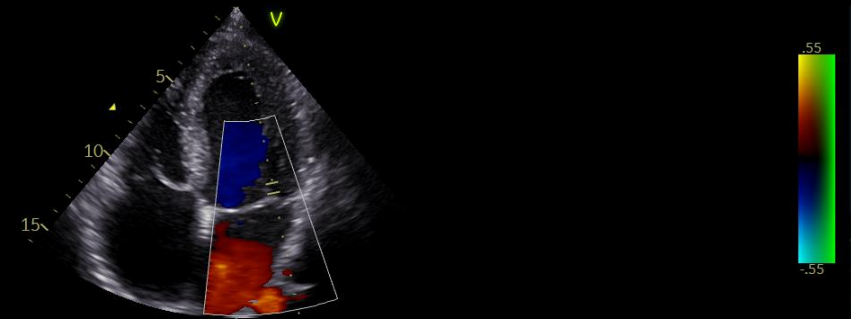
Your time is precious. Save it.

Vivid S70N
Ultra Edition

AI Cardiac Auto Doppler with AI

Semi-automatic Cardiac Doppler measurements.

Av	MV E Vel	0.82 m/s
	MV DecT	220 ms
	MV Dec Slope	3.7 m/s ²
	MV A Vel	0.45 m/s
	MV E/A Ratio	1.81



REDUCED TIME PER MEASUREMENT

UPTO **93%**

Fewer Keystrokes¹

LOWER INTER OPERATOR VARIABILITY

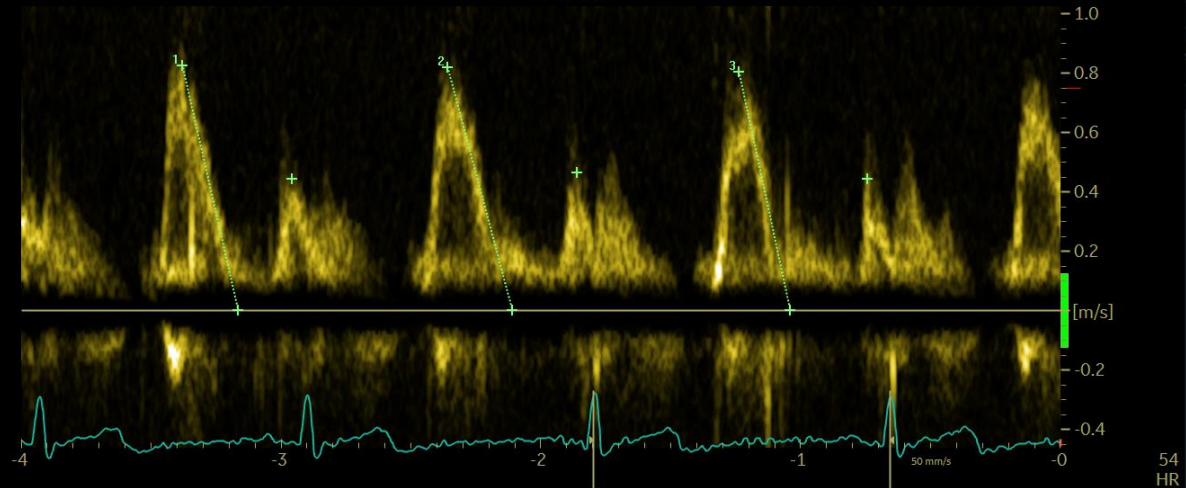
REDUCE VARIABILITY
~3x

Standardized exams with greater reproducibility¹

ACCELERATED WORKFLOW



Productivity improvement

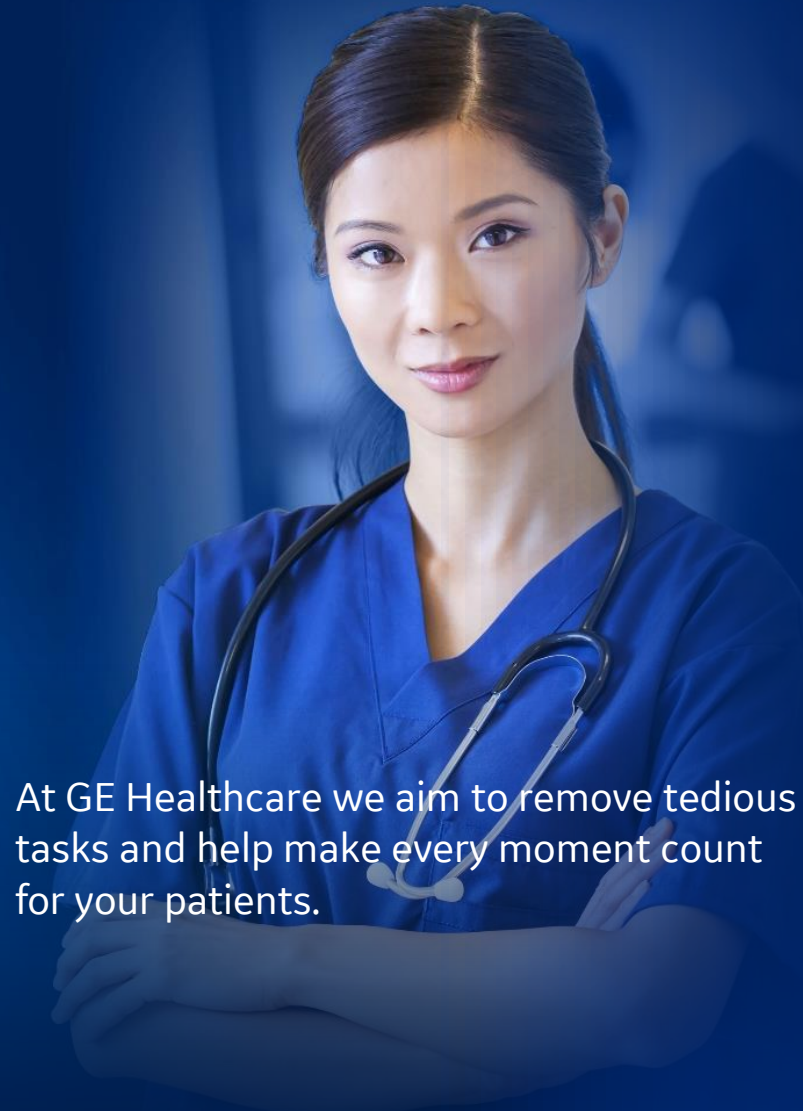


1. Based on results of time and motion study conducted by GE "JB49055XX - Cardiac Auto Doppler"; study results indicated time savings related productivity increase up to ~8 on an annual basis for a facility per sonographer

CLINICAL EXCELLENCE

for the Echo Lab

Vivid S70N
Ultra Edition

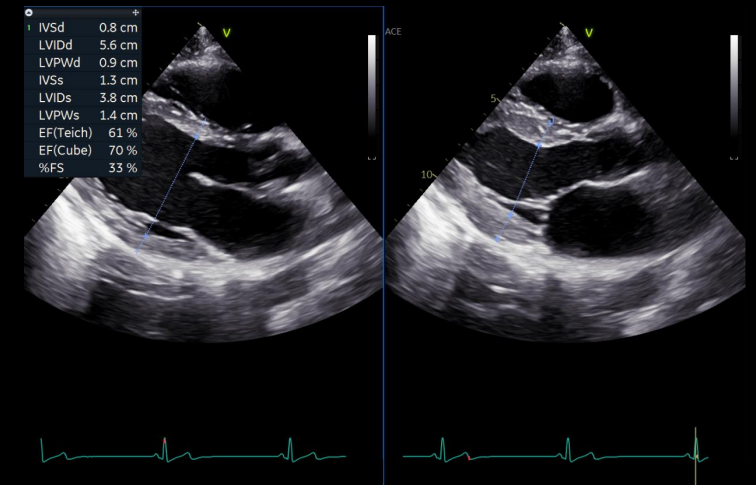


At GE Healthcare we aim to remove tedious tasks and help make every moment count for your patients.

AI Auto Measure 2D

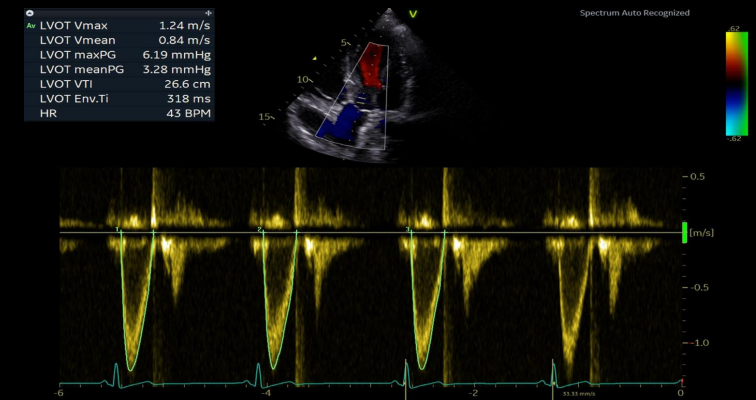
With the power of AI, the manual caliper measurements can be completed with 3 clicks: **Freeze – Measure – Auto.**

A full set of reproducible measurements will instantly appear on the screen.



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.



CLINICAL EXCELLENCE

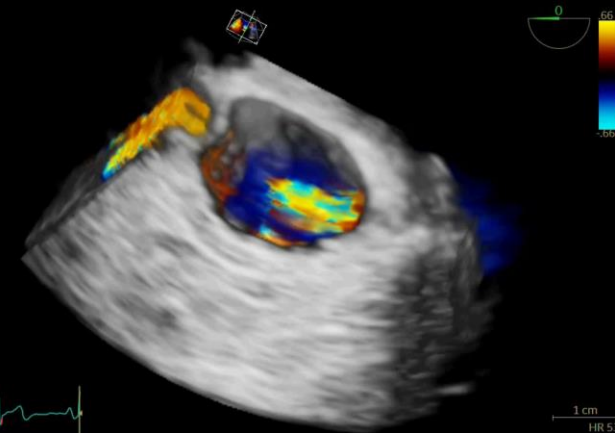
for Interventional Procedures

Vivid S70N
Ultra Edition

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.

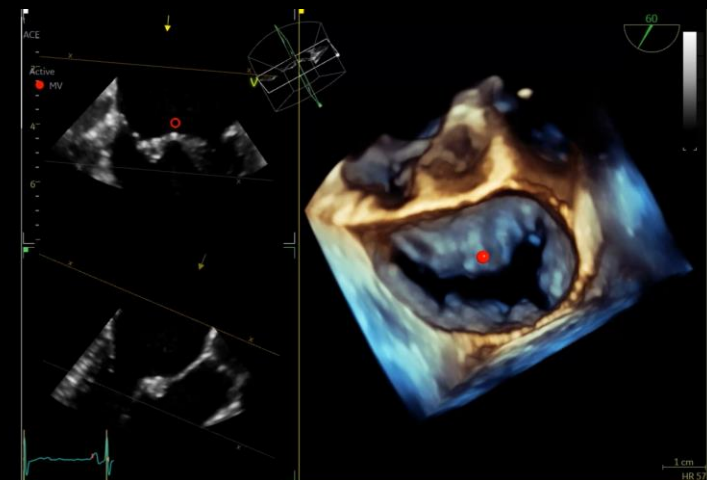
HD Color

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



4D Markers

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



CLINICAL EXCELLENCE

for Pediatrics

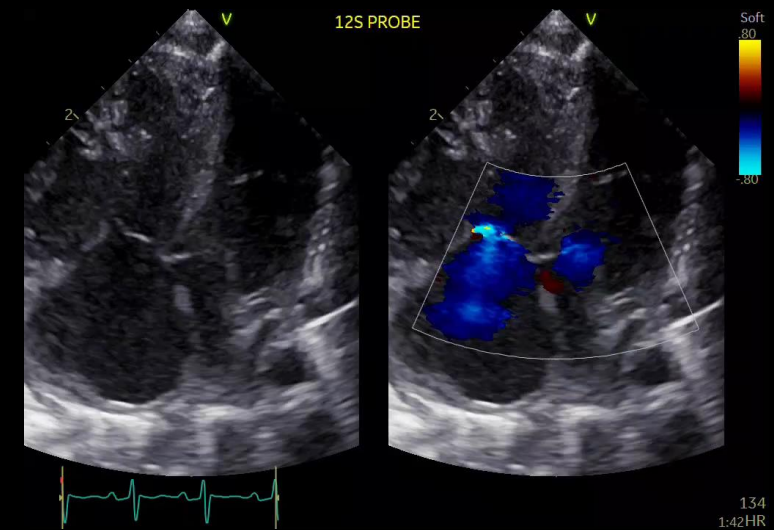
Vivid S70N
Ultra Edition



Pediatric imaging

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

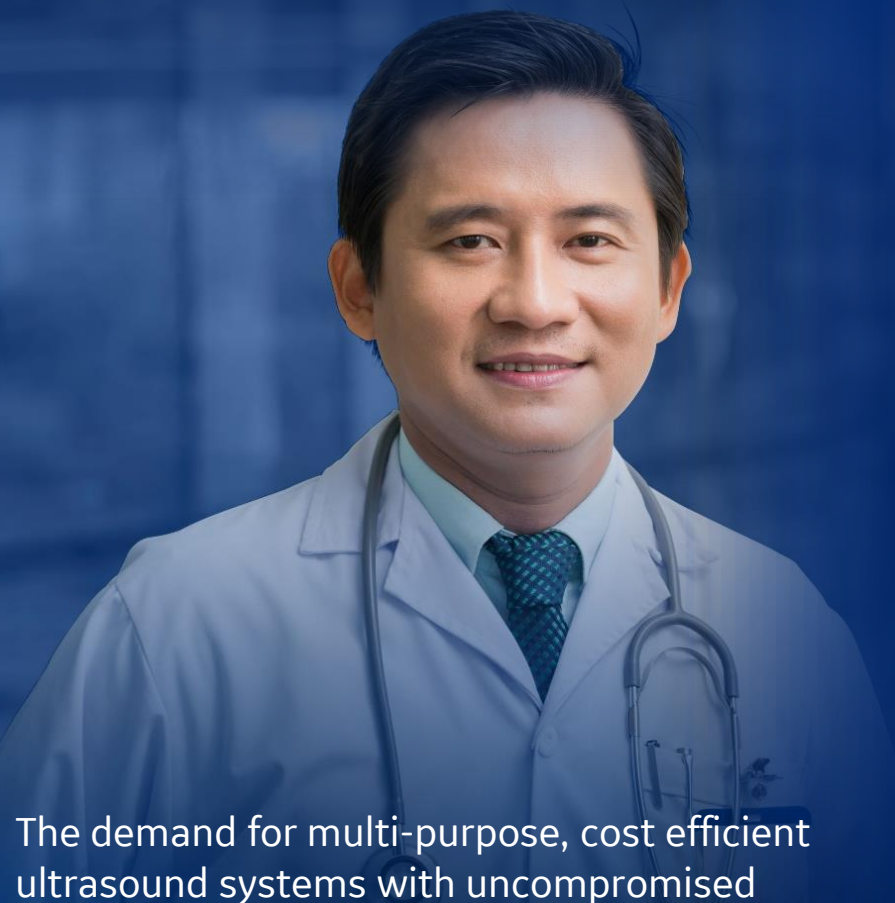
The smallest cardiac patients can pose the biggest care challenges with difficult to diagnose, severe conditions.



CLINICAL EXCELLENCE

beyond Cardiology

Vivid S70N
Ultra Edition

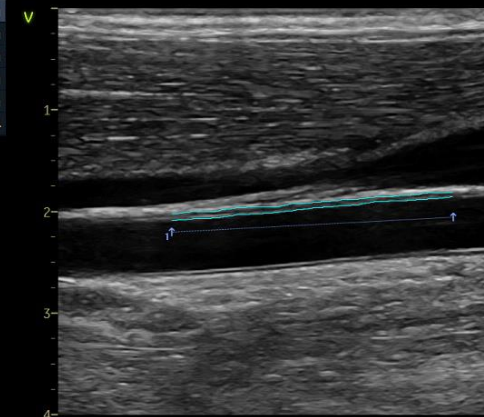


The demand for multi-purpose, cost efficient ultrasound systems with uncompromised image quality is growing. Your Vivid S70N Ultra Edition will exceed your expectations across a wide range of application.

Vascular quantification

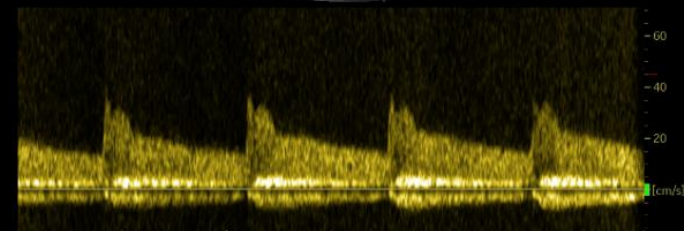
Develop fast and complete quantitative assessment of vascular anatomies, such as the Intima Media Thickness, with dedicated vascular measurement tools.

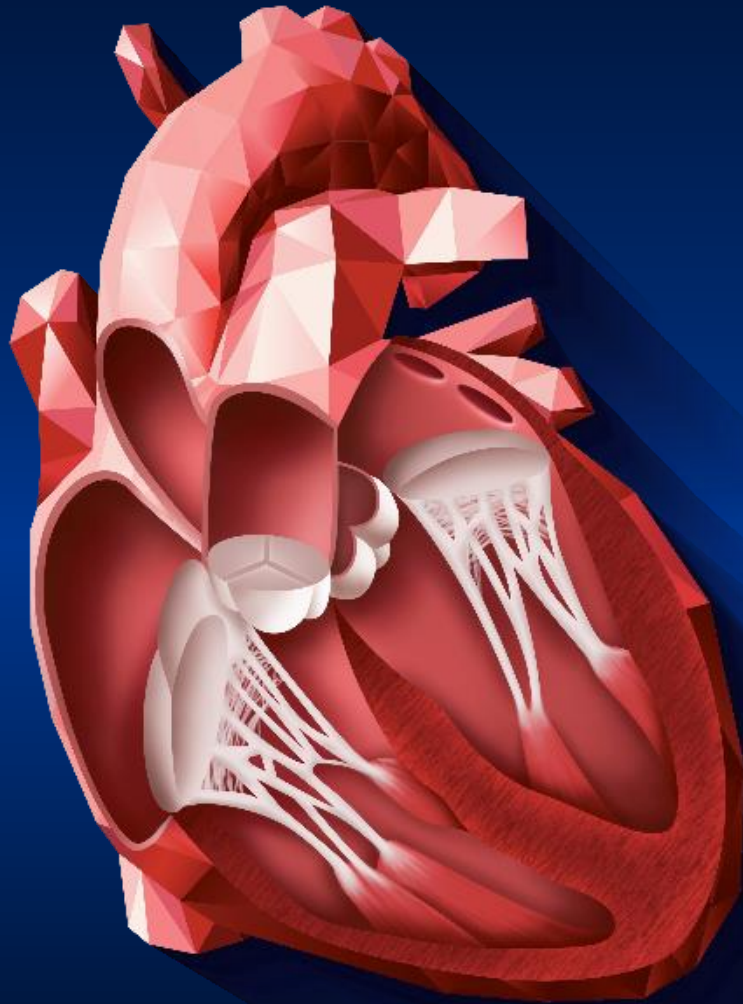
d	0.12 cm
IMT A Avg	0.59 mm
IMT A Max	0.76 mm
IMT A Min	0.40 mm
IMT A SD	0.08 mm
IMT A Pts	694



Abdomen diagnosis

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





VIVID HEART APPLICATIONS

A wide range of clinical applications for use
in Core Echo Lab, Interventional and Pediatrics.



VIVID HEART APPLICATIONS

VISUALIZATION AND NAVIGATION

4D Markers

FlexiSlice

FlexiViews

View-X

Ultra Edition

HD Color

FLOW QUANTIFICATION

Cardiac Auto
Doppler **AI**

Ultra Edition

AI Auto Measure
Spectrum
Recognition **AI**

VALVE AND CHAMBERS QUANTIFICATION

4D Auto AVQ

4D Auto MVQ

4D Auto LVQ

Ultra Edition

AI Auto
Measure 2D **AI**

Auto EF **AI**

AFI FUNCTIONAL IMAGING

Ultra Edition

AFI LV with
AI View
Recognition **AI**

AFI RV

AFI LA



VIVID HEART
APPLICATIONS

NAVIGATION **AND** VISUALIZATION

Why guess? When you can see.

HD Color

Vivid S70N
Ultra Edition

4D color flow rendering technique for semi-transparent visualization of origin and size of high velocity jets

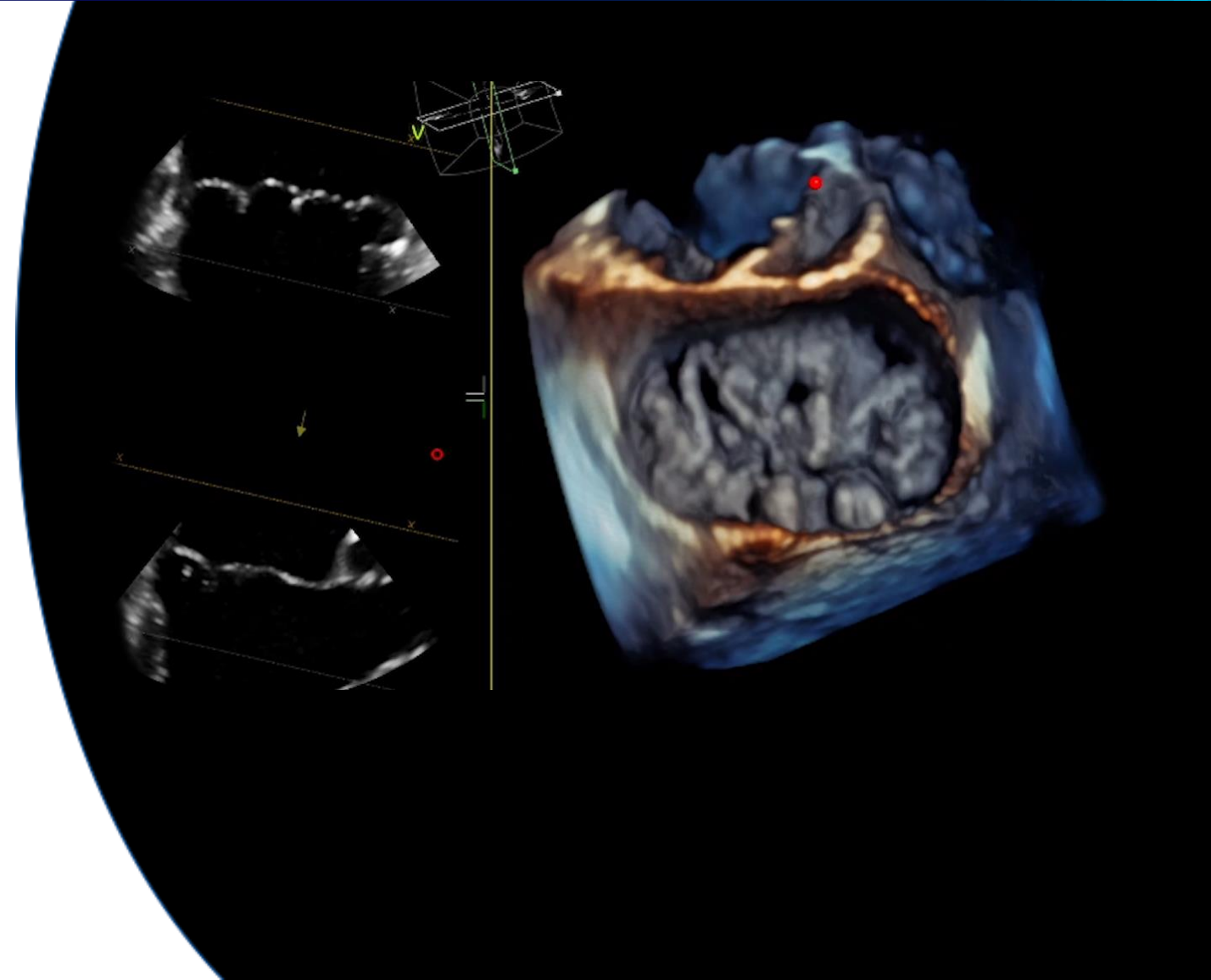
Benefits:

- Enhance spatial relationships between flow and the surrounding structures
- Suppress non-diagnostic low flow information. Work seamlessly with other visualization techniques such as 4D markers
- Supports 4D color flow data also from previous releases



4D Markers

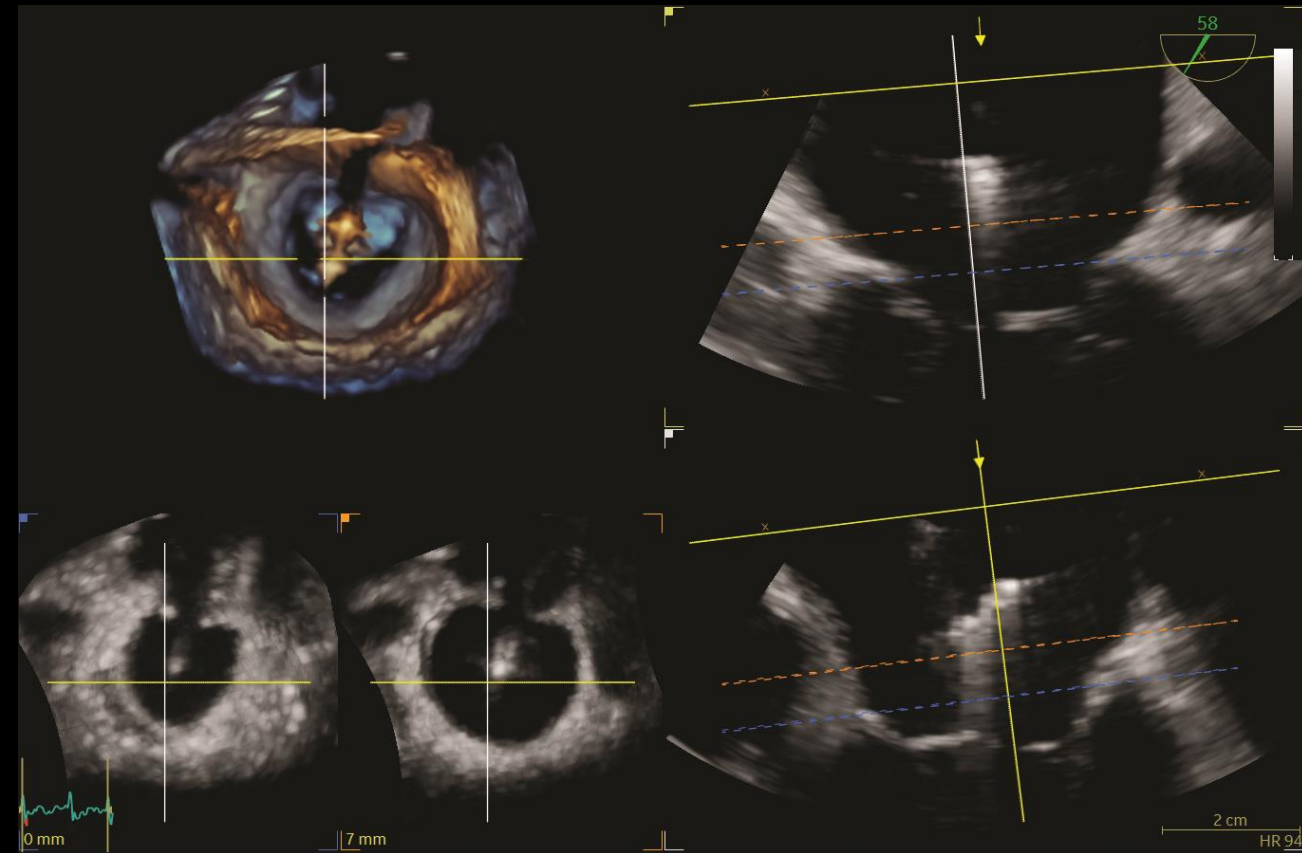
Make annotations that are viewable from all angles on 4D ultrasound volume data sets and their 2D views, facilitating communication in the echo lab, cath lab and OR.



FlexiSlice

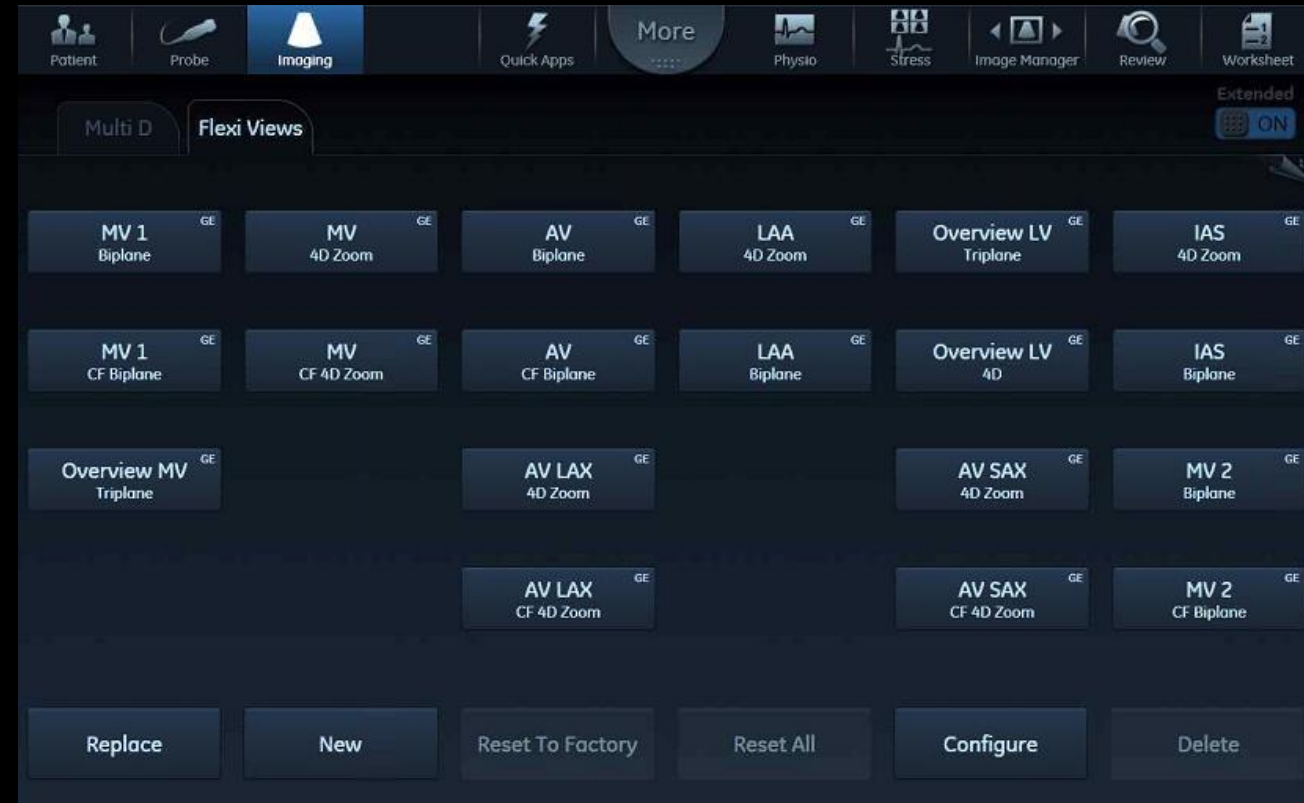
Vivid S70N
Ultra Edition

With a distance gauge and two viewing layouts, this interactive tool for obtaining 2D or render views in live or replay mode may provide enhanced insight as well as save time.



FlexiViews

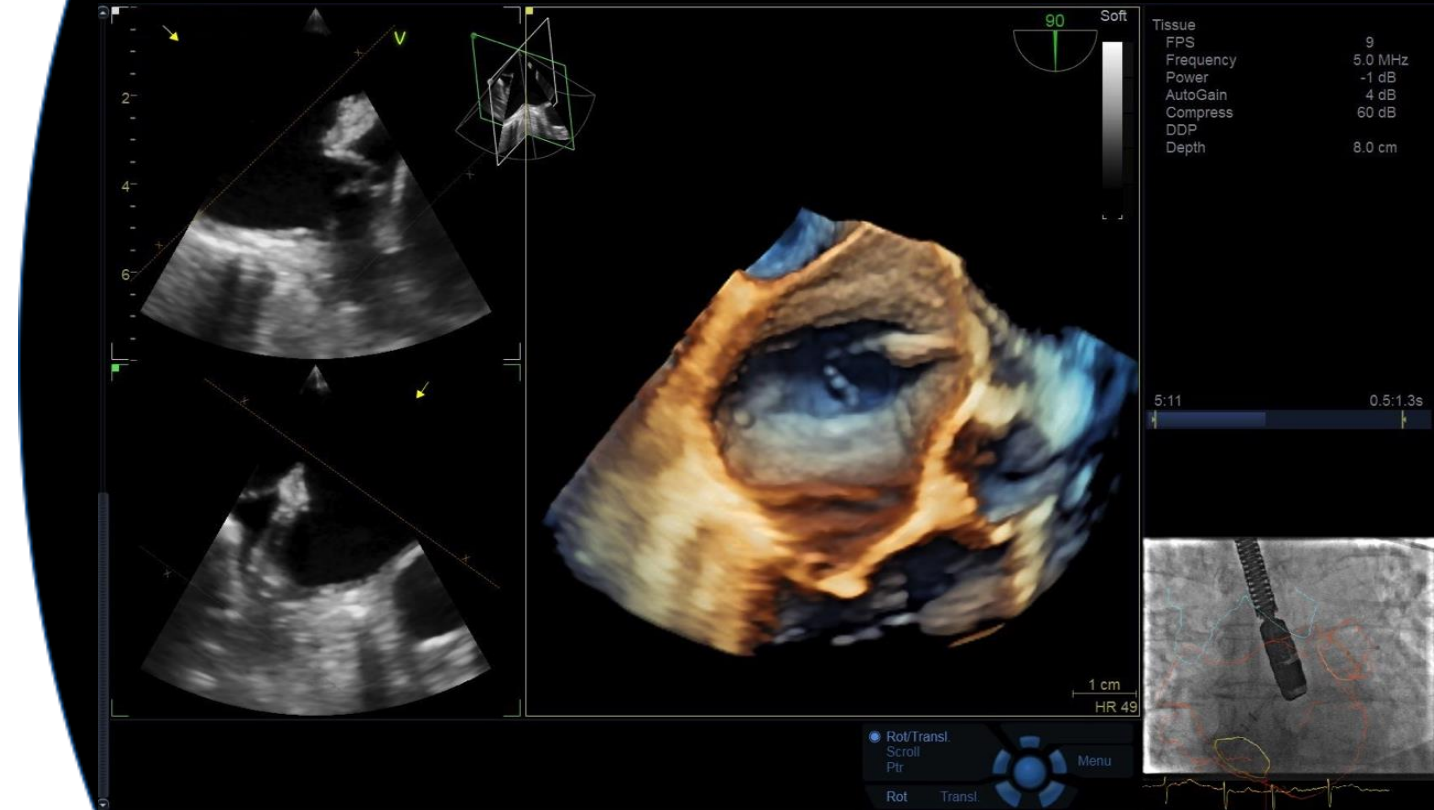
Gain quick access to predefined 4D/multiplane views during live mode, potentially reducing scan time during complex interventional procedures.



View-X

Vivid S70N
Ultra Edition

See X-ray from fluoroscopy in real time right on your Vivid S70N Ultra Edition screen as a picture in picture, facilitating communication between team members.





VIVID HEART
APPLICATIONS

FLOW QUANTIFICATION

Your time is precious. Save it.

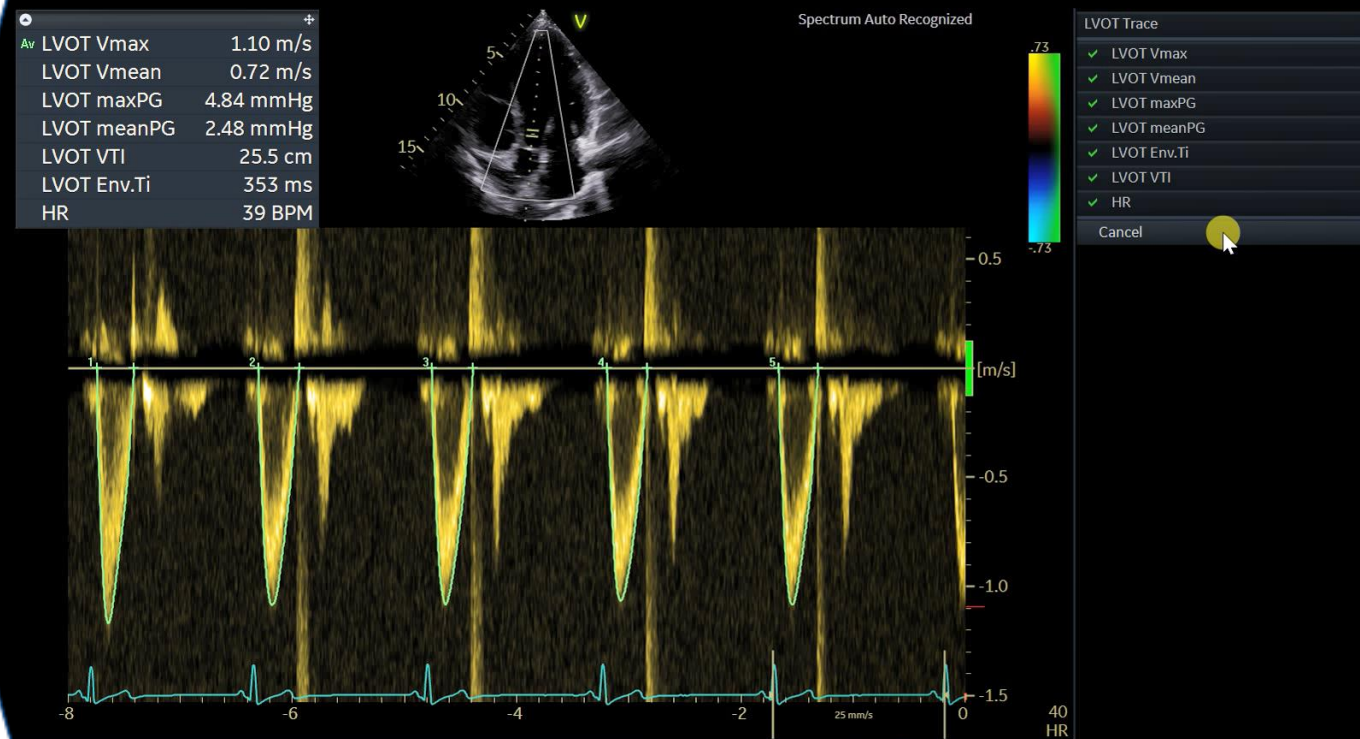
AI Auto Measure Spectrum Recognition

Vivid S70N
Ultra Edition

Semi-automatic selection of appropriate spectral Doppler measurement tool.

Benefits:

- Enables fewer manual interactions by automatically opening the appropriate measurement tool ¹
- Works seamlessly with Cardiac Auto Doppler
- Enhances reproducibility of follow-up studies when used in automated mode ¹
- Supports less experienced users with advanced automation



AI Cardiac Auto Doppler

Semi-automatic Cardiac Doppler measurements.

Benefits:

- Enhances reproducibility of follow-up studies when used in automated mode¹
- Offers Doppler measurement in multiple cardiac cycles as recommended by guidelines for irregular heart rhythms^{2,3}
- Supports less experienced users with advanced automation

REDUCED TIME PER MEASUREMENT

UPTO
93%

Fewer Keystrokes¹

LOWER INTER OPERATOR VARIABILITY

REDUCE
VARIABILITY

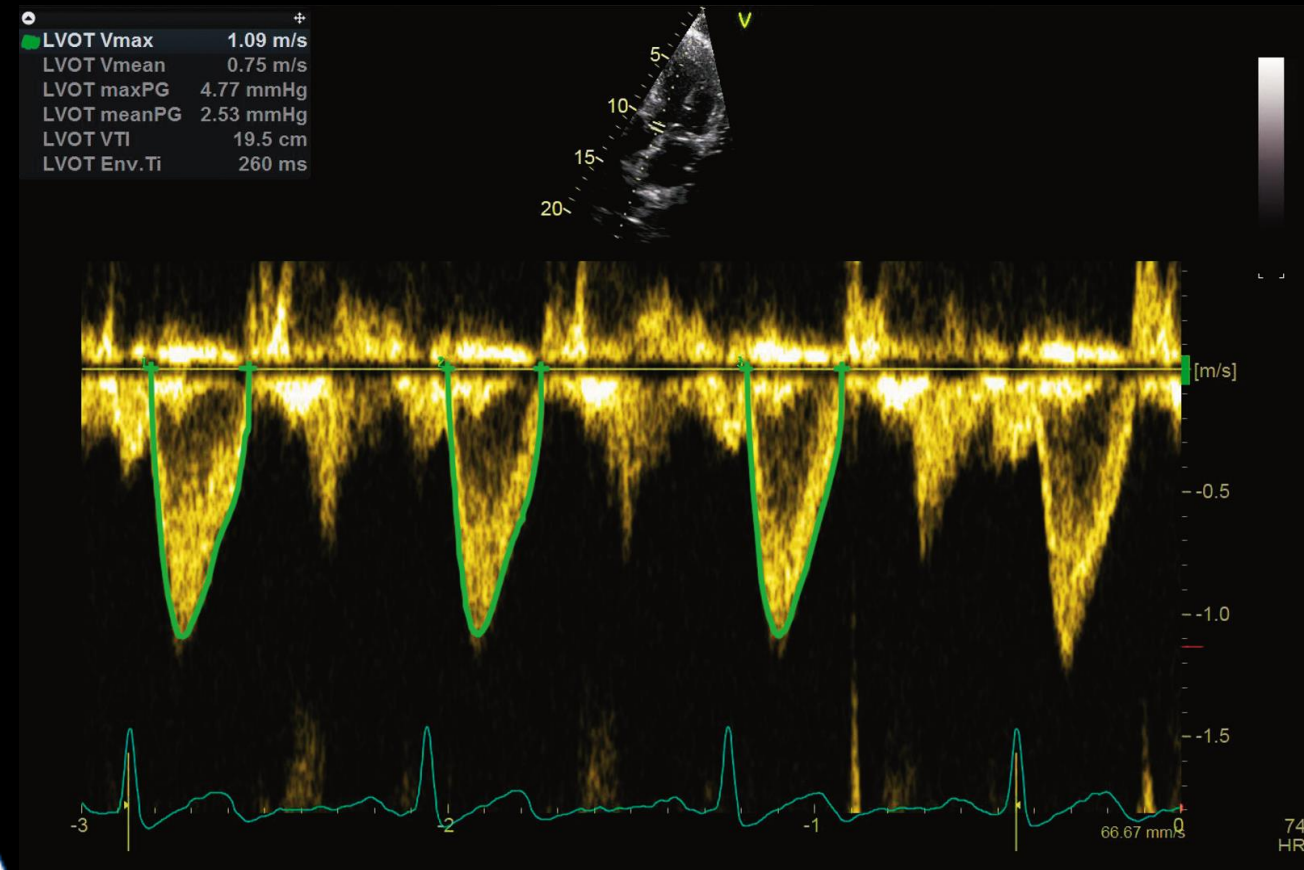
~3x

Standardized exams with greater reproducibility¹

ACCELERATED WORKFLOW



Productivity improvement



1. 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
 2. European Association of Echocardiography recommendations for standardization of performance, digital storage and reporting of echocardiographic studies (Eur Journal of Echo 2008 – Evangelista, Badano, Monaghan, Zamorano, Lancellotti).
 3. Recommendations for Quantification of Doppler Echocardiography: A Report From the Doppler Quantification Task Force of the Nomenclature and Standards Committee of the American Society of Echocardiography (JASE 2002)



VIVID HEART
APPLICATIONS

VALVES AND CHAMBERS QUANTIFICATION

*Precision at the heart
of quantification.*

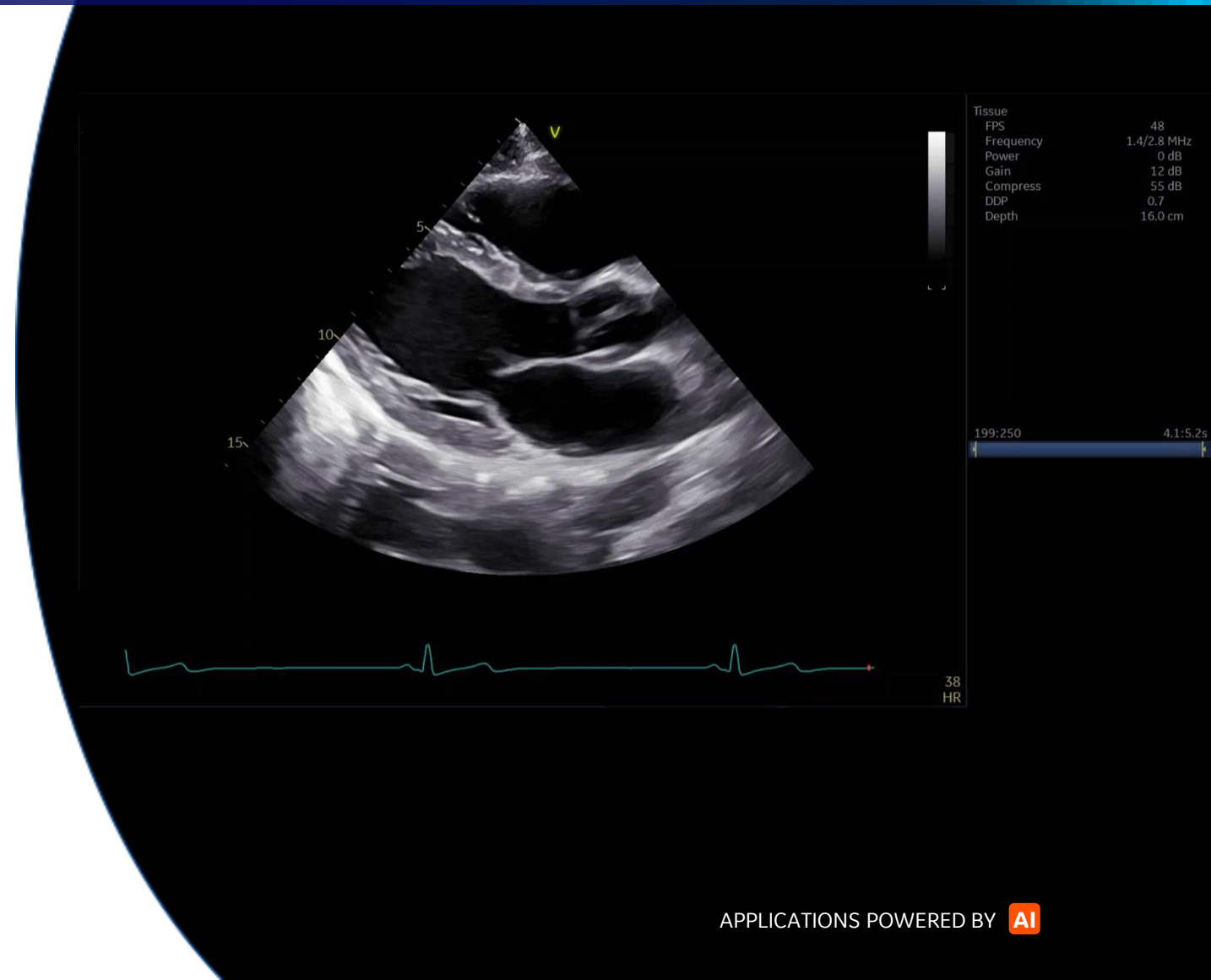
AI Auto Measure 2D

Vivid S70N
Ultra Edition

Semi-automated LV dimension measurements (2D calipers) in the parasternal long axis view, reducing manual interactions.

Benefits:

- Achieves fast measurements of left ventricle dimensions:
 - Up to 80% less clicks ¹
 - No need to scroll to look for ED and ES frames
 - Reduce manual workflow during analysis of cardiac images
- Improves reliability and repeatability of measurements – potentially increasing reproducibility for follow-up studies



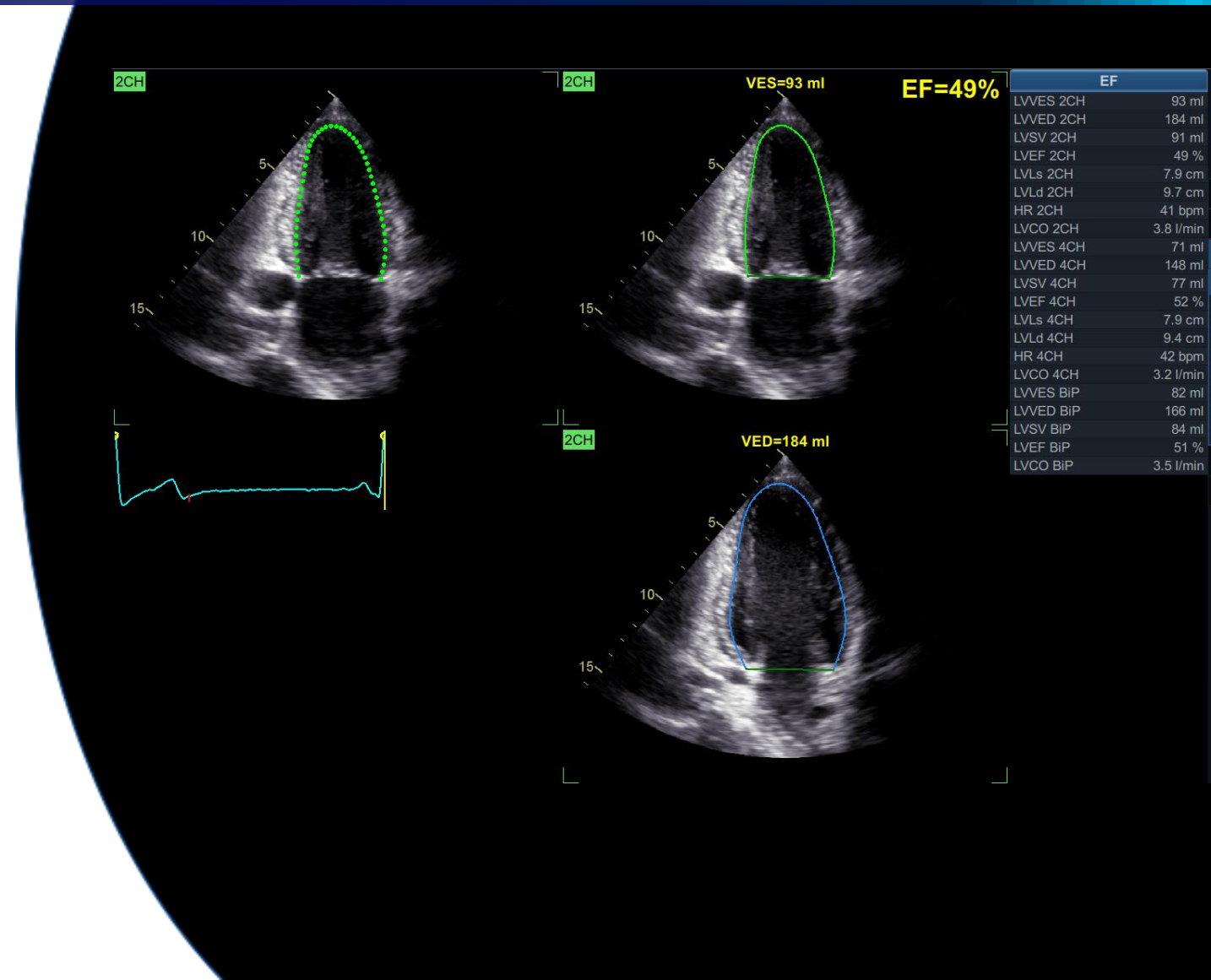
AI Auto EF

Vivid S70N
Ultra Edition

Powered by AI-based View Recognition, Auto EF provides semi-automated quantification of left ventricular volumes and ejection fraction. ¹

Benefits:

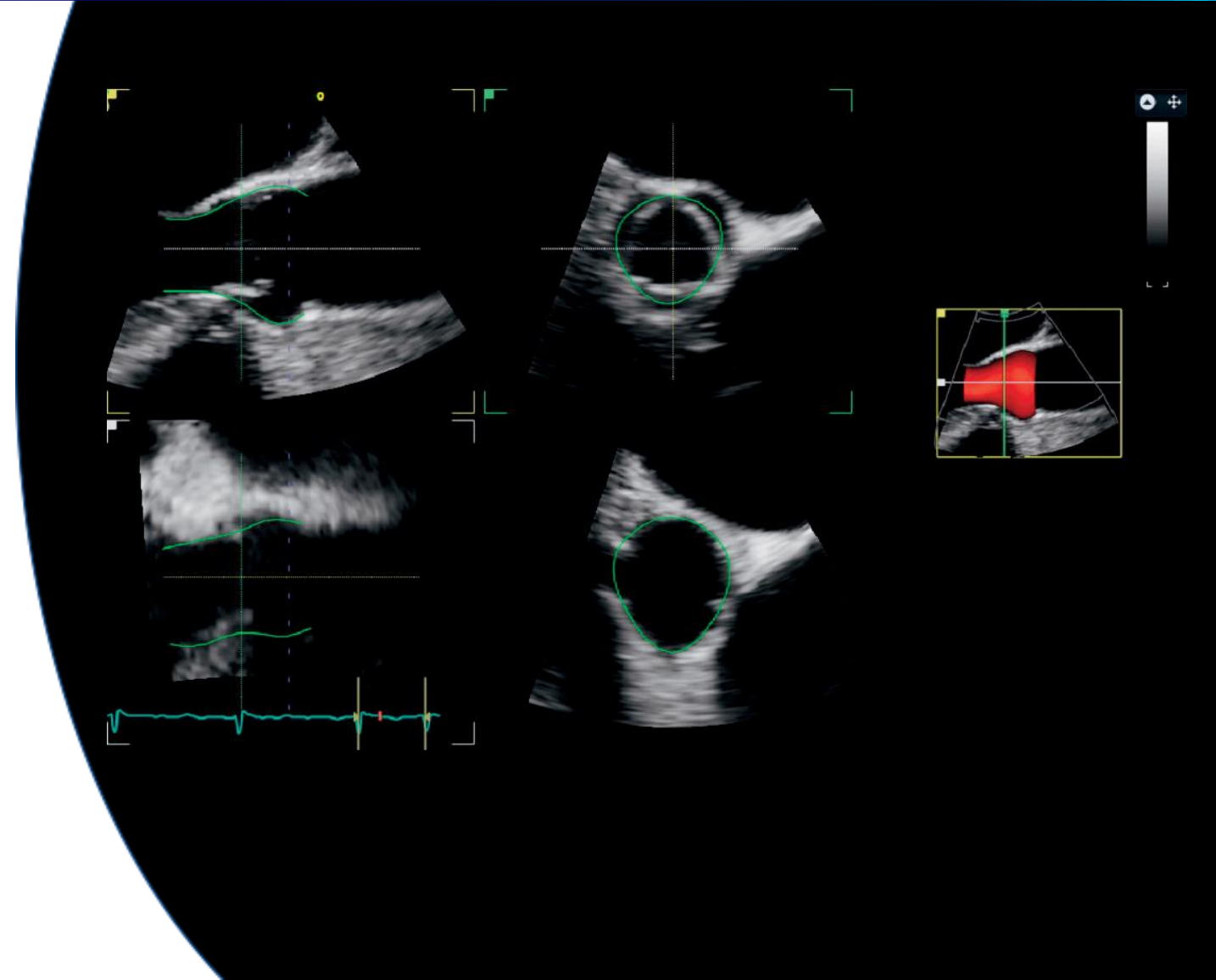
- Achieves fast measurements of ejection fraction
- DICOM support. Assessment of the left ventricle ejection fraction also on data sets acquired on other vendors' systems



1. View Recognition is only applicable to images acquired with TTE probe on GE systems

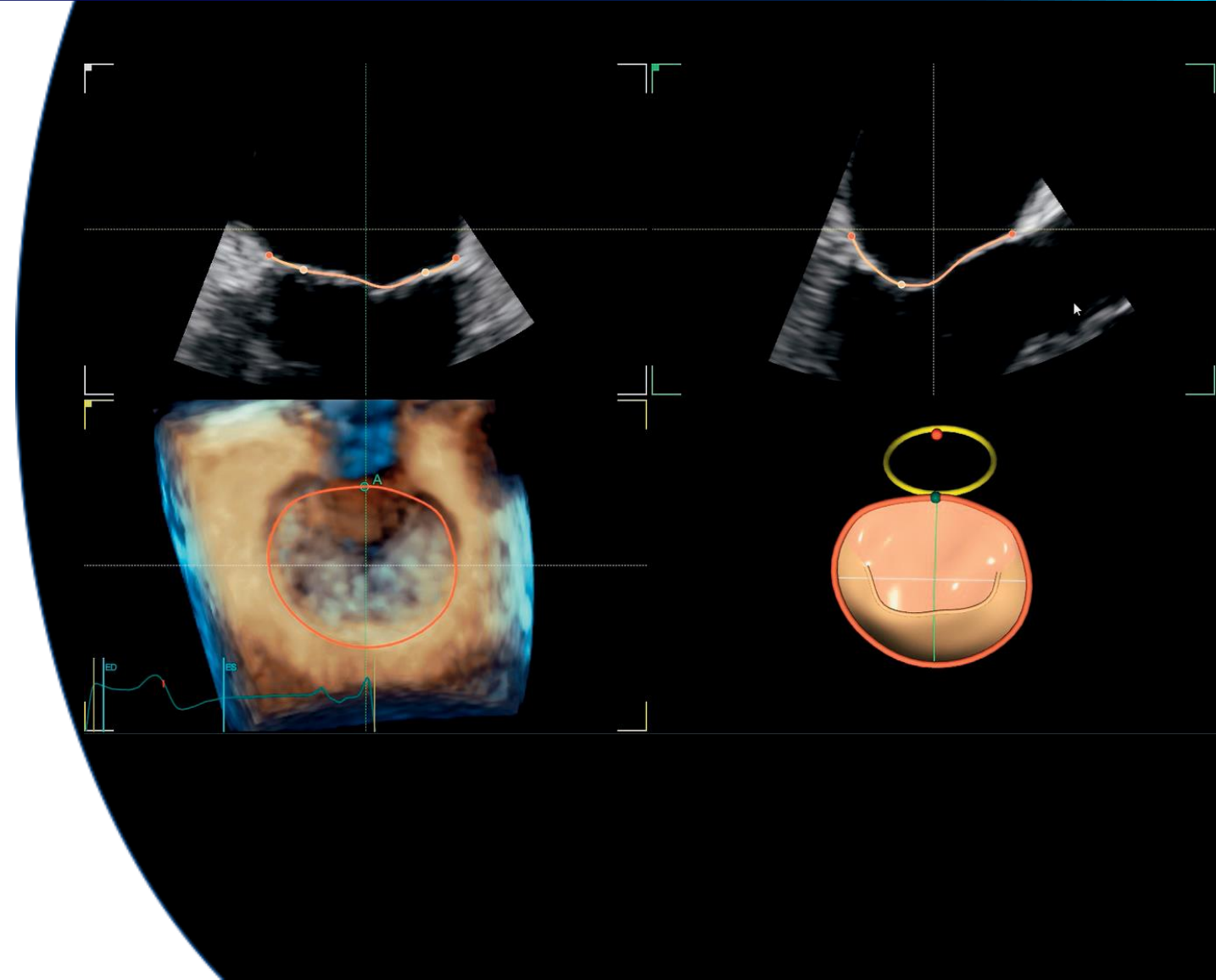
4D Auto AVQ

Automatically segment, align and quantify the aortic outflow tract – vital to device sizing and orientation for TAVI/TAVR procedures.



4D Auto MVQ

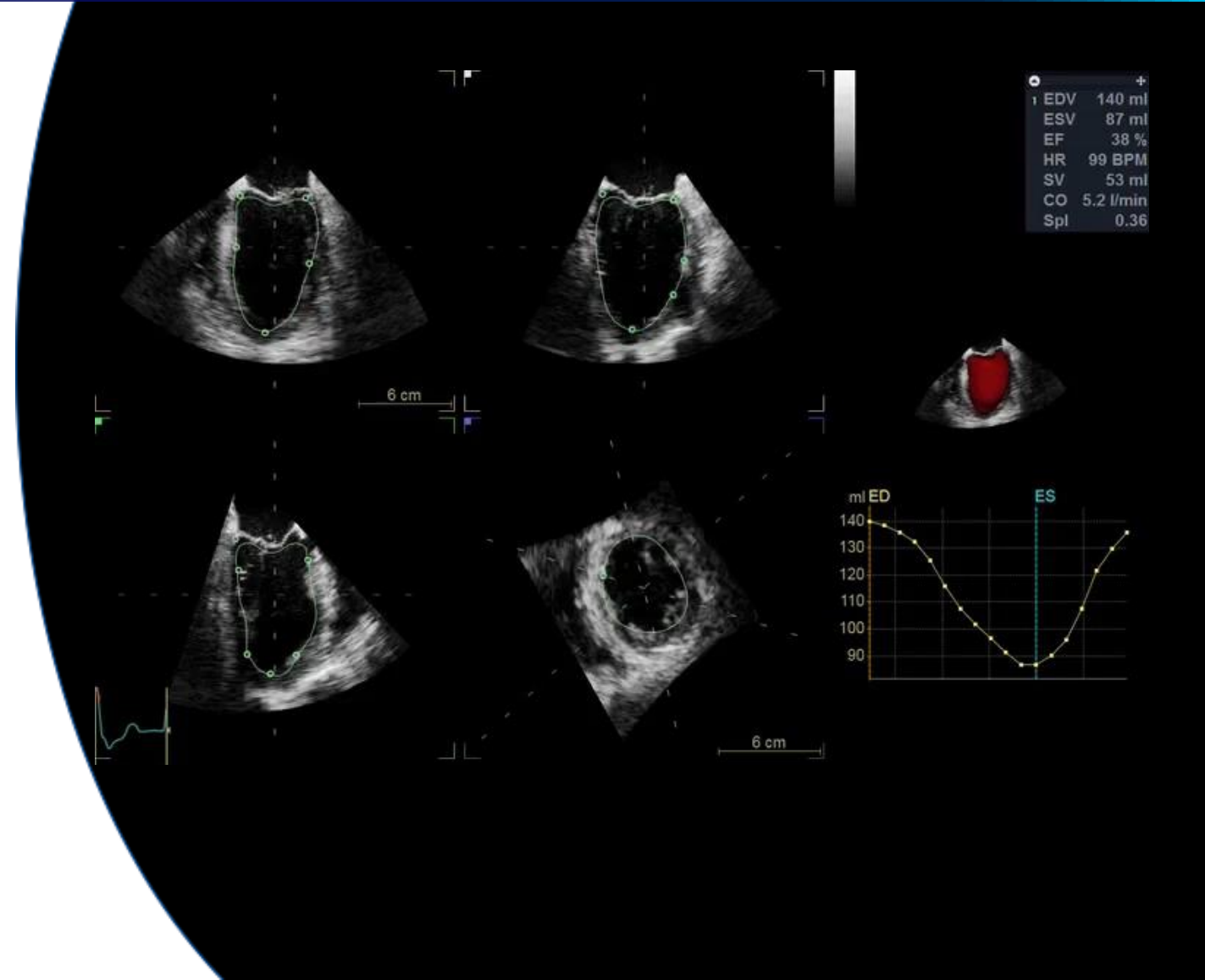
Supporting TEE images, this integrated package helps visualize and quantify the mitral valve via a semi-automatic, surface-detecting algorithm.



4D Auto LVQ

Vivid S70N
Ultra Edition

Adapted to work with full volume data sets acquired with the 4D TEE transducer, 4D Auto LVQ for TEE brings you a fast and easy automated method for left ventricle quantification, including volumes and ejection fraction.





VIVID HEART
APPLICATIONS

AFI FUNCTIONAL IMAGING

From diagnosis to prognosis.

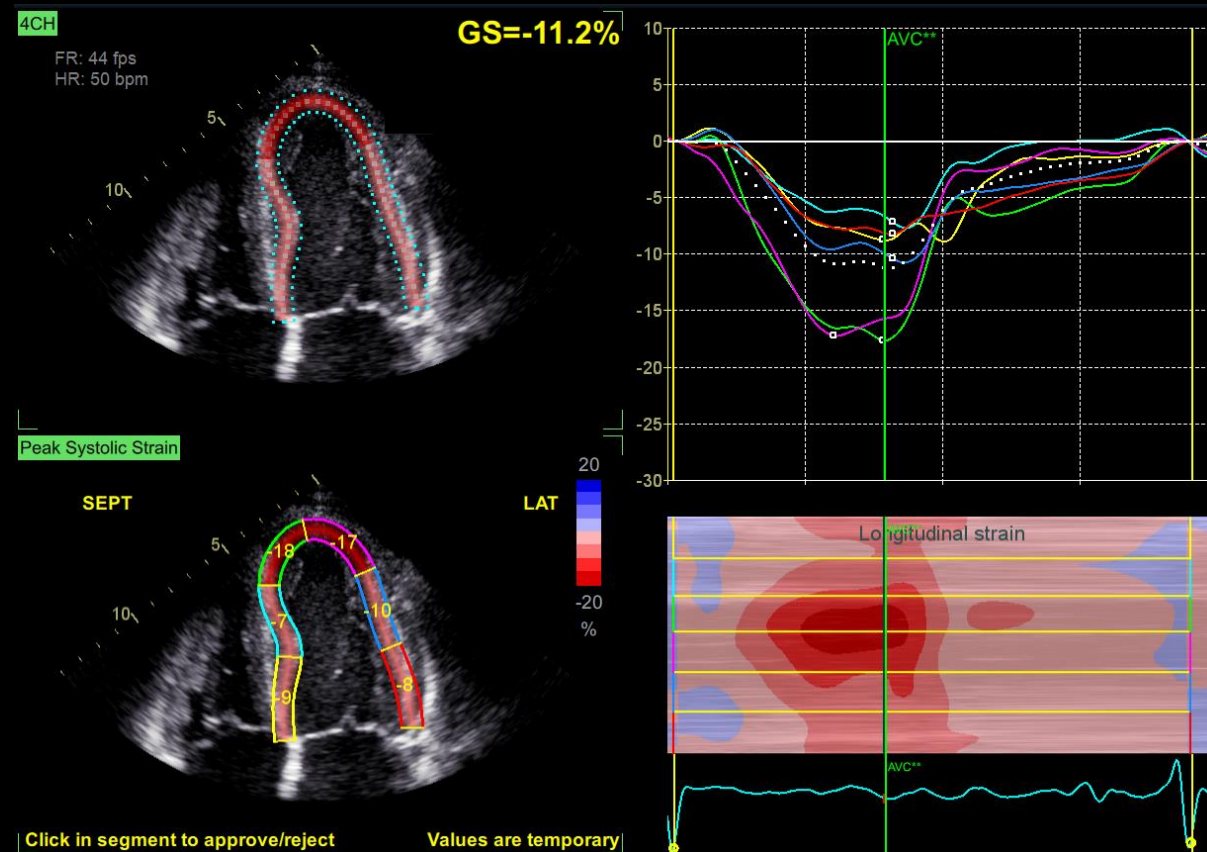
AI AFI LV with AI View Recognition*

Vivid S70N
Ultra Edition

Powered by AI-based View Recognition, AFI LV provides semi-automated quantification of left ventricular global and segmental strain.

Benefits:

- Offers advanced industry pioneered speckle tracking algorithm for quantifying myocardial deformation
- Works seamlessly - integrated ejection fraction calculation
- Supports Adult and Pediatric TTE and Adult TEE images
- Provides time savings via automatic selection of the appropriate 4-chamber, 2-chamber and APLAX images for analysis
- DICOM support. Assessment of the left ventricle ejection fraction also on data sets acquired on other vendors' systems



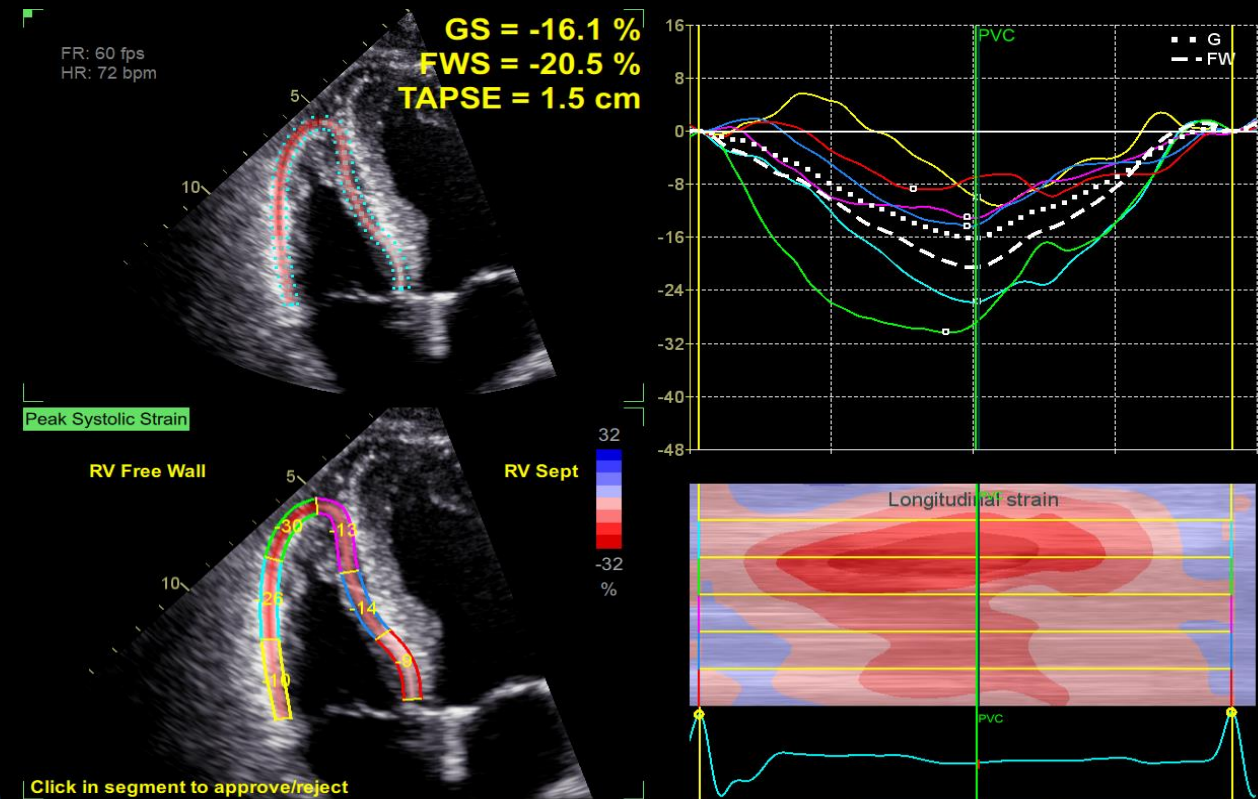
*View Recognition is only applicable to images acquired with TTE probe on GE systems

APPLICATIONS POWERED BY AI

AFI RV is a novel tool to assess the right ventricular function by advanced speckle tracking echocardiography.

Benefits:

- Offers renowned Vivid AFI user interface and workflow to allow current and new users easy adoption
- Supports right ventricle free wall strain, global strain and Tricuspid Annular Plane Systolic Excursion (TAPSE)
- Follows the 2018 EACVI-ASE Strain Standardized Task Force guidelines ¹
- Supports right ventricle images also from previous releases

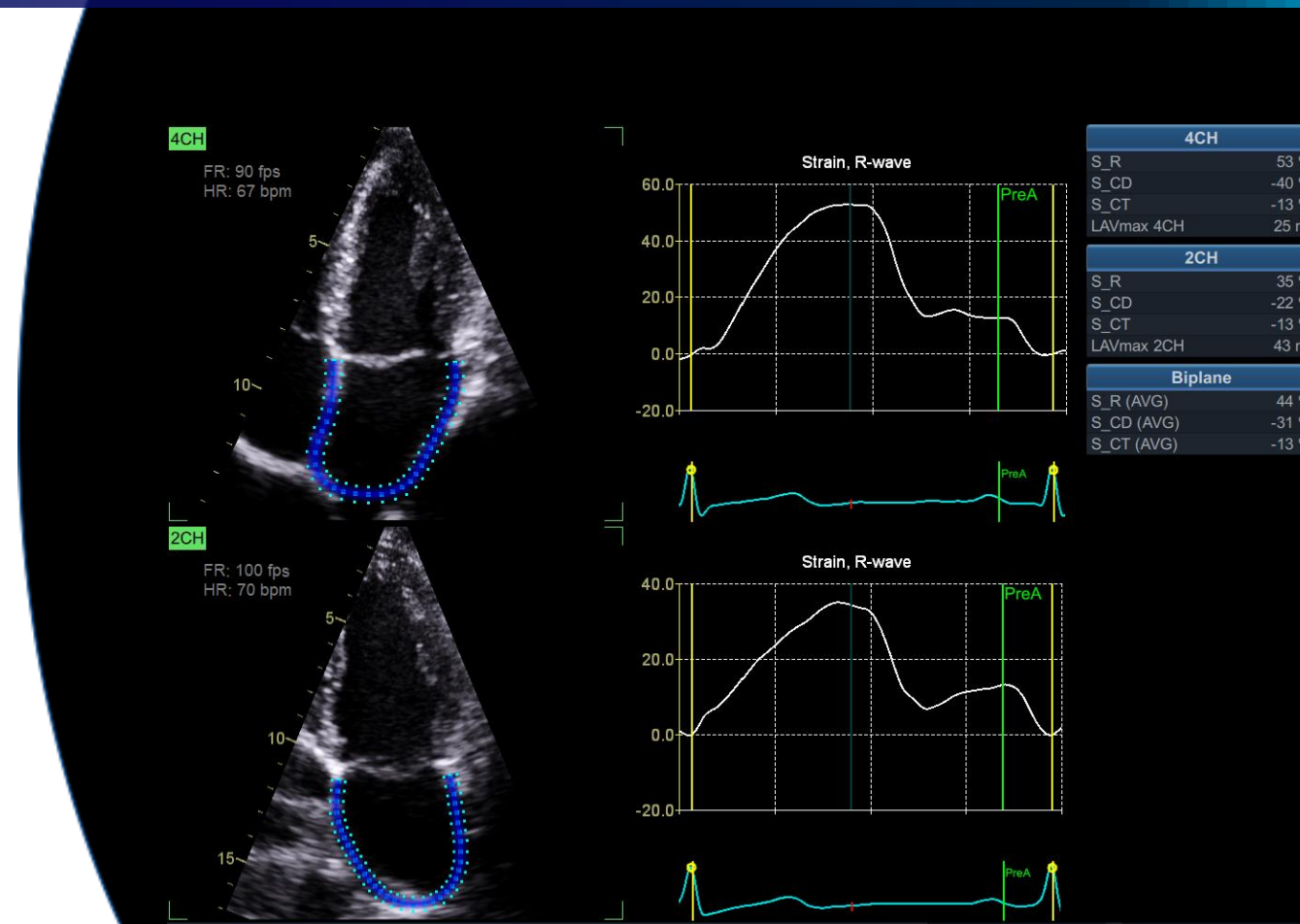


1. Standardization of left atrial, right ventricular, and right atrial deformation imaging using two-dimensional speckle tracking echocardiography: a consensus document of the EACVI/ASE/Industry Task Force to standardize deformation imaging. Badano et al. European Heart Journal - Cardiovascular Imaging (2018) 0, 1–10 doi:10.1093/ehjci/jej042

AFI LA Strain is a novel method to assess the left atrial function allowing global strain to be measured using speckle tracking echocardiography.

Benefits:

- Offers Vivid renown AFI user interface and workflow allowing users to easily adopt
- Supports left atrium strain, volumes and emptying fraction measurements
- Follows the 2018 EACVI-ASE Strain Standardized Task Force guidelines ¹
- Supports left atrium images also from previous releases



1. Standardization of left atrial, right ventricular, and right atrial deformation imaging using two-dimensional speckle tracking echocardiography: a consensus document of the EACVI/ASE/Industry Task Force to standardize deformation imaging. Badano et al. European Heart Journal - Cardiovascular Imaging (2018) 0, 1-10 doi:10.1093/ehjci/jej042



SEAMLESS WORKFLOW INTEGRATION

POST PROCESSING & REVIEW

EchoPAC Software Only and EchoPAC Plug-in:

- Analyze and review data from GE Healthcare Vivid family of scanners, as well as DICOM images from other ultrasound systems.
- Access all Vivid measurement and review tools utilizing GE Healthcare Raw Data or industry standard DICOM data

OPEN STANDARDS

- DICOM Image transfer with optional GE Healthcare Raw Data transfers images easily in your existing workflow
- DICOM SR Measurement Transfer including standard and custom measurement allows seamless integration with GE Healthcare and other industry reporting systems and EMRs ³

INTEGRATION WITH YOUR WORKFLOW

EchoPAC Plug-in is available for:

- GE Healthcare Centricity™ Cardio Enterprise with Intelligent Reporting (IR).
- GE Healthcare ViewPoint™ 6 with EchoPAC Suite ²
- As a plug-in to third party PACS

With Centricity Cardio Enterprise IR, routine adult echo reports are

83% complete before the physician opens the exam to review. ¹

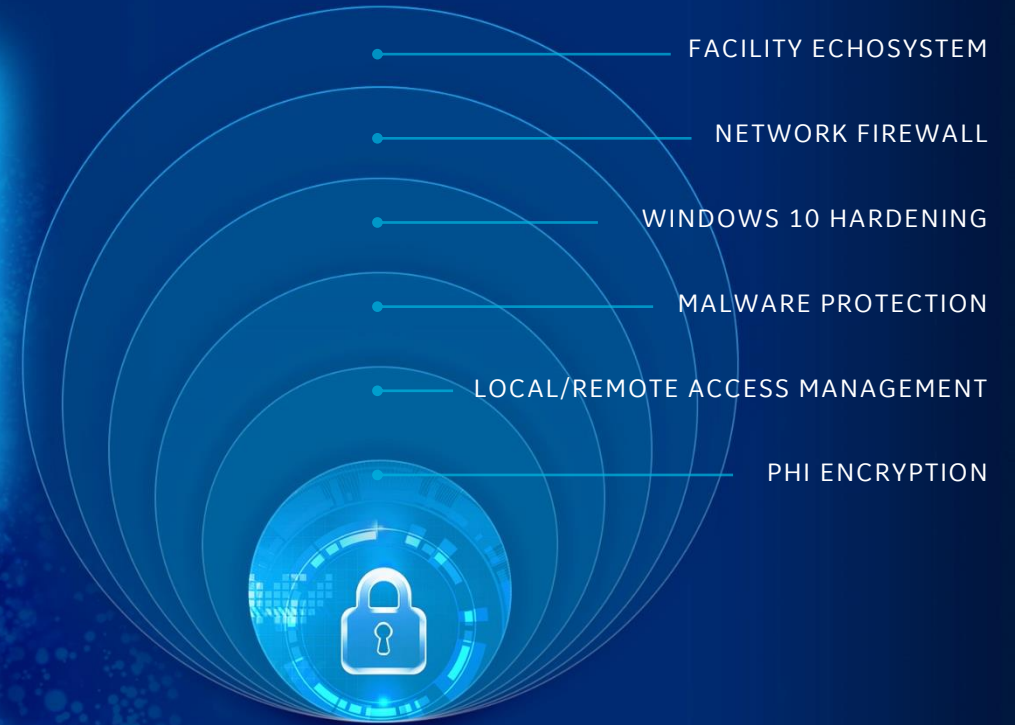
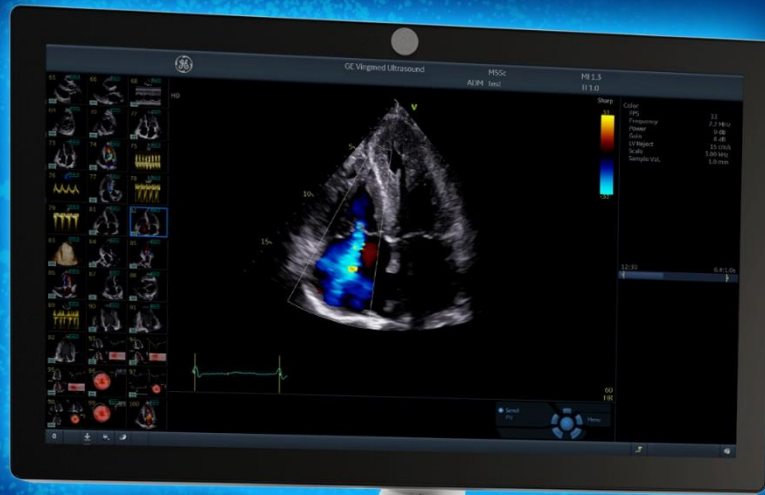
1. Centricity Cardio Workflow v7 Intelligent Reporting out-of-the-box configuration compared to 2017 IAC guidelines excluding doppler. CCW Intelligent Reporting Outcome - JB74831XX

2. EchoPAC Suite is a marketing name for EchoPAC Plug-in

3. With the DICOM SR support, Measures & Analysis (M&A) for an exam can be sent at the end of the exam or when exported from local archive. The destination can be either a server on the network (Storage SCP) or a removable media (DICOM Media) depending on the DICOM dataflow selected. Custom measurements supported only for Adult Echo (TID5200) and Pediatric Heart (TID5220).

SonoDefense

ADVANCED CYBERSECURITY
AND DATA PRIVACY PROTECTION



Protecting against these threats and safeguarding your patients and your institution requires more than anti-virus protection. SonoDefense is GE Healthcare's multi-layer strategic approach to cybersecurity and patient data privacy for ultrasound.

SonoDefense is designed to:

- Keep the ultrasound machine safe and functional in the face of cyberthreats
- Protect patient data on the machine from unauthorized access
- Enable you to successfully implement patient data and security policies, while still managing product daily workflows

[POP]

PERFORMANCE
OPTIMIZATION
PARTNERSHIPS

I need **education and training support** to achieve clinical and operational excellence



I want to maximize device **performance and utilization to achieve more** with my assets

I don't want to deal with **unplanned downtime** and maximize **device availability**



WHERE DO YOU NEED HELP ?



I want a shared risk partnership to **optimize maintenance costs** based on mutual expertise

I want to protect against **cyber vulnerability** and ensure that **my device is up to date**



I need a holistic ecosystem of solutions for **probe fleet management**

[POP]

PERFORMANCE
OPTIMIZATION
PARTNERSHIPS



STAFF EXCELLENCE

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.



EDUCATIONAL PROGRAMS

Tailored training content for all users' needs

VIVID CLUB

Exclusive community for clinical and technical users

DIGITAL EXPERT¹

Hands-on learning, personalized experience

STAR SUPPORT APPLICATION

Application support powered by augmented reality



1. Digital Expert is only offered in the USA

[POP]

PERFORMANCE
OPTIMIZATION
PARTNERSHIPS



PROACTIVE MANAGEMENT

Use digital technology and tools to minimize expensive and disruptive unplanned downtime.

Proactive monitoring to reduce cost and revenue loss from unplanned failures and automated updates for peace of mind.



**PROACTIVE
MAINTENANCE**

Know the failure before it occurs

**REMOTE SERVICES &
REAL-TIME SUPPORT**

On demand support to minimize
disruptions

**AUTOMATED,
REMOTE SW UPDATE**

Proactive OS and performance
enhancements updates



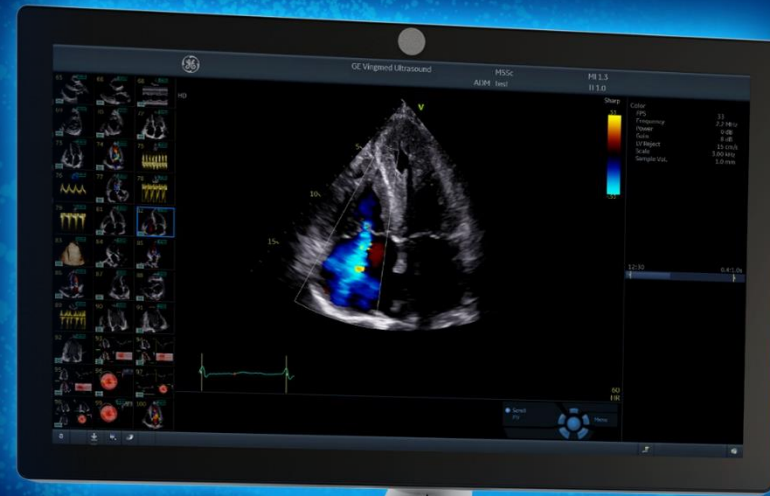
[POP]

PERFORMANCE
OPTIMIZATION
PARTNERSHIPS

DEVICE PROTECTION

Keep your device state-of-the-art with software upgrades, 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.



OPTIONS & UPGRADES OFFERS

Technological obsolescence
protection program

SONODEFENSE

Advanced cybersecurity
and data privacy protection

CONTINUITY SUPPORT PLUS

Proactive updates to keep your
devices current and secure



[POP]

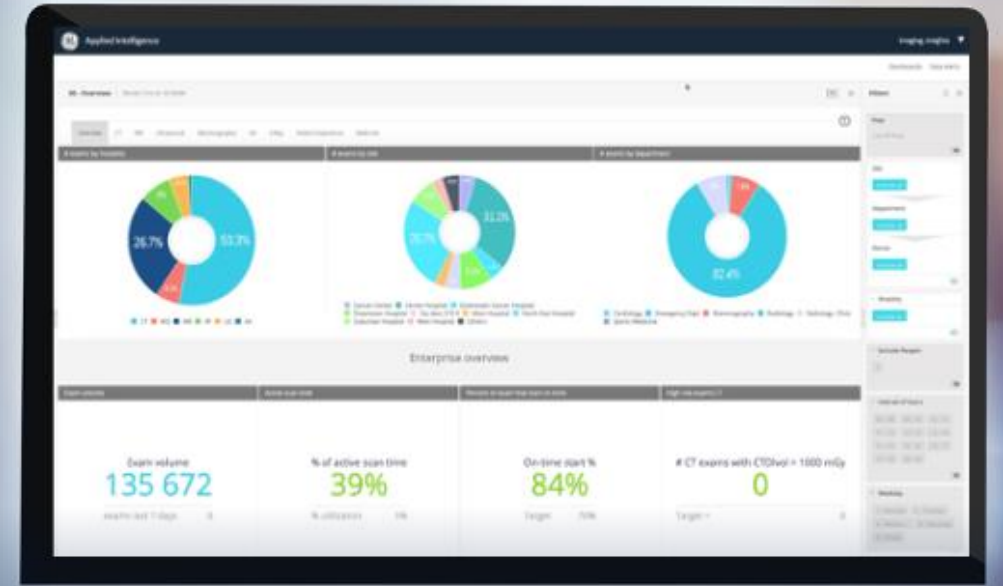
PERFORMANCE
OPTIMIZATION
PARTNERSHIPS



ASSET 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.



ULTRASOUND EXCELLENCE

Cloud-based solution for powerful, intuitive dashboards to deliver key outcomes

iCENTER

On-site solution for powerful, intuitive dashboards to deliver key outcomes



[POP]

PERFORMANCE
OPTIMIZATION
PARTNERSHIPS

IMPROVED UPTIME

Best-in-class repair services to drive uptime.
Fully scalable from full coverage to shared maintenance.

Thoroughly aligned with your own in-house capabilities, providing the right balance between staff autonomy and our expertise.



MAINTENANCE CONTRACT

Smart Diagnostics by trained engineers - GE or inhouse



eCOMMERCE (SERVICE SHOP)

A complete platform for all your biomedical needs

iCENTER / UPDATEME

On-site solution for powerful, intuitive dashboards to deliver key outcomes

REPAIRS CENTERS & LOANERS

A global network for depots to meet multivendor repair needs

[POP]

PERFORMANCE
OPTIMIZATION
PARTNERSHIPS



PROBE PERFORMANCE

Customizable portfolio of solutions for probe lifecycle needs to improve availability and performance.

Proactive probe care to help you increase diagnostic quality, decrease cross-contamination risk and expand the life span of the transducers



PROBE CARE APPLICATION

Access to education and probe evaluation at your fingertips



PROBE CARE TRAINING

Comprehensive content for probe care and handling

REPAIRS CENTERS & LOANERS

A global network for depots to meet multivendor repair needs

DESINFECTION SOLUTIONS

A complete solution to help you stay compliant with high standard of probe care



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