Focusing on sustainability in ultrasound

Vivid™ E95, Vivid™ E90,
Vivid™ E80 Ultra Edition* Ultrasound

GE HealthCare

Creating a more sustainable future requires us to care for the planet and its inhabitants

It is essential that we continue to drive progress toward early, precise, and accessible diagnosis and care of more patients. For the planet, it is critical that we do so with a reduced impact on precious and rare resources that are imperative to life. We believe that the advancement of precision medicine, greater digitization of healthcare, and increased access to quality care are fundamental to accomplishing this goal.

We support carbon policies that reduce greenhouse gas emissions and promote sustainable development. GE HealthCare is committed to achieving net zero by 2050, and we have signed up to the Science Based Targets initiative (SBTi) business ambition for 1.5C, a group of visionary corporate leaders taking ambitious climate action, and we have committed to implementing science based targets. This includes a public goal to reduce operational emissions (scope 1 and 2) by 50% by 2030 against a 2019 baseline. As a result of these efforts, we want to enable a more sustainable health system by addressing not only the environmental impacts of our products but also the challenges healthcare professionals and their patients face with resilient, digital solutions.

We are committed to achieving net zero emissions by 2050.

We've set a public goal to reduce operational emissions (scope 1 and 2) by 50% by 2030.

Leading a new era in sustainability for a more resilient tomorrow

We're creating a world where healthcare has no limits, helping to improve access to care and enable better patient outcomes.

Environmental
Using fewer resources for a healthier planet.

Digital
Transforming healthcare through innovation.

Resilience
Building flexibility and dependability across healthcare systems.

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Vivid E95, Vivid E90, & Vivid E80 help create a resilient tomorrow.

Our Cardiovascular Ultrasound Vivid E95, Vivid E90, & Vivid E80 and their services help ensure clinicians and the patients they serve have the technology necessary to create a more sustainable and resilient tomorrow.

Reducing environmental impact

- Vivid E95, Vivid E90, & Vivid E80 systems are designed to be refurbished, reused, or recycled at the end of their product life to minimize unnecessary waste.

Improving care

- AI-based measurement tools reduce exam time and may increase measurement accuracy.

- Ergonomic design improves the user experience and reduces strain on clinicians and system operators.

- Our cSound™ platform delivers exceptional image quality.

Contributing to a healthier planet

More than half of the healthcare sector's climate footprint, approximately 53%, is attributable to energy use.[1] As a result, we have strengthened our commitment to environmentally conscious design and we are implementing more sustainable practices across our product manufacturing, sourcing, distribution, installation, and service operations. This includes improving energy efficiency, optimizing the use of limited or rare materials, providing digitally enabled service throughout the product lifespan, and offering refurbishment and recycling options at the end of product life.

GE HealthCare environmental management system is ISO 14001 certified	Our production and service operations align to ISO 14001 standards.
We're committed to environmental product design	This product conforms with IEC60601-1-9

[1] Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org), based on 2019 report

Materials

GE HealthCare reviews the environmental aspects of the material supply used within our products to increase recyclability and decrease the use of hazardous substances, when possible.

Recyclability	We're committed to high recyclability of our products and reuse when possible.
	Our Vivid E95, Vivid E90, & Vivid E80 contain recyclable aluminum and steel.
Reduce the use of hazardous substances	Compliant to EU RoHS directive 2011/65/EU
	REACH (EC) 1907–2006
	Including Commission Delegated Directive 2015/863/EU

Packaging

GE HealthCare imaging equipment has a robust and multi-sourced supply chain for systems and spare parts across our product portfolios.

Improved packaging　　Packaging material is recyclable and FSC certified.

Manufacturing

Through our environmental reviews, we also focus on implementing renewable energy and reducing waste.

Renewable energy　　Vivid E95, Vivid E90, & Vivid E80 units are manufactured at a facility that uses 100% renewable district heating for part of the facility; the rest is a combination of renewable and non-renewable energy.

In 2023, the total consumption was divided as follows:

- 109,000 kWh fully renewable
- 1,393,655 kWh partly renewable, partly non-renewable, depending on vendor capacity

Product utilization

Our imaging products are designed to help enable energy efficiency through dedicated features and advanced applications to reduce the environmental impact. Ergonomic design can help to enhance health and potentially reduce environmental impacts, such as reducing waste and saving energy.

Ergonomically designed

Reduce staff burden

Ergonomic features include a highly portable user-adaptable design with electronic adjustable height and keyboard, articulating and height adjustable monitor, and lightweight transducers. These combine with a control panel which can move freely in all directions to make the Vivid E95, Vivid E90, & Vivid E80 ergonomic-friendly cardiovascular ultrasound systems.

Width: 527 / 564 mm (20.7 / 22.2") (OLED and HDU monitor versions respectively)
Depth: 844 mm (33.2")
Height: 1392 mm–1714 mm (54.8 inch–67.5 inch) (up/down mechanism + monitor arm)
Minimum height with folded screen: 1180 mm (46")
Weight: 120 kg ± 10% (264 lbs ± 10%)

The Vivid E95, Vivid E90, & Vivid E80 also have adjustable monitors:
350 mm horizontal bidirectional
150 mm vertical height adjustment
Swivel to any viewing direction

The probes have been ergonomically designed to handle and manipulate with ease, and an optional foot switch can be used for hands-free system control.

Product utilization

Noise level	Typical acoustic noise: max 65dB, min 29dB
Guidance for product utilization	Instructions are provided for use of the equipment to minimize the environmental impact during installation, use, and operation.
Reduce energy consumption during use	The system is designed to auto freeze after time of inactivity determined by the user.
Power consumption	Off Mode: 18 W Standby/Idle (no scan): 348 W Scan Mode: 2D scanning: 367 W 4D scanning: 448 W
Reduce consumable energy utilization	Auto Freeze (tissue detection) on 4Vc probe will automatically enable freeze mode when the probe is not in use.
	Automatically entering freeze from 4D scan reduces energy consumption by 100 W (22%).
Carbon emissions	There are zero direct carbon emissions at place of use.
Natural resources	Fully RoHS compliant. These more compact ultrasound scanners use fewer electronic boards and components.

End of product life

We are increasingly putting our retired products' materials back into the supply chain to maximize efficient use and minimize unnecessary waste. This circularity model enables our imaging products to extend their clinical impact through longer lifespans while reducing the environmental footprint. Additionally, we offer our customers support for upgrades and services throughout a product's lifespan, when available, to maintain optimal performance and help drive better patient outcomes.

Our refurbishment programs involve an extensive inspection and testing process, designed to bring equipment back to its original certified manufacturing specifications. If the system is not suitable for refurbishment, eligible parts are harvested for reuse after quality and performance testing, while the remaining parts are returned to dedicated recycling facilities.

Product utilization

Guidance for end of lifecycle	Equipment instructions are provided to minimize the environmental impact for disposal or recycling.
Upgradeable hardware and software options are provided as a solution to extend the product lifespan	Upgrades are available for Vivid E95, Vivid E90, & Vivid E80.
Parts harvesting and refurbishment options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions	Cardiovascular ultrasound system parts are eligible for assessment through the refurbishment program, in which they are assessed for refurbishment, harvesting, or recycling at the appropriate time in the lifespan.[2]
	94–96% of systems are reused, refurbished, or recycled, extending the lifetime of each product.[2]
	100% of Vivid E95, Vivid E90, & Vivid E80 systems are eligible for refurbishment.
Waste reduction	This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations.
	EU directive reference 2012/19/EU

[2] Products within ultrasound are eligible for refurbishment, although whether a system is actually refurbished versus harvested for parts or otherwise recycled or reused is dependent on the state of the system when GE HealthCare takes possession of it. Data on file.

Digitizing healthcare through transformative innovations for a more resilient tomorrow

We are committed to investing in digital capabilities that help accelerate clinical decision making, optimize imaging operations, and drive efficiencies in exam workflows, all of which can improve patient outcomes. Enabling digital transformation will further enhance our predictive and maintenance service operations for the life of your products.

We are also dedicated to driving a more resilient and sustainable future in healthcare. Many factors, including the pandemic, climate-related weather disasters, and supply-chain issues amplified this need. Managing operations through these challenges requires resilience and perseverance.

Helping clinicians advance patient outcomes

Advanced applications and cutting-edge AI tools provide personalized data to drive actionable insights, helping healthcare professionals make fast, accurate clinical decisions for care pathways.

Gain actionable clinical insights for quicker decision making	Automated Functional Imaging (AFI) leads to earlier diagnosis and improved outcome.
	The AI Auto Measure 2D tool eliminates up to 80% of clicks.[3]
	AI-based Cardiac Auto 2D Measurement (option) enables semi-automated quantification of the most common distance measurements performed on parasternal long axis 2D images with minimum user guidance.
	Obtain ejection fraction and strain measurements in just one click with results in 15 seconds, on average.[4]
	Cardiac Auto Doppler automatically provides Doppler measurement results for the most common parameters with minimal user guidance.
Keep your imaging equipment up to date with advanced clinical applications	Vivid E95, Vivid E90, & Vivid E80 are designed to download software updates when they are available using InSite™. Software download monitors, notifies, delivers, and installs available system software updates. Remote update options via eDelivery are available in some markets.

[3] Applicable to the AI Auto Measure 2D algorithm. Results based on GE HealthCare internal data (DOC2361011).
[4] Time to strain measurement result may vary with heart rate, frame rate and Vivid system. Verification of performance done by GE HealthCare clinical application specialists using Vivid system (DOC2739637).

Helping clinicians advance patient outcomes

Help improve patient outcomes with improved image quality

Our cSound platform uses advanced software image reconstruction and state-of-the-art graphics technology to deliver exceptional image quality on the Vivid E95, Vivid E90, & Vivid E80.

The Vivid E95, Vivid E90 & Vivid E80 also feature second generation Ultra Definition Clarity filtering, HD Imaging (optimal resolution, penetration, and image uniformity), and Adaptive Contrast Enhancement (ACE) for superior images.

UD clarity and UD speckle-reduce imaging removes speckle in real time, examining the relative difference between neighboring pixel values and determining whether the grayscale variations have a sharp difference, follow a trend, or are random in nature.

HD*live*™ and FlexiLight enhance 4D tissue visualization and have the potential to increase understanding of complex cardiac structures and/or catheters and implantation devices.

Drive advancements of precision health

AFI has been shown to be more sensitive than traditional parameters like ejection fraction. This may result in earlier diagnosis and improved outcome.
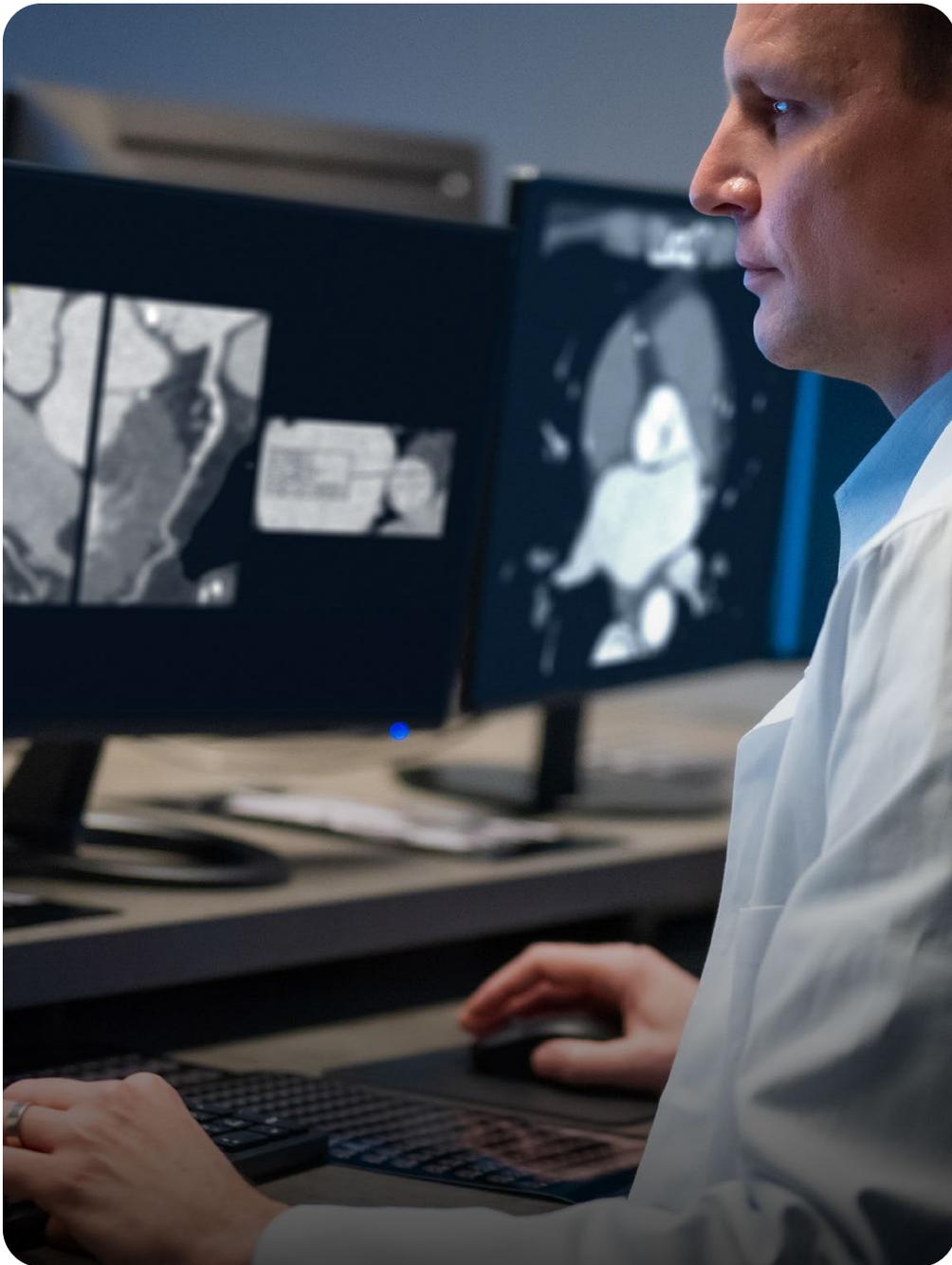
Optimizing imaging operations

Our advanced digital solutions are designed to increase efficiencies across the surgical visualization spectrum without increasing the administrative and training burden on clinicians.

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Increase productivity and consistency	A raw data streaming option sends image information as a digital video stream to clients in real time. The clients can visualize, modify, and process image data from GE HealthCare scanners through their own applications.
	Digital Expert enables the user to connect remotely to a GE HealthCare Clinical Specialist to receive application-related training and help.
Reduce downtime	The "Contact GE" onscreen button directly generates a real time service request to a GE HealthCare online engineering or application specialist. It takes a snapshot (e.g., error logs, setup files) of the system at the time of the service request to enable analysis of problem before customer contact.
	Software updates are available for download via eDelivery.
	The remote service platform, InSite, connects you with a GE HealthCare Online Service Engineer or Applications Support Engineer. It has remote diagnostics capability as well as the ability to request service.
Cybersecurity	GE HealthCare's Design Engineering Privacy and Security (DEPS) process follows GDPR, HIPAA, NIST 800-53, NIST 800-30, and NIST CSF requirements.
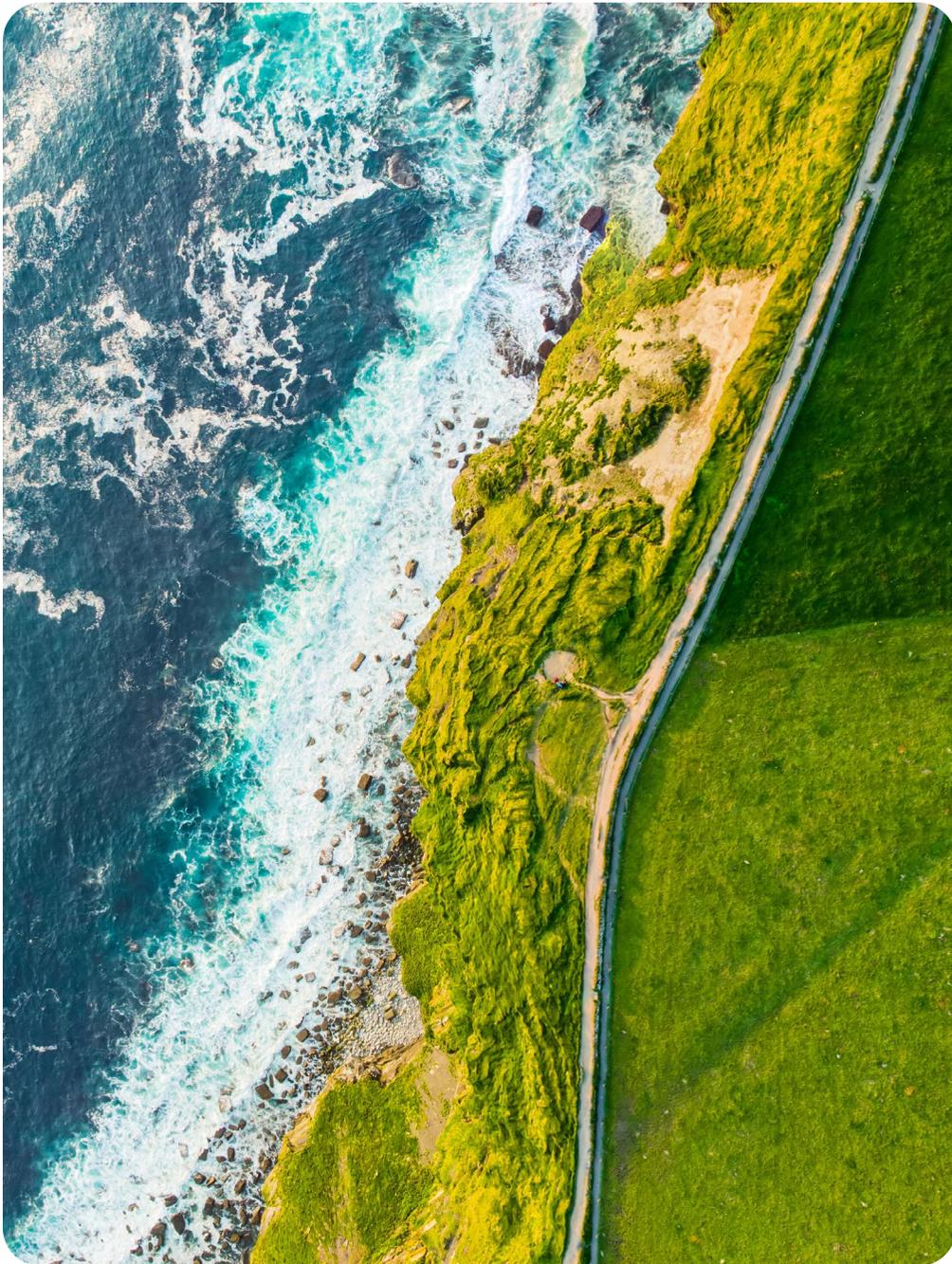
Enabling intelligent exam workflows

Intelligent automation features help to drive consistency, enable fast, easy exams, and improve workflow with fewer resources.

Reduce setup time

Our QuickApps offer both factory and user programmable sub-preset features that keep 2D and geometry settings while adapting color flow or contrast parameters.

Vivid E95, Vivid E90 & Vivid E80 has pre-programmable M&A and annotation categories.

Reduce exam time

AI-powered applications, such as Auto 2D Measure, Auto Doppler Measure, and Auto EF, automate common clinical measurements. Customers report that using these tools has reduced their exam times by 7–10 minutes.

AI Auto Measure Spectrum Recognition enables automated recognition of the most common Doppler spectra and automatically starts the Auto Doppler measurement (where commercially available).

Enabling intelligent exam workflows

Ease of use

In addition to delivering auto optimized superb 2D images, our cSound technology requires little manipulation.

Many of our other optional automated tools are also designed for ease of use, including 2D Auto EF 3.0 and AFI 3.0 Productivity Package with AI-based View Recognition, Cardiac Auto Doppler with AI Auto Measure—Spectrum Recognition, AI Auto Measure—2D, and Scan Assist Pro.

Likewise, many of our 4D imaging tools are engineered with ease-of-use in mind. These include Single Beat 4D, 4D Views, Advanced 4D User Toolbox including FlexiSlice, Advanced 4D User Quantification Package, 4D Auto LVQ, 4D Auto MVQ, 4D Auto AVQ, FlexiViews, 4D Markers, and View-X.

Cleanability

Our equipment is designed to be cleaned and disinfected easily. We continue to test and approve new cleaning and disinfecting agents. Visit *Cleaning.GEHealthCare.com* for updates.

Creating a healthy world to help enable better patient outcomes.

GEHealthCare.com/about/sustainability

GE HealthCare