



# Sustainable molecular imaging solutions for a resilient tomorrow

NM/CT 850





# Creating a more sustainable future requires we care for the planet and its inhabitants.

It is essential that we continue to drive progress toward early, precise, and accessible diagnosis and treatment 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 health, 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. We are committed to achieving net zero by 2050 and are part of the UN-backed “Race to Zero,” with a goal of reducing emissions based on the Paris Agreement. We’ve also set a public goal to achieve a 50% reduction in our own operational emissions by 2030. 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 options.



We are committed to achieving **net zero** emissions by 2050.

We’ve set a public goal of a **50% reduction** in our own operational emissions by 2030.

**We deliver sustainable,  
intelligently efficient  
solutions for a resilient  
tomorrow.**

Building a healthier world to  
help improve access to care and  
enable better patient outcomes.



**Green**

Using fewer resources for a healthier planet.

**Digital**

Transforming healthcare through innovation.

**Resilience**

Building flexibility and dependability across healthcare systems.



## NM/CT 850 helps create a resilient tomorrow.

Our NM/CT 850 SPECT/CT system and its services help ensure that radiology professionals and the patients they serve have the technology necessary to create a sustainable and resilient tomorrow.

### Reducing environmental impact

- 91% of materials used in the system are recyclable
- Compliance with IEC60601-1-9: Requirements for Environmentally Conscious Design
- Parts eligible for harvesting
- Waste management (WEEE passport)

### Improving outcomes

- Provide shorter, more tolerable exams with Evolution technology.<sup>1</sup>
- Help diagnose disease earlier with SwiftScan Planar and SwiftScan SPECT's improved small lesion detectability.<sup>2</sup>
- Enable reduction of dose or scan times with SwiftScan Planar and SwiftScan SPECT.<sup>3</sup>
- Simplified workflow for complex hybrid and quantitative protocols with SmartConsole.



<sup>1</sup> In clinical practice, Evolution Options<sup>1a</sup> (Evolution for Bone, Evolution for Cardiac, Evolution for Bone Planar) and Evolution Toolkit<sup>1b</sup> are recommended for use following consultation of a nuclear medicine physician, physicist, and/or application specialist to determine the appropriate dose or scan time reduction to obtain diagnostic image quality for a particular clinical task, depending on the protocol adopted by the clinical site.

<sup>1a</sup> Evolution Options—Evolution Options claims are supported by simulation of count statistics using default factory protocols and imaging of <sup>99m</sup>Tc based radiotracers with LEHR collimator on anthropomorphic phantom or realistic NCAT—SIMSET phantom followed by quantitative and qualitative images comparison.

<sup>1b</sup> Evolution Toolkit—Evolution Toolkit claims are supported by simulation of full count statistics using lesion simulation phantom images based on various radiotracers and collimators and by showing that SPECT image quality reconstructed with Evolution Toolkit provides equivalent clinical information but better signal-to-noise, contrast, and lesion resolution compared to the images reconstructed with FBP/OSEM.

<sup>2</sup> As demonstrated in phantom testing using a model observer. For SPECT, compared to using the LEHR collimator and a SPECT Step and Shoot acquisition. For Planar, compared to using LEHR without Clarity 2D.

<sup>3</sup> Compared to LEHR collimator, with Step & Shoot scan mode (for SPECT)/without Clarity 2D (for Planar). As demonstrated in phantom testing using a bone scan protocol, Evolution processing (for SPECT), and a model observer. Because model observer results may not always match those from a human reader, the actual time/dose reduction depends on the clinical task, patient size, anatomical location, and clinical practice. A radiologist should determine the appropriate scan time/dose for the particular clinical task.



# Contributing to a healthier planet

**More than half of the healthcare sector’s climate footprint, approximately 53%, is attributable to energy use.**<sup>4</sup> As a result, we have strengthened our commitment to environmentally conscious design and 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 and remote predictive and maintenance 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 IEC60601-1-9:2007.

<sup>4</sup> Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org)

## 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.

### Recyclable

We’re committed to high recyclability of our products and reuse when possible.

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Materials are recycled according to the WEEE Passport.

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91% of materials used in the system are recyclable.



## Packaging

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

### Improved packaging

Packaging is a mixture of wood and corrugated cardboard. The package is fully recyclable.



## Product utilization

Our imaging products are designed to help enable energy efficiency through dedicated features and advanced applications to reduce the environmental impact.

### Ergonomically designed patient setup and positioning

Touch Ruler sets your scan range with a simple touch of the bedside ruler.

Automatic Positioning delivers easy setup.

Automatic Body Contouring is in all procedures.

### Reduce staff burden

SmartConsole makes advanced procedures more accessible by transferring exams directly to PACS or other pre-defined DICOM destinations with no operator intervention.

Ignite Solution helps minimize operator workstation interaction to just seconds.

### 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

Features standby mode for nuclear medicine gantry.

Energy saving mode is included in Revolution™ ACT.



## 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 partnered support for upgrades and services throughout a product's lifespan 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 rest are returned to dedicated recycling facilities.

## Product utilization (Cont.)

### Power consumption

Standby: 1.6 kW

Idle (no scan): 4.2 kW

NM scan mode (data acquired during table motion): 6.4 kW

NM scan (NM scan running, Rotation moving to next step): 8.9 kW

Low-dose CT scan—Q.AC (120 kV, 20 mA, 3 Second Scan, 1 seconds per revolution): 8.5 kW

### Upgradeable hardware and software options are provided as a solution to extend the product lifespan.

Modular system design allows for a simple, on-site upgrade without having to do a complete system swap.

With the smallest footprint of all GE Healthcare 800 Series SPECT/CT systems, it provides an easy upgrade path to diagnostic CT technology.

### Parts harvesting and refurbishment options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions.

CT and SPECT 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.<sup>5</sup>

94–96% of most systems are reused, refurbished, or recycled, extending the lifetime of each product.

### Waste reduction

This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations.

<sup>5</sup> Products within MR, CT, nuclear medicine, and PET/CT 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.



## GE Healthcare product stewardship commitment

For more than 20 years, GE Healthcare's GoldSeal program has played a vital role in reducing medical imaging equipment waste by promoting and enabling the reuse of equipment and parts from de-installed imaging systems. After undergoing an extensive inspection and testing process, GoldSeal equipment is refurbished to meet the original system specifications. Buyers of GoldSeal MRI, CT, or PET/CT products can save on the acquisition costs associated with buying new equipment. Machines deemed unsuitable for GoldSeal refurbishment are dismantled at end of life, and after successfully passing acceptance testing criteria, specific parts are harvested for reuse. Where harvesting is not appropriate, GE Healthcare recycles about 94–96% of most systems. In a typical year, GoldSeal refurbishes approximately 8,000 pieces of imaging machines and ultrasounds.

### NEW PRODUCT PURCHASE OR LEASE

#### GOLDSEAL PROGRAM: LEASE RETURN PRODUCT OR BUYBACK

- Comprehensively refurbished and/or remanufactured
- Updated with new software
- Recertified following all FDA requirements
- Equipment backed with 1 year, same-as-new equipment warranty

#### RECLAIM FOR PARTS AND MATERIALS

Identify parts for refurbishing and/or repurpose

#### END OF LIFE

About 94–96% of most systems are recycled, substantially reducing the volume of waste en route to landfills.



# Digitizing healthcare through transformative innovations for a 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.

## Advancing clinical 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 quicker for earlier diagnosis

Enable a reduction in scan time by up to 25% with the increased sensitivity of SwiftScan.<sup>6</sup>

### Keep your imaging equipment up to date with advanced clinical applications

Powered by AI-based and/or Quantitative Xeleris™ V applications: Q.Lung AI, Q.Volumetrix AI, Q.Thera AI,<sup>7</sup> Q.Liver, Q.Brain, DaTQUANT

### Help improve patient outcomes with improved image quality

Diagnose disease earlier with SwiftScan Planar and SwiftScan SPECT's improved small lesion detectability.<sup>8</sup>

Improved lesion localization is enabled by enhanced visualization of small lesions and anatomical edges.<sup>9</sup>

<sup>6</sup> NM/CT 850 dose/time reduction: Compared to LEHR collimator, with Step & Shoot scan mode (for SPECT) / without Clarity 2D (for Planar). As demonstrated in phantom testing using a bone scan protocol, Evolution processing (for SPECT), and a model observer. Because model observer results may not always match those from a human reader, the actual time/dose reduction depends on the clinical task, patient size, anatomical location, and clinical practice. A radiologist should determine the appropriate scan time/dose for a particular clinical task.

<sup>7</sup> Q.Thera AI is 510k-pending at the US-FDA. Not available for sale in the United States.

<sup>8</sup> As demonstrated in phantom testing using a model observer. For SPECT, compared to using the LEHR collimator and a SPECT Step & Shoot acquisition. For Planar, compared to using LEHR without Clarity 2D.

<sup>9</sup> Compared to Optima™ NM/CT 640, as demonstrated in phantom testing.



## Optimizing imaging operations

Our AI-based and advanced digital solutions are designed to increase efficiencies across the radiology spectrum without increasing the administrative and training burden on radiologists and technologists.

### Increase productivity and consistency

Save time and steps by remotely collaborating with a clinician mid-exam.

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Enhance productivity with simplified workflows for complex hybrid and quantitative procedures with SmartConsole.

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Easy-to-use interface helps your department operate efficiently.

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### Reduce downtime

Smart QC boosts system uptime.

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### Cybersecurity

GE Healthcare's Design Engineering Privacy and Security (DEPS) process follows GDPR, HIPAA, NIST 800-53, NIST 800-30, ISO 27001, 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, all while achieving similar or improved outcomes.

### Reduce setup time

Touch Ruler sets your scan range with a simple touch of the bedside ruler.

Automatic Positioning delivers easy setup.

### Reduce exam time

Provide shorter, more tolerable exams for greater patient comfort with Evolution technology.<sup>10</sup>

### Ease of use

Leverage remote collaboration, simplified workflows, and an easy-to-use user interface.

### 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](https://www.gehealthcare.com/cleaning) for updates.

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**Building a healthy world to help enable better patient outcomes.**

GE Healthcare is a member of COCIR, the European Trade Association representing the medical imaging, radiotherapy, health ICT, and electromedical industries.<sup>11</sup>

<sup>11</sup><https://www.cocir.org/about-cocir/members.html>

*Not all products or features are available in all geographies. Check with your local GE Healthcare representative for availability in your country. Not all features are included in the standard system configuration. Check with your local GE Healthcare representative.*

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