Sustainable magnetic resonance imaging solutions for a resilient tomorrow

SIGNA™ Architect

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.

SIGNA™ Architect helps create a resilient tomorrow

Our 3.0T MR, SIGNA™ Architect, 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

- The GE HealthCare MR magnet is clinically strong for up to 25 years.
- 84% of the MR magnet is recyclable and can be recycled into raw materials after retirement.[1]
- GE MR systems are eligible for refurbishment, reuse, or recycling at the end of their product life.

Improving outcomes

- The AIR™ family of products delivers clinical versatility and comfort, intelligent productivity improvements, and consistently extraordinary image quality.
- Operational excellence is maintained using digital tools and subscription models to ensure your fleet stays up to date.

[1] Data on file.

Contributing to a healthier planet

More than half of the healthcare sector's climate footprint, approximately 53%, is attributable to energy use.[2] 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.

[2] Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org)
[3] Data on file.

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	84% of the MR magnet is recyclable and can be recycled into raw materials after retirement.[3]
	Our MR system covers are completely recyclable plastics.
Reduce the use of hazardous substances	REACH (EC) 1907-2006

Packaging

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

Improved Packaging	We are replacing our wood and corrugated cardboard packaging with paper, increasing the amount of recyclable packaging.

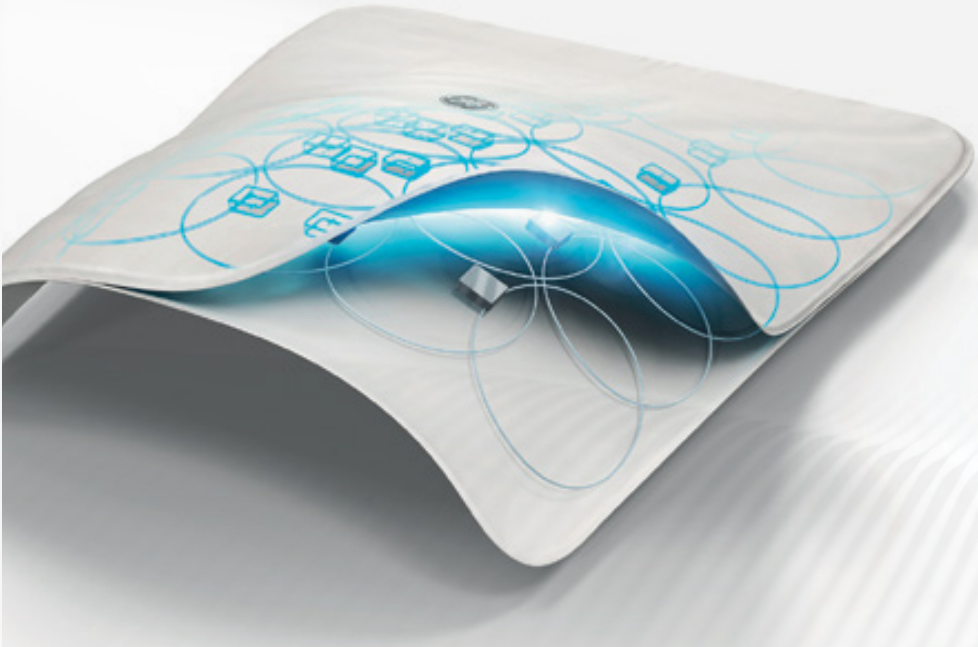
Product utilization

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

Reduce energy consumption

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	Utilize standby power mode to reduce energy consumption by 50% when the system is idle.[4]
Power consumption[5]	Off mode: 7.13 kW Standby (no scan): 19.02 kW Scan mode: 38.97 kW
Reduce consumable energy utilization	1115L helium recovered per system[6] Our helium recovery systems use cooldown, ramp boil off, and training quench to reduce any escaping gas.

[4] Compared to energy consumption when the system is in scan mode.
[5] Per COCIR Self-regulatory initiative for medical imaging equipment, over a 24-hour period, with 12 hours of active day and 12 hours of inactive night scenario.
[6] Value based upon factory recovery system. Data on file.



AIR™ Anterior Array Coil (AA)

Product utilization (Cont.)

Ergonomically designed

Patient setup and positioning

AIR™ Coils are designed to be flexible and ≤60% lighter to provide greater coverage than traditional coils. They allow greater patient positioning freedom and patient comfort, as well as reduced burden on the technologists lifting the coils.

AIR™ Anterior Array - 2.7 kg resting on patient

Streamline setup by transferring outside the magnet room directly to the eXpress table.

The eXpress table delivers feet-first or head-first imaging for quicker, targeted exams, and the table has a memory foam surface for patient comfort.

Improve patient comfort with AIR™ Recon DL by enabling shorter scan times and reducing the time spent on the table.

Accelerate your scanning process the minute the patient gets on the table with AIR Touch™, a workflow application that automates coil selection and landmarking.

Reduce noise

Silenz is a 3D Zero-TE sequence comprised of high bandwidth excitation and reduced gradient-switching radial acquisition that result in near-ambient sound levels. Silenz has added flexibility in sequence prescription to enable faster scan times.

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.

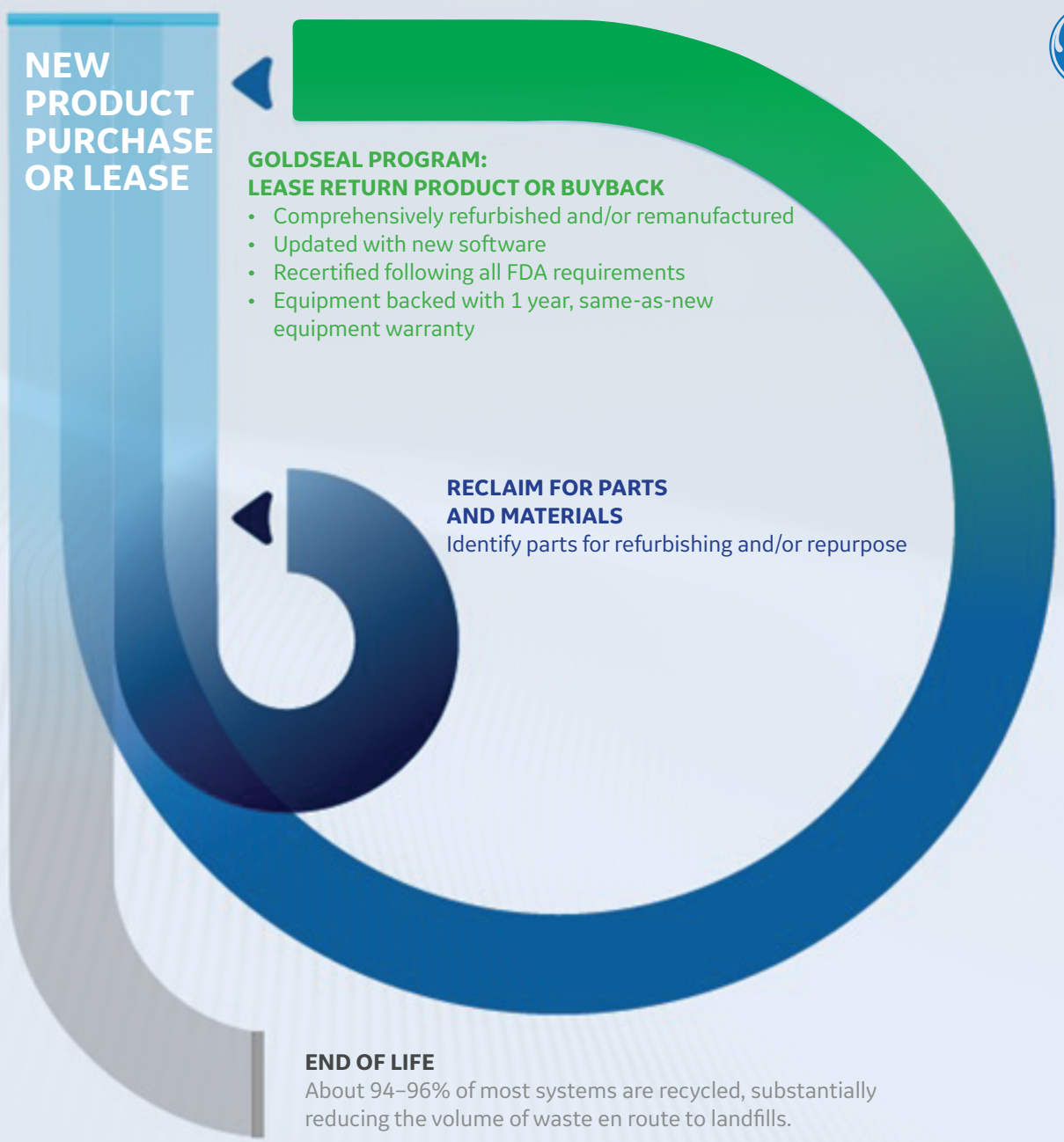
Our refurbishment programs involve an extensive inspection and testing process, designed to bring equipment back to its original certified manufacturing specifications. If the system is not suitable for refurbishment, eligible parts are harvested for reuse after quality and performance testing, while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

Guidance for end of lifecycle	Equipment instructions are provided to minimize the environmental impact for disposal or recycling.
Upgrades: hardware and software options are provided as a solution to extend the product lifespan.	Extend the product life up to 25 years with SIGNA™ Lift upgrade options.[7] Save up to 50% in construction costs compared to a new system install, requiring fewer materials and less waste when upgrading with SIGNA™ Lift.[8]
Parts harvesting and refurbishment: options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions.	MR system parts are eligible for assessment for the refurbishment program, in which they are assessed for refurbishment, harvesting, or recycling at the appropriate time in the lifespan.[9] 94–96% of most systems are reused, refurbished, or recycled, extending the lifetime of each product.[9]
Waste reduction	This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations.

[7] Based upon average product lifespan when utilizing SIGNA™ Lift upgrade options. Product lifespan may vary.
[8] Compared to a new MR install. Total upfront cost includes equipment, downtime, and siting. Actual results may vary.
[9] 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.

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.



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.

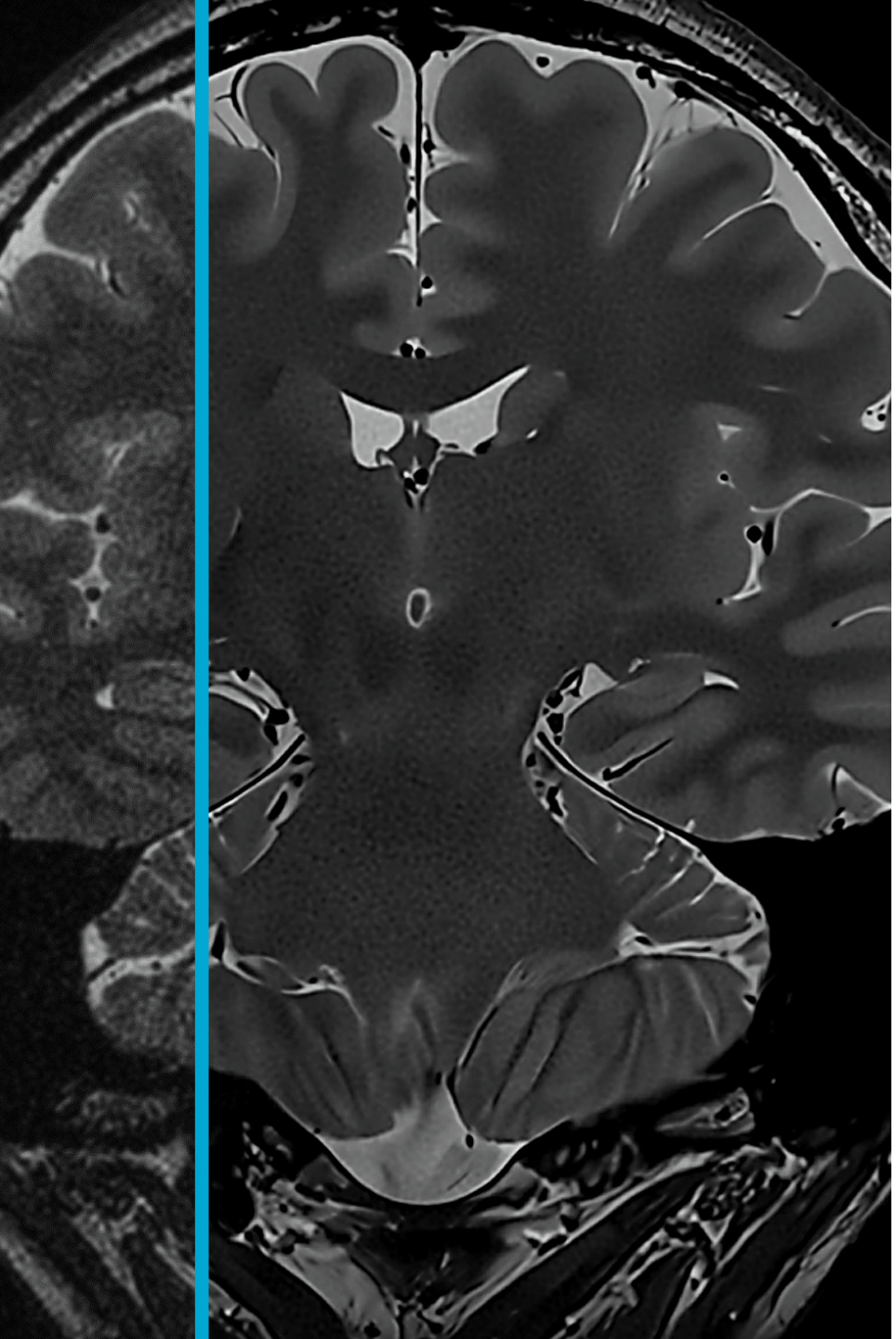
We are also dedicated to driving a more resilient and sustainable future in healthcare. Many factors, including the pandemic, climate-related weather disasters, and supply-chain issues amplified this need. Managing operations through these challenges requires resiliency and perseverance.

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	Acquire multiple contrasts in a single scan with MAGiC, resulting in up to 50% faster scan than acquiring all contrasts separately.[10]
	Reduce scan time and energy consumption by up to 50% per patient with improved diagnostic quality with AIR™ Recon DL.[11]
	Reduce overall scan times without compromising image quality with HyperSense, which can be used in 88% of all clinical procedures.
Keep your imaging equipment up to date with advanced clinical applications	Upgrade your clinical applications with SIGNA™ Continuum for all existing installed SIGNA™ MR systems.
	Smart Subscription protects your equipment from obsolescence and keeps the system at its best. It improves patient outcomes and productivity due to improved functionality and easy access to innovation.

[10] Based on MAGiC clinical study of 109 patients from 6 separate institutions.
[11] Compared to conventional technology. Data on file.



Advancing clinical outcomes (Cont.)

Helping improve patient outcomes with improved image quality	AIR™ Recon completes the AIR™ family of products with image reconstruction software that helps improve SNR and image sharpness in every image without having to overcompensate in your scanning protocol.
Drive advancements with precision health	Wing-to-wing clinical solutions from setup to report help reduce scan times and increase precision health, including anatomy-dedicated post-processing tools and quantitative tools for measuring and assisting diagnosis.

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

Remotely update and manage protocols between facilities on your MR devices to help deliver consistent image quality and deliver optimal patient care.

Gain data intelligence and actionable insights across your radiology department to increase productivity with Imaging Insights.

MR Performance Excellence can help increase capacity by optimizing equipment usage.

- 33% reduction in scan time[12]
- Additional 2.250 exams per year[13]

Leverage on-demand or scheduled virtual clinical applications training with GE specialists to support staff enabled by Digital Expert Access.

[12] Expanding MRI imaging capacity through data-driven workflow optimization at Houston Methodist Willowbrook Hospital - Case Study 2015 - JB25840US - The results achieved by these facilities may not be applicable to all institutions, and individual results may vary. This is provided for informational purposes only, and its content does not constitute a guarantee from GE HealthCare.

[13] Initial Report Out Houston Methodist Sugar Land Hospital JB23904US- The results achieved by these facilities may not be applicable to all institutions, and individual results may vary. This is provided for informational purposes only, and its content does not constitute a guarantee from GE HealthCare.

Optimizing imaging operations (Cont.)

Reduce downtime

The OnWatch™ remote monitoring system reduces unplanned down time by 35% and service calls by 39%, with an 11% reduction in on-site repair time. Additionally, it boasts a 43% remote fix rate with 83% of issues resolved during the first call.*

This, in turn, helps reduce travel and carbon footprint, as well as overall energy and waste, by keeping our systems optimally running.

Backup UPS for power outages enable exam completion, while long-term UPS protects the system from helium loss. Backup generator cryogenic management allows the system to resume operations when feasible.

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.

*Data on file. Results may not be typical for all customers, and these results cannot be guaranteed.

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	AIR Touch™ reduces set-up time by 59%.[14]
	AIR x™ allows five times faster set up with four times fewer mouse clicks.[15]
Reduce exam time	AIR Touch™ reduces patient table time by 37%.[14]
	Up to 50% scan time reduction per patient with AIR™ Recon DL enables improved workflow and efficiency.[16]
	Increase the number of procedures by 30% with SIGNA™ Lift.[17]
Ease of use	AIR™ Coils optimize SNR, enabling positioning for any patient shape, while anatomy-dedicated post-processing tools unique to the specific organ system brings precision medicine into the MR suite.
	Accelerate emergency egress — the eXpress patient table can be undocked and removed by one user in under 30 seconds, typically.
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.

[14] Compared to previous generation software. Data on file.
[15] Comparison of automated workflow with AIR x™ vs traditional setup process. Data on file.
[16] Compared to conventional technology. Data on file.
[17] With GE SIGNA™ Lift, the system may be able to scan additional patients per day due to new capabilities and productivity. Results may vary.

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.**

***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.