Focusing on sustainability in MR solutions

SIGNA™ Architect

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 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 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 has a goal to achieve net zero by 2050. An interim goal is to reduce our operational emissions (Scope 1 and 2) by 42%* and our Scope 3 emissions from purchased goods and services, upstream transportation and distribution, business travel, and use of sold products by 25%** by 2030 compared to a 2022 baseline. In 2024, we received validation on our updated goals from the Science Based Targets initiative (SBTi), a group of visionary corporate leaders taking ambitious climate action. 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.

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* from a 2022 baseline year.
** includes purchased goods and services, upstream transportation and distribution, business travel, and use of sold products from a 2022 baseline year.

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. Join us as we see the future, and change the outcome.

Accurate
Effortless Imaging enabled by leading AI and digital solutions

Accessible
Sustainable and equitable access to MR for any patient and any user

Actionable
Groundbreaking discoveries and partnerships that elevate population outcomes

SIGNA™ MR Vision

Effortless Imaging enabled by leading AI and digital solutions

Establish AI-powered MRI as a one-stop virtual laboratory

Sustainable and equitable access to MR for any patient and any user

Groundbreaking discoveries and partnerships that elevate population outcomes

Enable discovery of cure for the most debilitating illnesses

Sustainable MRI solutions that enable broader precision medicine to all

Reduced impact

Lower power consumption, longer product lifecycle

- Long-life, light, and compact magnets.
- Product life extension through hardware and software upgrades.

Operational security

Optimized operation for continuous care

- Reliable solutions with high uptime, high operational resilience, & prolonged relevance.
- Highly monitored and optimized MRI systems to help you provide the best care for your patients, everywhere.

Equitable access

Greater access with advanced technology and upgrades

- AI and digital-enabled platforms that help you image more patients with greater efficiency.
- MRI systems that are 30% lighter and can require less than 24 m² of space, lowering install costs.
- Upgrade solutions to help ensure you always have access to the latest MRI technology.

SIGNA Architect helps create a more sustainable tomorrow

Our 3.0T MR system, SIGNA™ Architect, and its services help ensure that radiology professionals and the patients they serve have the technology necessary to create a more sustainable and resilient tomorrow.

- SIGNA™ Architect uses intelligent magnet technology, which is 1.4X more efficient than previous models.[1]
- System uses 67% less helium and weighs 2.0 tons less than the previous generation magnet.

Reducing environmental impact

- The GE HealthCare MR magnet is clinically strong for up to 30 years.
- 84% of the materials used can be returned to the flow of recyclable materials.[1]

Improving care

- Decrease power consumption and scan time by up to 50% with AIR™ Recon DL.
- Operational excellence is maintained using digital tools and subscription models to ensure your fleet stays up to date.

[1] Data on file.

Reduced impact

Balanced & intelligent magnet technology

>1.3M litres of helium saved

- Up to 70% less helium.[2]

- 30% lighter resulting in reduced CO_2 emission and siting costs.[3]

- All returned MR magnets are reused, refurbished, or recycled.

- GE HealthCare's magnets are clinically strong for up to 30 years.[4]

- When paired with our state-of-the-art AI technology, they consume up to 40% less power per patient.[5]

Balanced design
Striking the balance between helium & power savings

Helium savings for all
Available across
1.5T & 3.0T portfolio

Secure investment
Industry leader in magnet longevity and upgradability[3]

[2] Current commercial IPM/ARES magnets compared to previous generation magnets.
[3] Based on standard operating procedures and controlled conditions.
[4] Up to 40 years for 1.5T systems. Up to 30 years for 3.0T systems.
[5] Projected power consumption reduction on a system with or without deep learning reconstruction.

Contributing to a healthier planet

More than half of the healthcare sector's climate footprint, approximately 53%, is attributable to energy use.[6] 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 IEC60601-1-9:2007.

[6] 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.

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Recyclability	We're committed to high recyclability of our products and reuse when possible.
	Returned MR magnets are reused, refurbished, or recycled.[7]
Reduce the use of hazardous substances	REACH (EC) 1907–2006

[7] Data on file.
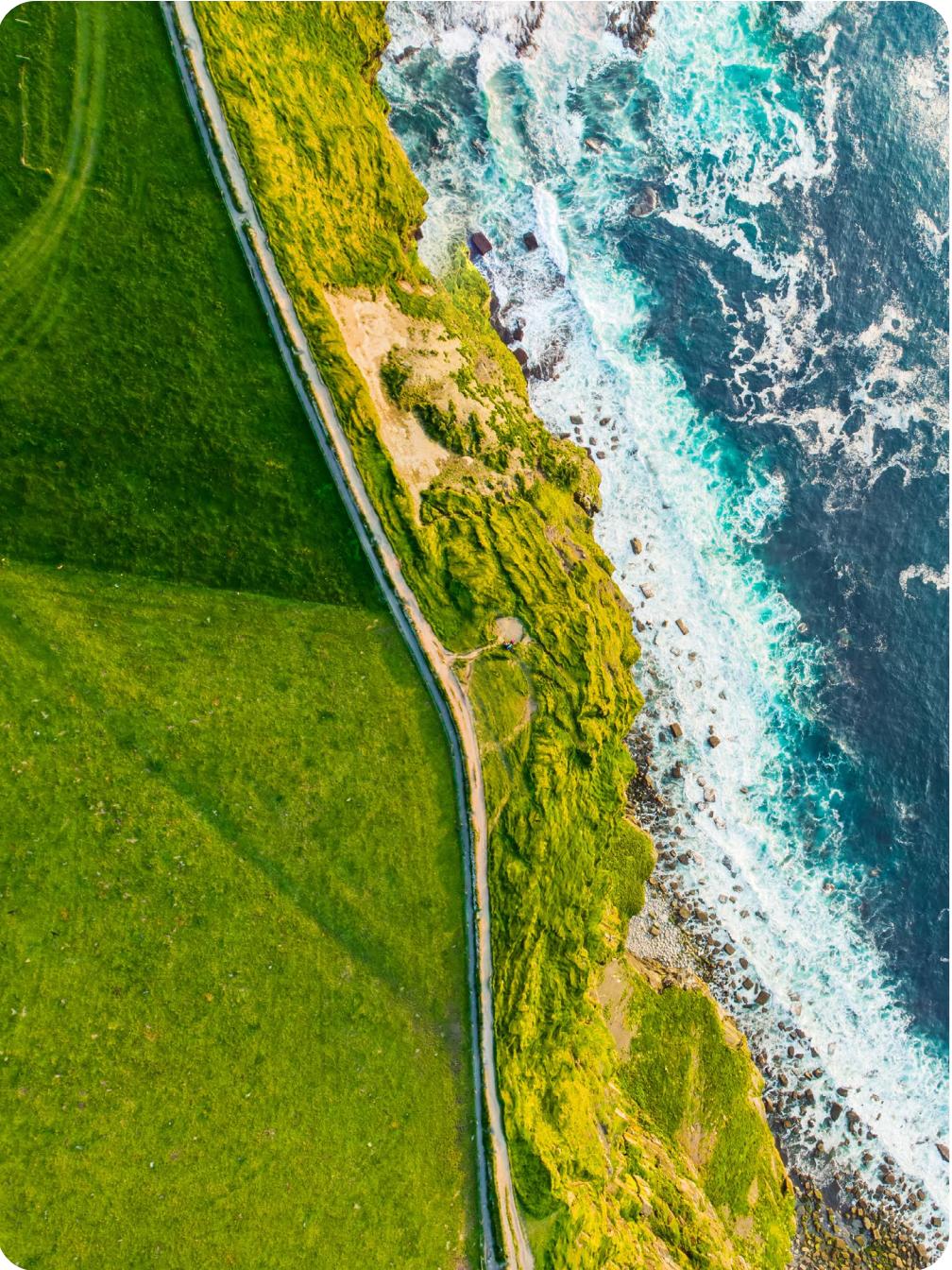
Packaging

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

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

Manufacturing

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

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 patient setup and positioning	Flared bore entrance provides additional headroom for patients for lower extremity and body examinations.
	AIR™ Coils are designed to be flexible and ≤50% 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.[8]
	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.

[8] Data on file.

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

Reduce noise	Silenz is a 3D Zero-TE sequence comprised of high-bandwidth excitation and reduced gradient-switching radial acquisition that drastically reduce noise level from an ear splitting, motorcyle-level 91 dB to within 3 dB of scan room ambient sound. In addition, Silenz has added flexibility in sequence prescription to enable faster scan times.
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 when the system is idle.[9]
Power consumption	System off: 7.13 kW Standby off: 13.78 kW System ready to scan: 20.07 kW Scan: 38.97 kW
Reduce consumable energy utilization	1115L helium recovered per system[9] Our helium recovery systems use cooldown, ramp boil off, and training quench to reduce any escaping gas.

[9] Compared to conventional technology. Data on file.

Product utilization

Reduce consumable energy utilization	System requires up to 70% less helium throughout the lifetime of the system.[10]
	Zero boil-off virtually eliminates helium refills under normal operating conditions.
	Higher productivity and efficiency performance specifications with >10% less energy consumption compared to previous generation systems.*
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.	System is wide bore-ready for future upgrade capability.
	Signa™ Lift program enables legacy systems to be upgraded to a prevailing SIGNA™ platform without replacing the original magnet.
	The life expectancy of a GE HealthCare 3.0T magnet is up to 30 years.
	Extend the product life up to 15 years with SIGNA Lift upgrade options.[11]

[10] Compared to previous generation MR system.
[11] Based upon average product lifespan when utilizing SIGNA™ Lift upgrade options. Product lifespan may vary.
* Compared to previous generation platforms
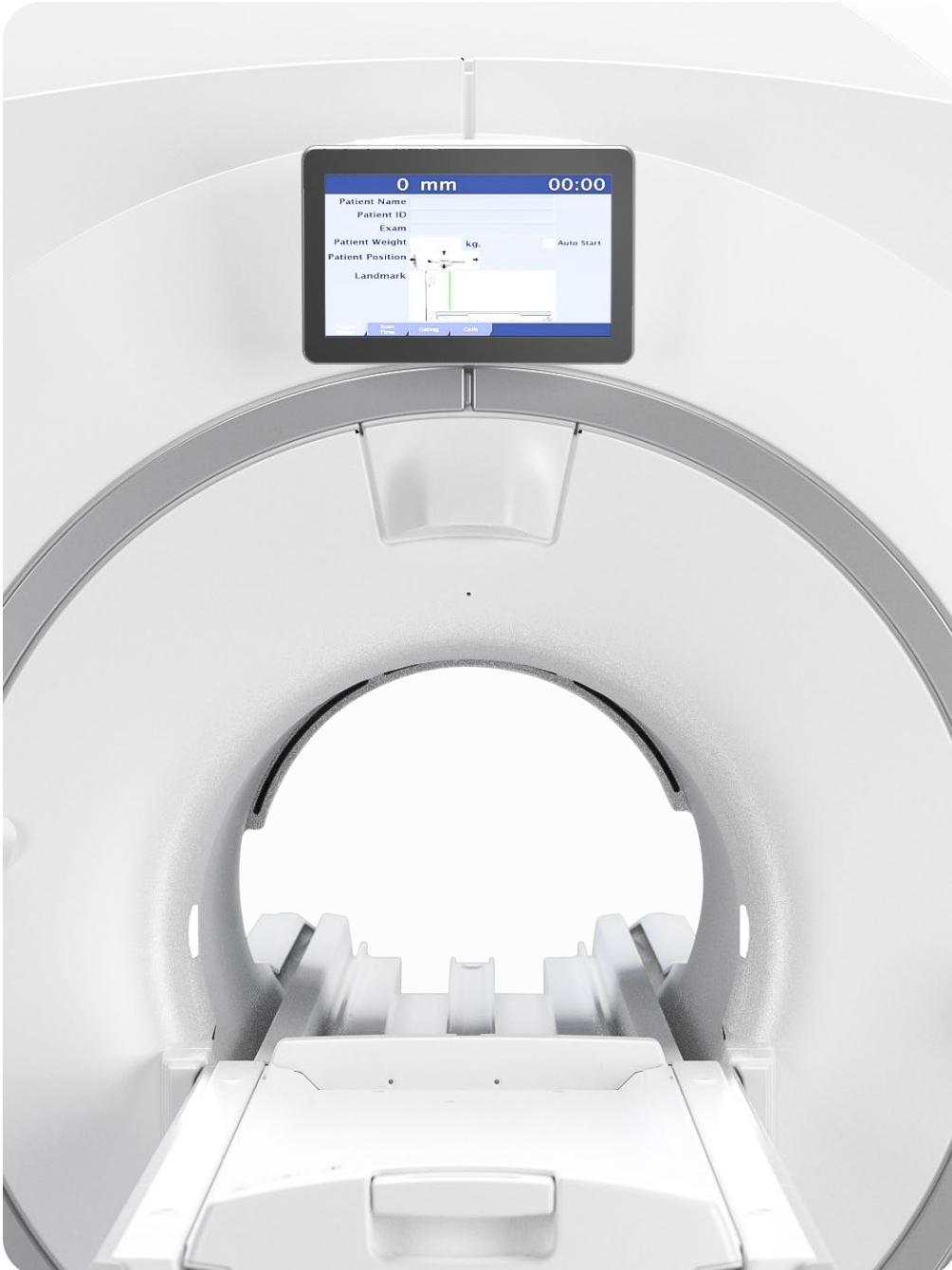
Product utilization

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 through the refurbishment program, in which they are assessed for refurbishment, harvesting, or recycling at the appropriate time in the lifespan.

Reuse, refurbishment, and recycling extends the useful life of each product and/or its components

Spare parts are 6.4% repairable and 8.9% harvestable.[12]

Waste reduction

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

[12] 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.

≥28 million patients scanned with AIR Recon DL*
>3,600 global installations**
≥35 published journal articles

*Calculated by IB data with estimation 20 scans per day, 5.5 working days in a week, fully start using AIR™ Recon DL 4 weeks after delivery, as of June 10, 2024.
**As of June 10, 2024

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 quicker for earlier diagnosis	Scan up to 50% faster and reduce backlogs with AIR™ Recon DL.
	Increase SNR and reduce scan time in a single exam.
	Diagnose with confidence with end-to-end clinical solutions like One-Stop Prostate imaging with AIR™ Coils and AIR™ Recon DL.
Keep your imaging equipment up to date with advanced clinical applications	Smart Subscription protects 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.
	Upgrade your clinical applications with SIGNA™ Continuum for all existing installed SIGNA™ MR systems.
Help improve patient outcomes with improved image quality	80% of cases see improved SNR without added scan time with AIR™ Recon DL.[12]
	AIR™ Recon DL improves image quality up to 1.6 times, allowing consistent and enhanced diagnostic confidence.*
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.

[13] Results may vary.
* Reference https://www.gehealthcare.com/-/jssmedia/gehc/us/files/products/molecular-resonance-imaging/air/mr_gbl_air-recon-dl_091720_jb00297xx.pdf?rev=-1

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	Reduce scan time up to 50% with AIR™ Recon DL.[14]
	AIR x™ automated MR slice prescription reduces setup time and provides reproducible planning to ensure exam consistency.
	AIR Touch™ automatic coil selection provides faster patient setup and less table time for the patient.[15]
	Gain data intelligence and actionable insights across the radiology department to increase productivity with Imaging Insights.
	Leverage on-demand or scheduled virtual clinical applications training with GE HealthCare specialists to support staff, enabled by Digital Expert Access.

[14] Results may vary.
[15] Compared to conventional technology. Data on file.

Optimizing imaging operations

Reduce downtime

The OnWatch™ remote monitoring system reduces unplanned down time by 35% with an 11% reduction in on-site repair time.[15]

Additionally, it boasts a 43% remote fix rate with 83% of issues resolved during the first call.[16]

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

Improved thermal performance allows the magnet to stay cold longer during extended outages, and the system can immediately return to scanning when the power goes back on.

Cybersecurity

Our Data Privacy Principles are built on customer feedback, regulatory requirements, and international standards, ensuring that we meet, or exceed, expectations. With our global presence, we navigate a complex landscape of privacy and security regulations and frameworks. The Design Engineering Privacy & Security (DEPS) Procedure is our blueprint for integrating robust privacy and security measures into our products and services, providing peace of mind to healthcare providers and patients worldwide.

[16] 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.

Reduce setup time	AIR Touch™ automatic coil selection reduces set-up time.[17]
	AIR x™ allows five times faster setup with four times fewer mouse clicks.[17]
Reduce exam time	AI enabled workflow features such as AIRx™ and AIR™ Touch reduce patient setup time.[18]
	Reduce scan time up to 50% per patient with AIR™ Recon DL, enabling improved workflow and efficiency.[19]
Ease of use	MR 30 imaging platform provides a comprehensive suite of sequences and applications that cater to a wide variety of anatomies and examinations.
	AIR™ Coils enable natural and faster patient setup for a wide variety of routine and complex examinations. The high number of elements on AIR™ Coils support acceleration of image acquisition and provide consistent image quality reducing the need to re-scan.
	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.

[17] Comparison of automated workflow with AIR x™ versus traditional setup process. Data on file.
[18] Compared to previous generation software. Data on file.
[19] Compared to conventional technology. Data on file.

Creating a healthy world to help enable better patient outcomes.

GEHealthCare.com/about/sustainability

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