



GE HealthCare

SIGNAVoyager

Environmental Product Declaration (EPD)



GE HealthCare Commitment

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 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%¹ and our Scope 3 emissions from purchased goods and services, upstream transportation and distribution, business travel, and use of sold products by 25%² 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.

- We have a goal to achieve net zero emissions by 2050.
- We've set interim goals to reduce Scope 1 and 2 emissions by 42% and Scope 3 emissions by 25% by 2030.

Environmental Benefits of Voyager

Ergonomically designed patient setup and positioning

- 70cm (wide) bore, giving patients more room in the bore to help reduce claustrophobia and improve patient comfort, particularly for individuals who are anxious or have difficulty lying in a confined space.
- Flared bore entrance provides additional headroom for patients for lower extremity and body examinations.
- AIR™ Recon DL enables shorter scan times, reducing the time spent on the table.
- AIR™ Coils are designed to be flexible and 50% lighter by element to provide good coverage compared to traditional coils. They allow greater patient positioning freedom and patient comfort, as well as reduced burden on the technologists lifting the coils.³

- AIR Touch™ offers less patient setup time and less table time for the patient.⁴
- AIR x™ automated MR slice prescription reduces setup time and provides reproducible planning to ensure exam consistency.
- SIGNA™ Voyager gives technologists and radiologists quick, patient-friendly exams with consistent, optimal image quality.
- The AIR™ family of products delivers clinical versatility and comfort, intelligent productivity improvements, and consistently extraordinary image quality.

Reduce staff burden

- Low table height enables easy loading and unloading of patients onto the MR scanner.
- Intelligent workflow features such as AIR Touch™ and AIR x™ enable radiographers to do faster and more optimal patient setup.
- AIR™ Coils enable radiographers to set up patients in more natural positions. This lessens stress for both the patient and the radiographer.

Extending Product Lifespan

- The GE HealthCare MR magnet is clinically strong for up to 30 years.⁵
- Product circularity at the various stages of the product lifecycle enables the avoidance of 59 metric tons of CO₂e emissions per machine. This would include both closed and open loop material circularity through production, maintenance, product extension (such as upgrades) and second life as described in circularity section.
- In particular, GE HealthCare MR systems are eligible for upgrade, refurbishment, reuse, or recycling at the end of their product life, with over 350 upgraded 1.5T MR systems in 2024 and an increase of 23% versus 2023.

Further ecologically relevant information

GE HealthCare has produced educational content to ensure that the best practices are followed for:

- Saving energy
- Efficient cleaning
- Appropriate use of consumables

¹ from a baseline year.

² includes purchased goods and services, upstream transportation and distribution, business travel, and use of sold products from a 2022 baseline year.

Objective validated by SBTi.

³ Data on file

⁴ Compared to conventional technology. Data on file.

⁵ Data on file.

Life Cycle Assessment (LCA) Overview

Eco-design and product circularity as product sustainability principles

In order to measure and improve both our product design and operational excellence in the lens of sustainability, we leverage eco-design and circular economy principles, measured thanks to Life Cycle Assessment, following the international standards:

- ISO 14001: (Environmental management system)
- ISO 14025: (Environmental labels and declarations - Type III environmental declaration)
- ISO 14040/14044: (Environmental management - Life cycle assessment)

GE HealthCare analyzes environmental impacts throughout the entire product lifecycle—including material supply and manufacturing, distribution, use and maintenance, and end-of-life—by conducting a Cradle-to-Grave analysis.

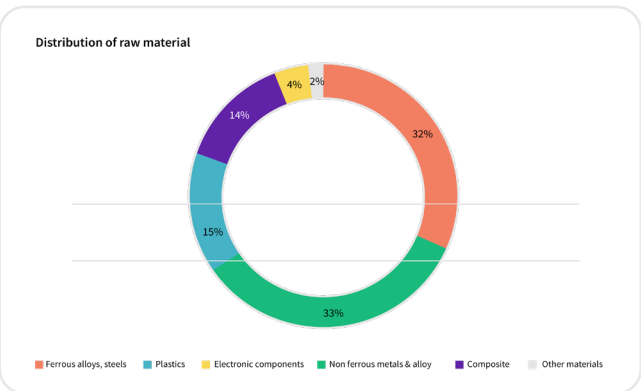
Following the eco-design principle, SIGNA Voyager displays a significant environmental improvement compared to previous product generations considering key areas such as energy efficiency, circularity (including reusability, repairability, upgradability and recyclability), reduction of harmful substances, weight optimization, and more sustainable material selection. A clear understanding of the environmental impacts of the product emerging from this analysis enables action and evaluation of improvements in these key areas.



Product materials

SIGNA Voyager is mainly built out of metals, composite materials, and plastics. As per industry standard, the metal content of the product includes recycled materials amounts varying from 26% to 74%, depending on the metal. Our circularity strategies enable the reuse of 76% of the total product weight.⁶

Total weight: 6,789 kg

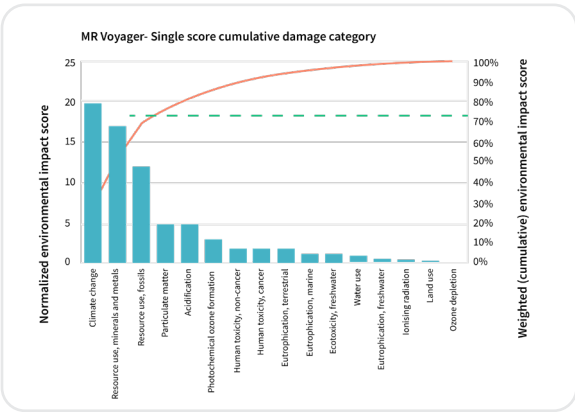


Key environmental performance indicators

The environmental impacts are calculated with Environmental Footprint (EF) 3.1 methodology in the SimaPro LCA tool

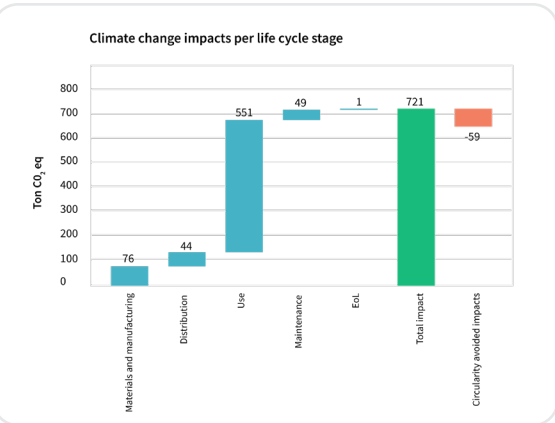
Environmental Impacts

Following the Single Score⁷, three indicators are responsible for ~70% of impacts: Climate Change, Resource Use (minerals and metals), and Resource Use (fossils). Ecodesign and product circularity efforts will aim to reduce these impacts.



Climate Change Impacts

- In the entirety of its life cycle, from Cradle to End-of-Life, SIGNA Voyager has a total impact of 721 tons of CO₂eq emissions, for an average global customer.⁸
- The product circularity efforts in maintenance, life extension and end of life stages allow to avoid 59 tons of CO₂eq emissions.
- The most impactful life phase of the SIGNA Voyager is the Use Phase, representing 76% of total impacts using Global Energy Mix.



6 Estimation based on Distribution of raw material type.

7 Normalization method by the Product Environmental Footprint (PEF) method – European Commission https://greenforum.ec.europa.eu/environmental-footprint-methods/pef-method_en

8 Average Global Customer refers to using general client data that is representative, on average, of any given client. This means using worldwide shipping logs for distribution and global energy consumption values for the use phase.

9 According to Green House Gas (GHG) protocol (<https://ghgprotocol.org/>): Scope 1 covers emissions from sources that an organization owns or controls directly. Scope 2 are emissions that a company causes indirectly and come from where the energy it purchases and uses is produced.

Energy

Special focus is given to reduce both energy consumption and its environmental impact. As an example of the eco-design process, the use section underlines the benefits of ultra-high-efficiency (UHE) technology, the AIR Recon DL AI driven application, the best practice guidance and the standby power mode.

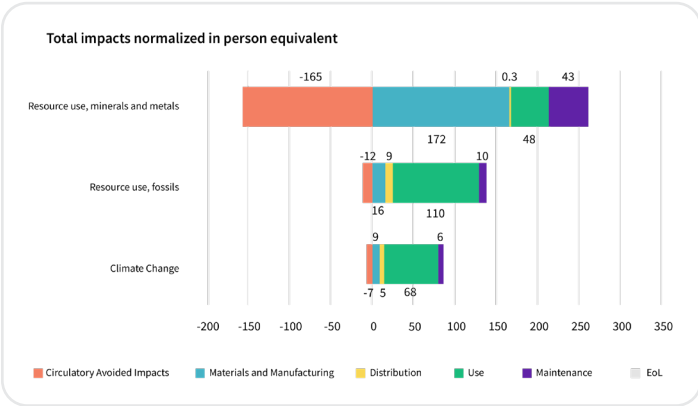
At the production phase, energy consumption and energy mix are given special attention, resulting in a scope 1 & 2 reduction.⁹ For facilities using a green energy grid and specifically for European customers with a less impactful energy mix, this impact is greatly reduced.

(Example: for France, the impact of the use phase is reduced by 88% in climate change impact).

Product Circularity

Product circularity is a key focus towards long-term product sustainability and decarbonization. The circular economy principles are used at all life stages of the product. Product roadmap and product design aim to increase material reuse, maintainability, life extension, second life and recyclability. In production, efforts are made to reduce waste and use recycled materials when appropriate. Similarly, in maintenance, focus is given to minimize material consumption. In order to extend product life, upgrade options are offered as well as secondhand programs such as refurbished or remanufactured products.

The life cycle assessment shows the results of the impact of each of the defined life cycle phases. As per the environmental impact analysis, particular focus is given to the three main categories previously defined: resource use (minerals and metals), resource use (fossils) and climate change. The results are normalized in person equivalents to show the impact compared to an average person.¹⁰



The results show that, thanks to product circularity efforts, the avoided impacts represent 62% of total impact of resource use (minerals and metals), and 8% of the total impacts of resource use (fossils) as well as for climate change (global warming).

Deep dive of benefits for every part of the lifecycle:

Design

This product conforms to the environmental requirements of IEC60601-1-9:2007.

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 are committed to high recyclability of our products and reuse when possible. Returned MR magnets are reused, refurbished, or recycled. ¹¹
Reduce the use of hazardous substances	REACH (EC) 1907-2006
GE HealthCare environmental management system is ISO 14001 certified	Our production and service operations align to ISO 14001 standards

Manufacturing

- SIGNA Voyager is manufactured in GE HealthCare plants that partially use renewable energy.
- Solarization
 - >2k metric Tons CO2 annual savings¹²
 - 3800 MWH solar electricity produced per year
- At GE HealthCare plants, special care is given to reduce waste and ensure leftover materials move to the proper recycling process.

Delivery

- Dipole manufacturing to reduce environmental impact.
- GE HealthCare uses AI-based logistical tools to find the most efficient ways to deliver the system to the customer.

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

10 According to European Commission PEF normalization factors.

11 Data on file.

12 Based on energy feedback into the grid from manufacturing plants.

Usage

Reduce consumable energy utilization	Our helium recovery systems use cooldown, ramp boil off, and training quench to reduce any escaping gas. Our facilities are equipped to recapture and reliquefy then helium during manufacturing process. 30% less helium is required and no helium refill onsite during installation. ¹³
Reducing electricity	The system uses Ultra High Efficiency (UHE) technology to generate exceptional imaging performance ¹⁴ using about half the amount of electrical current than a contemporary system
AIR Recon DL	Up to 40% less power consumed per patient ¹⁵ compared to the power consumed without AIR Recon DL for the same image quality, thanks to deep learning AI implemented to enable faster scans, leading to: Ø >15 MWh estimated power consumption reduction per scanner per year; >6,400 kg CO ₂ reduction per scanner per year ¹⁶
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 62% when the system is idle. ¹⁷ 34% reduction in scan time and 12% reduction in power consumption per patient with improved image quality with AIR™ Recon DL. ¹⁸
Power consumption ¹⁹	+180/-135 degrees. Continuous rotation with locking at each 22.5-degree position

Packaging

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

Integrated Maintenance System for Optimal Product Performance

- Provide remote predictive and maintenance services throughout the lifespan of a product to reduce downtime and resources otherwise used in maintenance and repair and prolong the useful life of our equipment.
- Monitor remotely for critical component indicators or performance trends.
- Predict a potential failure with considerable lead time and advanced parts planning.
- Repair systems remotely or on-site at the most convenient time for the customer.
- Restore to working order.

Reduce
downtime

The OnWatch™ remote monitoring system reduces unplanned down time by 60% and service calls by 28 hours.²⁰
Additionally, it boasts ~ 40% remote fix rate with ~ 80% of issues resolved during the first call.²¹

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

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.

¹³ Compared to previous generation MR system.

¹⁴ Gradient Imaging Performance 45 mT/m – 200 T/m/s, when measured along a single, composite axis.

¹⁵ Projected power consumption reduction on a system with or without deep learning reconstruction.

¹⁶ Measured on SIGNA Premier, assuming the same number of exams (20 a day), and using 423.94 g CO₂ e/ kWh (US standard).

¹⁷ Compared to energy consumption when the system is in scan mode.

¹⁸ Compared to conventional technology. Data on file.

¹⁹ 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.

²⁰ All results shown are based on the 6 months study. Uptime is calculated on a 24x7 basis for a system operated 10 hours per day and 6 days in a week. Percentage noted is based on various assumptions, including but not limited to the use of OnWatch Predict consistent with the OnWatch™ Predict terms and conditions, timely receipt of the alert notice, parts and labor availability, immediate access to customer's equipment, and may not be typical of every customer's experience.

²¹ GE HealthCare internal data.

EOL

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 dedicated to recycling.

Guidance for end of lifecycle	Our helium recovery systems use cooldown, ramp boil off, and training quench to reduce any escaping gas. Our facilities are equipped to recapture and reliquefy then helium during manufacturing process. 30% less helium is required and no helium refill onsite during installation. ¹³
Upgrades: hardware and software options are provided as a solution to extend the product lifespan.	The system uses Ultra High Efficiency (UHE) technology to generate exceptional imaging performance ¹⁴ using about half the amount of electrical current than a contemporary system
Parts harvesting and refurbishment: options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions.	I 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. ²² Spare parts are 6.4% repairable and 8.9% harvestable. ²³
Waste reduction	This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations.

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.

In a typical year, GoldSeal refurbishes approximately 8,000 pieces of imaging machines and ultrasounds.

Methodology – LCA Assumptions and Hypotheses

LCA Scope: We perform LCA based on ISO 14040/14044, following the recommendations of a life cycle assessment consultant from EVEA company without performing an external critical review.

Database and impact assessment method: We used the Environmental Footprint (EF) 3.1 method recommended by the European Commission and the LCA Ecoinvent 3.10 cut-off Database available on SimaPro.

Functional Unit: The functional unit defined for this study is 10 years of MR imaging services corresponding to the functionality of 1.5T SIGNA Voyager at the same customer site.

System boundaries and Assumptions: The tables below summarize the system boundaries and assumptions made for each lifecycle step of the SIGNA Voyager and during the modelling of the lifecycle on SimaPro.

22 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.

23 Data on File

Material supply and Manufacturing

Included in the scope	Not included in the scope	Assumptions
- Material supply from the extraction site to the plant. - Energy consumption for component manufacturing - System assembly and packaging - Energy consumption for magnet production and helium cooling.	- Impact of plant heating and office spaces. - Intermediary transport of raw materials. - Intermediary packaging of raw materials and components - Transportation of workers to their	Raw material transportation from the extraction site to the processing site was included in the study. For that, market data from Ecoinvent was used

Distribution

Included in the scope	Not included in the scope	Assumptions
Product distribution from production sites to customers considering an average global scenario	Helium losses and refills during transportation	- GE HealthCare's distribution phase follows a supply chain based on two plants in Florence and Tianjin. - The data used is provided by GE HealthCare operational data for the 2024 annual shipping per plant. - The average global scenario for distribution is defined based on distribution logs to different global sectors.

Use and Maintenance

Included in the scope	Not included in the scope	Assumptions
- Impact of the energy associated with the use phase in its 10- year life span - All impacts associated with maintenance, including spare parts supply chain and field engineer transport for maintenance activities	- Impacts associated with the installation and deinstallation of the machine at the customer site. - Helium losses during use, installation and deinstallation of the machine. - Reduced impacts due to the 40% energy consumption decrease during patient exams caused by the use of AI for time reduction of tests.	- Usage phase energy consumption is calculated using GE HealthCare operational data in accordance with the COCIR self-regulatory initiative for medical imaging equipment, which details the energy consumption of magnetic resonance equipment measuring. - The spare parts supply chain was based on the data of the SIGNA Voyager system collected from 2022 to 2024, where we considered the field engineers' transportation, the spare parts manufacturing, disposal, and transportation. For the waste disposal, industry standards PCR-ed4-EN- 2021 09 06 were used.

End of Life

Included in the scope	Not included in the scope	Assumptions
• Different scenarios of End-of-Life (Upgrade, refurbishment, remanufacturing, harvest, recycling, and waste management) • Avoided impacts caused by the reuse • Impacts of waste management: incineration and landfilling	• Impacts of recycling processes • Avoided impacts from recycling of materials.	• The End of Life was carried out using average data from all MR 1.5T equipment in the market for year 2024 using the same standard.

About GE HealthCare Technologies Inc.

GE HealthCare is a leading global medical technology, pharmaceutical diagnostics, and digital solutions innovator, dedicated to providing integrated solutions, services, and data analytics to make hospitals more efficient, clinicians more effective, therapies more precise, and patients healthier and happier. Serving patients and providers for more than 100 years, GE HealthCare is advancing personalized, connected, and compassionate care, while simplifying the patient’s journey across the care pathway. Together our Imaging, Ultrasound, Patient Care Solutions, and Pharmaceutical Diagnostics businesses help improve patient care from diagnosis, to therapy, to monitoring. We are a \$19.6 billion business with 51,000 colleagues working to create a world where healthcare has no limits.

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