Focusing on sustainability in interventional image-guided system solutions

Allia™ IGS 7

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 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 help 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.

Allia IGS 7 helps create a more sustainable tomorrow

Our Allia IGS 7 interventional image-guided system and its services help ensure clinicians and the patients they serve have the technology necessary to create a more sustainable and resilient tomorrow.

Reducing environmental impact

- 100% of Allia™ IGS 7 is eligible for refurbishment through Silver Preferred program
- The new workplace respects ergonomics standards of human upper body postures & gestures; for 95% of population according to standard ISO 11 226, BS EN 1005 4, for typical working positions.*

Improving care

- Clinical outcomes: AutoRight™ AI-based image chain; dose reduction by up to 25% with InnovaSense™.
- Operations outcomes: Reduce unplanned downtime by up to 38% with OnWatch™.
- Workflow outcomes: Simplify workflow through ASSIST solutions and Allia Touch panel and Direct Panel.

*Based on the results of GEHC ergonomic study performed with simulation software with 3D manikin representative of the worst case (Anthropometric data for P5 female from Anthropometric reference from National Center for Health Statistics (United States, 2011–2014. US department of health and human services).

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 IEC60601-1-9:2007.

[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.

During the product lifecycle, 64% of our tube parts (in value) are reused components:

4% of parts are harvested components from de-installed systems.

13% of parts are repaired in our facilities.

47% of parts are certified as new (tubes)

75% of the mass of Performix TM 160A tubes is recycled back into the new tubes manufacturing.

Materials

Reduce the use of hazardous substances

(EC) No 1907/2006

GE HealthCare collaborates with the suppliers to ensure that imported articles and those manufactured inside the European Union conform with the REACH regulation (EC) No 1907/2006, Article 33

GE HealthCare has been recycling iodine-based contrast media for European healthcare facilities since 2006, and now offers this recycling program in 11 European countries, Canada, and the US
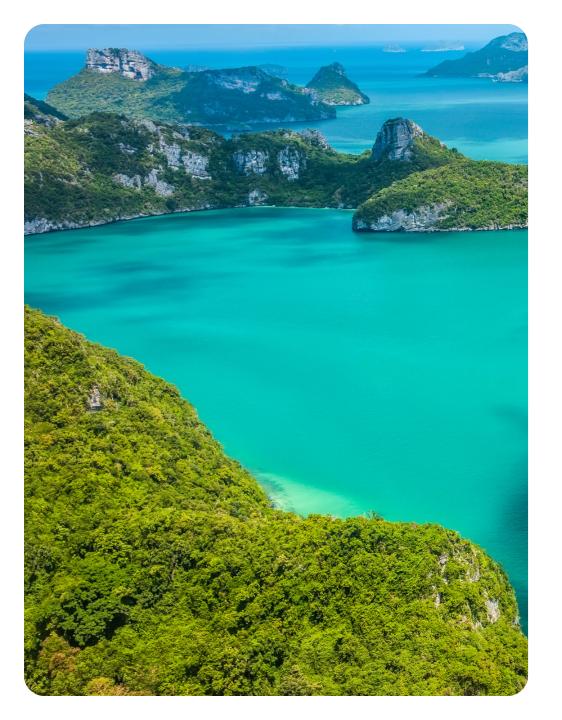
Thanks to our augmented imaging with Allia, you can improve patient outcomes*:

TAVI procedures
- −33% volume of contrast media
- −33% X-ray dose

LAAC procedures
- −78% Volume of contrast media
- −28% procedure time and
- −25% fluoroscopy time in LAAC procedures

Packaging

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

Product packaging	**Incoming:** Returnable packages between suppliers and manufacturing.
	Toward the customer: Recyclable cardboard packaging for tubes replacing wooden crate.

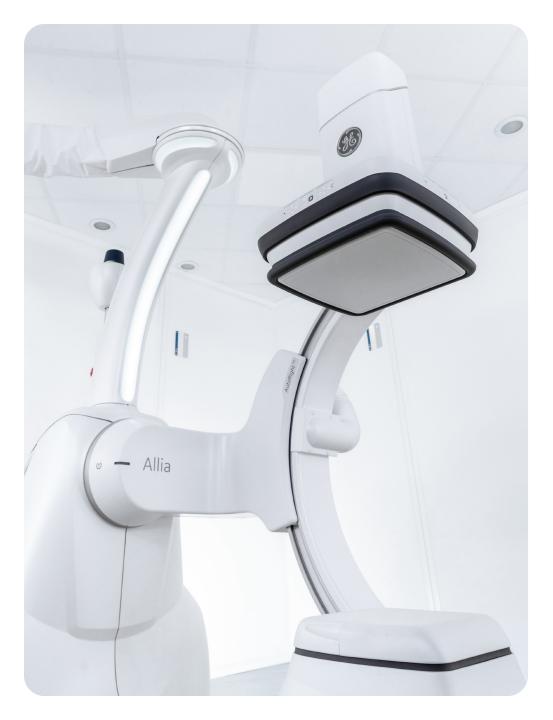| Product transportation	**Shipment methods of Allia IGS 7 is broken down as follows:**
	Air transport: 86%
	Truck transport: 14%
	14% product transportation utilizes low environmental impact modes

Manufacturing

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

Reducing electricity	Power consumption is managed at the manufacturing site level and includes tubes, generators, AW workstations, mammography, and IGS systems.
	Year-over-year reduction efforts: 13% in 2019, 10% in 2020 and 4% in 2021.
	We are committed to efforts in reducing electricity consumption in our facilities.

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

Enjoy easy patient access and wide anatomy coverage at each and every working position.

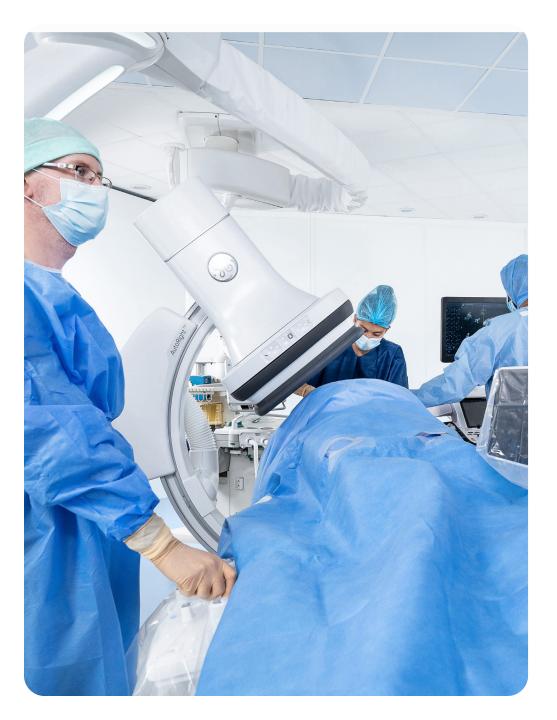Allia IGS 7 provides a wide bore offset C-arm for:
- Comfortable patient head access for anesthesiologists thanks to a unique offset C-arm design
- Head-to-groin coverage without moving the gantry
- Challenging steep angulations imaging

Allia IGS 7 brings flexibility with commands accessible from any working position:
- Compact and flexible user interface at table side or on flexible arm support
- Direct access on detector for C-arm, table, and detector motions
- IGS Control Center for ergonomic access from any position

The new workplace respects ergonomics standards of human upper body postures and gestures in 95% of the population, according to standards ISO 11226:2000 and BS EN 1005-4:2005+A1:2008, for typical working positions.

† Denotes optional feature

Product utilization

Reduce staff burden	Create a personalized workplace to adapt to clinical needs and preferences.
	Clinician profile is tailored to unique needs and preferences with up to 50 personalized user profiles.
	Increase operating comfort with smartphone-like interactions on the touch panel.
	AutoRight[3], the first AI-based interventional image chain in the industry, allows automatic adjustment of up to seven parameters in real time to optimize image quality and dose[4].
Reduce noise	Perception of tube noise reduction is noted after redesign of the tube mounting interface.
Guidance for product utilization	Instructions are provided for use of the equipment to minimize the environmental impact during installation, use, and operation. Statistically, systems are unused 50% of the day, GE HealthCare recommends shutting down the system when unused.

[3] AutoRight refers to intelligent image chain features of GE Healthcare's Interventional X-ray systems, from image acquisition to image processing and display, available on Allia IGS 5. May not be available in all markets.
[4] Based on competitive research, among major players in interventional imaging

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 providers take advantage of increased functionality.

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 most of the remaining parts are returned to dedicated recycling facilities.

Reduce energy consumption during standby mode	Standby power mode results in a 20% reduction in energy when idle.
	High Image Quality optimization and dose reduction features result in reduced power consumption: • myIQ allows noise reduction up to 53% or increased contrast up to 29% in Dynamic across the image looks without increasing the dose. • myIQ allows noise reduction up to 77% or increased contrast up to 70% in Fluoroscopy across the image looks without increasing the dose.
Power consumption	Off mode: 0.4 kW Standby (no scan): 4.5–7.5 kW Scan mode: 5.5–8.5 kW (5% of standby time)
Reduce consumable energy utilization	Standby power mode, resulting in a 20% reduction in energy when idle.

Guidance for end of lifecycle	Equipment instructions are provided to minimize the environmental impact for disposal or recycling.
Hardware and software upgrades options are provided as a solution	Allia IGS7 systems can be upgraded to new software thus adding user functionality.
Parts harvesting and refurbishment options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions	Interventional Guided 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.[5]

94–96% of most systems are reused, refurbished, or recycled, extending the lifetime of each product.[5] |
| **Waste reduction** | This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations. |

[5] Products within MR, CT, nuclear medicine, PET/CT, and IGS are eligible for refurbishment, although whether a system is actually refurbished versus harvested for parts or otherwise recycled or reused depends 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	Interactive control of the IQ/dose trade-off with AutoRight cockpit
Keep your imaging equipment up to date with advanced clinical applications	ASSIST Advanced applications (attachment rate 90%+)
Enhancing image quality	• Intuitive cockpit for dose awareness and control: Graphical color-coded display of real-time dose rate for immediate visual feedback. • Dose Map offers visualization of estimated local cumulated dose all along the exam for additional dose awareness.
Drive advancements with precision health	• AutoRight, the first AI-based, interventional image chain in the industry, allows automatic adjustment of up to 7 parameters in real time to optimize image quality and dose. • Intuitive ASSIST solutions to significantly reduce radiation dose and contrast media.

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.
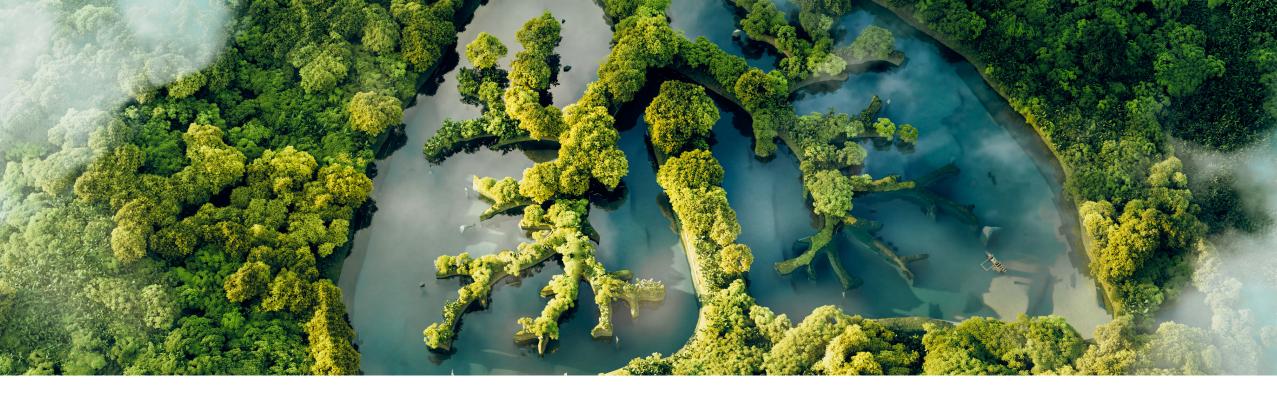
Increase productivity and consistency	Clinical and operational capabilities updated with Continuity™, allowing to extend the life of Interventional system
	Continuous and customizable clinical application training to optimize performance
	ASSIST provides advanced tools with simplified workflow to perform complex procedures
Reduce downtime	Costs associated with downtime reduced to minimum thanks to OnWatch Remote Services
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.

Reduce setup time	Personalized workplace to adapt to clinical needs and preferences
	Clinician profile tailored to unique needs and preferences with up to 50 personalized user profiles
Reduce exam time	Allia™ provides an offset C-arm to enable head-to-groin coverage without moving the gantry and easy access to patients for anesthesia and nursing needs
Ease of use	• Increased operating comfort with smartphone-like interactions on the Touch Panel
	• Compact and flexible user interface at table side or on flexible arm support
	• Direct access on detector for C-arm, table, and detector motions
	• IGS Control Center for ergonomic access from any position
Cleanability	Allia™ is based on a rail free design for improved hygiene.
	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

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