

# Focusing on sustainability in Image Guiding Solutions



Allia™ IGS Pulse



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.

\* 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.



**We are committed to achieving 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\*\*.**

# 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 Pulse helps create a more sustainable tomorrow

Our Image Guiding Solutions Allia IGS Pulse 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

- Contribution to CO<sub>2</sub> consumption savings:
  - Standard configuration is round 10%\* lighter and smaller in volume versus predicate platform\*\*, resulting in reduced transportation and handling
  - Proactive and predictive services help prevent events before they happen by sending proactive alerts enabling more remote fix and therefore less travel time
- The two system user interfaces (Smart Box and TSCC) are replaced by one ergonomic and compact control panel (MCUI) at table side.
- Ultra-low dose procedures with significant radiation reduction with more than 50% reduction of dose versus predicate platform<sup>1</sup>.

## Improving care

Allia IGS Pulse, your trusted assistant for cardiology interventions:

- Exceptional cardiac image quality from small to large patients with automated dose optimization.
- Personalizes your workspace for 1-click access to all essential cardiac functions for simplified workflow.
- Facilitates adoption of augmented image guidance in daily practice.
- Enables you to easily integrate and connect with other imaging sources for a seamless workflow.

\* Data on file.

\*\* Innova™ IGS platform.

1. Results obtained comparing Allia IGS 5 Pulse and Innova™ IGS dose performances (measured in dose area product in Gy.cm<sup>2</sup>) in ICPS Antony, France. 1,314 cases collected in 10 months.



# Contributing to a healthier planet

More than half of the healthcare sector's climate footprint, approximately 53%, is attributable to energy use<sup>2</sup>. 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.

## 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.

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### Reduce the use of hazardous substances

EU RoHS directive 2011/65/EU

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REACH (EC) 1907–2006

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With GE HealthCare ASSIST<sup>3</sup> technologies, you can improve outcomes:

#### In TAVI procedures

- –33% volume of contrast media<sup>4</sup>
- –33% X-ray dose<sup>5</sup>

#### In LAAC procedures<sup>6</sup>

- –78% volume of contrast media
- –25% fluoroscopy time

2. Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org), based on 2019 report.

3. ASSIST solutions are composed of multiple medical devices. For more information, please refer to GE HealthCare's web site. [www.gehealthcare.com/assist](http://www.gehealthcare.com/assist).

4. Shafiq, et al. Effect of a new enhanced fluoroscopy technology (Valve ASSIST 2) on outcomes in patients undergoing transcatheter aortic valvular replacement. TCT 2017; Abstract.

5. Overtchouk, et al. Advanced image processing with fusion and calcification enhancement in transcatheter aortic valve implantation: impact on radiation exposure. Interactive CardioVascular and Thoracic Surgery (2018) 1–8. doi:10.1093/icvts/ivy136.

6. Roy, et al. Novel Integrated 3D Multi-Detector Computed Tomography and Fluoroscopy Fusion for Left Atrial Appendage Occlusion Procedures. Catheter Cardiovasc Interv 2017; Mar 17, DOI:10.1002/ccd.26998.



## Packaging and distribution

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.

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**Toward the customer:** Tube mounted in the factory, no need for dedicated tube packaging.

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### Product transportation

86% air transport

0% ocean transport

14% truck transport

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.



## 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

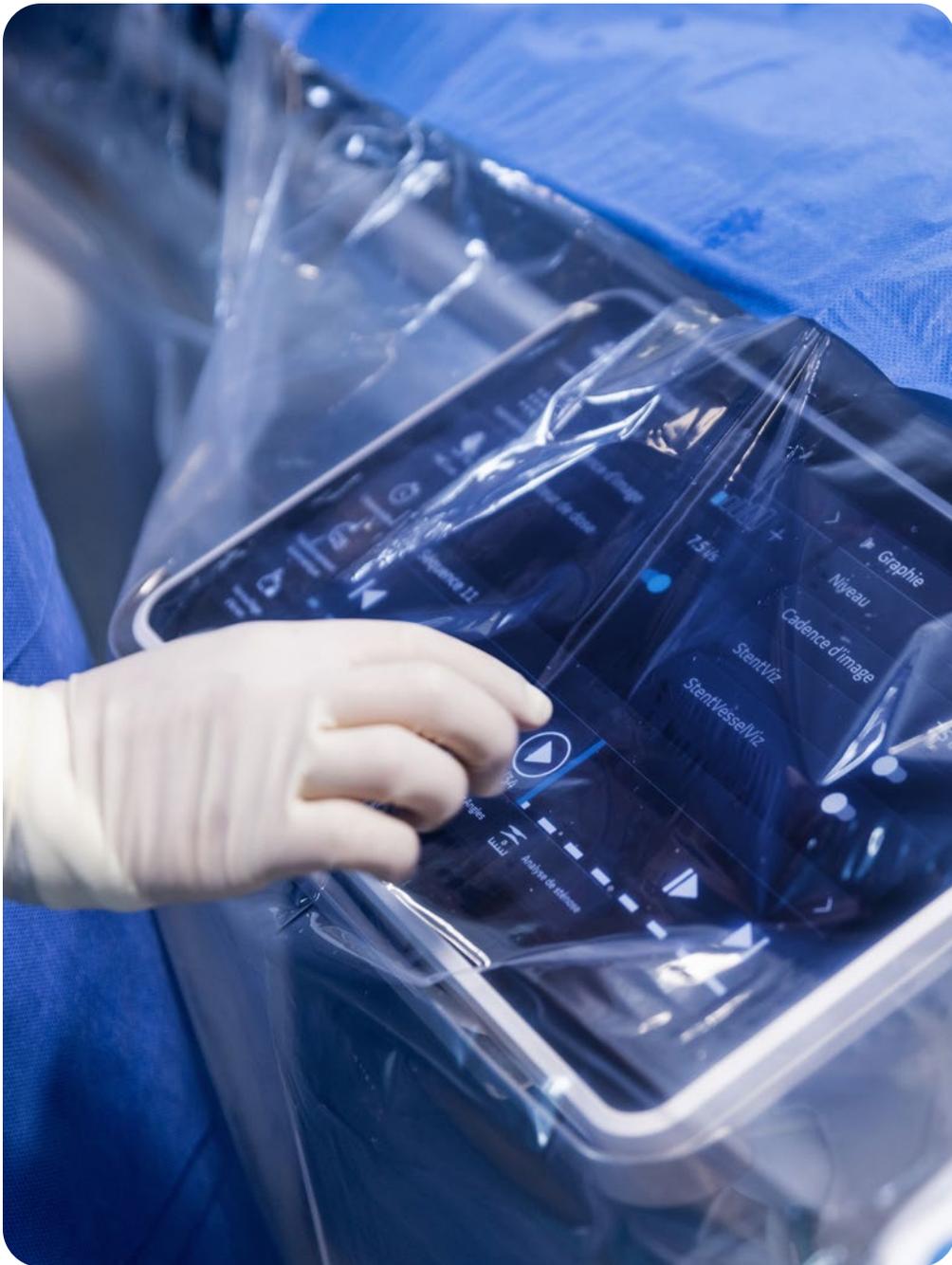
#### Commands at your fingertips wherever you are:

- Work in full comfort and control with compact personalized user interfaces.
- Direct access from detector to move C-arm, table<sup>7</sup> and detector motions.
- Flexible arm support for Touch Panel for positioning flexibility.
- IGS control center<sup>8</sup> for ergonomic access from any position.
- A personalized workplace that meets ergonomic standards for human upper body postures and gestures<sup>9</sup>.

7. Table motion not available for IGS 520 configuration.

8. Option available with Innova-IQ table.

9. For 95% of population according to standard ISO 11 226, BS EN 1005 4, for typical working positions. Based on the results of GE HealthCare 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. U.S. department of health and human services).



## Product utilization

### Reduce staff burden

Personalize your workplace for 1-click access to all essential cardiac functions:

- Personal operator profiles for Allia™ to remember you.
- Personalized homepage with operator's specific needs and preferences.
- Increased operating comfort with smartphone-like interactions on the Touch Panel.
- AutoRight™ PLUS<sup>10</sup>, the next generation of our automation platform optimize now 7 acquisition parameters in real-time based on image anatomy.
- You choose your image quality target, and the system provides the right image at the right dose.

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### Reduce noise

Allia IGS Pulse system is quieter<sup>11</sup> than normal conversation.

10. AutoRight refers to intelligent image chain features of GE HealthCare's Interventional X-ray systems, from image acquisition to image processing and display. May not be available in all markets.

11. System acoustic noise is measured at 51.2dB(A) while normal conversation is 60 dB (A).



## Product utilization

### Guidance for product utilization

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Instructions are provided for use of the equipment to minimize the environmental impact during installation, use, and operation.

### Reduce energy consumption during standby mode

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- System shut down is recommended when not in use.
- Standby power mode results in a 20% reduction in energy when idle.

### Power consumption

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Off mode: 0.4 kW  
Standby (no scan): 3–5 kW  
Scan mode: 3.5–5.5 kW (5% of standby time)

### Reduce consumable energy utilization

**The monopolar tube cooling technology is more energy efficient:**

- No more CFC gas and cooling water consumption by using oil cooling only as compared to previous cooling technology.

# 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.

## Guidance for end of lifecycle

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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

#### There are multiple upgrade paths\* to Allia IGS Pulse systems:

- Innova™ IGS with and without Autoright and Allia IGS releases\*\* can be upgraded to Allia IGS Pulse by replacing the gantry (detector excluded) and its controls, the cabinet, the detector and table user interfaces and the tube.
- These upgrades extend the lifespan of the system and provide the current operating system for more cybersecurity.
- Other hardware and software are either kept, partially replaced or refreshed.

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#### Software only updates and new applications are also available:

- Continuity™\*\*\* allows to receive regular software updates, focusing on initial configurations for cost effective management within a planned budget.
- Advanced clinical software options are also available standalone to benefit from recent innovations.
- These softwares are also available for previous generation systems\*\*.

\* Upgrade content varies according to configuration.

\*\* Not all products or features are available on all markets and on all Image Guiding Solutions systems. Please contact a GE HealthCare representative for more information.

\*\*\* Continuity can be purchased separately.



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

Allia™ IGS system parts are eligible for the parts refurbishment program, in which they are considered for harvesting to re-use as service parts, or repair, or recycling<sup>12</sup>.

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**Waste reduction**

This system complies with Waste Electrical and Electronic Equipment (WEEE) regulations.

12. System parts 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.

# 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 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

### Greater visualization comfort with image personalization at your fingertips:

- Select your favorite image look for a tailored experience with no additional dose<sup>13</sup>.
- In one-click, access to 4 highly differentiated renderings designed to match your image preferences<sup>14</sup>.
- Allia IGS Pulse advanced image rendering makes the unclear clear, automatically.

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

### Allia IGS Pulse brings augmented 2D image guidance with PCI ASSIST 2<sup>15</sup>:

- Help to increase positioning accuracy and confidence in multiple stent positioning.
- Enhance the visibility of both stents in a bifurcation thanks to our improved StentViz algorithm.
- Save time thanks to an automatic single-acquisition workflow.
- Improve anatomical visibility by up to 85%<sup>16</sup> in moving arteries at the same dose.

13. Applicable only for cardiac protocols.

14. Review by 6 independent cardiologists to score differences in image rendering on more than 60 sequences randomly picked from a representative clinical database.

15. PCI ASSIST 2 solution includes StentViz and StentVesselViz.

16. Improvement vs. same test without HCF. IQ improvement is measured on Innova IGS530 with phantoms using various Plexiglas. Thicknesses, acquisition parameters and the NEMA spoke wheel tool (ref 1), calculating the ratio of the contrast of the moving wires to the background noise level. The amount of IQ improvement related to HCF depends on the acquisition parameters, clinical task, patient size, amount of motion in the image, anatomical location, and clinical practice. Ref1: a new tool for benchmarking cardiovascular fluoroscopes; S. Balter, Radiation Protection Dosimetry, Vol. 94, No. 1-2 pp. 161-166 (2001). Applicable to Allia IGS 5 (IGS 520 and IGS 530 configurations) and Allia IGS 7 (IGS 730 configuration).



## Helping clinicians advance patient outcomes

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

#### 3DStent<sup>17</sup>, remove major stent imaging barriers:

- EASY image interpretation and FAST measurements.
- 3D stent reconstructions with ZERO additional contrast, ZERO additional devices and ZERO additional procedural cost.
- High correlation between 3DStent and IVUS stent area measurements<sup>18</sup>.

### Enhancing image quality

#### 95% of clinicians<sup>19</sup> interviewed by GE HealthCare believe they have better control on the IQ/dose trade-off with AutoRight cockpit<sup>20</sup>:

- Graphical color-coded display of real-time dose rate.
- One touch access to the full image quality range within any protocol<sup>21</sup>.
- Dose limiter function for additional control of max fluoroscopic dose-rate limit.

17. 3DStent solution includes Allia system, 3DXR and Volume Viewer Innova and requires AW workstation with Volume Viewer. These applications are sold separately. Not available for sale in all countries. Available on Allia IGS 5 with 20- or 30-cm detector and Allia IGS 7 with 30-cm detector.

18. Ruiz, et al. Rotational Angiography Accurately Predicts Minimal Stent Area – A comparison with IVUS. Journal of the Society for Cardiovascular Angiography and Interventions, May 2025, DOI:10.1016/j.jscai.2025.102723. 18 Result obtained during the evaluation of Allia IGS 7 by 19 clinicians from Europe and the United States, using a simulated interventional lab environment. The statement described here is based on the opinion of these healthcare professionals, who are paid consultants for GE HealthCare and were compensated for their participation.

19. Result obtained during the evaluation of Allia IGS 7 by 19 clinicians from Europe and the United States, using a simulated interventional lab environment.

The statement described here is based on the opinion of these healthcare professionals, who are paid consultants for GE HealthCare and were compensated for their participation.

20. 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 products. May not be available in all markets.

21. With IntelliQ auto-exposure preference.



## Helping clinicians advance patient outcomes

### Drive advancements with precision health

An integrated ecosystem at your fingertips.

Allia enables you to easily integrate or connect with other sources.

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#### Intravascular imaging and physiology measurements:

- **Multimodality control at your fingertips** with INTERACT Touch<sup>22</sup> and Boston Scientific AVVIGO™+ guidance system. Get the full control of IVUS, FFR and DFR directly from the Allia Touch panel.
  - **IVUS/iFR co-registration** with Philips IntraSight. iFR and IVUS are combined with the angiogram for precise coronary anatomy and physiology mapping.
  - **OCT/angiography co-registration** with Abbott OPTIS™ OCT. Real-time synchronization of angiographic and OCT images for side-by-side viewing and optimized PCI workflow.
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**Vscan Air:** Pocket-sized ultrasound imaging connected to your interventional system.



## Optimizing imaging operations

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

### Increase productivity and consistency

#### Experience the first interventional monopolar tube:

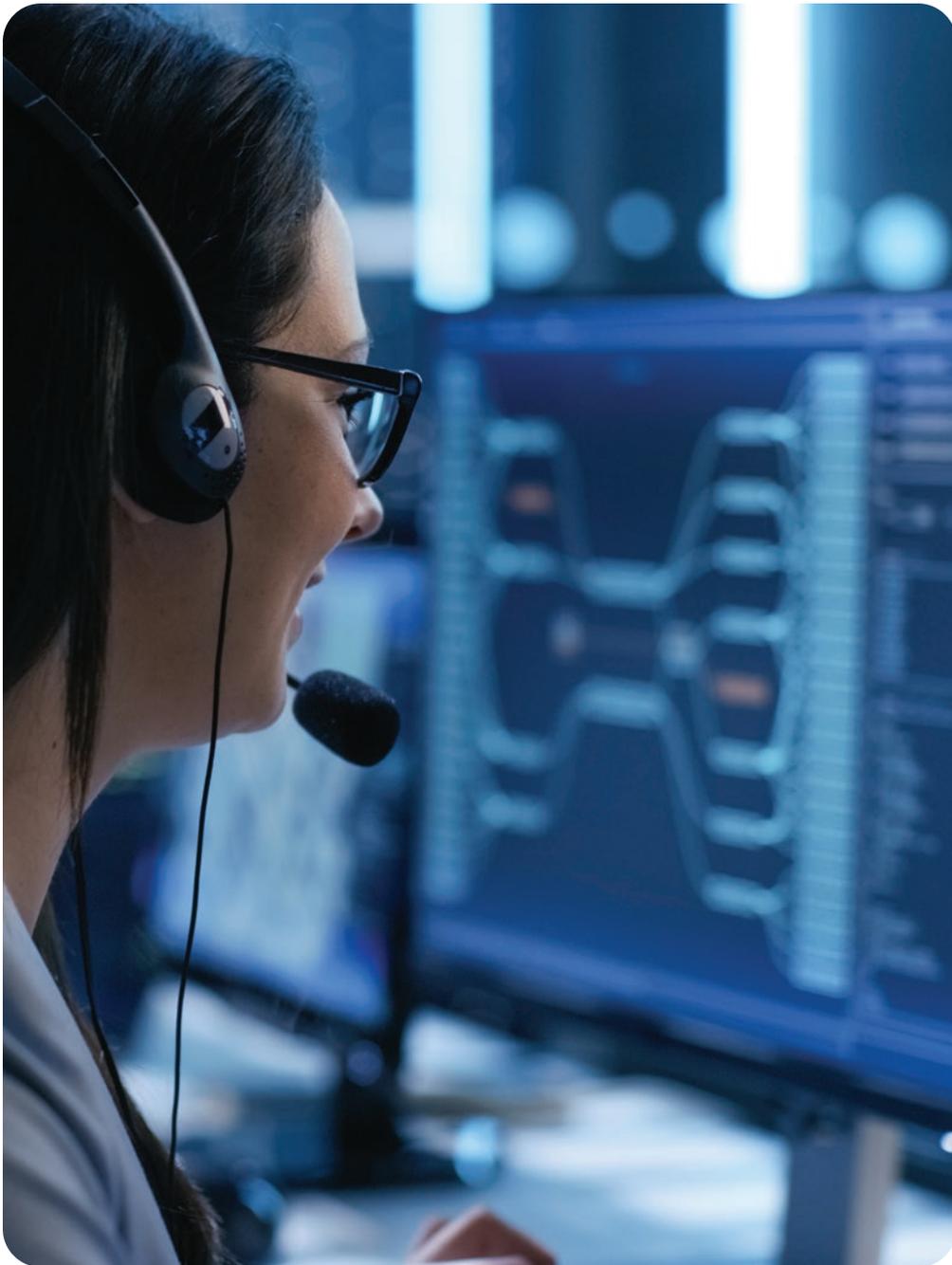
- Reach steeper angulations with a very small footprint.
- Up to 40% tube<sup>23</sup> volume reduction for a 30-cm detector configuration.

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#### Continuity™\* to benefit from the latest functionalities:

- Give access to the latest capabilities.
- All assets to run on the latest software version.
- Interventional training and operations simplified.

23. Tube means X-ray source assembly, based on internal measurements.  
\* Continuity can be purchased separately.



## Optimizing imaging operations

### Reduce downtime

**OnWatch™ and Tube Watch™** enable proactive and predictive services that track key systems components metrics and detect any anomalies. They send proactive alerts to a remote engineer, who either make a repair on line or schedule a service call:

- 89% reduction of tube or X-ray chain related downtime with Tube Watch<sup>24</sup>.
- 55 h average unplanned downtime saved per event with Tube Watch<sup>24</sup>.
- 53% reduction in average time elapsed before resuming patient schedule<sup>24</sup> with OnWatch™.
- Costs associated to downtime are reduced to a minimum.

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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.

### Reduce exam time

#### Allia IGS Pulse provides an offset C-arm to enable:

- Head-to-groin coverage without moving the gantry.
- Easy access to your patients for anesthesia and nursing needs.
- Avoiding collision with anesthesia's airway tubes and intravenous lines when performing steep angulations.

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#### Allia IGS Pulse brings operating comfort:

- Dedicated auto-positioning function to easily store and recall positions from table side.
- Detector lift offers an ergonomic workplace, giving the operator flexibility to access controls from multiple positions.
- Hand detection technology enables effortless table motion<sup>25</sup> upon grasping the mushroom regardless of patient weight.



## Enabling intelligent exam workflows

Intelligent automation features help to drive consistency, enable fast, easy exams, and improve workflow with fewer resources.

### Ease of use

#### Allia IGS 5 Pulse: demand performance

- Dedicated 20-cm detector optimized for cardiology procedures.
- Optimal 30-cm detector for a wide range of specialties like structural heart and peripheral vascular procedures.
- Exceptional performance: compatible with a wide range of advanced applications.

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#### Allia IGS 7 Pulse: experience full system mobility with mobile robotic gantry and excellent patient access and full anatomy coverage from any working position

- Radial or axillary: dedicated flexible arm trajectories.
- Carotid: complete head and neck access with gantry positioned on left or right.
- Right femoral: femoral access with easy head-to-groin coverage.
- Left subclavian: full left-side access with gantry positioning on the right.

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



# Creating a healthy world to help enable better patient outcomes.

[GEHealthCare.com/about/sustainability](https://GEHealthCare.com/about/sustainability)

Not all products or features are available in all geographies. Check with your local GE HealthCare representative for availability in your country. Commercial availability of GE HealthCare medical systems is subject to meeting local requirements in a given country or region. Not all features are included in the standard system configuration. Contact a GE HealthCare representative for more information. Intended for healthcare professionals only.

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