#### About GE Healthcare

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

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## **GE** Healthcare



## Innova IGS 530

Image Guided System for interventional imaging



Data subject to change.

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A General Electric company, doing business as GE Healthcare

\*Trademarks of General Electric

In clinical use, the results of the application of dose reduction techniques will vary depending on the clinical task, patient size, anatomical location and clinical practice. The Interventional radiologist, assisted by a physicist as necessary has to determine the appropriate settings for each specific clinical task.

- 1 Option. May not be available in all countries. Refer to your sales representative.
- 2 Except in following countries: Germany, Switzerland, Austria, New Zealand where that list is limited to 3 preferences

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- 3 by requesting it to your entity responsible for the servicing of your equipment
- 4 No personal data are accessible to outside the HCP responsible for the patient



imagination at work

As flexible as it is powerful

Innova IGS 530 is an image guided system with optimal panel size for cardiovascular and interventional imaging.

With its versatile 31 x 31 cm (12.2 in.) square flat-panel digital detector, the Innova\* IGS 530

is a multi-purpose floor-mounted system designed to support a variety of interventional vascular procedures, from neurological to peripheral exams. It also has the agility for steep angulations required for coronary angiography. The Innova IGS 530 is designed from the ground to provide the image clarity you need while helping you keep dose as low as possible. It includes features like Dose Personalization<sup>1</sup>, which gives you the tools to choose from up to five automatic exposure preferences<sup>2</sup> for your system. You can also modify any of these preferences<sup>3</sup> in any clinical protocol to enable multi-procedure, multi-user customization and thus make well-informed decisions.



#### Powered by dedicated advanced applications, you can plan, guide and assess complex cardiac and peripheral procedures.

They include percutaneous coronary interventions using the One-Touch QA stenosis analysis to easily measure easily lesions with auto-calibration, and peripheral studies with exquisite bolus-chase applications like InnovaBreeze\* and InnovaChase\*.

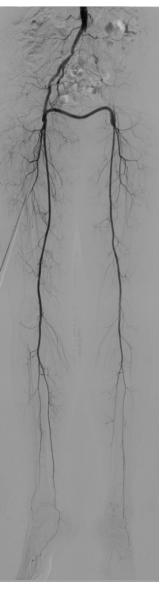
# Mid-size panel for clinical versatility

At 31 x31 cm square (12.2 in), the Innova IGS 530 flat-panel digital detector is designed for a wide range of cardiovascular and interventional imaging procedures. It can cover both legs simultaneously and maintains the capability for steep angulations.

#### Superb image quality with high Detective Quantum Efficiency (DQE)

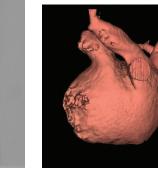
The proprietary angiography flat-panel detector offers one of the industry's highest ratings for Detective Quantum Efficiency (DQE), a parameter internationally acknowledged as an index of detector performance in contrast- and dose-limited imaging performed in clinical studies. High DQE enables better-quality images at the same dose, or the same quality image at a lower dose.

Mode @ Dose/Fr	Innova IGS 530 31 X 31 cm
DQE values at average fluoro and record dose operating points	
Record, e.g. DSA 175 nGy (20 uR)	77%
Fluoro 8.8 nGy (1 uR)	71%
Additional DQE values at minimum fluoro dose operating point	
Fluoro 2.2 nGy (0.25 uR)	58%
Note: DQE values given are typical at $f = 0$ cycles/mm with RQA5 conditions as defined by IEC62220-1-3 standards	









InnovaBreeze showing both leg bolus capture InnovaSpin\* Valve 3D reconstruction Heart 3D reconstruction

# Lower dose by design

GE designs systems from the ground up with the tried and trusted GE imaging chain, optimized to provide the image clarity you need while helping you keep dose as low as possible. Our dose-reduction features empower you to easily optimize and personalize dose settings from the tableside, while maintaining clinical details you need to make well-informed decisions. But improving dose management takes a strategy - what we call the GE Blueprint. It includes low-dose imaging technologies for minimally invasive procedures, but also considers the people, culture and processes around them.



Dose Map<sup>1</sup> records and displays the estimated local cumulated dose during procedures performed on your GE Healthcare angiographic system. The calculation and the cumulated local dose is displayed upon user request or upon configured threshold and provides a visualization of the distribution of the local cumulated dose all along the exam as well as the current projection of the beam.





Innova Dose Reports provide dose summaries from each interventional system and delivers periodic dose reports by e-mail. You can view dose profiles for specific patient exams<sup>4</sup> that have exceeded the threshold you define and dose-by-procedure reports, identify high-dose cases, and help monitor patient radiation dose levels versus published dose reference levels. Critical information is combined in comprehensive reports to illustrate procedure utilization, dose usage details per procedure, monthly dose utilization trends, benchmarking and more.



InnovaSense<sup>\*1</sup> is an advanced patient contouring technology that uses an intelligent detector to assess movement of the gantry and select the best position for the image receptor relative to the patient. By reducing the distance from the receptor to the patient, the system optimizes imaging geometry and helps reduce radiation exposure.



## Benefits

### Simple, centralized, automated controls

The full-color 142 cm (56 in) diagonal 8 megapixel medical-grade large Control your system and images with integrated, intuitive tableside controls. With simple menus, the Central touchscreen lets you control display lets you view multiple images from multiple sources. Get up to 120 customized layouts, easily changeable at tableside with the Central most system functions, configure the system, modify imaging parameters, control your large display monitor, and manipulate advanced applications touchscreen. Zoom in comfortably without loss of detail or pixilation to get the clinical focus you need. - all at tableside. With the Favorites tab, set your most-used functions and applications for fast access, file those preferred tabs under a selected name for easy retrieval, and personalize the working user interface. With SmartNay, navigate easily through applications and functions on the Central touchscreen and from the local or remote keypad. View the navigation menu displayed on the reference monitor next to the live image and use explicit icons to drive through main applications and functions. Other intuitive tableside controls include the comfortable, easy-to-grasp control knob, which makes it easy to pan the table, position the gantry, and perform procedures.

#### Innova<sup>IQ</sup> table

The Innova<sup>IQ</sup> table is a fully motorized tilting table featuring effortless, automated and flexible positioning functionalities such as fully motorized longitudinal and lateral motions even when tilted and variable force positioning that allows for smooth and precise motion over the complete range of speeds. Table rails make it easy to attach accessories for patient comfort.

#### Brilliant machine. Support that never sleeps.

We created OnWatch<sup>1</sup> to maximize your efficiency by ensuring that your angiography system is operating when you need it to. OnWatch service measures key parameters from your equipment hundreds of thousands of times per day. It looks ahead to help limit disruption from unplanned downtime, creating a less stressful experience for you, your staff and your patients. This visionary technology drives progress in patient care, enhances efficiency and can help minimize the costs associated with downtime.

#### All-in-one large display monitor<sup>1</sup>





# Advanced applications

#### StentViz<sup>1</sup>

#### **Enhance stent visualization**

StentViz stent enhancement technology provides excellent visualization of stent borders and details, helping you assess stent deployment during coronary interventions. It automatically detects both the guidewire and the marker balls, helping you perform an elastic registration that allows compensation for non-rigid stent deformation. In addition, it removes radio-opaque objects for optimal stent visibility and robust performance.

#### **OneTouch QA<sup>1</sup>**

#### Perform quantitative analysis with fingertip control

With the touch of a button, an auto-calibrated live monitor image pops up on the Innova Central touchscreen and shows the region of interest magnified. It allows you to drop your points of interest on the touchscreen for stenosis analysis and distance measurement. Moreover, you can analyze the vessel diameters at tableside using the joystick.

#### InnovaChase

#### Follow a contrast bolus through the anatomy

InnovaChase\* is a dynamic unsubtracted acquisition used to follow to compensate for respiratory artifact, contrast bolus in the anatomy at a fixed frame rate of 5 frames per second with remote panning of the table. It is optimized for visualization of a peripheral contrast runoff.

#### Innova Vision

#### Live 3D guidance

Innova Vision overlays 3D prepared datasets from CT, MR or 3D rotational images on live fluoroscopic images in a single click. This 3D roadmapping application helps you guide devices in complex anatomies.

#### Innova TrackVision

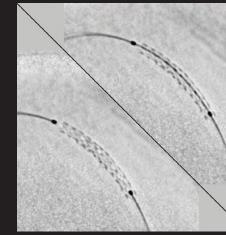
### Progress with confidence

Innova TrackVision provides live 3D needle guidance during your procedures. It lets you advance the needle down a planned trajectory overlaid on live fluoroscopy and visualize any deviations from the desired path.

#### Innova HeartVision

#### Live 3D guidance for cardiac procedures

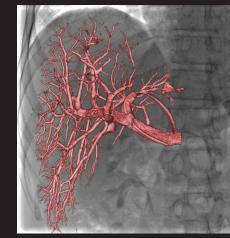
Innova HeartVision overlays 3D prepared datasets from CT, MR or 3D rotational images on live fluoroscopic images in a single click to support localization and guidance of devices during cardiac procedures. It delivers image stabilization features with ECG-gated display or motion tracking to compensate for respiratory artifact, helping to provide a steady 3D reference during complex procedures.



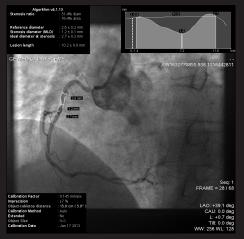




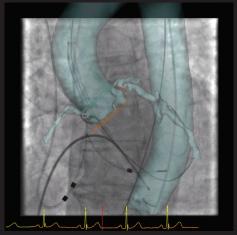
Innova Chase



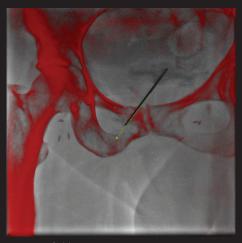
Innova Vision



OneTouch Stenosis Anlysis



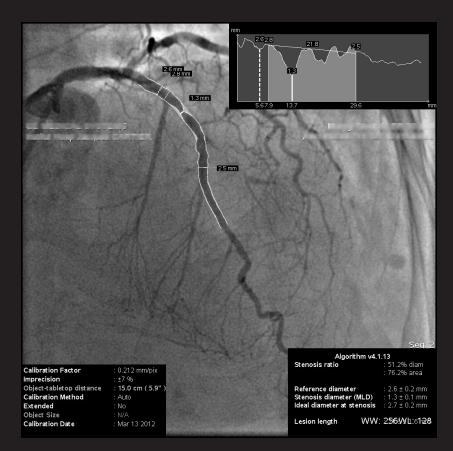
Innova HeartVision



Innova TrackVision

## Plan, guide and assess percutaneous coronary interventions with confidence

When performing Percutaneous Coronary Interventions (PCI), excellent image quality at the lowest dose is key to clearly visualizing the coronary artery narrowing or blockage. It is also necessary to define the optimal angle and analyze vessel quality so as to ensure a safe deployment of guidewires and devices. At the end of the procedure, the ability to verify stent placement and the intra-vessel lumen is helpful in assessing the procedure outcome.



#### Plan

You can plan your procedure with InnovaSpin\* to select the optimal angle with one injection. Then, with the One-Touch QA stenosis analysis, you can easily measure lesions with auto-calibration, which you can activate at tableside with a single button press.

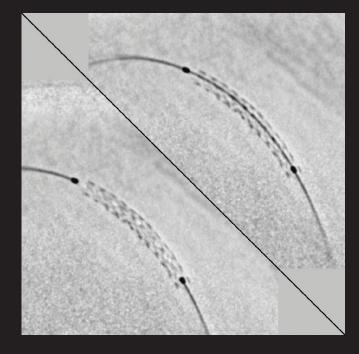


#### Guide

You can easily switch from the record mode to low-dose fluoroscopy at tableside to view the advancement and deployment of guidewires and devices. You will benefit from highly precise imaging while saving dose.





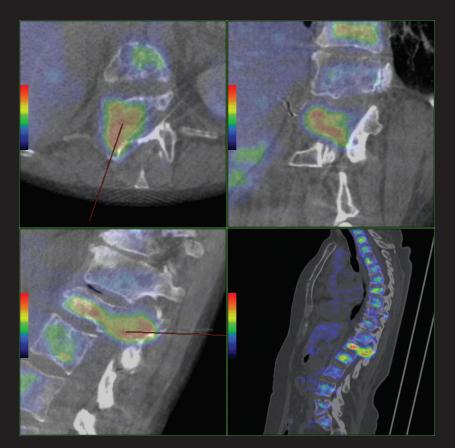


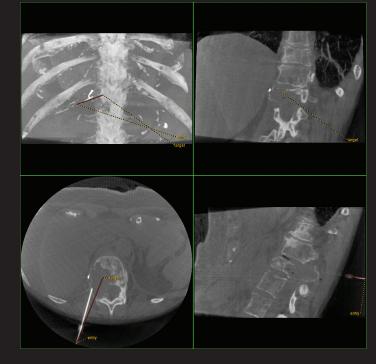
#### Assess

With the subtracted guidewire view of StentViz, you can visualize the stent struts and borders within the stent with excellent clarity and verify the correct deployment of the stent.

## Plan, guide and assess biopsy procedures with confidence

When performing a biopsy, it is important to identify a precise target. By combining PET images, you can see the FDG uptake within the anatomy. Leverage multi-modality images in this way can be valuable in planning the procedure.





Guide

Guide your needle through the anatomy using fluoroscopic images. You can perform an Innova CT acquisition at any step of the procedure to check the needle position in the anatomy and adjust your trajectory.

## Plan

Integrated Registration, which superimposes the PET CT image over the 3D angiography image, helps you plan the needle trajectory.



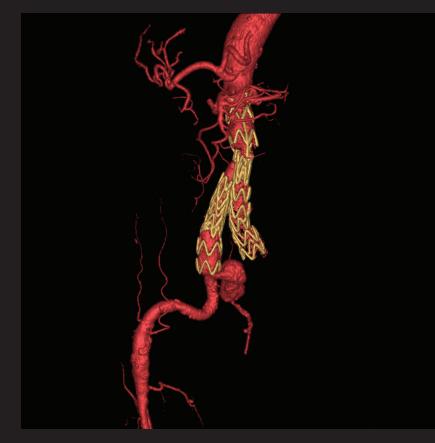


## Assess

Confirm the final needle positioning with an Innova CT and perform your biopsy.

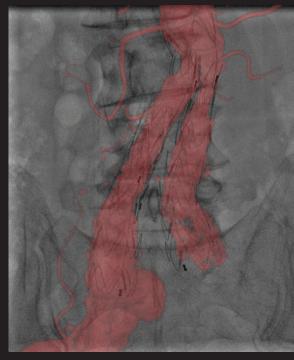
# Plan, guide and assess hypo-gastric artery embolization with confidence

Isolating any aneurysm before its rupture is essential in many cases to avoid life-threatening conditions. In the hypo-gastric iliac, it is challenging to bring the catheter to the embolization point. 3D information is valuable to understanding where you stand in the anatomy.



#### Plan

Based on CT images, you can plan your procedure by segmenting the vessels at the iliac bifurcation. In this particular case, you can also segment the stent from a previous endovascular aneurysm repair to give valuable anatomical information.



#### Guide

Use the 3D cardiac model to overlay images on live fluoroscopy. You can register the 3D images with two fluoroscopic shots at 0° and 90° for the vessels and the stent, and then guide your catheter to the embolization point using Innova Vision for live 3D guidance.





#### Assess

py. You canWith Digital Subtracted Angiography, you can look at the contrast uptake90° for the<br/>boligationin the vessels to assess embolization of the hypo-gastric aneurysm.