



DISCOVERY MI DR



Introducing Discovery MI DR

## GET READY FOR MEANINGFUL INSIGHTS

Discovery™ MI DR was created from what we learned through partnerships with healthcare professionals like you. It's a premium PET/CT system with the added flexibility of a standalone diagnostic CT. It delivers the accurate, reproducible results referring physicians require and the added clinical versatility you need to expand your practice beyond FDG and oncology. It's also an important step towards our all-digital vision for the future of molecular imaging.

With Discovery MI DR, get ready to leverage deep learnings from digital software and analytics innovation. Get ready for potential future needs with a system that easily adapts to our digital PET detector. And most importantly, get ready for meaningful insights.





## Technology

# TECHNOLOGY THAT STARTS AND STAYS AT THE LEADING EDGE

Discovery MI DR was designed with leading edge technology that stays at the leading edge, even as your needs change.

Designed for speed and efficiency, the LightBurst LBS Detector has an unmatched 25 mm Lutetium-based scintillator (LBS) that delivers the high sensitivity needed to capture the greatest number of counts. It can also be easily updated to the LightBurst Digital Detector if your practice should require it. In addition, Discovery MI DR brings together the most innovative reconstruction technology available, the combination of Time-of-Flight and Q.Clear, for outstanding resolution and repeatable accuracy for SUV measurements.

Discovery MI DR includes advances in diagnostic CT from our Revolution™ EVO, including the Clarity Imaging System, the Performix™ 40 Plus tube and our proprietary HiLight CT detector. When this combination of technologies is paired with the optional ASiR-V™ iterative reconstruction method, they can deliver up to a 2x increase in spatial resolution, as well as help reduce CT dose<sup>1,2</sup>. And Smart MAR saves you time previously spent correcting images by virtually eliminating streaks and shadows from metal artifacts.



High PET sensitivity and count rate performance to image all tracers



2 mm resolution over the entire FOV with SharpIR<sup>3</sup>



Up to 82 percent reduction in CT dose with ASiR-V, at the same image quality<sup>1,2</sup>

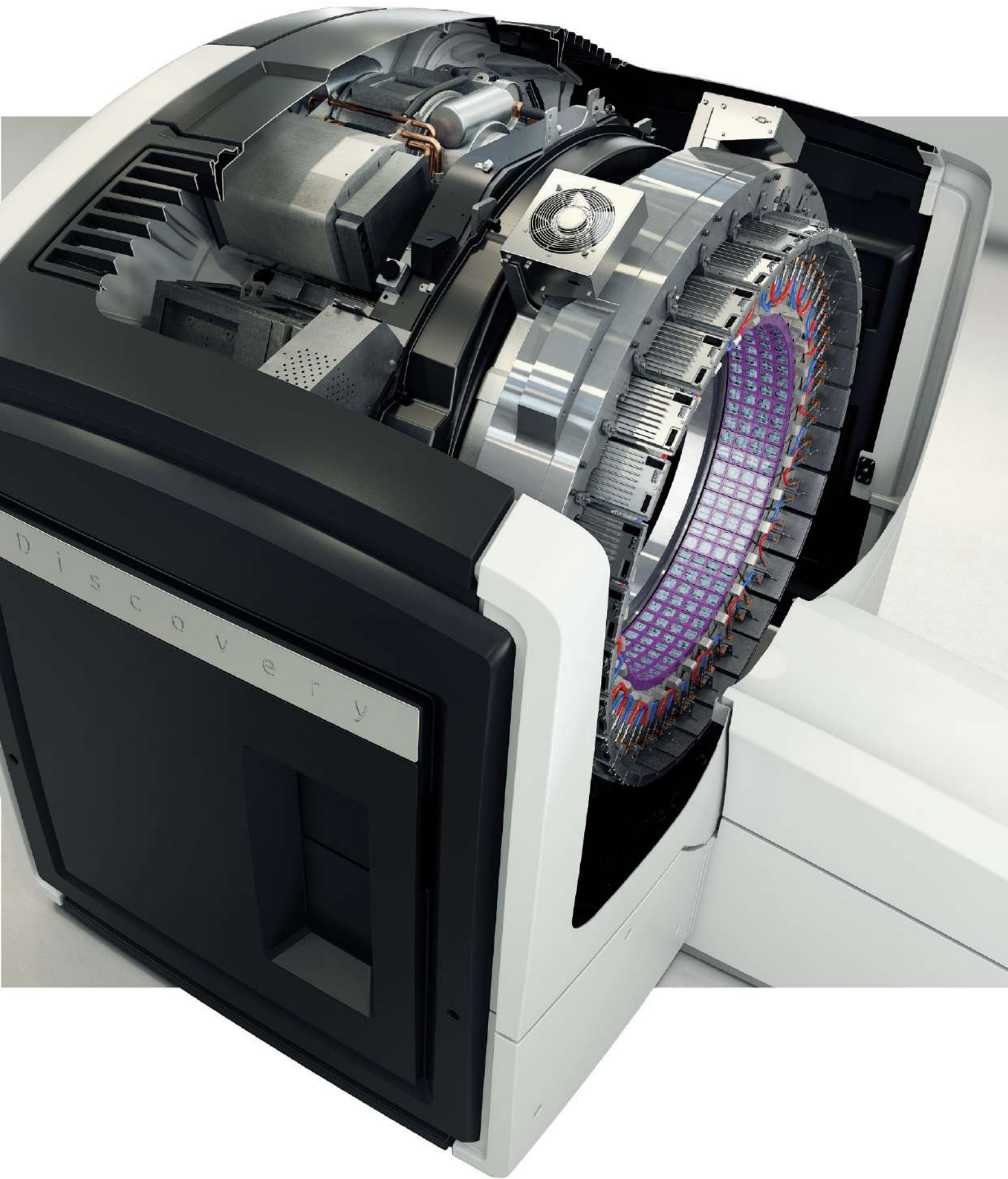


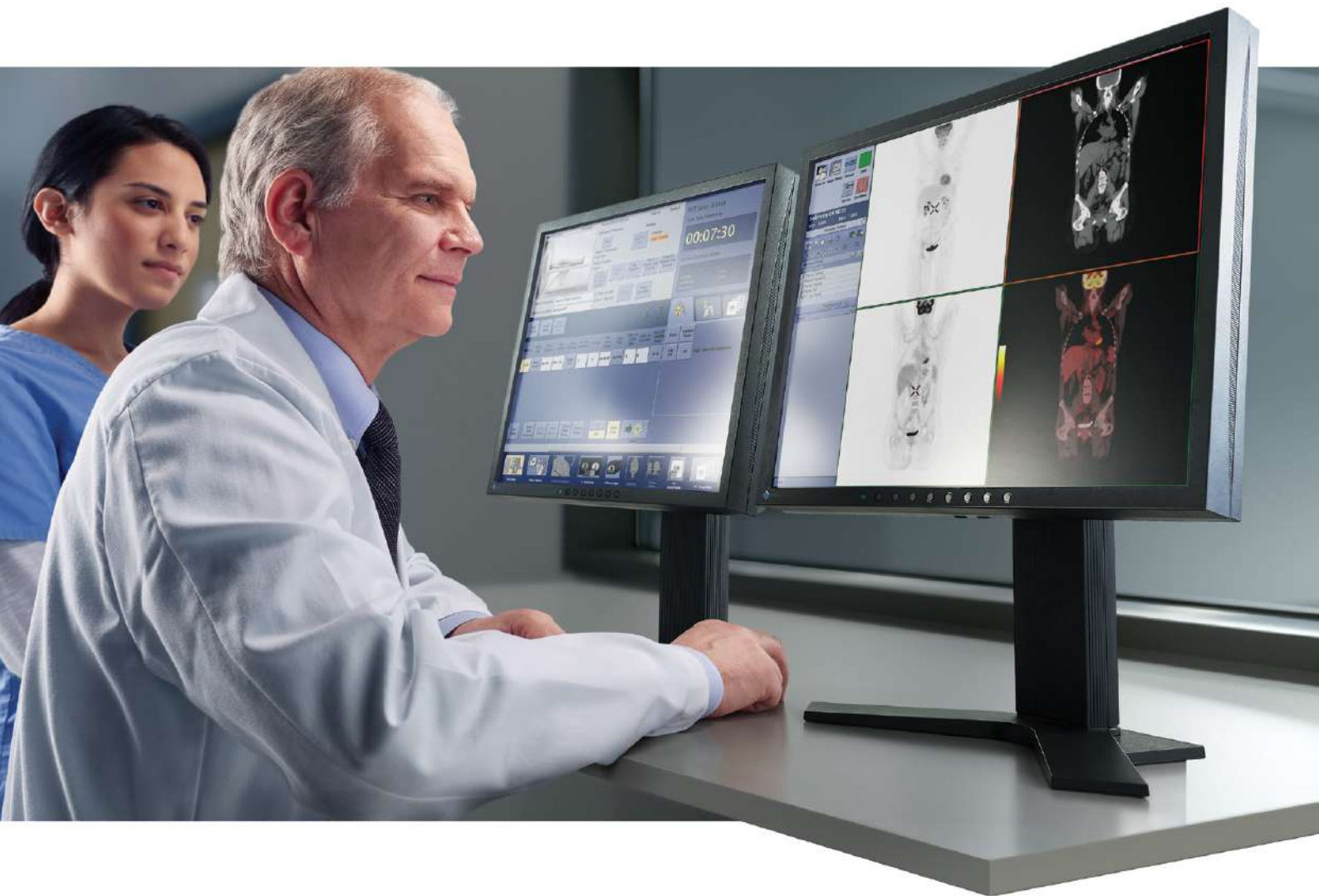
Up to 2x improvement in quantitative accuracy (SUV<sub>mean</sub>) and image quality (SNR) with Q.Clear



Platform compatible with advanced digital solutions designed to connect machines, people and data through a portfolio of healthcare analytics applications





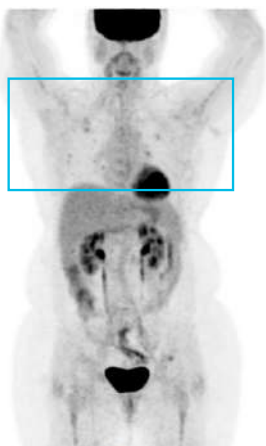


VUEPoint FX

VUEPoint FX + Q.Clear

VUEPoint FX

VUEPoint FX + Q.Clear



Liver:  $SUV_{mean} = 3.35$  g/ml  
ROI:  $SUV_{max} = 2.41$  g/ml

Liver:  $SUV_{mean} = 3.65$  g/ml  
ROI:  $Q.SUV_{max} = 2.41$  g/ml

Liver:  $SUV_{mean} = 3.07$  g/ml  
ROI:  $SUV_{max} = 3.33$  g/ml

Liver:  $SUV_{mean} = 3.05$  g/ml  
ROI:  $Q.SUV_{max} = 4.64$  g/ml

2.5 minutes per bed position  
392.2 MBq / 10.6 mCi FDG  
73 minute uptake  
BMI: 28.1

2.5 minutes per bed position  
399.6 MBq / 10.8 mCi FDG  
67 minute uptake  
BMI: 42.2

Q.Clear provides up to 2x improvement in image quality (SNR), improving diagnostic confidence

Q.Clear improves small lesion detectability, improving diagnostic confidence



Capability

## BRING MEANINGFUL INSIGHTS TO EVERY CLINICAL CHALLENGE

Discovery MI DR is a limitlessly versatile PET/CT system. It effectively and efficiently images the patients you see every day with faster scan times, low dose and accurate quantitation. But it also opens the door to imaging your most clinically challenging cases. Smart MAR metal artifact reduction makes it possible to clearly scan patients with metal implants. And its uniquely configured PET detector gives you the high sensitivity needed to explore high-count-rate protocols for imaging alternative tracers.

This versatility makes it the ideal PET/CT system to grow your services. In addition to providing comprehensive PET oncology analysis to monitor cancer treatments, Discovery MI DR can be used to address clinical challenges beyond oncology to include cardiac and brain imaging. For example, with the introduction of beta amyloid specific tracers, PET brain imaging is becoming an invaluable tool in understanding complex neurodegenerative diseases.

From imaging around metal artifacts to multi-isotope scans and applications beyond oncology, Discovery MI DR is a PET/CT system that's ready for every clinical challenge.



Enhance the utilization of tracers beyond FDG



Explore PET capabilities in cardiac and brain imaging, leveraging high sensitivity and lesion detectability



Pursue research that explores imaging with multiple tracers, leveraging better image quality and quantitation with high activity tracers



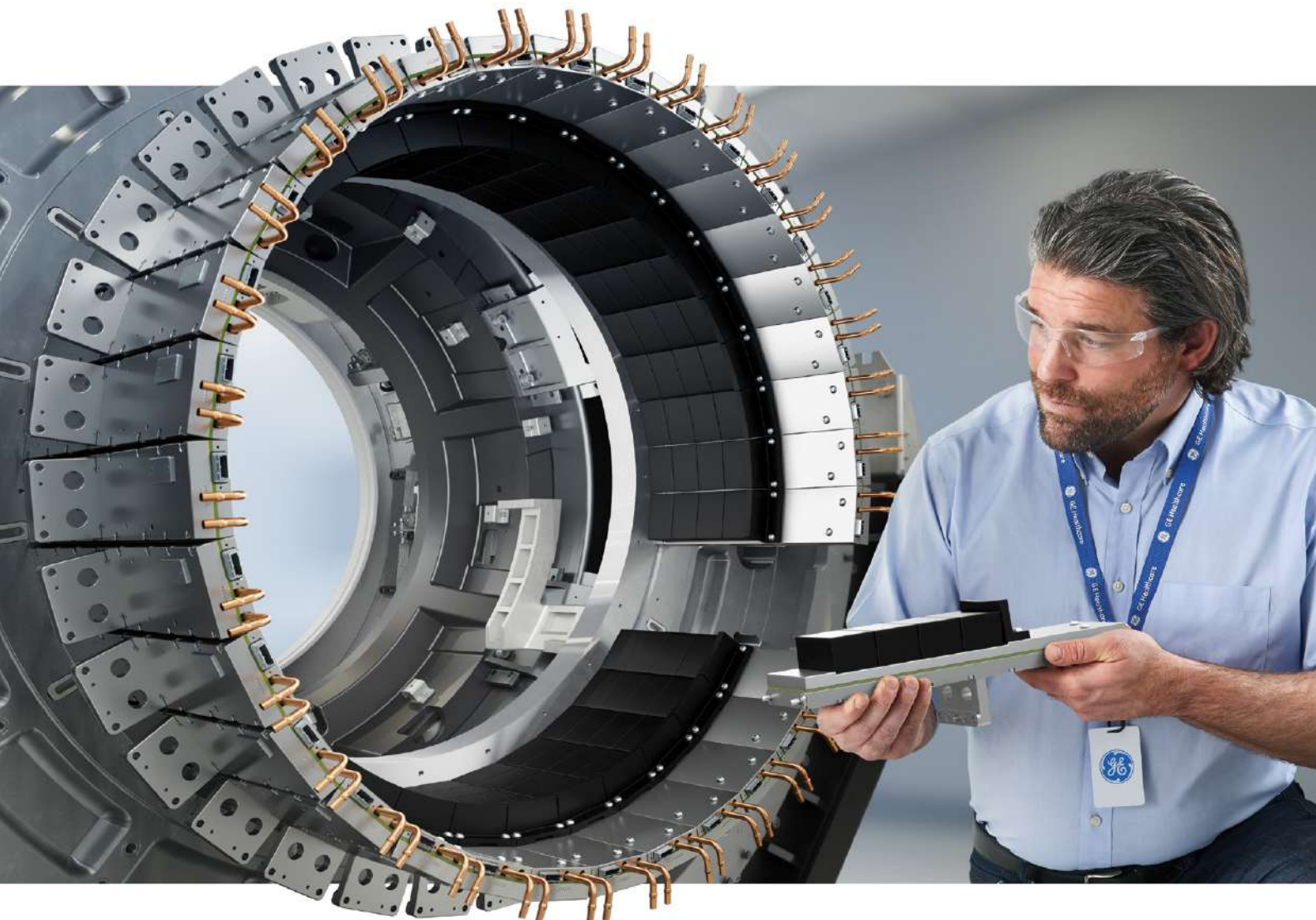
Increase the number of successful CT scans of patients with metal implants, with Smart MAR



Confidently recommend the next treatment or patient management options to referring physicians



Expand your patient service offerings with standalone CT capability



Pursue **improved clinical, operational and economic outcomes** with a system ready to leverage advancements in digital solutions



Optimize labor productivity and asset utilization with **75 percent less downtime<sup>4</sup>** if needing to upgrade to a new system with an onsite upgrade in one week



Expand your **clinical and research capabilities** with access to digital technologies and future innovation at 50 percent of the investment<sup>4</sup>



Digital-detection-ready platform secures your investment with an **easy upgrade path to Discovery MI to deliver LightBurst Digital Detector technology**



Future-ready

## A SYSTEM THAT'S READY FOR THE FUTURE

We believe that your future needs are best served when you decide the best time to purchase the latest in imaging and analytics technology. It's why we're committed not only to developing breakthrough technologies, but also to providing you with a strategic means of getting them.

Our vision for the future of molecular imaging is a completely digital experience. One that enhances each phase of your workflow with best-in-class technologies that can connect all the data you acquire and convert it into actionable insights.

To make this fully digital vision a reality, we created a platform that's ready today to leverage innovative software capable of collecting data and converting it into insight-driven analytics. We also made it modular in design, which means transitioning to digital detection is as simple as exchanging the detector technology. This allows you to acquire the system that fits your needs today knowing that we can easily help you cost-effectively upgrade to a different system if your practice requires it.

## A PET/CT SYSTEM FOR TRUE DISCOVERY

In molecular imaging, every patient is an opportunity to make the true discovery that will change their life for the better. An opportunity to find the deeply hidden truth about their own disease. It's an opportunity you take seriously as you work hard every day to influence the lives of as many individuals as possible no matter how challenging their case may be.

Our mission is to help you in yours by providing you with the important instruments you need to deliver better patient outcomes and by putting you in the position to continue to meet every clinical challenge you encounter. To do this, we partnered with people like you to understand what you need from your instruments. Discovery MI DR is our answer. It's a system ready for the meaningful insights you need for today's clinical challenges with the ability to easily adapt to future challenges.









<sup>1</sup> In clinical practice, the use of ASiR-V may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. Low Contrast Detectability (LCD), Image Noise, Spatial Resolution and Artifact were assessed using reference factory protocols comparing ASiR-V and FBP. The LCD measured in 0.625 mm slices and tested for both head and body modes using the MITA CT IQ Phantom (CCT183, The Phantom Laboratory), using model observer method.

<sup>2</sup> Image quality as defined by low contrast detectability.

<sup>3</sup> Resolution as demonstrated in phantom testing of average measurements of radial and tangential FWHM at various distances from iso-center.

<sup>4</sup> Compared to a full system swap.

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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.

Imagination at work

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