# GE HealthCare unveils 2025 AI Innovation Lab research projects aimed at accelerating healthcare solutions

* Innovations in agentic AI explore how this advanced technology could be used to aid clinicians in their workflows and improve patient care delivery
* GE HealthCare will work with Mass General Brigham and University of Wisconsin–Madison to fine-tune the company’s magnetic resonance imaging (MRI) foundation model for specific use-cases

CHICAGO — Oct. 20, 2025—GE HealthCare (Nasdaq: GEHC) today announced new research projects in their 2025 AI Innovation Lab, an initiative designed to accelerate early-concept AI innovations within the company. The company has lifted the curtain on leading edge projects that demonstrate where the healthcare industry is headed.

“At GE HealthCare, we are not just developing AI to address today’s most complex healthcare challenges—we are also investing in new research to anticipate tomorrow’s needs,” said Dr. Taha Kass-Hout, GE HealthCare’s Global Chief Science and Technology Officer. “Our AI Innovation Lab projects offer a behind-the-scenes look at areas that we believe hold real potential to transform care for both patients and clinicians. With hospital systems currently harnessing only about 3%[[1]](#endnote-1) of their available data, the opportunity to unlock transformative insights with AI is immense. These projects reflect our commitment to pioneering research that reimagines how AI can be used to balance clinical workloads, enhance efficiency, and deliver measurable outcomes.”

The 2025 AI Innovation Lab projects include:

* **Leveraging agentic AI for radiology:** The field of radiology is facing a critical shortage of radiologists, even as the demand for imaging is rising. In the U.S., nearly 50% of radiologist job searches went unfilled in 2023[[2]](#endnote-2), while imaging volumes are growing 5% each year[[3]](#endnote-3). Combining advanced imaging tools and AI agents, GE HealthCare is working to develop the industry’s first agentic AI diagnostic imaging assistant that would be integrated into devices, designed specifically for radiology. Innovations in agentic AI involve AI systems that are designed to reason, plan, and act with human oversight, and this agentic AI technology would go beyond traditional radiology tools that simply analyze images. GE HealthCare’s goal is to design a radiologist orchestration software tool that can process scans, allow radiologists to interact with the software using natural language, and create interactive reports, streamlining their workflow so the radiologist can better focus on patient care. In parallel, GE HealthCare is exploring opportunities to bring this capability into current clinical workflows through our enterprise imaging solutions, enabling tighter integration of agentic AI within existing imaging ecosystems. These capabilities would leverage large language models (LLMs), vision language models (VLM), and agents for orchestrating end-to-end workflows.
* **Collaborating with leading academic medical centers to hone MRI foundation model:** GE HealthCare is working with Mass General Brigham and University of Wisconsin–Madison to fine-tune its MRI research foundation model. GE HealthCare announced its first-of-its-kind research foundation model last year, trained on a dataset of more than 200,000 MRI images from more than 20,000 studies[[4]](#endnote-4). The collaboration with these two academic research institutions is a critical step that will assess the adaptability of this model for a wide variety of operational and clinical use cases. Both institutions will pair GE HealthCare’s foundation model with real data from their hospital systems and use machine learning to test and refine the technology. Mass General Brigham AI, a Diversified Business within the health system, will fine-tune for prostate use cases, including disease classification, lesion segmentation, and measurement. They will leverage PI-RADS scores, a standardized scoring system used to interpret prostate MRI scans to assess the likelihood of clinically significant prostate cancer, to adapt the model for these use cases. University of Wisconsin–Madison will fine-tune and evaluate the model in a variety of operational and clinical use cases, including body region detection, image quality control, and contrast agent recognition. The team will also benchmark the performance of the model on the specified tasks against other state-of-the-art foundation models.
* **Evaluating incidental findings in CT with agentic AI:** When an abdominal CT is ordered, there are often incidental findings, for example finding a kidney cyst that wasn’t the reason for the CT. A recent study found that more than 47% of abdominal CTs had incidental findings.[[5]](#endnote-5) GE HealthCare is exploring how an agentic based AI solution could detect and report these incidental findings to guide radiologists in clinical decision making. Specifically, the system would be designed to identify high-risk lesions, classify findings, and recommend follow-up imaging; for example, a liver lesion flagged with 90% malignancy probability would prompt a recommendation for a hepatic MRI as a follow up. The AI would compare primary and prior studies to assess lesion progression. The goal is for this AI agent to integrate with existing radiology tools to enable streamlined workflows and radiology operations. Radiologists retain full control, with the ability to approve findings before they’re shared with clinicians. The initial focus of this research is on liver, spleen, kidney, adrenal gland, bone, and lung nodules.
* **Developing energy-efficient neural networks for tomographic imaging:** GE HealthCare is conducting research advancing sustainable AI in tomographic imaging by pioneering the use of energy-efficient neural networks, which are designed to use less computational power and consume less energy. Tomographic imaging is inclusive of computed tomography (CT), positron emission tomography (PET), and single photon emission computed tomography (SPECT).In tomographic imaging, reconstruction refers to the process of turning data into cross-sectional images of the body, and a technique called model-based iterative reconstruction provides impressive image quality but requires significant compute power for repeated cycles of calculations. GE HealthCare’s research team is developing an AI technique to reduce the number of iterations, with early results reducing iterations from 40 to just six[[6]](#endnote-6). Researchers are also exploring how a hierarchical AI model which, similar to how the human eye judges depth, would focus on the important details rather than focusing on the whole, and in turn lead to using less computing power. These innovations in computational efficiency could eventually enable more advanced types of reconstruction to help enhance clinical precision and potentially reduce the use of energy.
* **Reducing equipment downtime by empowering employees with generative AI:** GE HealthCare is also applying generative AI to improve its internal processes and help field service engineers to get work done faster. The company is piloting a custom-built multi-modal conversational agent that is helping field service engineers—expert technicians who go onsite to hospitals to maintain and repair equipment—quickly find the information they need, helping to improve the customer experience and reduce equipment downtime. Previously, these engineers had to manually sift through thousands of pages of service manuals, logs, historical records, and knowledge articles. The system supports their work by synthesizing data and recommending the most likely fixes, while providing the source material for quick verification. Built on the early success of this solution, GE HealthCare is working on a common generative AI-powered interface to speed up the development of conversational AI features across its product portfolio.

These projects showcase the groundbreaking work underway at GE HealthCare, a company that applies a 125-year legacy of innovation with the energy of a start-up as it works to help solve the healthcare industry’s most pressing challenges. They are also a key part of the company’s broader strategy to move towards a cloud-first, AI-powered, and software-enabled company—where data becomes a catalyst for discovery and progress in medicine. GE HealthCare has been investing in AI for years and has topped an FDA list of AI-enabled device authorizations for four years in a row with 100 authorizations.

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**About GE HealthCare Technologies Inc.**

GE HealthCare is a trusted partner and leading global healthcare solutions provider, innovating medical technology, pharmaceutical diagnostics, and integrated, cloud-first AI-enabled solutions, services and data analytics. We aim to make hospitals and health systems more efficient, clinicians more effective, therapies more precise, and patients healthier and happier. Serving patients and providers for more than 125 years, GE HealthCare is advancing personalized, connected and compassionate care, while simplifying the patient’s journey across care pathways. Together, our Imaging, Advanced Visualization Solutions, Patient Care Solutions and Pharmaceutical Diagnostics businesses help improve patient care from screening and diagnosis to therapy and monitoring. We are a $19.7 billion business with approximately 53,000 colleagues working to create a world where healthcare has no limits.

GE HealthCare is proud to be among [2025 Fortune World’s Most Admired Companies™](https://fortune.com/ranking/worlds-most-admired-companies/).

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1. [https://www.gehealthcare.com/about/newsroom/press-releases/ge-healthcare-announces-careintellect-for-oncology-harnessing-ai-to-give-clinicians-an-easy-way-to-see-the-patient-journey-in-a-single-view?srsltid=AfmBOooOq94CQ8utrnGSIhQ4EZolMguXaa1DkBE3Y41zd24](https://www.gehealthcare.com/about/newsroom/press-releases/ge-healthcare-announces-careintellect-for-oncology-harnessing-ai-to-give-clinicians-an-easy-way-to-see-the-patient-journey-in-a-single-view?srsltid=AfmBOooOq94CQ8utrnGSIhQ4EZolMguXaa1DkBE3Y41zd24_hohkZclf) [↑](#endnote-ref-1)
2. https://www.diagnosticimaging.com/view/where-things-stand-with-the-radiologist-shortage [↑](#endnote-ref-2)
3. https://www.beckershospitalreview.com/radiology/how-systems-are-managing-the-radiology-shortage/ [↑](#endnote-ref-3)
4. https://www.gehealthcare.com/insights/article/ge-healthcare-unveils-firstofitskind-mri-foundation-model?srsltid=AfmBOoq3RFcNtrSrElD2Dk5BzDVc9O09rHZUZwZDyIPBdqsyiSD5UTLk [↑](#endnote-ref-4)
5. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0328049 [↑](#endnote-ref-5)
6. https://research.gehealthcare.com/in-the-device/sustainable-ai-in-medical-imaging-how-ge-healthcare-helps-pioneer-energy-efficient-neural-networks-for-ct-reconstruction/ [↑](#endnote-ref-6)