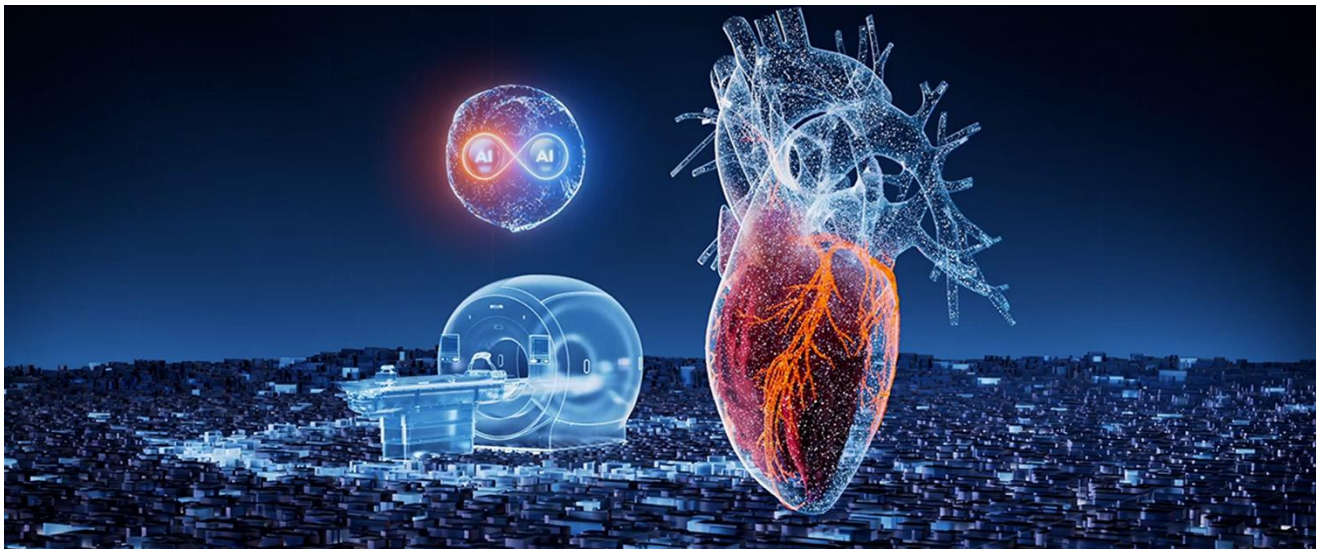


## Philips AI-powered cardiac MR imaging

### AI-Powered Cardiac MR: How Philips is helping more patients get access to advanced heart imaging

Cardiac magnetic resonance (Cardiac MR) can reveal some of the earliest and most subtle signs of heart disease. Yet around half of the patients who could benefit from a Cardiac MR exam do not receive it in time.

Philips is helping address this challenge through AI-powered innovations that simplify Cardiac MR workflows, reduce complexity and help healthcare providers expand access.



#### What is Cardiac MR?

Cardiac MR creates highly detailed images of the heart using powerful magnets, radio waves and advanced computing. Unlike many imaging technologies, it can show both the structure of the heart and how it is functioning in real time.

Clinicians use Cardiac MR to assess heart failure, cardiomyopathies, inflammation, scarring, blood flow abnormalities, damage caused by cancer therapies, and many other cardiac conditions.

Because it provides such a comprehensive view of the heart, Cardiac MR is increasingly becoming a frontline tool for diagnosing and managing cardiovascular disease.

### **The cardiac imaging paradox**

Healthcare has never had more sophisticated tools to diagnose heart disease. Yet one of the most powerful imaging technologies available remains out of reach for many patients.

For people with suspected heart disease, time matters. Delays in diagnosis can lead to delayed treatment, worsening symptoms, avoidable hospitalizations and missed opportunities for early intervention.

Cardiac MR is increasingly recommended for evaluating a wide range of cardiac conditions. Yet studies suggest that approximately half of patients who could benefit from Cardiac MR do not receive it in a timely manner.

The reasons are familiar across healthcare: growing demand, shortages of trained specialists, lengthy scan times, complex imaging workflows and limited scanner capacity.

As Cardiac MR moves from a specialist exam to a frontline diagnostic tool, healthcare systems face a new challenge: how to expand access without compromising quality.

The challenge is no longer proving the value of Cardiac MR. The challenge is delivering it at scale. Philips believes artificial intelligence will play a critical role in helping healthcare providers expand access while maintaining the quality and consistency clinicians expect from advanced cardiac imaging.

### **How Philips is using AI to help expand access**

For decades, Cardiac MR has offered clinicians an unparalleled view of the heart. The trade-off has often been complexity.

A Cardiac MR exam involves multiple steps, including patient preparation, scan planning, image acquisition and clinical reporting. Each step requires expertise and can add time to the overall process.

Philips is applying artificial intelligence to help simplify many of these tasks, supporting clinicians throughout the Cardiac MR workflow while helping reduce variability and manual effort.

The Philips logo, consisting of the word "PHILIPS" in a bold, blue, sans-serif font.

Across the workflow, Philips AI-enabled MR solutions can help automate patient setup, support scan planning, accelerate image acquisition and streamline image analysis and reporting.

The result is not simply greater efficiency. Through its AI-enabled imaging innovations, Philips is helping healthcare providers make advanced cardiac imaging available to more patients, in more hospitals, more often.

## **A journey toward self-driving MRI**

The evolution of MRI is following a path similar to many other technologies.

Just as cars have evolved from fully manual driving to increasingly automated assistance systems, MRI is moving toward greater automation while keeping clinicians firmly in control.

At the center of Philips' innovation strategy is its vision of a "self-driving MRI" – an imaging environment where AI enables autonomous MR imaging and simplify many of the complex steps involved in an exam. The goal is to help make MRI easier to operate, more efficient to run and more accessible to patients, while keeping clinicians firmly in control.

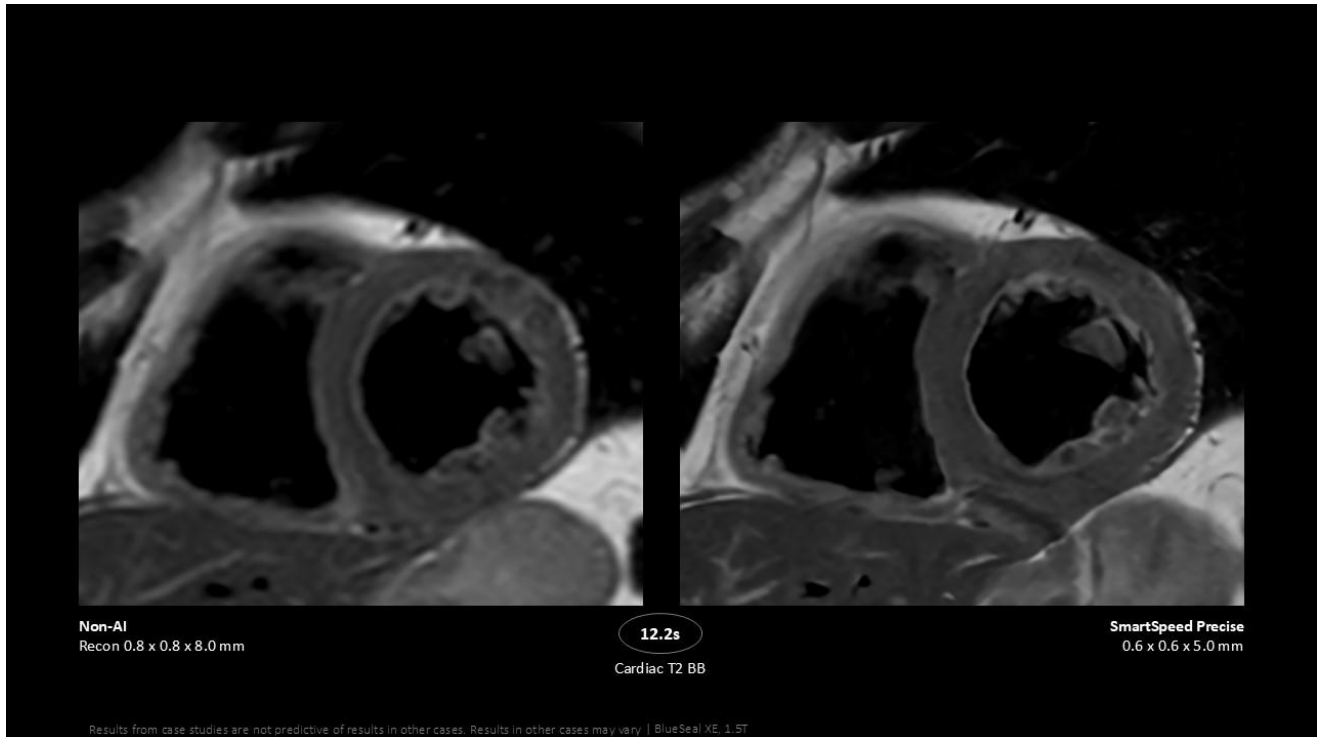
Within Philips' Cardiac MR workflow, AI can support four key stages of the exam process:

- **Patient preparation**, helping simplify setup and positioning.
- **Scan planning**, automatically identifying cardiac anatomy and preparing imaging plans.
- **Image acquisition**, accelerating scans while maintaining diagnostic image quality.
- **Analysis and reporting**, helping streamline the path from images to clinical insights.

One example is [Philips SmartHeart](#), an AI-powered solution designed to simplify cardiac scan planning. By automatically identifying cardiac anatomy and generating standard and advanced cardiac views, SmartHeart helps reduce manual workflow steps and improve consistency. In clinical practice, scan-planning interactions have been reduced from approximately 128 clicks to just three, helping streamline one of the most complex parts of a Cardiac MR exam.

Beyond scan planning, AI-powered acceleration technologies such as [Philips SmartSpeed](#) [Precise](#) can significantly reduce scan times while maintaining high image quality. Together, these innovations help simplify complex cardiac imaging workflows, improve productivity and support broader access to advanced cardiac imaging.

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Together, these innovations help reduce complexity, improve consistency and increase productivity across the imaging workflow.

### Why it matters for patients

Ultimately, the value of Philips' AI innovations in Cardiac MR is not simply making scans faster.

It is helping more patients gain access to advanced heart imaging when they need it.

This is particularly important for patients with heart failure, cardiomyopathies, arrhythmias, cardiac implants and cancer therapy-related heart complications, where earlier diagnosis can have a meaningful impact on treatment decisions and outcomes.

For many patients, the most important role of AI may be helping them receive the scan sooner – or helping them receive the scan at all.

As demand for advanced cardiac imaging continues to grow, Philips is helping healthcare providers make Cardiac MR simpler, faster and more accessible through AI-powered innovation. By advancing its vision of a self-driving MRI, Philips is helping bring the benefits of advanced heart imaging to more patients worldwide.

**For more information:**

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