

Upgrade instead of reinstallation – the sensible choice for a proven system

FieldStrength MRI magazine

User experiences – December 2021

www.philips.com/fieldstrength

MR SmartPath to Ingenia 1.5T Evolution

It took just 10 days for a radiology practice in Germany to upgrade their MRI scanner with a completely different look and the latest functionality – all achieved in cooperation with Philips. The MR SmartPath to Ingenia 1.5T Evolution program enabled radiologists to upgrade their proven Philips MR system without the hassle of magnet replacement. New functionalities now enable diagnostic reliability, increased speed and even more patient-friendly care. Above all, the practice is enthusiastic about the trusting, friendly cooperation with Philips.



Martin Kollerer, MD is radiologist at Radiology Marktredwitz & Center for Prostate MRI since 2002.

//
**In ten days to a system for
the next ten years – that's
what I call securing the
future in a turbo process."**

Martin Kollerer, Radiologist

Considering the need for new technology

It is a challenge many clinics and radiology practices face: in order to benefit from the latest innovations – especially in the field of MRI – a new system purchase must be considered. Future-proof software and newest imaging methods are needed to expand diagnostic capabilities and increase speed. Workflow and comfort for patients and staff need to be improved. But the question is how to install a new system without having to shut down your practice for weeks? How do you get by not being able to scan any patients, having to postpone exams to a later date, and having to accept the associated economic losses?

These questions weighed heavily on radiologist Martin Kollerer. Together with Dr. Margit Purucker, he runs a radiological practice in Marktredwitz in Germany. Since 2002, he has been working with Philips solutions, including the Ingenia 1.5T MRI scanner. “A reliable, stable system,” he says. But it was time to expand functionality.

Dr. Kollerer wanted to take advantage of recent advancements and make them accessible to his patients and staff. “Technology is constantly evolving towards enabling both faster examinations and higher quality images, as well as an increasing focus on the patient,” he says. However, an MRI scanner cannot typically be replaced just like that. A magnet weighing more than three tons can only be changed with great effort. Walls or ceilings may have to be lifted and a heavy-duty crane brought in to take the magnet in or out of the building. In addition, the magnet that has been in use in the Marktredwitz practice for several years, is still far from outdated. “Replacing it would have been neither economical nor sustainable,” says Dr. Kollerer.

//
**Replacing the proven Philips magnet would have been neither
economical nor sustainable"**

Martin Kollerer, Radiologist

Efficient upgrade instead of time-consuming full system exchange

Dr. Kollerer reached out to Philips to discuss options for strategically shaping his business model for the next ten years. "Working with Philips is like working with friends," he says. For years, the relationship with Philips has been based on trust and characterized by open communication. "I knew that if I wanted to discuss my concerns and my ideas, it would be with this company."

The solution they eventually agreed upon is called MR SmartPath, a Philips program to extend the useful life of MR systems. SmartPath gives a radiology practice the opportunity to easily and cost-effectively upgrade their Philips systems to the latest technology and thus expand the practice's MRI capabilities. "For us, this was the optimal way," says Martin Kollerer.

Based on the SmartPath business case, it was decided to preserve the existing high-end system, but to equip it with new, comprehensive functionalities. This approach provides substantial benefits for ongoing operation. While a completely new scanner and thus magnet replacement would have paralyzed practical operation for quite a long time, the changeover time in the MR SmartPath program was just ten days.¹ "In ten days to a system for the next ten years – that's what I call securing the future in a turbo process," says Dr. Kollerer.



SmartPath to Ingenia 1.5T Evolution - Step into the future with confidence

With SmartPath you can convert your existing Ingenia system to an Ingenia 1.5T Evolution. It enables you to boost your performance with innovative SmartWorkflow solutions that include touchless patient sensing technology, in-room guidance on patient set-up and initiation of the exam at the patient's side. Compressed SENSE allows you to scan up to 50% faster with virtually equal image quality, in both 2D and 3D scanning and for all anatomies². Your SmartPath conversion also gives you access to the latest scanning techniques for confident diagnosis.

Advantages for both staff and patients

With the renewed Ingenia 1.5T Evolution system, the practice can now continue to provide a high level of diagnostic confidence and patient-friendly examinations. "For example, it allows us to use faster scan methods," explains Martin Kollerer. "The integrated Compressed SENSE acceleration technology, allow us to make scan times shorter² while maintaining consistently high image quality."

This not only affects the work of staff in the practice, but also benefits the patients, as MRI technologist Ina Rank observes, "Thanks to Compressed SENSE, the examination time is remarkably shorter compared to the previous version of the scanner." For patients, this means greater comfort. The technologists see great advantages for patients after upgrading the existing Ingenia 1.5T scanner to Ingenia Evolution. "For example, the upgraded scanner is now equipped with a special thick ComfortPlus mattress that is so comfortable that patients can lie completely relaxed." This also has an effect on the image quality – the calmer the patients can remain, the better images can be achieved.



“Thanks to Compressed SENSE, the examination time is remarkably lower compared to the previous version of the device”

Ina Rank, MR technologist



Exceptional patient and user friendliness

The upgraded system features VitalEye and VitalScreen, both of which contribute to a fast and smooth examination process. The sensor technology of VitalEye allows contactless monitoring of the patient's breathing pattern, so that it relieves technologists from having to place a respiratory belt on the patient.

The VitalScreen provides technologists with the most important patient and examination information during patient positioning, its touchscreen allowing to adjust if necessary. "Along with improved usability, another important VitalScreen advantage is that the technologists can stay with the patient during the exam preparation. This has a very calming effect on most patients," says Rank.

During the scan, AutoVoice gives spoken instructions to the patient and visible breathing instructions are automatically displayed along with information to let the patient know how long the examination will still take. Based on Ina Rank's experience, these are pleasant distractions that ease the exam: when patients are more relaxed it is easier for them to remain still and this can benefit image quality.



//
**We have set the course for the
future security of this practice
and our prostate center"**

Ina Rank, MR technologist

Excellent image quality and acceleration

According to Dr. Kollerer, the image quality gain is an essential advantage of the upgrade. "This is one of the most important requirements for our work. With high-resolution and excellent image quality we can make diagnoses as reliable as possible." This applies in particular to prostate cancer diagnoses. The Marktredwitz practice is certified as a center for prostate MRI, and as such specializes in diagnosing prostate cancer as early as possible with multiparametric MRI (mpMRI) to help them characterize the tumor and its spread.

Dr. Kollerer has found he really appreciates being able to use Compressed SENSE for dedicated, detailed prostate imaging. In addition, an acceleration of up to 35 percent was achieved with Compressed SENSE, according to a SpeedTrack analysis performed by Philips in the radiology practice.^{3,1} For Dr. Kollerer, one thing is certain, "With the MR SmartPath upgrade, Philips and I have set the course for the future security of this practice and our prostate center."

Mutual trust and knowledge

"Philips and I", that's what Dr. Kollerer repeatedly says. When asked about this, he laughs, "Indeed, it feels like we managed this upgrade project together, as equal partners." This did not surprise him. His many years of experience with the Philips service team have been good. However, setting up a business case together requires an increased degree of trust, mutual respect and know-how on both sides.

It is foreseeable that at some point in future, perhaps again in ten years, a new functional expansion for the scanner will be necessary. Neither medicine nor medical technology stands still. Technical developments continue to progress. And Dr. Kollerer will keep an eye out for new emerging solutions and features he can use to keep his practice fit for the future and to provide his patients with the best possible care. One thing is already certain – it will be good to have a proven friend at his side.



Working with Philips is like working with friends"

Martin Kollerer, Radiologist



Ingenia 1.5T Evolution - Boost your MR performance, and confidence

The **Ingenia 1.5T Evolution**⁴ can boost your performance with innovative SmartWorkflow solutions that includes AI-driven⁵ patient sensing technology, in-room guidance and exam automation. Compressed SENSE allows you to scan up to 50% faster with virtually equal image quality, in both 2D- and 3D scanning and for all anatomies². A positive patient experience is supported through an immersive audio-visual experience that calms and guides patients through MR exams. It also provides clinical confidence, with consistent and reproducible high image quality even for challenging anatomies.

Summary

- The MR SmartPath to Ingenia 1.5T Evolution program enabled a radiology practice in Germany to upgrade its MR system in just a few days – without magnet replacement.
- The practice now benefits from a high level of diagnostic confidence, excellent image quality, as well as increased speed. Patients benefit from greater comfort.
- Philips is seen as a trustworthy partner.

At a glance

The practice, **Radiology Marktredwitz & Center for Prostate MRI**, offers radiological examinations such as MRI, CT, mammography, sonography and X-ray diagnostics. As a certified prostate center, they also specialize in prostate diagnostics using MRI. The four-member team of specialized medical doctors is supported by 18 employees involved in practice management, registration, and technology.

The challenge

The practice wanted to expand functionality of their proven MRI, but without the disadvantages of a time-consuming new installation. The goals were to achieve higher diagnostic confidence, improved image quality, shorter examination times, and extended patient comfort.

The solution

With the MR SmartPath program from Philips¹ an upgrade to the Ingenia 1.5T Evolution took place in just ten days.

The result

With Compressed SENSE, the practice now benefits from shorter scanning and examination times with high-quality images. Workflow solutions such as VitalEye and VitalScreen make it easier to work with the device. Features like the ComfortPlus mattress increase patient comfort.

MR SmartPath to Ingenia 1.5T Evolution

With the Philips upgrade program MR SmartPath to Ingenia 1.5T Evolution, an existing MRI system can be equipped with modern functionalities without magnet replacement. A radiology practice that takes such a step benefits from higher image quality for improved diagnostic confidence, as well as faster exam speed, while their patients enjoy greater comfort. A collaboration with Philips is based on partnership and trust – and always focused on the future, as the Marktredwitz project has also shown.

1. Results of customer testimonies or case studies are not predictive of the results in other cases. Results in other cases may vary.
2. Compared to Philips scans without Compressed SENSE
3. Individual SpeedTrack analysis for benchmarking on request.
4. Ingenia 1.5T Evolution is a special configuration of Ingenia 1.5T registered product.
5. According to the definition of AI from the EU High-Level Expert Group.

Subscribe to **FieldStrength**

Our periodic MRI newsletter provides you articles on latest trends and insights, MRI best practices, clinical cases, application tips and more. Subscribe now to receive our free FieldStrength MRI newsletter via e-mail.

Stay in touch with Philips MRI



Related information

- [Up to 50% faster MR exams with Philips Compressed SENSE >](#)
- [Patient-centered productivity - SmartWorkflow solutions in MR >](#)
- [Increasing the patient and staff experience with Philips Ingenia Ambition at Miami Cardiac & Vascular Institute >](#)



More from FieldStrength

- [A leap in pediatric MRI confidence at Altona Children's Hospital >](#)
- [Automatic adjustment of scan settings for MR Conditional implants >](#)
- [Faster MRI throughout the body with Compressed SENSE – Kantonsspital Winterthur >](#)

© 2021 Koninklijke Philips N.V. All rights reserved.
Specifications are subject to change without notice.
Trademarks are the property of Koninklijke Philips N.V.
(Royal Philips) or their respective owners.

www.philips.com



How to reach us

Please visit www.philips.com/healthcare
healthcare@philips.com