



Save precious time by verifying surgery

Philips Ingenia MR-OR solution for intra-operative neurosurgery

Removing as much of a brain tumor as possible during initial neurosurgery can make a critical difference in the prevention of recurrence. To help improve your neurosurgery success rate, we introduce the MR-OR intra-operative neurosurgery solution based on the Ingenia MR system. With fast, in-line patient transfer between the OR and connected MR room, you can quickly perform an MR scan to check the results of a resection during the surgery, and remove additional tumor mass if necessary. And when not in use for intraoperative imaging, the MR and OR facilities can be used fully independent from each other to increase utilization.

Key advantages

- Save precious time by obtaining fast intra-operative MRI results with smooth and quick patient transfer.
- Get Ingenia's high MR image quality for neuronavigation with full MR diagnostic capabilities.
- Increase MR utilization through dual-room (MR-OR) or triple-room (OR-MR-OR) approach.

PHILIPS

How does the Philips MR-OR solution work?

We team up with strong innovative companies, such as MAQUET and Brainlab to provide comprehensive MR-OR solutions that meet the specific needs of neurosurgery. The heart of this MR-OR solution is a 1.5T or 3.0T Ingenia MR system. It occupies a normal MR room that can be directly connected to one or two operating rooms. Separated by sliding doors to maintain the sterility measures of the OR, the MR and OR rooms can also be used fully independently of each other. During the procedure, your patient can be moved smoothly, straight to the MR scanner just a few feet away. Standard equipment and instruments do not have to be removed from the OR workspot.

Saves precious time

Thanks to the smooth patient transfer, scalpel-to-scalpel time has been reduced to a minimum. Transfer times are very short and the MR acquisition times are reduced as well. That means you can quickly perform an intra-operative MR exam to visualize the neurosurgery result without first closing the patient's skull. This can help you make critical decisions right away. If the resection is incomplete, you can remove residual tumor immediately. Furthermore, you can work inside the MR system or at the back of it, especially useful for brain

biopsies and functional neurosurgery procedures. The MR-OR solution provides an easy way to see the result of the surgery during the operation, which can be used for subsequent decision making.

Increase MR utilization

In addition to standard front docking, the Philips MR-OR solution also features a rear-docking capability. That means you can connect not just one, but two or more ORs to the MR room to increase utilization of your equipment. Each room is a separate entity that can be

used fully independently. In between intra-operative procedures, the MR system can be used for normal diagnostic imaging.

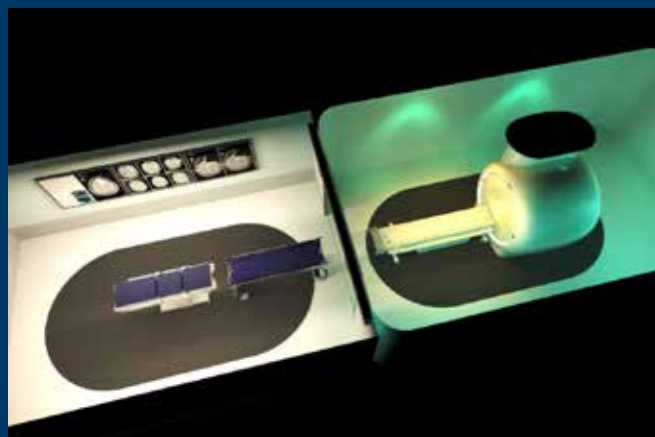
Cost-effective installation

Solutions which move an MR system into an OR for intra-operative imaging often require a complete and very expensive room renovation. The Ingenia MR-OR solution is a cost-effective way to bring fast intra-operative imaging to your OR without undergoing a huge renovation.



“The clear benefit is that in cases where the MR-OR setup helps to visualize an incomplete resection, we can immediately address the issue using updated navigation data and thus avoid a second surgery. In addition, the final intra-operative MR replaces the post-operative one that we used to perform.”

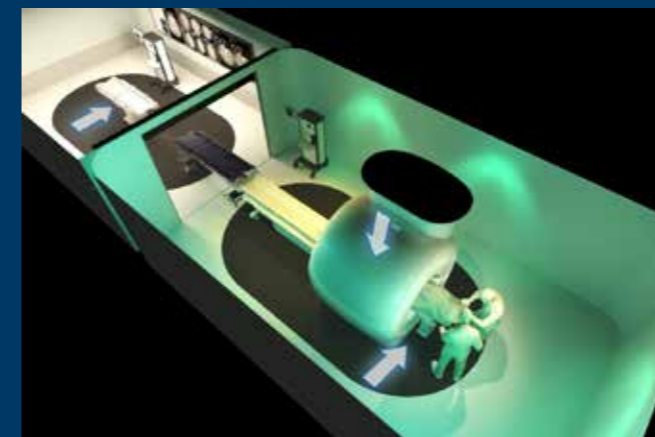
Dr. Conor Mallucci, Neurosurgeon, Alder Hey Children's Hospital, Liverpool, UK



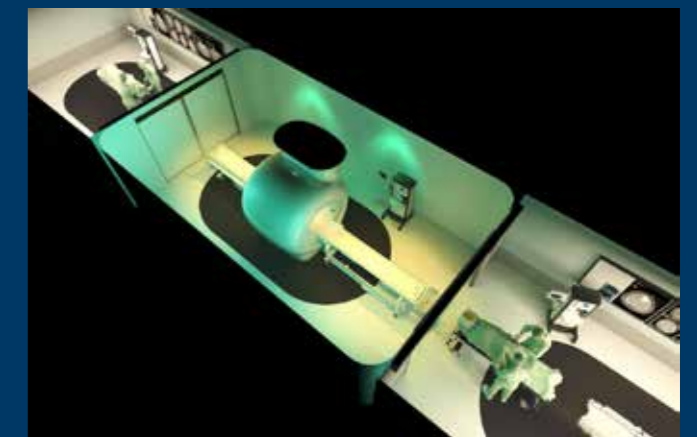
Dual-room layout (MR-OR) with high-end intra-operative Ingenia MR and sterile OR. MR and OR can be used together or stand-alone for efficient usage.



Patient can be quickly and smoothly transferred between OR and MR



Increase flexibility for new neurosurgery procedures by having three workspots: in OR, in the magnet, or at the rear of the magnet.

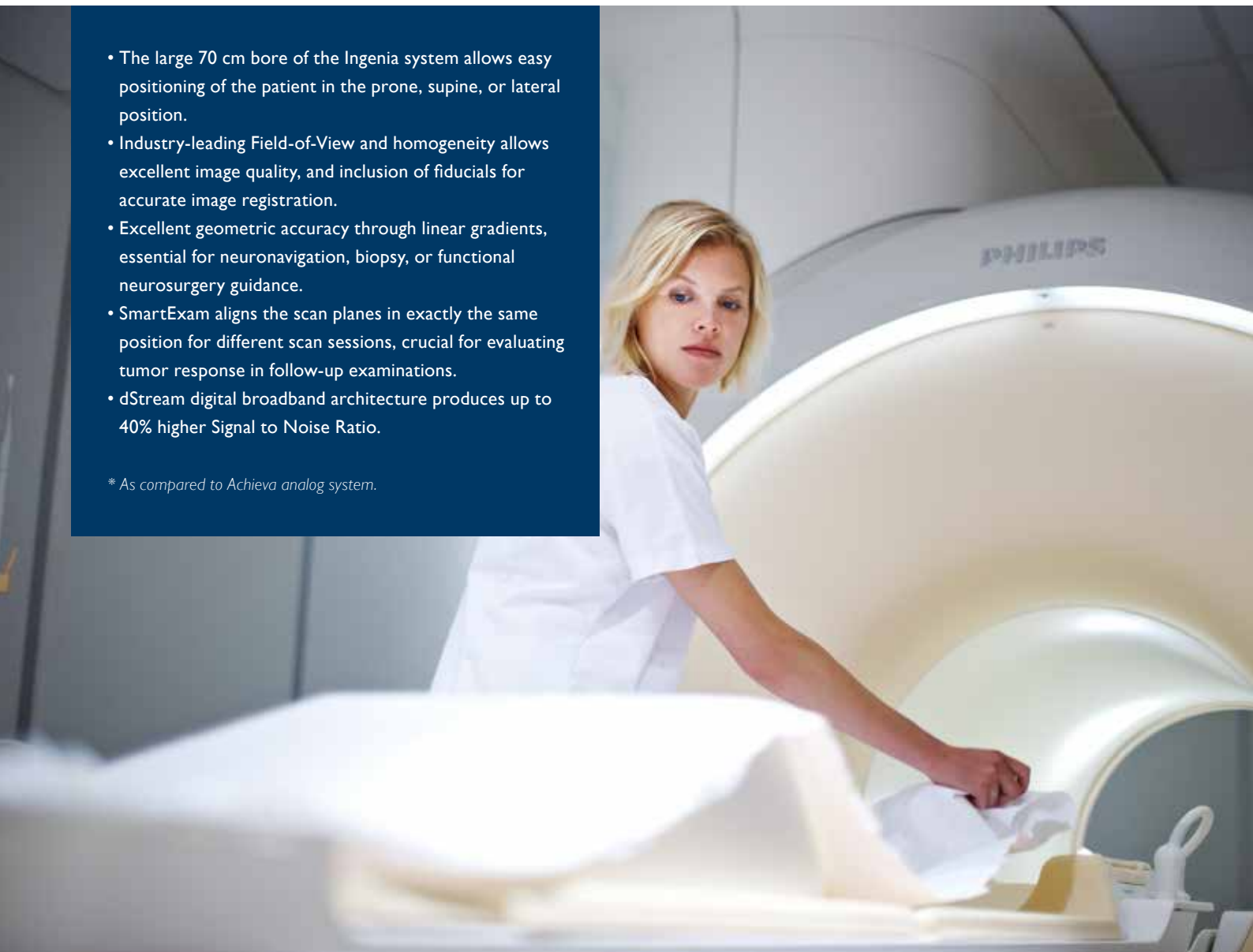


The rear-docking feature allows the MR room to be connected to two ORs with the MR in the middle (OR-MR-OR) to further increase utilization and flexibility.

Philips Ingenia MR – designed with high image quality standards for neuronavigation

- The large 70 cm bore of the Ingenia system allows easy positioning of the patient in the prone, supine, or lateral position.
- Industry-leading Field-of-View and homogeneity allows excellent image quality, and inclusion of fiducials for accurate image registration.
- Excellent geometric accuracy through linear gradients, essential for neuronavigation, biopsy, or functional neurosurgery guidance.
- SmartExam aligns the scan planes in exactly the same position for different scan sessions, crucial for evaluating tumor response in follow-up examinations.
- dStream digital broadband architecture produces up to 40% higher Signal to Noise Ratio.

** As compared to Achieva analog system.*



The 70 cm bore and the large Field-of-View enable the patient to be positioned prone, supine and lateral in the head frame.

This product is not available in all countries. Please check the availability with your local Philips sales representative.

Please visit www.philips.com/MR-OR



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