



PHILIPS

Image guided therapy

Azurion Hybrid OR

Workflow innovation
in the Azurion Hybrid OR



According to the IMV survey¹ of 203 US hospitals

60%

is considering or actually planning to purchase a Hybrid Operating Room

The global Minimally Invasive Surgery Equipment Market is expected to grow at a CAGR of

10.5%

in the period 2013 – 2019²

According to the IMV survey¹ of 203 US hospitals

53% of the planned fixed C-arms will be ceiling mounted and 18% will be floor-mounted*

* 28% were not specified and 1% were biplane



Welcome to the future of surgery

Where can new technologies take your surgical practice? To less pain and **shorter recovery** times for your patients. To faster and **simpler procedures**. To **less stress** for surgical teams. This is the brighter future that we envision for your hospital with our Philips Azurion 7 Hybrid OR solution. We provide the connectivity between all equipment and applications to promote orchestrated care and smooth changeovers between procedures.

The Azurion 7 Hybrid OR solution allows your medical teams to experience unmatched procedural flexibility, efficiency and ease of use. They can work with confidence, supported by market-leading 2D and 3D image guidance, stringent infection control and dose management measures.

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Full control at tableside

With FlexVision Pro and the touch screen module Pro you can intuitively control all connected applications in the Hybrid OR via mouse over at table side.

Optimized workflow with Azurion

Our Azurion Hybrid OR solution offers several ways to improve teamwork and allows clinicians to enhance control of patient care and save time during procedures. All connected applications can be controlled at tableside. Or as unforeseen changes occur, team members can control connected applications and systems from other parts of the room. Flexible control can make the critical difference when you need it.



“We were looking to design an OR that had dual functionality, where we were able to do both open and endovascular procedures.... I can start with an open case and add endovascular techniques because I have the imaging right there. And if I’m doing an endovascular procedure and there is a problem, then I can open immediately and take care of the patient.”

**Dr. M. Lukens, MD, Director Vascular Services,
Heartland Health Regional Medical Center St. Joseph, Missouri, USA**

Control applications anywhere

View and run all your Philips and third party applications and systems from different Azurion workspots (FlexVision Pro, FlexSpot, and touch screen modules) to free up space at the table and on the floor.

ProcedureCards standardize set-up

One touch sets up the imaging system with relevant parameters for each case. Hospital checklists and protocols can be displayed to safeguard consistency, allowing multiple clinical disciplines to work efficiently in the Hybrid setting.

Philips ConnectOS

Your Philips Hybrid OR supports your surgical teams in working efficiently and smoothly together thanks to ConnectOS multi-workspot technology and other unique workflow innovations. ConnectOS allows different team members, working at different work spots, to work in the same application using the same information at the same time without interrupting each other.

Designed for fast and flexible imaging

Azurion’s rock-solid C-arm provides excellent patient access, robust image quality, and rotational scans within seconds. The stand can reach the groin without repositioning and supports a wide range of projections.

17% reduction of procedure time with Philips Azurion at St. Antonius Hospital, Nieuwegein, The Netherlands³

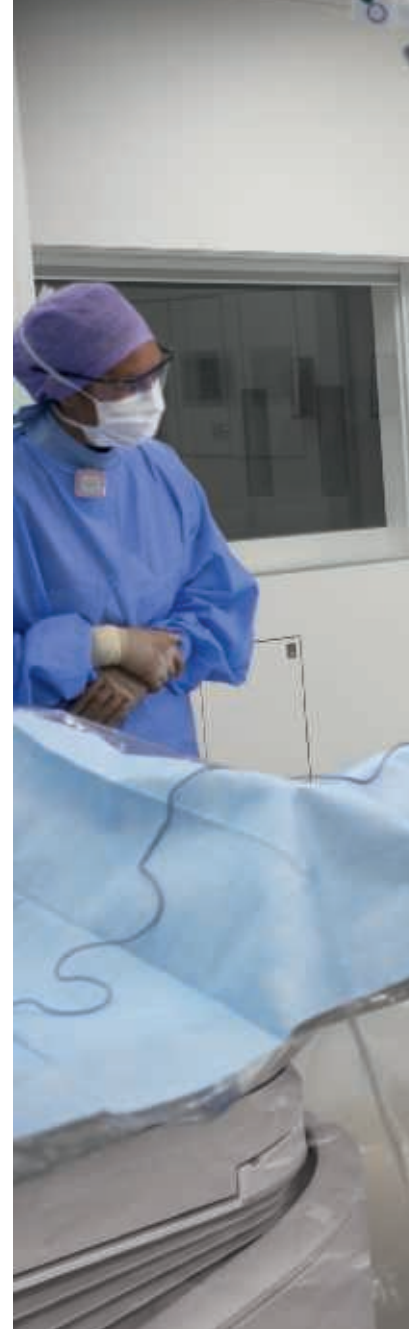
This is just one of the many improvements in lab performance achieved by the interventional vascular department at St. Antonius Hospital after installing the Azurion system. This first Azurion lab performance study achieved impressive results which have been verified by an independent third party.³

➤ More results can be found at the Azurion website:
<https://www.usa.philips.com/healthcare/resources/landing/azurion/optimize-lab-performance>



Full flexibility and patient access

Our solutions are based on continuous input and collaborations with stakeholders across the clinical spectrum. Our most recent survey⁴ of surgeons around the globe identified their key requirements for a Hybrid OR. The Azurion Hybrid OR and the FlexMove system have been developed to meet these critical issues.



Optimal use of space

Major equipment is mounted on the ceiling, the preferred location for OR equipment, with our FlexMove system to maximize use of OR space and help maintain a clean floor.

Easy full body patient coverage

Team members can work at both sides of the table, and the patient can be accessed at any location from head to toe. The imaging system can be easily moved away from the table as needed.

Positioning flexibility and clean floor

Imaging and surgery equipment can be easily positioned for different teams and procedures without touching the floor.

Workflow without compromise

The anesthesiologist can stand at the head of the table, and other team members can stand in their preferred working positions for a variety of open and minimally invasive procedures.



Easy full body patient coverage



Optimal use of space



Positioning flexibility and clean floor



Workflow without compromise



Keeping patient and staff safety at the forefront

There are many factors in a patient's journey through surgery that can contribute to the risk of surgical site infections (SSIs). Preventing SSIs is a complex challenge that has to be addressed by implementing numerous measures before, during and after surgery.

To manage infection risk for your surgical patients during treatment, we take robust sterility measures during the development of the Azurion Hybrid OR. It is certified to meet the most stringent contamination control standards for operating rooms in the industry, including:

- RichtLijn 7 (Dutch norm)
- DIN 1946 Raumklasse 1A
- ISO Class 5 (1446-1)

To avoid interference with laminar air flow systems, the Azurion Hybrid OR system is mounted to the FlexMove ceiling rails that are placed outside of the operating area.

Next to laminar air flow systems many other measures can be taken to manage Surgical Site Infections. The 2016 WHO "Global Guidelines for the Prevention of Surgical Site Infection"⁶ lists a number of factors in the OR environment that influence surgical site infections.

The WHO technical consultations led to the adoption of 29 recommendations covering 23 topics for the prevention of SSI in the pre, intra and postoperative periods. Reducing the amount of movement between exam and control room is another effective measure you can take to increase the sterility in the treatment area.^{7,8} After installing Azurion in the interventional vascular department of St. Antonius, staff movement between the exam room and control room was reduced by 29%.³



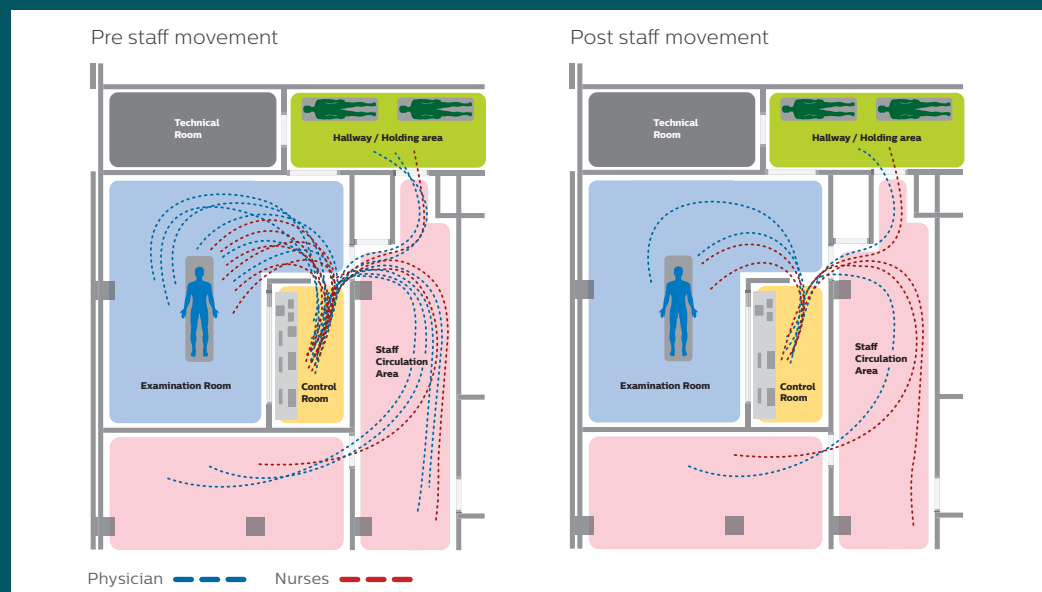
Easy to clean control modules

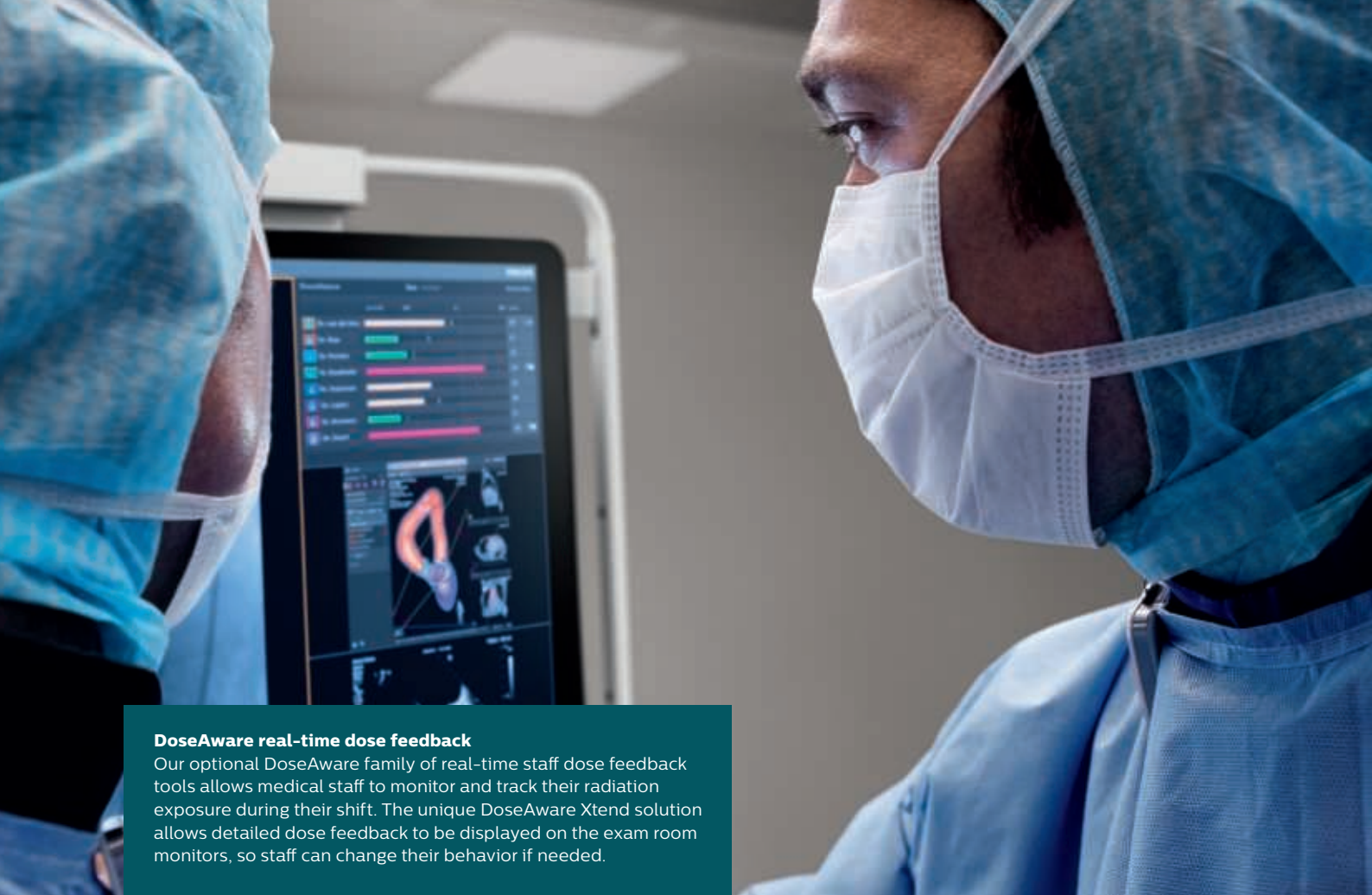
Enclosed buttons are liquid-tight and the raised icons can be easily cleaned.

29% reduction in staff movement³

Other literature shows that sterility in the treatment area is directly related to the amount of movement between exam and control room.^{7,8} By allowing full tableside control, Azurion's FlexVision Pro and TSM Pro solutions help you effectively address this issue. After installing Azurion in the interventional vascular department of St. Antonius, staff movement between the exam room and control room was reduced by 29%.³

Visit: www.philips.com/labperformance in order to view the staff movements in more detail.



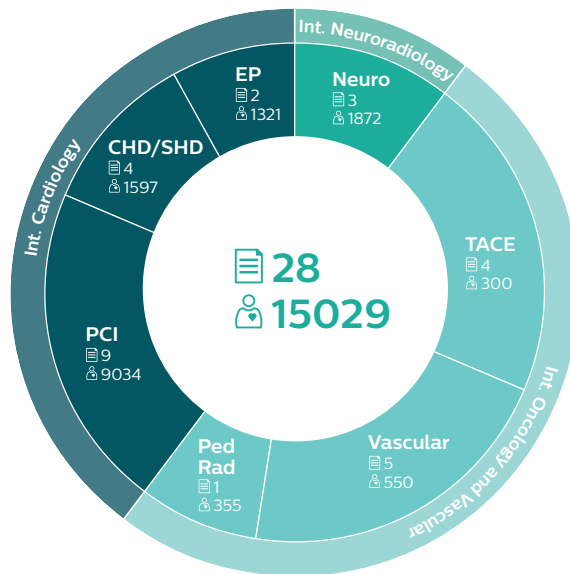


DoseAware real-time dose feedback

Our optional DoseAware family of real-time staff dose feedback tools allows medical staff to monitor and track their radiation exposure during their shift. The unique DoseAware Xtend solution allows detailed dose feedback to be displayed on the exam room monitors, so staff can change their behavior if needed.

Efficient dose management

The Azurion Hybrid OR includes DoseWise, a comprehensive range of dose management tools and technologies to promote efficient dose management. Options like our unique ClarityIQ X-ray imaging technology and DoseAware solutions can have a profound impact on establishing strong radiation control and management in the Hybrid OR.

















- Number of peer-reviewed papers published
- Patient data analyzed

A solid base of comparative studies across different clinical applications, types of patients and operators shows significant reduction in dose with ClarityIQ X-ray dose technology.⁹

Clinical confidence for complex procedures

Surgical procedures are increasing in complexity and volume as well as expanding into new clinical areas. New technologies and devices are creating very specific challenges, complexities, and needs. As your clinical demands become more specific, so are Philips solutions. Our clinical suites offer a flexible portfolio of integrated technologies and services for cardiac, vascular, oncology, neuro, and spine interventions as part of your Azurion Hybrid OR. These optimized workflows are driven by our market-leading image guided therapy solutions and our DoseWise radiation dose management program.

Cardiovascular			Spine	Radiology		
 <p>Coronary suite Transforming complex PCI procedures into confident care</p>	 <p>EP suite Seamless integration drives EP excellence</p>	 <p>SHD suite From planning to live guidance for SHD procedures</p>	 <p>Spine suite Perform spine surgery with confidence and precision</p>	 <p>Vascular suite Refining outcomes for vascular treatment</p>	 <p>Neuro suite Neuro decisions are based on what you see, so see more</p>	 <p>Onco suite Critical insights for superior care in Interventional Oncology</p>
						

For more information on the clinical suites, please visit www.philips.com/clinicalsuites

“The use of CBCT in the hybrid OR provides us with a reliable and accurate method for intraoperative localization of small pulmonary nodules. This is the next step in the evolution of thoracic surgery.”

Kelvin Lau, MD, Thoracic surgeon St Bartholomew Hospital London, UK

“Post-operative CT scans to check implant placements are no longer necessary; it is possible to verify whether a procedure has been successful immediately after treatment. As soon as surgery has been performed, we can be 100% sure that implants are in place, thanks to the high quality of the intra-operative cone beam CT (XperCT) image and positioning flexibility of the system.”

Prof. Dr. A. Seekamp, MD, Director of the Orthopedic and Emergency Surgery clinic, UKSH

Create the Hybrid OR you want

When starting such a complex project, it's reassuring to know you can draw upon Philips 60 years of experience and knowledge from surgical C-arms, image guided therapy, and over 800 Hybrid OR projects globally. All supported by comprehensive service and support solutions to realize a lifetime of benefits from beginning to end.

We offer the flexibility to create a custom environment that meets your unique needs and goals. By partnering and working closely with our major OR partners, including MAQUET, Trumpf Medical, Mavig, Steris, Skytron, Stryker, and others, we can give you a wide range of choices from the latest technological leaders.

Our products are rigorously tested to certify that they work seamlessly with those of our partners. In this way we can ensure that the essential performance of our systems meets high standards for quality and operational reliability. Where possible, we leverage your existing resources and work with your OR partners to help you realize clinical and economical gains.

MAQUET
GETINGE GROUP

MAVIG

stryker[®]

STERIS[®]


SKYTRON[®]

 **Trumpf Medical**



Identify clinical needs and workflow
Our clinical and technical experts can then help you define the flow of people, equipment, and supplies in your space



Translate needs and workflow into the best design
Global experience on effective infrastructure and interoperability helps us reduce complexity and enhance control of your surgical equipment



Get a custom fit
Choose from the latest technological leaders, through our partnerships with MAQUET, Trumpf, Mavig, Steris, Skytron, and Stryker



See if it works

Test out different set-ups with our three-dimensional drawings to avoid costly oversights and workflow bottlenecks



Assess the financial feasibility

Our financial professionals can help you calculate caseloads, room utilization, and other operational factors to make a realistic business case



Manage the project efficiently

A dedicated project manager can streamline collaboration with all stakeholders to help safeguard the process, budget, and quality

A lifetime of benefits

As new technologies, techniques, and opportunities present themselves, you want to know that your Hybrid OR gives you a foundation to take advantage of the innovations of tomorrow. With a Philips Hybrid OR, you enjoy a lifetime of benefits from from beginning to end.

Getting started

Tailored financing solutions, room planning and design services and education support options help you get up and running as quickly and efficiently as possible.



Financial services



Hand-over training



Room planning services

Getting ahead

We offer a range of flexible support options designed to provide peak lab performance today and unlock future potential for your Hybrid OR.



Warranty / Maintenance services



Customer service portal



Managed maintenance Services



Utilization services



Continuous education



Workflow consultancy

Staying ahead

We collaborate with you in the long-range planning of your medical imaging needs to optimize, enhance, or transform your solution to stay ahead throughout your lifecycle.



System upgrades & enhancements



Replacement alternatives



- ¹ Survey European Society for Vascular Surgery 2014, Survey Society for Vascular Surgery 2014 (USA) and 303 survey participants.
- ² Transparency Market Research. Minimally Invasive Surgery Market – Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2013 – 2019.
- ³ Philips Azurion Simulation Study 2016 – 12NC 452299123041 – FEB 2017. Results are specific to the institution where they were obtained and may not reflect the results achievable at other institutions. Study results were verified by NAMS, an independent third-party expert on study design and analytics.
- ⁴ Survey Society for Vascular Surgery 2014 (USA) of 303 survey participants.
- ⁵ Bischoff P, Kubilay NZ, Allegranzi B, Egger M, Gastmeier P. Effect of laminar airflow ventilation on surgical site infections: a systematic review and meta-analysis. *Lancet Infectious Diseases*. 2017;17(5):553–61.
- ⁶ Global Guidelines for the Prevention of Surgical Site Infection. World Health Organization. 2016.
- ⁷ Mangram AJ, Horan TC, Pearson ML, et al. The Hospital Infection Control Practices Advisory Committee. Guideline for prevention of surgical site infection, *Am J Infect Control*.1999;27:97–134.
- ⁸ Alexander JW, Solomkin JS, Edwards MJ. Updated Recommendations for Control of Surgical Site Infections. *Annals of Surgery*. 2011;253(6):1082-93.
- ⁹ In 18 individual comparative studies, Philips ClarityIQ was associated with reductions in patient radiation exposure.1-18



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452299132971 * JUL 2018

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