



PHILIPS

Image Guided Therapy

Azurion 7

**With Azurion,
performance and
superior care become one**

Azurion R3.0 is not yet cleared in all markets. Please consult with your local representative for more detailed information

17% reduction of procedure time with Philips Azurion at St. Antonius Hospital.¹

The ability to treat one more patient per day today, or in the future

Innovatively designed to support even the most challenging procedures

Every day you strive to provide the best patient care, quickly and reliably, no matter which procedure you are performing. Now imagine being able to perform an increased number of procedures, for more patients, consistently and efficiently with fewer preparation errors. Imagine an intuitive platform that lets you optimize workflow. With it, your day just became a lot easier.



Provide superior care



Help optimize lab performance



Perform diverse procedures quickly and easily

The Image Guided Therapy System - Azurion 7 allows you to easily and confidently perform a wide range of routine and complex procedures with a unique user experience, helping you optimize your lab performance and provide superior care.

Azurion is powered by ConnectOS, a real-time multi-workspot technology designed specifically for the Azurion Image Guided Therapy platform. As the interventional space evolves, we continue to integrate essential lab systems and tools within this platform for you.

The Azurion integrated lab gives you control of all compatible applications from a single touchscreen at bedside to help you make fast and informed decisions without breaking sterility.

We're committed to you and your patients. With the Azurion industry-leading Image Guided Therapy platform, our goal is to help you effectively meet today's challenges so that you are ready for the future.

Outstanding user experience

At Philips, we are guided by you. With Azurion, we've brought the user experience and simplicity of touchscreen controls right where needed to make a difference to lab workflow.

Full control at tableside to enhance decision-making

Control all compatible applications in the interventional lab via the central touchscreen module and FlexVision Pro. This improves workflow in the exam room and also helps reduce the need for team members to leave the sterile area to walk to the control room during procedures, saving time and helping to avoid delays.

Gain advanced physiologic guidance to help improve treatment outcomes

Access IntraSight, a comprehensive suite of clinically proven²⁻⁶ imaging, physiology and co-registration⁷ tools via the central touchscreen module. These tools allow you to go beyond the angiogram and complete your view of the target vessel to help you make fast, informed clinical decisions.

Azurion with FlexArm offers more independent control for physicians

The FlexArm option further evolves tableside control with the intuitive Axsys controller to help procedures flow naturally and easily. When changes or complications occur, the clinician can quickly and easily take action. This can also reduce the need to move in and out of the sterile field during a procedure.

Designed around you and your procedure

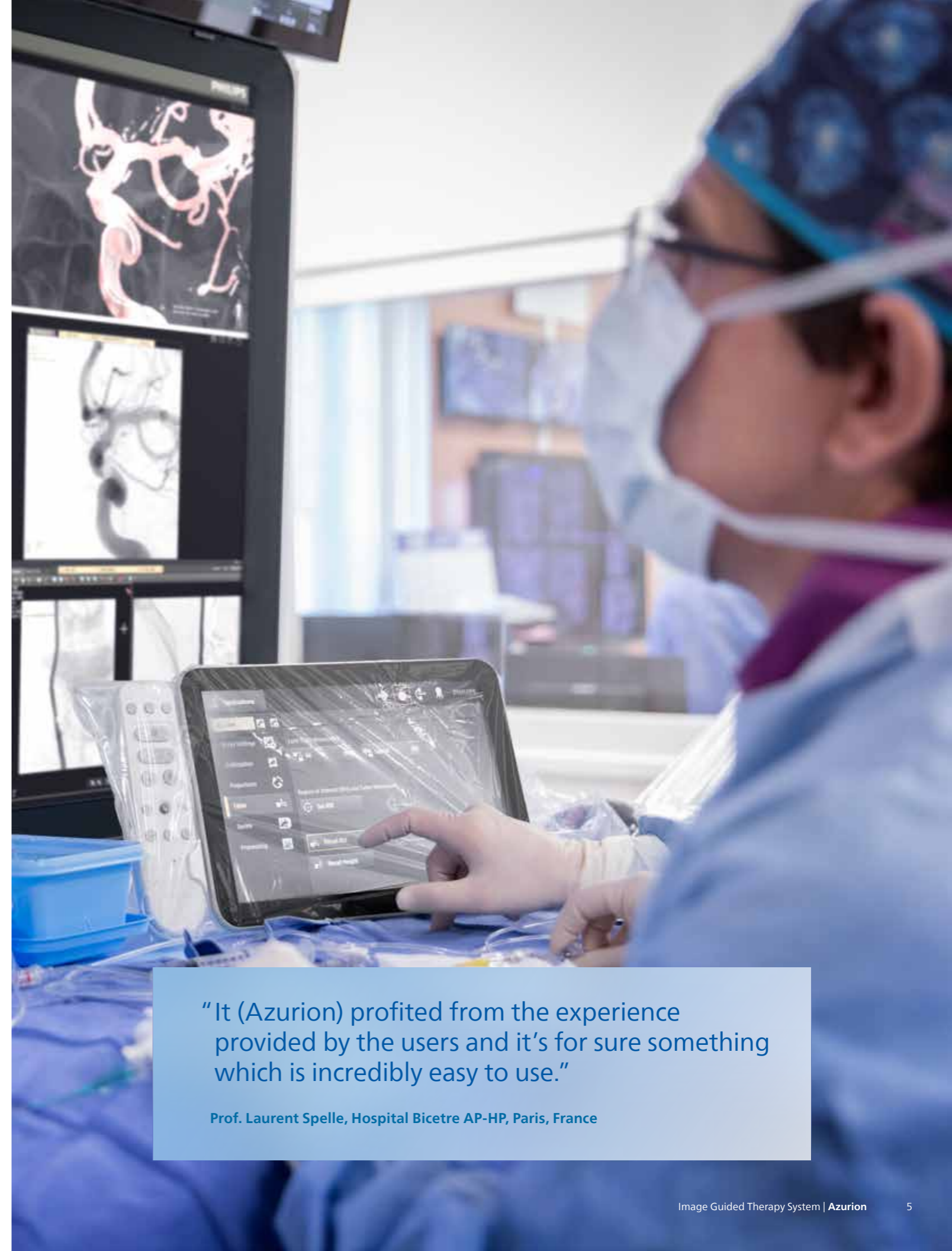
Every Azurion system and interventional tool uses the same standardized user interface to support training. A sophisticated help function further simplifies use. You can access digital user guides with one click for on-the-spot assistance.

Clear and simple to use

Information clearly stands out on the screen against the distinctive black background where active applications are highlighted. Backlit icons and distinctively shaped buttons on the control module promote intuitive operation. All controls are designed for easy cleaning to meet stringent sterility requirements.

Less clutter and faster workflow

With the Azurion integrated lab, controlling all compatible applications using the touchscreen module can reduce extra interfaces and controls tableside. The FlexSpot works according to the same principle, giving you access to all compatible applications in one compact, customizable workplace that can be placed in the control room or exam room where needed. Save time by setting the display to re-arrange and re-size as applications are opened and closed.



“It (Azurion) profited from the experience provided by the users and it's for sure something which is incredibly easy to use.”

Prof. Laurent Spelle, Hospital Bicetre AP-HP, Paris, France

With Azurion, we help you to optimize your lab performance

“The new integrated system saves us time, because we can control all applications via one user interface.”

Dr. med. Peter Ong, Robert Bosch Hospital, Stuttgart, Germany

The Azurion integrated approach can help you achieve measurable improvements in throughput, cost reduction and staff satisfaction.

Do more at tableside

With our enhanced touchscreen module, you will experience simpler, smoother procedures, based on familiar tablet interactions. For example, you can now easily mark relevant details on 2D images on the touchscreen with your fingertip.

Run an entire case without breaking sterility

The touchscreen module offers total control within the sterile field. Run an entire case tableside as you quickly diagnose, navigate, annotate and measure to your exact specifications, even while wearing gloves and under a sterile drape. Tableside control saves you from having to go to the control room to access applications.

Save time through Instant Parallel Working

The system has been specifically designed to save time by enabling interventional team members to do two tasks at the same time in the exam room and control room without interrupting each other. For example, while fluoroscopy/exposure is taking place, a technologist in the control room can instantly review previous images from the same patient, prepare the next exam or finish reporting on another patient. This leads to higher throughput and faster exam turnover without compromising quality of care.

Simplify workflow

Enter patient information once and it is automatically transferred to connected applications to reduce data entry errors. To save time, IntelliSpace Cardiovascular[®] and IntelliSpace Portal launch automatically with the specific patient on the exam room monitor. Full System Automatic Position Control (APC) gives you more flexibility to recall the stored position of the C-arm, table and other parameters for a particular image to simplify positioning.

Imagine an easier workday

You can combine different user-centric workspots (FlexVision Pro, FlexSpot and the touchscreen module) to view, control and run applications where and when needed. At these workspots you can co-register⁹ iFR or IVUS data with the angiogram, so that you have the tools in hand to manage procedure quality and patient care. Together, these flexible workspots allow you to customize your workflow to boost efficiency.

Safeguard clinical performance and enhance lab security over time

The standard Windows 10 platform can help support compliance with the latest security and standards to protect patient data. It can also accommodate new software options to extend your system's clinical relevance over time.



Touchscreen module Pro



FlexSpot



FlexVision Pro

Provide superior care

As patient volumes rise and procedures become more complex, how do you maintain high standards of quality and safety in your healthcare facility?

Clinical demands are getting more specific, and so are we

Our clinical suites are tailored to meet your specific challenges, while offering you the flexibility to carry out procedures in the easiest, most efficient way. Our flexible portfolio of integrated technologies and services supports the full interventional spectrum, including hybrid OR solutions to create an innovative care environment for performing open and minimally invasive surgical procedures.

Simplified set-up and operation

A range of ProcedureCards helps optimize and standardize system set-up for all of your cases. The system will automatically select the appropriate ProcedureCard(s) based on the (CIS/RIS/HIS) code of the scheduled procedure from the information system. ProcedureCards can increase the consistency of exams by offering presets (e.g. most-frequently used, default protocols and user-specified settings) at the procedure, physician or department level.

In addition, hospital checklists and/or protocols can be uploaded into the ProcedureCards to help safeguard the consistency of interventional procedures and reduce preparation errors.

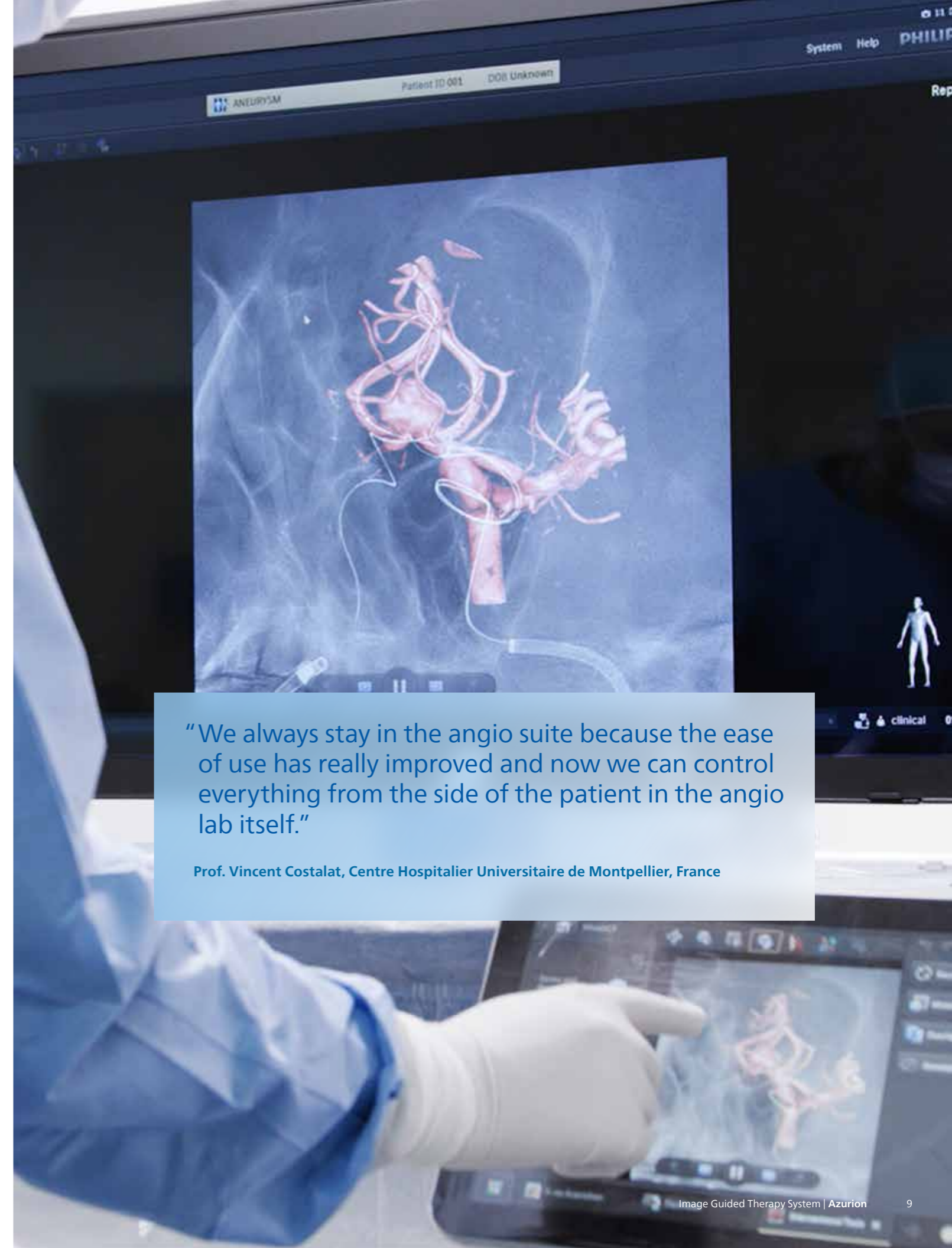
Enhance patient care with continuous monitoring

The Philips Interventional Hemodynamic System is integrated with the Philips IntelliVue X3 patient monitor, allowing continuous patient monitoring throughout the workflow in interventional procedures. There is no need to change cables, minimizing disruption to vulnerable patients and giving you more time to focus on them. Continuous patient monitoring also results in a gap-free patient record.

Increase clinical confidence with 3D imaging

The SmartCT clinical application software enriches our exceptional 3D tools for interventional procedures with step-by-step guidance that is designed to remove the barriers to acquiring 3D images in the interventional lab. Easily control advanced 3D visualization and measurements at bedside on the touchscreen module. Studies have shown that 3D CT-like imaging can enhance diagnostic accuracy⁹⁻¹¹ and support improved patient outcomes.

Clinical suites



“We always stay in the angio suite because the ease of use has really improved and now we can control everything from the side of the patient in the angio lab itself.”

Prof. Vincent Costalat, Centre Hospitalier Universitaire de Montpellier, France

High safety standards and low radiation exposure

As you look for new radiation dose management strategies to continue to enhance patient and staff safety while maintaining and enhancing your level of care, we can support you in meeting your goals.

High-quality images at low X-ray dose

ClarityIQ imaging technology provides significantly lower dose across clinical areas, patients and operators.¹² In routine coronary procedures,¹³ ClarityIQ technology reduces patient dose by 67% without affecting procedural performance while maintaining equivalent image quality, compared to a system without ClarityIQ.^{14,15} In interventional neuro procedures, ClarityIQ technology reduces patient dose by 65%, compared to a system without ClarityIQ.¹⁶

Managing dose efficiently

DoseWise is integrated across the Philips Image Guided Therapy portfolio. DoseWise consists of a comprehensive range of radiation dose management tools, training and integrated product technologies that aim to help you take control over patient care, staff safety and regulatory compliance. In addition, Zero Dose Positioning lets you pan the table, change table height or field-of-view on your Last Image Hold (LIH) image. This enables positioning without the use of radiation on the previously recorded last image.

Managing dose across your organization

Philips DoseAware provides real-time feedback in the exam room, displaying the invisible nature of radiation in real time, so that you and your staff can see it promptly, easily and simply in order to rapidly understand the effect of behavior changes and work patterns. DoseAware Xtend is a dedicated solution for treatment rooms that builds on the capabilities of DoseAware and interfaces seamlessly with the Azurion Image Guided Therapy system. Thanks to this seamless integration, DoseAware Xtend can provide live individual dose rates (live screen) during procedures, and summarized procedure doses (review screen). It also reminds staff to better protect themselves by providing a warning symbol when the lead protection screen is not being used properly.

Perform standardized quality assurance verifications in just 5 minutes¹⁷

To make it easier for you to routinely perform consistent verification tests of radiation dose and image quality, only Philips offers the User Quality Control Mode (UQCM) tool on its Azurion system. With this option, you can independently verify and audit the radiation and image quality-related factors of your Azurion system in a standardized way in just 5 minutes, as well as carry out a range of validation and quality assurance tests.



A comprehensive platform for clinical excellence

The Azurion 7 integrated lab brings together a range of sophisticated interventional tools, including clinically proven²⁻⁶ imaging and physiology tools, advanced hemodynamic measurements and cardiac informatics to support clinical excellence during procedures.



Azurion 7 M12 Monoplane Floor Mounted

The Azurion 7 with 12" flat detector provides high-resolution imaging with flexible projection capabilities, making it ideal for cardiac interventions. The entire coronary tree can be visualized in a single view with minimal table panning.



Azurion 7 M20 Monoplane Floor Mounted

The Azurion 7 with 20" flat detector provides excellent image quality and a large field of view, enabling a broad range of cardiac and vascular procedures.



Azurion 7 M12 Monoplane Ceiling Mounted

The Azurion 7 with 12" flat detector provides high-resolution imaging with flexible projection capabilities, making it ideal for cardiac interventions. The entire coronary tree can be visualized in a single view with minimal table panning. The ceiling configuration provides enhanced patient access and positioning flexibility.



Azurion 7 M20 Monoplane Ceiling Mounted

The Azurion 7 with 20" flat detector provides excellent image quality and a large field of view, enabling a broad range of cardiac and vascular procedures. The ceiling configuration provides enhanced patient access and positioning flexibility.



Azurion 7 M20 Monoplane Ceiling Mounted with FlexArm

The Azurion 7 M20 with FlexArm option provides unlimited flexibility for diverse procedures and exceptional positioning freedom in interventional or hybrid OR settings, enabling a highly cost-effective treatment environment that is ready for the procedures of the future.



Azurion 7 B12/12 Biplane

The Azurion 7 System Biplane with two 12" flat detectors provides high-resolution imaging and positioning flexibility to support coronary, congenital heart and electrophysiology procedures.



Azurion 7 B20/12 Biplane

The Azurion 7 System Biplane with 20" and 12" flat detectors provides exceptional clarity of detail and navigational precision to support a wide range of challenging cardiac and vascular interventions.



Azurion 7 B20/15 Biplane

The Azurion 7 System Biplane with 20" and 15" flat detectors provides enhanced system ergonomics and advanced tools designed to support you during every procedure. Benefit from excellent image quality at every angulation and rotation as you execute intuitive commands from multiple places in the lab.



High productivity combined with low cost of ownership

With Philips, you get the best service performance which enables you to treat more patients, and professional support to help you deliver cost-efficient care.

Best service performance¹⁸ enables you to treat more patients¹⁹

Staying on top of today's complex healthcare environment is challenging enough without a constant concern of keeping your systems up and running smoothly. With Philips, your operations are protected by the best overall service engineer performance for imaging systems according to IMV ServiceTrak for 5 years in a row. Philips remotely connected systems provide 135 more hours of operational availability per year, enabling you to treat more patients.

Professional support helps you deliver cost-efficient care

To help you fully leverage your financial, technological and staffing resources and realize a high return on your investment, we offer professional support through our experienced network of over 7,000 field service engineers, as well as a flexible service offering that includes:

- Innovative financing solutions tailored to meet the needs of healthcare organizations
- A broad range of healthcare consulting programs to help your organization further enhance the efficiency and efficacy of your care delivery process
- Philips Healthcare Education can help unlock the full potential of your staff, technology and organization to meet new challenges through innovative, meaningful and evidence-based healthcare education.

Cost-effectively manage future upgrades with the Technology Maximizer program

Technology Maximizer is a program that runs in tandem with your Philips Service Agreement.²⁰ When you opt into the program, you receive the latest available software and hardware²¹ technology releases for a fraction of the cost of purchasing them individually. The Technology Maximizer Plus allows you to further tailor upgrades to reduce costs. No need to wait for budget approval.

No need to buy individual upgrades. Just a cost-effective way to manage ongoing technology upgrades through your operational budget.

Doing business responsibly and sustainably

When you choose Philips, you are choosing a partner committed to meeting sustainability and circular economy ambitions. As a leading health technology company, our purpose is to improve people's health and well-being through meaningful innovation, positively impacting 2.5 billion lives per year by 2030.

Azurion is the result of our EcoDesign process and offers significant environmental improvements:

- 100% product take-back after customers' acceptance of our trade-in offer
- 100% repurposing of the equipment that is returned to Philips
- Up to 90% of material weight is reused during refurbishing, depending on type and age of product
- At least 10% lower energy consumption over total product life usage²²

Read more about our Environmental, Social and Corporate Governance (ESG) commitments here: <https://www.philips.com/a-w/about/sustainability.html>

Philips remotely connected systems provide

135 more hours of operational availability on average, per year, enabling you to treat more patients.¹⁹

References

- Philips whitepaper 12nc 4522 991 30501; Reduction of procedure time by 17% with Philips Azurion in independently verified study; <https://www.philips.com.au/healthcare/resources/landing/azurion/lab-performance-study-results>. Results are specific to the institution where they were obtained and may not reflect the results achievable at other institutions.
- Davies JE, et al. DEFINE-FLAIR: A Multi-Centre, Prospective, International, Randomized, Blinded Comparison of Clinical Outcomes and Cost Efficiencies of iFR and FFR Decision-Making for Physiological Guided Coronary Revascularization. *New England Journal of Medicine*, epub March 18, 2017.
- Gotberg M, et al., Instantaneous Wave-Free Ratio Versus Fractional Flow Reserve Guided Intervention (iFR-SWEDEHEART): A Multicenter, Prospective, Registry-Based Randomized Clinical Trial. *New England Journal of Medicine*, epub March 18, 2017.
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- Choi K, et al. Impact of Intravascular Ultrasound-Guided Percutaneous Coronary Intervention on Long-Term Clinical Outcomes in Patients Undergoing Complex Procedures. *JACC: Cardiovascular Interventions*. Mar 2019, 4281; DOI: 10.1016/j.jcin.2019.01.227.
- Co-registration tools available within IntraSight 7 configuration via SyncVision
- It is the user's responsibility to ensure that Philips network requirements (such as performance, VPN) for IntelliSpace Cardiovascular are met. Note: Automatic same patient launch feature is available only with specific versions of ISCV and ISP.
- Loffroy R et al. Comparing the Detectability of Hepatocellular Carcinoma by C-arm Dual-Phase Cone-Beam Computed Tomography During Hepatic Arteriography With Conventional Contrast-Enhanced Magnetic Resonance Imaging *Cardiovasc Intervent Radiol.* 2012, 35 (1), 97-104,
- Berman et al. The use of threedimensional rotational angiography to assess the pulmonary circulation following cavopulmonary connection in patients with single ventricle. <https://www.ncbi.nlm.nih.gov/pubmed/22419358> *Catheter Cardiovasc Interv.* 2012 Nov 15;80(6):922-30.
- https://pubmed.ncbi.nlm.nih.gov/?term=Schernthaler+RE&cauthor_id=25476872 Schernthaler et al., Delayed-Phase Cone-Beam CT Improves Detectability of Intrahepatic Cholangiocarcinoma During Conventional Transarterial Chemoembolization *Cardiovasc Intervent Radiol.* 38 (4), 929-36, 2015
- In 28 individual comparative studies, Philips ClarityIQ was associated with reductions in patient radiation exposure. All 28 studies can be found online: www.philips.com/clinicallyproven
- Routine coronary interventions comprise of fluoroscopy and exposure usage.
- Buytaert, D., et al., Evaluation of patient and staff exposure with state of the art x ray technology in cardiac catheterization: A randomized controlled trial. *Journal of Interventional Cardiology*, 2018. 31(6): p. 807-814.

(95% CI of 53%, 77% for all diagnostic and interventional coronary procedures). The results of the application of dose reduction techniques will vary depending on the clinical task, patient size, anatomical location and clinical practice. The interventional cardiologist assisted by a physicist as necessary has to determine the appropriate settings for each specific clinical task.
- Results based on total dose area product from a single center prospective controlled randomized study (University Hospital Gent, Belgium) on 122 patients (42 for Allura Xper and 80 for AlluraClarity) undergoing coronary procedures. Of the 122 patients, 102 (83.6%) had a diagnostic procedure without intervention and 51 (41.8%) resulted in a diagnosis of no coronary disease. Patient radiation exposure was quantified using cumulative dose area product as collected from Radiation Dose Structured Reports and/or Allura Reports. Baseline dose was maintained by configuring both systems to power up with the lowest dose settings as default and default procedure settings for cardio were used. Exam duration and fluoro time was consistent between the systems and an increase in number of exposure images and runs with the AlluraClarity was attributed to the biplane configuration compared to the monoplane configuration of the Allura Xper.
- Söderman, M., et al., Radiation dose in neuroangiography using image noise reduction technology: a population study based on 614 patients. *Neuroradiology*, 2013. 55(11): p. 1365-1372.

Routine neuro interventions comprise of DSA and fluoroscopy usage.

(95% CI 56%, 68% for routine diagnostic neuroendovascular procedures, 95% CI 58%, 71% for routine interventional neuroendovascular procedures). The results of the application of dose reduction techniques will vary depending on the clinical task, patient size, anatomical location and clinical practice. The interventional radiologist assisted by a physicist as necessary has to determine the appropriate settings for each specific clinical task. Results based on total dose area product from a single center retrospective historically controlled cohort study (Karolinska Hospital - Solna, Sweden) on 614 patients (302 for Allura Xper and 312 for AlluraClarity) undergoing neuro endovascular procedures.
- The related tests were performed by 3 users with different background and experience level. The test timings were performed using a frontal plane of an Azurion biplane R2.1 system (FD20/15N, STM-1713 (Dick Bruna), location QL-1).
- IMV ServiceTrak 2018 X-ray Cardiovascular Systems.
- Data shown is an average, based on the comparison between remotely connected and non-remotely connected systems. Data sample from 2018 for Allura FD and Azurion systems (n=9955).
- Eligible RightFit Service Agreements are available with Technology Maximizer.
- Not currently available for ultrasound hardware.
- Determined via the COCIR SRI method. Compared to predecessor Allura Xper platform. Exact energy reduction depends on configuration

