

Philips iXR Clinical Segment Guides



Provided by: Sales and Market Support Team

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iXR Segment Guides

After you complete this review, you should be able to:

- Describe the clinical segment,
- Describe Philips tool/products and common procedures,
- Articulate the value proposition,
- Recognize the primary competitors,
- Articulate the key differentiators,
- Recognize what the customer cares about
- Describe the Clarity upgrades and highlight the benefit to customers



Segment Overview of Interventional Cardiology

Adult Interventional Cardiology (IC) covers interventional treatment of coronary vasculature and structural heart conditions. IC works closely with echo cardiologists and cardiac surgeons. As technology evolves and clinical studies conclude, procedures which were purely surgical in the past are now being performed using catheters and in the cath lab (structural heart). While in larger institutions the cardiac labs will be dedicated, smaller institutions may have shared labs with EP or even vascular. This places the FD20 as a great 'mixed lab' system.



IC CLINICAL PROCEDURES

Percutaneous Coronary Interventions

PCI uses coronary angioplasty along with IVUS, infraredx or OCT, to evaluate and treat stenotic coronary arteries. This can be performed using femoral or radial access in the left or right heart. PCI is in a decline of procedural volume.

Structural Heart Disease

SHD is the use of angiography to treat structural abnormalities of the heart, Septal Defect (ASD, PFO, VSD), Valve Disease (TAVR, Mitral, Pulmonary), Left Atrial Appendage Closure (LAA), Valvuloplasty and Paravalvular Leak. SHD is in early adoption but has huge growth potential, it's the hot trend that many hospitals want to plan for doing in the future if not already.

PHILIPS IC PRODUCTS

| CORE SYSTEM | PCI | SHD |
|--------------------|--------------|-----------------|
| Clarity FD10 or 20 | XperSwing | Heart Navigator |
| Xper FD10 or 20 | 3DCA | Echo Navigator |
| FlexVision | StentBoost | MR/CT Roadmap |
| Dose Aware | CT TrueView | 3DRA |
| Integrated CX50 | Corindus | |
| | Volcano IVUS | |

We create the SHORTEST PATH to the BEST CARE at the LOWEST COST

| SHORTEST PATH | BEST CARE | LOWEST COST |
|---|---|---|
| <ul style="list-style-type: none"> Accommodate all procedure types Most integrated solution Most trained on system interface Adapts to clinician preference | <ul style="list-style-type: none"> Clarity for low dose Image Quality Seamless integration DoseWise Planning precision 2D and 3D treatment guidance | <ul style="list-style-type: none"> Impact need for multiple devices per treatment Enable advanced procedures Improve workflow Maintain educational advances |

PRIMARY COMPETITORS

Siemens and GE are the primary competitors. Philips remains the majority installer with over 50% of the market.

KEY DIFFERENTIATORS

- AlluraClarity- high quality, low-dose imaging. Motion compensation and noise reduction for superior imaging of coronary vessels.
- Integration with 3rd party systems like IVUS, FFR, infraredx, Corindus and ultrasound position PMS as a truly integrated lab unlike any other, optimizing workflow and speed.
- EchoNavigator is an exclusive capability that provides superior capabilities for SHD procedures.
- The largest install base in IC that is the most trained on system in the industry.

"Now we can see more data and make a more accurate determination of how to treat the patient without additional Xray dose and contrast."

-Dr. Gabriel Soto, Southeast Missouri Hospital, Missouri, USA

WHAT DO IC'S CARE ABOUT?

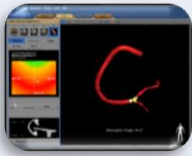

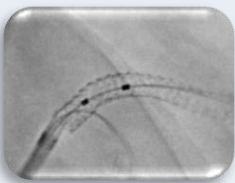
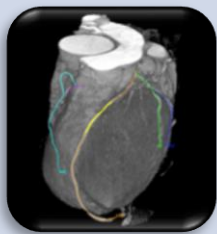
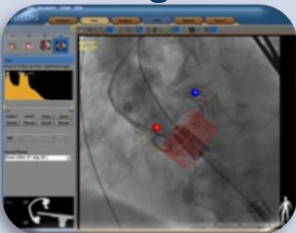
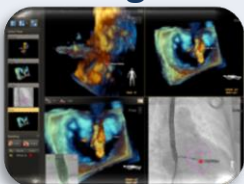
Speed – Ease of Use – Advanced Tools – Integration

Radiation dose still holds value in the IC segment, however it takes a back burner. The bonus is that with either Allura or AlluraClarity, they are achieving high quality images as ultra-low doses.

Stay focused on the ability to improve their procedural efficiency by providing the best diagnostic and decision making tools in the industry. Speed is their friend. When you accompany the IQ and ease of use of the AlluraClarity with the advanced tools and integration of ancillary devices, clinicians are able to maximize access and reduce cost. All of this is accomplished by improving diagnosis, planning and treatment.

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| PHILIPS TOOL | COMMON PROCEDURES |
|---|---|
| PERCUTANEOUS CORONARY INTERVENTION | |
| 3DCA  | <p><i>A powerful planning and interventional tool that provides an accurate 3D model from 2D coronary artery images.</i></p> <ul style="list-style-type: none"> Provides 3D visualization for coronary interventions aiding in <ul style="list-style-type: none"> Stent Selection Intervention Planning |
| XperSwing  | <p><i>Provides additional clinical value by completing a single angiographic swing of the coronary tree, providing more information, reducing risk and reducing time requirements.</i></p> <ul style="list-style-type: none"> Provides entire left coronary tree anatomical view in a single run Provides entire right coronary tree anatomical view in a single run 6-8 standard angio runs can be required for the same level of detail Can potentially save x-ray dose and contrast dose for equivalent detail |
| StentBoost  | <p><i>A unique interventional tool which improves the visualization of stents in the coronary arteries during interventions.</i></p> <ul style="list-style-type: none"> Bifurcation stenting Restenting due to restenosis or initial stent integrity Assess stent expansion post deployment 3D overlapping of stents in different vessels |
| CT TrueView  | <p><i>Uses a previously acquired CT scan to construct a 3D surface model of the coronary arteries.</i></p> <p>Chronic Total Occlusion</p> <ul style="list-style-type: none"> Utilize preop CTA imaging for optimal view selection, lesion length, assessment of bifurcation angles and approach prior to or during procedure Provide intraop overlay of CTA and assessment details for procedure |
| STRUCTURAL HEART DISEASE | |
| HeartNavigator  | <p><i>Provides support in planning of the procedure and provides additional live image guidance during the procedure.</i></p> <p>TAVR/TAVI</p> <ul style="list-style-type: none"> Preop evaluation of cardiac CT for determining valve sizing, optimal implantation projection and placement. Intraop utilization of virtual devices provides enhanced catheter guidance for successful deployment. |
| EchoNavigator  | <p><i>A real time imaging product that supports the procedure by combining both X-ray and xPlane and 3D Echo in an interactive, intuitive and procedurally relevant way.</i></p> <ul style="list-style-type: none"> Atrial Septal Defect, Patent Foramen Ovale, Ventricular Septal Defect, Mitral Clip, Left Atrial Appendage Closure, TAVR, Paravalvular Leak, Pulmonary Valve Replacement, Septal Puncture and Valvuloplasty |

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Segment Overview: Interventional Radiology

Interventional Radiology is a clinical specialty focusing on the minimally invasive treatment of diseases throughout the body, with the exception of the heart and head. As this specialty evolves there has been significant growth in interventional oncology treatment. IR physicians rely heavily on 2D and 3D imaging for diagnosis, navigation, and treatment.



PHILIPS INR PRODUCTS

| | |
|--------------|--------------------|
| Clarity FD20 | 3D Roadmap |
| Xper FD20 | MR/CT Roadmap |
| DSA | XperCT |
| Roadmap Pro | XperGuide |
| 3DRA | XperGuide Ablation |

INR CLINICAL PROCEDURES

| | |
|--------------|-----------------------|
| Angioplasty | AVM Embolization |
| Stenting | Tumor Biopsy/Ablation |
| TACE | Aneurysm Repair |
| TEVAR | RF/Cryo/MW Ablation |
| TIPS | Line Insertions |
| Thrombolysis | Drain Insertions |

PRIMARY COMPETITORS

Siemens and Philips have competed fiercely for years, with GE a distant 3rd and Toshiba competing on price. (Market Share: SMS- 38%, PH 35%, GE 19%, TOSH- 8%)

KEY DIFFERENTIATORS

- AlluraClarity- high quality, low-dose imaging. Automatic pixel shifting and noise reduction for superior imaging. Clinical proof. SMS claims low dose- but no proof, no data.
- XperCT with metal artifact reduction and ultrafast reconstruction times. Only vendor with MAR, fastest reconstruction times in market.
- XperGuide, live fluoro overlay on XperCT image. Only vendor with ablation planning tool (XperGuide Ablation).
- Ease of use and in-depth training.

We create the **SHORTEST PATH** to the **BEST CARE** at the **LOWEST COST**

SHORTEST PATH

- Flexibility for procedure range and shared labs
- Emphasis on workflow efficiency (CX50 integrated ultrasound)
- Acquire soft tissue images in the angio lab

BEST CARE

- Image Quality
- 2D and 3D navigation support
- Treatment planning tools
- Dose and contrast management for lengthy procedures
- In-depth training

LOWEST COST

- Cost efficient upgrades
- Improve workflow
- Reduce repeat procedures
- Free up diagnostic imaging equipment (XperCT)
- Biopsy without interrupting diagnostic CT schedule (XperGuide)

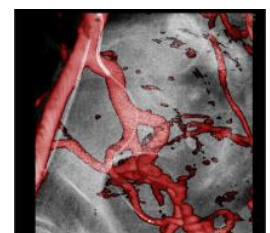
"The ability to match an MR with XperCT and XperGuide is a great way to limit radiation dose and to be sure that we are accurately treating these patients."

- Dr. Tong, Children's Hospital of Atlanta

WHAT DO IR'S CARE ABOUT?

IR's are concerned with image quality and dose. They look for advanced tools to support the entire treatment process from diagnosis and planning to navigation, and follow-up. Since they perform a wide range of procedures flexibility, workflow and ease of use are important. Flexibility is also important for IR's who share their labs with cardiac or neuro physicians.

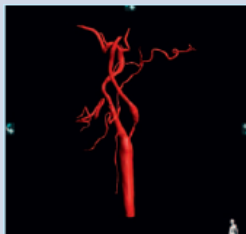

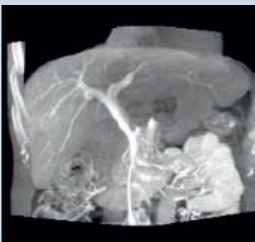
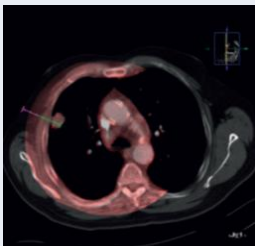
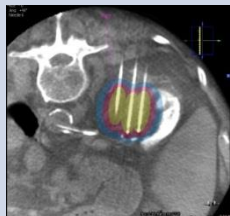
IR's are typically not looking for fully-loaded systems, but want a balance of value and functionality from their interventional lab.



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Segment Overview: Interventional Radiology

| PHILIPS TOOL | COMMON PROCEDURES |
|--|--|
| 3DRA  | <p><i>High speed, high-resolution 3D volumetric view of vessel anatomy throughout body.</i></p> <p>Treatment planning and better understanding of location, size, and surrounding anatomy. Determine optimal viewing angle.</p> <ul style="list-style-type: none"> • AVM: Tangle of arteries and veins that interferes with normal blood flow • EVAR: Endovascular Aneurysm Repair- Treatment of abdominal aortic aneurysms through stenting • UFE: Uterine Fibroid Embolization- Cutting off blood flow to non-cancerous growths. • Aneurysm Repair |
| 3D or MR/CT Roadmap  | <p><i>Overlays live 2D fluoro with 3D vessel tree reconstruction from 3D-RA or previously acquired CT/MR for live navigation</i></p> <p>Navigation support and visualization during treatment delivery.</p> <ul style="list-style-type: none"> • TACE: Cut off blood supply to tumor with beads coated with chemotherapeutic agents • Aneurysm Treatment: Coiling and/or stenting • Angioplasty/stenting • UFE • AVM |
| XperCT  | <p><i>Soft tissue, CT-like imaging in the interventional suite</i></p> <p>Supports soft tissue and fluid visualization.</p> <ul style="list-style-type: none"> • Tumor enhancement • TACE: Combine with 3DRA view of feeder vessels • Endoleaks: Persistent blood flow into the aneurysm sac after EVAR procedure • Hemorrhages/Fluid collections • UFE |
| XperGuide  | <p><i>3D image needle path planning and live guidance</i></p> <p>Supports needle guidance and treatment delivery.</p> <ul style="list-style-type: none"> • TIPS: Shunt placement for patients with critical end-stage liver disease • Sclerotherapy: Injection of treatment solution into varicose veins • Endoleak Repairs • Line Placement and Drain Insertion • Tumor Biopsy, TACE, Y90 • AVM Embolization • UFE |
| XperGuide Ablation  | <p><i>Facilitate successful tumor coverage through precise ablation needle planning on CT, MR or XperCT</i></p> <p>Plan treatment path, support navigation, and reassess ablation needle locations during procedure.</p> <ul style="list-style-type: none"> • Tumor ablation through RF, cryo, and microwave • Commonly kidney, lung, and liver ablations |

Sales Review of Upgrades to Clarity

SmartPath will transform a legacy Xper system to AlluraClarity with next generation solutions while minimizing disruption through an easy and economical upgrade path that rewards customer loyalty. SmartPath provides customers access to the latest tools needed to help clinicians expand their clinical practice and improve workflow efficiency. Integris image intensifier based systems can be transformed to AlluraClarity via the Catalyst upgrade program with all the same benefits of the SmartPath Upgrade.

SMARTPATH PRODUCTS

- Flat Detector Upgrade to Clarity via SmartPath
- Image Intensifier Upgrade to Clarity via Catalyst

CLINICAL PROCEDURES

Clarity upgrades are available for all clinical segments and procedure mixes. Clarity offers the opportunity for customers to expand their practice in the room they are used to working in while having access to the latest advances in image guided therapy.

COMPETITION

SmartPath and Catalyst upgrades to Clarity can help fend off the competition and help Philips retain the socket.

- First, a Catalyst upgrade can discourage competitive bids when SmartPath is bundled with a new system sale for enhanced competitive leverage.
- Second, a well placed SmartPath upgrade can increase NPS for better positioning for new systems in future years.
- Third, SmartPath and Catalyst allows Philips to sell to a customer base locked into a competitive group buy agreement by upgrading an existing system and retaining the Philips socket.

We create the SHORTEST PATH to the BEST CARE at the LOWEST COST

SHORTEST PATH

- Utilize existing infrastructure for reduced construction time.
- Shorter installation times due SmartPath upgrade approach

BEST CARE

- ClarityIQ - Exceptional image quality at ultra-low dose
- Access to the last technology to support image guided therapy
- Dose savings for lengthy procedures

LOWEST COST

- Minimally invasive image guided therapy reduce patient recovery time
- Shorter learning curve for staff because of experience with Philips systems
- Cost efficient upgrade

"We had older labs in place and wanted the best state-of-the-art equipment available on the market"

Lowell F. Sadler, M.D, Director Interventional Cardiology, Washington Hospital Center, Washington, D.C

WHAT DOES CLARITY BRING?

The transition to the AlluraClarity platform brings the customer high quality imaging at ultra-low dose levels. Clarity offers an improved staff environment through active management of scatter radiation. The dose management of Clarity also allows for longer treatment of high risk patients.

| System | Upgrade |
|---|----------------------|
| Integris H5000 Integris BH5000 Integris Allura Family | Catalyst Upgrade |
| Allura Xper FD10 Rel. 1 Allura Xper FD20 Rel. 2 | SmartPath to Clarity |
| Allura Xper Family Release 3 to 7.2 | SmartPath to Clarity |
| Allura Xper Family Release 7.6 to 8.1 | SmartPath to Clarity |

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Segment Overview: Hybrid Surgery

Hybrid Surgery is rapidly becoming the largest growth segment within iXR. Hybrid suites are designed to provide optimal image quality in surgical settings augmenting CV, Neuro, Orthopaedic, Thoracic and Trauma surgery. The need for hospitals to design a Hybrid space consist of (1) attracting referring physicians and patients, (2) a required standard of care for several device companies, (3) enhancing community reputation as best practice.



PHILIPS HYBRID SOLUTIONS

Allura Xper FD20 Ext. Rails
Allura Xper ORT
Allura Xper Bi-Plane
Allura Xper w/FlexMove
AlluraClarity
HeartNavigator
EchoNavigator

HYBRID SURGERY PROCEDURES

- Cardiac-TAVI/TAVR, MIDCAB, PCI, Valve
- Neuro-Stroke Tx's, AVM, Spine
- Vascular-EVAR, TEVAR, Revascularization

PRIMARY COMPETITORS

Philips-(NA CV market share 43%) faces significant competition especially in the Hybrid space from SMS (33%), GE with (16%) market share followed by Toshiba with (8%).

KEY DIFFERENTIATORS

- AlluraClarity- high quality, low-dose imaging. Automatic pixel shifting and noise reduction for superior image quality during device deployment. Clinical proof, SMS claims low dose-but lacks data.
- Proven experience with over 500 installs worldwide.
- EchoNavigator is an exclusive capability that provides superior assistance in SHD procedures.
- Fully integrated OR Table solution-partnered with Maquet.

We create the SHORTEST PATH to the BEST CARE at the LOWEST COST

SHORTEST PATH

- Flexibility for procedure range and shared labs
- Emphasis on workflow efficiency

BEST CARE

- Ultra-low dose
- Navigation on Fluoroscopy
- Less invasive
- More complex procedures
- Proven Documented Technology

LOWEST COST

- Reduce staff time?
- Provide cost efficient upgrades
- Less expensive procedures?
- Improve workflow?
- Shorter length of stay?
- Lower infection rates?

"I regard advances in imaging as one of the hottest new areas for vascular surgeons and vascular specialists"

-Dr. Frank Veith – Vascular Surgeon, Cleveland Clinic, NYU Cardiac/Vascular Institute

WHAT DO CARDIAC/VASCULAR/NEURO SURGEONS CARE ABOUT?

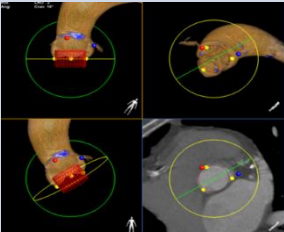
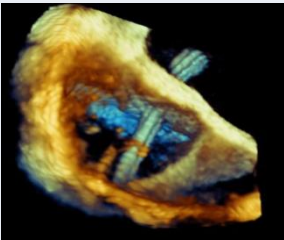

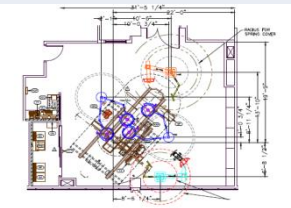

Physicians and administrators are looking to create a completely integrated room that can be configured as a multipurpose space, adding clinical and financial value to the facility. They rely on our third party collaboration in room design and functionality. They appreciate increased room utilization, enhanced patient care, critical time savings, increased patient referrals and attracting highly skilled physicians.



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Segment Overview: Hybrid Surgery

| PHILIPS TOOL | COMMON PROCEDURES |
|---|---|
| <p>Heart Navigator</p>  | <ul style="list-style-type: none"> Provides support in planning of the procedure and provides additional live image guidance during the procedure. (TAVR/TAVI) <ul style="list-style-type: none"> Pre-op evaluation of cardiac CT to determine valve sizing, optimal implantation projection and placement. Intra-operative utilization of virtual devices that provides enhanced catheter guidance for successful deployment. |
| <p>EchoNavigator</p>  | <ul style="list-style-type: none"> A <i>real time</i> imaging product that supports the procedure by combining both X-ray and 3D echo in an interactive, intuitive and procedurally relevant way. <ul style="list-style-type: none"> Atrial Septal Defect, Patent Foramen Ovale, Ventricular Septal Defect, Mitral Clip, Left Atrial Appendage Closure, TAVR, Paravalvular Leak, Pulmonary Valve Replacement, Septal Puncture and Valvuloplasty. |
| <p>FlexMove</p>  | <ul style="list-style-type: none"> With FlexMove, your ceiling mounted X-ray system can be moved more freely in the treatment area and parked nearby when not in use. You can move the X-ray system laterally and longitudinally on both sides of the table, so you can examine the patient without panning the table or becoming entangled with wires from ancillary equipment. <ul style="list-style-type: none"> Offers more flexibility Uncompromised imaging in sterile environment |
| <p>Room Design Team</p>  | <ul style="list-style-type: none"> Based on your procedures, case load, and clinical workflow, we create an integral design that incorporates lighting, booms, the OR table, monitor configuration, video switching, sterility measures and our imaging system. Wide range of options offering unparalleled customization Versatile ceiling options to fit your room size and layout Regular to extended ceiling rails and our flagship product-FlexMove |
| <p>CAMLS-Team Training</p>  | <ul style="list-style-type: none"> CAMLS interprofessional team training curriculum delivers procedure-based workflow training incorporating Hybrid OR concepts both in endovascular and cardiovascular cases, practical exercises and radiation safety training. <ul style="list-style-type: none"> Two-day course held in the only fully-functional hybrid OR in the world. Training up front decreases medical errors, enhances patient outcomes and helps achieve increased workflow. |