
PHILIPS
Computed tomography
For a legacy that lives large:
Think Big
Philips CT Big Bore

The **big question**

The world of cancer care is rapidly changing. The number of new cancer cases is expected to rise by about 70% over the next two decades*—driving increased demand for cancer care services.

All of which is compelling leaders in our field to ask:

- How can we maintain a patient-centric care experience as demand for cancer service increases?
- What imaging and technology options should we focus on to provide the most precise treatment planning?
- How can we streamline our processes to more effectively meet this growing demand?

* World Health Organization Cancer Fact Sheet, February 2015

Answers in **radiation oncology**

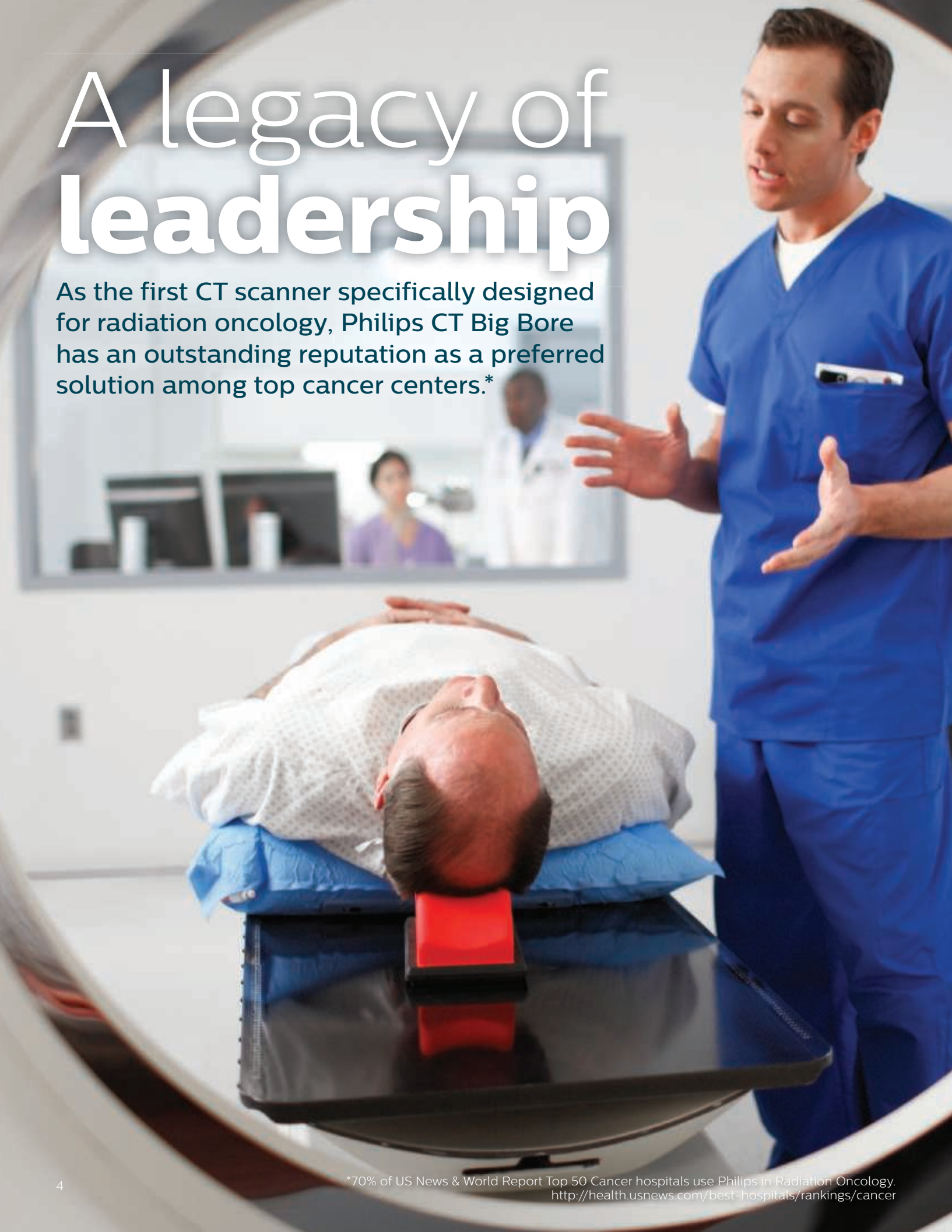
In radiation oncology, successful outcomes are measured by consistently and confidently moving patients into the right treatment plan. Which is where CT technology can help—by delivering accurate and reliable data for treatment planning for every cancer patient.

Big accuracy
Big efficiency
Big solutions
Big Bore

As the first CT scanner specifically designed for radiation oncology, Philips CT Big Bore delivers accuracy, superb imaging performance, an intuitive workflow, and quantitative integrity—empowering you to deliver precise treatment plans for your patients.

The Philips CT Big Bore:

1. Is built on a legacy of leadership.
2. Helps you make the big leap from scan to plan.
3. Features an intuitive workflow that is easy, efficient, and effective.



A legacy of **leadership**

As the first CT scanner specifically designed for radiation oncology, Philips CT Big Bore has an outstanding reputation as a preferred solution among top cancer centers.*

*70% of US News & World Report Top 50 Cancer hospitals use Philips in Radiation Oncology. http://health.usnews.com/best-hospitals/rankings/cancer

The “big firsts” of the **CT Big Bore:**

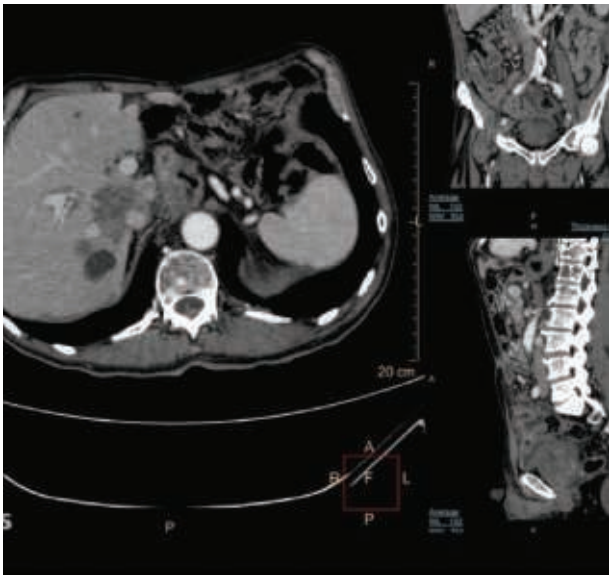
First to develop a large bore CT for positioning even complex patient setups.

First to develop a commercially available software algorithm for metal artifact reduction.

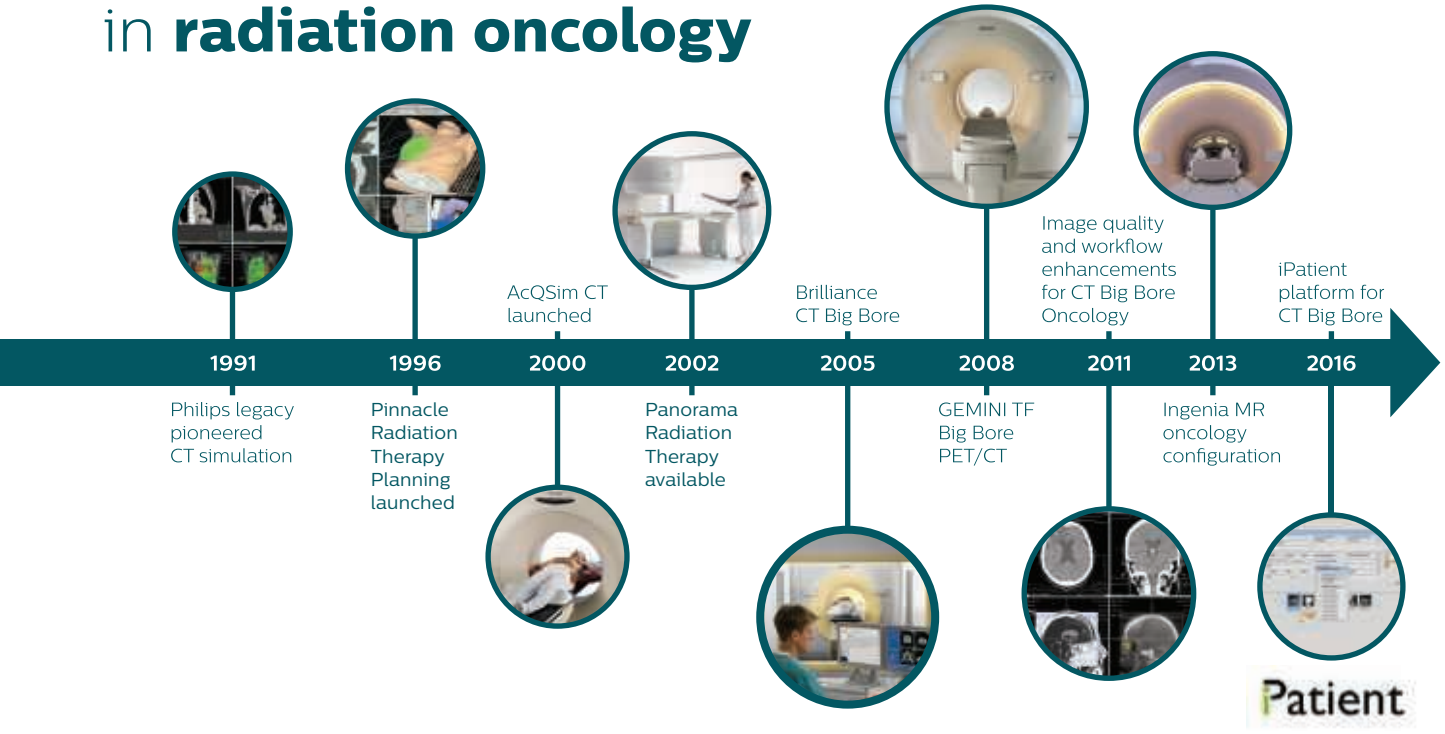
First for multislice helical 4D CT.

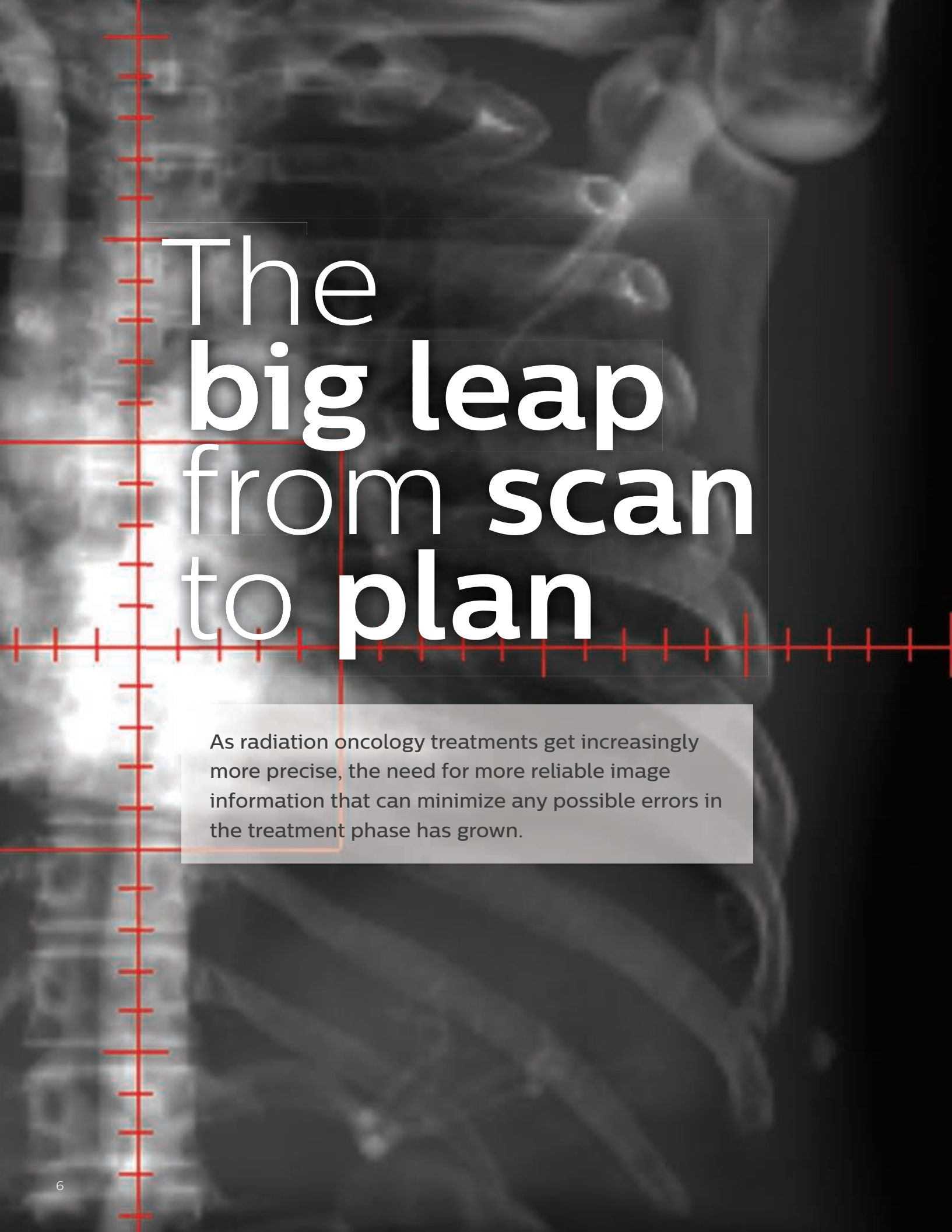
First wide scan field of view.

First commercially available on-line retrospective amplitude binning algorithm for irregular breathing patterns.



25 years of innovation in **radiation oncology**





The **big leap** from **scan** to **plan**

As radiation oncology treatments get increasingly more precise, the need for more reliable image information that can minimize any possible errors in the treatment phase has grown.

The Philips CT Big Bore is the first CT simulator designed and optimized to meet the specific treatment planning needs of radiation oncology, centering on:

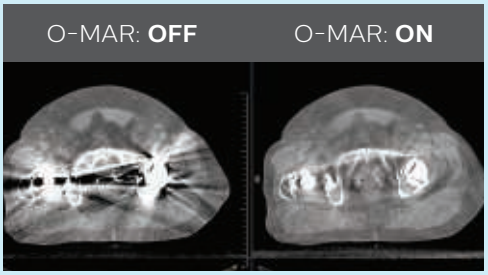
Accuracy: 60cm scan field of view (SFOV)
Ensures that image quality and Hounsfield Unit accuracy is maintained out to 60cm—critical to calculate tissue density in planning.

Patient positioning: 85cm patient aperture
Accommodates even complex patient setups and allows for imaging the patient in the optimal treatment position for accurate treatment planning.

Imaging performance: iDose⁴ and O-MAR
iDose⁴ improves image quality* through artifact prevention, noise reduction, and increased spatial resolution at low dose. O-MAR reduces artifacts caused by large orthopedic implants and improves visualization of organs and structures. Together, they produce high image quality with reduced artifacts.

Motion evaluation: 4D CT tools
Evaluate motion of the tumor and critical organs during breathing to aid in making clinical decisions regarding the size of the target volume and gated treatment delivery. The resulting images are used to identify a target volume that encompasses the entire range of tumor motion.

"Increased SFOV allows for full visualization of larger patients and immobilization devices. This feature is important to fully assess patient external dimensions, which are necessary for accurate doses and monitor unit calculation." [1]



"O-MAR corrected images are more suitable for the entire treatment planning process by offering better anatomical structure visualization, improving radiation oncologists' confidence in target delineation." [2]

*Improved image quality is defined by improvements in spatial resolution and/or noise reduction as measured in phantom studies.

Easy Efficient **Effective**

The **big benefits** of better workflow

"User-friendly, fast, and well-functioning virtual simulation software with useful features and tools will be a determining factor for the success of a CT simulation program." [3]

All the innovations in the world won't matter if a scanner doesn't fit into the radiation oncology workflow. Which is where Philips' proprietary tools can make a big difference—providing comprehensive, intuitive, and consistent workflow that results in more confident care.

iPatient

Spend more time with the patient and less overall time on the procedure. Delivering dedicated oncology ExamCards, this advanced platform provides a standardized, patient-centered approach to imaging simulation with consistency from scan-to-scan.

Pulmonary Toolkit for Oncology

To evaluate how a tumor moves through the patient's breathing cycle, this comprehensive set of tools helps improve accuracy in treatment planning and therapy delivery, even in patients who have difficulty breathing regularly.

TumorLoc

This application provides fast and efficient tools for patient marking and simulation directly from the scanner console. This includes consistent and reproducible setup from simulation to treatment, the ability to localize isocenter for treatment targets, and palliative "Sim to Treat" tools that bypass simulation and go directly to treatment. Accurate and efficient workflow powered by the Pinnacle treatment planning system.

Philips helps you get the most out of your **customer service**

Philips is fully committed to helping you deliver the highest levels of cancer care. Our service innovations are designed to reduce time of repair and support an evolution towards fully predictive maintenance.

Expert training

Clinical Education specialists will ensure the timely set up of a workflow that best meets your needs

Integrated Health System monitoring

Predictive maintenance that leverages information from more than 400 health properties and over 3,000 date points

Onboard visual diagnostics

Advanced auto-diagnostic routines that offer faster failure identification and resolution

Expanded remote capabilities

Automated date collection and expanded diagnostic routines that can be executed remotely for real-time clinical support

Proactive remote monitoring

Remote teams of global experts who collaborate with local service and your staff to monitor performance, detect anomalies, and immediately repair or maintain your system without interrupting patient care

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While the impact Philips CT Big Bore can have on an organization is, clearly, big—none is bigger than the confidence that comes from partnering with a trusted, proven, innovative leader in radiation oncology.

Confidence that—even as the world of cancer care rapidly expands and changes—your organization will consistently move patients into the right treatment plan. Confidence that allows you, and your entire organization, to Think Big.

[1] "CT Simulation Refresher Course" Sasa Mutic, M.S., Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, MO 63110]

[2] "Clinical evaluation of a commercial orthopedic metal artifact reduction tool for CT simulations in radiation therapy", Li, et al, Medical Physics, Vol 39(12), pp7507–7517.]

[3] CT Simulation Refresher Course" Sasa Mutic, M.S., Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, MO 63110]

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Please visit **www.philips.com/bigbore**

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