

Leadership: Ultrasound

Tim Mickelson

December 5, 2001

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Agenda

- **What is Ultrasound**
- **Markets and Competitive position**
- **Winning with Clinical Excellence**
- **The Foundation for Continued Success**
- **Summary**

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What is Ultrasound?

High frequency sound waves are sent into the body and reflected as they encounter internal structures, producing echoes that are processed into an image



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Why Use Ultrasound?

- One of the most widely used diagnostic procedures available
- Safe, noninvasive, painless
- Inexpensive means of early diagnosis



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Typical Applications

- Abdominal
- Obstetrics
- Gynecological
- Pediatrics
- Vascular
- Cardiac
- Superficial



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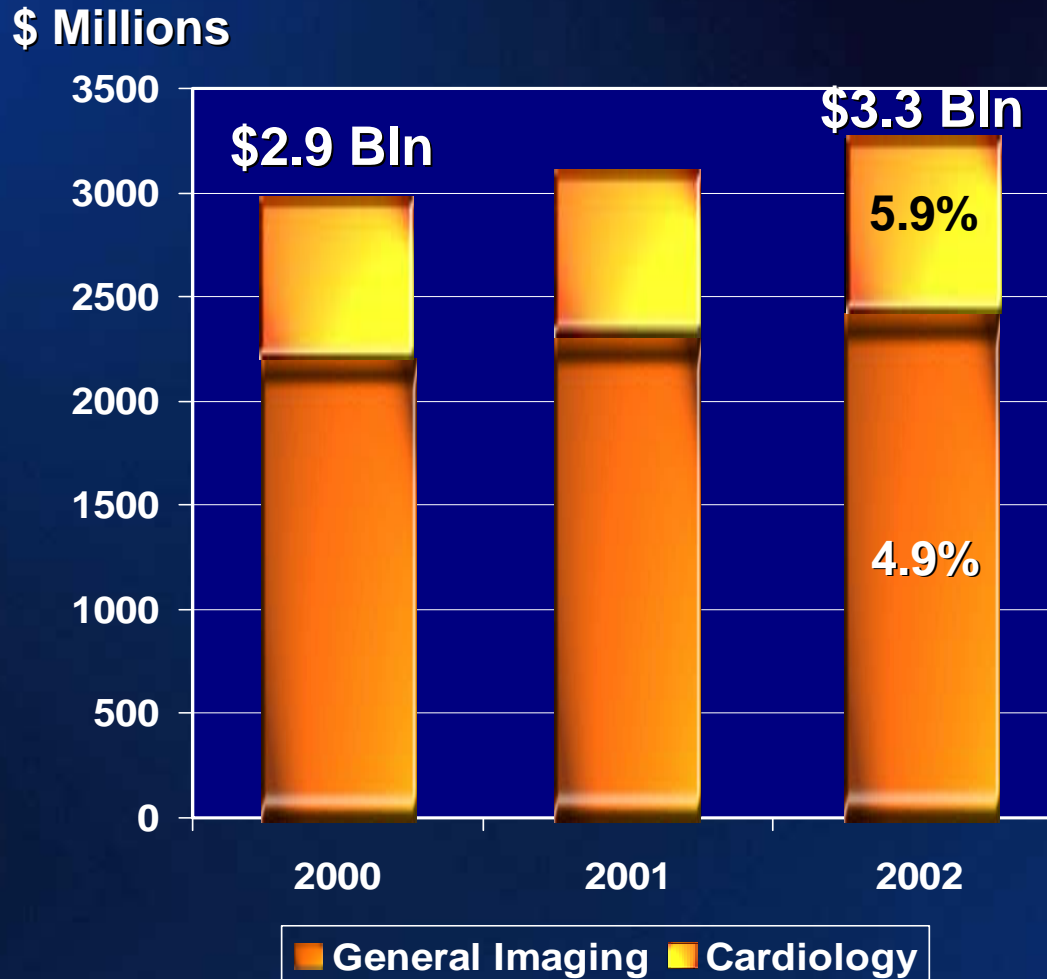
Markets

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Worldwide Clinical Markets

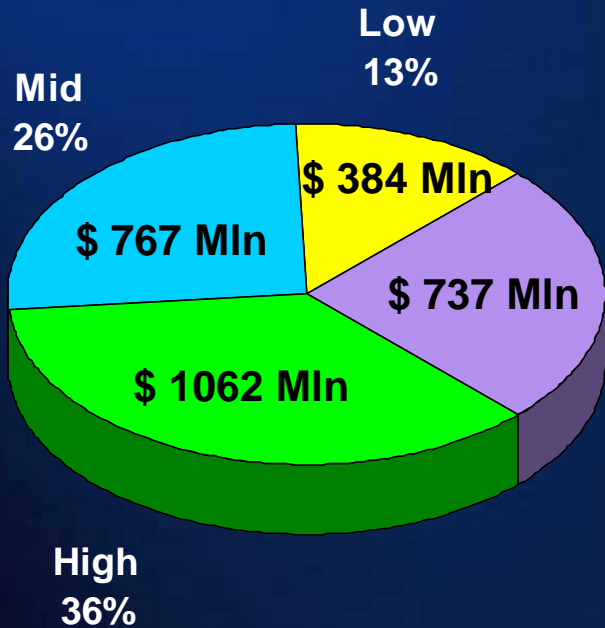


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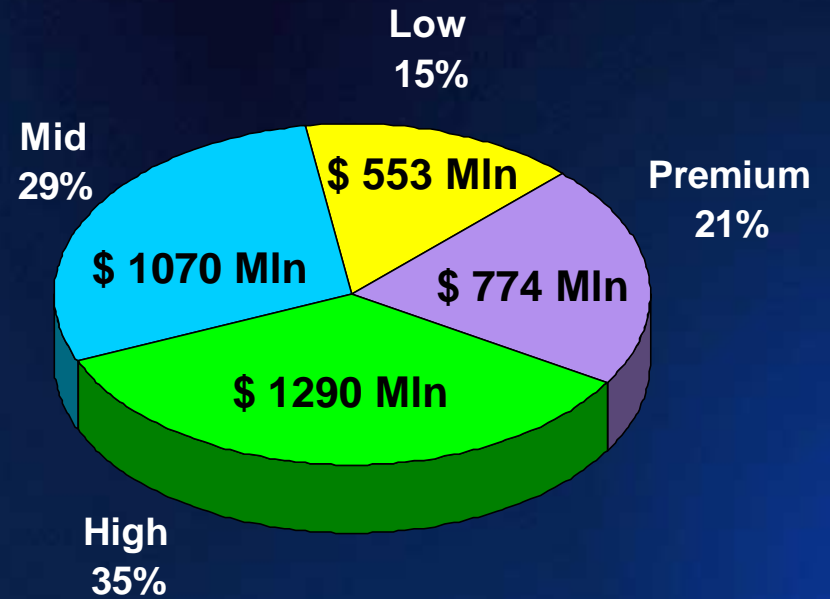


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Worldwide Performance Segmentation



2000
\$ 3.0 Bln



2004
\$ 3.7 Bln

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Market Drivers

- **Replacement of older obsolete systems**
 - New technologies such as SonoCT
 - New capabilities such as contrast agents
- **Expanded use of ultrasound in new clinical applications**
- **Continued trends in diagnostic imaging toward cost containment and lower reimbursement, both of which favor ultrasound**

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Competitive Positions

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Competition

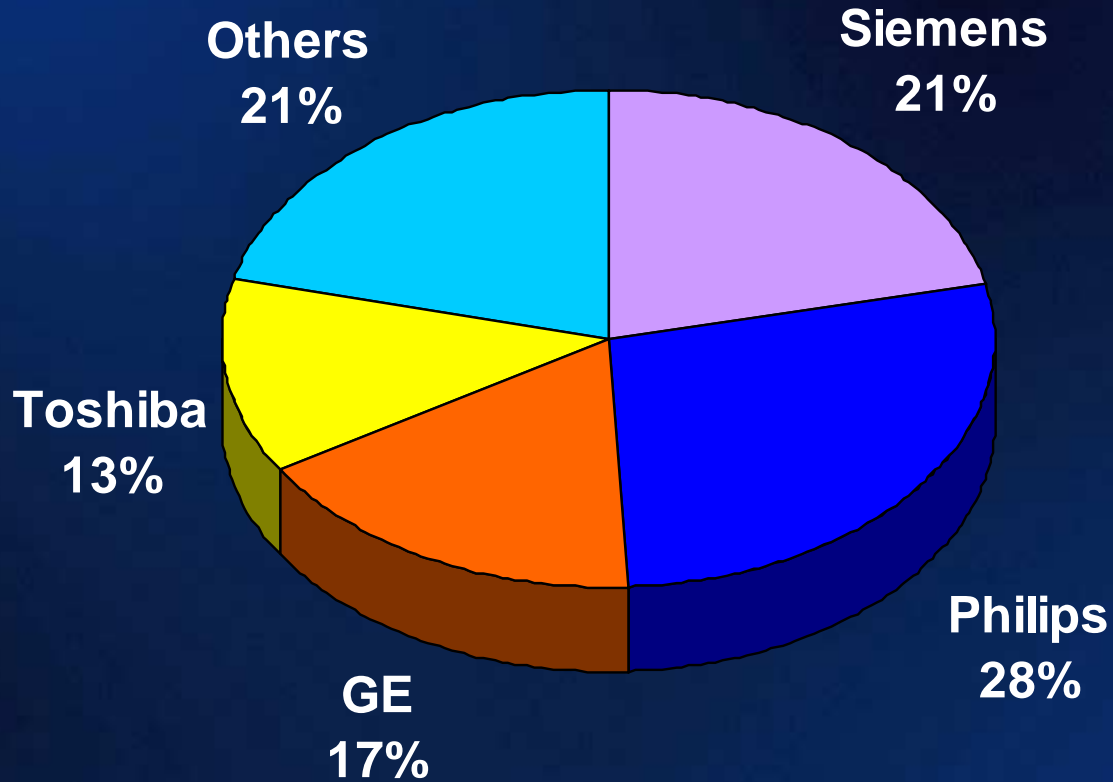
- **Philips**
 - #1 position worldwide
 - #1 position in cardiology after acquisition of Agilent HSG
- **Siemens**
 - #2 position worldwide
 - Strong cardiology position after acquisition of Acuson
- **GE**
 - #3 position worldwide following recent acquisitions
 - Product line covers all price points
- **Toshiba**
 - Strong player outside the U.S., especially in Asia
 - Product breadth in mid-range and low-end

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2001E WW Competitive Shares



\$ 3.1 Bln Market

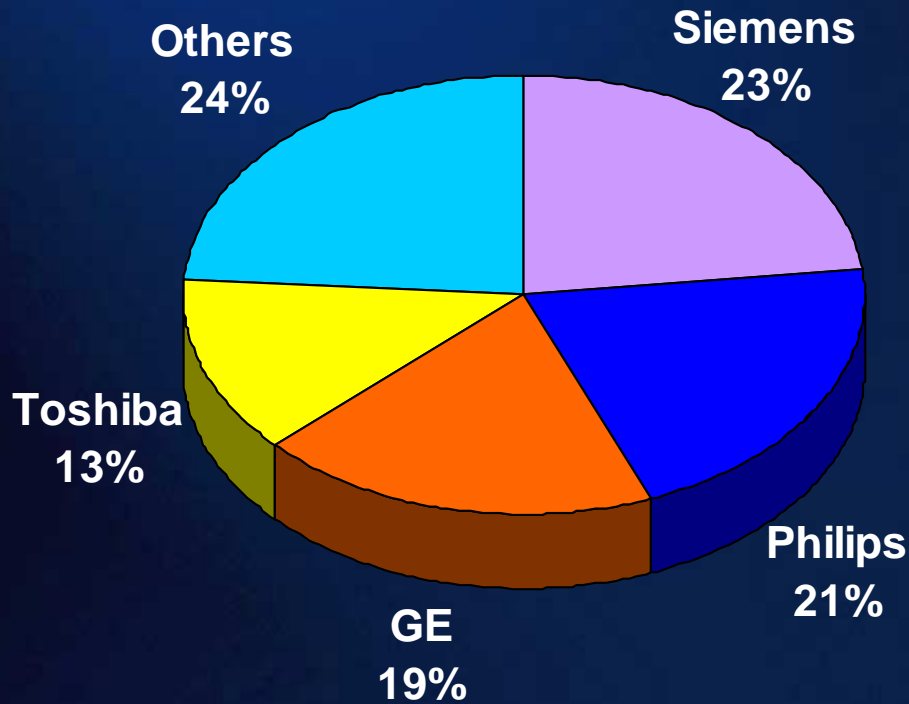
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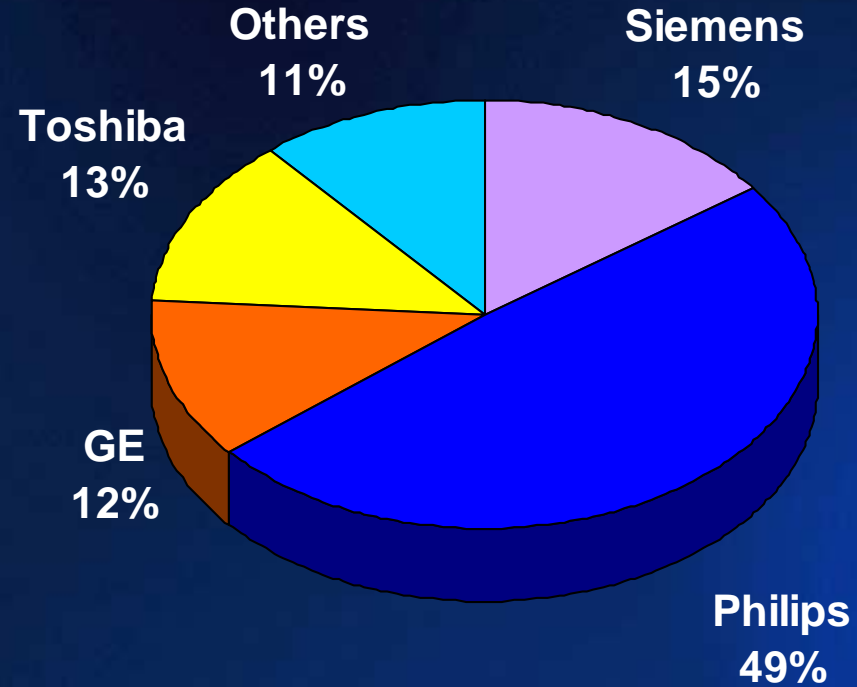
2001E WW Competitive Shares

General Imaging



\$ 2.3 Bln Market

Cardiology



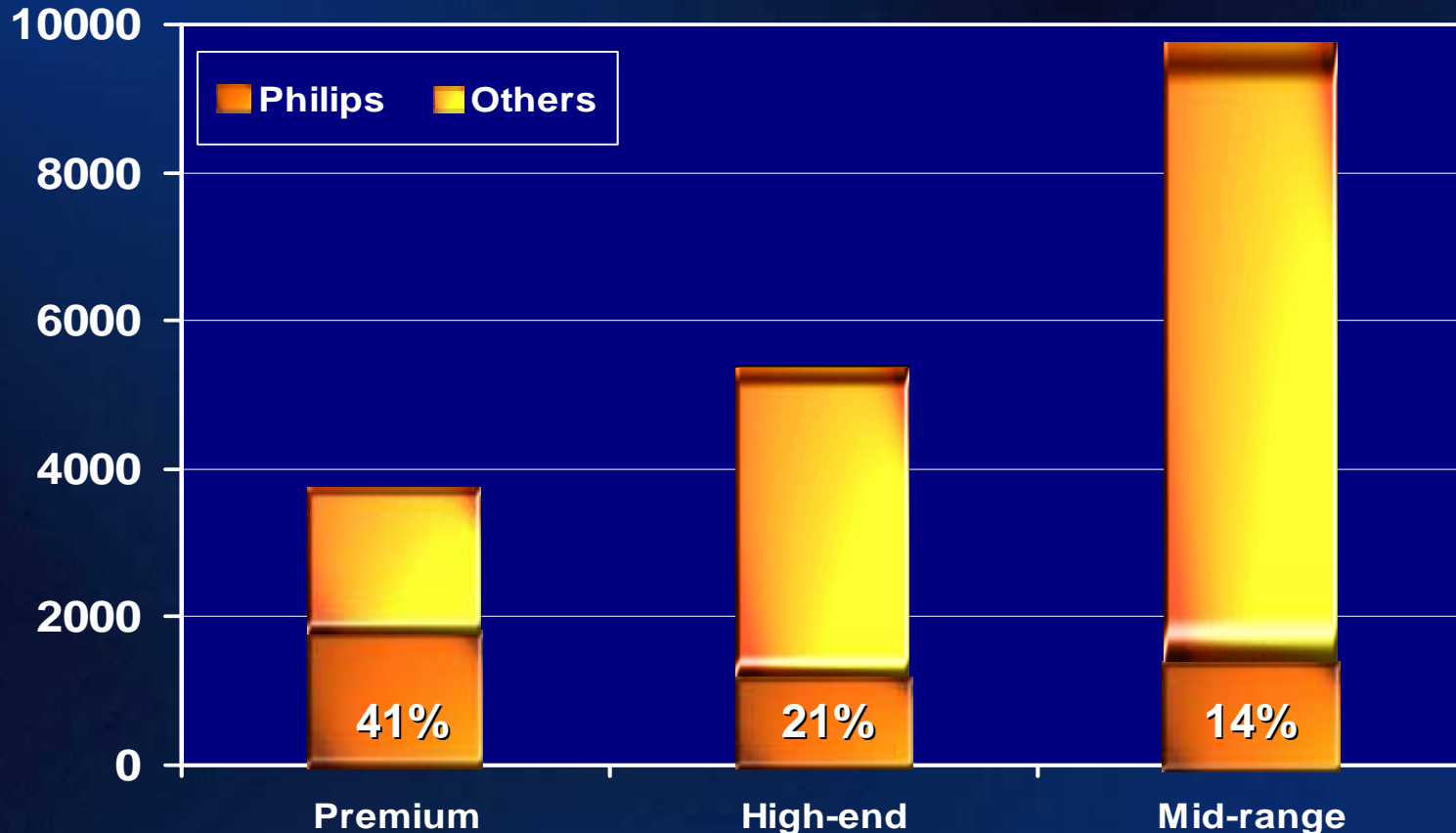
\$ 800 Mln Market

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Philips Market Share by Performance Segment in General Imaging (in units)



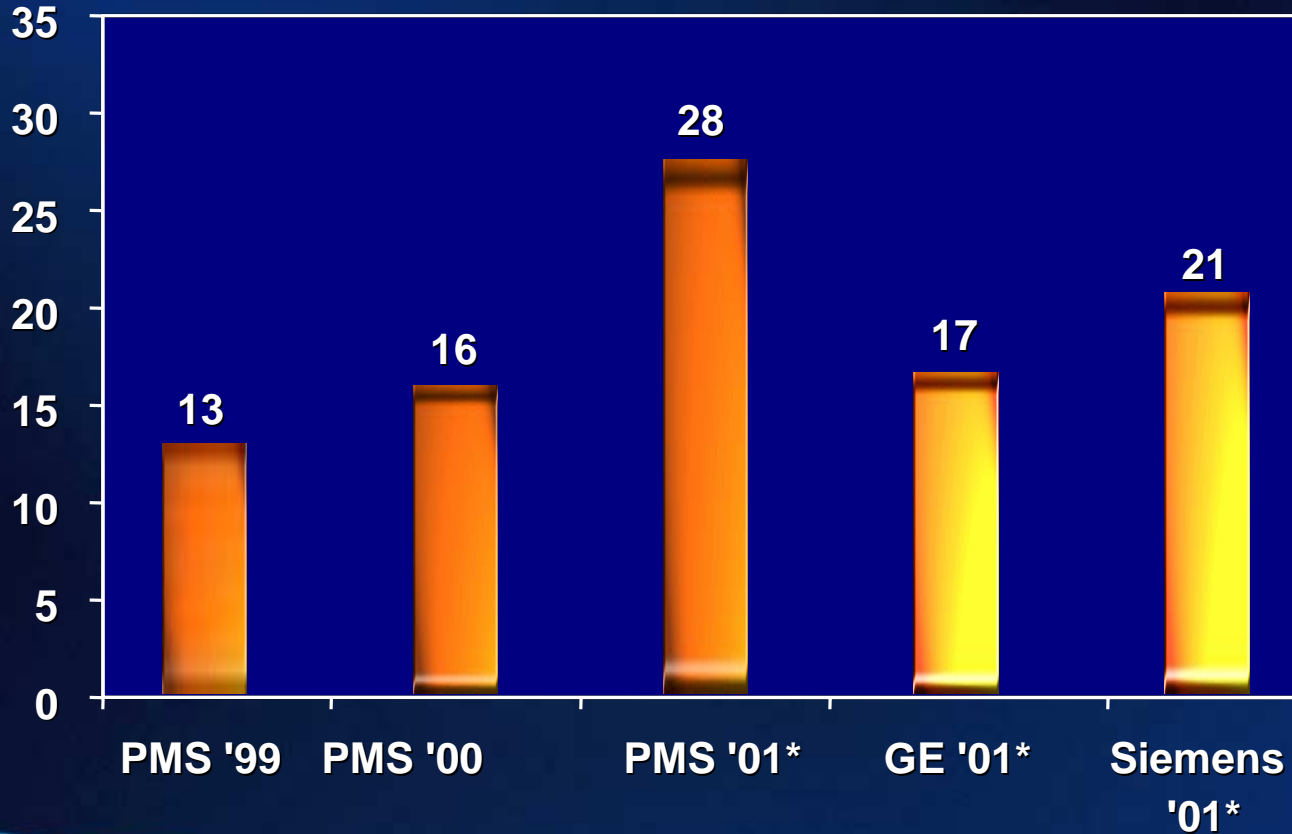
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Continued Market share growth equipment orders (%)

Ultrasound Total World



Source: Philips/various
* forecast

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Winning on Clinical Excellence

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History of Innovation

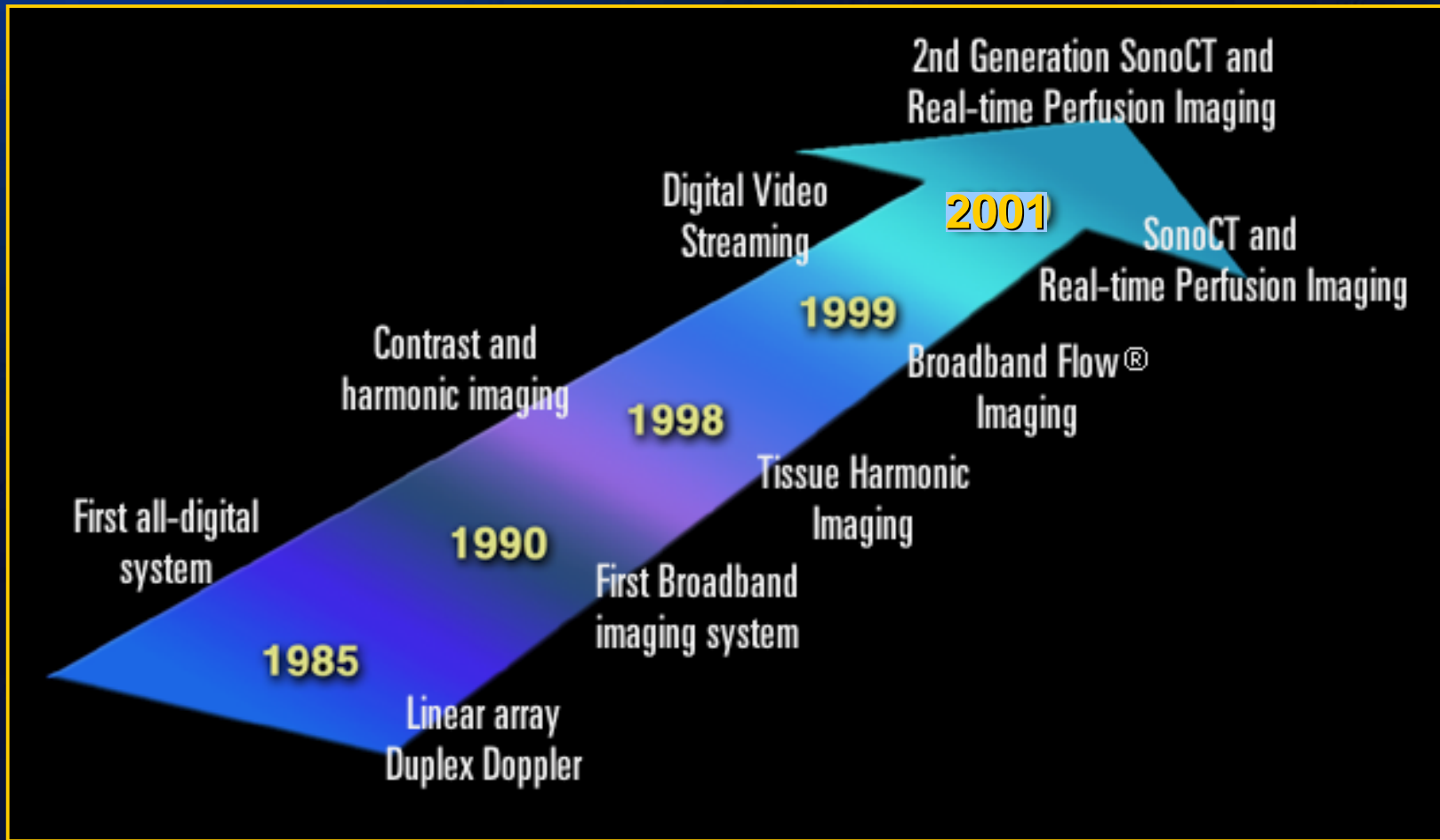
- **Designing products and features that meet customer needs**
- **Focused on clinical innovation that makes a difference in patient care**
- **Developing products and features that positively impact workflow**
- **Technology Innovations drive cost reductions:**
 - **earlier diagnosis saves costs and lives**

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Leader in Innovation



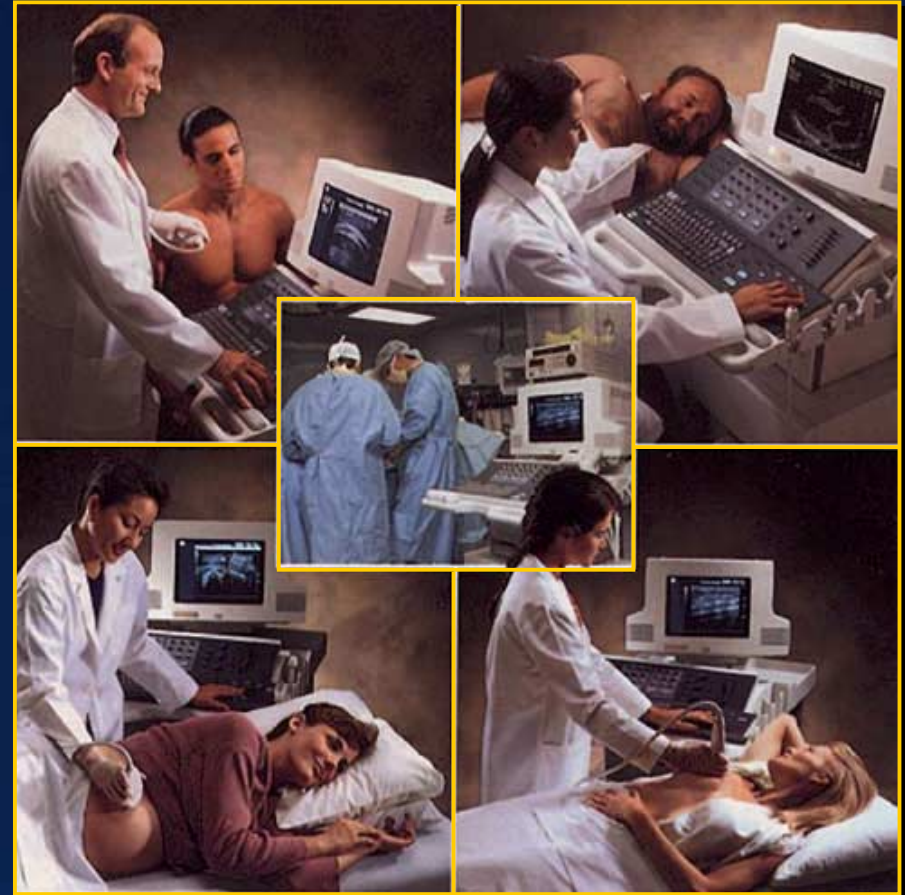
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Expanding Technologies

- High resolution imaging
- Easier to use
- Dynamic examination
- Patient comfort
- Mobile



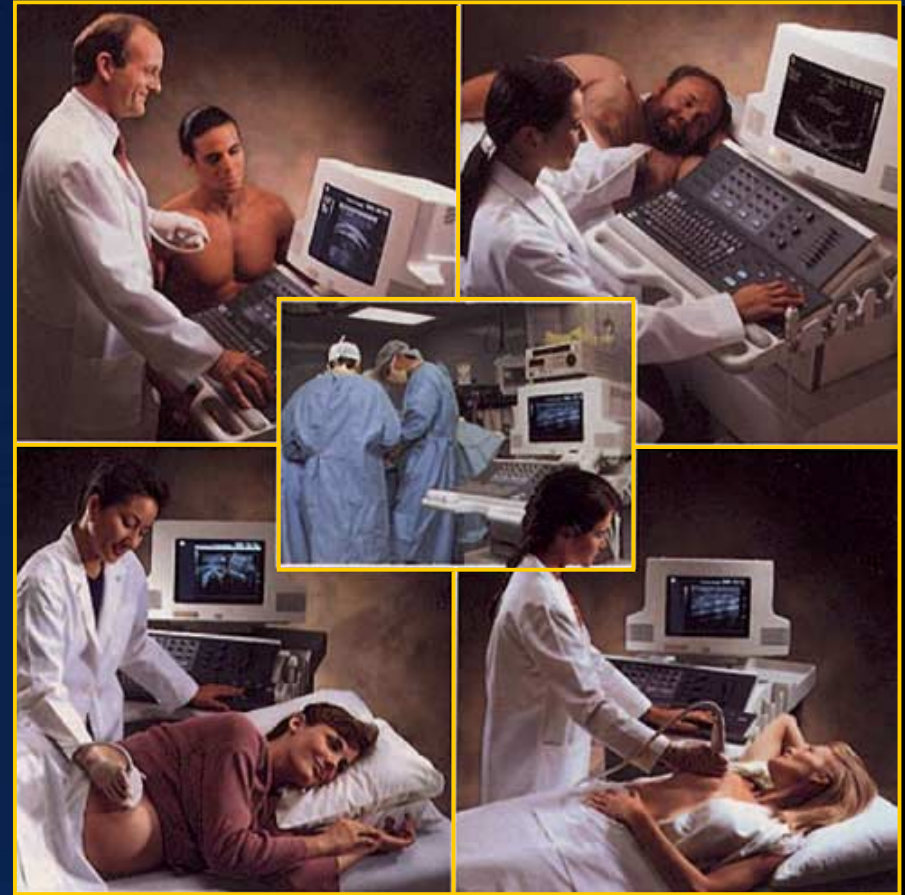
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Expanding Ultrasound Applications

- Breast
- Surgical
- Musculoskeletal
- 3D / 4D Imaging
- Contrast Imaging
- Stress Echo



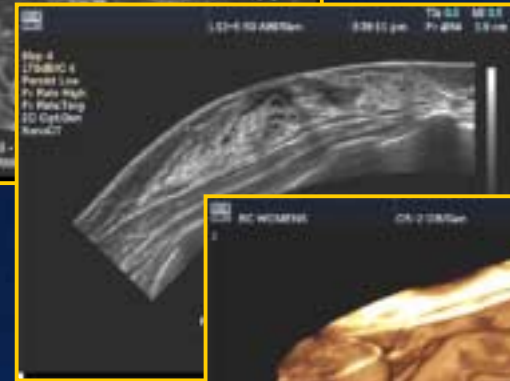
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SonoCT™ 9 lines of sight

- Fundamentally new way to form ultrasound images acquiring more tissue information
- Important part of highly successful product upgrade



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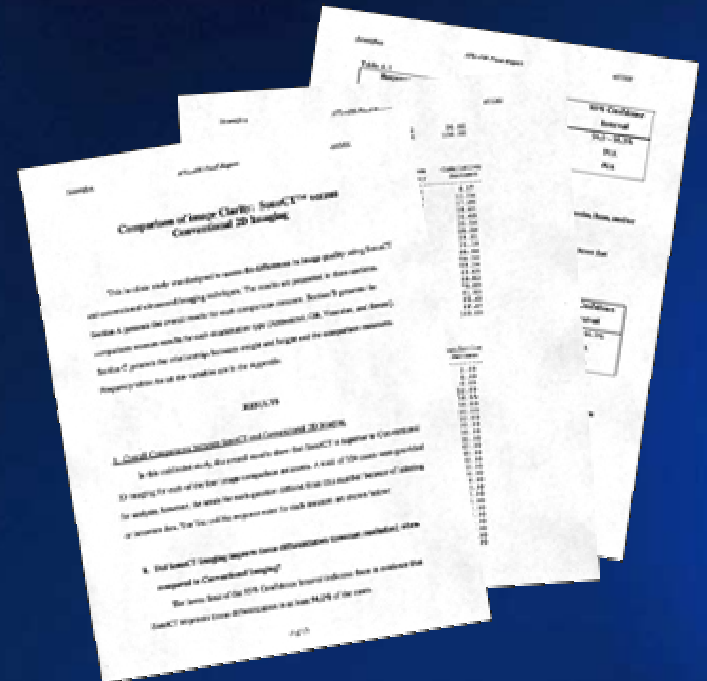


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SonoCT™ 9 lines of sight

Clinically Proven Technology

Improved tissue differentiation	96.6%
Reduced image artifacts	93.2%
Better delineation of borders/margins	95.9%
Better overall image quality	96.2%
Changed patient management	17.6%



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Clinical Excellence

Arthur C. Fleischer, M.D.

*Professor of Radiology & Radiological Sciences,
Professor of Obstetrics & Gynecology; Vanderbilt
University Medical Center; Nashville, Tennessee*

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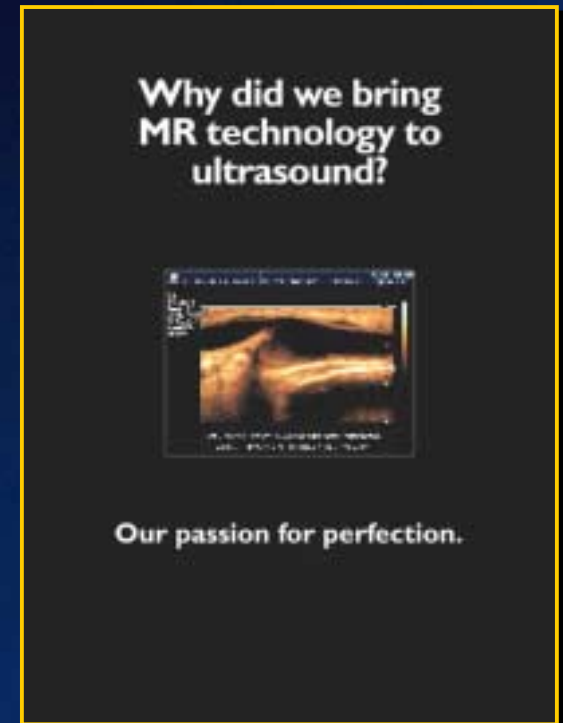


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SonoCT™ XRES

EXTREME RESOLUTION

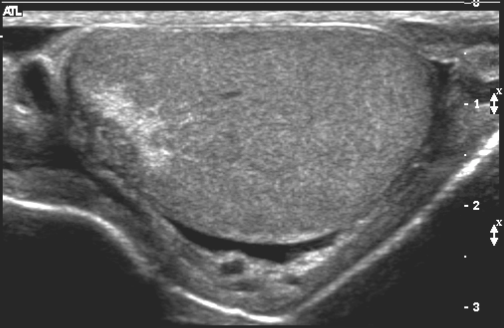
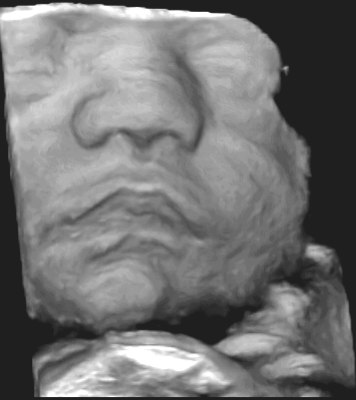
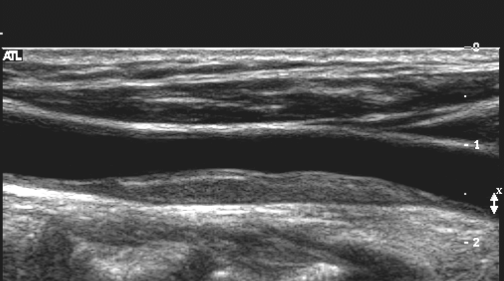

- New image processing technology from Philips Research developed for X-ray and MR imaging
- Algorithm refined by BL Ultrasound to operate in real-time applications
- Final XRES algorithm is being evaluated for use in real-time MR Angiography



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<p>TESTICLES 01/06/14:135904 L12-5 50 SmPrt/Testi</p> <p>14 Jun 01 2:36:19 pm</p> <p>TIs 0.0 MI 0.48 Fr #244 3.2 cm</p> <p>Map 3 170dB/C 4 Persist Off 2D Opt:FSCT Fr Rate:Targ SonoCT™ XRes™</p> 	<p>BC WOMENS L12-5 50 OB/Gen</p> <p>3:28:50 pm</p> <p>TIs 0.0 MI 0.41 Fr #98 7.9 cm</p> <p>3</p>  <p>ATL 3D</p>
<p>Duke Univ. Medical Center L12-5 50 CVasc/Car</p> <p>11:43:29 am</p> <p>TIs 0.0 MI 0.37 Fr #226 2.4 cm</p> <p>Map 2 170dB/C 3 Persist Off 2D Opt:FSCT Fr Rate:Surv SonoCT™ XRes™</p>  <p>COMMON CAROTID PLAQUE SonoCT™ IMAGING WITH XRES™ TECHNOLOGY</p>	<p>BURTON, CAROL DUMC</p> <p>BG8874 C5-2 Abdl/Gen</p> <p>25 Jun 01 4:39:43 pm</p> <p>TIs 0.4 MI 1.3 Fr #2 14.7 cm</p> <p>Map 3 170dB/C 2 Persist Off 2D Opt:FSCT Fr Rate:Surv SonoCT™ XRes™</p> 

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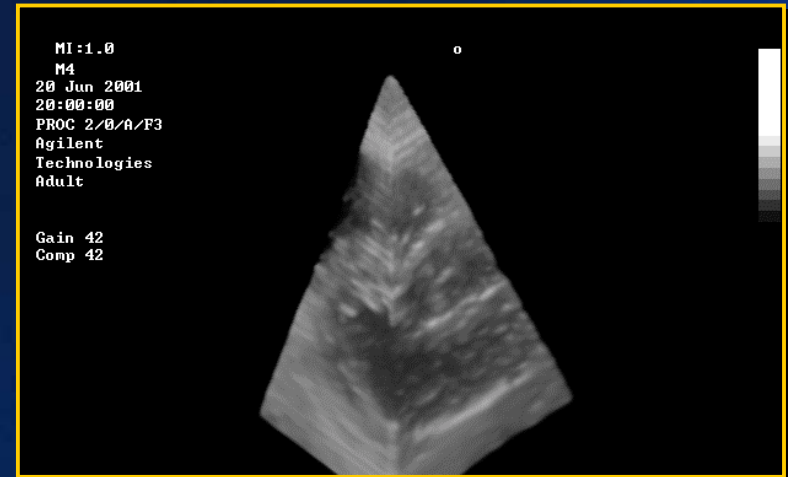
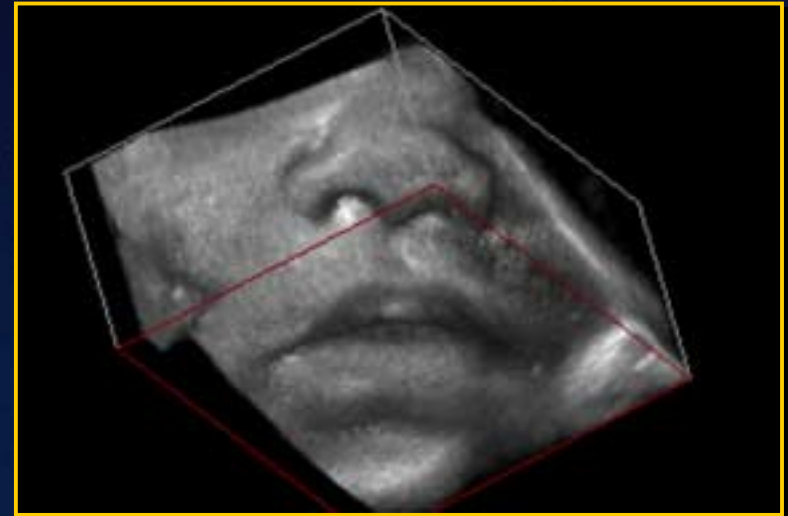


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Emerging Technologies

3D / 4D Imaging

- Advancements in processing speed and rendering software
- Rapidly visualize multiple planes to speed examination
- Obtain new diagnostic information
- New Live 3-D on the Sonos 5500



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Targeting the Mid-range – our largest opportunity

- Reorganized Business Line Ultrasound so that dedicated resources are focused on mid-range price segment
- Strategic relationship with Medison
- More investment in R&D specifically for the mid-range

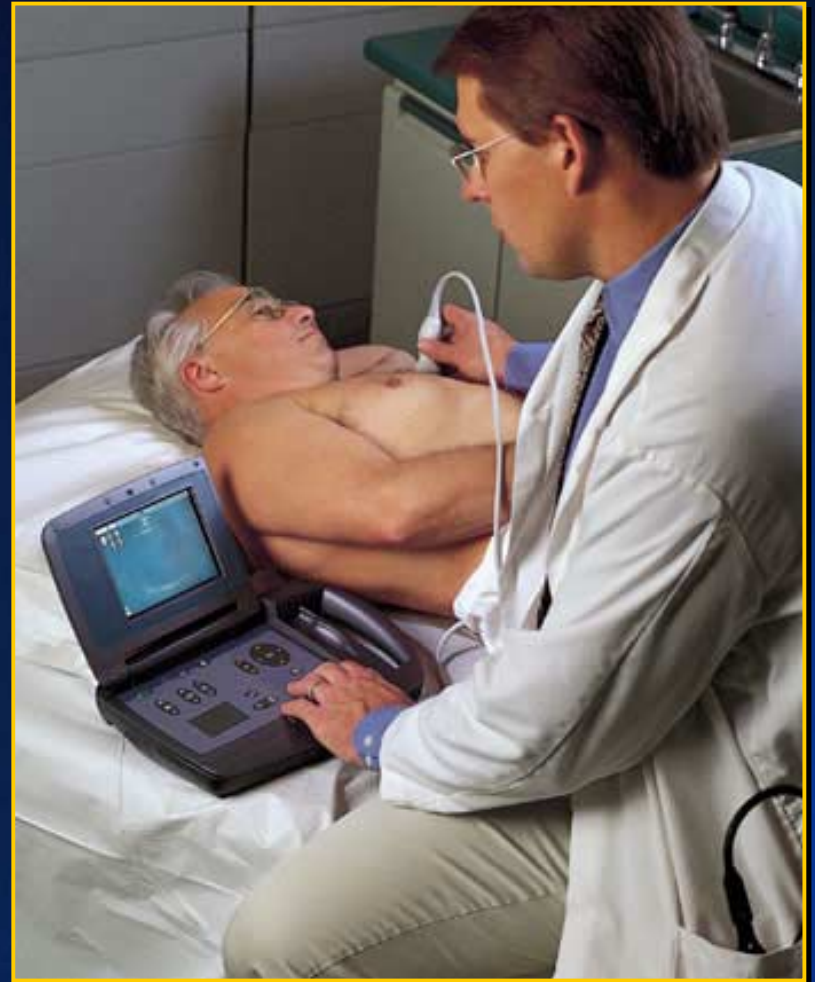
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Point of Care Ultrasound

New OptiGo
a visual stethoscope



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Top-rated Customer Support

- **Rated #1 in customer support for cardiology 8 years in a row**
- **Rated #1 in customer support for general imaging/ women's health 3 years in a row**

Source:

Annual ServiceTrak survey by International Market Ventures, Ltd

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**Over 70,000 Philips
ultrasound systems in use
in hospitals, clinics, offices
and imaging centers
worldwide**

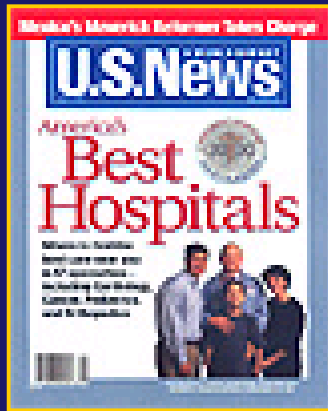
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Top 50 US Cardiac Hospitals

- 1 Cleveland Clinic 2 Mayo Clinic, Rochester, Minn. 3 Massachusetts General Hospital, Boston 4 Johns Hopkins Hospital, Baltimore 5.Brigham and Women's Hospital, Boston 6 Duke University Medical



**Over 98% have Philips
ultrasound systems**

35 Rush-Presbyterian-St. Luke's Medical Center, Chicago 36 St. Luke's Hospital, Bethlehem, Pa. 37 Sentara Norfolk General Hospital, Norfolk, Va. 38 St. Vincent Hospital and Health Center, Indianapolis 39 Howard University Hospital, Washington 40 Cedars-Sinai Medical Center, Los Angeles 41 Sinai Hospital of Baltimore 42 Spectrum Health, Grand Rapids, Mich. 43 North Shore University Hospital, Manhasset, N.Y. 44 Washington Hospital Center, 45 Mary Hitchcock Memorial Hospital, Lebanon, N.H. 46 Georgetown University Hospital, Washington, D.C. 47 Christiana Care Health System, Wilmington, Delaware 48 Christ Hospital, Cincinnati 49 St. Thomas Hospital, Nashville 50 Lankenau Hospital, Wynnewood, Pa.

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The Foundation for Continued Success

**A key ingredient for Ultrasound:
close collaboration with Philips Research**

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Ultrasound Leadership and Philips Research

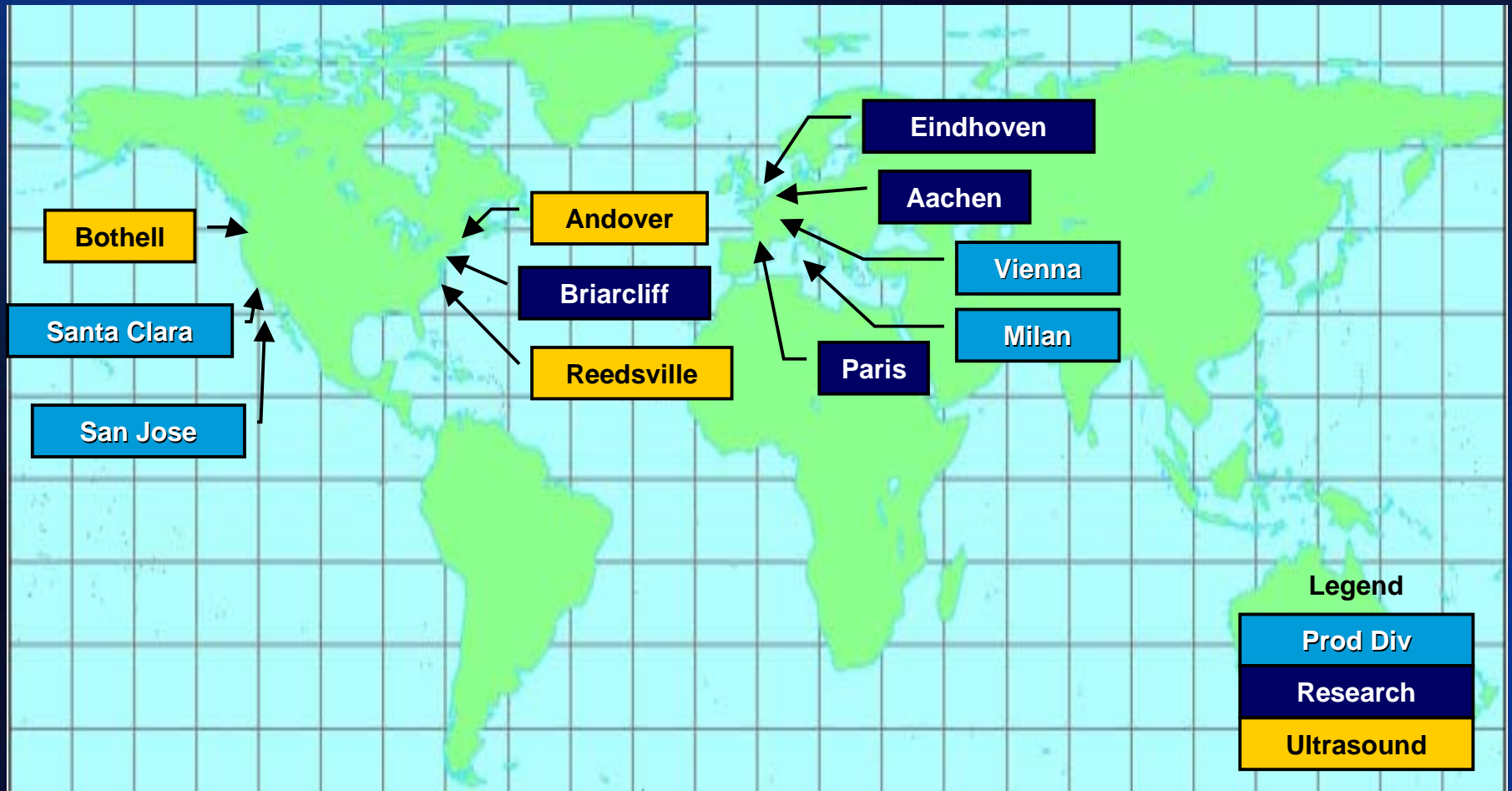
- **Further 3D visualization improvements for cardiology and general imaging**
- **Image processing improvements**
- **Dedicated body part imaging**
- **Materials development on new transducers**
- **Structured reporting**
- **Quantification for cardiology and general imaging**

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Utilizing worldwide resources



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Summary

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An Exceptional Future

- **Philips Ultrasound is the market leader with a strong offering**
- **We have dedicated focus on the greatest areas of future opportunity - the mid-range and new applications**
- **Our partnership with Philips Research means continued, rapid innovation that makes a clinical difference**

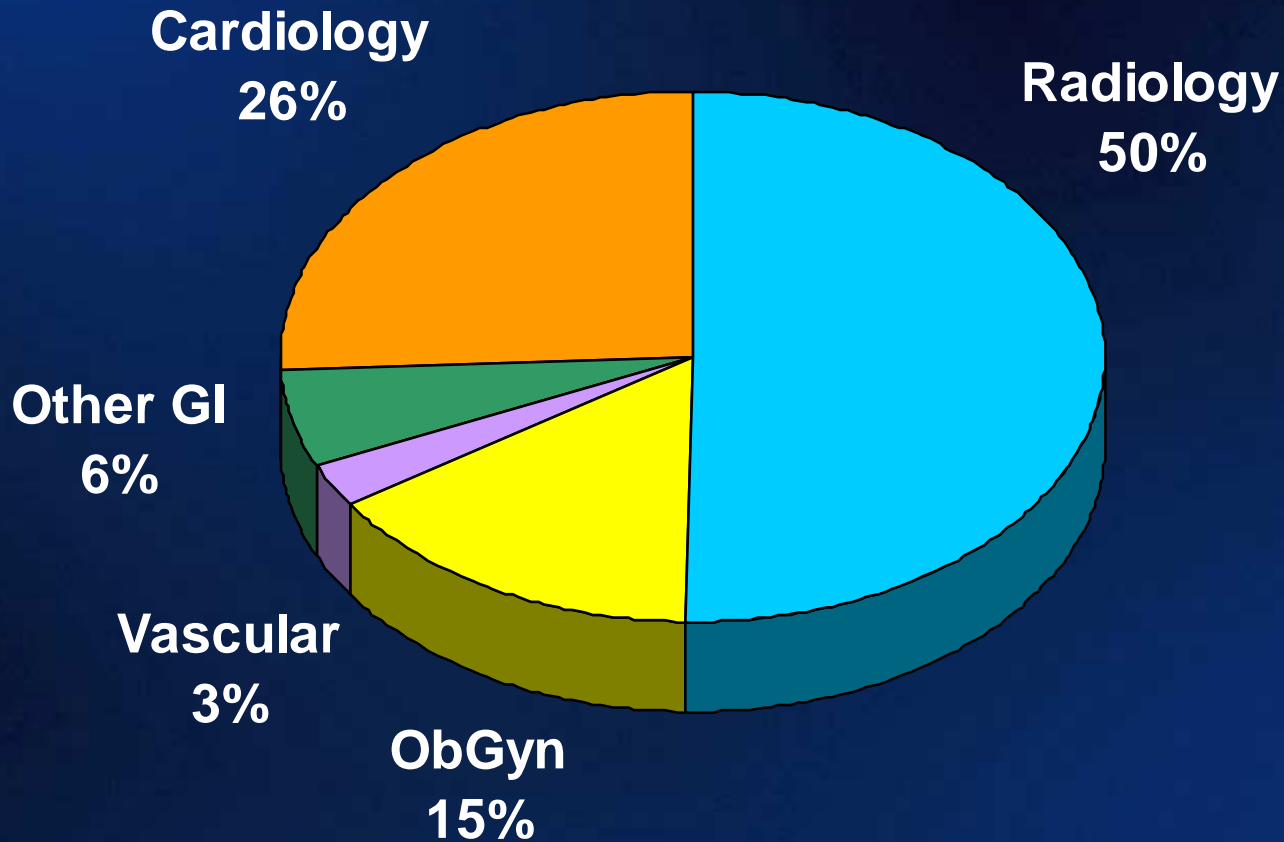
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2000 WW Ultrasound Clinical Segments



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