Comprehensive Breast Care.

Look Differently.

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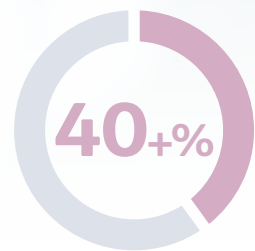
Invenia™ ABUS 2.0
Automated Breast Ultrasound

## The dense breast dilemma and our innovative solution

Over 40 percent of women have dense breast tissue,[1] one of the most common risk factors for developing breast cancer.[2] In dense breasts, cancers may be masked on mammography – potentially delaying diagnosis in these women.[3,4] Both dense breast tissue and cancer appear white on a mammogram. This creates a dangerous camouflage effect and a dilemma for radiologists. The goal is early detection of breast cancer to help avoid missing cancer diagnoses and increase clinical confidence.

### Personalized screening. Early detection. Peace of mind.

Physicians may use the individual risk factors to personalize the patient's breast care. When dense breast tissue is present, personalization may recommend adjunctive imaging such as ultrasound to help visually differentiate dense tissue from cancer.

40+%

40+% of women have dense breast tissue.

71%
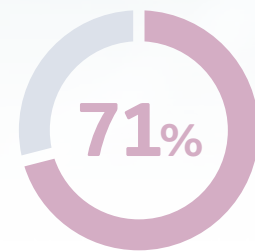
71% of cancers occur in dense breasts.[5]

1/3
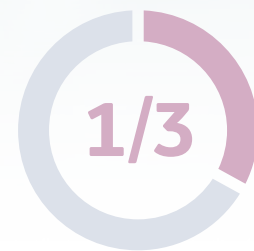
Mammography may miss 1/3 of cancers in dense breasts.[3]

The power of early detection

Small cancer. Big impact.

Supplemental imaging with Invenia ABUS 2.0 transforms breast care from reactive to proactive. Clinical research studies have demonstrated that when used as an adjunct to mammography, small cancers visible only through ABUS were predominantly invasive and node-negative.[6,7] Detecting them at this earlier stage has important prognostic implications and can reduce the cost of care.[8]

When breast cancers are found at Stage 1 and 2, **70%** of patients may avoid chemotherapy.[9]

Invenia ABUS 2.0 helps find small cancers when they are more treatable.[6,7]
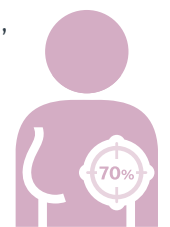
Benefits along the Breast Care Pathway

SCREENING ▶ DIAGNOSTIC ▶ STAGING ▶ MONITORING

ABUS provides great benefits in the screening and diagnostic phase to **locate lesions with precision** with double reading and virtual rescans, the 3D volume and coronal plane access, the radial and anti-radial views, and the wide field of view (FOV).

To support **more precise treatment planning**, the multiplanar ABUS views offer surgeons a complete view of the breast in 3D with a reproducible location of pathological findings. ABUS is a great tool for treatment planning and staging due to the coronal plane access, as the full extension of the breast cancer is demonstrated in a standardized view to provide an accurate assessment of the peritumor stromal involvement and potential multiplicity of the cancer.

Monitoring the early response under neoadjuvant chemotherapy is a **key element for successful treatment**. ABUS is a very promising tool, with its reproducible, standardized, and non-invasive behavior to support the monitoring process, as well for interim monitoring to allow individualized therapy.
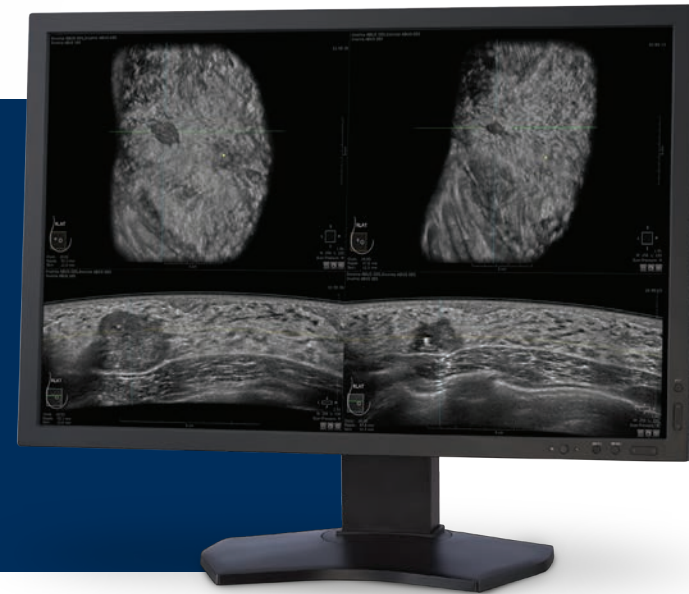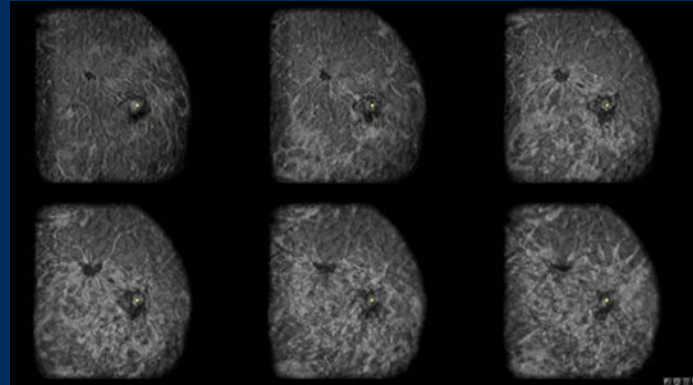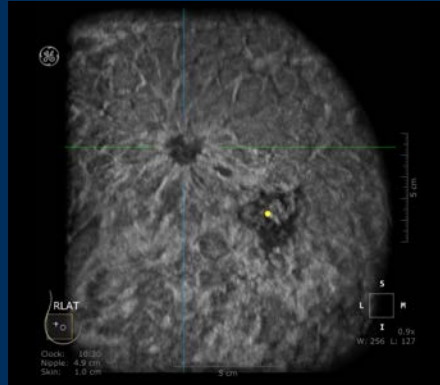
Impactful economic benefits

-1,05%
total economic impact

54 million €
savings to Italian NHS

An **Italian study**[10] analyzed the healthcare expenditure from a National Health Service (NHS) perspective over three years by looking at three breast screening pathways, considering the screening and diagnosis phases and the cancer care including treatment phase. The study showed implementation of Invenia ABUS technology could stimulate a significant decrease in the patients' care and cancer treatment phase, leading to a lower National Health Service resources absorption[10] with savings of over 50 million € for the Italian NHS when compared to the standard model with using mammography only.

The quality of efficient, reproducible exams

Invenia ABUS 2.0 uses the powerful **cSound™ Imageformer**, a software-based graphics processor, that provides a reproducible and operator-independent acquisition method to achieve consistent and high quality results. cSound imaging allows significantly more data to be collected and used to create every image. Traditional handheld ultrasound parameters such as focal zones and gain are automatically optimized. Because no image manipulation is required, high image quality is consistent from operator to operator with the touch of a button.

3D superior visualization over traditional handheld ultrasound

Invenia ABUS Viewer provides the coronal view, which acts as a roadmap for evaluating the entire breast. This global perspective offers better visualization of architectural distortions and multifocal disease. Reconstructed coronal slices display constant orientation and location from the nipple, making it easy to evaluate the breast from the skin line to the chest wall. Correlations with other projections and planes are easily achieved.
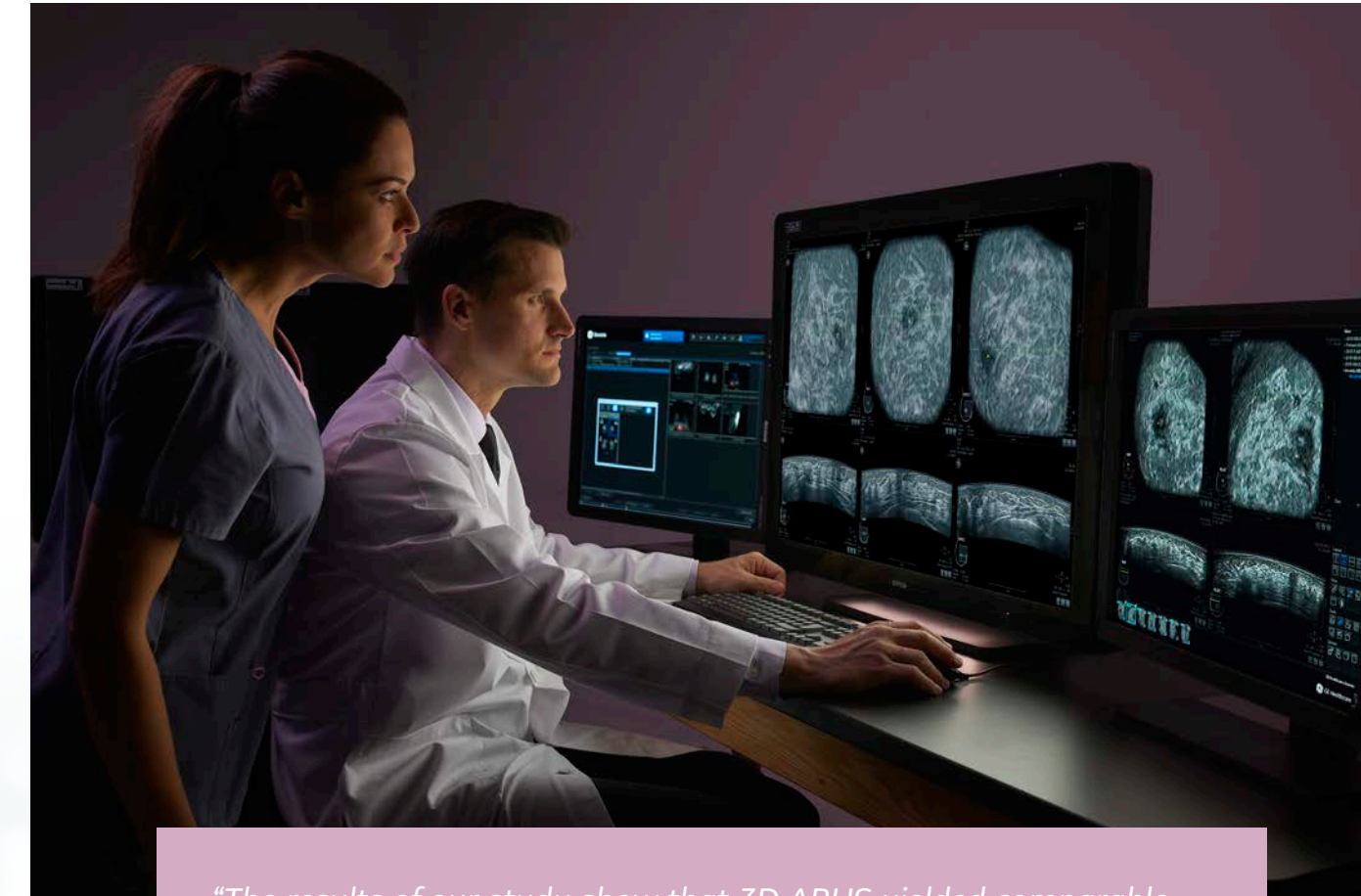
"The results of our study show that 3D ABUS yielded comparable results as handheld in the detection and characterization of breast lesions, and in some patients proved to be superior to handheld, especially in the detection of architectural distortions identified in the coronal reconstruction plane; a finding highly suspicious for malignancy."[11]

The combined power of ABUS and AI to improve clinical confidence

koios™

31%

DECREASE BENIGN BIOPSIES BY UP TO 31%[12]

AI Assistant* for easy and streamlined reading

The Invenia ABUS Viewer is designed for fast, efficient workflow for reading and reporting, allowing physicians to quickly review, interpret and archive patient exams. Based on Windows® 10 and powerful processing, the Invenia ABUS Viewer incorporates intuitive user interface icons and multiple viewing and hanging protocols, which can be customized by the user.

The Invenia ABUS Viewer, now with AI Assistant, enables integration of FDA-approved AI tools* for enhanced review of ABUS 3D datasets and seamlessly integrates intelligent algorithms to assist characterizing breast lesions.

AI Assistant enables seamless integration of GE and a third-party AI tool powered by Koios DS™ Breast.

Programmable hot keys enable users to define commonly used functions to help reduce keystrokes.

Three-view layout option displays a synchronized view of multiple acquisitions on a single screen, allowing physicians to efficiently evaluate and cross reference areas of interest from multiple angles and increase diagnostic confidence.

Auto Prior Compare allows physicians to easily compare a region of interest to prior exams.

The Invenia ABUS AI Assistant works as a **clinical coach** to help improve diagnostic confidence. AI tools may also help to reduce clinician learning curve and radiologist workload.

Outstanding patient comfort and personalization

The gentle shape of the 15.6 cm Reverse Curve™ transducer follows the natural contour of the breast for patient comfort and full contact to help ensure comprehensive coverage. Because no two women are identical, ABUS 2.0 enables adjustable scan depths, and unlocks scan head possibilities and selectable compression levels. With the touch of a button, the operator can also shorten scan time once breast tissue acquisition is complete.

GE Healthcare offers the first FDA-approved ultrasound supplemental screening that is specifically designed for detecting cancer in dense breast tissue.

With Invenia ABUS 2.0, your facility can offer personalized breast care with a comprehensive solution especially for patients with dense breasts.

100% of women conducted in a patient experience study[13] would recommend an ABUS exam to their best friend.

100%

Beyond technology
ABUS program integration, marketing and education

Implementation support

GE Healthcare takes a holistic approach to helping integrate Invenia ABUS 2.0 into your workflow. The latest enhancements with AI help reduce the learning curve for clinicians, and our dedicated support team is available to help you implement your ABUS program and make it a success. Users receive guidance and best practices from successful ABUS programs. Real-world digital marketing tools and professionally designed templates are available. Recommendations for educating key audiences, workflow options and marketing strategies help you launch your ABUS program. A complementary reimbursement hotline service is also available for providers.

Comprehensive education program

The Mastery Program for physicians is led by experienced and certified peer educators to help rapidly build confidence to read Invenia ABUS 2.0 images. Technologist training occurs on-site for your convenience and offers up to 8 CE credits for participants.

ABUS Club

Users have access to an online community that offers clinicians educational resources, marketing tools and best practices from ABUS users, to help implement, launch and grow their program.

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