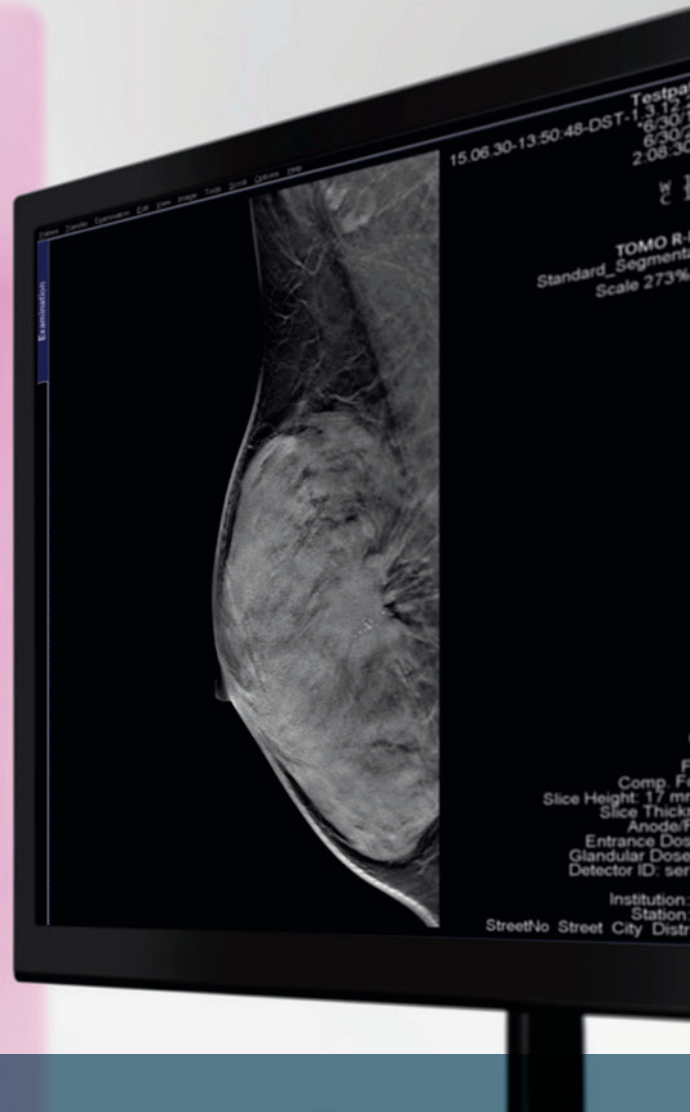


SIEMENS



[siemens.com/inspiration](http://siemens.com/inspiration)

# Mammomat Inspiration with PRIME Technology

The reference in low-dose mammography

Mammomat Inspiration  
with PRIME Technology:

The reference in low-dose  
mammography



# Imagine a system that looks familiar, but is different.

## PRIME Technology on Mammomat Inspiration.

As mammography screening entails the examination of thousands of healthy women, keeping dose as low as possible is extremely important. At the same time, high image quality is the key to detecting the smallest detail.

The continuous low-dose discussion challenged us to rethink and do what seemed impossible: develop a system that would be the new reference in low-dose mammography, without compromising on image quality – and it was through this that Mammomat Inspiration with PRIME Technology was born.

You can become the institution of choice by providing reference-quality mammography for your patients with Mammomat Inspiration and PRIME Technology.

### **Up to 30% less dose<sup>1</sup>, uncompromised image quality**

PRIME Technology allows dose to be reduced by up to 30%<sup>2</sup> without impairing image quality. Combining multiple dose-saving features, Mammomat Inspiration is the reference for low dose.

### **Greater comfort, relaxed patients**

The appealing system design, intelligent OpComp compression feature and calming MoodLight work together to provide a clear benchmark in patient comfort.

### **Easy-to-use, outstandingly quick**

Single-Touch Positioning and one-click-to-image make Mammomat Inspiration outstandingly quick and set the standard in ease of use.

### **HD Breast Tomo, trust in what you see**

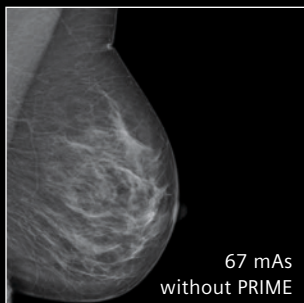
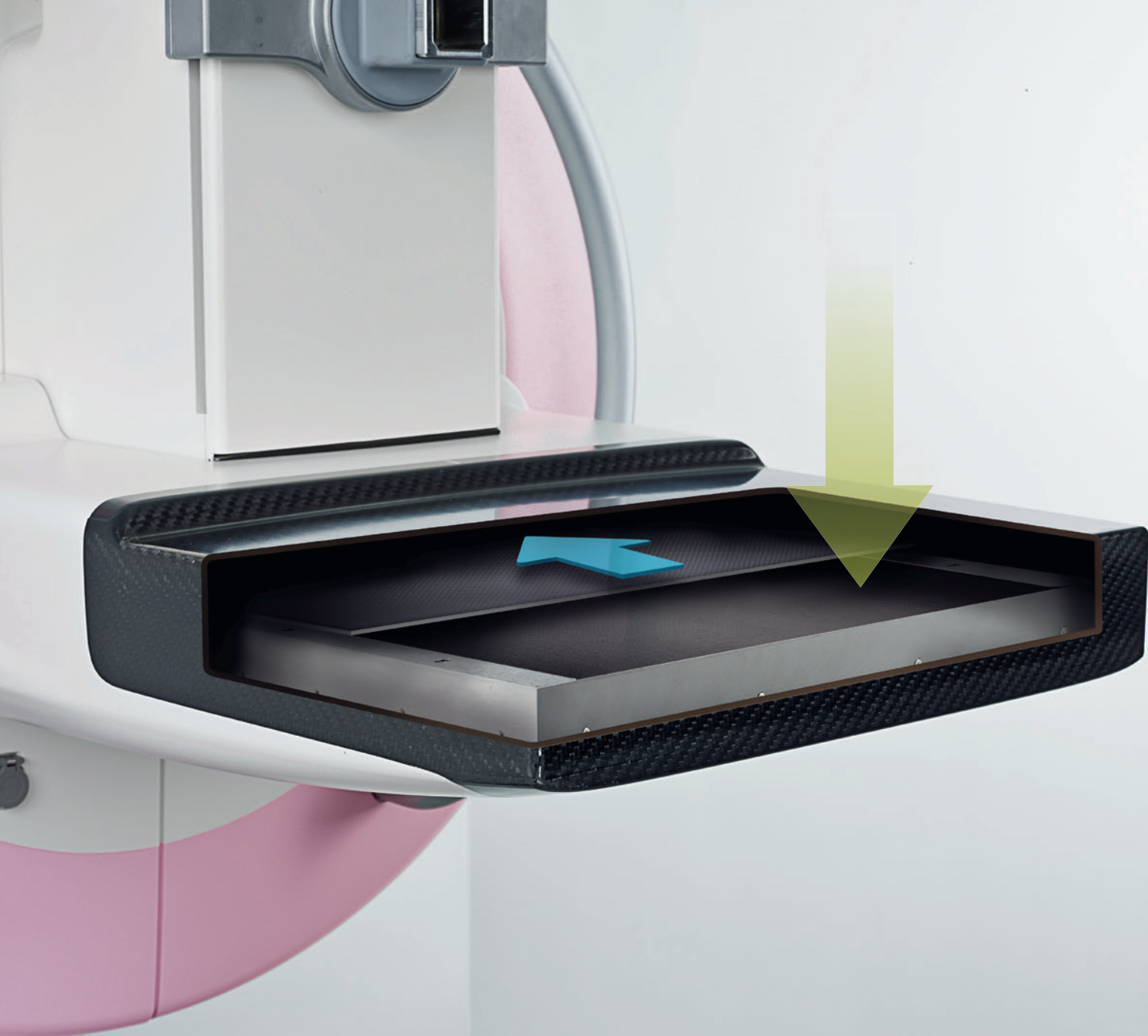
Increase your diagnostic certainty with High Definition Breast Tomosynthesis, with the widest angle of 50° and unique EMPIRE Technology. Obtain highly defined tissue and lesion morphology in unprecedented detail and gain deeper insights in both 2D and 3D<sup>2</sup> – leading to more accurate and earlier detection<sup>3</sup>.

**Discover the benefits of Mammomat Inspiration and PRIME Technology.**

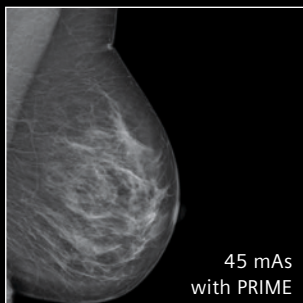
<sup>1</sup> Compared to grid-based acquisition with Mammomat Inspiration, depending on breast thickness.

<sup>2</sup> High Definition Breast Tomosynthesis, EMPIRE Technology, Insight 2D, and Insight 3D are currently under development and not commercially available in all countries. Due to regulatory reasons its future availability cannot be guaranteed. Please contact your local Siemens organization for further details.

<sup>3</sup> Compared to True Breast Tomosynthesis



67 mAs  
without PRIME



45 mAs  
with PRIME

up to 30%  
less dose



Up to 30% less dose<sup>1</sup>, uncompromised image quality

# Discover how less becomes more: revolutionary PRIME Technology.

Attract more women for screening by offering mammography with up to 30% lower dose<sup>1</sup> without compromising on image quality.

## PRIME Technology defined

Progressive Reconstruction Intelligently Minimizing Exposure, or PRIME Technology for short, is the world's first software-based anti-scatter solution for mammography.

### Behind the technology

**Up to 30% less dose:** Sliding back the mechanical grid means there is no longer a fixed object absorbing radiation between the breast and detector, so you can utilize 100% of the primary radiation – and achieve lower overall dose levels.

**Uncompromised image quality:** Progressive Reconstruction identifies scatter-causing structures and optimizes the image improving contrast and reducing scatter effects.

## Time-tested Tungsten Tube

The Tungsten/Rhodium combination can reduce dose by up to 50% compared to a molybdenum/molybdenum combination, especially for dense breast tissue.

## Personalized OpDose®

OpDose determines the exposure parameters and uses Automatic Exposure Control to acquire the best-possible image depending on breast density and thickness. OpDose works in every position and automatically excludes the pectoral muscle from its calculations.

## Flexible OpView®

Enjoy sharper, easily adjustable images using refined image processing software. You can select the best fit for your clinical needs from a range of predefined image impressions and flavors.

## Fast direct-to-digital aSe Detector

The direct-to-digital amorphous selenium (aSe) detector directly converts X-ray energy into an electric charge. Your advantage: higher Detective Quantum Efficiency (DQE<sup>2</sup>). Its fast read-out reduces the time required between exposures, making for optimized workflows and higher patient throughput.



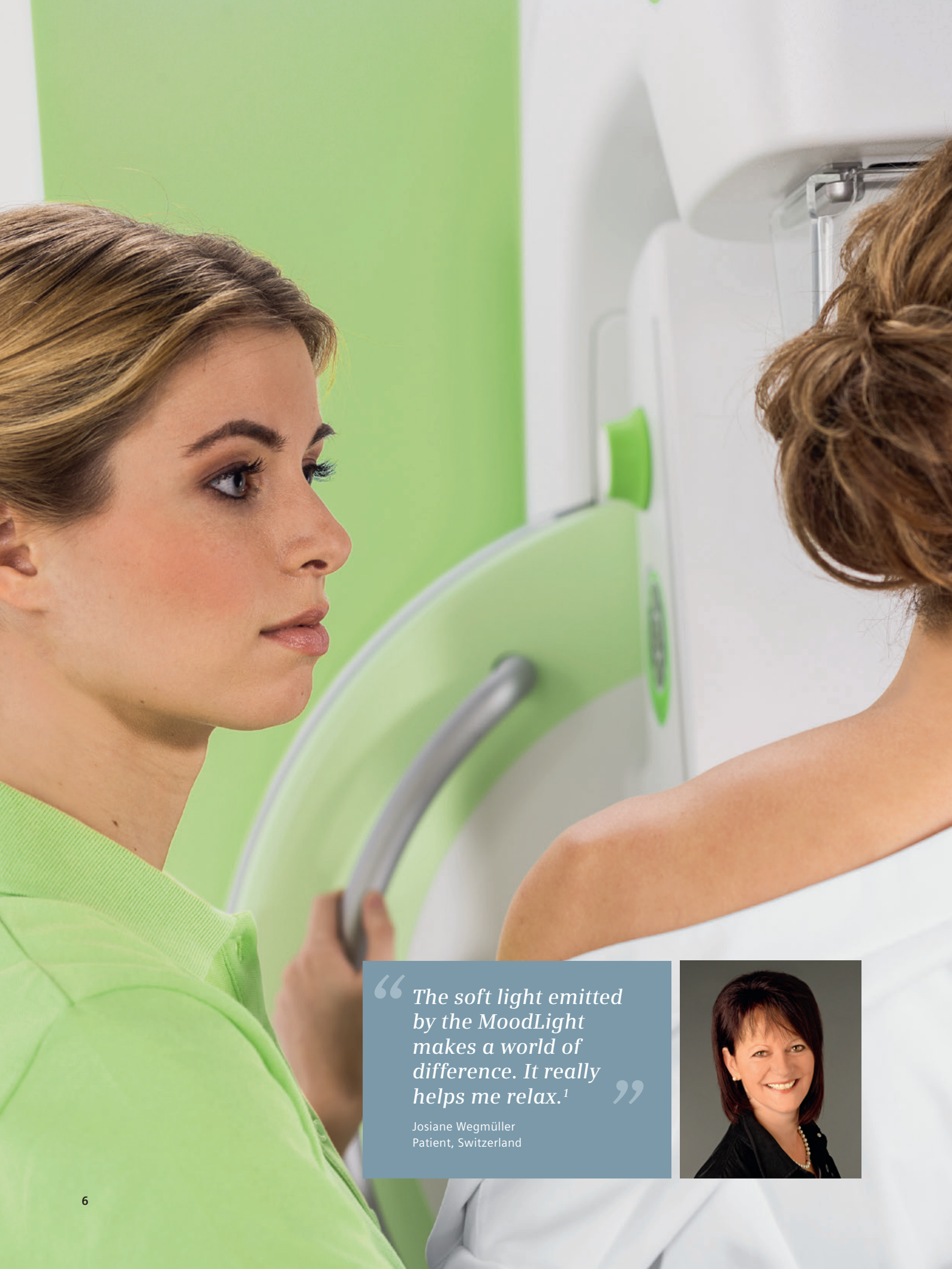
“To give women exceptional care, I need exceptional technology. Women react extremely positively when I tell them that I can now save around 30% dose<sup>1</sup>. It reassures them we take their screening seriously.<sup>3</sup>”

Detlev Uhlenbrock, MD, PhD MVZ  
Prof. Dr. Uhlenbrock & Partners, Dortmund, Germany

<sup>1</sup> Compared to grid-based acquisition with Mammomat Inspiration, depending on breast thickness.

<sup>2</sup> DQE measures the efficiency of a detector.

<sup>3</sup> The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.



*“The soft light emitted  
by the MoodLight  
makes a world of  
difference. It really  
helps me relax.”<sup>1</sup>*

Josiane Wegmüller  
Patient, Switzerland







**Greater comfort, relaxed patients**

# Put women at ease: features for a relaxing exam.

**Enhance your institution's reputation by providing a better mammography experience for patients.**

## Appealing design

Smooth shapes, non-intrusive lines and a color palette of pastel pink, lime or silver: the design offers visual comfort during the exam.

## Calming MoodLight

Getting women to relax during mammograms can be as simple as changing the lighting. The unique MoodLight<sup>2</sup> panel allows you to select specific colors or a series of changing colors.

## Individualized OpComp®

Instead of using a standard compression level, OpComp® only compresses as long as a woman's breast is soft and pliable. As soon as it has reached optimal compression level for the best image quality, it stops automatically. For increased comfort, more efficiency and, often, lower dose.

<sup>1</sup> The statements by Siemens' patients described herein are based on results that were achieved in the patient's unique situation. Since there is no "typical" patient there can be no guarantee that other patients have the same perception.

<sup>2</sup> Option





Easy-to-use, outstandingly quick

# Work with ease and efficiency.

Enable high patient throughput and reduce staff training requirements with time-saving features and the unique *syngo* user interface.

## Seamless Isocentric Rotation

No matter which position is next, the center of the detector always stays at the same height, letting you switch to the next view at the touch of a button.

## Multiple release options

Three X-Ray release options provide more flexibility. Choose between the control console button, the hand switch<sup>1</sup> or the foot switch<sup>1</sup>, depending on what best fits your needs.

## Ergonomic Acquisition Workstation

"Less is more" is the best way to describe the Acquisition Workstation (AWS). Benefit from the convenience of the *syngo* user interface and swiftly adjust the table's height to your needs.

## Convenient Single-Touch Positioning

This feature moves the system from one position to the next in an instant. With only a single touch.

## Efficient one-click-to-image

The scheduler opens automatically as soon as an exam is completed, allowing you to move seamlessly from one patient to the next – even in special cases such as magnification views and patients with implants. Clicking once opens the next exam and the system is ready for the first exposure.

## Automated Quality Control

Our Automated Quality Control<sup>1</sup> is a smart quality assurance application based on the international Quality Control Manual. It automatically evaluates the results, generates a test report and stores it as a PDF file.

<sup>1</sup> Option



**MAMMOMAT Inspiration**

Easy-to-use, outstandingly quick

# Operate seamlessly and confidently

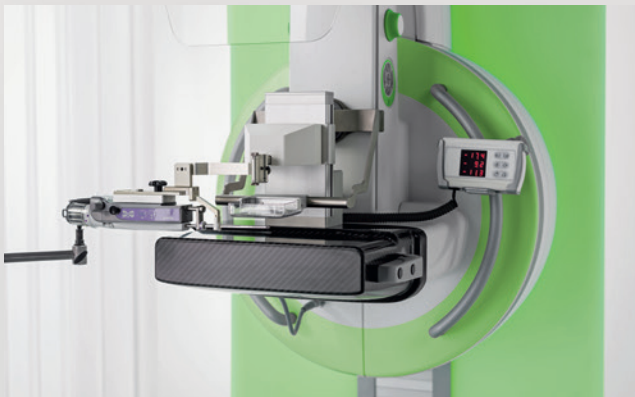
Become more efficient and obtain greater diagnostic confidence with an automated workflow and multimodality reading on a single workplace.

## Stereotactic biopsy

Clear-cut procedures and intuitive operations are the key to fast and accurate examinations. With this in mind, we designed a stereotactic biopsy solution that reduces the necessary workflow steps and guides the operator through the procedure.

## Lightweight and flexible

Simply slide the lightweight unit onto the detector and the system automatically switches to biopsy mode. Get more flexibility with both vertical and lateral access and a wide range of compatible biopsy devices.



## syngo®.Breast Care

syngo.Breast Care<sup>1</sup> is the advanced multimodality solution for state-of-the-art mammography and Siemens unique tomosynthesis reading. Marked by outstanding flexibility, it offers comprehensive tools, customizable layouts and individually configurable workflows for confident diagnosis and decision-making in both 2D and 3D.

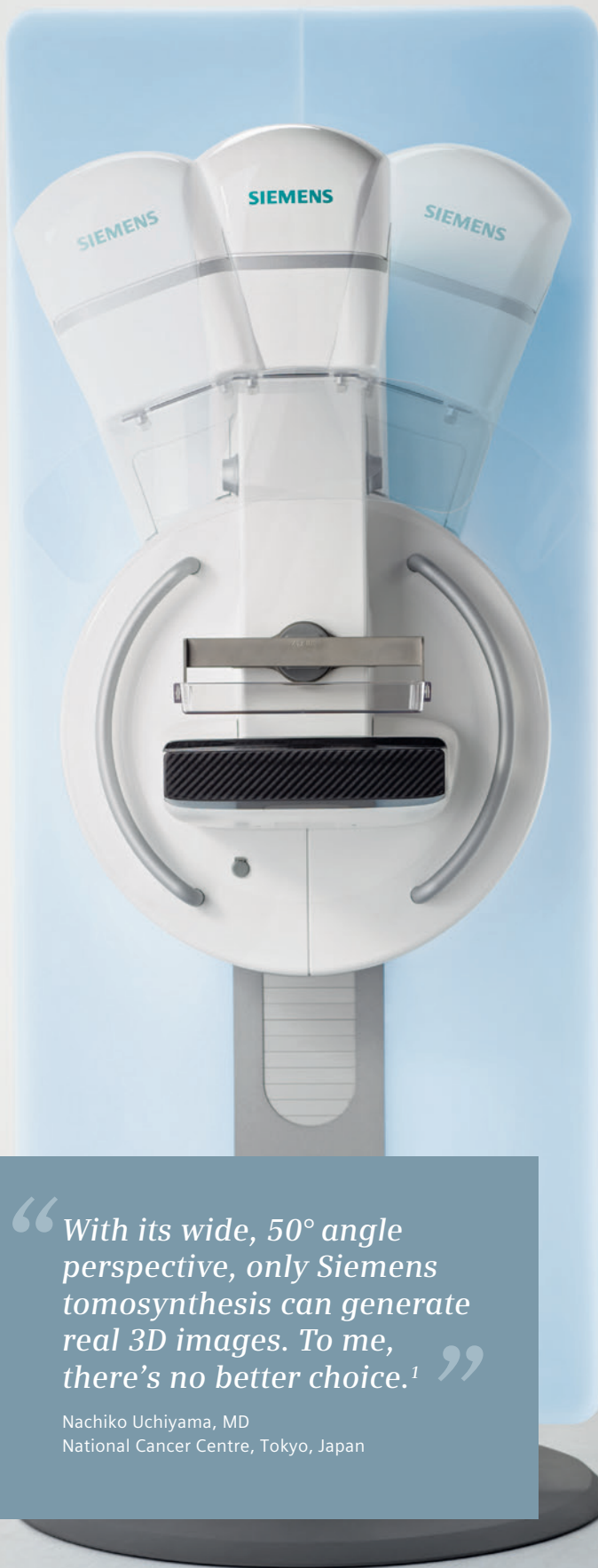
As a stand-alone workstation or a multiple client server solution – syngo.Breast Care completely fulfills your need for high quality and efficient daily work. View and share the images easily wherever<sup>2</sup> you are – even on your mobile PC.



<sup>1</sup> syngo.Breast Care is not commercially available in all countries. Due to regulatory reasons its future availability cannot be guaranteed. Please contact your local Siemens organization for further details.

<sup>2</sup> Prerequisites include: Internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements, and adherence to local data security regulations





*“With its wide, 50° angle perspective, only Siemens tomosynthesis can generate real 3D images. To me, there’s no better choice.”*<sup>1</sup>

Nachiko Uchiyama, MD  
National Cancer Centre, Tokyo, Japan

<sup>1</sup>The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.



HD Breast Tomo, trust in what you see

# Define tissue and lesions in unprecedented detail: High Definition Breast Tomosynthesis.

Increase diagnostic certainty with highly defined tissue and lesion morphology in unprecedented detail and gain deeper insights in 2D and even 3D. Achieve more accurate and earlier detection with up to 43% increase in cancer detection rates<sup>1</sup>.

## Wide angle image acquisition

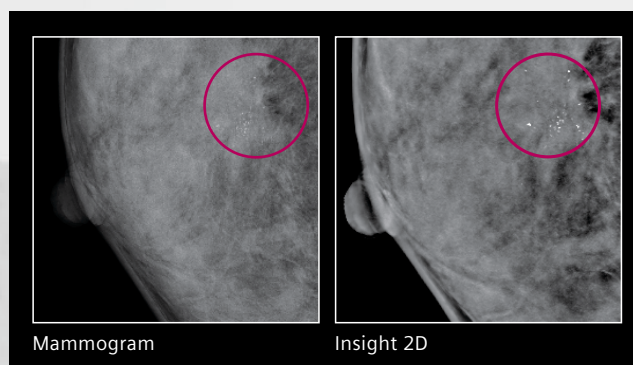
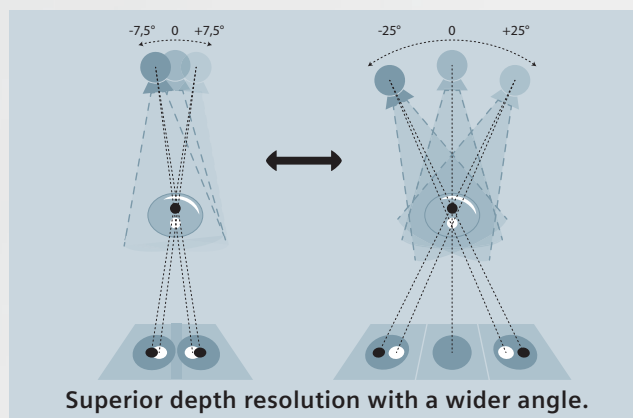
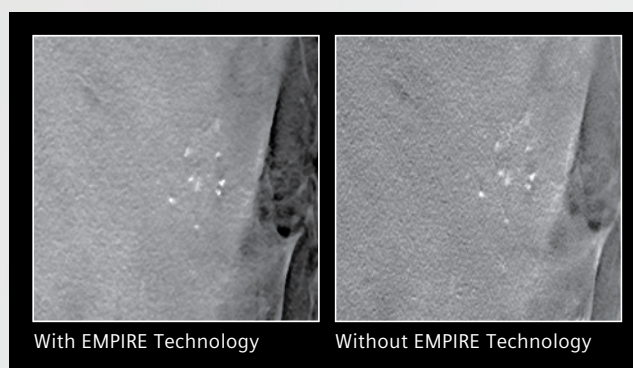
The widest angle acquisition of 50° and 25 projections provide the superior depth resolution and tissue layer separation required for High Definition Breast Tomosynthesis and cannot be achieved with smaller angles. The state of the art detector is read out at full resolution, without the need for binning. Capturing every detail so you can trust in what you see.

## EMPIRE Technology – see with unprecedented clarity

Enhanced Multiple Parameter Iterative Reconstruction – in short, EMPIRE Technology is a unique combination of iterative and machine learning algorithms that reconstruct images with unparalleled clarity in both contrast and detail. See microcalcifications clearly. Evaluate their morphology precisely. Make confident diagnostic decisions quickly and efficiently.

## Insight – get more than just another view

Insight is the first synthetic visualization of tomosynthesis volumes in both 2D and 3D. Superior even to conventional mammography, Insight 2D can replace additional mammograms – resulting in dose savings for your patients. Insight 3D, our unique 3D display, gives your tomosynthesis reading new depth. As well as providing you with superior visualization of microcalcifications<sup>2</sup>, it can also be used to better communicate findings to peers and patients.



<sup>1</sup> Lång et al. Performance of one-view breast tomosynthesis as a stand-alone breast cancer screening modality: results from the Malmö Breast Tomosynthesis Screening Trial, a population-based study Eur Radiol (2015)

<sup>2</sup> Tani H et al. Assessing Radiologist Performance and Microcalcifications Visualization Using Combined 3D Rotating Mammogram (RM) and Digital Breast Tomosynthesis (DBT) LNCS Vol. 8539 pp 142-149 (2014)

### Calming MoodLight

An integrated LED panel with a broad range of colors to choose from emits a soothing light. For a more relaxing exam.

### Personalized OpDose®

Provides the right dose for each woman individually, selecting the best anode/filter combination.

### Convenient Single-Touch Positioning

Easy positioning with a single touch makes your workflow more efficient.

### Individualized OpComp®

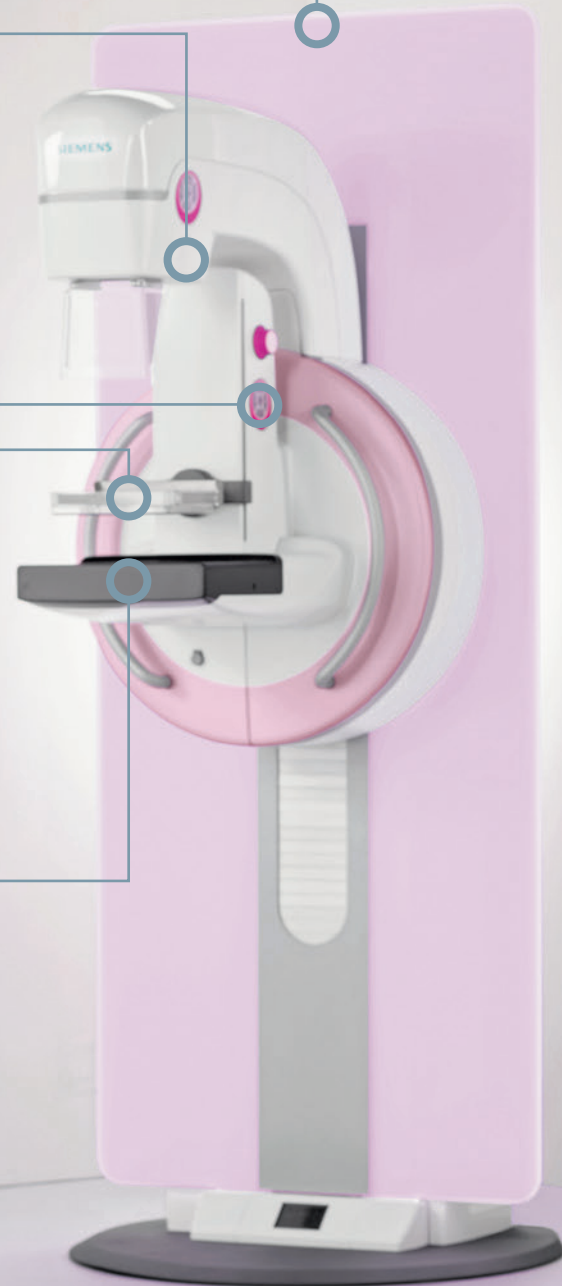
Compression stops automatically as soon as it reaches the right compression thickness to achieve the best image quality. For added comfort, more efficiency and, often, lower dose.

### Revolutionary PRIME Technology

**PRIME: Progressive Reconstruction Intelligently Minimizing Exposure** allows you to use less dose without compromising image quality.

### Stereotactic Biopsy

The system intuitively guides you through the entire procedure. Efficient and reliable for optimum diagnostic confidence.



# Mammomat Inspiration Prime

## The reference in low-dose mammography



### Flexible OpView

Selection of five so-called flavors for image impressions. Choose the one for your needs.

### High Definition Breast Tomosynthesis

With the widest angle of 50° for highly defined tissue and lesion morphology in unprecedented detail and deeper insights in 2D and even 3D.

### EMPIRE Technology

Unique algorithms enable superior image quality in both contrast and detail.

### Insight

More than just another view. High Definition Breast Tomosynthesis, visualized in 2D and 3D.



PRIME

# Facts

3,000,000,000

women live on the planet.

650,000,000

are eligible for breast cancer screening programs.

10–20 times

is the number of times a woman is screened in her lifetime.

Up to 30%

is the reduction in dose achievable using PRIME Technology.

Because every single woman counts





# To be the reference detail matters.

Mammomat Inspiration with PRIME Technology ignited a revolution in mammography and optimized screenings for everyone involved.

Revolutionary PRIME Technology, personalized OpDose®, flexible OpView, and additional CARE technologies enable up to a 30% lower dose and uncompromised image quality<sup>1</sup>. Calming MoodLight and individualized OpComp provide greater comfort and relaxation for your patients. Features that are easy to use and outstandingly fast – such as Single-Touch Positioning and one-click-to-image – help you save time and increase your efficiency. With its unique 50° angle, EMPIRE Technology, and Insight, High Definition Breast Tomosynthesis helps increase your diagnostic confidence – while seamless Stereotactic Biopsy and the client server-based reading workstation syngo.Breast Care let you boost efficiency with an automated workflow.

## **Service tailored for you**

The comprehensive range of services Siemens offers can be tailored to your needs. From preventive maintenance to technical phone support and system updates, our Performance Plans are proven service packages that include proactive measures as well as a rapid on-site technical response – designed to help improve reliability while providing predictable costs, lower risk and greater efficiency.

## **Closer by design**

Closer to technology and closer to you – Siemens Healthcare Customer Services delivers extensive experience combined with innovative solutions to help protect your investment, optimize system utilization and improve your workflow for sustainable healthcare. Siemens Remote Services monitors your system, allowing action before problems arise. Comprehensive applications enable your staff to receive excellent training – and thus deliver excellent results.

## **A safe investment**

Mammomat Inspiration suits both your clinical and budgetary needs today and tomorrow. Dose-saving PRIME Technology reassures women that you are providing low-dose mammography, and options such as stereotactic biopsy or True Breast Tomosynthesis can be upgraded as and when you need them. Giving you confidence in your diagnosis and in your investment.

<sup>1</sup> Compared to grid-based acquisition with Mammomat Inspiration, depending on breast thickness.

On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products included in this brochure are available through the Siemens sales organization worldwide. Availability and packaging may vary by country and are subject to change without prior notice.

Some/All of the features and products described herein may not be available in the United States or other countries. The information in this document contains general technical descriptions of specifications and options as well as standard and optional features that do not always have to be present in individual cases.

Siemens reserves the right to modify the design, packaging, specifications and options described herein without prior notice.

Please contact your local Siemens sales representative for the most current information.

In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources and waste conservation), we recycle certain components.

Using the same extensive quality assurance measures as for factory-new components, we guarantee the quality of these recycled components.

Note: Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced.

#### **Siemens Healthcare Headquarters**

Siemens Healthcare GmbH  
Henkestraße 127  
91052 Erlangen  
Germany  
Phone: +49 9131 84-0  
[siemens.com/healthcare](http://siemens.com/healthcare)