

# UBT

UMBRIA **B**IOENGINEERING **T**ECHNOLOGIES



# OUR COMPANY

UBT Srl, born as a spin-off of the Physics Department of the University of Perugia to transform an idea into a product, has evolved into a company focused on the application of safe microwave imaging technology to a wide range of Medical Devices (MammoWave; BrainWave; Bone-Fracture Wave).



X-Ray Free  
**MammoWave®**  
to detect breast cancer when it can be cured.

# DISRUPTIVE IDEA



The idea of a X-ray free **MammoWave**® which uses safe microwaves rather than dangerous X-ray for early breast cancer detection, was developed by G. Tiberi, electromagnetics expert, and by G. Raspa, mechatronics expert.

Microwave imaging for breast cancer detection is motivated by the contrast in the dielectric properties at microwave frequencies of normal and malignant tissues.

UBT has a cutting edge microwave imaging modality (based on Huygens Principle) employed in MammoWave.

SAFE, COMFORTABLE, EFFECTIVE



MammoWave's unique selling point is built around three main benefits of the technology:

**NO X-RAY:**

MammoWave uses low power radiofrequency signals in the microwaveband, rather than dangerous X-ray, thus it is 100% safe.

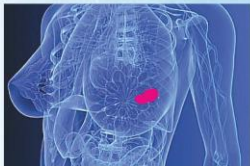
**Comfortable:**

MammoWave requires no breast squishing.

**Effective:**

Its highly accurate cutting edge technology prime MammoWave for breast cancer screening.

# CLINICAL VALIDATION

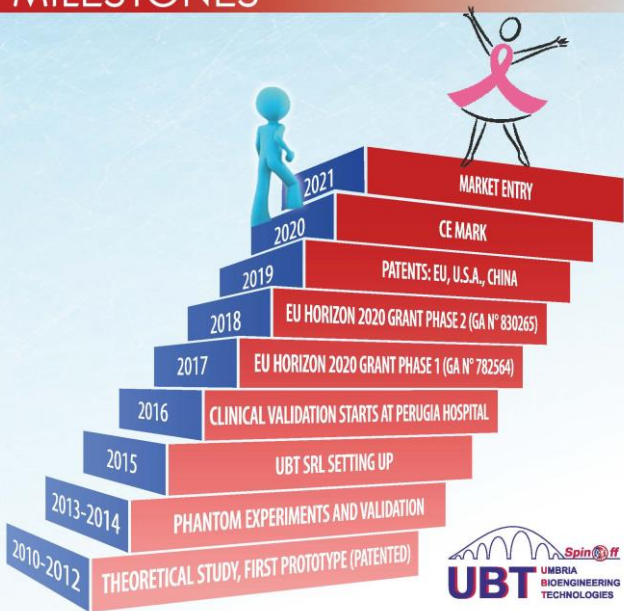


A first set of Clinica! Trials, coordinated by Dr. Michele Duranti (Director of the Diagnostic Imaging Department at Perugia Hospital), has been completed.

The results, which have been published in many journals including BSPC Elsevier and Scientific Reports, show that MammoWave can be successfully used for classifying breast containing lesions.

Further Clinica! Trials are in progress in various hospitals in Italy and abroad (<https://clinicaltrials.gov/ct2/show/NCT04253366>).

# MILESTONES



# ADDITIONAL MARKET



"The technology is disruptive and the Device is best in class and well protected" (**Reasons for which UBT S.r.l. has been awarded the Horizon2020Phase2 grant**).

The inherent safety of the X-ray free MammoWave, the absence of any breast compression and an attractive price represent the success keys for sale strategy, which will be able to stimulate an additional market much bigger than now.

Patented in the most important Commercial Area (such as EU, CHINA, U.S.A.). We are looking for potential business partners.

# STRONG TEAM



**Management team:** Board of Directors (six members with extensive experience in successful big companies led by F. Grassini and S.Tiberi)

**Scientific team:** It is the most important Asset of UBT, passionate and with strong technological and scientific skills. The Scientific Team, managed by the two co-inventors, comprises 14 researchers, which have excellent theoretical and research background acquired by the most prestigious Universities in Europe (Oxford, King's College, Perugia, Pisa, ILL Grenoble, La Sapienza).

**Medical team:** Five Medical Doctors, coordinated by Dr. Duranti, director of the Department of Diagnostic Imaging, Perugia Hospital.

**Advisors:** 5 advisor in the core business area

with the support of

Medical SW Development & Digital Innovation - Lecco, Italy





# PARTNERSHIP



**USL**Umbria**1**



*Azienda Ospedaliera di Perugia*



**USL**Umbria**2**



**London  
South Bank  
University**

**IMAGO7**



**UNIVERSITÀ DEGLI STUDI  
DI PERUGIA**



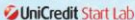
**MammoWave<sup>®</sup>** to detect breast cancer when it can be cured

# AWARDS



Winner 2015

**STARTUP ACADEMY**



Unicredit Startup academy 2016



Associazione Italiana  
degli Incubatori Universitari  
e delle Business Plan Competition

Top4 life-science start-ups in Italy 2015



**Retis**

L'innovation en réseau 2015



Future Innovation & Technology

Medtec start-up academy 2017



SME Instrument Phase 1 winner 2017



SME Instrument Phase 2 winner 2018



UWB Wearable Apparatus for Bone Fracture Imaging 2018



Research and Innovation Staff Exchange 2019



FET 2020 Future Emerging Technology

## CONTACTS

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