

Company History

1996–2015

Conducted advanced MEMS and cMUT (capacitive micromachined ultrasound transducer) semiconductor ultrasound research and 2D medical imaging probe development at Samsung Advanced Institute of Technology (SAIT) — including leading the design and fabrication of a 128×64-channel CMUT medical imaging probe and initiating and building SAIT's CMUT process line — establishing deep, hands-on expertise across semiconductor ultrasound transducer design, fabrication, and system engineering.

2016

Joined the Korean Government Global Frontier Program at KAIST CISS as Research Professor to initiate long-term research on semiconductor pMUT ultrasound therapy platforms (2016–2020; annual research budget of approximately 100–150M KRW, totaling ~460M KRW over four years).

2017

Successfully fabricated the first pMUT semiconductor ultrasound chips through collaboration with DGIST, establishing the technological foundation of the MUTI semiconductor ultrasound platform.

2018

Advanced pMUT device research with acoustic characterization in both air and water, optimizing device performance for therapeutic applications.

2019

Founded MUTI Inc. to commercialize semiconductor pMUT ultrasound technology for next-generation beauty and digital therapeutic applications.

2020

Developed proprietary multi-focus pMUT beamforming technology, enabling electronically controlled, multi-depth ultrasound focusing without moving parts.

2021

Selected for the Korean Government Strategic R&D Program (4IR) for development of semiconductor multi-focusing ultrasound therapy (2021–2023; total project budget of approximately 400M KRW).

2022

Transferred proprietary pMUT chips to SilTerra's 8-inch MEMS production line and completed independent multi-focusing acoustic verification by KRISS (Korea Research Institute of Standards and Science).

2023

Selected for the Korean Government Global Strategic R&D Program to develop crossed-beam semiconductor ultrasound therapy for deep tissue stimulation (2023–2025; total project budget of approximately 343M KRW).

2024

Achieved commercial-level pMUT manufacturing capability with over 83% production yield, establishing a stable semiconductor manufacturing process.

2025

Completed independent clinical validation across two P&K Skin Research Center studies (390 data points total), demonstrating reproducible, cumulative improvements in facial elasticity, lifting performance, and neck firmness over repeated weekly use. Obtained FCC certification.

2026

Established MUTI WAVE LLC (USA) and launched MUTI™ WAVE through Shopify for an initial limited release while expanding global commercialization.

Team & Advisory Board

Executive Team

CEO — Kyungil Cho

20 years at Samsung Advanced Institute of Technology, including 15 years focused on cMUT/pMUT semiconductor ultrasound research; Adjunct Professor, KAIST CISS National Research Program; Ph.D., UC Davis.

CTO — Wantaek Han

Analog circuit design and micro-signal processing; former Principal Researcher, Samsung Advanced Institute of Technology; Researcher, Samsung Seoul Hospital; Ph.D., Hanyang University.

CFO — Dr. Kim

Medical/health-sector business management; CEO, Sungdo; Ph.D., Sungkyunkwan University.

CDO — Kyungsoo Park

Graphic design and beauty marketing; former manager, Shinsegae Department Store (C&Milano); design lecturer, Kyung Hee University; MFA, Pratt Institute (New York).

Testing & Evaluation Partners

Semiconductor Ultrasound Evaluation — Prof. Kwan-Kyu Park (Hanyang University)

cMUT and focused-ultrasound research; Ph.D., Stanford University.

MEMS Design Advisory — Prof. Sung-Hwan Jung (Dankook University)

Ultrasound-cavitation research; MEMS sensor specialist; Ph.D., MIT.

Focused-Ultrasound Pressure Verification — Yong-Tae Kim, Team Leader (KRISS)

Korea Research Institute of Standards and Science; leading domestic authority on focused-ultrasound pressure measurement; Ph.D., Hankuk University of Foreign Studies.

Skin Clinical Research — P&K Skin Research Center

Independent clinical testing partner for all reported skin efficacy studies.

Manufacturing Partner

SilTerra Malaysia

8-inch MEMS wafer foundry with an established track record in high-volume pMUT production for fingerprint sensors — providing MUTi with commercial-scale, high-yield manufacturing at a cost structure viable for consumer devices. By contrast, research-focused pMUT foundries such as imec price wafers at roughly \$70,000 each (minimum order of 3 wafers per lot, 3 lots), a scale incompatible with consumer product economics — making SilTerra a key enabling factor for MUTi's commercialization path.

Strategy & Commercialization Advisor

Prof. Jongmin Kyung (KAIST)

Chair Professor, KAIST; Director, CISS Global Frontier National Research Program; Chair, KAIST Faculty Council; IEEE Fellow; Ph.D., KAIST.