

Thermal Technology Saves Lives

MOBOTIX Supports Research Project by the University of Stavanger on Neonatal Care

July 30, 2025

Reducing global infant mortality is one of modern medicine's most important goals. In an innovative project, the University of Stavanger (UiS) in Norway is now relying on the thermal technology and artificial intelligence from MOBOTIX to significantly improve medical care for newborns immediately after birth. Under the name <u>NewbornTime</u>, an interdisciplinary team from the university, hospital, and technology companies is exploring new methods to precisely document critical timeframes in the delivery room – enabling faster and more effective infant resuscitation.

Intelligent Technology for One of Life's Most Sensitive Moments

Around 10% of children born in Norway require medical support immediately after birth, such as stimulation or mask ventilation¹. Particularly critical is birth asphyxia – oxygen deficiency during or shortly after delivery – which is responsible for approximately one million deaths per year.

The *NewbornTime* project aims to reduce these numbers using state-of-the-art technology. A core component: thermal cameras from MOBOTIX installed above the birthing bed. These allow for precise, privacy-compliant documentation of the moment of birth—without direct visual imagery or physical contact.

Based on these images, AI models train neural networks that can recognize birth processes and resuscitation measures to the second and convert them into digital timelines. These timelines can then serve as the basis for developing guidelines that support effective resuscitation efforts.

"Our thermal solutions provide not only precise infrared imaging, but also accurate data for medical research – privacy-compliant, reliable, and easy to install," emphasizes Dr. Christian Cabirol, CTO of MOBOTIX.

MOBOTIX Thermal Technology: GDPR-Compliant, Reliable, Proven

Another key advantage: MOBOTIX technology meets the highest standards for data protection and cybersecurity. The decentralized cameras store data locally, operate with high reliability, and can be seamlessly integrated into existing IT infrastructures. Integration partner Bravida, responsible for installation and system integration, drew on years of experience working with MOBOTIX at Stavanger Hospital.

"In the highly sensitive field of obstetrics, it was essential to find a system that delivered both technical excellence and ethical integrity," explains James Nathan Miller, Head of Safety and Fire Protection at Bravida.

A Milestone in Neonatal Care

The study's findings are expected to help shape new international standards in neonatal care. The project has already been published in the journal BMC Digital Health and could serve as a blueprint for similar research initiatives around the world. This application once again demonstrates how MOBOTIX sets new standards in the intelligent use of thermal technology – not just in fire protection or industry, but also in healthcare, where the stakes are nothing less than the protection of life itself.

¹https://www.uis.no/en/research/newborntime#:~:text=According%20to%20guidelines