Mobile Vital Signs Monitoring System for Detecting Dangerous Situations

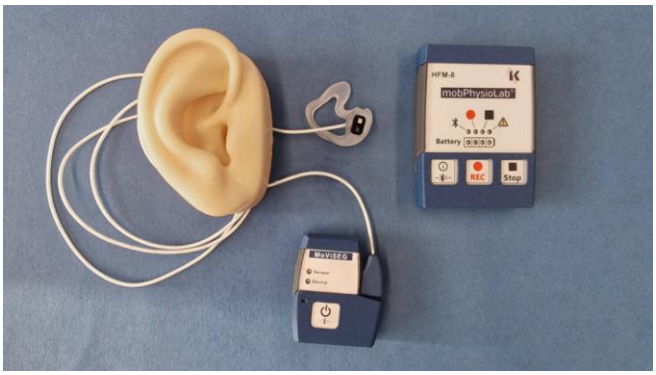
APPLICATION

- Health monitoring of high-risk occupational groups, such as emergency responders, firefighters, and pilots
- Reliable monitoring of heart rate and blood oxygen saturation via a miniaturized sensor unit in the ear. A custom fit (ear mold) ensures high comfort and reliable sensor data.
- Data processing and Bluetooth transmission via a compact electronic unit on the helmet. Up to 10 hours of continuous operation

MARKETING

- Joint Project with KORA Industrie-Elektronik GmbH
- Market launch planned as part of MobPhysioLab starting in 2027

DEMONSTRATION SYSTEM



In-ear sensor in a custom-molded earpiece, Bluetooth interface, and master unit

Supported by:
Federal Ministry for Economic Affairs and Energy
on the basis of a decision by the German Bundestag

ZIM Zentrales Innovationsprogramm Mittelstand

CiS Forschungsinstitut für Mikrosensorik GmbH

The "MoViSEG" project is funded by the Federal Ministry for Economic Affairs and Energy (BMWE) pursuant to a resolution of the German Bundestag.
Funding code: KK5085707DF4

CiS Forschungsinstitut für Mikrosensorik GmbH
Konrad-Zuse-Str. 14, 99099 Erfurt, Germany
+49 361 6631410 info@cismst.de www.cismst.de

© 2026 CiS Forschungsinstitut für Mikrosensorik GmbH