

CUSTOMER BENEFITS

- Increased safety for emergency responders
- Timely identification of life-threatening situations
- Improved situation analysis
- Wireless data system facilitates improved communication even in buildings with limited radio coverage
- Post-operational tracing for refining mission tactics
- Operational exercise and training system for emergency response teams

TECHNOLOGY ADVANTAGES

- Fast, real-time signal processing
- Scalable
- Can be tailored to specific customer requirements
- Takes into account distances, accuracy, reliability and weather influences
- Integrated wireless communication
- Ad hoc localization

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SENSPROCLOTH

EMERGENCY RESPONDER TRACKING





AT A GLANCE

There are more than one million active firefighters in Germany. Apart from responding to fires and accidents, they also conduct joint disaster response operations with police.

Each year more than 200 firefighters lose their lives responding to roughly 15,000 fire disasters around the world. Orientation in smoke-filled or complex buildings is often very difficult, which makes it virtually impossible to locate emergency responders who urgently need help. This calls for measures that better protect the lives and health of firefighters and disaster response teams.

Sensprocloth saves lives and improves emergency responder safety while speeding up communication between response teams and command staff. On another level, Sensprocloth leads to cost savings for occupational accident, health and old-age insurance providers.

FIELDS OF APPLICATION

- Security services
- Emergency services
- Disaster response
- Military

TECHNOLOGY

A combination of tracking technologies ensures that public safety agencies are in a position to reliably track emergency responders in real time. Antenna arrays make it possible to track responders both indoors and outdoors requiring angle measurement data supplied by two or more antennas.

Distances between the responders can also be measured, which not only greatly aids communication between and among teams, but also allows precise location tracking in extremely difficult conditions. In parallel, an inertial navigation system tracks responder movements, thus supplementing the position data.

Furthermore, the radio channel can be used for data communication between personnel inside and outside a building. In a subsequent step, the collected data is processed in order to display the positions in real time.

The calculated positions can then be visualized in 2D or 3D using a graphic information system.

SERVICES

- Basic technology for real-time indoor and outdoor tracking of emergency responders
- Compact sensor system for recording physiological and ambient data
- Development of application-specific event detection and analysis using available sensor data
- Reliable communication channel

RESEARCH & DEVELOPMENT WITH FRAUNHOFER IIS

- Your partner for joint, national and international R&D projects
- Evaluation and characterization of existing technologies in our state-of-the-art labs
- L.I.N.K. – Our new, one-of-a-kind facility designed specifically for testing positioning, identification navigation and communication technologies in simulated environments
- Radio system coexistence analysis