



## Vital data-enhanced evacuation system for the military

Cooperation between drone manufacturer AVILUS and medical technology company cosinuss<sup>°</sup>

*Munich/Ismaning, 29.01.2024* - In the event of serious injuries, every minute counts: the more time passes before surgery, the lower the probability of survival. It is often not even possible for armed forces on military missions to get injured comrades to a rescue station, let alone to an emergency doctor. AVILUS is working to change this with the help of autonomous drones. The new collaboration between AVILUS and cosinuss<sup>°</sup> is an important step in this direction: The medical technology company is contributing its innovative technology for mobile and continuous patient monitoring in order to be able to monitor the vital parameters of the injured during transportation.

### Mobile and continuous patient monitoring

cosinuss<sup>°</sup> innovative, in-ear sensor, the c-med° alpha, is a small, 6.5 g lightweight medical device that continuously records and transmits body temperature, oxygen saturation, perfusion and pulse rate. This is linked to the cosinuss<sup>°</sup> Health System, which receives the data and forwards it to the connected interface. In conjunction with the cricket, the vital data is transmitted to the BMS via the avionics system and displayed for the medical staff in the

network. This enables seamless transitions and integration into medical and hospital systems. But it is not only the smooth transfer of vital data that is advantageous. Thanks to its location, constant blood flow and central positioning, the auditory canal offers decisive advantages over other measurement locations for optical measurements. In addition, the proximity to the brain can be relevant for interpreting the measured values.

### **Proven technology in demand**

In recent years, this technology has been used successfully in various applications and studies. During the Oktoberfest 2023 in Munich, for example, a continuous patient monitoring system was established. Patients were seamlessly monitored on their way through the health services at the Oktoberfest: from first aid, transportation on stretchers, triage on the ward to inpatient monitoring and telemedical services. This enabled seamless transitions between the individual steps of the treatment pathway.

### **Cooperation between AVILUS and cosinuss°**

AVILUS complements the existing rescue chain and uses the drone to transport injured persons in a wide variety of scenarios. At the same time, cosinuss° ensures that treatment on arrival is even faster and smoother and that the injured can be given the best possible help based on the progression of their vital parameters. The time advantage gained enables more effective medical care, which greatly reduces the likelihood of death.

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### **About cosinuss°**

Cosinuss GmbH is a certified medical device manufacturer based in Munich that specializes in mobile and continuous monitoring of various vital signs. With more than 15 years of research and development, numerous patents and medically certified products, cosinuss° is a pioneer and hidden champion in the field of mobile and continuous vital signs monitoring. cosinuss° follows the vision of revolutionizing the monitoring and recording of vital signs in healthcare - with the aim of improving the treatment and thus the lives of patients and providing the tools to make healthcare more efficient and effective.

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## Images:



Photo credit: Avilus / cosinuss° / All vital signs are measured by a sensor that can be worn in the ear and transmitted wirelessly.



Photo credit: Avilus / cosinuss° / The progress of the vital data can be tracked and forwarded on site using a mobile device with the cosinuss° Health System.





Photo credit: Avilus / cosinuss° / The "Grille" transport drone transmits vital data to ground control and enables continuous patient monitoring from a distance.

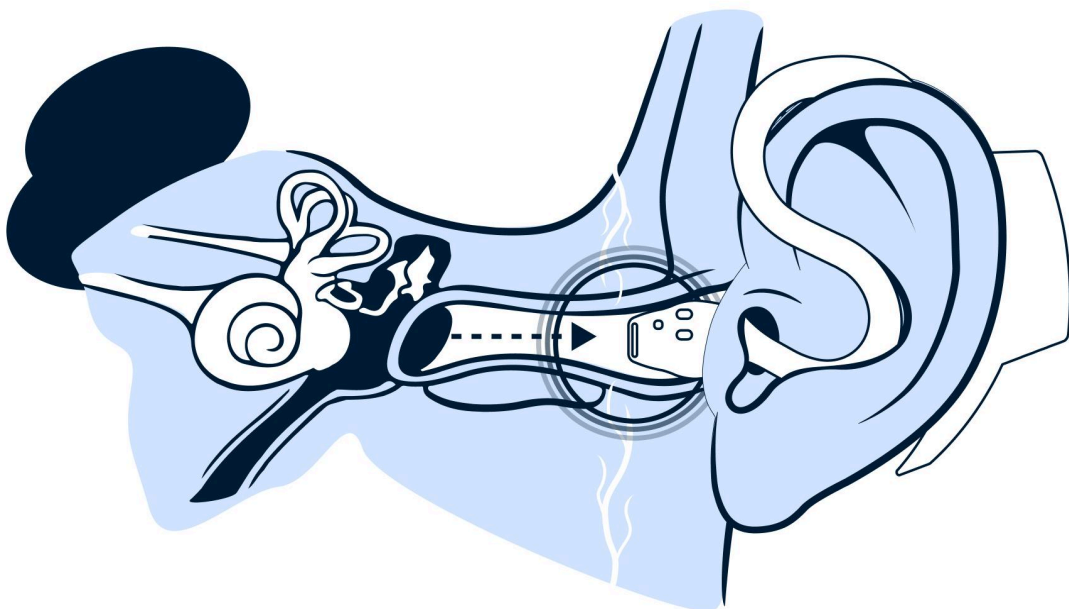


Photo credit: cosinuss° / The cosinuss° sensor "c-med° alpha" records vital data in the ear canal and makes it available via a wireless interface.

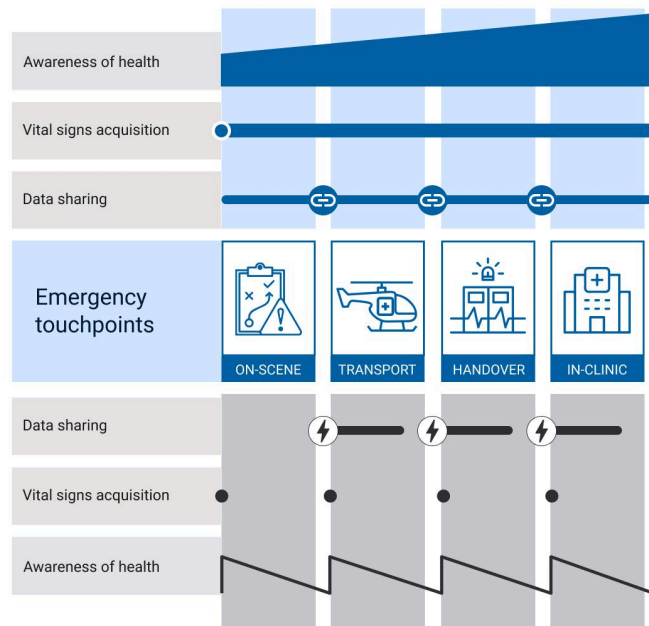


Photo credit: cosinuss° / The cosinuss° Health System provides appropriate interfaces via mobile networks to make vital data available across the entire rescue chain.