



Co-funded by  
the European Union



## HEALTHCHAIN STORIES

### SAFE: THERMAL CAMERA MONITORING SYSTEM

#### THE NEED

Patient falls during hospital stays are a significant global issue, with around 600,000 falls resulting in deaths annually, according to the World Health Organization. These falls are a leading cause of traumatic deaths, with rates ranging from 2 to 8 per 1,000 beds in acute hospitals, geriatric wards, and emergency departments.

The Clinical Hospital Center Rijeka (KBCRI) is focused on improving patient safety, reducing healthcare costs, and preventing falls, especially among critically ill patients who require constant monitoring.



#### THE HEALTHCHAIN SUPPORT

HealthChain supported Healthcare Organisations in identifying their innovation challenges and selecting companies to address them. They worked closely as an interregional team to co-create, test, and validate a solution aligned with real clinical workflows, patient needs, and organisational constraints. The project provided financial and business support to boost the solution's market-readiness and commercialisation.



## THE SOLUTION

**100% Reduction in Falls:** During the pilot period (February to July 2024), no falls occurred in the beds equipped with the SAFE system. In contrast, three falls were recorded in non-monitored rooms within the same department during the same period.

**Long-term Improvement:** The average number of monthly falls at the department level decreased from 1.5 falls per month in 2022 to 0.5 falls per month by July 2024.

**Reduced Burden on Staff:** By providing automated alarms for high-risk movements, the system helps alleviate the constant pressure on medical staff to manually monitor every patient for fall risks.



## IMPACT

The pilot demonstrated that the system could operate effectively in a “real-time environment,” which is a significant factor in achieving market acceptance and clinical adoption.

A key qualitative outcome was the realization that technology must be paired with structured education for both staff and patients to be truly effective

## OUTCOMES

- **100% Reduction in Falls:** During the pilot period (February to July 2024), no falls occurred in the beds equipped with the SAFE system. In contrast, three falls were recorded in non-monitored rooms within the same department during the same period.
- **Long-term Improvement:** The average number of monthly falls at the department level decreased from 1.5 falls per month in 2022 to 0.5 falls per month by July 2024.
- **Reduced Burden on Staff:** By providing automated alarms for high-risk movements, the system helps alleviate the constant pressure on medical staff to manually monitor every patient for fall risks.

## SUSTAINABILITY

Rinicom continued working on this problem and resolved it by releasing a new product, VisualFusion+, which allow real time display and fusion of multiple video streams.

The product is released and currently used in many applications, including emergency medicine. More specifically, it is now installed at Brussels Emergency Hospital where it allows real time patient data supported by video/audio from paramedics. The video shows system in operation in Brussels.

# TESTIMONIALS

---

*“For organizations such as Rinicom, which focus on innovation in healthcare, this has been an extremely valuable learning experience. It has shown how co-creation with healthcare providers and patients can drive the effective deployment of innovative eHealth services, with HealthChain providing continuous support throughout the entire journey. By building on existing IT solutions, development roadmaps are well defined, expectations are carefully aligned, stakeholder engagement remains high, and all parties collaborate around a shared objective: sustainably enhancing patients’ quality of life over time.”*

- RINICOM TEAM, Developer

