

A photograph of two healthcare professionals, a woman and a man, running through a modern hospital hallway. They are both wearing blue scrubs; the woman is also wearing a white lab coat. They are holding clipboards and looking forward with determination. The hallway has large windows and glass railings.

Smart Emergency Call and Response Solution for Hospitals

**A STATEMENT OF DEMAND FOR
INNOVATION IN EMERGENCY
CALL & RESPONSE SYSTEMS**

A STATEMENT OF DEMAND FOR A SMART EMERGENCY CALL AND RESPONSE SOLUTION FOR HOSPITALS

This document is a 'Statement of Demand' originated by the Vilnius University Hospital Santaros Klinikos (VULSK). It describes the current situation and its limitations, why innovation is needed, and the outcomes required of a new solution.

In order to demonstrate a credible market demand for a solution that can deliver these outcomes, we are reaching out to other healthcare practitioners and hospitals who may have a similar need and may, in the future, be interested in buying such a solution and / or collaborating in this initiative.

We therefore invite you to read this statement of demand and provide your feedback via a short survey. You can find the link to the survey at the end of the document. Please pass this document onto anyone you think would be interested.

Effective management of life-threatening emergency situations

VULSK needs to redesign its emergency call and response system to enable the effective management of life-threatening emergencies and improve patient outcomes. We have an unmet need for a smart emergency call and response solution that can be seamlessly introduced into existing operating theatres, emergency departments and intensive care units throughout the hospital. The solution should also facilitate the collation and analysis of the emergency response to support learning and clinical improvement.

Why innovation is needed

VULSK is one of the major hospitals in Lithuania, with 1,840 inpatient beds. Every year, we treat over 82,000 in-patients, carry out more than 30,000 anesthesia procedures, treat 4,000 patients in three intensive care units serving 40 operating rooms and record 125,000 visits to the emergency department.

Despite the high-quality professional care that is routinely provided by the medical staff at VULSK, life-threatening emergencies that require immediate additional specialist assistance, such as complicated tracheal intubation, heavy bleeding and cardiac arrest, arise unpredictably across the hospital.

This type of emergency requires the rapid mobilisation of the appropriate assistance to the site of the emergency. The layout of the hospital makes this difficult. Patient care is carried out in more than 19 buildings across the main hospital campus and the total area of the buildings is 174,909 m². There are several anesthesiology, reanimatology and emergency units operating 24/7 over several separate locations.

The existing emergency call and response system relies on the close proximity of specialist support and can lead to multiple specialists responding unnecessarily to the same emergency or unacceptable delays in specialist attendance. Other limitations in the system include the lack of a back-up system in case of failure, and the lack of feedback on the emergency response in real time. The existing system is found to be highly stressful by attending staff and for emergency responders and moreover to introduce risk of severe complications for patients.

“Having an effective emergency call system is crucial in an emergency department. Every day we are working in a front line, where each second is important for patients and where the highest level of focus is required. A more effective solution is essential”. *Assoc prof. PhD MD Andrius Klimašauskas, Head of the Centre of Emergency*

An unmet need for a solution

VULSK is not the only one in facing this situation. Our research indicates that many hospitals in Lithuania and across Europe have not yet established effective, informative and reliable emergency call and response solutions.

While there are certainly call systems on the market, they do not meet the needs of VULSK. Many are not adapted to respond with the urgency needed in emergency situations where assistance is needed within a few minutes and are more suited to post-operative wards and therapeutic units where, in the majority of cases, such a rapid response is not necessary.

In addition, the existing systems have a limited functionality and don't facilitate the collection and analysis of data that could improve the effectiveness of emergency management and are not adequately suited to the size and layout of the VULSK campus.

There is certainly scope for an update in the technology applied. Typical systems in use in European hospitals (for example in Germany and Sweden) are still based on the use of pagers. We believe that recent advances in information and communication technology could offer a smarter solution and bring a step-change improvement.

“The current model for emergency call and response is outdated and the solutions are sub-optimal. We need a new solution that is compatible with the reality that we are facing here at VULSK and facilitates ongoing learning and improvement.”

Prof. Jūratė Šipylaitė, Head of the Centre of Anesthesiology, Intensive Therapy & Pain Management



The requirement

The requirement can be summarised as follows:

A smart emergency communication and response solution that improves the management of life-threatening emergencies, leading to better patient outcomes and staff experience, incorporating:

- **A 24/7 alert pathway** informing the most appropriate medical specialist of the nature and location of the emergency and directing them to where they are needed, minimising delays in the response time and avoiding the duplication of response
- A **feedback mechanism** on the call response for those in the emergency situation and for the emergency responders
- **Data collation and analysis** of the emergency call and response events to support ongoing learning and further improvements in the system, clinical practice, patient outcomes and utilisation of staff resources and well being

The solution should be:

Able to **handle multiple events** occurring simultaneously



Seamlessly introduced into existing operating theaters, emergency departments and intensive care units throughout the hospital and **fully integrated** with other hospital systems



100% Reliable and resilient in the hospital environment, **intuitive** to use and **compact**



Low carbon, low noise, simple and safe to clean, and easy to maintain



Transferrable and easily implemented in a range of hospital situations



What can you do next?

Thank you for taking the time to read this Statement of Demand. VULSK is keen to identify and engage with other practitioners and healthcare providers that have the same or similar needs or may be aware of solutions before we start communicating with potential suppliers. At this stage, we have the flexibility to adapt the Statement of Demand to include particular needs that would increase the relevance for other interested healthcare customers.

Demonstrating that there is a wider potential market will better encourage potential suppliers to invest in developing innovative solutions that meet the unmet needs identified.

Your voice is vital to encourage suppliers to innovate to provide solutions. If you also believe that this is an unresolved issue or unmet need or would like to provide feedback, then please follow the link below. This will take you to a short survey which will help us to gather views and gauge interest.

[Click here to complete the survey](#)

ABOUT ECOQUIP+

EcoQUIP Plus (www.ecoquip.eu) is a collaborative innovation procurement project in the healthcare sector. EcoQUIP Plus aims to demonstrate how pro-innovation procurement methods can improve the efficiency, quality and sustainability of healthcare and to increase the take up of much needed innovative solutions through collaborative actions.

If you would like to find out more about EcoQUIP+ please visit:



www.ecoquip.eu



Twitter: [@EcoQuipPlus](https://twitter.com/EcoQuipPlus)

About the buyer

This Statement of Demand has been developed by **Vilnius University Hospital Santaros Klinikos (VULSK)** in the context and with the support of the EcoQUIP Plus project.

VULSK is one of the major hospitals in Lithuania, founded by Vilnius University and the Lithuanian Ministry of Health and is a leading institution in tertiary level health care and medical research in the Baltic States. It has more than 35 specialized medical centers and is a full member of eight European Reference Networks.

The hospital has around 6,000 employees and provides state-of-the-art health care services for both children and adults from Lithuania and other countries. There are 1,840 inpatient beds where approximately 82,000 in-patients are treated annually, and more than 40,000 complex surgeries are undertaken, including all types of organ transplants. In addition, we undertake other specialist medical interventions, some of which carry an emergency risk. Multidisciplinary outpatient healthcare is well developed with in excess of a million outpatient consultations per year.

VULSK has an extensive basis for specialist training and serves as the major center for residency training in Lithuania. The hospital is active in research and development, phase I-IV clinical trials of medicinal products and medical devices, observational studies and international registries and is a leader in health information and communication technologies and medical informatics.

General information

gaynor.whyles@jeraconsulting.com
www.ecoquip.eu

Specific information on this document

Indre.Klimantaviciene@santa.lt
www.santa.lt



The content of this document represents the views of the authors and the EcoQUIP Plus Consortium only and is their sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Executive Agency for Small and Medium-sized Enterprises (EASME) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.