

# Hestia NPR

## Smart Medical Assistance System

### Realization

HES-SO Fribourg  
Prof. Pascal Bruegger  
pascal.bruegger@hefr.ch

### Partnership

- CISEL Informatique SA
- HFR Hôpital Fribourgeois
- SoftDesign CFY Sàrl
- HEdS – FR
- HEIA-FR / iCoSys

### Keywords

- Healthcare Assistance
- Digital Health Solutions
- Data Security & Privacy Protection
- Swiss Healthcare System

### Our Skills

Creating user-friendly mobile applications to enhance the lives of elderly individuals and streamline the workflow of healthcare professionals and tailor-suited complex systems.

### Valorisation

Ensuring the safety and security of all individuals by establishing a comprehensive and efficient assistance ecosystem to improve the continuity of medical care and avoid unnecessary journeys to doctors' practices.

### Schedule

2022 – 2024



### About the Project

The landscape of the Swiss healthcare system is evolving rapidly, confronting challenges such as staffing strains and the closure of medical facilities. Simultaneously, advancements in computing and digital technologies are ushering in novel solutions, fundamentally altering the delivery of medical services. Presently, individuals seeking medical care must either visit healthcare centers for consultations or undergo hospitalization for continuous monitoring, incurring daily costs ranging from 500 to 2,000 CHF.

Building upon the foundation laid by the previous [Hestia project](#), this initiative represents a significant step forward in the digitization of traditional medical monitoring. The secure platform facilitates the exchange of medical data through mobile, web, and desktop applications, enabling real-time and on-site transmission of physiological data to healthcare professionals and therapists. By harnessing a network of sensors, including but not limited to heart rate, blood pressure, weight, saturation, and Continuous ECG (under development), this project empowers personalized care strategies for rehabilitation, prevention, and health promotion, seamlessly integrated within individuals' living environments.

### Project Components

The security and confidentiality of data are paramount and will be managed in collaboration with [CISEL Informatique SA](#), utilizing Swiss data centers. The project adopts a "privacy-first" approach, implementing multiple technologies and principles to ensure the utmost security for the highly sensitive medical data.

Data encryption will be applied, with access management directly controlled by the user, ensuring that their information remains inaccessible to unauthorized third parties or the service provider. Users will thus benefit from a robust, reliable, and secure service.

Technical support and service maintenance will be provided by [SoftDesign CFY](#), leveraging their expertise in the field through their flagship product, TurboPhysio. Additionally, the Fribourg Hospital (HFR) will contribute its expertise as a central healthcare provider within the cantonal economic framework.

An important development stemming from these projects is the creation of a startup, which builds upon the knowledge and insights gained from the Hestia initiatives. This venture aims to extend the groundwork established by its predecessors and drive innovation in digital healthcare solutions. With a vision-driven leadership and a wealth of collective expertise, the startup is poised to make significant strides in advancing the landscape of healthcare technology. For further details about the startup and its endeavors, please visit: [lynxdata.ch/hestia/](https://lynxdata.ch/hestia/)

### **Project Timeline and Objectives**

The collaborative project “Hestia NPR” is currently underway. It started in October 2022 and is set to conclude in March 2024. The project aims to develop an advanced prototype of the medical information exchange platform, to be tested by HFR for medical monitoring (in rehabilitation and prevention). An impact assessment on health will also be conducted by the HEdS, including the developed solution. The platform will then be implemented for use within HFR and expanded with additional features to cover more use cases. Ultimately, a public deployment will be established to optimize outpatient care while reducing healthcare costs. Furthermore, several jobs will be created within the canton to maintain and develop the solution, which is intended to evolve over time.

For further information about the project and its development, you can visit the website of [Innosquare](#) or the [LynxData startup webpage](#). There, you'll find detailed insights into the Hestia NPR project, its objectives, and milestones achieved throughout its duration.