

NEWSLETTER

CENTRALIZED LOGS REPOSITORY **HS.REGISTER** FOR TRACEABILITY IN HEALTHCARE



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EDITORIAL

HS.REGISTER Demonstration Project appears as an opportunity for the healthcare institutions to be compliant with the new GDPR - General Data Protection Regulation demands, once they are already challenged by the heterogeneity of the implemented Healthcare Information Systems.

These vast numbers makes it highly complex to maintain a single record of activity within different information systems and to ensure the traceability of the actions of the various players within the internal and external healthcare processes and correlations. it also makes it very difficult for healthcare institutions to demonstrate they are GDPR compliant. Through this Project of Centralized Logs Repository HS.REGISTER for Traceability in Healthcare, supported by NORTE2020, we intend

to demonstrate in a real context of use by the healthcare institutions the solution for the identified problems. This is achieved by putting in evidence the results in the fields of relevant events management to the proper functioning of the information systems, information traceability aligned with GDPR compliance, operational support to the Information Technologies Department, as well as the Data Protection Officer (DPO). Also relevant is the possibility of management and monitoring of vendors support levels (SLA) and data quality.

It should be noted that HS.REGISTER solution will be subject to a Privacy Impact Assessment (PIA) study at the level of the collected information, demonstrating its GDPR compliance.



HLTSYS
PROJECT
MANAGER
**ISABEL
CRUZ**

THE PROJECT



HS.REGISTER

HealthySystems is the Lead Promoter of the Demonstration Project n.º 33756 which will allow the implementation of HS.REGISTER central logs repository at The Local Health Unit of Matosinhos, EPE (ULSM) where all the important events for the proper functioning of the Information Systems are recorded and audited.

In co-promotion with the Faculty of Sciences of the University of Porto, the project will allow end-users to validate the development of the new privacy risk mitigation measures to monitor information traceability, reinforcing the value of this solution for the alignment with GDPR.

Project Objectives:

- To implement in a real context of use within a healthcare facility the centralized logs repository HS.REGISTER not only for logs centralization, but also for validation of the solution technical feasibility;
- To conduct HS.REGISTER Privacy Impact Analysis study on the collected information to demonstrate GDPR compliance - Legal viability validation of the solution;
- To develop dashboards based on the information collected by HS.REGISTER, specific to support monitoring of information traceability, aligned with GDPR compliance and healthcare institution reality;
- Evolution of the technical solution for GDPR global alignment.



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ULSM
LOCAL HEALTH
UNIT OF MATOSINHOS
**DR. JOSÉ
CASTANHEIRA**
INFORMATION
SYSTEMS DIRECTOR



The Local Health Unit of Matosinhos (ULSM) participates in this project as the customer end-user. We recognize in this project a high potential in demonstrating GDPR compliance as it proposes to implement a solution that shrewdly circumvents the difficulty that is put on by dozens of different systems, implemented at our facility and other healthcare institutions, many of them technologically and functionally obsolete.

The final product solution where the logs from the various systems are centralized in a single repository is still a challenge for the IT Department, but it will also be a very useful tool in the activity of these departments, namely in the management of the relevant events for the proper functioning of the systems.

The knowledge/experience and competence already demonstrated by the consortium partners, in other projects in this area, was crucial for ULSM's participation in this project.

ULSM
LOCAL HEALTH
UNIT OF MATOSINHOS
**ENG. ANA PAULA
TEIXEIRA**
DPO



The new demands placed on healthcare institutions with GDPR date entry into force are a huge challenge, not only because there are new obligations for which healthcare institutions have no experience, but also because the state of the art in many fields doesn't facilitates compliance. A proven example of this situation is the number and diversity of information systems implemented at ULSM, which is a challenge as regards compliance with legal obligations, especially as regards actions traceability of the various intervenient profiles in the different healthcare processes.

As the Institution's DPO it was with great satisfaction that I see ULSM participation as a member of this project consortium.

In fact, this project implementation solution will be a very important tool not only for me as DPO, but for its data information traceability dimensions aligned with GDPR legal obligations, and for the tool evolution capacity.

HLTSYS
**DR. DUARTE
FERREIRA**
PRODUCT MANAGER



As a transversal challenge to the various economic agents, covering both private and public sectors, the Data protection challenge is particularly important in the healthcare sector, where personal data is sensitive by nature and where the complexity of activity records and actions traceability is enhanced by the diversity of systems and equipment used.

Focusing on Healthcare this centralized logs repository, HS.REGISTER project, is presented as a response to healthcare institutions in a way that they can be able to generate and maintain evidence of compliance with legal obligations for traceability of clinical information.

By pioneering the provision of user aggregation and user activity logging of the various information systems that are implemented at a certain institution, with a primary focus on a complex market such as healthcare, with this project dynamization HLTSYS intends to strengthen its competitiveness by making the solution available to other business sectors.

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Cybersecurity is one of the key areas (and challenges) of information and communication technologies, namely from digital economy areas. In cybersecurity, data protection is a top priority subject.

O HS.REGISTER pode ser considerado um repositório de informação vinda de diferentes fontes de dados, sendo parte desta informação considerada como sensível (ex: dados de utentes).

HS.REGISTER is a centralized data repository from many different sources being some of this data considered sensitive (for example patients data). This information aggregation can become threatening given the creation of a central database of heterogeneous information.

With GDPR implementation it is essential to conduct an evaluation of HS.REGISTER from the point of view of privacy and security of the stored information. FCUP will collaborate in this area by conducting a Privacy Impact Assessment (PIA), contributing its experience and scientific knowledge to the pursuit of the project's goal in what concerns to data protection and cybersecurity.



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TECHNICAL INFORMATION

Name of the Project	Demonstrator HS.REGISTER - Centralized Logs Repository HS.REGISTER for Traceability in Healthcare				
Project Reference	NORTE-01-0247-FEDER-033756				
Region of Intervention	North				
Main objective	Strengthening research, technological development and innovation				
Project approval date	14/06/2018	Project start date	01/10/2018	Project completion date	27/03/2020
Total eligible cost	€ 164.252,18	EU Financial Support FEDER			€ 117.351,26