

# NEWSLETTER

## INTEGRATOR HS.HELIOS FOR HEALTH TRACEABILITY



CINTESIS  
RESEARCHER  
PROF. RICARDO  
CORREIA

### EDITORIAL

HS.HELIOS demonstrator project is an opportunity to respond to the challenges currently faced by health sector not only by the number and nature of health information systems (HIS), but also by the sharpening of the problem due to the need to demonstrate compliance with the obligations imposed by the General Data Protection Regulation (GDPR).

Lack of interoperability between HIS and dependence on external providers are the main barriers within health institutions, which have been feeling great difficulties in planning and implementing measures that allow them to demonstrate compliance with legal obligations arising from the GDPR, namely measures related to traceability of information within the institution and its relationship with external entities.

The main motivations for implementing transverse integrations are (a) the need to build a single platform for patient registration and other health professionals; (b) increase the efficiency of current medical practices and institutions; (c) the need to cut or contain health care expenses; and (d) the increased demand for paperless technology.

With the project "HS.HELIOS Integrator for Health Traceability", developed within the scope of COMPETE2020, we intend to demonstrate in real context of health institutions the answer to the stated problems by demonstrating the capacity of HS.HELIOS solution in the fields of interoperability, management of external access to patient data, information traceability, process management and monitoring, data quality and support to the operation of the computer service.



HLTSYS  
PROJECT  
MANAGER  
ISABEL  
CRUZ

### THE PROJECT



**HS.HELIOS**

HealthySystems is the Lead Promoter of Project No. 34017 in co-promotion with the Health Technologies and Services Research Center (Cintesis) which comprises the implementation of the HS.HELIOS Integration Bus enabling the interoperability and centralization of integrations between hospitals' Information Systems (SI).

Its end users from the Northern Region - Centro Hospitalar Between Douro and Vouga, EPE (CHEDV) and from the Centre Region - Centro Hospitalar Tondela Viseu, EPE (CHTV) will validate the latest developments of integrator HS.HELIOS aligned with the fulfillment of GDPR obligations and contribute to the impact analysis study of this solution for health gains.

The project objectives are:

- To implement in real use context the solution HS.HELIOS V1 and its evolution to V2;
- To conduct an impact analysis study of the implementation of HS.HELIOS;
- To implement dashboards module in HS.HELIOS in order to monitor the traceability of information, aligned with the compliance with the legal obligations of the RGPD.



## CHEDV

HOSPITAL CENTER  
ENTRE DOURO E VOUGA  
**DR. MIGUEL PAIVA**  
CHAIRMAN OF  
THE BOARD  
OF DIRECTORS



CHEDV (Hospital Center Entre Douro e Vouga) is one of the co-promoter entities of the Demonstration Project which aims to demonstrate the technical and economic viability in the usage real context, as well as to progress towards alignment with GDPR.

Has owners and/or users of a very heterogeneous set of Information Systems we feel the difficulties arising from the lack of interoperability, which limits proper traceability and quality assurance of information within the institution. Added to GDPR legal requirements, which forced us to implement new tools to ensure their compliance, without jeopardizing the agile and secure use of the Information Systems.

The adherence to this project aims to address these issues and enables CHEDV to take sustained steps to become a reference hospital center for traceability, quality and security of shared information within CHEDV, as well as with other external institutions. It has as ultimate goals to ensure the provision of excellent healthcare with increasing satisfaction of users and employees.

## CHTV

HOSPITAL CENTER  
TONDELA/ISEU  
**ENG. HENRIQUE  
FERREIRA**  
DIRECTOR OF  
INFORMATION  
SYSTEMS



At CHTV, as in other healthcare institutions, there is a proliferation of heterogeneous information systems that contain patient information.

The amount of produced information is increasing, making it mandatory to use systems that guarantee professionals the quick, easy and controlled access to information.

Being a co-promoter of this project we seek to take advantage of 2 main axes. On one hand to adopt a tool that ensures and facilitates interoperability between systems, using international standards, and on the other hand to ensure that this tool is aligned with GDPR.

With the specialized knowledge and skills spread by various areas, brought by the human resources of the institutions involved in this project, the necessary conditions to achieve the defined objectives are assured from the outset.

## HLTSYS

**DR. RAPHAËL  
OLIVEIRA**  
PRODUCT OWNER



HS.HELIOS is central integration system for clinical and demographic data transmissions carried out in healthcare institutions, providing real-time integration metrics of the various Information Systems implemented. The result of more than five years of research and continuous work now sees the opportunity to be installed and evolved in the real context of two Hospital Centers.

This project aims to prove the efficiency and scalability of HS.HELIOS version 1 implementation. The implementation of version 2 will evolve data analysis tool, enabling healthcare institutions to achieve a high degree of GDPR compliance.

At the end of the project HS.HELIOS version 2 should be prepared for the different heterogeneous environments, meeting all the needs of the most demanding national and international healthcare institutions.

## CINTESIS

HEALTH TECHNOLOGY  
AND SERVICES  
INVESTIGATION CENTER  
**PROF. RICARDO  
CORREIA**  
RESEARCHER AND  
AUXILIARY TEACHER



From the perspective of the National Research and Innovation Strategy for Smart Specialization (ENEL) this project covers the cross domain of healthcare research, ensured by the Cintesis Project Investigation Unit.

One of the biggest difficulties in this area comes from obtaining data in a timely and quality manner. Through the experience and contributions of R&D projects in the field of healthcare information acquisition, processing, analysis and management, Cintesis will be able to carry out the impact analysis study of HS.HELIOS implementation. This study will focus on message errors reduction associated to healthcare delivery and ROI (Return On Investment) measurement, throughout economic viability for CHEDV and CHTV.

## TECHNICAL INFORMATION

Name of the Project	<b>HS.HELIOS - Integrator for communication and Data Portability in Healthcare.</b>				
Project Reference	<b>POCI-01-0247-FEDER-034017</b>				
Region of Intervention	<b>North and Centre</b>				
Main Objective	<b>Strengthening research, technological development and innovation</b>				
Project approval date	<b>18/04/2018</b>	Project start date	<b>16/07/2018</b>	Project completion date	<b>11/01/2020</b>
Total eligible cost	<b>€ 191.098,67</b>	EU Financial Support I FEDER			<b>€ 138.319,52</b>



HEALTHY  
SYSTEMS

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