



**HEARTFAID**

## **D1 – Project Presentation**

**Submission date: 28/04/2006**



**Information Society  
and Media**

## HEARTFAID

A KNOWLEDGE BASED PLATFORM OF SERVICES  
FOR SUPPORTING MEDICAL-CLINICAL  
MANAGEMENT OF THE HEART FAILURE WITHIN  
THE ELDERLY POPULATION

<b>Project summary</b>	
<b>Project acronym:</b>	HEARTFAID
<b>Project identifier:</b>	IST – 2005 – 027107
<b>Duration of the Project:</b>	01/02/2006 – 31/01/2009
<b>Project Co-ordinator:</b>	UNICAL University of Calabria (Italy)
<b>Thematic Priority:</b>	Information Society Technology – ICT for Health
<b>Instrument:</b>	Specific Targeted Research Project

<b>Consortium</b>	
<ul style="list-style-type: none"> <li>➤ UNICAL- Università della Calabria (Italy)</li> <li>➤ UNICZ- Università degli studi Magna Graecia di Catanzaro (Italy)</li> <li>➤ UNIMIB- Università degli studi di Milano Bicocca (Italy)</li> <li>➤ JUMC- Jagiellonian University Medical College (Poland)</li> <li>➤ VMWS- Virtual Medical World Solutions Ltd (United Kingdom)</li> <li>➤ FORTHNET S. A.- Hellenic Telecommunications and Telematic Applications Company S. A. (Greece)</li> <li>➤ SYNAP- Synapsis s.r.l. (Italy)</li> <li>➤ CNR- Consiglio Nazionale delle Ricerche (Italy)</li> <li>➤ FORTH-Foundation for Research and Technology Hellas (Greece)</li> <li>➤ RBI- Rudjer Boskovic Institute (Croatia)</li> <li>➤ AUXOL- Istituto Auxologico Italiano (Italy)</li> </ul>	

## D1 – Project Presentation

Document summary	
<b>Document Title:</b>	Project Presentation
<b>Document Classification:</b>	Derivable D1
<b>Dissemination level:</b>	PU
<b>Submission date:</b>	24 March 2006
<b>Due date:</b>	28 February 2006
<b>Authors:</b>	Vincenzo Lagani – Unical
<b>Work package:</b>	WP0 – Management
<b>Report Version:</b>	1.1

Short Description
This document is a brief presentation of HEARTFAID objectives and expected results.

Change Record		
Version Number	Changes	Release date
1.0	First draft of the document	09 March 2006
1.1	Minor format changes.	24 March 2006
1.2	Minor format changes	28 April 2006

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## **Summary**

HEARTFAID is a Research and Development project aimed at devising, developing and validating an innovative knowledge based platform of services, able to improve early diagnosis and to make more effective the medical-clinical management of heart diseases within elderly population.

The project will take place with the financial support of the European Community, under the Sixth Framework Program, Information Society Technology – ICT for Health.

# 1 HEARTFAID

A Knowledge Based platform of services for supporting medical-clinical management of heart failure within elderly population

## 1.1 Objectives of the project

*Chronic Heart Failure is one of the most remarkable health problems for prevalence and morbidity*, especially in the developed western countries, with a strong impact in terms of social and economic effects.

All these aspects are typically emphasized within the elderly population, with very frequent hospital admissions and a significant increase of medical costs.

*HEARTFAID aims to make more effective and efficient all the processes related to diagnosis, prognosis and treatment of the Heart Failure within elderly population.*

This general goal will be achieved by developing and providing an innovative technological platform that:

- integrate biomedical data within electronic health record systems, for easy and ubiquitous access to heterogeneous patients data;
- provide services for healthcare professionals, including patient telemonitoring, signal and image processing, alert and alarm system;
- support clinical decision in the heart failure domain, based on pattern recognition in historical data, knowledge discovery analysis and inferences on patients' clinical data.

## 1.2 Project Description

An international consortium, involving academic researchers, health care organizations and companies will develop and implement the knowledge-based platform of services proposed in the HEARTFAID project.

*The core of HEARTFAID platform will be the Knowledge Level, formalizing all the pre-existing clinical knowledge about Heart Failure.*

Novel, useful and non-trivial knowledge will be extracted from the Knowledge Base and the data collected during the project, by using innovative knowledge discovery processes.

*If the Knowledge Base represents the heart of HEARTFAID platform, the "brain" of the platform will be the Decision Support Systems (DSS).*

The DSS will have the main goal to provide a valid support to the health care operators and the decision makers operating in the field of heart diseases.

To ensure the reliability and the correctness of the whole system, the clinical partners will carry out an intensive validation of the platform functionalities.

### 1.3 Expected Results & Impacts

*HEARTFAID strategic impact mainly regards the improvement of the quality of life of Heart Failure patients and the decreasing of the social and economic costs.*

HEARTFAID applications will bring an important increase of the treatment quality of the individual patient, by ensuring the possibility to personalize the therapy and have a real-time monitoring and assistance of the patient;

On the other hand, the optimization of the therapy processes will assure the control and reduction of the overall economic and social costs of medical care, by decreasing the frequency of hospital admissions.

Moreover, the results of HEARTFAID and the technical solutions created inside the project will be used in order to:

- innovate biomedical data communication standards;
- improve the Heart Failure clinical guide lines and protocols;
- develop new models and procedures on the basis of which organize the health care delivery;
- suggest new directives and research policies to policy makers;

### 1.4 Scenario

With the aid of HEARTFAID platform, all the health care operators will be able to collect and visualize present and historical data of the heart failure patients. No waits for the transferring of paper clinical notes among different institutes, no uncertainty about the reliability of past data. Physicians will have only to click on their notebook (or PDA, or Desktop PC) to access to the complete profile of the patient, and to ask the decision support services about the best treatment policy for the specified patient.

## HEARTFAID: project in short

### Project title:

A Knowledge Based platform of services for supporting medical-clinical management of heart failure within elderly population

### Project co-ordinator:

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[www.heartfaid.org](http://www.heartfaid.org)

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### Keywords :

- health professionals' knowledge
- decision support systems
- telemedicine
- biomedical data integration
- Heart Failure

### Timetable:

from 02/06 – to 02/09

### Total cost:

€3.220.115,00

### EC funding:

€2.089.759,00

### Instrument:

STREP

### Project Identifier:

FP n° IST-2005-027107

