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Velti

EU FP7 Research Project SensorART

## Project Overview

**Project full title: A remote controlled Sensorized Artificial heart enabling patients empowerment and new therapy approaches**

**Total Project Budget: 8,5M Euro**  
**Total Contribution from the EU: 6,2M Euro**

**Total Budget for Velti: 1,1M Euro**  
**Total Contribution from the EU for Velti: 870K Euro**

### Project Partners

1.	CONSIGLIO NAZIONALE DELLE RICERCHE
2.	SCUOLA SUPERIORE DI STUDI UNIVERSITARI E DI PERFEZIONAMENTO SANT'ANNA
3.	KATHOLIEKE UNIVERSITEIT LEUVEN
4.	AZIENDA OSPEDALIERA OSPEDALE NIGUARDA CA GRANDA
5.	IMPLEMENTAL SYSTEMS SL
6.	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS
7.	CircuLite GmbH
8.	UNIVERSITE CLAUDE BERNARD LYON
9.	DATASEL BILGI SISTEMLERI AS
10.	INSTITUTE OF BIOCYBERNETICS AND BIOMEDICAL ENGINEERING - POLISH ACADEMY OF SCIENCES
11.	Velti Anonymos Etairia Proionton Logismikou & Synafon Proionton & Ypiresion
12.	INTRAROM S.A.
13.	BANGOR UNIVERSITY

### Project Description

SensorART will provide: innovative telemedicine services supporting patients with chronic heart failure and healthcare professionals, allowing patients to be treated at home without renouncing to accessing high medical expertise; innovative tele-control services allowing the patient and the healthcare professional to keep under control the performance of cardiovascular implanted assisted devices (VAD); demonstration of effectiveness and cost effectiveness of specialized telemedicine services and the positive impact on the healthcare system reducing hospitalisation time, by considering also the higher degree of device acceptability at home by a training of the patient and his empowerment.

The psychological support, evaluation and counselling before and after implantation will be strongly considered, by taking into consideration the importance of brain-heart and brain-homeostasis recover relations; circulatory modelling and simulation of cardiac and circulatory dynamics will be adapted to reconstruct the patient's status and analyse separately the effects of heart and circulatory conditions along with the assistance conduction, through this application, novices will have the possibility to make himself familiar with VADs, while gaining in-silico experience in treating acute heart failure; analysis and exploitation of the medical device market by the development of an open, standardized interoperable system able to easily interact with the existing products.



**Velti in SENSORART** will lead the system integration activities, build an API for linking the heterogeneous wireless sensors under a common platform and for permitting new sensors to be included in the system. Velti, based on its expertise gained from the development of custom communication services between different devices, will provide an interoperable solution of middleware that will allow data integration between heterogeneous sensor-based sources by using standard communication protocols.

Velti, will lead the programming of the PDA device of SENSORART with the patient's monitoring application. The interfaces of this application will present the integrated sensor data to the patient.