

Project title:

BODY LIFE
INTELLIGENT SYSTEM MONITORING THE BODY COMPOSITION FOR
BETTER HEALTHY AND ILLNESS PREVENTION

Budget: 2,963 MEURO
EU Program: IST 2000
Implementing Organizations: ATKOSoft S.A., CNRS, IXTREM, DIFE,
SOFTEC, Lancaster University, European
Society of Cardiology

Project Duration: 36 months
Time of Implementation: 2000-

Subject:

The main objective of the project is the development and validation of reliable methods, intelligent instrumentations, sensors and software for determination of the body composition for better life style and illness prevention.

The scientific and technological research objectives are the development of innovative ultrasonic and electromagnetic methods, and sensors coupled with an intelligent platform or system. That system will provide an appropriate representation of the data for non-expert end-users, and will interface with a medical multimedia database.

Ultimately it is hoped that body composition data combined with the overall clinical and psychological profile of the individuals will contribute to the improvement of their respective health provision and as well as their quality of life. As to the possible migration of the project, there is a plan to further exploit opportunities arising from other potential medical or industrial applications and to promote the Consortium's scientific and technological excellence as well as the collaboration with other research centers.

Technology wise the following features are to be developed:

A demonstrator platform (for hospitals, clinics and surgeries) and system with adapted (electromagnetic or ultrasonic) sensors connected to a medical information software package platform for use by the patients, medical multimedia database with adapted software interface to communicate with the equipment developed, medical knowledge information systems that will connect body composition data to health combined with the overall clinical and psychological condition of the patient e.g. recommendations on lifestyle, on-line medical services.

Know-how to be gained: Telemedicine, Tele-preventive health care, Tele-Consultations, Medical devices, Multimedia Databases, RDBMS over the Internet & stand-alone centralized databases, Use-case modeling technique, 5-level security, Intelligent software package for data fusion analysis, Signal processing and data displays (imaging) software, PC based or interfaced multi-sensor & multi-frequency instrumentation, Statistical analysis etc.