Integrated Care Solutions (ICS)

The Biomedical Informatics Laboratoty of the Institute of Computer Science of FORTH has developed new, innovative service platforms for automatic, context sensitive offering and contracting of electronic and mobile health across heterogeneous networks, focusing on a patient-centered, clinically driven health system.

The Integrates Care Solutions software (ICS) is an open, scalable and evolvable architecture conforming to the requirements for interoperability of systems and services as well as the use of standards. It is a software system with flexible integration of distributed information and knowledge, focusing on the timely and effective delivery of appropriate information to all authorized users, built upon an underlined Healthcare Information Infrastructure. It follows high quality international trends regarding both the structure of the Electronic Health Record (EHR), as well as integration with third party systems. ICS through its various tools and applications contributes immensely to clinical decision support for disease management and treatment planning. More specifically:

The **ICS Hospital Information System** automates the patient management process from admission to discharge (and billing), including all medical information required, leading to improved efficiency and communication throughout the hospital. Patient data (administrative and medical) is streamlined, virtual and paperless, so that it is accessible at the point of need but only by authorized personnel according to each user's operational area, role and responsibilities. At the same time Ward and Department management is made easy through statistics, reports, views etc.

Contact Person:
Dimitrios G. Katehakis
Telecommunications Engineer
katehaki@ics.forth.gr

The **Primary Health Care Information System** facilitates the patient management process in the context of a primary health care provider setting, including administrative and medical data as well as primary care management. The EHR is based upon internationally accepted models for primary care, and both a visit-oriented and a problem-oriented views are supported, together with process automation. It supports policy development as far as population health is considered together with strategy development in the area of primary health care, in regard with the conduction of medical research, exporting of epidemiologic information and evaluation of services offered. This system is implemented and in use in Greece since 1998.

Contact Person:
Dimitrios G. Katehakis
Telecommunications Engineer
katehaki@ics.forth.gr

The **ICS Emergency Care** is a unique tool for prompt and accurate management of an emergency incident. The coordination centre and the ambulance service can prioritize and manage the available resources in the best possible way. In the ambulance patient telemonitoring (by transmitting vital signs through telematics) from the incident site is available, while proper arrangements can take place at the host health center, thus saving lives in emergency incidents where every second counts. This system is implemented and in use in Greece since 1998.

Contact Person:
Dimos Panagopoulos
Telecommunications Engineer
dimos@ics.forth.gr

CERT
Quality Assurance ISO 9001
QMSCERT
Cert. No. 131007/1081

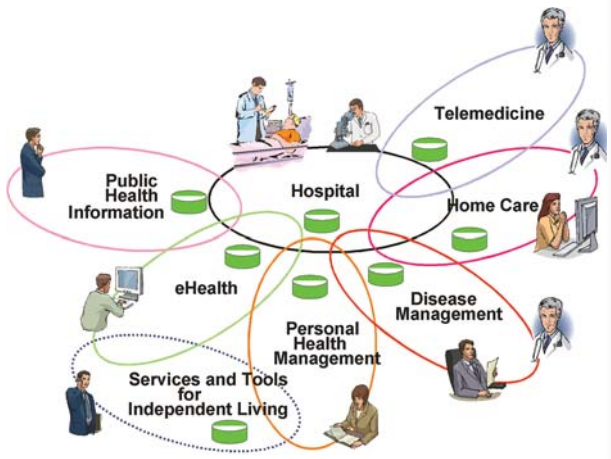
FORTH
ICS

BIOMEDICAL INFORMATICS LABORATORY(BMI)

The convergence of life sciences, healthcare, and information technology is revolutionising the discovery of new treatments and the practice of medicine. The field of biomedical informatics has evolved immensely nowadays as there is a strong belief that full understanding of health and disease can only be obtained through the integration of knowledge from different levels of organisation such as molecules, cells, tissues, organs, as well as clinical and environmental data. Several research efforts have resulted in the emergence of information-based medicine for individualised healthcare.

Thus the central mission of the Biomedical Informatics Laboratory is that of providing technical and scientific knowledge and infrastructure to allow evidence-based, individualised healthcare using all relevant sources of information.

Currently we have acquired significant technology know-how in the fields of Virtual Psysiological Human (production of knowledge, advanced computational methods and various tools), individualised Healthcare (development of tools for novel and prototypical data mining, and knowledge discovery for databases), ambient intelligence eHealth environments, (simulation and modelling of complex biomedical processes), development of Regional Health Information Network (Electronic Health Record, Integrated Care Solutions).



The future healthcare environments and services

Contact Person:
Ioannis G. Tollis
Professor of Computer Science
Head of BMI Laboratory
tollis@ics.forth.gr