

IST eHealth: New Website, New Newsletters

Innovation in Information and Communication Technologies (ICTs) is changing the way medicine is practiced from diagnosis to follow up, providing an integrated view on an individual's health status and supporting prevention and life style management.

ICTs have an important role in service engineering, improving medical knowledge and practice and defining new fields of research. This Newsletter will look at all of these issues, exploring the wealth of technological developments in the field. It is complemented by a newsletter on the European eHealth Action Plan. Both can be browsed and subscribed to from the new [ICTs for Health website](#) (see Key Sites, page 2).

Project of the Month: WEALTHY

Patients in the near future will use 'smart' fabrics to keep them healthy, thanks to a EU project that recently completed initial development of high tech clothing. The Wearable Health Care System ([WEALTHY](#)) IST project just completed 30 months of research and development to prototype technologies at the heart of smart fabrics.

Smart fabrics incorporate functional fibres and yarns into the weave, allowing researchers to develop many useful sensors for a wide variety of applications. The clothing can monitor vital health data, communicate with remote health centres and present data in a variety of formats for further analysis by doctors and researchers.

Many potential users could benefit from such intelligent clothes. Soldiers under extreme conditions in the field, athletes, personnel in high-risk jobs like fire fighting, or the sick and vulnerable will all benefit from the health data these clothes can provide.

It will take another three years before full commercialisation is possible in this market segment, which is expected to grow very rapidly in the coming years. In the meantime, the Italian R&D company Smartex, coordinator of the WEALTHY project, is currently working on another project, [MyHeart](#) with Philips, which, based on similar technologies, aims to develop products and services for fighting cardiovascular diseases by early diagnosis and monitoring. See also [IST Results: Staying healthy by dressing smart](#).



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Context: Wearable Health Systems

The interest for wearable health systems originates mainly from the need to extend health services outside the hospital (continuity of healthcare) and to monitor patients over extensive periods of time. **Smart Wearable Health Systems (SWHS)** are integrated systems in contact with or near the body, able to sense, process and communicate biomedical and physical parameters.

Currently, the main research effort is on the development of innovative, integrated, user-friendly and autonomous wearable systems with embedding decision making algorithms. Cutting-edge multidisciplinary research in textile fibres, biomedical sensors and mobile communication, integrated with telemedicine services, aims at the development of **Intelligent Biomedical Clothing (IBC)** that could overcome the limitations of the existing smart wearable systems. The European Commission has supported and continues to support the development of SWHS during the Fifth and Sixth Framework Programmes (e.g. [AMON](#), [EPI-Medics](#), [Mobihealth](#), [Wealthy](#), [MyHeart](#)).

News from the Programme

Response to the 4th Call for proposals: Integrated Biomedical Information for Better Health

About 150 proposals were received for this objective, closed on 22/03/05, requesting a total grant of over €0,5bn. The negotiation of the retained proposals will start in September, following the IST Committee decision in June 2005.

Studies

Calls for tenders will be launched soon for:

- A set of 4 studies entitled *Studies on Exchange of good practices in eHealth*. This project is part of the Modinis programme.
- A study on the *Evaluation of the need of frequency bands in hospital for reliable wireless medical applications*.

More: see Pre-announcements, Official Journal, 25/02/05.

The *Study on eHealth Impact (best practices analysis)* started on 1 January, 2005. Ten sites were chosen all over Europe and an evaluation framework has been set up. The first two sites will be completed during the summer and a complete analysis will be available in November 2005. Over 100 of the sites will be published as good practice examples and made available to Member States.

News from the Projects

INFOBIOMED is launching its first Training Challenge. This innovative training experience will take place near Barcelona, Spain in mid-September 2005. The Training Challenge will gather 2 groups of 5 students with different backgrounds to work together in a case study that can benefit from an integrative approach. The objective is to promote disciplines interactions and exchanges of views which is key for the future development of biomedical informatics. Application deadline is 30th June 2005. *More:* <http://www.infobiomed.org>.

The **ERA pilot SYMBIOmatics** started on May 1st and had its official kick-off meeting on 8 June. The project is part of the [thematic ERA pilots](#) evaluated in FP6 call 3. It addresses the [area of biomedical informatics](#). The aim of the project is to provide an overview of the state-of-the-art in biomedical informatics in Europe, of the national funding possibilities and research strategies. It should identify future research challenges and specify those in need for support at European level through Commission funding in FP7.

The project **Development of a tool based on new technologies for the design and evaluation of spine implants** is, amongst 20 projects involving some 93 SMEs, illustrating the richness and diversity of the results that SMEs can obtain from EU research projects and show how SMEs with little or no RTD capacity can benefit from the CRAFT (now the Co-operative Research) scheme.

More: http://sme.cordis.lu/docs/SME_success_stories-5.pdf.

HKIS - Real time integration platform for biological data processing: The HKIS platform allows biologists and physicians to define and publish on the web, without programming, their own pipe-line of data processing for transcriptome, genome, proteome, etc. The platform offers simple and fast analysis modules using and linking instantaneously all algorithms and biological data banks with their own data. The platform is now available through a commercial tool (*more:* bio@isoft.fr).

Events – Conferences – Workshops

- eHealth working group - This advisory group of nominated Member States representatives was launched on June 7 2005 in Brussels, Belgium. The group will work in the immediate future on the eHealth roadmapping activities of the Member States and collection of their best practice eHealth examples. Next meeting to be announced soon: either September or October 2005. [More...](#)
- eHealth2005 - 23-24 May Tromso, Norway - Conference Conclusions are published on www.ehealth2005.no
- [Workshop on the Functional Imaging and Modelling of the Heart](#) - 1-3 June – Barcelona, Spain
- e-Health Conference 2005 - 2-3 June – Athens
- [eHealth in Community Pharmacy to enhance Public Health](#) - 14 June - Athens, Greece
- i2010 Parliament event - 15-17 June – Brussels, Belgium
- [Biotechnology Industry Organization's \(BIO\) 2005](#) Annual International Convention – 19-22 June – Philadelphia, USA
- TMA Bridge workshop – 21-22 June Barcelona, Spain – Towards interoperable eHealth for Europe http://www.esa.int/esaMI/Telemedicine_Alliance/SEMZ71X4QWD_0.html#subhead1
- Rencontres de l'informatisation de l'univers santé et social – 23-24 Juin – Institut Pasteur Paris, France
- [Academy health](#) - 26-28 June – Boston, USA
- International Workshop "[Impact Analysis and Perspectives of The European Health Insurance Card](#)" 28–29 June, Brussels
- [CIMED](#) – 2nd Int'l interdisciplinary Conference organised by [Biopattern](#) NoE on Computational intelligence in Medicine and Healthcare 29th June – 1st July 2005 - Lisbon, Portugal

More events: ICTs for Health, below

Key Sites and Subscription Information

ICTs for Health: http://europa.eu.int/information_society/activities/health/index_en.htm

Feedback & Comments: eHealth@cec.eu.int ; **Contribute:** Deadline for submissions (mid-July edition): 5th July.

IST eHealth Research (CORDIS): http://www.cordis.lu/ist/directorate_c/ehealth/index.html