

Inter-Municipality Initiative: Cross-border eCollaboration in the Danube eRegion

<http://eLivingLab.org/CrossBordereRegion/InterMunicipality>

Cross-border eSolution/eService Prototype Development Proposal

Presentation event: *3rd Danube eRegion Conference – DeRC 2013 in Ljubljana on September 23-24*

Prototype title: **TeleMed System: Better quality of Life at lower cost**

Short description of the prototype:

(problem to be solved, expected benefits, main stakeholders, expansion opportunities, related EU projects, references):

TeleMed System is an “open” tele-health solution which provides a high level of attention and accuracy for daily remote monitoring of patients with non-critical medical conditions.

Extremely simple to use, TeleMed System was designed to be compatible with hardware already present in the hospital structure, its organization and to be used with wireless systems as well as with traditional phone line or through the internet ADSL. Distance monitoring contributes to a better quality of patients life and allows reduction of hospital time and costs at regional, national, and international levels.

Since TeleMed System is adaptable to the IT equipment already in use by the healthcare structure, it does not require the purchase of specific hardware, and may be used with telephone, internet or wireless technology, thus allowing the wide-spread use of tele-health for the benefit of patients, physicians and healthcare system.

The TeleMed System was designed and developed by University Hospital of Trieste in collaboration with the Center of Competences and Applied Technology (CCAT) Teorema Engineering of AREA Science Park Trieste, Italy, and in partnership with Microsoft.

The combination of broad expertise in Healthcare, great technological know-how, knowledge, and experience, led to the development of a tele-health solution that responds to the specific needs of a healthcare system, in terms of open, flexible, ICT secured and privacy compliant solutions.

Due to its characteristics, the model can be easily implemented in European Health Systems.

While the vast majority of existing studies, prototypes and solutions are conceived and built with proprietary hardware, medical devices and/or aimed at offering tele-health in a proprietary for-profit model, the TeleMed System represents a quality tele-health solution based on the changing needs of patients and healthcare structures as well as regional strategies. In fact the TeleMed System is the result of an ongoing collaboration among the Hospital system, Microsoft and Teorema Engineering, and guarantees an exchange of ideas which allows the solution to evolve in order to meet the real needs of users: patients, physicians and Public health system.

ICT requirements for the prototype deployment in another organization/country:

Internet, standard telecommunications systems and HIS.

- Two servers, one for the Portal (web server) and the other for the database (database server).
- The entire product was developed using C# on .NET Framework 2.0. The solution at this time uses SQL Server.
- Characteristics may vary depending on use. Minimum characteristics: For the webserver: 4GB RAM, multi-processor, HD min. 1TB, double network card 1Gbit. For database server: 8GB RAM, multi-processor, HD min 2TB, network card 1Gbit. These indications are merely suggestions. Adaptations may be necessary depending on the environment.
- The communication network between the web server and the database server be 1GB; for the Internet network the band may vary depending on use (Minimum: ADSL with Upload of 1Mbit).

- The Portal is accessible through the web browser using https protocol.
- Conformity with W3C standards. Visualization of the portal has been tested on IE9 or higher as well as FireFox 23.0.
- The server software handles multi languages for the User Interface.

Expected cross-border impacts:
Facilitation of cross-border medicine.

Proposer - contact person

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Existing partners (name & family name, position, organization, country):

The TeleMed System was designed and developed by **University Hospital of Trieste** (Graziano de' Petris - Head of the Research Unit in Telemedicine - University Hospital of Trieste) in collaboration with the **Center of Competences and Applied Technology (CCAT) Teorema Engineering of AREA Science Park Trieste, Italy** (Gianpaolo Centuori – CEO), and in partnership with **Microsoft Italia** (Andrea Valboni - National Technology Officer). The combination of broad expertise in Healthcare, great technological know-how, knowledge, and experience, led to the development of a tele-health solution that responds to the specific needs of the healthcare system, noting that the tele-health market, at the time, offers little in terms of open, flexible, ICT secured and privacy compliant solutions. While various studies, prototypes and solutions existed, the vast majority of these were conceived and bound to proprietary it hardware, medical devices and/or aimed at offering tele-health in a proprietary for-profit model.

What type of partners are we looking for?

Technological, Health, eHealth, Scientific, Industrial, Commercial.

Remark: I, the proposer of the prototype, do agree that my personal data is published.