

2nd Danube eRegion Conference – DeRC 2012

Grand Hotel Union Ljubljana, Slovenia, Monday - Tuesday, September 24-25, 2012

<http://eLivingLab.org/CrossBordereRegion/DeRC2012>

Cross-border eSolution/eService Prototype Development

Prototype title: Complex Hybrid System of Systems to monitor pollutants effects (air, water, soil) on health

Short description of the prototype (problem to be solved, expected benefits, main stakeholders, expansion opportunities, related EU projects, references):

A collaborative network is a new concept, incubated within the project IST.VO.MAP 2001-2003 that needed a vast theoretical basis of multi-disciplinarity. „Virtual Organization Roadmap” in which, the Director of the project REMEDIU, Prof. Aurelian Stanescu, accounted for as UPB-CPRU responsible and attended by 39 European countries and not only (Israel).

A collaborative network is a variety of entities (e.g., organizations and individuals) that are largely autonomous, geographically distributed, with a complex and heterogeneous metasystem regarding the interoperability, culture, social capital and objectives. The interactions of these are supported by sophisticated ICT platforms. Compared to other networks, the collaborative networks are a form of metasystem based on synergy so that the members of this network are likely to achieve goals that would otherwise have been impossible to achieve or would be very costly if attempted to achieve place individually.

ICT platforms for collaborative research have their architectures based on services, compatible with knowledge management, so that complex integrated systems (SCADA + WEB) could be developed.

Expected results are the following:

- Creation and development of the first national collaborative research demonstrator, in the field of high priority - environmental protection and health.
- The development of new methodologies for identifying the pollutants risks on human health.
- Higher learning process support following the concept "learning and training through research" (focused on students, masters, and doctoral students as qualified resources for the future).
- Improvement of the different methods and technology computer assisted in order to prevent pollutants effect on human health.
- Development of scenarios in the field of social and economic impact of pollution: environmental protection and health.

ICT requirements for the prototype deployment:

1. Nonmonolithic System of Systems
2. Hybrid man-machine complex human computer interfaces
3. Sustainable interoperability
4. Resilience of the biosystems
5. Complex SCADA + Management Information Systems
6. Networked stations for data capturing
7. data centers, cloud computing
8. amenities services
9. Future Internet Enterprise Systems (IoT, IoS, IoK, Ib/fP)
10. e-healthcare systems based on telemedicine methods and techniques

Proposer (contact person)

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Existing partners (representative, position, organization, country):

- UMF: University of Medicine & Pharmacy, Bucharest, Romania
- ICIM: National Institute for Research in Environmental Sciences, Romania
- SIS SRL: System Integration Company (SME), Bucharest, Romania
- UB: University of Bucharest (Biochemistry), Bucharest, Romania

What type of partners are we looking for?

Ecological Economics interdisciplinary actors (De, Au, Slo, Hu, Cr, Blg) from the Living Labs:

- universities: academic research
- institutes: software engineering, automation, ecology
- companies (SMEs + Large companies)

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Public Agency of the Republic of Slovenia for Entrepreneurship and Foreign Investments