

i2-Health – Interoperability Initiative for a European e-Health Area

i2-Health is supporting discussions amongst national Health Ministries, the EC and stakeholders towards identifying organisational structures for faster progress in setting up interoperability amongst eHealth services (so that "one application entity can accept data from the other and perform that task in an appropriate and satisfactory manner without the need for extra operator intervention").

Objectives of the project

Interoperability amongst eHealth services has not yet been achieved, neither within single organisational units like hospitals or community health centres, nor in regional or national settings, not to mention semantic interoperability of cross-border services.

The overarching goal of the initiative is therefore to:

- Contribute to a pan-European interoperability at all levels amongst eHealth infrastructures, services and applications developing at national and regional level, and thereby to
- Further the development of a European market in borderless health services facilitated by eHealth applications.

For achieving these objectives, i2-health is developing a generic e-health interoperability framework and common approaches to interoperability on two key issues:

- Patient/Professional identifiers
- ePrescribing and Health data messages

Project Description

At the European level, requirements for interoperability arise from different demands for free movement of labour, goods and services in Europe, including.

In i2-Health, the focus is be on trans-border patient mobility and consequently on issues related to cross-border health service provision. This is what we may

call the core "business case" from which to derive the specific problems to be selected for further analysis.

To provide for a meta-level generic context, WP 1 is drawing up a consistent, process-oriented and citizen-centred model for healthcare provision. Special attention has been paid to processes crossing institutional and hence potentially health system borders. It provides for, a common understanding and language for a heterogeneous working environment. It identifies and delineates the "work space" for the rest of all project activities.

Based on this initial work, WP 2 is reviewing European and international approaches and concepts of structuring and integrating electronic health system infrastructures (having in mind the overall vision of electronic health records - EHR) for information, data exchange and communications.

At the level of European cooperation it is insufficient to define interoperability narrowly and technically as simply the ability to exchange documents or data using common protocols. There are many problems of interoperability at the levels of semantics or organisational processes.

However, even adding semantic or organisational level interoperability is not sufficient where differing legal frameworks and regulations, differing divisions of responsibility between healthcare actors in a healthcare system can cause interoperability to fail, even when technical, semantic and organisational level interoperability has been achieved.

The project is reviewing these and other national and

i2-Health supports discussions on eHealth interoperability amongst eHealth stakeholders

Scenario: Identification Management in eHealth

Health professional identifiers need to be interoperable for a General Practitioner receiving a patient residing in another Member State to be authorised to have access to the health data of this patient similarly as the family doctor of this patient. For achieving this, both member states needs to have an agreement on the equivalence of diploma and access rights for their health professionals. They also need to recognize and trust the personal identifier and the status of general practitioner granted by the other Member State. They need to be able to access, read, authenticate and utilize the identifier and attributes used in the other Member State, should this information of part of it be on a smart card, a workstation and/or a server. Furthermore, all this needs not to be in collision with the national implementation of the privacy protection.



regional level concepts, experience and roadmaps, including those from countries like Australia, Canada, New Zealand and the USA.

In addition, the issue of a cross-European Union method of coordination amongst health care authorities and means for cooperation with European Union institutions is being discussed as a specific topic. A set of invitational meetings and public workshops is being organised in that respect.

Attention is also being paid to a cross-stakeholder dialogue on interoperability issue, involving not only the health care authorities, but also national competence centres (i.e. organisations mandated by their government to deploy eHealth services), representatives of the industry and the patient organisations.

On the basis of discussions with representatives of European health authorities, two specific topics have been identified for an in-depth analysis which is the object of work in work packages 3 and 4.

Unambiguously identifying persons (patients, professionals), organisations (hospitals, pharmacies, payers like insurances) is a fundamental prerequisite for any health system interoperation. WP 3 is concerned with such fundamental Interoperability issues, the cross-border use of these identifiers.

Similarly, WP 4 is concerned with basic aspects of ePrescribing and messaging. ePrescribing is a workflow application with an extremely high volume of transactions where considerable efficiency gains are to be expected. The support of processes like prescribing (incl. medication management) through ICTs is an element of many e-health implementations throughout Europe. ePrescribing will be one of the first services directly available to consumers and patients and has a high potential for safety improvement e.g. by reducing medication errors.

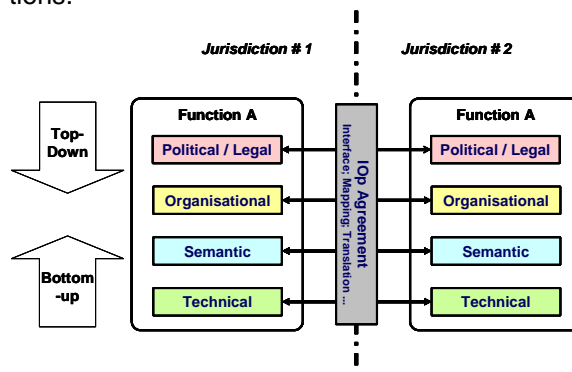
Expected outcomes

The project being an eTEN Supportive Action, its outcome will be a set of recommendations with a view to support stakeholders in developing and implementing all interoperability functions needed for cross-jurisdictions eHealth services.

These recommendations will take the form of:

- An Interoperability Framework for running a particular function across 2 different jurisdictions (see the below drawing)
- A proposal for a cross-European Union coordination method, with a European eHealth interoperability plan and roadmap
- Two reports, the first one on the Identification management eHealth interoperability and the second one on ePrescribing and eHealth mes-

saging interoperability, both including the state-of-the-art on these issues, a set of use cases, a gaps and needs analysis and set of recommendations.



- The organisation of several multi-stakeholder events dedicated to interoperability in eHealth:
 - A panel session of “eHealth 2006” in Malaga May 2006 under the title “World Panel on Interoperability”
 - Schiphol Workshop, March 2006, under the title “Health-ID Management in Europe – one touchstone for interoperability”
 - Ljubljana Conference, June 2006, under the title “ePrescribing & Medication Management”

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