

# Cross-enterprise electronic healthcare records (eEPA) in Europe

The creation of standardised cross-enterprise healthcare records in Germany will be increasingly promoted in numerous national initiatives and projects spanning several manufacturers, e.g. by the eFA initiative for the electronic case file headed by the Fraunhofer Institut ISST. However, how can these projects be assessed in an international comparison? What experiences and successes are available in neighbouring European countries? Looking across the border is worthwhile, especially regarding cost-benefit reasons and also an ever closer harmonisation across Europe in the health sector.

Cross-enterprise records usually means *electronic case files* focused on the patient and/or the treatment. Depending on their purpose, these files have a permanent or time-limited validity and are always subject to patient approval, which, of course, they can partially or completely withdraw at any time. Users of these files are predominantly physicians involved in the treatment – unlike the *medical files* maintained by a patient.

In the future, case files will be able to include any type of medical information. Their purpose and challenge are not only the accumulation of information, but also the structured storage of information and the possibility of its use in different recipient systems – in other words, neutrality with regard to manufacturers. For this reason the future consistent support of international standards is a necessary condition. An example worth mentioning here is the IHE XDS standard (Integrating the Healthcare Enterprise Cross-Enterprise Document Sharing), which facilitates the registration and distribution of, and access to, electronic healthcare records across several health sector enterprises. At the same time it provides an interoperable

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approach based on standards for the joint utilisation of documents between enterprises in the healthcare sector, from the general practitioner (GP) via the clinic to aftercare. The XDS standard has already been successfully used in a multitude of national initiatives, e.g. in Canada, France and Austria.

When comparing the different approaches and projects in European countries, the NPfIT (National Health Program for IT) at the UK's NHS (National Health System) is certainly an exception due to its dimensions and implementation status. The target set by the government is the centralisation of information in healthcare record systems for 30,000 general practitioners and 300 hospitals and health centres. However, in countries such as Holland and Austria interesting projects have also begun and can already show first results in some cases. In Austria, since 2006 the project ELGA (electronic healthcare record) represents a very promising initiative, although not too publicly

well known. However, the preproduction costs, with an estimated €30 million during the design stage, are quite considerable. Nonetheless, nationwide implementation is planned for 2009. On the other hand, in the Netherlands efforts are still relatively new. The recently started NICTIZ (Nationaal Instituut voor ICT in de Zorg) initiative, with the working title MMS (Multimedia Sharing), is still in the early planning stages and implementation phase.

Although national projects now exist in many European countries, given a Europe without borders, how can those national initiatives be integrated into a common European context? An example is the use of internationally active IT providers who consistently use international standards in their solutions. iSOFT, for example, is currently working on a cross-enterprise electronic healthcare record system as part of the *Lorenzo Integrated Care Initiative*, combining the requirements from Germany (eFA) and the Netherlands (MMS) into a single product. This will allow patients presenting for treatment in border areas, e.g. in the Aachen/Maastricht region, to make their clinically relevant data available to physicians in both states in future.

Help for harmonisation across Europe could also arrive from Brussels. With the European eHealth Action Plan (2004), the development of which currently involves 12 EU member states and about 30 industry partners. Its objective is the creation of an EU standard for interoperable healthcare records (EHRs) and a bundling of the requirements for records, as well as a political adjustment of the necessary legislation in the countries (EU guidelines). The above-mentioned stringent utilisation of international standards also makes integration of the nationally created record systems ever more probable.

## epSOS

Members of the EC Information Society and Media Directorate-General, **Ilias Iakovidis**, Deputy Head of Unit, and Project Officers **Flora Giorgio** and **Michael Palmer**, outline the potential of a project set to bring cross-border healthcare into reality

In September 2008, twelve EU member states signed a new initiative aiming to revolutionise the way Europeans, no matter where in the EU, can access their health records electronically. The European Patient Smart Open Services (epSOS\*), known as the *Large Scale Pilot*, is a bold attempt to break down barriers that block the way to offering seamless healthcare to EU citizens who fall ill in a country other than their own.

These barriers exist because European states all developed their own ways of storing medical data with no attempt to make those systems 'talk' to each other. Consequently, European lives have frequently been at risk when medical authorities could not access their health records.

With a mandate to run for three years, health authorities in Austria, the Czech Republic, Denmark, France, Germany, Greece, Italy, the Netherlands, Slovakia, Spain, Sweden and the UK will attempt to prove that interoperability can work despite the different medical heritage of each participating state.

Three years may not seem a long period in which to make a step

change in how healthcare can be delivered, but it is important to remember that the project aims to work with whatever infrastructure already exists. Initially, this will involve countries in deciding how much of their health systems can be shared with their partners and then producing best practice models to achieve this.

To attain their objectives by 2011, the 12 member states have an ambitious timetable. Structured to cover several phases, the project starts with a full audit of member states' current capabilities; examination of any legal considerations the project may throw up; development of technical considerations to ensure secure use of personal data and ending with a near-real life beta test.

The project's chances of success have been considerably boosted by the level of political buy-in received. Progress among the twelve EU member states should provide a good working model of how well any interoperability system will work after the model rolls out to all 27 EU countries. Furthermore, the project will work closely with the CALLIOPE network (Call for Interoperable eHealth services in Europe) to ensure benefits can be shared with non-participant countries. During the project, the network will be consulted on specific topics and contribute to raising awareness and create consensus around the overall issue of interoperability of eHealth services.

The EC's recommendation in July to work towards cross-border interoperability of eHealth architectures is also a good indicator of how this pilot is tapping into the zeitgeist for universal access to electronic health records across the EU.

The goodwill among all stakeholders for the pilot's success is also tremendous. Along with the EC's backing (funding 50% of the project), and that of the 12 participating member states, European industry, which was previously hesitant to play a part in jeopardising research and investment in proprietary legacy systems, is now lending support. Among major vendors, the feeling is that, far from destroying value, a role in helping to harmonise Europe's healthcare system offers an opportunity to gain worldwide leadership positions in electronic healthcare – a real step away from the past.

The Large Scale Pilot offers social and economic benefits to all stakeholders and will be keenly watched by the other EU member states, which could benefit from the pathfinder's efforts. It will also be keenly debated at the World of Health IT conference (Copenhagen, 4-6 November) where several of the scheme's architects will offer feedback on current progress and share views on how the project will evolve up to 2011. It is in all Europeans' interests that this project, which only a few years ago would have been considered impossible, becomes a success: let us hope that we use this opportunity wisely.

Links:  
[www.epSOS.eu](http://www.epSOS.eu)  
[www.worldofhealthit.org](http://www.worldofhealthit.org)

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