

# IHE Implementation Case Study: French Electronic Health Record Program

## Project Name

French Electronic Health Record (DMP system-Dossier Médical Personnel) developed, implemented and rolled out by ASIP Santé (Agence des systèmes d'information partagés de santé)



## Location

France

## Contact Information

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## **General Description of Project**

The electronic health record (in French, dossier médical personnel: DMP) system was developed based on a mandate from the French national legislature. DMP is a free service aimed to improve the coordination of healthcare in France that is supported by healthcare professionals and has become part of patient expectations for care. It makes information required for patient care available more easily and quickly and facilitates communication between healthcare professionals and patients.

Launched in January 2011, the DMP is being gradually rolled out across the French territories through voluntary adoption by patients and healthcare professionals. It will form the infrastructural and technical base for numerous e-health services, whether proposed by public authorities or private sector.

Through its “DMP compatibility” certification process, ASIP Santé is working with software firms to help them designing software that integrate DMP functionality.



## **Project Scope/Scale**

Figures in June 2013:

More than 100 healthcare professional software packages are approved as DMP compatible.

355 institutions and healthcare providers and 345,596 patients use the DMP.

## **Goals, Benefits and Achievements**

- Pushing forward e-health in France.
- Contributing to the modernization and transformation of the healthcare system through e-health by working for all, including healthcare professionals, patients, care providers and industry bodies.
- Improving patient care coordination throughout metropolitan France and its overseas territories, in particular for patients whose state of health requires coordinated multidisciplinary care.



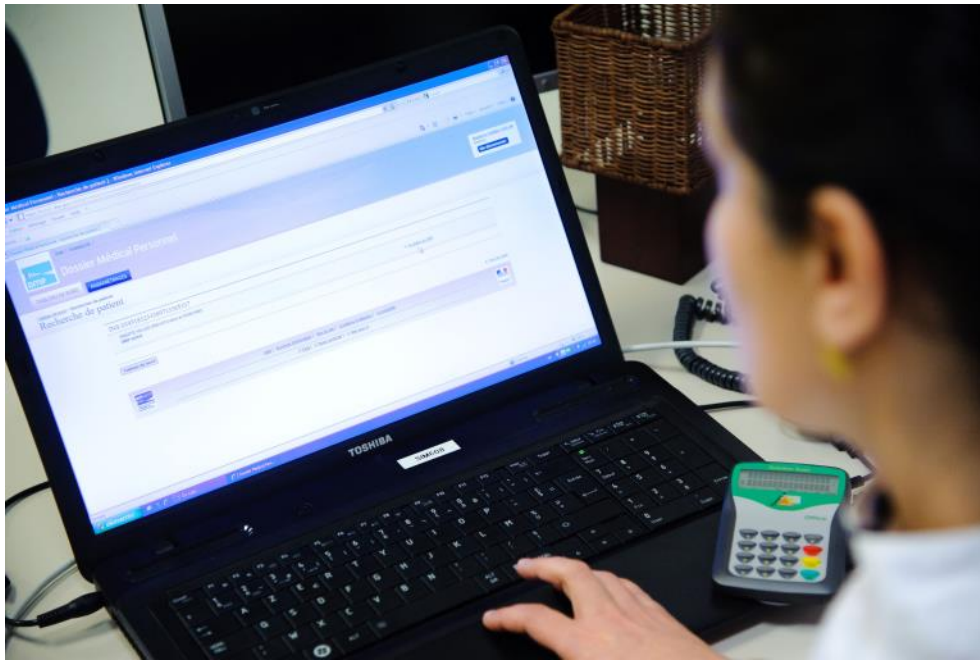
### **Timeline**

Since its launch in January 2011, DMP is gradually being adopted by patients and healthcare professionals.

The first year of the project has been devoted to working with healthcare software vendors to promote integration of DMP core functionalities in existing products. This collaboration gave the opportunity to healthcare professionals to connect to DMP without changing their software.

2012 was a year of consolidating DMP early adoption and promotion to some targeted hospitals. It also has seen free provision of healthcare professional smartcards to all physicians, pharmacists, mid-wives and dental surgeons. Formerly mostly used by private practitioners for billing purposes, healthcare professional smartcard is used to authenticate oneself on the DMP.

From 2013 on, full scale promotion of DMP throughout metropolitan France and its overseas territories will be held through value added services based on DMP, such as coordination of cancer treatment or exploitation of structured lab reports. Complete deployment of the healthcare professional smartcards will also continue to other professions such as nurses or masseur-physiotherapist.



### **Ways the Project Leverages IHE Products and Processes**

Though participation in IHE Connectathons is strongly advised for vendors, it is not mandatory. The DMP-compatibility certification process is based on specific test tools. Specifications for DMP are based on the French health information systems Interoperability Framework (CI-SIS – Cadre d'Interopérabilité des Systèmes d'Information de Santé) which is itself based on IHE profiles, constrained for French use cases.

The Interoperability Framework is written by ASIP Santé, published for public comments and validated with vendors' representatives after integration of the public comments received.

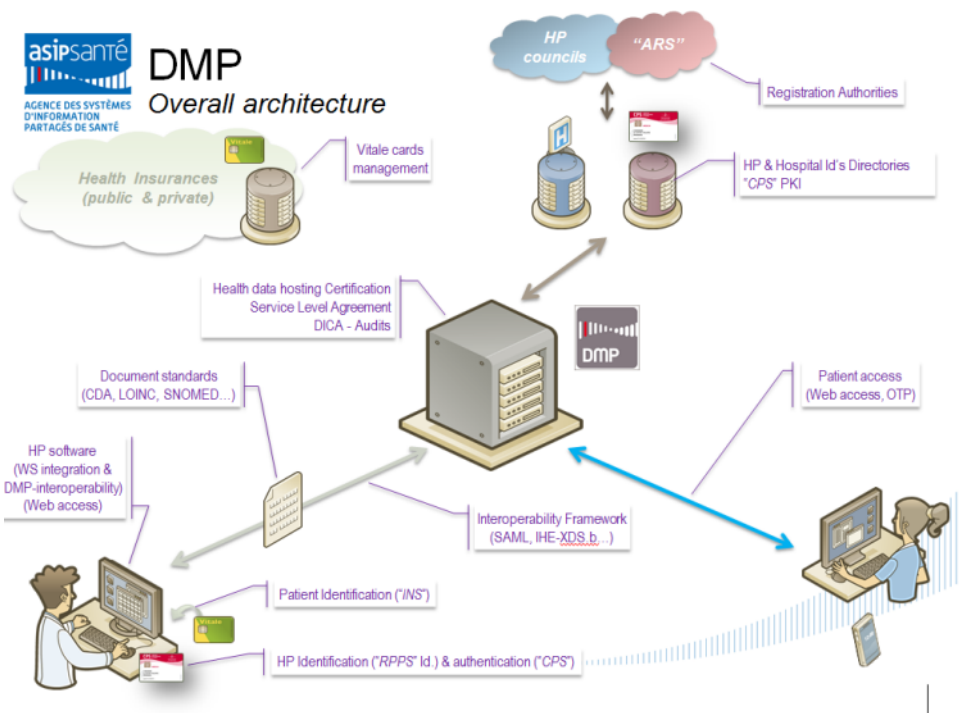
Projects like DMP build their specification on the French Interoperability Framework. There is no integration statement for Interoperability Framework compliance. Each project defines how compliance to its specifications is evaluated, in particular for the certification process for DMP-compatibility.

### **Ways the Project Leverages IHE Test Tools and Testing Processes**

DMP core specifications have been derived from IHE profiles, especially XDS. When adaptations of the profiles used were needed to accommodate French regulation and/or infrastructure, change proposals (CPs) were provided to IHE (including use of AC signed certificates in ATNA while only self-signed certificates were quoted in the profile).

When DMP functionalities outlined in the French regulation were not possible through existing profiles, ASIP Santé worked with the ITI technical committee to single out those

useful functionalities. These functionalities were useful not only for the French project but also for other projects abroad and other IHE committees which eventually led to the Metadata Update supplement.



## IHE Profiles Implemented

### IT Infrastructure profiles and supplements

- ATNA - Audit Trail and Node Authentication
- CT - Consistent Time
- DSG - Document Digital Signature
- PDQv3 - Patient Demographics Query HL7 v3
- MU – Metadata Update
- XDS - Cross Enterprise Document Sharing
- XDS-SD - Cross-enterprise Sharing of Scanned Documents
- XUA - Cross-Enterprise User Assertion
- XDS-I.b - Cross-enterprise Document Sharing for Imaging.b

### Patient Care Coordination profiles:

- IC - Immunization Content exchanges immunization data
- Sections coming from various PCC profiles

## Implementation Challenges

DMP has been defined as a centralized service that all healthcare professionals should be able to access through his/her own professional software. As a consequence, one of the main challenges, before the challenge of adoption by users, was to foster the

development of DMP-compatible functionalities included in existing healthcare professional software on the same timeline as the DMP itself.

This challenge has been met through cooperation with vendors on the definition of the French Interoperability Framework (CI-SIS):

- agreement with the vendors on the use of IHE profiles for DMP interoperability and more broadly for French health information system interfaces;
- specification of interoperable interfaces using IHE profiles based on DMP use cases but broaden to generic use in health information system;
- publication for public comments of the CI-SIS compounding the specifications;
- integration of public comments;
- formal approval of the CI-SIS by French vendors associations and IHE France.

Started in summer 2009, the CI-SIS was approved and published by November 2010 thus allowing vendors to start conceiving their products. This reference framework has guided the certification process of healthcare professional software packages ensuring they are DMP-compatible. As a result, at the rolling out of the DMP and the DMP-compatibility testing process, vendors were ready and the first products tested were labeled DMP-compatible by February 2011. This led to the approval of more than 100 software packages within 2 years.



## References and Publications

DMP address: <http://www.dmp.gouv.fr/>

ASIP Santé web site: <http://esante.gouv.fr/en>

## **Description of Submitting Organization(s)**

The founding of ASIP Santé in 2009 reflects the will of the French authorities to strengthen public ownership of the information systems being developed in the healthcare sector, and to bolster digital healthcare technology in order to improve access to care whilst respecting patients' rights.

ASIP Santé has been entrusted with seven mandates:

1. Taking ownership of the health information system projects assigned to it by its members;
2. Implementing and rolling out the electronic health record (DMP), and in particular taking ownership of hosting of it;
3. Defining, promoting and ratifying frames of reference, standards, products and services which contribute to the interoperability, security and usage of health information systems and telehealth, as well as monitoring them to ensure that they are being used properly;
4. Managing and taking ownership, as part of the mandates assigned to it, of national directories and frames of reference that group together the identities of and related information on healthcare professionals, along with services and institutions in the healthcare and medico-social sectors;
5. Certifying, producing, managing and rolling out the healthcare professional card and, more generally, devices which perform identification, authentication and signature functions; these functions are used for recognizing healthcare professionals' identities and professional qualifications via exchange systems that they use under the required security and confidentiality conditions;
6. Supporting and supervising public and private initiatives connected with its aims (in particular in the form of agreements on project ownership support or partnership agreements);
7. Contributing to the preparation and application of international agreements or projects regarding health information sharing and exchange systems, at the request of the relevant minister(s).

More information, including some in English, can be found in the 2012 annual report of ASIP santé:

<http://esante.gouv.fr/asip-sante/qui-sommes-nous/le-rapport-d-activite-2012-est-en-ligne>

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