



SESAM-Vitale evaluation

A contribution to French Sustainability Policy

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The SESAM-Vitale project is one of the three emblematic French programs most often cited to illustrate the concept of paperless procedures. As was recognized by the report France Numérique 2012 (the French development plan for the digital economy), 'France has already embarked on the path of e-government and has had success with the income tax return, paperless medical expense claim forms and the development of 'télé-TVA', where companies can record and pay VAT over the Internet'.

This success is perceived as progress in terms of sustainable development through reduction in the size of its 'carbon footprint', without a really thorough assessment ever having been carried out.

According to a report by the Ministry for Ecology in December 2008 entitled Information and Communication Technology and Sustainable Development, 'The impact of paperless processes on carbon footprint can be very significant, as the example of the SESAM-Vitale card illustrates. Prior to its introduction, the French were generating nearly a billion medical expense claim forms annually, forms that not only had to be printed, but also transported and stored. The reduction in carbon footprint is therefore extremely positive.'

There are five distinctive aspects to this project; its very controversial start, its duration and national scope, its complexities and its undeniable success.

The origin

Conceived at the beginning of the 1980s as a tool that might enable the French social security department in charge of medical insurance to face up to the growing number of reimbursement claims for treatments and prescriptions provided outside of hospitals, the SESAM-Vitale project saw its aims reinforced with the appearance of an initiative for 'medical control of the development of health expenditure'. To that effect, the law of January 4 1993, in stipulating the computer coding of treatments, benefits and pathologies, strengthened interest for the project: only data entry at source by healthcare professionals themselves, and electronic transmission of that data to the social security department skilled in collecting it, can guarantee the necessary reliability, security and confidentiality. This coding forms the basis of the medicalization of the health insurance information system and will make it possible to monitor subsequent government health projects.

The ruling of April 24 1996 relating to medical control of health expenditure provided a legal basis for the implementation of the SESAM-Vitale smart card in all health insurance schemes.



A highly controversial start

According to press reports at the time and all the eyewitness accounts obtained, the project unfolded against a background of tension, resistance and extremely fierce opposition: sufficient in any event that its predicted failure could – right up to the start of the first decade of the twenty-first century – be voiced without causing undue shock. 'We need to recognize a failure', declared the president of the management committee of the governing body of the CNAM (the French government department dealing with health insurance and sickness benefit) in 1999.

Considerable political backing was required to move this project forward.

A national project

SESAM-Vitale, which was rolled out in 1998 had, by July 2015, linked more than 331,000 healthcare professionals with all contributors and their beneficiaries aged 16 and over; there are therefore more than 50 million microprocessor cards in circulation.

The first version of the smart card was available in 1998. Since May 2007 it has gradually been replaced by a new generation card, the Vitale 2, which includes a photograph of the insured person and is more sophisticated in terms of technology and encryption security.

The Vitale card contains information of an administrative nature that is necessary for the refunding of medical expenses (identity, healthcare organization and insurance fund affiliation), but no medical information. The smart card is proof of the right of the card holder (and his beneficiaries) to cover for health expenditure to be provided by a health service organization in France.

By identifying the holder and his/her affiliation to an organization, and by verifying his/her rights, this card acts as an essential component of the SESAM-Vitale system for the creation and standardized, secure transmission of health care invoices.

Upon presentation of the smart card, the medical expense claim form will be drawn up and beneficiaries assured of speedy reimbursement for medical care received from healthcare professionals who employ this system. In pharmacies and with some other healthcare professionals, it exempts the contributor from making advance payment of the part to be refunded by the health insurance, in a system whereby a proportion of the fee for medical treatment is paid directly to the provider by the patient's insurer. Without it, the patient cannot enjoy these administrative and financial benefits.

The SESAM-Vitale system eliminates the need for the paper-based documents that were previously required for the reimbursement of medical expenses (medical expense claim forms, tear-off portions of invoices, etc). It is based on two main principles: paperless data entry at source of the medical expense claim form with the implementation of electronic data exchange between the healthcare professionals and the compulsory and complementary health insurance organizations (since 2005) and the coding of treatments.



99,99% of pharmacists and more than 86,44% of general practitioners are using the SESAM-Vitale system in France in July 2015.

The paperless medical expense claim requires the presence of the patient's card and the health professional's card.

The success of the SESAM-Vitale program

The 'very positive' results of the SESAM-Vitale program are highlighted in the Audit Office Report of February 2010.

The Economic Interest Group GIE SESAM-Vitale, together with 70 partner organizations (national or sector-based insurance funds, mutual insurance companies, etc.) provide billing and reimbursement of over 60% of benefits in kind as well as direct reimbursement to the provider from the insurer for almost half of the medicines issued. More than 1.2 billion medical expense claim forms were processed in this way in 2014 (compared to 330 million in 2001 and 904 million in 2005) and the number continues to rise.

The reimbursement of medical care costs is guaranteed within a few days without further ado or postage costs.

According to the data processing department of the CNAM, processing of an electronic medical expense claim form only costs 0.27 Euros on average, whereas a paper-based version sent by post costs 1.74 euros. This results in a saving of around 1.5 billion Euros per year (excluding specific data-processing expenditure whose total cannot be isolated).



Thanks to the SESAM-Vitale eHealthcare program 3 billion fewer documents are produced today.

The GIE SESAM-Vitale has also advanced the system to manage the request for electronic reimbursement from complementary health organizations for the part of the claim that is their responsibility. This capability is already in use (2 million requests processed in 2009) and it is another potential source of savings.

Finally in order to capture the data on an electronic claim form, healthcare professionals must identify themselves, and then validate the medical expense claim form once it has been drawn up. Nearly 532,000 health professional cards (CPS) in private practice and 107,000 in the salaried sector have been distributed for this purpose. The overall rate of electronic transmission reached an aggregate 85% in 2010 across all healthcare professionals, mainly because 99% of pharmacists transmitted their medical expense claim forms electronically.



Some figures:

- > Reimbursement of the insured person within five days instead of 2 to 3 weeks (paper-based system).
- > 1,2 billion electronic medical expense claim forms in 2014
- > Increased administrative productivity and a saving of 2 billion Euros in 2014 on processing of claim forms
- > Including the claim forms and the reduction in the number of pages used for the calculation of claims, it equates to the elimination of 3 billion A4 documents produced, printed, distributed, stocked and destroyed

Beyond this economic result, the SESAM-Vitale system has other attributes such as the coding of treatments and pathologies, that have contributed to the medicalization of the Health Insurance industry's information systems and which was necessary for the calculation of reimbursements, not only on the basis of administrative data from the invoice but on the basis of the healthcare and treatments prescribed.

According to one of the people in charge of the SESAM-Vitale program at the CNAM, 'The authorities have, in doing this, accelerated the computerization of healthcare professionals.' The speeding up of reimbursements (waiting time has been reduced to a few days) has benefited patients as much as healthcare professionals for treatments where a proportion of the fee is paid directly to the provider by the patient's insurer, and has made this reform 'popular'.

It is true that for doctors the SESAM-Vitale system does not provide any direct medical benefit but the doctor, by equipping himself with the system, is simplifying his work thanks to the paperless protocols and forms and he/she can access, without having to use electronic transmission strictly speaking, information that affects him.



Social impacts within Health Insurance

The little **'green card'** remains very symbolic for the health and social services network, which has demonstrated its ability to modernize, by developing the fund structures in the areas of risk management and advice for the social insurance holders.

Manual processing of nearly a billion medical expense claim forms was done by some 30,000 data entry clerks in the Health Service, out of a total of 80,000 salaried employees. The CNAM estimated that implementation of the SESAM-Vitale eHealthcare project was going to cost it just under 3 billion francs and hoped to shed 30% of the data entry clerks; that is, around 9,000 jobs.

In fact from 1999 until 2009, the move to paperless medical expense claim forms would have impacted 12,000 posts in the health insurance industry, but the arrival of the law on the 35 hour working week and the non replacement of retired personnel will have enabled both a smooth transition and 'a saving of 460 million Euros per year.

SESAM-Vitale and electronic transmission have freed its participants from the daily worry concerning output. Today no one misses the time when 'the balance outstanding', in other words the backlog of files, took up the greater part of the agenda at board meetings.

SESAM-Vitale was positioned as a project for the improvement in quality of service for social insurance holders and healthcare professionals and not as a cost-reduction project, nor even as a project arising out of simple economic interest.

In other words the project has not been presented as an economic investment. It has, on the contrary been systematically positioned as a political project, and as such a contributing to the social welfare system in the broadest sense.

This positioning has, without doubt, contributed to the formation of a sort of sacred and implicit union between the various players. This has of course facilitated the success of the project. In other words, politics can sometimes come to the assistance of business, and because it conveys the strong elements of the culture of Health Insurance, can enable big changes.

The BPI study of June 2006 'Public services are changing: how – Sociological Study of Health Insurance', and our interviews show that when officials talk of changes that have taken place over the last few years, it is the technological changes that will come out top: SESAM-Vitale, various software packages and electronic transmission.

There is general agreement on one thing: the Vitale smart card is the very symbol of these changes. It is real, put forward as 'proof' that we have changed. It is the sign of modernity. The development of 'reception' services in conjunction with the implementation of universal medical coverage known as CMU in France, has been brought about very rapidly.



Key figures for the SESAM-Vitale program (to July 2015)

	Total	Situation at end 2010	Comments
Population	65 million	100% of social security contributors	50 million cards in circulation
Use of system		88% of which 86% are general practitioners and 99% are pharmacists	Convincing the remaining 12% is current objective
Impact on health	80,000	12,000 people (15%) affected	Reduced impact thanks to 35 hour week and non-replacement of retired workers
Medical expense claim forms in 2010	1.3 billion	1.2 billion paperless claim forms: 90% of the annual total for 2014 100 million paper-based claim forms: 10% in 2014 Reduction in photocopies of claim forms by individuals	Equivalent of nearly 2 billion A4 documents
Administrative savings in costs of processing claim forms		1.74 euros per paper-based claim form 0.27 euros per electronic claim form So, 1,7 billion euros saved in 2014	Repeated savings
Trips made by beneficiaries		Trips to payment centers estimated at 10 million per year, of which 30% are by car with a journey of 5 km	15 million km per year, that is equivalent to 1000 car journeys per year
Filing and waste		Before: 3 years of compulsory filing, that is 3 billion paper-based documents Today: 3 years x 200 million = 600 million – a reduction of 80%	Evaluation unavailable
Reduction of claim calculation sheets		Around 900 million claim calculation sheets in 2000. Reduction by two-thirds in 2010: a reduction of 600 million paperless documents and envelopes	Equivalent to nearly 1 billion A4 documents
Reduction in transportation of documents		3 billion paperless records are no longer transported	Evaluation unavailable
Waste		Also nearly 3 billion A4 documents no longer recycled	Evaluation unavailable
Impact on healthcare professionals			Evaluation unavailable
Impact on infrastructures		10 years ago, in the Val-de-Marne (Paris) department alone, there were 41 payment centers, converted today into 4 management centers. Hundreds of centers in France have been closed, reassigned, modernized.	Economic and energy impact very difficult to assess and unavailable

Chantal L. aged 55, mother of 4 children, living in the Paris area, salaried employee, gives her account:



'Today, my expenses are often reimbursed by social security and my mutual insurance company before my bank card is debited. Reimbursement usually takes 2 to 3 days. I remember that before, I had to turn up at my payment centre to get reimbursed quicker, or to find out why my file was frozen. It took three weeks for the reimbursement of some expenses, which was simply untenable given my budget. I remember in particular the photocopies, the paper-based documents, the waiting and the huge frustration with the system. All that has disappeared.'

Conclusion

For the health insurance industry, the structure of the SESAM-Vitale smartcard system presented a number of challenges:

- > productivity challenge: computerization enabled the elimination of manual data entry, the massive use of the postal system, and waiting times; it simplified relationships between beneficiaries and healthcare professionals through time saving and ease of payment;

- > A quality of information challenge: computerization enabled the medicalization of information systems;
- > A modernization challenge: recourse to new technologies was to renew the image of health insurance - the driving force in the area of public service - and boost the efficiency of the health system, by bringing these new tools to health professionals in their medical practice.

In these three areas, the end result is substantially positive.

The SESAM-Vitale program, and the smart card that embodies it in the eyes of the French people, have simplified lives, have been an accelerator in the computerization of health professionals' workplaces and is contributing to the modernization of relationships between patients and the health care system. The contribution to sustainable development is obvious, even if its precise measurement is difficult, even impossible, as the changes are complex.

Today, with the administrative sector largely paperless, it remains for it to move forward with new services such as DP (Pharmaceutical Dossier) and the Personal Health File (Dossier Médical Personnalisé, DMP) towards even more promising horizons for public health and the drive to sustainable development. In actual fact, this is not just about facilitating relationships with patients, but quite plainly continuing to improve the health and longevity of the French people.



About Gemalto

Gemalto is the world leader in digital security with 2014 revenues of €2.5 billion. In the public sector, Gemalto provides secure documents, robust identity solutions and services for governments, national printers and integrators in the service of citizens. Its products and solutions are deployed in more than 100 government programs worldwide.

Gemalto is contributing to more than 40 eID initiatives and over 30 ePassport programs with specific expertise in border and visa management projects. The company is active in major eHealthcare schemes and numerous e-driving license and vehicle registration projects.

Gemalto also collaborates with its clients to report and share best practices from around the world.