eHealth in Belgium: goals and status

### What is the current status of eHealth Belgium and how has it been changed since last year?

Abstract

*eHealth Belgium is alive. There are many stakeholders working on the project. They try to realize the marked goals. But are those goals the same as mentioned in 2008? And where do we find ourselves in the project? In this paper I’ll try to give you an update of the current objectives and status of* eHealth *Belgium.*

# 1. Introduction

During the courses of Information Security, I and my fellow students were asked to write a paper about a specific subject, based on papers that have been written last year. Several subjects were handed out and I chose 'What is eHealth and what are its primary goals? In this paper I will try to answer these questions.

# 2. Methodology

In order to discover the current status and objectives of eHealth in Belgium I will work in three steps.

1. Because the reader has to know where eHealth is about, I will give a general overview explaining the concept of eHealth. Furthermore I will inform the reader about the main parties of eHealth Belgium and how they work.
2. Frank Rogge (the eHealth Project Manager) has set certain goals in the beginning of the project. These goals are important to declare the status of eHealth today. That is why I will give a detailed overview of the goals as originally planned.
3. In this step I will try to investigate what the current status of eHealth Belgium is. I will research the goals that have been reached and those that have yet to be reached. Next to that I will give an overview of the current objectives and whether any objectives have been changed.

Conclusion: As last I will form a conclusion based on what is achieved in eHealth Belgium the last year.  
  
You should know that due to our lack of time the primary source of knowledge will be the World Wide Web. I will use search engines, such as Google, to investigate step 1 to 4 and in order to get reliable information I will use authenticated sources. During the investigation I used the following primary keywords: eHealth, what is eHealth, eHealth definition, eHealth goals, eHealth government, eHealth, eHealth platform, eHealth platform 2009, eHealth platform 2008, eHealth Frank Robben, eHealth status eHealth origins, 3 April 1997, 21 august 2008.

Of course I also used the Dutch translation of these keywords to find information.

# 3. Results

# Step 1: A general overview explaining the concept of eHealth

A little History of eHealth

# 3April 1997, the Belgian government approved a law that created the Belgian origins of the concept eHealth ([1] Belgian Government, 3 April 1997). The general purpose was to improve the quality and continuity of the health care sector at that time with the help of the Internet.

# But it lasted until 21 August 2008 before the actual eHealth-platform was created. ([2] Belgian Government, 21 August 2008,). At that time the government decided to outsource the project to a non-profit company called 'Smals1', led by government manager Frank robben. He was in charge to create, implement and support the whole eHealth platform. But what does that mean?

What is eHealth?

# Well, 'eHealth is actually a consumer-centred model of health care based on a SOA system (Service Oriented Architecture) where stakeholders collaborate, utilizing ICT, including Internet technologies to manage health, arrange, deliver and account for care, and manage the health care system' ([3] Ontario-Hospital-Association, 2001). This means that his mission was to build a well organized electronic service that improves the information exchange between all actors in the healthcare system. In order to do this, the eHealth-platform has to fulfil following ten expectations ([4] Frank Robben, 2008).

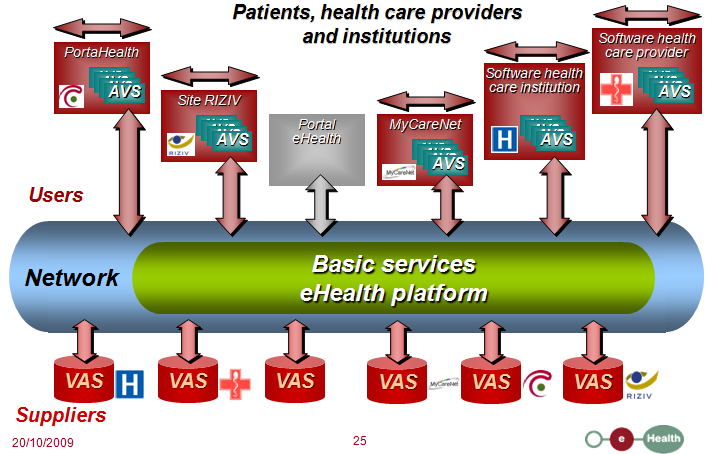
1. Develop a vision and a strategy on the subject of eHealth
2. Determine the technical standards, quality standards, the platform specifications and a basic architecture.
3. Handel the registration of software packets in order to manage the electronic patient files
4. Conceive, mange and develop a collaboration platform to exchange electronic patient files
5. Agree a division of tasks and a quality standard and verify if the quality standard is followed
6. Improve and coordinate the creation of programs and projects
7. Manage and coordinate the ICT-aspects of the information exchange of patient files and prescriptions
8. Act as an independent third party when handling the encryption and making the patient files anonymous for the support of scientific research
9. Be a catalyst for realization of the vision and strategy on the subject of eHealth
10. Organize the cooperation with the other public bodies that have to create the electronic services

# These improvements lead to several other benefits, like improved quality and continuity of the healthcare system, a simplification of the administrative formalities and an optimization of the safety of the patient. But there are also dangers attached to the project. Because of the fact that the medical files are shared with many persons, the project could harm the ruling confidentiality and the privacy that the patient has ([5] Frank Robben, 2008).

How is eHealth created?

eHealth consists of 3 levels.

1. Basic Service (BS)
2. Added Value Service (AVS)
3. Validated Authentic Source (VAS)



The first level contains basic services. This are services that are developed and made available by the eHealth-Platform. This services can be used by the health care actors.

The second level contains services that are created by the health care actors. These services are put at the disposal of the patients and the health care actors. The entity that develops and offers an added value service can use the basic services of the eHealth-platform for this purpose.

Last but not least is the Validated authentic source level. This level contains the databases which are used by the eHealt-platform. These databases contain all the valuable information that the eHealth platform uses. (No development necessary)

# Step 2: The E-Health in the beginning

First of all, eHealth began with filling in the basic needs of the actors. They created a vision and strategy which they used to create the eHealth-platform. This vision and strategy contained several basic principles. I will give you an overview of the most important principles that they want to take in account.

* A widespread storage of the patient files
* A safe electronic exchange of information between the actors of the healthcare system
* Respect and (IT-)support for the local and regional healthcare initiatives
* Reuse of the existing know-how
* Employment of the law that protects privacy and the duty of professional confidentiality
* A well-working authentication system

After describing the needs and specifications of the platform, they started to develop the system that supported the non-digitalized environment (let it be clear that the project is meant to improve the system and not to replace it).

On 4 September 2008, Frank Robben held a meeting in which he gave an overview of the eHealth features that had been developed and the goals that had been set. Let us see what the state of affairs was in the beginning of the project. ([6] Frank Robben, 2008)

These services had been reached:  
Basic services

1. The creation of the eHealth-portal
2. The user and access management for the portal site
3. A logging database
4. A personal electronic mailbox for each health care provider
5. Time stamping
6. Coding and making files anonymous

Added Value Services2

1. Registration and consultation of the Cancer Register
2. Feedback to hospitals about the health care services
3. On-line ordering of care prescription forms and agreement strips for health care providers
4. Coding and anonymizing of personal data
5. Consultation of wills regarding euthanasia

Then several objectives had been set. The following information gives you an overview of the goals that had been set to do between 2009 and 2011.

1. Provide in electronic access for the health care providers/institution to relevant data stored in the Validated Authenticated Sources.
2. Simplify and digitalize the administrative burden that the health care sector has
3. Legalize electronic prescriptions
4. Make the electronic referring of patient files between health care providers and institutions possible
5. Provide in the encryption of health care information that is send over the web

# Step 3: An overview of the current status of eHealth

First of all, I have to report that there are no changes in the principles that they want to take in account. They chose them wisely.

# Once again, Frank Robben held a meeting on 20 October 2009 in which he gave an overview of the state of affairs of the eHealth-platform. The following goals have been reached ([7] Frank Robben, 2009).

# Basic services

1. Orchestration of electronic sub processes (new)
2. The creation of the eHealth-portal
3. The user and access management for the portal site
4. A logging database
5. System for end-to-end encryption (new)
6. A personal electronic mailbox for each health care provider
7. Time stamping
8. Coding and making files anonymous

Added Value Services3

1. Registration and consultation of the Cancer Register
2. Registration and consultation of the regiser with hip and knee prostheses (new)
3. Support of electronic care prescriptions within hospitals (new)
4. Downloadable software supporting the drawing up and the management of pharmacotherapeutical hospital forms (new)
5. Access to the digital library elaborated by the Center for Evidence Based Medicin (new)
6. Consultation of wills regarding euthanasia
7. Electronic consultation of health care insurance status by nurses (new)
8. On-line registration by hospitals of people infected with the H1N1 flu virus (new)
9. Platform for data exchange between the Flemish Agency for Care and Health and Recognized services (new)
10. On-line registration for private provisions within the sector of Special Youth Welfare in Flanders (new)
11. On-line ordering of care prescription forms and agreement strips for health care providers
12. Feedback to hospitals about the health care services
13. Coding the personal data and make it anonymous

On november Goals

1. Simplify and digitalize the administrative burden that the health care sector has
2. Make the electronic referring of patient files between health care providers and institutions possible
3. Development of electronic prescriptions with minimal administrative burden (new)
4. The release of anonymous and coded patient files for the support of scientific research (new)
5. Optimize the usage of Validated Authentic Sources (new)
6. Provide in the information exchange of patient files between health care provider and/or institutions (new)

# 4. Discussion

As you can see there are many new objectives been set(4). Three out of five objectives of 2008 have been reached in the last year. Even though they were planned to be fulfilled in 2011. Because of that, there is room for other targets that extend the eHealth-platform.

Besides the new objectives there are two new basic services that are very important. Because of the fact that the end-to-end encryption is finished, information exchange between health care provider and/or institutions is possible. And because the orchestration of electronic sub processes is a basic service, the making of Added Value Services will boost.

The Added Value Services level is the one that is extended the most. This is normal. In the beginning they had to invest and extend the basic services. After that they extended the services for the health care institutions and providers (in the last year).

# 5. Conclusion The eHealth platform is far away from its ending point, that is sure. But it is rapidly booming. The differences between last year are big. Many extensions have taken place, especially the Added Value Services have grown. The reason of that can be found in the fact that more and more institutions are using the medium. Just because the platform is a great help for their daily tasks.

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