



**«AGORA - VIRTUAL LIBRARY» Research
December 2004 - November 2005**

Project summary

English version

November 2005

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1. Objective

The "Virtual Library" project originated within the framework of the Agora programme of the Federal Office for the Belgian Science Policy. The Agora programme aims at supporting various federal institutions in their research into the collection and the improvement of their information and into making this information ready for use (especially information of their data banks).

The Federal Police want to create a Virtual Library based on a unique WEB platform. In this library, Police services would look up information, which usually comes from open sources, and contextualize it with an eye to the advancement of the interpretation of judicial data and the analysis of criminal phenomena. The library will be open to the police's federal and local components, but an extension to the judicial authorities and the world of science is provided for.

The project's objective was to draw up specifications with regard to the creation of a computerized portal that simplifies the search for information, references and useful sources, used by the police to solve, to contextualize and to understand problems and questions. The purpose of this portal would help them to identify and to localize the information they use for their activities.

The project resulted in the production of two deliverables for the benefit of the Federal Police:

- The first one concerns the presentation of the analysis of the feasibility study concerning the 'Virtual Library' project within the Federal Police. This analysis draws attention to the project's realistic character on the basis of the obligations.
- The second product consists in the identification of the methodological directions that have to be given to the project, in the part 'Use' as well as in 'Administration' of the "Virtual Library". This was done in the form of a functional requirement for the benefit of the Federal Police.

The project was started up on 1 December 2004 and was finished on 30 November 2005. The research was carried out by two university groups:

- *La Cellule Interfacultaire de Technology Assessment* (CITA) of the University of Namur (FUNDP).
- The *Onderzoeksgroep Sociale Veiligheids Analyse* (SVA) of the University of Ghent.

This project was promoted by:

- Prof Dr Claire LOBET-MARIS, FUNDP-CITA (Coordinator of the project).
- Prof Dr Paul PONSAERS, University of GHENT-SVA.

The following researchers worked on the project:

For the University of Ghent:

Evelien DE PAUW, Master of criminological sciences, University of Ghent (graduated in 2004).

For CITA-FUNDP:

Véronique DUMONT, Master of sociology, University of Liège (graduated in 1998).

Véronique LAURENT, Master of sociology, University of Liège (graduated in 2003).

2. Scientific activities

2.1. Methodology

The project consisted of 4 big phases:

Phase 1: Methodology, feasibility study and inventory of the types of information sources.

Phase 2: Study of the conditions for putting the sources at someone's disposal (juridical, technical and operational conditions).

Phase 3: Structuring of the portal: user interface and definition of the administration functions.

Phase 4: Definition of the portal's contents (examples of files) and search system.

In the first phase of the project, from December 2004 to January 2005, possible users of the application were **exploratively interviewed** to find out their needs and expectations with regard to the project. An interview guide was drawn up and then presented to the respondents. It involved quite general questions that probed the view one had on the type of platform, the access modalities, the management, the structuring of the information, etc. Furthermore, the current way of data processing and the problems that arose in that respect were examined. The major needs were analysed as well and some attention was paid to the existing documents and data systems.

The following list includes the various services that were involved in this explorative research:

Directorates of the Department of the Commissioner General:

CGC (Directorate for the Working and Co-ordination of the Federal Police)

CGC/strategic analysts

CGF/CDC (Documentation Centre)

CGI (Directorate for the Policy on international police co-operation)

CGL (Directorate for the Relations with the Local Police)

General Directorates:

DGJ/DJG (Judicial Police/Directorate for Policy, Management and Development)

DGJ/DJT (Judicial Police/Technical and Scientific Police)

DGA/DAG (Administrative Police/Directorate for Policy, Management and Development)

DGS/DSB (Operational Assistance/Directorate of the General National Data Bank)

DGS/DST (Operational Assistance/telematics service)

DGP/DPF (Human Resources/Directorate for Training)

DGM/DMG (Material Means/Directorate for Equipment)

Others:

DIC (District Information Crossroads)

The first explorative round showed that some services already had more interest in the project than other. The services that indicated to have the greatest need were further

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involved in the research and were invited to take part in the following phase, the focus groups.

In March 2005, **focus groups** were organized in consultation with the respondents we had met in the first phase and had the greatest needs, firstly to gain a better insight in which sources should be included in the database and secondly, to find out what the future users expect from the application.

To organise those focus-group, the participants received a questionnaire in advance so that they could be prepared to start the work sessions. The contacts from the previous phase also got full participation in the drawing up of these questionnaires. The respondents were ordered to already make a study of the sources they used during the performance of their analyses.

The focus groups' objective were to select the way in which the respondents select and process the data, which seem useful to their study. They could also indicate which sources were the most important to it and which difficulties they experience when consulting these. Secondly, we examined this library's functions and expected services in collaboration with the participants.

The following focus groups were formed:

- A group with members of DGA/DAG (Administrative Police/Directorate for Policy, Management and Development).
- A group with Dutch-speaking strategic analysts of the federal and district level.
- A group with French-speaking strategic analysts of the federal and district level.
- A group with members of the Technical and Scientific Police, at the central as well as at laboratory level.

The other services we interviewed in the first phase and that showed interest in the project to a lesser degree, were sent a questionnaire they could fill in in collaboration with their service. Since no focus group was organized for their service, we also could take their needs into account. It involved the following services: CGI, CGL, DGP/DPF, DGM/DMG.

After the focus groups, we started a broader analysis of the Federal Police's needs and expectations. We had also gained a better insight in which sources should be included in the database. On the basis of this study, we could compose the user interface.

2.2. Analysis of the project's feasibility

2.2.1. Analysis of the existing elements

The Federal Police have various information channels that are used to get hold of the correct data:

- **Intranet:** Portal and the various police sites.
- **Internet:** the Internet is at the police's disposal, but not all pcs are connected to it.
- **Internal servers:** some services have an internal server to pass information to one another within the service.

- **The libraries:** it involves the library of CDC as well as the library of their own services or external libraries.
- In addition, the **interpersonal contacts** constitute an important source of information.

The various information channels the police themselves put at their staff's disposal are:

- **Intradoc:** it involves a reference system that reproduces interesting documents in the non-operational domain.
- **Dailydoc:** daily announces the new documents that are included in the Intradoc data bank. A profile can be created so that one is only informed of the innovations one is interested in.
- The **GND** (General National Data Bank): the police's operational members have access to all data of this data bank, the civilian personnel will only have access to depersonalized info.
- **Police sites:** many services have developed their own website with interesting information.

Furthermore, many projects are still in their development phase such as the site of CGI about Awareness, DAG's project about content management systems, ...

2.2.2. Expectations

The system's function

Most respondents mention that there is a **mass of information**. When someone looks something up, he/she generally gets a lot of hits. It is not obvious to decide which is the correct information. Most respondents see a **filter function** in the "Virtual Library" application. The system has to help the users to find their information in the great mass: the system helps to search for and select the information. Furthermore, this application can also provide an improvement in the field of knowledge of the existing internal and external sources. Now, one often stays in certain categories and one partly gets stuck with the easily accessible information. **Obtaining the correct info from the mass is not always obvious.** There is definitely a **lack of a good reference list** that shows the better sources. On the basis of structured information, the police already got far, but on the basis of nonstructured information there is little or nothing available.

Furthermore, it is important that the **information** is classified somewhere **centrally** and that everybody of the police can consult this information. At the moment, it is not clear to everybody which information is available and where. So, some people do not know what is at their disposal in their own library (the Documentation Centre's library). The catalogue (VUBIS) is only just operational. At the moment, Intradoc is not able to do a search in the catalogue, but that will change in the near future. Besides, only certain people have access to the various data banks of the Federal Police, which sometimes makes the work difficult. So the project can have a surplus value if the **information** that the Federal Police have at their disposal **is centralized (generally or on a reference list)** and access to this information is provided for for everybody.

Many respondents denounce the **lack of information exchange**. So the strategic analysts do not know who still has expertise in their field or they are not informed about

who already has certain files. The same occurs for the technical police. There is insufficient information exchange between the various labs.

The system's contents

The contents expected in this application depends on the service. It goes without saying that everybody expects other contents, depending on the position one holds. In the focus groups, potential user groups that have told us their interests were asked for information.

In particular:

- The **strategic analysts** are in need of contextual information to study criminal phenomena. They also need methodological information: reports of other analysts, resources, It is also highly important to have information over the various levels, since there is often lack of information flow from the Local to the Federal Police.
- For **DJT**, the RITS¹ forms an important division (15 themes). The information exchange between the various labs is to them highly important. The information is omnipresent, but it has to be centralized and divided. It would also be useful to know the expertise of the people who work in the various labs, and to know who works on which projects outside the police. In addition, there is also lack of scientific sources concerning DNA-analysis and digital photography.
- For **DAG**, it is important to be able to consult general scientific information and research reports, within the police, but mainly outside the police. To know what is available in other services, universities, research centres is highly important.

The **other** police services also need specific contents. In this way, it is important to the people of DGM to have the correct standards and to have sufficient information from all sorts of companies. CGL for its part needs information about management to be able to present all sorts of things to the Local Police.

What is important to **all services**, so what should definitely be included in the system:

A **list of contacts** so that one knows who has the necessary knowledge in which domain.

A **daily scan of the press**, the general as well as the specialized press. One should be able to make this information available to everybody within the Federal Police. According to CDC, there is a contract with the press that offers the opportunity of placing the information at the disposal of the members of the police for one year. At the moment, this information is not made available and much information gets lost. Only the important articles are passed on via fax or via an ordinary copy. It would be a great step forward should this information be electronically available.

Legislation: Almost every service reports that it is very important that the most recent legislation is available about all sorts of themes. Some legislation is currently absent in Intradoc, which is sometimes a deficiency. That way, DJT is in need of the most recent legislation about DNA, but this cannot be found in any police data bank. The legislation about standardization is not available in Intradoc neither. It only contains the "general" legislation and the European treaties, so an extension is necessary.

¹ RITS are in french : « Réseau d'Informations techniques et scientifiques » (Network of Technical and Scientific Information) . This network of information has been created by Technical and Scientific Police.

2.2.3. Greatest obstacles

Intranet/Internet

The police work with two networks, an internal network on which much information can be found, but this does not have any access to the Internet. This poses a problem when we want to make links with interesting web pages. Furthermore, some pcs have access to the Internet, but these cannot be connected to Intranet. Therefore, we will most likely install the application on both networks.

The proliferation of initiatives with respect to non-operational info

Every service develops its own system. Already much manpower went to it, it will be difficult to abandon these initiatives just like that or to centralize them in one system.

Copyright problems

Not all files can be put on our portal site. So the copyright has been studied to know which conditions have to be fulfilled to be able to put files in the virtual library.

2.3. Methodological specifications and interface

In consultation with the public institution, we have decided to develop a **virtual library** in which all important references are included. This seems to us to be the most practicable proposition, since making direct links with the various sources is often impossible: some sources are not available electronically, other ones require a subscription, other ones are only available on the Internet and this is difficult to link with Intranet, and finally, some sources are protected by copyright.

2.3.1. General aspects

On the basis of the tools and documentation sources that are already available at the police and on the basis of the discussions we have had with the members of the focus groups and the people from the various directorates, we have decided to construct the application as follows:

This application comprises **various sorts of documents** each containing another type of source:

Firstly, it involves **qualitative information** that aims at the simplification of the interpretation, contextualization and analysis of judicial data or criminal phenomena. At the moment, the police do not have such a data bank. So references of various documentation sources (books, periodicals, ...) that have not been included yet in the existing police data banks will be included in this application.

Secondly, sources that are **complementary** to the existing documentation applications (Intradoc, Vubis) such as websites or data banks with useful contacts and their domain of knowledge are included.

The application allows to **share information**, it involves a combination of references coming from within and from outside the police.

Users

Various persons will gain access to this system. The police members can make use of the application. The research team suggests to provide the police members with a login and password by mail.

People outside the police (Universities, judicial authorities, ...) can also consult the application, but they will have to register in the system first. A team of the police will then decide whether they gain access or not.

Access to the system from the police Intranet and the Internet

Given that there are users within the Federal Police as well as outside the police and that both networks are separated, the system has to be put on the police Intranet but also on a secured Internet (access via a login and a password).

2.3.2. Documentation index cards

To create documentation index cards, we have consulted various sources. Finally, we have made use of the BibTeX agreement and we have based ourselves on the international ISO standards.

Four categories of sources are provided for: specialized documentation sources, useful contacts, agenda of events and tools. A documentation index card has been created per category. It contains various elements of data that have to be present (date, author, degree of safety, category, type, ...) and also shows how these have to be coded.

2.3.3. Interface

A paper prototype of the interface has been created. This serves as a guideline for the police. The interface was set up as a virtual library (reference system) with the following parts and layout:

Logo of the interface	Virtual library of the Federal Police							
	Welcome	Sources	Search	My library	Plan	Contact	Help	Quit
Sources Specialized library Useful Contacts Agenda Tools Catalogues Libraries Intradoc Search on the site : <input type="text"/> GO	You are here: Welcome >> Plan Plan of the Federal Police's Virtual library 1. Welcome page 2. Documentation sources 2.1 Specialized library (<i>Specialized virtual library with books, articles, periodicals, theses, reports and notes, handbooks and syllabi, documentation of conferences, websites, audio-visual material, multimedia and miscellaneous. Specialized library classified into themes. This library is classified into four main themes that for their part have been classified into subthemes. The main themes are: judicial matters, technical and scientific matters, matters concerning administrative police and human sciences.</i>) 2.2 Useful contacts (<i>Classified into types. Various types of contacts are provided for: within and outside the police.</i>) 2.3 Agenda of the events (<i>Classified into types and accompanied by a link. Various types of</i>							

<p>My library</p> <p>My profile</p> <p>My searches</p> <p>Application administration</p> <p>Wat's new?</p>	<p>events are provided for: congresses, conferences, workshops and other events. Links with the police's existing training sites are also provided for).</p> <p>2.4 Tools (Classified into types. Various types are provided for: Search engines, Encyclopedias, Dictionaries, Freeware/Shareware software, other tools, ...).</p> <p>2.5 Catalogues of libraries (We provide for links with other catalogues of libraries. These can still be completed).</p> <p>2.6 Intradoc (link with the interface).</p> <p>3. Search</p> <p>3.1 Search in specialized library</p> <p>3.1.1 Simple search</p> <p>3.1.2 Advanced search</p> <p>3.1.3 Search per theme</p> <p>3.2 Search in the catalogues of libraries:</p> <p>3.2.1 Search in Vubis: Catalogue of the Library of CDC</p> <p>3.2.2 Search in the other catalogues of library</p> <p>3.3 Search in Intradoc (Link with the search function of Intradoc)</p> <p>3.4 Search on this site</p> <p>4. My library</p> <p>4.1 My profile</p> <p>4.2 My searches</p> <p>4.3 Application administration</p> <p>5. Plan of the site</p> <p>6. Contact</p> <p>7. Help</p> <p>8. Wat's new?</p>
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For more details about the interface, we refer to the complete research report².

2.3.4 Administration of the system

The system contains various statuses one can receive:

- **User**: opportunity for the holder of this status to use the application and to consult the documentation index cards.
- **Editor**: opportunity for the holder of this status to draw up documentation index cards that feed the application.
- **Validator**: opportunity for the holder of this status to validate or to remove these documentation index cards.
- **Administrator**: he administrates the entire application.
- **Webmaster**: he administrates the web interface, design, ...

A person can receive more than one status. To guarantee the quality and the relevance of the interface that is available on the system, the editors will be chosen on the basis of their skills. This to limit the need for a validation process and to accelerate the

² The research report will be made available on the website of the Belgian Science Policy, and on the website of both universities (<http://www.belspo.be>, <http://www.info.fundp.ac.be/cita> and <http://www.sva.ugent.be/>).

publication of the contents. The editor's profile can be linked with certain branches (agenda, tools, ...) as well.

The members of this project's guidance committee have opted for a shared administration of the system under various participating institutions using the application (universities, judicial authorities, ...). The aim of this shared administration is to support the exchange of information sources between and within the institutions.

In this system, all institutions will apply the same rules to allocate the various statuses. These rules have to be drawn up by a management committee that will be composed of representatives from participating institutions using the virtual library. This committee will also propose which institutions can gain access to the system.

3. Implementation of the project and publications

The research report will be made available on the website of the Federal Office for Scientific, Technical and Cultural Affairs and on the website of both universities (<http://www.belspo.be>, <http://www.info.fundp.ac.be/cita> and <http://www.sva.ugent.be/>). Other public institutions will also be informed of the project and they can if necessary use the specifications for their own ends. Finally, an informative article about the research in a police magazine will be published. The police will take care of the project's implementation.

4. Conclusion

Completed specifications...

The functional requirement is very comprehensive and is largely validated by the police actors, people from the judicial world and scientists who sat on the guidance committee. The various specifications and views in connection with this project have been properly rounded off and have been included in the functional requirement. The only thing that has still to be decided upon is the system administration. As such, the functional requirement can be at the direct disposal of the Federal Police for the development of the virtual library.

From virtual library to knowledge management...

Whereas the context of the functional requirement is specific to the police (existing systems and technical impediments), the subject of this application is also of importance to the many public and private institutions. As such, a latent knowledge management is found in these institutions and nowadays they try to manage the know-how better and especially to share it better with other organizations. Instead of the great speeches about knowledge management as "capital" of the organization, this functional requirement gives a concrete and operational reproduction of its aspects concerning contents as well as its management aspects. He can, for those reasons, help a number of public institutions in the development of their methods to capitalize their know-how.

A transferable methodology...

Launching such a project requires the development of a participative methodology in which one works at the development of the project's concept in collaboration with the actors concerned. Within the framework of this project, we have wanted to apply a strict

and valuable methodology, taking everybody's opinion into account. We have also always taken enough time to validate the various concept choices on a solid and legitimate basis.

So this methodology can be of use to other public institutions that develop projects concerning collaboration and/or information exchange.

Further information can be obtained from our research group with the following details.

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