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DBEP - DataBase of Environmental Professionals
Second development stage concept and roadmap

DataBase of Enviromental Professionals
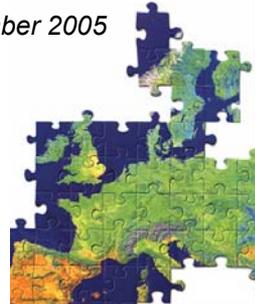EFAEP
DBEP

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Developers:
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Summary

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Preliminary remarks (1)

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1. The need for a Database of Experts as an EFAEP facility has been highlighted <u>since the beginning</u> (Dusseldorf, 2002);
2. On <u>February 2005</u> the ExCo has approved the proposal submitted by AIAT & AISA and decided to fund the design and implementation of the DBEP (Levels 1 + 2) with <u>8500 euros</u>;
3. The "DBEP system" is intended to become both a <u>communication instrument</u>, to be used by EFAEP for the promotion of activities among its individual members, and hopefully a <u>source of income</u>;
4. AIAT & AISA are playing a major role on the technical implementation of the DBEP **but**, besides the technical aspects, it is crucial a <u>strong commitment by each Association</u> aimed to:
   a. support the developers on some critical aspects and choices (e.g. admission procedures, classification of expertises,...);
   b. disseminate the DBEP among its members and among all its contacts (companies, public administration, etc.).

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Preliminary remarks (2)

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1. After the completion of the first step of development for the DBEP System, the main goal of this second stage is to develop an efficient and simple Administration interface in order to allow the management of the subscribers.
2. The management of the System will be divided in two main categories: **Member Associations** and **EFAEP Central Secretariat**.
3. A **Member Association** will be able to manage only its subscribers (enable/disable/delete each subscriber, confirm subscription requests and so on).
4. The **EFAEP Central Secretariat** will be allowed to generate massive reports over the whole Users database, create new local Admin accounts and so on.

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5. In addition to its primary goal, the second development stage of the DBEP System provides also some improvements to the user interface:
    a. Contextual and multilingual help;
    b. View-as-you-type simplified search interface;
    c. Improvements to the profile reports printing;
    d. Reported CVs PDF exporting function;
    e. Semi-automated error reporting system (Bug Report);
    f. Other minor interface improvements.
6. Finally, a Testers team was created in order to experience the real potentials and imperfections of the actual user interface.
   This Team consists of several delegates indicated by the Members Associations and coordinated by AIAT through a specific mailing list.

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FIREFOX VS. INTERNET EXPLORER

DBEP is optimised for Firefox-based Browsers, but a lot of efforts have been devoted for making it working fine also with Internet Explorer

DBEP is a quite complex application and we have decided to develop it in the best way, supporting all MODERN and STANDARD technologies.

Despite IE is currently utilised by 90% of Internet users, it cannot be considered as a state-of-the-art browser. For example it does not support W3C Standard, which has been utilised for the DBEP.

The contribution of the testers is very important in order to solve all the problems related with the utilisation of IE. The problems which have been reported were related only to visualisation aspects.

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Goals of the database

1. **INTERNAL USE → Facilitate a platform of active EFAEP members:**
   to communicate directly with the members;
   to facilitate exchange between the members (e.g. working groups);
   to know what expertise is available (for answering to consultations, etc.);
   to improve cooperation between member organisations, etc.

2. **EXTERNAL USE → Visualisation of and access to the expertise of environmental experts at the European level:**
   to give the European environmental professionals a common platform;
   where they can present their professional profile;
   where they can get in contact to each other;
   where clients and service providers can meet, etc.

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Requirements for the Admin area (1)

The Administration area will consist of two main sections:

1. **EFAEP Member Associations Admin Area.** Every Association member of EFAEP will be able to:
   a. Confirm/reject the subscription requests from its members;
   b. Generate a complete list of its members and view their full personal data;
   c. Enable/disable/delete each user under its authority;
   d. Modify the basic personal data not directly editable by the users (e.g. Primary E-Mail address, Name, Surname, Affiliation, Birth date and so on).

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2. **EFAEP Central Secretariat Admin Area.** The EFAEP Central Secretariat will be able to:

   a. Confirm/reject the subscription requests from Companies or other Institutions;
   b. Create new Local Secretariats admin accounts;
   c. Remove Local Secretariats admin accounts and of every related user account;
   d. Generate a full report for the entire Users database;
   e. View every personal data profile.

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The DBEP Framework takes care and prevents also some important network security issues, like:

1. **URL Spoofing:** with this technique it is possible to use malformed URLs to address unauthorized areas or activate unpredictable security holes.
2. **SQL Injection:** using malformed data input, an unauthorized person can gain the full control over the Data Base Management System (DBMS), including the possibility to list reserved data alter, or delete it.
3. **Password sniffing:** the User passwords are stored into the Data Base in encrypted form.
4. **Unauthorized software modules:** every software module has an internal signature which identifies it as certified part of the System. Modules without this signature are automatically rejected.

Security management (2)

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5. **Permissions overflow:** in order to access certain modules, an user must have enough privileges, which are permanently stored into the Data Base and preserved during every User Session.

6. **Session spoofing:** during an opened User session, a direct association between the client's IP and the connection is stored into a permanent log table and preserved in order to track every connection and prevent the possibility for a malicious person to use a connection opened from an authorized User as access bridge to the system without the necessary permissions.

HIGHER SECURITY LEVELS (i.e. https protocol) ARE IMPLEMENTED ONLY WHEN DEALING WITH MONEY TRANSFER OPERATIONS

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Roadmap of growth

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By March 2006 a fully functional system will be ready for internal use within EFAEP, synthetically including:

• Implementation of the online user help system (done);

• Improvements to the user interface and to the overall graphical layout (done);

• Printing and PDF-exporting of reported CVs (done);

• Administration interfaces for local and central Secretariats (in progress);

• Improvements to the classification system for expertises and education levels (in progress).

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Testing (1)

This level has introduced also an <u>extended testing phase</u>: a Team of Testers was created and its members were invited to compile their profiles in the database and to try some searches.

A <u>dedicated Mailing List</u> (dbep-testing@yahoogroups.com) was created and moderated by the Project Managers.

A new bug reporting interface was also integrated into the System, in order to give to the Developer's Team a direct feedback by the Testers on incidental malfunctions.

Thanks to this feedback interface, during the first testing period many bugs were discovered and corrected.

Moreover, all the comments of the Testers were discussed during a physical meeting with the Developers (Naples, December 3rd), in order to improve the overall functioning of the system.

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Testing (2)

CURRENT LIST OF TESTERS (UPDATED ON DECEMBER 7TH)

Dominique Bernard	AFITE (F)
Yves Bouhier	AFITE (F)
Bruno Weinzaepfel	AFITE (F)
Alessandro de Carli	AIAT (I)
Davide Maffei	AIAT (I)
Antonio Di Lisio	AISA (I)
Carmen Giancola	AISA (I)
Marco Rossetti	AISA (I)
Elena Santini	AISA (I)
Matthias Friebel	VNU (D)
Vera Kessler	VDI-KUT (D)
Miira Riipinen	FAEP (SF)
Sini-Pilvi Saarnio	FAEP (SF)
Linda van Duivenbode	VVM (NL)

ATEGRUS, APEA, CSE, VBU, IEEM ARE STILL MISSING!!

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NEW TESTERS ARE WELCOME!

YOU MUST SUBSCRIBE TO THE MAILING LIST OF
TESTERS BY SENDING AN EMAIL TO THE FOLLOWING
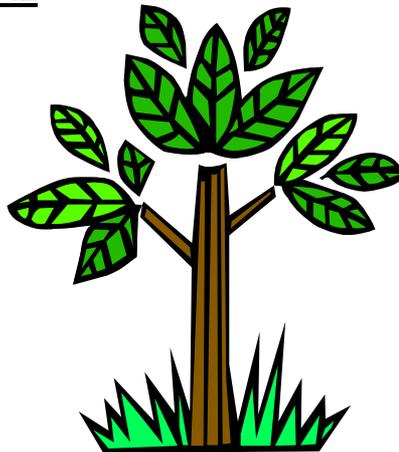ADDRESS:

dbep-testing-subscribe@yahoogroups.com

THE PROVISIONAL WEB ADDRESS OF THE DBEP IS:

dbep.neminis.org

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**Multi-criteria classification of
skills and expertises (1)**

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OUR PROPOSAL

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Multi-criteria classification of skills and expertises (2)

This classification is based on a <u>three-level tree</u>. "Multi criteria" refers to the fact that <u>a professional's experience can be described following several different criteria</u>.

The idea behind this classification is then to create it by addition of different classification trees, one for each specific criterion.

➢ **Level 1** is used to identify the <u>specific criterion</u> considered (the trunk of the tree)

➢ **Level 2** is used to give a <u>first approximation of the classification within that criterion</u> (the branches of the tree)

➢ **Level 3** is used to create a <u>detailed classification of the criterion</u> (the leaves of the tree)

A <u>certain amount of overlapping between one tree and another</u> is to be considered reasonable and acceptable; leaves can then be shared by two or more criterion-trees.

<u>Such classification can be expanded at any time</u> by adding new trunks, branches or leaves.

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Multi-criteria classification of skills and expertises (3)

Level 1 (trunk)	Level 2 (branches)	Level 3 (leaves)
Professional qualification	Engineer	Environmental Engineer
		Chemical Engineer
	Geologist	…
Field of activity	Air	Greenhouse gases
		Air treatment plants
	Water	…
Tools	Computing	…
	Management	EMS
Types of organizations	Private	…
	Public	…
Role / activity	Management	…
	Consultancy	…

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Open issues

1. Classification of skills/expertises
2. Classification of education levels (currently six):
   - ✓ 1st level degree
   - ✓ 2nd level degree
   - ✓ PhD student
   - ✓ PhD doctor
   - ✓ 1st level master
   - ✓ 2nd level master
3. Visibility vs. "searchability"