ENDURE

European Network for Durable Exploitation of crop protection strategies

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FOOD and Quality and Safety

Deliverable DI1.11

Final release of the implemented Two-Track-System

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Dissemination Level	
PU Public	**PU**
PP Restricted to other programme participants (including the Commission Services)	
RE Restricted to a group specified by the consortium (including the Commission Services)	
CO Confidential, only for members of the consortium (including the Commission Services)	

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Glossary

ENDURE: European Network for Durable Exploitation of crop protection strategies
DBMS: DataBase Management System
CPN: Crop Protection Network
ICT: Information and Communication Technologies
ICPC: International Cooperation Partner Countries
POE: Partners outside Endure
TTF: ENDURE Technical Task Force
TTS: Two-Track System
EIC: ENDURE Information Centre

Summary

The Two-Track System (TTS) has been created as a general platform for exchanges between ENDURE and researchers from outside the Network. In the Deliverable DI4.5 "*Pilot scheme of a two-track system for exchanging information and expertise from/to ENDURE*", the structure and general functionalities of the TTS were presented. The system has been developed and installed on the ENDURE test server at the following address: http://twotrack.endure-network.eu

Objectives

After the DI4.5 deliverable, the scope of the TTS was modified due to the merging in the 3rd JPA of Crop Protection Network (CPN) sub-activities with Partners Outside Europe/ICPC sub-activities. At the 10-11 March 2009 meeting in Flakkebjerg, Denmark, the evaluation of the extension of the TTS was discussed and it was decided to utilise the TTS to store a database of contacts and expertise and a database of founding sources for crop protection projects (*MI1.9 Evaluation of the potential extension of the two-track system to other CPN members and research teams from ICPC*).

At the 26-27 June 2009 meeting of the Technical Task Force, held in Sophia Antipolis, France, a new TTS database structure integrated with the ENDURE commons database was presented. The new version of TTS allows ENDURE users to update the data about Pest Management Organisations and Experts using a web interface and to describe them using the ENDURE Knowledge tagging system shared with the ENDURE Virtual Lab and ENDURE Information Centre. The main aim is to create closer links with other ENDURE applications.

The end result of this deliverable is the installation on the ENDURE final server of the final release of the Two-Track System.

Rationale:

Issues concerning contents and interface have been discussed within sub-activity IA1 and implementation issues have been discussed within the Technical Task Force. The former stable release of the Two-Track system has been installed on the test server and it is at the moment the public available version at the http://twotrack.endure-network.eu address.

The final release has been installed on the final server at the following address: http://85.31.206.193:8080/twotrack/twotrack?restart=si. After approval of the deliverable, public users will be redirected to the final version.

Teams involved:

SSSUP, with the collaboration of the subcontractor Aedit s.r.l., has been in charge of TTS design and development. Members of the IA1.3 sub-activity (CIRAD, RRES, AU, and SSSUP) have participated to data collection and feature requirements. Technical Task Force members (INRA, RRES, JKI, AU) have been involved in the analysis of the technical specifications and the interactions with other ENDURE applications.

Geographical areas covered:

Worldwide

Updating TTS db structure

The final release TTS has been redesigned in order to fit in with the final version of the ENDURE tagging system: ENDURE Knowledge. TTS will not use any more specific tables to store data on organisations and experts. Data are maintained directly in the Commons database in order to share them with other applications.

1.1. Using "ENDURE Knowledge" tagging system

For each expert or working groups it is possible to associate several references to pests, crops and topics. A new "knowledge" record is created and it is associated with a "knowledge type" identifier.

These knowledge tables are shared with other ENDURE applications:
- ENDURE Information Centre - EIC: Reports and projects about pest management
- Virtual Lab: research facilities and biological collections
- Two-Track System: Experts, events and organisation working groups

Using the same database allows applications to easily suggest "cross-links" with other applications. Users searching for projects dealing with *Phytophthora infestans* could be redirected to a list of experts or organisations working with that disease. It will be possible to suggest to a user searching for grapevine pest management experts a list of ENDURE reports and results on grapevine IPM contained in the EIC.

Pest, Crop and Topics are stored in specific tables and all these applications are using the same codes. EPPO code has been adopted to identify crops and pests and a specific list of topics has been created to fit EIC and other application requirements.

A dynamic web interface has been created to help people to *easily* add ENDURE keywords. In the next chapter you can find some screen-shots of the interface. It has been decided to allow users to add new keywords if users do not find what they need. These "user generated" keywords will be inserted in a temporary table so that users are not able to change directly the ENDURE commons contents. A web interface has been developed to help administrators to check and validate the new keywords and transfer them to the Commons database. For pests and crops, a local version of the EPPO database has been deployed to help people searching for new species.

1.2. Using the ENDURE Commons database

The former version of the ENDURE TTS used specific tables to store organisation and experts/contacts data. The applications has been adapted to use the ENDURE commons tables ("contact" and "organisation") to share these data with other applications.

The contact table has been modified in order to allow the storage of different kinds of "experts". A "contact type" field has been created to distinguish among different kinds of contacts or experts (for example, participants to Summer School, mobility programmes, external researchers collaborating in ENDURE or other European projects, researchers from countries outside the EU). The core part of ENDURE contacts are ENDURE members; periodically a list of ENDURE participants from the collaborative workspace is loaded in the ENDURE Commons db. A specific column will indicate these users in order to distinguish

them from external contacts. It is possible for ENDURE members to add their own contacts. In this case each new contact will be linked with the user that inserted them on the db allowing users of the TTS to have the name of an ENDURE member as a "point of contact" for each expert in the db. An "expert_network" column has been created to tag a subset of experts belonging to the ENDURE Expert Network.

The organisation tables will contain ENDURE partners, Crop Protection Network members, organisations related with the pest management project database and, generally, all Partners Outside Endure-related information. A "type_of_organisation" field allows users to distinguish between the different groups. Each organisation could be described as a group of working groups and each working group can be described using the ENDURE Keywords. In this way it is possible to search across an organisation's competencies using ENDURE keywords (Crop, Pest; Topic).

Each organisation can be associated to a country code. Specific codes have been created to describe international organisations (at worldwide or continental scale).

1.3. Sharing "ENDURE authentication"

TTS authentication methods have been adapted to use the ENDURE Authentication database. This db stores the list of user ID and password of collaborative workspace users. A synchronisation mechanism has been developed by the TTF to automatically update the user ID/password data with the collaborative workspace. In this way users can access the TTS using the same password used for other ENDURE applications.

The final release of the TTS has been deployed on the Sun Glassfish Application Server. ENDURE IC has been deployed on the same application server making it possible to have a Single Sign On solution between these applications in the near future. With these solutions it would be possible for a user registering to an application to be automatically authenticated on all Glassfish applications.

New TTS features

1.4. Funding Sources

The extra funding sources data, collected by the IA1.3 sub-activity, has been inserted in the Two-Track System database. Funding sources has been divided in three categories: funds for Training, Mobility Programmes and Research Activities.

For each funding source the following features are described: source of the funding, the specific action, the countries admitted to the funding and, if available, the subject area of the funding. Clicking on the "more..." link it is possible to access more information about the funding sources from the TTS.

From the main page it is possible to filter funds by type and by countries covered by the source. At the moment 140 funding sources have been inserted: 37 for mobility, 54 for research activities and 49 for training.

Clicking on a specific funding source it is possible to access information about the nature of support, the modus operandi and other information about the duration and the amount of the funding.
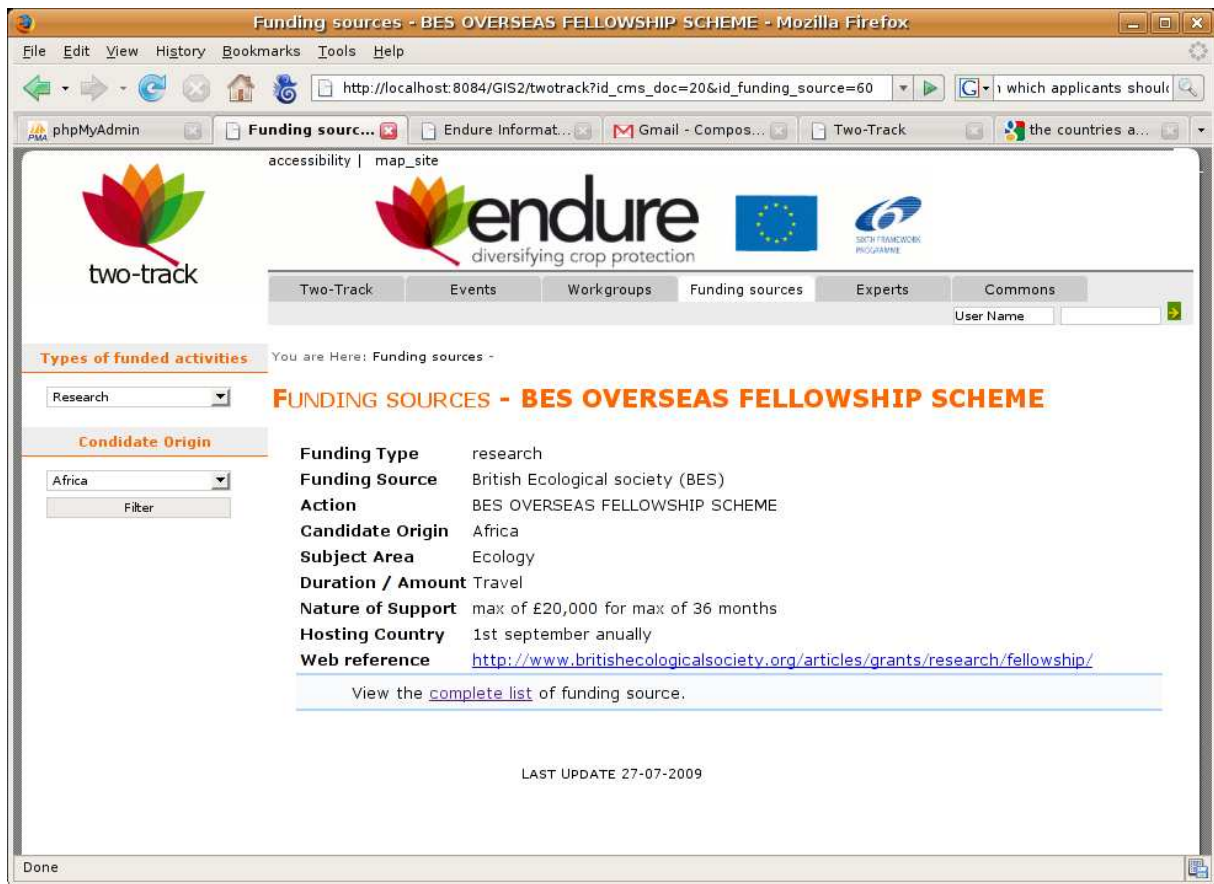
A user interface has been designed to allow users to update and to insert new funding sources. When new data is inserted it is necessary to define a date for validity of the sources to avoid publishing outdated information on the website.

1.5. Experts and contacts list

The contact and the organisation table of the ENDURE Commons database has been populated with data coming from the former TTS and with new data on experts from Partners Outside Endure collected by the IA1.3 sub-activity. Data came from several sources of information: ENDURE partners' links with organisations in developing and emerging countries (DS3.5), Summer School participants, lists of participant at ENDURE meetings (annual meeting, POE workshops etc).

At the moment the organisation table contains 105 organisations (ENDURE partners and CPN members and other POEs) from 41 countries. In the contacts table there are 437 contacts (299 inside ENDURE, 24 users who have tested EIC and 114 contacts from external organisations).

1.5.1. Experts page

From the main Experts page it is possible to get the complete list of external contacts. At the moment it is possible to query only the external members but it is possible for ENDURE members to describe themselves with specific keywords searches across both internal and external contacts.

In the left column it is possible to filter contacts by country and organisations. It is also possible to have a text search on the contact name. It is possible to search for a list of experts sharing the same topics of interest: crop, pest or main topics of research.

In the right column there is a list of keywords related to the experts using a "tag-cloud" representation. Larger fonts indicate a larger group of contacts related to that keyword. Clicking on the keyword will select the list of related people.

It is possible to get more info about the expert clicking on his name. Only registered users can access the expert email and the name and the email for the ENDURE "contact point" with that expert.
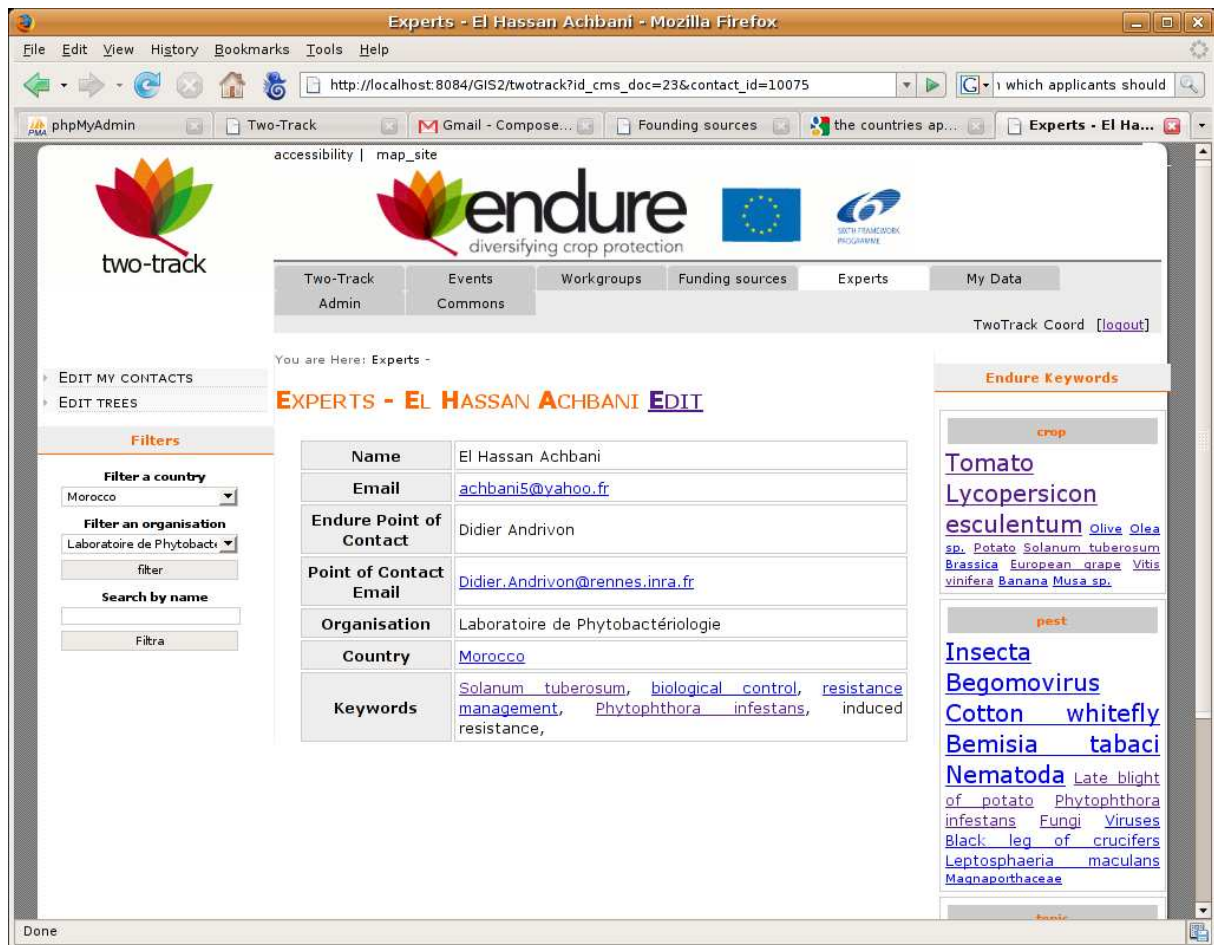

1.5.2. Insert new Experts and Organizations

A user interface has been designed allowing ENDURE users to update the database adding experts and organisations.

1.5.3. Insert/update data

Each ENDURE member can access the TTS and use it to add their contacts and to share them with other ENDURE members. Clicking on "Edit My Contacts" in the left column it is

possible to get the list of contacts. In the left column under "Add a new contact" there is a form allowing users to insert new contacts and organisations. Clicking on the "Edit" button in the central table it is possible to modify the data about an inserted contact.
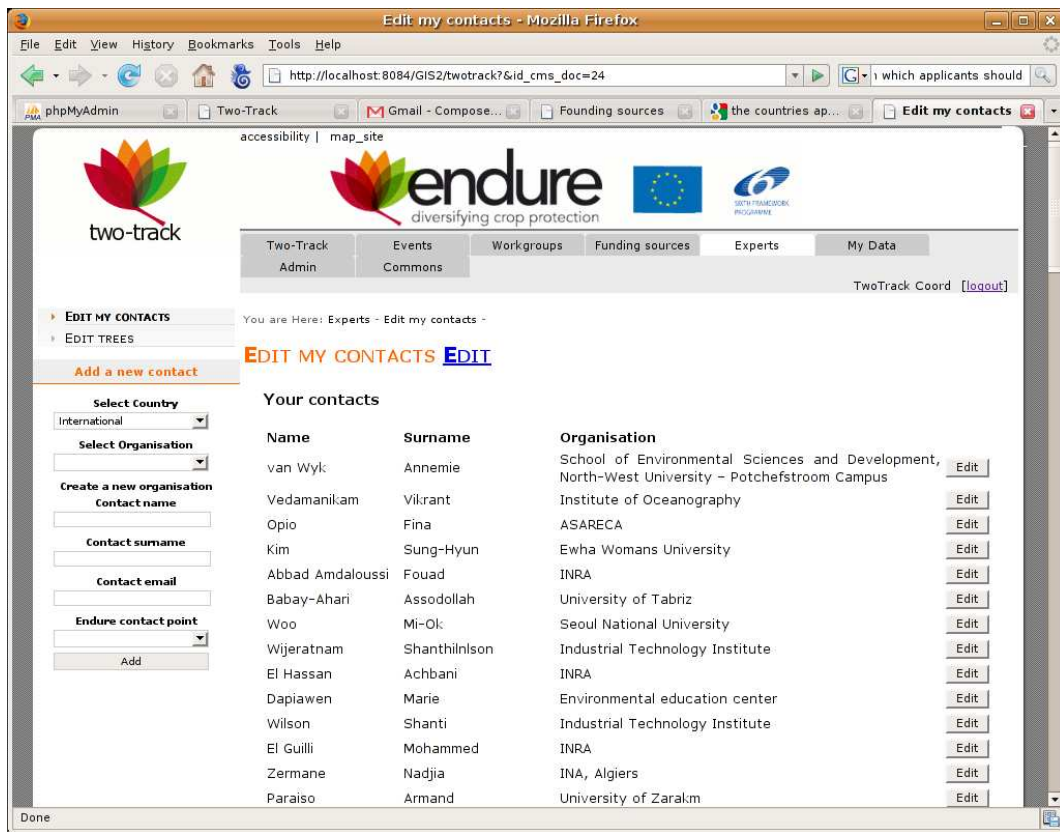
To insert a new contact a country has to be selected. On the "select organisation" box the user gets a list of existing organisations. If the organisation does not exist it is possible to click on "Create a new organisation" and to insert an organisation's short name, long name and the organisation typology (for example, University, Research Centre, NGO, private company etc).

For each contact it is possible to insert name, surname and a valid email. The global administrator can also choose who is the ENDURE contact point for that person. ENDURE members who insert a new contact will automatically be considered as the Expert contact point.

Clicking on the "Add" button will create the organisation and the contact in the ENDURE database, and will open the page allowing the user to associate to that contact a list of keywords.

Entering an existing user it is possible to show a list of crops, topics and pests associated to that user. To insert a new keyword you should write a few letters in one of the three input fields. For example, writing biological in the topics box gives the user a list of topics already existing in the commons tables: biological control, and biological soil fumigation. It is possible to click on the selected topic to associate it to the user.

EDIT MY CONTACTS : DODELYS ANDRIANTSIMIALONA

Name Dodelys

Surname ANDRIANTSIMIALONA

Email Dodelys.ANDRIANTSIMIA

Main Orgs

Description collaborate_with_endure

Clicking on the red cross icon will eliminate an inserted keyword. It is possible to search for crops and pests using English and Latin names. If the pest or the crop does not exist in the Commons database, the user will automatically receive suggested species from the EPPO database. It is also possible to enter a new topic that does not exist in the Commons database. As already explained, data will not be automatically inserted in the database but in a temporary table awaiting validation by a system administrator.

Conclusion

The Two-Track System has been designed and implemented and the final release has been published. The latest release of the TTS has been implemented with new kinds of data and it has been adapted to share the ENDURE Commons data with the other applications.

The Two-Track System will be integrated in the ENDURE Information Centre and in the Virtual Lab tools and it will be mainly dedicated to managing information about ENDURE contacts, network of experts and other information about organizations and groups related to pest management.