WD6.2 REPORT about EU wide Data Base of training events and training providers on RP according the standard developed in WP3 and WP4

June 2011

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Project Acronym:	ENETRAP II
WP 6 title:	Create a database of training events and training providers (including OJT) conforming to the agreed standard
WP 6 starting date:	1 September 2009
WP 6 duration:	30 months
WP 6 leader:	7 CIEMAT
WP 6 partners:	2 CEA , 3 FZK-FTU, 5 ENEA, 6 NRG, 9 ENEN

INDEX

1. INTRODUCTION.

The objective of the WP6, inside the 7FP project ENETRAP II, is the creation of a data base (DB) to collect the main education and training (E&T) events in radiation protection (RP) in Europe as well as the information about the E&T providers, including its possibility of On-the-Job-Training (OJT).

The DB will be the instrument of support of the project to indicate the degree of conformity with the standards developed by WP5 for the RPE and RPO E&T events.

The equator of the project has been crossed and until this moment has been analyzed the kind of E&T events to be included in the DB, beginning with the documents: "The Daft EURATOM Basic Safety Standards Directive" and "The IAEA Requirements for the training of RPOs". From this analysis have been identified the necessities the DB must satisfy.

Other task developed in the first period has been to study in detail some DBs with similar purposes. Among this, the most important one is the ENEN DB, proposed to harbour all the information subject to the ENETRAP II DB, if the necessary changes on it could have been done without change the structure of the existing one.

In order to satisfy the assigned tasks, it has been envisaged to create a system of management and query of E&T events in RP and its providers composed by three modules that will be described in detail in the following paragraphs.

This document contains the technical details of the European DB of Education and Training in Radiation Protection in order to satisfy the second Working Deliverable of the WP6: *WD6.2 EU wide Data Base of training events and training providers on RP according the standard developed in WP3 and WP4*

It is elaborated according to the requirements contained in the annex IV (IV.1 Model 1) of the document [1] *WD6.1 Report on training events and training providers. Degree of conformity with the agreed standards* approved by the Steering Committee in the intermediate ENETRAP II Steering Committee meeting (SCM) [2] held on 28 March 2011, during the EUTERP Workshop in Cyprus, after several discussions carried out during the 4th SCM in Bucharest [3].

2. OBJECTIVE OF THE WP6 AND PREVIOUS WORK

The objective of WP6 is: Create a database of **training events** and **training providers** (including OJT-On the Job Training) conforming to the **agreed standard identified in WP 3 and WP 4**.

Description of work for the WP6:

- Identification and collection of the information on training events, providers and OJT facilities on the base of the outcome of previous survey analysis (ENETRAP 6FP questionnaire), interaction with the Advisory Board, contact with national providers.

- To check the conformity of events and providers to the agreed standards.

16/06/2011

- Implementation of the information in an easily accessible database.

- Dissemination of the information to promote the continuous up-date of the database (**self-supporting system**).

The deliverables for WP6 are:

- ✓ **WD6.1** Report on training events and training providers and degree of conformity to the agreed standard.

- ✓ **WD6.2 EU wide Data Base of training events and training providers on RP according the standard developed in WP3 and WP4.**

This document corresponds to the WD6.2.

Previous work

The main task of the WP6 is to create a DB of events to satisfy the next requirements:

- An easily accessible DB.

- To store the information on training events, providers and OJT facilities.

- To make possible checking the conformity of events and providers to the agreed standards.

- To be a self-supporting system that permits the continuous up-date of the DB.

WP6 has analysed some DBs whose information are training events and providers [1, 4]. The most important one is the ENEN DB, because the areas of activity are closed to some the areas of RP. The ENEN DB was proposed to store the information of the ENETRAP II DB but analyzing it in detail, some problems were founded:

- The providers of ENEN are universities, so they don't need to pass a quality assurance (QA) protocol

- The events are organized by universities, so they don't need to pass an external QA protocol.

- The technical adaptation of the ENEN BD to the ENETRAP II necessities is very complex, and it could suppose to build a new one.

- The most of the E&T RP events potential students are not related with the higher education in the nuclear areas, so it's very difficult they seek the information in the ENEN DB.

From the discussion of this analysis, WP6 is building a new DB to satisfy the particular ENETRAP II necessities.

Other tasks WP6 has done and are described in the document WD6.1 are:

- ✓ Has analyzed the type of training events to be included in the database: reviewing several documents and the results of WP2, WP3 and WP4

- ✓ has analyzed the Mechanism to evaluate the training events (RPE and RPO) and training providers object of the database developed by WP5

✓ and has developed the Protocol of implementation and publishing of the information in the ENETRAP II DB

2. EUROPEAN DATABASE OF EDUCATION AND TRAINING IN RADIATION PROTECTION

It has been proposed to create a system of management and query of E&T events and providers in radiation protection.

This system is composed by three modules that will be described in detail:

1. DATABASE MODULE, focused to store the information related to the E&T providers, and E&T events.

2. MAINTENANCE MODULE, which allows, in an agile and safety way, the effective maintaining of the information contained in the DATABASE MODULE with the aim of being permanent actualized. This module allows the authorized people (by different roles of access) to manage the information, updating the information of the national contact points, the E&T providers and the E&T events. This module must be capable of generating the needed notifications required by the different actors to be informed of the actualized data of their self interest.

3. WEB SEARCH MODULE, that allows to the final users looking for the demanded information (E&T events and E&T providers) through different criteria.

2.1 Global vision of use: Point of view of a final user

This system tries to present a public Web access to the DB, where the users can do their **searches** through **different easy mechanisms** (a search box, a filtered search by different criteria, a search through a calendar, etc.). The **categories** to be included in the DB could be those involved in the project ENETRAP II: **E&T providers** and **E&T events**.

The events included could be those aimed to the **RPE**, the **RPO** and the **exposed workers (EW)** and could be even categorized by the **level of the event**: initial training, refresh training, specialization training and other events like workshops, conferences, symposiums, etc and opportunities, like grants, PhD topics, job offers, etc.

Through the place devoted to the **E&T providers**, the user can see all the information about the provider as well as all the active events at the moment of the search

2.1 Global vision of use: Point of view of the organization and coordination of the DB

More important than the organization of the DB is the management of the information. Because of that, the design of a good management system, MAINTENANCE MODULE, is the key point. This module permits defining different roles of access with 3 levels of permission: Providers, National Contact Points, and Global coordinator/ administrator of the system. This organization must allow sharing the

16/06/2011

tasks of the process between all the producers of the information. This permits to have the most actualized information in the DB in a self-sustainable system but with the level of quality necessary to offer the best events to the users.

ROLE	DESCRIPTION OF TASKS
E&T provider	• Update the information related to their organizations. • Create/disable E&T events of their own institutions. • Modify the information of those events.
National Contact Point	• Create/disable PROV in the system of their own country • Modify the information of those PROV. • Evaluate the conformity of the EV of their PROV. • Publish the EV of their PROV • All the tasks associated to the E&T Providers.
Global Coordinator	• Create/disable NCPs in the system. • Modify the information of the NCPs. • All the tasks associated to the NCPs.

Table 1. Roles of the maintenance module and their tasks

3. DESCRIPTION OF THE DATABASE SYSTEM.

3.1 DATABASE MODULE.

The information to be collected in the database will be:

RECORD	ABBREVIATION
• E&T Events	• EV
• E&T Providers	• PROV
• National contact point (local coordinator)	• NCP
• Global coordinator	• GC

Table 2. Records to be registered in the DB

3.1.1 E&T Events

The events could be destined to RPE, RPO and EW, could belong to different kind of training programmes INITIAL, REFRESH, SPECIALIZATION, ON THE JOB TRAINING (OJT) PROGRAM and OTHERS and the training could be organized as different type event: COURSES/MASTERS, WORKSHOP and OPPORTUNITIES (grants, PhD topics, job offers)

WP6 has defined a common formulary for all **kind of events** that classifies the information to be recovered by the end users through the most effective way: "Country", "Language", "Provider", "Type of training event" and "Application field of the ionizing radiations"

Valuable information of each even is collected in the body of the card, like if the event satisfies some national recognition or if satisfies the European standards defined in the ENETRAP II project.

The complete formulary for the E&T events is in the **annex I**.

3.1.2 E&T Providers.

WP6 has developed a formulary for the E&T providers taking into account the most important things for the end users of the DB like the main activity, the areas covered in their E&T events (Nuclear medicine, NORM,…), the kind of E&T programs (initial, refresh, specialization, OJT…) apart of the minimum information of each organization, web, contact point, country,..

The information of the providers is related with the information of the events, so that if the user is interested in some kind of event, can find directly the information of the provider and all the active events of that provider.

The searches of the end user can be done through the fields "Country" and "Areas of E&T Activity

The complete formulary for the E&T events is in the **annex II**.

3.1.3 National Contact Point and Global Coordinator

The minimum information required about the national contact point as well as the global coordinator must be:

E&T National contact point// Global coordinator				
*Organization *(text field)*				
*Country *(text field)*				
*Address *(text field)*				
*Web *(text field)*				
*Contact point1 *(text field)*	*Name: Department:		*Email: *Tlf: Fax:	
Contact point2*(text field)*	*Name: Department:		*Email: *Tlf: Fax:	

It is contemplated the possibility to include 2 people as contact point from each organization.

The national contact points can be as well providers.

The global coordinator could be as well national contact point and/or provider.

This information is not needed to be recovered by the end user and only is required for the maintenance module.

3.2 MAINTENANCE MODULE.

The maintenance module is a restricted area of the web site, where the different roles (PROV, NCP and GC) can access previous logging into the system.

Due to the different capacities of acting and responsibilities over the system, different roles have been established in order to manage the data maintenance module as you can see in the **table 1**.

3.2.1 Maintenance Screens.

The maintenance module is composed by the screens presented in the **table 3**. In this table are presented the tasks that are possible to do by each role.

The upper role can do all the tasks of the lower one, so the NCP can act as PROV and the GC can act as NCP and as PROV

SCREEN	TASK	ENABLED TO THE ROLE:
E&T Events	Register a new event,	PROV, NCP, GC
	Disable an event	PROV, NCP, GC
	Modify the information of an event	PROV, NCP, GC
	Assign the degree of conformity	NCP, GC
	Publication of an EV	NCP, GC
E&T Providers	Register a new PROV account	NCP, GC
	Disable a PROV	NCP, GC
	Modify the information of PROV	All PROV accounts: NCP, GC
		The own account: PROV
National Contact Points	Register a new NCP account	GC
	Disable a NCP account	GC
	Modify the information of NCP	All NCP accounts: GC
		The own account: NCP
Global coordinator	Glance all the global coordinators Modify the information of all GC	All GC

Table 3. Maintenance screens

3.2.2 Workflow

The entire tasks presented in the Table 3 correspond to the workflows that can be done by the different agents (roles) in the database.

Each task will generate an automatic email-notification in order to maintain the interested agent informed with the aim of continuing the process of publishing the information of the database in a prudential time

The Workflows and the email-notifications are presented in the **annex III**.

3.3 WEB SEARCH MODULE.

The results of the two previous modules will be materialized in the web search module. This application is a web portal of free access, where the final users can search the information of their interest.

The components of this application are:

- ✓ The portal framework: header or top, bottom and menu structure.
- ✓ Home
- ✓ Providers
- ✓ Events
- ✓ RPE/RPO/EW
- ✓ Workshops
- ✓ Opportunities
- ✓ Newsletters
- ✓ Links

3.3.1 Portal Framework

The portal framework is the part of the web site which includes the header or top, the bottom and the menu structure.

The header (or top), includes the name of the portal, the ENETRAP II-project logo and a general web search box. In this point we suggest to define a short name for the database, in order to be easily recognized and remembered by everybody.

Some examples can be:

- ✓ *EDBETRAP: European Data Base of Education and Training in RAdiation Protection*

- ✓ *ETREP-DB: European TRaining Event & Providers DataBase*

The bottom must include an email for contact, the accessibility logo and some kind of static text. For the static text can be, for example: *2011 © ENETRAP II-project*

The menu structure is:

- ✓ Home
- ✓ Providers
- ✓ Events
    - o RPE
    - o RPO
    - o EW
    - o Workshops
    - o Opportunities
- ✓ Links

Each one of the structure menu points is detailed in the following sections of this document.

The stile guide (colours) is proposed to be similar to the ENETRAP II-project logo: oranges, blues and yellows. Thinking in the future, these colours are even present in the EUTERP logo

3.3.1 Home page

The Home Page of the web application contains:

1. **Welcome text**: a brief static text giving information about the database portal and its objectives:

> In this database are collected the main information of the **Education & Training (E&T) events** in **Radiation Protection (RP)** and their **providers** of the European Countries.
>
> The main goal is present the most important events for the RPE and the RPO in the European Countries with special emphasis to those who satisfies the agreed European standard. It has been developed as part of the ENETRAP II project to help in the recognition process.
>
> The database also incorporates the information of the principal European providers, including the areas of their E&T activities and their on-the-job-training (OJT) possibilities.
>
> This database is the result of the WP6 of the ENETRAP II project (7th Framework Programme).

2. **NEXT E&T EVENTS**, under this title we can find a space devoted to the upcoming events. We can find the 10 (maximum number) closest events ordered by the "Start Date" where the closer date will appear at the top. This application is composed by a list-card system.

   Each one of the elements (E&T events) of this system presents in the list the following information:

   - ✓ **Start Date + end date**
   - ✓ **Title**
   - ✓ **Target audience**
   - ✓ **Provider**
   - ✓ **Country**
   - ✓ **Language**

   Ones the user click on one element of the list, the card of that element (E&T event) appears with all the information available for that event.

3. **Calendar**. On the right side can be found a monthly calendar where the starting dates of the events appear colourer, with different colours for each kind of event.

   Clicking on a selected date, a list-card application, like the one mentioned in the previous point, appear with the events that start on the selected date.

Figure 1. Home page

3.3.2 Providers page

When the users click on the Providers menu point, appears a search box about the fields "Country" and "Areas of E&T activity" (nuclear medicine, NORM, radioactive waste,…). Once the search has been done, appears a list of providers alphabetically ordered. This application is composed by a list-card system. The information presented in the list is:

- ✓ **Provider name**
- ✓ **Country**

The information appears in form of a list of elements (10 maximum per page). Ones the user click on one element of the list, the card of that element (E&T provider) appears with all the information available for that event

On the right side there is a search box about the fields: "**County**" and "**Application field**". The information is presented in the same way mentioned.

Figure 2. Providers page

3.3.3 Events pages

Under the title: "E&T events" We can find the closest events (10 maximum per page) ordered by the "Start Date" where the closer date will appear at the top. This application is composed by a list-card system.

Each one of the elements (E&T events) of this system presents in the list the following information:

- ✓ **Start Date + end date**
- ✓ **Title**
- ✓ **Target audience**
- ✓ **Provider**
- ✓ **Country**
- ✓ **Language**

Ones the user click on one element of the list, the card of that element (E&T event) appears with all the information available for that event.

On the right side there is a search box about the fields: "**Country**", "**Language**", "**Provider**", "**Type of training event**" and "**Application field**". The information is presented in the same way mentioned
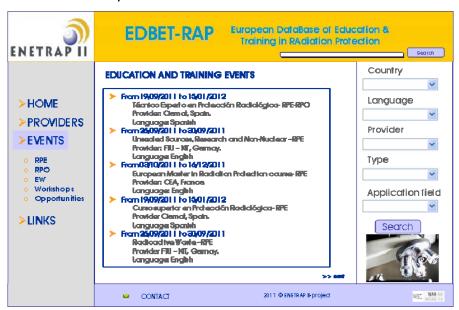

Figure 3. Event page

3.3.4 RPE, RPO, EW pages

We can find the closest events (10 maximum per page) ordered by the "Start Date" where the closer date will appear at the top. This application is composed by a list-card system.

Each one of the elements (E&T events) of this system presents in the list the following information:

- ✓ **Start Date + end date**

16/06/2011

- ✓ **Title**
- ✓ **Type of training event**
- ✓ **Provider**
- ✓ **Country**
- ✓ **Language**

Ones the user click on one element of the list, the card of that element (E&T event) appears with all the information available for that event.

On the right side there is a search box about the fields: "**Country**", "**Language**", "**Provider**", "**Type of training event**" and "**Application field**". The information is presented in the same way mentioned.
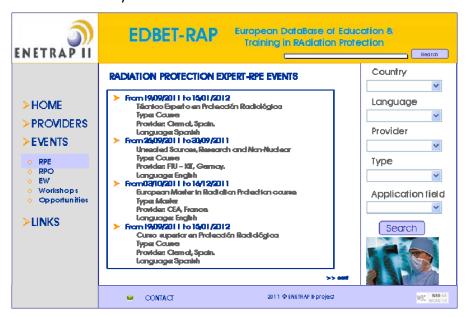

Figure 4. RPE page

3.3.5 Workshops pages

We can find the closest events (10 maximum per page) ordered by the "Start Date" where the closer date will appear at the top. This application is composed by a list-card system.

Each one of the elements (E&T events-Workshops) of this system presents in the list the following information:

- ✓ **Start Date + end date**
- ✓ **Title**
- ✓ **Provider**
- ✓ **Country**
- ✓ **Language**

Ones the user click on one element of the list, the card of that element (E&T event) appears with all the information available for that event.

On the right side there is a search box about the fields: "**Country**", "**Language**" and "**Provider**". The information is presented in the same way mentioned.

Figure 5. Workshops page

3.3.6 Opportunities pages

We can find the closest events (10 maximum per page) ordered by the "Start Date" where the closer date will appear at the top. This application is composed by a list-card system.

Each one of the elements (E&T events-Workshops) of this system presents in the list the following information:

- ✓ **Deadline of application**
- ✓ **Title**
- ✓ **Provider**
- ✓ **Country**
- ✓ **Language**

Ones the user click on one element of the list, the card of that element (E&T event) appears with all the information available for that event.

On the right side there is a search box about the fields: "**Country**", "**Language**" and "**Provider**". The information is presented in the same way mentioned.
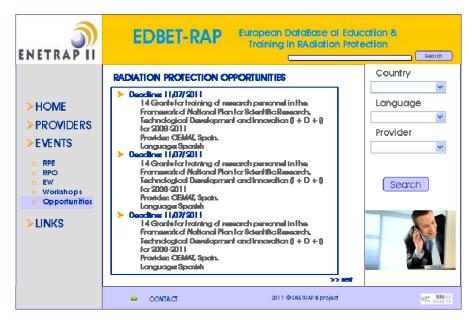
Figure 6. Opportunities page

4. OTHER TASKS DEVELOPED.

On this second part of the ENETRAP II project, we have done an effort in the dissemination of the information of the project with the aim of inform the interested people.

In the workshop: Calidad y seguridad. XVIII Congreso nacional de SEFM. XIII Congreso nacional de SEPR, 10-13 May 2011, Sevilla, Spain, was presented a poster under the title: "Estándares de referencia europeos en formación en protección radiológica" [4] where a summary of the project and the working package results was done. See it on **annex IV**.

5. CONCLUSIONS.

It has been presented a model of E&T database, composed by 3 modules.

- ✓ **The database module**, has the aim to store the information related to the E&T providers, the E&T events and the roles associated to the management: NCP and GC

- ✓ **The maintenance module** is the key point of all the system: allows the connection with the DB to the 3 roles (PROV, NCP and GC) with different levels of permission, and it is capable to generate the required notifications via email.

- ✓ **The web search module** allows to the users looking for the required quality information about E&T in RP in an agile and easy way.

The main idea, this three-modules-system tries to reach, is to develop a self-supporting system, actualized directly by the producers of the information (E&T providers) but maintaining the high level of quality required by the project through the revisions made by the national contact point and the global coordinator. The estimated duration of the elaboration is 5 or 6 months.

In a first phase, the NCPs will be the ENETRAP II members, and the first providers to be included will be the same. In a second phase, the number of E&T providers will be incremented with all of those interested providers that satisfy the requirements established by WP5.

In the future, beyond ENETRAP II, EUTERP will probably take over from ENETRAP II members. From this kind of system it's possible to extract highly valuable information of the searches of the users:

- User's country

- Nº of pages visited

- Average time per visit

- Nº of new users in a period of time

- Etc

16/06/2011

This information could be very useful for the future of the data base, if the providers have to pay to be present on this.

WP6 will package all the three module system in a CD-room to be used by EUTERP.

6. NEXT ACTIONS

✓ It is foreseen to have finished the database on September 2011.

✓ The NCP as well as the providers will be at first the ENETRAP II members. October 2011

✓ In the second phase, other providers can be included by the ENETRAP II members. January 2012

16/06/2011

REFERENCES

1. Llorente CIEMAT, C., et al., *WD6.1 Report on training events and training providers. Degree of conformity with the agreed standards.* 2010.

2. Coek SCK•CEN, M., *Minutes of the intermediate ENETRAP II Steering Committee meeting.* 2011: Cyprus.

3. Coek SCK•CEN, M., *Minutes of the fourth ENETRAP II Steering Committee meeting.* 2010: Bucharest, Romania.

4. Llorente Herranz, C., M. Marco Arbolí, and M. Coek, *Estándares de referencia europeos en formación en protección radiológica.* Calidad y seguridad. XVIII Congreso nacional de SEFM. XIII Congreso nacional de SEPR, 2011. **68**: p. 1.

ANNEX I. FORMULARY FOR ALL TYPES OF E&T EVENTS

E&T event. *Compulsory fields*	
*Title *(text field)*	
*Target audience	☐ RPE ☐ RPO ☐ EW ☐ Others:
*Application field *(multiple choice list field)*	☐ Nuclear industry ☐ Diagnostic radiology ☐ Nuclear medicine ☐ Radiotherapy ☐ Research ☐ Industrial radiography ☐ Irradiators and accelerators ☐ Gauging techniques ☐ Tracer techniques ☐ Norm ☐ Radioactive waste ☐ Others:
*Modality *(one single choice list field)*	☐ Face to face learning ☐ Online learning ☐ Blended learning (online+face to face) ☐ Distance learning ☐ Others:
*Edition number *(Number field)*	
Venue	
*Country *(multiple choice list field)*	(LIST)
*Language *(multiple choice list field)*	(LIST)
*Duration *Date field*	Start date: *End date:*
Hours *(number field)*	h
Credits: *(number field)*	ECTS
Call frequency *Annual, biannual, twice yearly,*	
*National Recognition?	☐ None recognition ☐ Regulatory body ☐ Ministry of health ☐ Ministry of education ☐ Ministry of labour ☐ Ministry of environment ☐ Others:
Degree of conformity with the EU standards[1] [1]*To be completed after the evaluation for the 1st edition published*	☐ Completely agree with the EU RPE standard *Comments* ☐ Partially agree with the EU RPE standard *Comments* ☐ No clear similarities with the EU RPE standard *Comments* ☐ Completely agree with the EU RPO standard *Comments* ☐ Partially agree with the EU RPO standard *Comments* ☐ No clear similarities with the EU RPO standard *Comments* ☐ Completely agree with the EU EW standard *Comments* ☐ Partially agree with the EU EW standard *Comments* ☐ No clear similarities with the EU EW standard *Comments* ☐ Other

16/06/2011

*Type of training event? *(one single choice list field)*	☐ E&T course ☐ Master ☐ Proposed PhD topic ☐ Opportunity ☐ Workshop ☐ Other:
*Type of E&T program? *(multiple choice list field)*	☐ Initial training ☐ Re-training ☐ Specialization ☐ OJT program ☐ Other:
*Program details *(text field- maximum 2 DIN A4)* *Objective, Topics, Lecturers, Material, Work load, Evaluation mechanism, etc*	
Requirements to apply *(text field)* *Preliminary diploma, experience, etc*	
Tuition fee *(Brief description of the event fee and if there are any grant)*	
*How to apply *(text field)*	
*Deadline of application *Date field*	
Training Provider	*(automatically)*
* Website *(link field)*	
For further information *(text field)* *Contact persons, etc*	
Brochure PDF *(to upload only 1 document)*	

16/06/2011

ANNEX II. FORMULARY FOR E&T PROVIDERS

E&T provider. *Compulsory fields*			
*Organization *(text field)*			
*Country *(text field)*			
*Address *(text field)*			
*Web *(text field)*			
*Contact point1 *(text field)*	*Name: Department:	*Email: *Tlf: Fax:	
Contact point2 *(text field)*	*Name: Department:	*Email: *Tlf: Fax:	
*Type of organization:	☐ Public	☐ Private	
*Main activity: *(one single choice list field)*	☐ Nuclear industry and electric companies. ☐ Research centres ☐ Public corporations ☐ Health centres ☐ Bodies and institutions ☐ Societies and professional associations ☐ Universities ☐ Service suppliers- E&T in RP ☐ Engineering and consulting ☐ Others:		
*Areas of E&T activity: *(multiple choice list field)*	☐ Nuclear industry ☐ Diagnostic radiology ☐ Nuclear medicine ☐ Radiotherapy ☐ Research ☐ Industrial radiography ☐ Irradiators and accelerators ☐ Gauging techniques ☐ Tracer techniques ☐ Norm ☐ Radioactive waste ☐ Others:		
*Type of training events *(multiple choice list field)*	☐ E&T course ☐ Master ☐ Proposed PhD topic ☐ Opportunity ☐ Workshop ☐ Others:		
*Target audience *(one single choice list field)*	☐ RPE ☐ RPO ☐ EW ☐ Other:		
Type of E&T program? *(multiple choice list field)*	☐ Initial training ☐ Re-training ☐ Specialization ☐ OJT program ☐ Other:		
Quality assurance system: *(text field)*			
*Labour exchange	☐ Yes	☐ No	

16/06/2011

ANNEX III. WORKFLOWS OF THE MAINTENANCE MODULE.

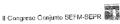| Workflow	Roles allow doing that. *Task of the role	Description	Notifications via email
Register a new PROV	• NCP* • GC	• Declaration in the system of a new E&T provider	**Receiver:** GC **Subject:** New provider registered in the European Database of E&T in RP **Text:** The NCP from <<NCPcountry>>, <<NCPname>>, has register <<PROV name>> as new provider in the European Database of E&T in RP <<Link to the PROV data in the portal>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: PROV **Subject:** Welcome to the European Database of E&T in RP **Text:** Welcome to the European Database of E&T in RP. Your organization has been registered as new E&T provider from <<NCP country>>. Your keys of access are: • User name: <<PROVusername>> • Password:<<PROVpassword>> Please click on the link <<link>> to actualize your information and uploading your E&T events. If you have any problem contact with the NCP <<NCPemail>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Data modification of PROV	• NCP* • GC	• Modification of the data of a PROV	**Receiver:** PROV **Subject:** Data modification in the European Database of E&T in RP **Text:** The information of your institution, <<PROVname>>, has been modified in the European Database of E&T in RP correctly This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>

Disable a PROV	• NCP* • GC	• Sign the PROV as not active • Hide all the EVs of such PROV	**Receiver:** PROV **Subject:** Provider disabled in the European Database of E&T in RP **Text:** Your organization has been disabled in the European Database of E&T. If you think this is an error, please contact with the NCP<<NCPemail>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: NCP **Subject:** Provider disabled in the European Database of E&T in RP **Text:** The provider <<PROVname>> has been disabled in the European Database of E&T by <<____>>. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: GC **Subject:** Provider disabled in the European Database of E&T in RP **Text:** The provider <<PROV name>> has been disabled in the European Database of E&T by <<_____>>. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Register a new EV	• PROV* • NCP • GC	• Declaration in the system of a new EV.	**Receiver:** PROV **Subject:** New event registered in the European Database of E&T in RP **Text:** The event <<EVname>> has been registered correctly in the European Database of E&T in RP. It will be published after the revision of the NCP <<NCPname>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: NCP **Subject:** New event registered in the European Database of E&T in RP **Text:** The provider <<PROV name>> has registered the event <<EVname>> in the European Database of E&T in RP. Please, review it to be published: <<link>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>

Disable an existing EV	• System* • PROV* • NCP • GC	• Sign the EV as not active • Hide the information of such EV	**Receiver:** PROV **Subject:** Event disabled in the European Database of E&T in RP **Text:** The event <<EVname>> has been disabled in the European Database of E&T in RP. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: NCP **Subject:** Event disabled in the European Database of E&T in RP **Text:** The event <<EVname>> of the provider <<PROVname>> has been disabled in the European Database of E&T. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Data modification of an existing EV	• PROV* • NCP • GC	• Modification the data assigned to an existing EV	**Receiver:** PROV **Subject:** Event data modification in the European Database of E&T **Text:** The event <<EVname>> has been modified in the European Database of E&T. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: NCP **Subject:** Event data modification in the European Database of E&T **Text:** The event <<EVname>> of the provider <<PROVname>> has been modified in the European Database of E&T. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Publication of an EV	• NCP* • GC	• Make visible an event in the European Database of E&T in RP	**Receiver:** PROV **Subject:** Event published in the European Database of E&T in RP **Text:** The event <<EVname>> has been published in the European Database of E&T. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>

			Receiver: NCP **Subject:** Event published in the European Database of E&T in RP **Text:** The event <<EVname>> of the provider <<PROVname>> has been published correctly in the European Database of E&T. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Assign the degree of conformity with the agreed standards	• NCP* • GC	• Categorization of the selected EV, according to the level of conformity with the agreed standards. • Only for RPE and RPO events	**Receiver:** PROV **Subject:** Degree of conformity with the standards assigned to an event **Text:** The event <<EVname>> has been reviewed by the NCP and has been assigned the degree of conformity with the agreed standards. You can see it here: <<link>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
			Receiver: NCP **Subject:** Degree of conformity with the standards assigned to an event **Text:** Your changes in the event <<EVname>> of the provider <<PROVname>> have been done correctly. You can see it here: <<link>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Register a new NCP	• GC*	• Declaration in the system of a new NCP	**Receiver:** NCP **Subject:** Register a new NCP **Text:** Welcome to the European Database of E&T in RP. Your organization has been registered as new National Contact Point from <<NCP country>>. Your keys of access are: • User name: <<NCPusername>> • Password:<<NCPpassword>> Please click on the link <<link>> to actualize your information and start to work on the database. If you have any problem contact with the Global Coordinator <<GCemail>> This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>

			Receiver: GC Subject: Register a new NCP Text: <<NCPname>> from <<NCPcountry>> has been registered as new National Contact Point in the European Database of E&T in RP correctly. This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>
Data modification of a NCP	• GC*	• Modification of the data of a NCP	Receiver: NCP Subject: Data modification of a NCP Text: The information of your institution, <<NCP name>>, has been modified in the European Database of E&T in RP correctly This is an automatic message generated by the Enetrap II Portal <<URL of the Portal>>

Disable a NCP**
** This is a very anomalous situation, so it could be developed by the computer centre of support and act according to the instructions of the GC in that moment. This situation could be implemented later on as a task of the GC if it is required.
	Requested from the GC to the computer centre of support	• Sign the NCP as not active
		• The PROV of such NCP can be:
		  o Signed as not active
		  o Assigned to another NCP
			Notified "by hand" by the computer centre of support
			Receiver: NCP; GC
			Subject: Disable a NCP
			Text:
			Your organization has been disabled in the European Database of E&T. If you think this is an error, please contact with the GC<<GCemail>>
			<<URL of the Portal>>

ANNEX IV. DIFFUSION OF THE WP6

Estándares de referencia europeos en formación en protección radiológica

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Palabras clave: formación, entrenamiento, protección radiológica, estándares de referencia, RPE, RPO.

Introducción

La PR constituye un desafío muy importante en las aplicaciones de las radiaciones ionizantes (RI) tanto industriales como en el área médica y de investigación. En la Europa actual nos enfrentamos a una tendencia decreciente en el número de expertos en PR por motivos diversos que puede repercutir en el mantenimiento de un alto nivel de competencia en PR. Este hecho es esencial para asegurar en el futuro el uso seguro de las RI así como el desarrollo de nuevas tecnologías. El componente fundamental para combatir esa tendencia así como asegurar las demandas futuras de conocimiento de alto nivel en PR es el establecimiento de una infraestructura sostenible en formación y entrenamiento en PR. Este es uno de los propósitos primordiales del proyecto ENETRAP II (marzo 2009-febrero 2011), Acción Coordinada del 7º Programa Marco (PM). El objetivo de esta comunicación es presentar los resultados principales alcanzados hasta la fecha.

Resultados y discusión

El objetivo principal del proyecto ENETRAP II es el desarrollo de "estándares de referencia" europeos de alta calidad y buenas prácticas en formación y entrenamiento en PR, en concreto para el experto y el oficial en PR (RPE y RPO). Este proyecto nace para continuar con la labor iniciada por el proyecto ENETRAP, perteneciente al 6º PM.

Para abarcar los objetivos concretos del proyecto, las 12 instituciones europeas participantes están organizadas en 10 grupos de trabajo. La participación española interviene en siete de estos grupos de trabajo, liderando el encargado del desarrollo de la base de datos europea de eventos formativos y proveedores de formación en PR.

Las tareas concretas que el proyecto está desarrollando son las siguientes:
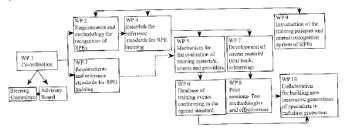
- Definición de los requisitos y metodología para el mutuo reconocimiento de los RPEs
- Establecer un estándar de referencia para la formación de los RPEs.
- Definir los requisitos para las competencias del RPO y establecer guías para su correcto entrenamiento.
- Desarrollo y aplicación de mecanismos para la evaluación de materiales, eventos y proveedores de formación.
- Creación de una base de datos de eventos de formación, así como de proveedores y su posibilidad de formación en el puesto de trabajo, que servirá de mecanismo para la comparación con los estándares acordados por el resto de WPs.
- Elaboración de un texto adaptado a las necesidades del esquema europeo de formación en protección radiológica (ERPTS) desarrollado en ENETRAP (6º PM), así como material electrónico complementario.
- Puesta en marcha una sesión piloto para monitorizar la efectividad del esquema de formación ERPTS.
- Creación de un pasaporte de formación en PR que facilite el reconocimiento de los expertos en PR.
- Por último, recoger y analizar las diferentes iniciativas nacionales con el objetivo de incentivar a los jóvenes para que se sientan atraídos por las carreras y estudios relacionados con las RI y la PR y mantener así en un futuro la cultura europea de seguridad.

Conclusiones

Después del primer año y medio de trabajo se tienen algunos de los resultados esperados.

En el trabajo se expondrán las iniciativas europeas seleccionadas para incentivar a los jóvenes hacia el estudio de carreras científico-técnicas. Se presentarán la estructura de la base de datos de eventos formativos y proveedores de formación en protección radiológica. También se mostrarán las tablas de referencia desarrolladas para la comparación de materiales de formación como parte de los mecanismos de evaluación que se están desarrollando.