



FI6O-516529

ENETRAP

European Network on Education and Training in Radiological Protection

Coordination Action

EURATOM Research and Training on Nuclear Energy

**CAP –Communication Action Plan
Plan for the dissemination of knowledge**

Due date of deliverable: October 1, 2005
Actual submission date: September 23, 2005

Start date of project: April 1, 2005

Duration: 24 months
Version 1

SCK•CEN / Studiecentrum voor Kernenergie • Centre d'Etude de l'Énergie Nucléaire

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	x
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)	

Plan for the dissemination of knowledge

1. Exploitable knowledge and its use

A survey is undertaken across the EU Member and Candidate States to elicit detailed information concerning actual training needs and capabilities as well as the status of regulatory aspects. Twenty eight national correspondents were contacted by e-mail beginning of July 2005, together with about 25 other contacts who have shown their interest in this topic via other networks, with the request to fill out a questionnaire¹.

The intention is to use the information obtained to propose minimum requirements for:

- mutual recognition of RPEs and RPOs, and the various training and education activities available in the EU Member and Candidate States and
- the content, structure and methods of these training and education activities.

The EUTERP platform has to be considered as a key project as far as the ENETRAP network is concerned. ENETRAP will provide for useful deliverables regarding the education as well as the training in the Member States, on the other side, the EUTERP platform could act as the body which should deliver an “independent EU quality label” to training events. Active co-operation will be established with this Platform when it is operational.

While participation in the project will initially focus on the network of the main developers and providers of E&T in radiation protection in Europe, effective linkage with institutions outside of the network will be established in order to expand the network at a later stage. Thereto, links will also be established with other networks, such as the European ALARA Network (EAN), the Central and Eastern European ALARA Network (CEEAN), IRPA and IAEA in order to transfer results to appropriate institutions in other EU Member States and Candidate States.

¹ see ENETRAP webpage; [questionnaire](#)

2. Dissemination of knowledge

Overview table

Planned/actual dates	Type	Type of audience	Countries addressed	Size of audience	Partner responsible /involved
2005-2007	Conferences	Research Industry	EU		All
2005-2007	Publications	Research Industry	EU		All
2005-2007	Project website	General public	All		SCK•CEN
May 2005	Poster	General public			SCK•CEN/All
May 2005	Flyer	General public			BfS
2005	Press release	General public	Partner countries		All

2.1 Conferences

2.1.1 Contributions to conferences

The status of the work packages will be presented at all relevant national and international conferences (ETRAP2005, ENC2005, IRPA2006...). Following table gives an overview of all submitted abstracts/presented posters. Full abstracts can be found in Annex.

Overview:

Title	Conference	
ENETRAP – general poster	Annual Meeting of the German Society of Medical Physics (DGMP) together with the European Congress of Medical Physics (EFOMP_European Federation of Organisations in Medical Physics) and the International Conference on Medical Physics (IOMP=Int. Org. for Medical Physics) <i>14-17 September 2005 Nuremberg, Germany</i>	Poster
ENETRAP – general poster	Annual Meeting of the German Society <i>20-23 September 2005, Basel, Switzerland</i>	Poster
ENETRAP: establecimiento de una red Europea de educación y formación en protección radiológica	SEPR'05, <i>20-23 September 2005, Huelva, Spain</i>	Poster
ENETRAP: establishing a European network for education and training in radiological protection	CER2005, <i>14-15 November 2005, Brussels, Belgium</i>	Not Accepted
The Establishment of a European Network on Education and Training in Radiological Protection - “ENETRAP”	ETRAP2005, <i>23-25 November 2005, Brussels, Belgium</i>	Oral
ENETRAP: comparing the scientific content of the IAEA Standard Syllabus to European requirements	ETRAP2005, <i>23-25 November 2005, Brussels, Belgium</i>	Poster

ENETRAP: establishing a European network for education and training in radiological protection	ENC2005, <i>12-14 December 2005, Versailles, France</i>	Oral
Training and education needs in radiological protection - First results of the ENETRAP Survey	IRPA2006, <i>15-19 May 2006, Paris, France</i>	?
Radiation Protection Education&Training infrastructure. Open and distance learning tools for training in radiological protection.	IRPA2006, <i>15-19 May 2006, Paris, France</i>	?

2.1.2 Organisation of a seminar

An international seminar to communicate the results of the ENETRAP project will be organised in 2007.

2.2 Publications

Full paper contributions to ETRAP2005 and ENC2005 are in preparation and will be submitted to the conference organisations in October 2005. Publication is foreseen in the conference proceedings.

2.3 Project website www.sckcen.be/enetrapp

The coordinator maintains the ENETRAP website which is updated on a regular basis with all relevant information about the project. The status and outcome of the different workpackages will be made public via this website.

The ENETRAP website also gives the ideal opportunity to summarise all important E&T events.

A link to the ENETRAP website is or will be made on the websites of several organisations such as:

- Each of the partner institutes:

SCK•CEN	www.sckcen.be - first page
INSTN	http://www-instn.cea.fr - link "Coopération internationale"
FTU-FZK	
BfS	http://www.bfs.de/bfs/forschung/dm_forschung.html
CIEMAT	
NRG	
ENEA	http://www.enea.it - link "News"
HPA-RPD	www.hpa.org.uk/radiation
UCL	
UJF	
NHC	

- Websites of the partners' national association for radiological protection:

Belgium	BVS-ABR : http://www.bvsabr.be/P2nl.htm and http://www.bvsabr.be/P2fr.htm
France	http://www.sfrp.asso.fr/
Germany	http://www.fs-ev.de/
Netherlands	
Spain	www.sepr.es - enlaces - internacionales
Italy	http://www.airp-asso.it (News)
UK	

- Other:

ENS (European Nuclear Society)	http://www.euronuclear.org/info/links-nuclear.htm#nuclinks
Italian National Professional Association of the Qualified Expert	http://www.anpeq.it , link "Novità"

2.4 Poster

A poster which gives a general overview of the project was prepared in English by the coordinator. It is also available at the project website². It can be used at several occasions and the partners will make translations when necessary and display the poster at relevant national occasions (see 2.1 for overview).

2.5 Flyer

A flyer was prepared by BfS. It is available at the project website³. It has been distributed within the BfS to colleagues and visitors and outside at the conferences in Nuremberg and Basel (see 2.1).

2.6 Press release

The ENETRAP network will be announced at the national level of all partner countries as well as at the international level. Press releases are planned to be sent out before the end of 2005.

² see ENETRAP website ; [poster](#)

³ see ENETRAP website ; [flyer](#)

Annex – submitted abstracts for international conferences

Abstract submitted to the organisers of CER2005, to be held in Brussels, November 14 and 15 2005, Belgium

ENETRAP: establishing a European network for education and training in radiological protection

M. Coeck (SCK•CEN) Belgium (mcoeck@sckcen.be), C. Etard (INSTN-CEA) France, S. Möbius (FZK-FTU) Germany, A. Schmitt-Hannig (BfS) Germany, A. Luciani (ENEA) Italy, J. van der Steen (NRG) The Netherlands, M. Marco (CIEMAT) Spain, J. Stewart (HPA-RPD) U.K., P. Scalliet (Université Catholique de Louvain) Belgium, J. Balosso (Université Jean Fourier) France, R. Thompson (North Highland College) Scotland

Occupational, public and environmental radiation protection is a major challenge in the applications of ionising radiation, in the nuclear domain as well as in other areas such as the medical and research area. Maintaining a high level of competencies in this field is crucial for any application of ionising radiations. The ENETRAP project ("European Network for Education and Training in RAdiological Protection" - 6FP project n° 516529) aims at establishing a sustainable Education and Training (E&T) infrastructure for radiation protection as an essential component to combat the decline in expertise and to ensure the continuation of the high level of radiation protection knowledge.

The main objectives of the ENETRAP project are (i) to better integrate existing education and training activities in the radiation protection infrastructure of the European countries in order to combat the decline in both student numbers and teaching institutions, (ii) to develop more harmonised approaches for education and training in radiation protection in Europe and their implementation, (iii) to better integrate the national resources and capacities for education and training and (iv) to provide the necessary competence and expertise for the continued safe use of radiation in industry, medicine and research.

It is the intention that these objectives are achieved via the establishment of a European-wide E&T network in radiation protection which will

- assess training needs and capabilities;
- identify the potential users and their future involvement in order to insure the sustainability of the network;
- launch a consortium of universities with the aim of create an European Master in Radiation Protection;
- review the scientific contents of current E&T activities;
- explore the effectiveness of on-the-job training and identify options for additional programmes;
- propose recommendations for the recognition of courses and competencies of Radiation Protection Experts;
- make recommendations for revising the current European Radiation Protection Course (ERPC) to include a system for credit points and modern educational tools, such as distance learning.

The main deliverables of the ENETRAP project are:

- comment on the status, value and appropriateness of current education and training initiatives within the EU;
- recommendation to EUTERP regarding the way forward with respect to (i) required developments in education and training resources to support the Radiation Protection Expert, and (ii) establishing a system for mutual recognition of training and competencies;
- the delivery of a pilot session for a revised ERPC;
- a proposal for the establishment of a Universities Consortium.

In total 11 partners, 8 research centra and 3 universities, are joined in this project. The development of a common European radiation protection and safety culture and, based on that, the mutual recognition of radiation protection courses and the acquired competencies of radiation protection experts will help and promote the mobility of workers and students throughout Europe.

Abstract submitted to the organisers of ETRAP2005, to be held in Brussels, November 23-25 2005, Belgium

ENETRAP: Comparing the scientific content of the IAEA Standard Syllabus to European Requirements

A. Schmitt-Hannig⁽¹⁾, S. Möbius⁽²⁾, A. Bickel⁽²⁾, G. Sadagopan⁽³⁾, M. Williams⁽¹⁾

⁽¹⁾ Bundesamt für Strahlenschutz, Oberschleissheim, Germany

⁽²⁾ Forschungszentrum Karlsruhe, Karlsruhe, Germany

⁽³⁾ International Atomic Energy Agency, Vienna, Austria

The overall objective of the ENETRAP* (European Network on Education and Training in Radiological Protection) project is to establish an Education and Training Network that will facilitate the sustainable integration of education and training infrastructures in radiation protection in Europe. Within the framework of this project, a number of discrete and measurable objectives are defined. These objectives will be reached by a number of actions grouped in work packages (WP), one of which is the WP on "IAEA E&T modules and European requirements". In this WP, the scientific content of the IAEA Standard Syllabus for E&T in radiation protection is reviewed and adjusted to European requirements.

The main focus of the work is to compare strategies proposed and/or implemented at the IAEA and the EU level, to analyse more specifically the approaches to theoretical requirements as well as those related to on-the-job-training (OJT), and to prepare a proposal as input for a new approach of the European Radiological Protection Course. The results of this work will contribute to a more harmonised approach to E&T in radiation protection on the European level in compliance with the international standard outside Europe.

* EU Contract n° (FI6O)-516529

Abstract submitted to the organisers of ETRAP2005, to be held in Brussels, November 23-25 2005, Belgium

The Establishment of a European Network on Education and Training in Radiological Protection - "ENETRAP"

M. Coeck⁽¹⁾, C. Etard⁽²⁾, S. Möbius⁽³⁾, A. Schmitt-Hannig⁽⁴⁾, A. Luciani⁽⁵⁾, J. Van der Steen⁽⁶⁾, M. Marco⁽⁷⁾, J. Stewart⁽⁸⁾, P. Scalliet⁽⁹⁾, J. Balosso⁽¹⁰⁾, R. Thompson⁽¹¹⁾

⁽¹⁾SCK•CEN, Mol, Belgium

⁽²⁾CEA-INSTN, Saclay, France

⁽³⁾FZK-FTU, Karlsruhe, Germany

⁽⁴⁾BfS, Oberschleissheim, Germany

⁽⁵⁾ENEA, Bologna, Italy

⁽⁶⁾NRG, Petten, The Netherlands

⁽⁷⁾CIEMAT, Madrid, Spain

⁽⁸⁾HPA-RPD, Leeds, United Kingdom

⁽⁹⁾UCL, Bruxelles, Belgium

⁽¹⁰⁾UJF, Grenoble, France

⁽¹¹⁾NHC, Thurso, Scotland

Recent studies have shown that there is a wide variety of approaches to education and training of the Qualified Expert across the EU. As they stand, such differences are a barrier to the mutual recognition of Qualified Expert status and, in part, are contributing to a perceived shortage in expertise in radiation protection and safety.

This presentation outlines the key aims and objectives of the ENETRAP* project currently being undertaken under the 6th Framework Programme. The overall aim of ENETRAP is to determine mechanisms that in the longer term will a) facilitate better integration of education and training activities (with a view to mutual recognition across the EU) and b) to ensure the ongoing provision of the necessary competence and expertise at the level of the Qualified Expert. These goals are to be achieved via the establishment of a European Education & Training Network in radiation protection. It is hoped that, in time, this network will become self-sustaining and will help to maintain appropriate education and training programmes.

* EU Contract n° (FI6O)-516529

Abstract submitted to the organisers of IRPA2006, to be held in Paris, May 15-19 2006, France

Training And Education Needs In Radiological Protection - First Results Of The ENETRAP Survey

M. Coeck (SCK•CEN) Belgium, C. Etard (INSTN-CEA) France, S. Möbius (FZK-FTU) Germany, A. Schmitt-Hannig (BfS) Germany, A. Luciani (ENEA) Italy, J. van der Steen (NRG) The Netherlands, M. Marco (CIEMAT) Spain, J. Stewart (HPA-RPD) U.K.

Occupational, public and environmental radiation protection is a major challenge associated with the application of ionising radiation in industry, both nuclear and non-nuclear, as well as in other areas such as the medical and research areas. As such, maintaining a high level of competencies in this field is crucial. The ENETRAP project ("European Network for Education and Training in Radiological Protection" - 6FP project n° 516529) aims to establish a sustainable Education and Training (E&T) infrastructure for radiation protection as an essential component to combat the perceived decline in expertise and to ensure the continuation of a high level of radiation protection knowledge. The development of a common European radiation protection and safety culture and, based on that, the mutual recognition of radiation protection training and the acquired competencies of radiation protection experts will help and promote the mobility of workers and students throughout Europe.

As part of the first phase of the project a survey (by questionnaire) was undertaken across the EU Member and Candidate States to elicit detailed information concerning actual training needs and capabilities as well as the status of regulatory aspects. The intention is to use the information obtained to propose minimum requirements for a) mutual recognition of RPEs and RPOs, and the various training and education activities available in the EU Member and Candidate States and b), the content, structure and methods of these training and education activities.

This paper gives an overview of the first results of this survey. The results will contribute to the efficiency and sustainability of an E&T platform which could play a role in reaching consensus about an internationally agreed system of recognition for the radiation protection expert and the training of radiation protection workers in general.

Abstract submitted to the organisers of IRPA2006, to be held in Paris, May 15-19 2006, France

Radiation Protection Education&Training infrastructure. Open and distance learning tools for training in radiological protection

*M. Marco-Arbolí, M. Rodríguez-Suárez, C. González-Giralda, A. Bailador-Ferreras, CIEMAT, Spain
M. Coeck (SCK•CEN) Belgium, C. Etard (INSTN-CEA) France, S. Möbius (FZK-FTU) Germany, A. Schmitt-Hannig (BfS) Germany, A. Luciani (ENEA) Italy, J. van der Steen (NRG) The Netherlands, J. Stewart (HPA-RPD) U.K., P. Scalliet (Université Catholique de Louvain) Belgium,
J. Balosso (Université Jean Fourier) France, R. Thompson (North Highland College) Scotland*

A sustainable Education and Training (E&T) infrastructure for Radiation Protection is an essential component to combat the decline in expertise and to ensure the continuation of the high level of radiation protection knowledge in the future. Such infrastructure has to be built in such a way that both the initial training (Education) and the unceasing maintenance of the level of competencies (referred to as "Training") are available. The ENETRAP project intends to develop the E&T infrastructure mentioned.

To achieve the aims of the different tasks and activities, the work programme for the ENETRAP Network is divided in eight work packages developed by 11 partners:

Each partner will assume responsibility for the WP's. CIEMAT is involved in the WP-5 "New concepts and new tools for an ERPC".

The tasks of the WP-5 are focussed in the investigation of the electronic tools used in RP training and education. This paper presents the first results of this working group.

The first task is an approach to the development and usage of learning resources. A review on the e-learning methodologies, the present state of art and its evolution, are being carried out. Results will be used to select the best way to host learning activities in the framework of the ENETRAP project.

Another important task is to identify, analyse and evaluate the Open and Distance learning tools and material existing for training in Radiation Protection. A review on the evolutions, approaches and methodologies aiming to provide education and training in radiation protection, will be carried out.

The results of this task will be a summary of links referred to the most interesting RP e-learning. Finally, taking in account the previous results a pilot RP module of ERPC should be prepared.