

**Creation of the
European Platform on Training and Education in
Radiation Protection**

(EUTERP Platform)

EXPLANATORY NOTE FOR PARTICIPANTS

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1 INTRODUCTION

Article 33 of the Euratom Treaty¹ requires that Member States shall lay down appropriate provisions to ensure compliance with the Basic Safety Standards and in particular measures shall be taken with regard to teaching, education and vocational training.

The European Union's radiation protection Basic Safety Standards Directive 96/29/Euratom² constitutes a binding set of rules on the basis of which Member States are obliged to adopt appropriate national legislation.

Amongst others, the Basic Safety Standards Directive requires that each Member State shall make the necessary arrangements to recognise, as appropriate, the capacity of qualified experts (QEs). According to the definition given by the BSS Directive, QEs are persons having the knowledge and training needed to carry out physical, technical or radiochemical tests enabling doses to be assessed, and give advice in order to ensure effective protection of individuals and the correct operation of protective equipment. Their capacity to act as qualified experts shall be recognised by the competent authorities. QEs may be assigned the technical responsibility for the tasks of radiation protection of workers and members of the public.

A survey carried out in 2002 indicates a considerable variation in the approaches of EU Member and Candidate States to the radiation protection education and vocational training arrangements for radiation protection³. Furthermore the study underlines the diversity in the qualifications and diplomas necessary for the recognition of QEs in the sense of the Basic Safety Standards Directive. This diversity creates an obstruction to the mobility of experts in the enlarged European Union.

Pursuant to Article 3(c) of the EC Treaty the abolition of obstacles to freedom of movement between Member States of persons and services constitutes one of the objectives of the European Union. This means in particular the possibility of pursuing a profession in a Member State other than the one where these persons have acquired their professional qualifications. For those professions for which the European Union has not laid down the necessary minimum levels of qualification, Member States reserve the option of fixing such levels with a view to guaranteeing the quality of services provided in their country. Taking into account the results of the previous survey, the Commission concluded that an efficient and highly effective instrument for the achievement of these major objectives is the inauguration of a European Platform on Training and Education in Radiation Protection.

In this context, the Commission ordered in 2004 a feasibility study for the initiation of such a Platform⁴. This study resulted in a description of a methodology for the

¹ Treaty establishing the European Atomic Energy Community (signed in Rome on 25 March 1957).

² Council Directive of 13 May 1996 laying down basic safety standards for the health protection of the general public and workers against the dangers of ionising radiation. Council Directive 96/29/Euratom. Official Journal L-159 of 29 June 1996.

³ The Status of the Radiation Protection Expert in the EU Member States and Applicant Countries: Study on Education and Training in Radiation Protection. Radiation Protection Series of the European Commission, Issue No 133, 2003.

⁴ J. van der Steen; F.S. Draaisma; M. Marco Arboli. Initiation of the European Platform on Training and Education in Radiation Protection (EUTERP Platform). NRG Report 21421/04.60160, 11 October 2004.

establishment and operation of the Platform and identified key issues for an envisaged work program. The study recommended that the Platform should be seen as a permanent office, which operates and maintains an infrastructure established for the exchange of information, for drafting guidelines and recommendations, for issuing a regular newsletter and for organising meetings or workshops. The Platform should facilitate the harmonisation of education and training for Radiation Protection Experts⁵ (RPEs), thereby removing the obstacles for the mobility of these experts within the European Union.

Both the survey and the feasibility study showed a great interest of Member and Candidate States to participate in such a Platform, aiming to facilitate mutual recognition of diplomas and qualifications in the radiation protection field. Therefore, the Commission has now launched the above-mentioned project to create the EUTERP Platform. The objectives of the Platform can be summarised as:

- to remove obstacles for the mobility of RPEs within the European Union through harmonisation of criteria and qualifications for and mutual recognition of such experts;
- to facilitate the transnational access to vocational education and training;
- to better integrate education and training into occupational radiation protection infrastructures in the Member, Candidate and Associated States of the European Union.

In order to reach these objectives, the EUTERP Platform shall be created as a network and cover the 25 European Union Member States as well as the Candidate States Bulgaria, Croatia, Romania and Turkey. In view of the interpenetrating labour markets it shall integrate also the Associated States Norway and Switzerland. The Platform shall serve as a network, aiming to improve the co-operation between the various stakeholders in the field of radiation protection training and education, i.e.:

- the national competent radiation protection authorities;
- the national bodies responsible for professional education and vocational training;
- the providers of training and education in the radiation protection area;
- professional organisations representing the receivers of training and education;
- international organisations and associations;
- operators and employers.

The EUTERP Platform shall be an instrument for the participating countries to align their national requirements in order to avoid discrimination of RPEs from other countries. It shall clarify the role of RPEs in different work sectors, taking into account the definition of the QE in Directive 96/29/Euratom and the guidance given in Annex I of the Commission's Communication⁶ and shall ensure a permanent dialogue between all involved parties. Conclusions may be formulated by the

⁵ The term RPE is used for those experts that comply with the national requirements for radiation protection experts in a certain country. The term QE is used for those experts that comply with the definition in the BSS. RPEs may or may not comply with the definition of the QE, depending on the national systems of education and training and the national regulations.

⁶ Communication from the Commission concerning the implementation of Council Directive 96/29/Euratom. Official Journal L-133 of 30 April 1998.

Platform participants including recommendations for initiatives to be taken by the Commission.

2 STRATEGY TO REACH THE OBJECTIVES

At the moment, there are a number of ongoing and planned national and international activities related to education and training and to recognition of RPEs. First of all, under the topic Education and Training of the 6th Framework Programme of the European Commission, several projects have been selected that address radiation protection in various sectors of work.

Secondly, the IAEA has developed a strategy plan to establish sustainable radiation protection education and training infrastructures in its member states. A Steering Committee on Education and Training in Radiation Protection and Waste Safety has been established in 2002 and advises the IAEA on the progress of its strategy plan.

Thirdly, IRPA has declared that Education and Training is a key factor in establishing effective national radiation protection programmes.

All these activities deal with education and training, each with its own specific objectives. All of them have in common that they aim to combat the decline in RPEs and to make effective use of training resources. By their international structure, they are facilitating the international harmonisation of the education and training programmes as well as the criteria for recognition. The strategy for the Platform should therefore be to obtain the position of centre half with respect to all education, training and recognition activities in the European Union. It should establish close links with all these projects and organisations. The results of the various projects can on the one hand be disseminated by the Platform in an effective way throughout the European Union and they can also be used as input for further work of the Platform. Furthermore, the Platform could act as an advisory body for the European Commission on education and training issues. The Platform should promote the use of standardised training material in the various countries, identify the training needs and facilitate in the support and assistance of establishing a high standard of radiation protection in all European countries. By doing so, the participants should be convinced of the importance of participating in the Platform, thus assuring a self-sustainable co-ordination body in the longer term.

3 GENERAL APPROACH

The feasibility study⁴ recommended the establishment of a permanent office for providing the necessary infrastructure of the Platform. According to that, the Platform shall be based on three pillars:

- 1 The main pillar shall be a permanent office designed to ensure the continuous exchange of information between all involved national and international partners. The office shall be operated by experienced staff and be equipped with appropriate communication infrastructure.
- 2 The second pillar will be the organisation of workshops on specific subjects aimed at solving identified problems.

- 3 The third pillar will be the preparation of conclusions in the form of opinions guidelines and recommendations worked out on the basis of the exchange of information and experience between the platform participants. This shall be combined with issuing a regular newsletter to be widely distributed.

The permanent office of the EUTERP Platform will be established at NRG (Nuclear Research and consultancy Group), the Netherlands. Mr Jan van der Steen, senior consultant of NRG, will carry out the coordination of the project.

For the supervision of the project the European Commission has established a Steering Committee. The members of the Steering Committee are:

| | |
|---------------------------------|---------------------------------------|
| J. Naegele (Scientific Officer) | European Commission, D.-G. TREN |
| S. Mundigl | European Commission, D.-G. TREN |
| G. van Goethem | European Commission, D.-G. RES |
| I. McAulay | Art. 31 Expert Group |
| M. Coeck | SCK.CEN, Belgium; ENETRAP coordinator |
| R. Paynter | HPA-RPD, United Kingdom |
| G. Morkūnas | RSC, Lithuania |
| G. Sadagopan | IAEA |
| C. Wernli | IRPA |
| K. Olsen | IFOMP |
| D. Owen | IOE/ILO |

In addition to its supervising task, the Steering Committee will, together with the project leader, elaborate a yearly work plan for the Platform.

4 PROJECT DURATION

The project started on 1 April 2006 and has a duration of 36 months. Following the end of the project, it is intended that the Platform shall be kept functional in a self-sustainable form. Participants shall be informed about the future of the project and be aware of the possible need for making a financial or in-kind contribution for the long-term self-sustaining operation of the Platform.

5 METHODOLOGY

The Platform will address the following issues:

- 1 Programmatic issues covering legal and administrative aspects, as well as functional aspects. These aspects are:

Legal/administrative aspects

- definition of qualified expert, job profile, minimum training and education requirements;
- harmonisation of national legal and administrative requirements;
- implication of other EU legislation on vocational education and training and on working conditions;
- European national infrastructures for training and education.

Functional aspects

- traceability to the Basic Safety Standards Directive and the Communication on its implementation;
 - identification of needs in specific work sectors;
 - harmonisation of syllabus and courses;
 - feedback of experience from current training courses of national and international organisations and institutes;
 - performance indicators.
- 2 Structural issues, in terms of organisation of the Platform. These issues are specifically addressing the design and infrastructure of the permanent office to ensure the continuous exchange of information (the main pillar of the Platform).
 - 3 The identification of participants and national contact points in the Member, Candidate and Associated States, taking into account a well-balanced representation of the various stakeholders as mentioned in section 1.
 - 4 The role of the national contact points in the Platform and in their respective countries.
 - 5 An overview of possible co-operation and/or connections of the Platform with:
 - other European projects dealing with radiation protection training and education, such as the European Network on Education and Training in Radiation Protection (ENETRAP);
 - the Steering Committee on Education and Training in Radiation Protection and Waste Safety of the IAEA;
 - the training and education activities of IRPA;
 - other international organisations that are interested in training and education in radiation protection.

5.1 Programmatic issues

The list of aspects is addressed briefly in Annex 1, with some considerations on each point to take into account for the actual work programme of the Platform. The programmatic issues have been discussed at the workshop organised as part of the feasibility study⁴ and resulted in a large number of recommendations. A summary of this study is presented in Annex 2. The study concluded that the recommendations dealing with the training and education requirements for RPEs were key elements that should be addressed by the Platform with the highest priority. In doing so, the Platform should also address the differences between RPEs and radiation protection officers (RPOs). Furthermore, the study considered it necessary to develop guidance on the implementation of the requirements into national regulations. This may lead to recommendations from the Platform about actions from the side of the European Commission, preferably by guiding instruments or eventually by legislative actions.

The feasibility study also concluded that a pragmatic and stepwise approach should be necessary for a harmonised and internationally agreed system of recognition of radiation protection experts. Despite the diversity of education and training systems, harmonisation should be reached by evolution of internationally agreed common

minimum criteria for the qualifications of the RPE. Recognition should not only be based on the initial education and training, but also on competence.

The first year's work plan concentrates on the three key elements identified in the feasibility study, i.e.:

1. To analyse the differences in interpretation of the BSS definition of the QE in the national legislation.
2. To define common minimum requirements for competences of RPEs, RPOs and workers, taking into account job profiles, sector of work, etc.
3. To provide guidance on the implementation of the requirements into national legislations.

Much of the research necessary for establishing a harmonised system of recognition of RPEs is being addressed in the ENETRAP project. Work Package 3 of this 6th Framework project is specifically targeted on getting information about the first point of the above-mentioned key elements, and will provide the elements for the second point of the key elements, i.e. a common denominator for the requirements for the competences of RPEs. The ENETRAP project will be finished per 1 April 2007, and the results will therefore be available within the first year of the EUTERP Platform.

5.2 Structural issues

The infrastructure of the permanent office aims to guarantee a continuous exchange of information between the members of the Platform. The co-ordinator serves as a permanent secretarial office of the Platform with the following tasks:

- co-ordinate all activities of the Platform;
- inform the participants about all relevant issues for the work programme of the Platform;
- establish a website and issue regular newsletters with information about the Platform and its activities;
- report to the Steering Committee about the progress of the Platform;
- organise Platform meetings;
- prepare yearly work plans for the Steering Committee.

Therefore the following infrastructure will be set up to fulfil these tasks.

5.2.1 Website

The use of the Internet as a tool for dissemination of technical information has advanced rapidly in the last decade, to the point where it frequently represents the primary source of information. Therefore the first infrastructural element of the platform to be created will be the EUTERP website.

The website will contain information on available national and international training and education materials, national and international training events, including on-the-job training possibilities, and the results of projects related to training and education in radiation protection.

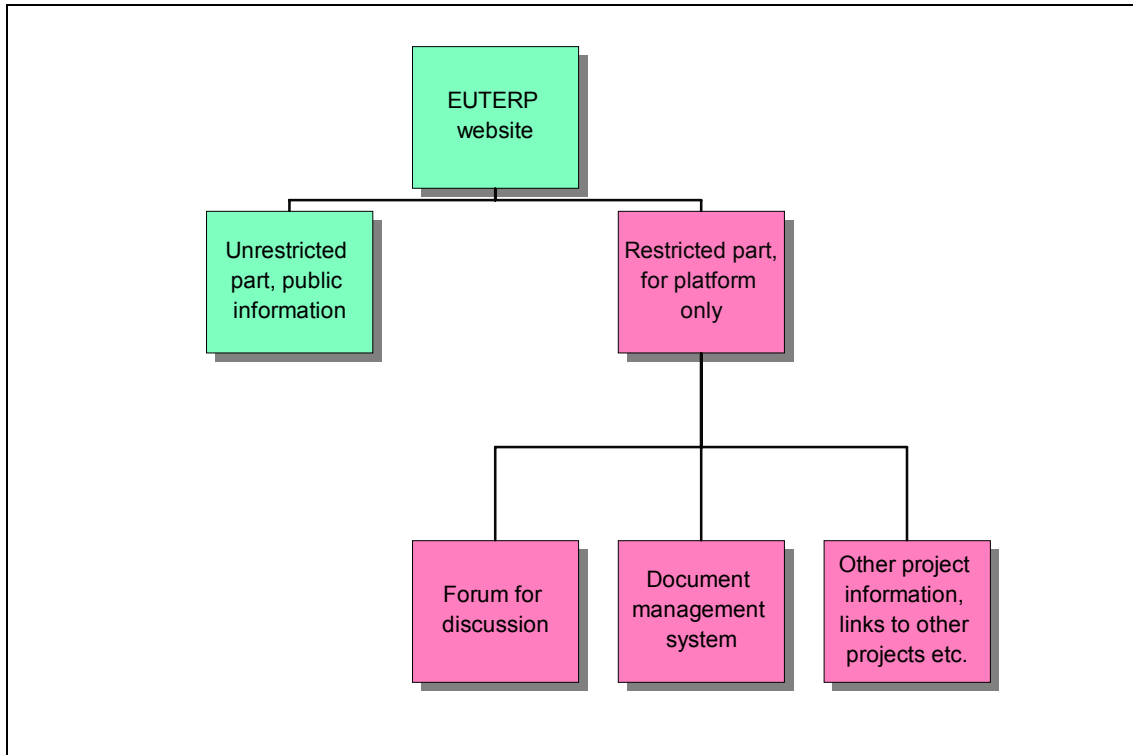


Figure: Identification of unrestricted and restricted parts of the EUTERP website

The website will feature an unrestricted part, which is available to everybody, and a part that is only accessible to members of the Platform (restricted access part). The restricted access area, is only available to the participants of the Platform (e.g. the stakeholders as defined in section 1).

A prominent feature of the restricted area, is the web-based *document management system*. It provides adequate management of the documents and easy exchange of information among the members of the platform. A comparable system is currently in use with NRG for international and national projects and can be accessed worldwide, provided Internet-access is available. This system is username and password protected. The Platform can use this system to manage all documents relevant to the project, like documents on legislation, regulations, policies, and strategies, but also national and international training materials as well as schedules of training events.

Also, an *interactive forum* for information exchange between participants of the Platform will be set up in the restricted access area, by providing an online discussion forum for Platform members. This can be situated in a protected 'Extranet' environment, only accessible to project members. Platform members will receive a username/password combination that enables them to log into the system. It will allow uploading information, using a standardized input structure. Participants will be stimulated to use the interactive forum as a means to get into contact, in order to exchange national information on the above-mentioned issues and to ask questions to other members of the Platform.

The restricted access area will also have a general-purpose section with *other information*, like project management data and explanation on the use of the website.

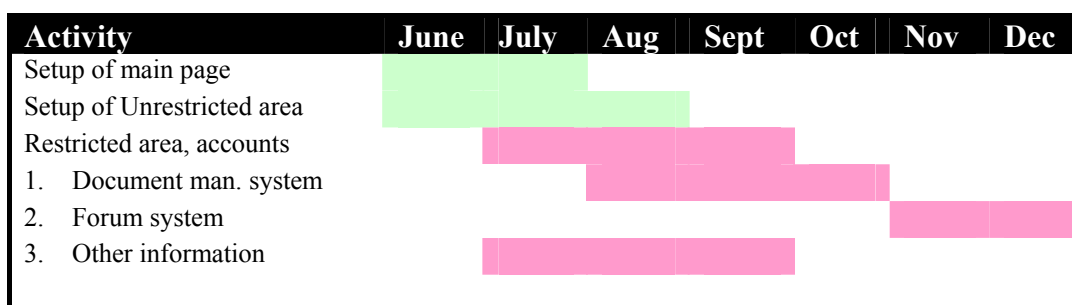
In addition, links will be established with the websites of other organisations and/or projects dealing with training and education, such as IAEA, IRPA, ENETRAP, etc.

Disclaimers

The information on the website will be free to use by the participants of the Platform. The integrity of the restricted access area is guaranteed by the proper use of the interactive systems offered and limited sharing of usernames and passwords, This is the shared responsibility of all participants. No data will be placed on the website without a written confirmation of the provider of that information that the use of it by the Platform is NOT restricted by confidentiality and/or intellectual property rights.

Planning

The planning for the creation of the website is shown in the diagram. The diagram does not show the maintenance of the site, which will continue after the initial set-up scheduled below.



5.2.2 Newsletter

The second infrastructural element is the regular publication of a newsletter. A professional logo and layout for all publications of the network will be developed in short time to ensure the networks activities can be easily identified. The general layout of the newsletter will be an editorial article, followed by articles on the activities of the Platform, conclusions and recommendations from the workshops, information on other projects and networks related to training and education in radiation protection, information on training and education material and events, etc.

The first issue of the newsletter is planned at six months after the start of the project, in October 2006, the following issues will be published with a four months interval. The newsletter will be available in both print and digital versions and will be widely distributed to the representatives of the stakeholders as identified earlier, to other project leaders and networks related to training and education in radiation protection, as well as to the European Commission. This will ensure an active dissemination of the activities of the Platform to a broad audience.

The Steering Committee will be consulted for the contents of each issue of the newsletter.

5.2.3 Permanent office

The third infrastructural element is the permanent availability of a secretariat that will play the role of an intermediate for questions of Platform members, as well as for the formulation of recommendations on quality criteria for training courses, the

recognition of training providers and the mutual recognition of RPEs. NRG is responsible for this task and is providing the necessary resources, in terms of availability, internet connections, scientific and operational support, and secretarial help. This permanent office comprises in fact the first pillar on which the Platform is based.

5.2.4 Workshops

The fourth infrastructural element is the organisation of regular annual workshops. This task comprises the work to be carried out for the second pillar on which the Platform is based. During the workshops, the results of the work programme will be discussed and evaluated. The workshops will be used to draw up conclusions and recommendations to the stakeholders in training and education in radiation protection. Actions will be determined to further disseminate the results to the stakeholders throughout Europe. A work plan for the next year of operation, established by the project leader in co-operation with the Steering Committee, will be discussed and determined during the workshop. Observers from international bodies, such as IAEA, OECD/NEA, WHO, ILO EFOMP, and IRPA will be invited to participate in the workshops. The participation of these international bodies will stimulate a harmonised approach in training and education methods and promote the international recognition of RPEs.

The workshops will have a frequency of about one per year, during three to four days. The general layout of the workshops will be:

- Presentations on the achievements of the Platform;
- Presentations of participants, in particular on the impact of the Platform in their respective countries;
- Discussion on programmatic issues;
- Discussion on structural issues (sustainability of the Platform);
- Discussion on future work;
- Conclusions and recommendations.

For each workshop, the participants will be provided with the necessary working material documents at least two weeks before the start. The working material will give an overview of the progress made on the programmatic and structural issues, the overall performance of the Platform in its year of existence, an overview of results from other research projects and networks on training and education, an overview of activities of other organisations, and other issues as decided during the Steering Committee meetings. In addition to the issue of the performance of the Platform, the workshops will address the issue of self-sustainability. This topic will be a fixed agenda point in each workshop and will be addressed specifically during the last workshop. At the end of the project, it should be clear what the common interest for a continued participation in the Platform is, i.e. the willingness to participate in the Platform by financial and/or in-kind contributions. This will result in a recommendation on the structure and activities of the Platform in the period after the conclusion of the project, including a proposal for finding the necessary resources.

The first workshop has been tentatively planned in the week of 21 May 2007 in Vilnius, Lithuania. A preliminary agenda is added in Annex 3 of this Explanatory Note. The main topics of the workshop include the programmatic and structural issues

of the Platform. The programmatic issues will concentrate on the key elements as described in section 5. It is expected that the results of the ENETRAP project will be available at that time. These results will produce the elements that are necessary for defining common minimum requirements for competences of radiation protection experts, and will be discussed extensively in order to derive conclusions and recommendations on this point.

6 PARTICIPATION IN THE PLATFORM

6.1 Participants

As mentioned in section 1, the participation in the Platform should cover the following categories:

- National competent radiation protection authorities;
- National bodies responsible for professional education and vocational training;
- Providers of training and education in the radiation protection area;
- Professional organisations representing the receivers of training and education;
- International organisations and associations;
- Operators and employers.

At this stage of the project, it is necessary to identify in each country the willingness to participate in the Platform. In order to ensure a wide participation, the Member, Candidate and Associated States are being contacted to propose representatives belonging to the above-mentioned categories to participate in the Platform. These representatives will have access to all the information of the website, including the restricted part. The proposed representatives should have knowledge of:

- The national regulations in their countries with respect to radiation protection, in particular in relation to the requirements of the Basic Safety Standards Directive;
- The national education system for radiation protection in the different areas of work, such as the nuclear sector, the medical sector, industry, education and research, et cetera;
- The minimum training and education requirements and qualifications for recognition of radiation protection experts;
- The training needs in their country.

The Steering Committee has established a list of potential candidates, which has been added as Annex 4 to this Explanatory Note. The list includes, as far as possible, the background of the candidate and the argument why it is expected that the candidate may be interested in the Platform. It should be stressed that this list will only be used to investigate the willingness to participate in the Platform. It is up to the persons mentioned in this list to decide whether they will participate or not. They may also nominate other interested persons within their country to participate in the Platform, as long as they comply with the above-mentioned criteria and belong to one of the categories as mentioned in section 1.

6.2 National contact points

In the feasibility study⁴, a proposal has been made for the role of national contact points with respect to co-ordinating the national information on training and education needs, requirements for recognition of training providers, RPEs, regulatory and administrative aspects, etcetera, as input for the Platform (see Annex 2). In specific, the national contact points should be able to present national views on issues such as minimum requirements for syllabi of training courses, for qualifications of the competencies of RPEs and RPOs, and for minimum requirements for recognition and certification. The role of the national contact points is therefore very important for generating recommendations for mutual recognition of RPEs in the various sectors of work. It is proposed that these issues will be addressed in the workshops by presentations of the national contact points.

The national contact points play therefore a co-ordinating role between the various Platform participants within a country. This could help in getting bottom-up input from the radiation protection field into the Platform, but will also result in a structured national view on the issues at stake. The Platform participants from a certain country will be asked to designate one or two national contact points for their country, depending on the sector of work.

The role of the contact points is a very important issue with respect to the viability of the Platform in the period after the conclusion of the project. The aim of this project is to establish a Platform, which should be self-sustainable after some years. The performance indicators (see next section) should be able to measure the progress in reaching a fully-grown network.

7 PERFORMANCE INDICATORS

In order to evaluate the progress of the Platform it is necessary to develop performance indicators (see also Annex 1, section A1.2.5). The performance indicators should address several issues, such as:

1. Performance of the contractor
 - Production of the website;
 - Use of the website;
 - Production and dissemination of the Newsletters;
 - Preparation of Steering Committee meetings;
 - Preparation of workshops;
2. Steering Committee
 - Degree to which the Steering Committee carries out his tasks;
3. Participation in the Platform
 - Number of countries represented in the Platform;
 - Number of participants per country;
 - Number of international organisations participating in the Platform;
 - Number of sectors reached in a country;
4. National contact points

- Degree to which national contact points have shown interest in participating in the Platform;
 - Degree to which national contact points are able to disseminate the results of the Platform within their country;
 - Degree to which national contact points can establish national views on programmatic issues;
5. Implementation of the Platform work plan and strategy
- Degree to which international consensus can be reached on programmatic issues;
 - Degree to which recommendations and guidelines are being implemented in the countries;
 - Degree of participation of students in training and education events that comply with the quality recommendations of the Platform;
6. Sustainability
- Degree to which national contact points have raised interest for the activities of the Platform within their countries;
 - Willingness of countries to support the Platform, financially or by in-kind contributions, in the period after the conclusion of the project.

The performance indicators will be made quantifiable and used by the Steering Committee to measure the progress of the project.

Annex 1: Aspects to consider for a work plan of the Platform

A1.1 Legal/administrative aspects

A1.1.1 Definition of qualified expert, job profile, minimum training and education requirements

The preliminary results of the ENETRAP project indicate that less than 50 % of the Member, Candidate and Associated States claim that the definition of the RPE in their legislation reflects exactly the definition of the Qualified Expert, as defined in Council Directive 96/29/Euratom². Another third claim that their definition is only partly reflecting the QE. The broad variety of training and education systems, of the subdivision of RPEs, either on the level of expertise or on the sector of work, and of the registration and recognition systems makes it difficult to compare the competences and responsibilities of an RPE in the various countries. Some countries subdivide their RPEs either on the level of expertise or on the sector of work. Most of the countries use both possibilities for a distinction. When subdivision is based on the level of expertise, one should conclude on which level of expertise would be still compatible with the definition of the QE and which level would be considered as a radiation protection officer. It is commonly understood that the expertise of the QE is restricted to the higher educated RPE, but it is necessary to draw the dividing line between the RPE and other radiation protection officers (RPOs).

The majority of countries require an academic level of basic education for the RPE, although in some countries a lower background education is allowed, depending on the sector and the complexity of the application. For most of the countries successful completion of general professional radiation protection courses is as such not a prerequisite for recognition of the RPE. In these cases, additional requirements apply such as experience and/or competence. To a somewhat lesser extent, this is also true for the RPO.

The results are comparable with the results of the survey carried out in 2002³, where it was concluded that in most countries a prior education on an academic level is needed for the training of the RPE, specifically for the medical and nuclear sector. Professional experience is another criterion for recognition in most countries, but not in all.

A1.1.2 Harmonisation of national legal and administrative requirements

The 2002 survey³ recommended comparing in more detail the definition, tasks and provisions for recognition of the RPE in the national regulations of Member States, Accessing and Applicant Countries, in order to expose the obstacles for a harmonised implementation of the concept of the “QE” throughout the European Union. This is specifically relevant for those countries that have not yet updated their regulations regarding to radiation protection, or have no or a divergent definition of the RPE.

The preliminary results of the ENETRAP study show that in many countries there is no automatic mutual recognition of RPEs, although some countries indicate their intention to do so. Recognition is performed in some countries on a case-by-case basis, whereas other countries require knowledge of national regulations and communicative skills. This area should be further elaborated, in order to come to international agreement on

mutual recognition. An inventory should be made of the requirements and procedures for registration and/or certification.

A1.1.3 Implication of other EU legislation on education and training and on working conditions

In the context of the single market and the enlargement process, it is recommended to try to achieve harmonisation in the qualifications of the RPE, according to the definition of the QE. This would also promote to achieve the aims of the Directive on free movement of workers in the European Union and the Directive on safety at work. The requirements and procedures for registration of RPEs, including quality assurance procedures, should be studied in more detail, also in relation to other EU regulations. For example, conflicting views on the education and training, responsibilities and tasks with regard to radiation protection between medical specialists, medical physicists and RPEs in the medical area may be influenced by other EU legislation.

A1.1.4 European infrastructure for training and education

The Platform should be a vehicle to establish a self-sustainable EU-wide infrastructure for training and education. This should be done in close co-operation with other international bodies, such as the IAEA and IRPA. The results of the 2002 survey³ as well as the preliminary results of the ENETRAP study show that there is a need for a common approach. Almost all old Member States have their own national education system for the training of RPEs. Some smaller countries do not offer training courses, so their pool of RPEs is educated in other countries. In some of the new Member States and Candidate States, the education and training programmes are supported by the IAEA.

The Platform could play a role in co-ordinating the European activities on education and training, such as the European Radiation Protection Education and Training programme (ERPET) and the European Master Course in Radiation Protection, which is being developed in the ENETRAP project.

A1.2 Scientific aspects

A1.2.1 Traceability to the Basic Safety Standards Directive and the Communication on its implementation

According to the preliminary results of the ENETRAP project, only half of the countries claim to have provisions for education, training and recognition for the RPE reflecting exactly the provisions as specified in Communication 98/C 133/03⁶ from the Commission. From the responses, it becomes clear that there has been a variety of reasons why countries consider their training schemes as not, or only partly reflecting the EU and/or the IAEA basic syllabus, although in some cases the length of the courses and the practice capabilities have been mentioned as being reasons for not complying with the IAEA syllabus. Without detailed information about the content of the training courses for the different sectors of work and for the different levels of expertise, it is difficult to compare the differences among the countries.

A1.2.2 Identification of needs in specific work categories

An inventory of needs is being made in the ENETRAP project, subdivided in the different sectors of work. About half of the countries consider the number of RPEs available in the country as inadequate to the national needs. Among them, the

shortage of RPEs seems to be less evident in the countries of the old Member States than in the new, Candidate and Associated States. For all these countries, the need is basically in the medical field. The qualification and training of the RPEs is almost always carried out within the single country and only few countries use the training facilities and courses available abroad.

A1.2.3 Harmonisation of syllabus and courses

In many countries, training centres need to be recognised by the competent authorities. This includes conformation with the requirements for the topics to be addressed in the courses. When training courses are given for a single sector of work, the specific topics relevant for the sector should be taken into account. Practical work is part of the training programme in most of the old Member States and in about half of new Member and Candidate States, although requirements are not always specified. Continuous training is incorporated in about half of the countries. In some countries this is only restricted to certain sectors, like the medical sector. It is recommended that the national training courses and materials, including practical work, should be evaluated and compared according to the syllabus⁶ and standardised training materials, such as being developed in the ENETRAP project for the European Master Course in Radiation Protection or by the IAEA.

A1.2.4 Feedback of experience from current training courses of national and international organisations and institutes

The results of the 2002 survey³ show that feedback from users with regard to the needs and efficiency of the training programmes is given in many countries, although this is not always formalised. It is necessary to establish a procedure to provide feedback of the training programmes in order to evaluate the effectiveness of the strategy of the Platform. In this respect, the annual reporting system on training activities supported by the IAEA may be used as template for standardising evaluation tools.

A1.2.5 Performance indicators

The use of evaluation tools implicitly requires the establishment of performance indicators. Here also, the system as developed by the IAEA may be used as a basis for establishing performance indicators for the Platform activities. Such performance indicators should be developed for the partnership of the Platform, the assessment of training needs, the review of training activities, the development of training material, the development and use of agreed criteria for comparing RPEs, recognition procedures, etc. Also, performance indicators should be established to evaluate the success of the implementation of the Platform work plan and strategy.

Annex 2: Summary of the Feasibility Study⁴

The feasibility study to establish a European Platform on Training and Education in Radiation Protection (EUTERP Platform) is a follow-up of a survey that has been carried out in 2002³ on the situation of radiation protection experts in the Member and Applicant States of the European Union. The survey showed a great interest among the countries to establish a platform to allow for a better harmonisation of education and training requirements in the different areas of radiation protection. The platform, which is essentially a network, should promote a better integration of education and training into occupational radiation protection infrastructures in the Member and Candidate States of the European Union, facilitate the transnational access to vocational education and training infrastructures, promote harmonisation of the criteria and qualifications for and mutual recognition of Radiation Protection Experts, and remove obstacles for the mobility of these experts within the European Union. The Commission has taken notice of this union-wide interest and ordered a feasibility study to investigate the possibilities for setting up such a network, which is called the EUTERP Platform.

The project resulted in recommendations, based on the summary and conclusions obtained by the exchange of information and experience in a workshop that has been attended by most of the Member and Candidate States of the European Union. The workshop has been held at CIEMAT, Madrid, Spain, on 20-21 May 2004. The project identified how the future Platform could be initiated and developed in order to achieve the expected results.

It was concluded that a pragmatic and stepwise approach should be necessary for a harmonised and internationally agreed system of recognition of radiation protection experts. It was also recognised that all countries have developed their own education system over a long period of time and it would be impossible to strive to uniformity in the educational approach. Instead of that, and despite the diversity of education and training systems, harmonisation should be reached by evolution of internationally agreed common minimum criteria for the qualifications of the radiation protection expert. Recognition should not only be based on the initial education and training, but also on competence. The Platform could provide the basis for such an international agreement.

The workshop dealt with programmatic issues that should be taken up in the work plan of the Platform, as well as structural issues, to ensure an effective and efficient conduct of the work. The structural aspects of the Platform are of vital importance for a successful, efficient and self-sustainable network. However, the options for a structure of the Platform are depending on the work programme that the Platform is going to carry out, including its prioritisation and timing. Therefore, the workshop firstly addressed the programmatic aspects and secondly the structural aspects, taking into account the outcome of the discussions on the work plan.

Programmatic aspects

Nineteen recommendations have been identified dealing with the work programme of the Platform. These were divided in 6 different topics, namely:

- Education and training requirements for Radiation Protection Experts
- Effectiveness, efficiency and quality management of the Platform

- Training needs
- Training courses
- Mutual recognition, and
- Education and training infrastructure.

Pursuant to Article 3(c) of the EEC Treaty the abolition, as between Member States, of obstacles to freedom of movement for persons and services constitutes one of the objectives of the European Union. This means in particular the possibility of pursuing a profession in a Member State other than in which these persons have acquired their professional qualifications. The recommendations dealing with the *education and training requirements for radiation protection experts* were therefore considered to be key elements, which should be addressed with the highest priority by the Platform. The platform should not restrict itself to requirements for RPEs, but should also address the differences between RPEs, RPOs, etc. Furthermore, it was considered necessary to develop guidance on the implementation of the requirements into national regulations. This may lead to recommendations from the Platform about actions from the side of the European Commission, preferably by guiding instruments or eventually by legislative actions.

Regarding the *effectiveness, efficiency and quality management* of the Platform, it was considered necessary to develop performance indicators, in order to measure the progress of work, to investigate the impact of the Platform and the success of implementation of recommendations. It is necessary to formalise a system of feedback of information about the success and failure of training events, in order to make it possible to learn from the past and improve future events. Formal quality management or quality assurance methods should be applied to ensure a high quality of performance of the Platform. By inviting other networks to participate in the Platform and by ensuring from the side of the European Commission that project results are made available to the Platform, an efficient use of the results of other projects and other international networks can be made. This could also lead to the identification and formulation of new research in this field.

In order to combat the decline in radiation protection expertise within the European Union, it is important to investigate the *training needs and training capabilities* for each sector of work in the various countries. For an effective use of resources, it is necessary to identify how much training activities should be organised in the future, how this should be done and where these activities should take place. It was recognised that in some European projects, carried out or planned in the 6th Framework Programme of the European Commission, such investigations will take place for certain sectors of work. The results can be used by the Platform as input for identifying additional work.

It was recommended to peer review national and international *training courses* and materials for compliance with the basic syllabus and for reasons of success or failure. In harmonising training materials, it is recommended to make use of a proven approach to establish standardised material, such as done by the IAEA. For planning purposes, it would be helpful to establish a database of training materials and training events.

With respect to *mutual recognition*, it was concluded that it is necessary to investigate the systems of recognition of RPEs in the various countries, and specifically to analyse the reasons for recognising, or not recognising, foreign RPEs. Guidance should be developed about who is responsible for mutual recognition, i.e. regulatory authorities, professional organisations, or other bodies. The Platform could play a role in the development of this guidance, or may recommend the European Commission to do so.

It was concluded that guidance and support is necessary on how to establish a common *infrastructure for education and training in radiation protection* throughout the European Union. The Platform could recommend the European Commission on the actions to be taken to implement this common infrastructure. A number of international institutions and organisations have already been active in this field, such as the IAEA, IRPA and the European Federation of Organisations of Medical Physicists (EFOMP). For a consistent approach, and in order to avoid duplication of work, it is necessary to co-operate with these organisations to promote a consistent approach.

Structural aspects

The national participants of the Platform should cover the following categories:

- National competent radiation protection authorities;
- National bodies responsible for professional education and vocational training;
- Providers of training and education in the radiation protection area;
- Professional organisations representing the receivers of training and education.

When all the categories are represented in the Platform per country, this would lead to a few hundred participants. The advantage would be that all parties willing to participate are represented in the Platform. Participation can only be organised on a voluntary basis. Parties that are no longer interested may withdraw from the Platform.

Since one of the main objectives of the Platform is to reach international agreement on criteria for mutual recognition of RPEs, RPOs and workers, it is necessary to have national viewpoints on these issues. To make the Platform efficient and effective, it would therefore be desirable if the Platform participants of each country have internal national discussions, preferably before the workshops where the issues are being discussed. As a consequence, to accommodate the input of all categories at a national level, it was concluded that it would be necessary to establish *in each country* structural contacts between all Platform participants within a country. Such national contacts groups could serve as outposts for the Platform. They could select national contact points for the Platform to prepare standpoints on different issues at stake in the Platform, and to carry out coordinating tasks on a national level as input for the Platform. It was argued that the establishment of such national outposts would strengthen the national involvement in and commitment to the work of the EUTERP Platform. It was concluded that this is a prerequisite for reaching a sustainable and self-supporting Platform after a certain period of time.

There was a general consensus about the framework of the Platform. Given the large number of potential participants, the structure of the Platform should ensure an efficient and effective management. It should make it possible to co-operate with

other projects and networks and it should be self-sustainable after an initial period of time.

The general framework of the Platform is that it should be run by a co-ordinator, with the help of a Co-ordination Committee. Where necessary Working Groups should be installed to carry out specific tasks. The Working Groups could consist of Platform participants and other invited experts.

It was preferred that the Commission should establish the Platform in a phased approach. To this end, the Commission should conclude a contract with a co-ordinator and establish a Steering Committee to elaborate the first three programmatic recommendations. These recommendations were considered to be key elements in the process of achieving harmonisation in the E&T requirements for RPEs in the Member and Candidate States of the European Union. The co-ordinator, together with the Steering Committee should then prepare another workshop to discuss the results of the work carried out so far and to identify a follow-up work programme.

It was concluded that the objectives of the feasibility study have been fully met. The fast responses on the invitations to nominate participants for the workshop, specifically from the new Member States and Candidate States, reflect the great importance that is given by the participants to the subject. It showed the willingness to participate, also when the Platform has been established and is operational. It was concluded that the European Commission should take the necessary steps for a follow-up, in order to make use of the momentum. This will also promote the national involvement and commitment to the subject, which is important for reaching a self-sustainable Platform after some years.

Annex 3: Preliminary agenda of the first workshop

Day 1

Session 1: Setting the scene

- Welcome addresses
- Introduction and objectives of EUTERP Project leader
- Training and education activities of the European Commission Scientific Officer
- Training and education activities of other international organisations
(IAEA; IRPA; OECD/NEA; WHO; ILO; EFOMP) Organization representatives
- Other international networks
(EAN; RECAN; ...) Network co-ordinators
- The ENETRAP project ENETRAP co-ordinator
- Objectives and work programme of the workshop Project leader

Day 2

Session 2: Contributions to and expectations of the national participation in EUTERP

- Country presentations National contact points

Session 3: Programmatic issues

- Interpretation of the definition of the QE in national legislations ENETRAP
- Requirements for competences of RPEs, RPOs and workers ENETRAP

Day 3

Working groups

- Discussion on programmatic issues
- Discussion on structural issues

Day 4

Session 4: Results of the workshop

- Reports of working groups
- Conclusions and recommendations
- Next year's work programme
- Date and place of next workshop

Annex 4: List of potential candidates

| | Country | Name | Affiliation | E-mail | Background | Reason for selection |
|----------|-----------------|---|--|---|--|---|
| 1 | Austria | Th. Geringer A. Brandl J. Zechner F. J. Maringer M. Blaickner | ARC Seibersdorf ARC Seibersdorf Fed. Min. of Health & Women BEV ARC Seibersdorf | thomas.geringer@arcs.ac.at alexander.brandl@arcs.ac.at josef.zechner@bmgf.gv.at fj.maringer@metrologie.at matthias.blaickner@arcs.ac.at | Training provider Radiation Safety Officer Regulator Professional organisation | ENETRAP respondent; IAEA SC member; ETRAP3 participant Art 31 member; Secretary Austrian Association Art 31 member President Austrian Association |
| 2 | Belgium | L. van Bladel P. Kockerols M. van Eijkeren H. Drymael H. Janssens | FANC Belgian Association for Radiological Protection University of Gent Association Vinçotte Nucléaire XIOS Hogeschool Limburg | lodewijk.vanbladel@fanc.fgov.be pierre.kockerols@cec.eu.int marc.vaneijkeren@ugent.be hdr@avn.be herwig.janssens@xios.be | Regulator Research; Professional organisation Professional organisation Inspection Training provider | ETRAP3 participant Participant Feasibility Study ENETRAP respondent; Delegate Belgian Association President Belgian Association ETRAP3 participant ETRAP3 participant |
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| 22 | Poland | | | | |
| 23 | Portugal | | | | |

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List of potentially interested organisations and networks

| | Organization / Network | Representative | E-mail | Remarks |
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| 3 | European Commission Art 31 Expert Group | I. McAulay | imcaulay@eircom.net | Representative Working Party on Education and Training; EUTERP SC member |
| 4 | IAEA | G. Sadagopan | G.Sadagopan@iaea.org | Co-ordinator IAEA strategic plan on E&T; EUTERP SC member |
| 5 | ILO | S. Niu | niu@ilo.org | |
| 6 | WHO | M.H. Repacholi | repacholim@who.int | |
| 7 | OECD/NEA | T. Lazo | lazo@nea.fr | |
| 8 | IOE | D. Owen | david.owen@awe.co.uk | EUTERP SC member; SC member feasibility study |
| 9 | IRPA | Ch. Wernli | christian.wernli@psi.ch | Council member responsible for E&T activities; EUTERP SC member; SC member feasibility study |
| 10 | EFOMP | K. Olsen | kjol@herlevhosp.kbhamt.dk | Chairman standing committee on Registration; EUTERP SC member |
| 11 | | | | |
| 12 | ICFTU | T. Zodiates | tasos.zodiates@british-energy.com | International trade unions organization |
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| 14 | RECAN | G. Morkunas | g.morkunas@rsc.lt | Co-ordinator; EUTERP SC member; SC member feasibility study |
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