

**ETRAP**  
2005

**3<sup>rd</sup> International Conference on Education and Training in Radiological Protection**  
23-25 November 2005, Brussels, Belgium

**Conference Declaration**

The spectrum of applications and possible impacts of ionising radiation is very wide, covering specific practices and intervention situations. Although working with a variety of responsibilities and specific professional aims, practitioners and interventionists have a triple common need:

- a basic education and training providing the required level of understanding of the physics of radiation and the theory and practice of radiological protection,
- a standard for the recognition of skills and experience,
- an opportunity to fine-tune and test acquired knowledge on a regular basis.

From an executive perspective, education and training are undoubtedly the two basic pillars of any policy regarding safety in the workplace.

International meetings, publications and recommendations with regard to safety culture increasingly stress the need for education and training in the field of radiological protection (RP E&T). In addition, complying with specific European directives concerning the implementation of a coherent approach to RP E&T becomes crucial in a world of dynamic markets and increasing workers' mobility. Finally, the enlargement of the EU by 10 new member states has to be considered as an additional challenge regarding the fulfilment of these requirements.

ETRAP2005, the 3<sup>rd</sup> International Conference on Education and Training in Radiological Protection, brought together practitioners and policy makers from the medical and nuclear engineering sector and the non-nuclear industry, alongside social scientists, safety experts, regulators, academics, and representatives of national authorities, research centres and key international organisations.

In this spirit, ETRAP2005 showed a common readiness to provide a coherent answer to the above mentioned triple need, and identified 4 elements of key importance :

**Clarification**

Starting from existing international definitions and guidelines, clarification of the terminology and of the responsibilities of each relevant category of addressee is the main prerequisite for ensuring mutual understanding of the issues at stake.

**Harmonisation**

Qualifications, the related requirements and methods for assessing them should be harmonised as much as possible, taking into account the need for continuous education and training and the diversity of national approaches. Within this context, confidence building across institutional and national borders is a prerequisite for mutual recognition. One tool that can help build up this confidence is a process of reciprocal peer-reviewing of expertise.

**Broadening the perspective**

The theory and practice of radiological protection should be embedded within an overall governance of health and safety, and its focus should be widened by including trans-disciplinary aspects such as risk assessment and involvement of stakeholders. An integrated approach to education and training, in this sense, will enable professionals to gain more confidence in their work and to maintain credibility towards stakeholders and the general public.

**International cooperation**

International organisations should continue to initiate and foster projects and networks relating to education and training in radiological protection. They are urged to ensure synergy between ongoing and new initiatives by establishing the co-ordination of efforts on an international level. With the aid and support of Member States, they should explore conditions to guarantee the sustainability of successful projects and networks beyond their initial support phase. Finally, they are called upon to further develop common standards and requirements in order to ensure an integrated and harmonised approach to education and training in radiological protection.

In more detail and in the spirit of the above listed key elements, the conference acknowledges and reconfirms that

- RP E&T should be based on the best scientific knowledge, and should make use of the know-how from experienced installations and state-of-the-art tools;
- the radiological protection rationale that serves as the basis for RP E&T is the same all over the world, going beyond cultural differences and disciplinary applications;
- practical experience is an essential element of RP E&T, in addition to the theoretical knowledge;
- RP E&T programmes should integrate and advocate internationally recognised safety standards;
- pioneering work has been done already, by international organisations and by specific institutes and individuals, but the need for a coherent and coordinated approach to RP E&T policy is still felt by managers, by those responsible for safety and regulation and by workers in the field.

The conference asks the end users, including academic institutions and research centres, in coordination with the relevant authorities, to put the following recommendations into practice:

- attach major importance to the essential role of RP E&T in ensuring the safety of practices;
- share lecturers, training facilities and educational source material and initiate international exchange of knowledge and experience, in order to ensure harmonisation of approaches and maximum use of existing resources;
- organise experience feedback (lessons learned) and ensure traceability by documenting the acquired education and training of every individual practitioner;
- link radiation safety with conventional safety in order to teach workers how to acquire an integrated safety culture;
- organise in-house training inspection and auditing of training programmes;
- look beyond the hard sciences by developing RP E&T programmes in a transdisciplinary way, integrating social and ethical aspects;
- explore the use of new techniques and tools for training (e.g. e-learning, on-line examinations).
- take into account and make use of the important contributions of the professional societies

In addition, towards the national authorities, ETRAP2005 recommends to

- stimulate the streamlining of various national and local RP E&T initiatives in order to ensure synergy and maximum use of RP E&T resources (lecturers, facilities, tools, know-how);
- extend the official (national) system of recognition of acquired education in order to incorporate recognition of specific required training of workers;
- Identify the training needs and adopt a strategy to meet the needs.

Finally, ETRAP2005 calls the relevant international institutions and organizations and, where appropriate, the professional societies for action, in particular to:

- facilitate and stimulate sharing and interchange of national and local RP E&T resources;
- develop and/or support international guidelines for national inspection and auditing systems and for traceability (documenting the received training), in addition to international standards and minimum requirements for RP E&T resources;
- initiate international RP E&T courses with contributions of national partners, in order to ensure synergy and maximum use of RP E&T resources on the international level, and to broaden the areas of experience of lecturers as well as students;
- define categories of addressees (workers, radiation protection officers, qualified experts, ...) of education and training activities as a prerequisite for harmonization and mutual recognition of courses and certification systems;

- strive to make requirements more legally binding by pleading for the integration of the inspection concept in basic safety standards and for the attribution of an international value to diplomas and certificates;
- enrich future research policies by also focussing on aspects of training along with education, and by taking a trans-disciplinary approach to RP E&T;
- initiate or support the establishment of platforms for dialogue, networking and research, and support the follow-up of ongoing valuable initiatives.