Development of European reference training schemes for radiation protection experts and officers

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Today's situation

- Increased attention for RP: "nuclear renaissance", more technologies (and more frequently used) rely on radioactivity (in nuclear, non-nuclear and medical sector)
- Absolutely necessary: protection of men and environment, guarantuee safe working conditions
- Need for human resources with knowledge of radiation protection science, and necessary competences, skills and appropriate attitutes on the workfloor
- ENETRAP II supports young students and professionals in their need to gain and maintain high level radiation protection knowledge, competences and skills
- By developing good infrastructure for education and training

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Development of E&T activities

on

European

level

- Harmonized approach
  - Reducing differences; finding a common basis for E&T
  - Mutual recoginition of RP courses (and providers)
  - Clear and uniform terminology on professions in RP
  - Mutual recoginition of acquired competences of RPE, RPO, workers

  will facilitate the development of a common RP (and safety) culture and the mobility of workers

- Legal framework
  - Council Directive 96/29/EURATOM, laying down Basic Safety Standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation
  - Communication 98/C 133/03, concerning its implementation

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BSS in revision

- ENETRAP / EUTERP Advisory role in revision of European BSS
  - Proposed new definition for RPE, RPO:

    RPE "*an individual having the knowledge, training and experience needed to give radiation protection advice in order to ensure effective protection of individuals, whose capacity to act is recognised by the competent authorities*"

    RPO "*an individual technically competent in radiation protection of matters relevant for a given type of practice who is designated by the undertaking to oversee the implementation of the radiation protection arrangements of the undertaking*"

ENETRAP II 7FP

Coordinator
SCK•CEN

Partners
CEA-INSTN
KIT-FTU
BfS
CIEMAT
NRG
ENEA
HPA-RPD
ENEN Association
ITN
BME
UPB

- ENETRAP II - European Network for Education and Training in Radiation Protection; part II
- Submitted for 7FP, Theme: Fission-2008-5.1.1, Euratom Fission Training Schemes (EFTS) in all areas of Nuclear Fission and Radiation Protection; coordination action
- EC contribution 800 000 EUR, equal contribution from partners
- March 2009 – March 2012

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ENETRAP II general

Overall objective

to develop European high-quality "reference standards" and good practices for E&T in radiation protection, specifically with respect to the RPE and the RPO.

These "standards" will reflect the needs of the RPE and the RPO in all sectors where ionising radiation is applied (nuclear industry, medical sector, research, non-nuclear industry).

The introduction of a radiation protection “training passport” as a mean to facilitate efficient and transparent European mutual recognition is another ultimate deliverable of this project.

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Specific objectives

- Develop the European reference standards for RPE and RPO training and based on that develop training scheme (ERPTS);
  - Specific attention to topics, including “non-technical/soft skills”, OJT/WE, …
- Develop and apply a mechanism for the evaluation of training material, courses (and providers);
- Establish a recognised and sustainable "quality label" for training events;
- Create a database of training events and training providers;
- Bring together national initiatives to attract early-stage radiation protection researchers on a European level;
- Develop some course material examples (including e-learning);
- Organise pilot sessions of specific modules of the ERPTS and monitor the effectiveness according to a developed system;
- Development of a European passport for CPD in RP.

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- WP1 Co-ordination of the project
- WP2 Define requirements and methodology for recognition of RPEs
- WP3 Define requirements for RPO competencies and establish guidance for appropriate RPO training
- WP4 Establish the reference standard for RPE training
- WP5 Development and apply mechanisms for the evaluation of training material, events and providers
- WP6 Create a database of training events and training providers (including OJT) conforming to the agreed standard
- WP7 Develop of some course material examples (text book, e-learning modules, …)
- WP8 Organise pilot sessions, test proposed methodologies and monitor the training scheme effectiveness
- WP9 Introduction of the training passport and mutual recognition system of RPEs
- WP10 Collaboration for building new innovative generations of specialists in radiation protection

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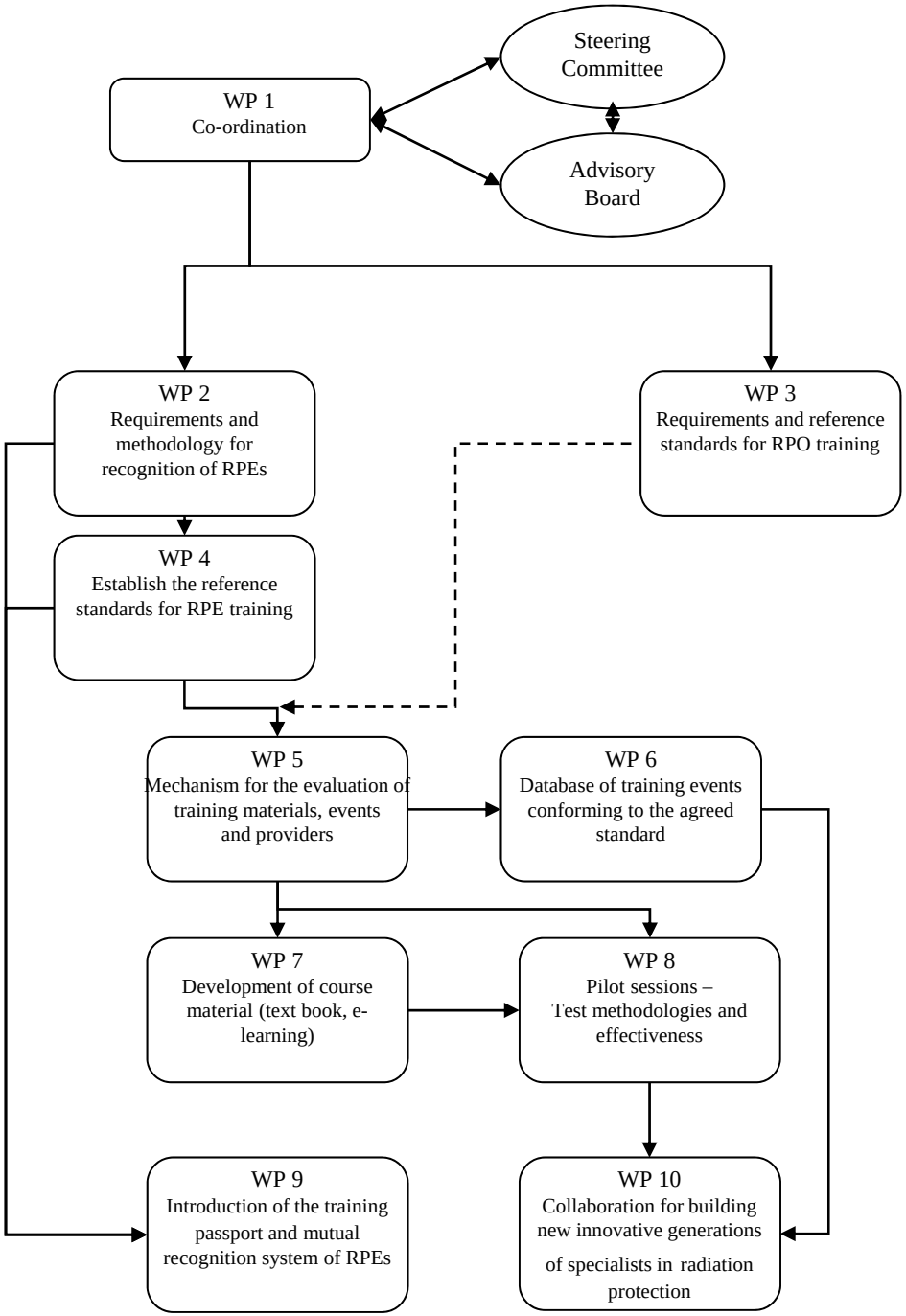

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ENETRAP II Advisory Board

- The composition of the Advisory Board is such that all relevant stakeholders, with respect to the stated aim of the project, are represented, i.e. regulatory authorities, international organisations, professional organisations, training providers, research institutes, medicine and industry
- The Advisory Board will advise about the best balance between supply and needs of training, thereby ensuring stable feedback mechanisms to the Steering Committee
- Potential members of the Advisory Board: EUTERP, HLEG (MELODI), IAEA, EFOMP, OECD, IRPA, the regulatory bodies, Art 31 Expert Group, industry, …

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Outcome

will be instrumental for the cooperation between regulators, training providers and customers (nuclear industry, medical sector, research and non-nuclear industry) in reaching harmonization of the requirements for, and the education and training of, RPEs and RPOs within Europe, and will stimulate building competence and career development in radiation protection to meet the demands of the future.

First results

- *Develop the European reference standards for RPE and RPO training and based on that develop training scheme (ERPTS)*
  - Done for RPE; RPO in progress
  - Based on ENETRAP training scheme: modular, common basis and optional modules depending on type of application
- *Organise pilot sessions of specific modules of the ERPTS and monitor the effectiveness according to a developed system*
- *Develop some course material examples (including e-learning)*

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Course schedule pilot sessions

Common Basis

Module 1: Basis
KIT Karlsruhe, Germany
14-18/03/2011

Module 2: Foundation 1
KIT Karlsruhe, Germany
21-25/03/2011

Module 3: Foundation 2
(Occupational)
KIT Karlsruhe, Germany
28-30/03/2011

Optional Modules

Module 4: NPP and Research Reactors
KIT Karlsruhe, Germany
04-08/04/2011

Module 5: Waste Management
(June 2008)

Module 6: Unsealed Sources, Research and Non-Nuclear
KIT Karlsruhe, Germany
30/03-01/04/2011

Module 7: Medical Domain
ITN Lisbon, Portugal
not yet defined

Module 8: NORM
NRG Petten, Netherland
23-26/05/2011
HPA, UK - April 2011?

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- For each course module, a “course description form” is/will be made, taking into account “learning objectives”.
  - What are they?
    - Learning outcomes specify what learners’ new behaviours will be after a learning experience
    - They state the knowledge, skills, and attitudes that the learner will gain through training
    - Using an action verb (Bloom taxonomy) and describe something observable or measurable
  - Why are they important?
    - Tool for learning assessment
    - Clearly communicate expectations to learners
    - Clearly communicate graduates’ skills to prospective employers
    - Guide and organize the instructor and the learner

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- During the courses videos will be made to be used for web-based learning
- → “cyber-book”, next to “traditional” handbook for 1 module (in English)

First results (cont'd)

- *Develop and apply a mechanism for the evaluation of training material, courses (and providers)*
  - Started, but we aim to re-evaluate first results, incorporating ECVET approach
  - ? HOW ? : answers from this workshop ? (discussion group 2)
- *Establish a recognised and sustainable "quality label" for training events*
  - Development of methodology, implement & sustained via EUTERP
- *Create a database of training events and training providers*
  - Will be published on website ENETRAP and EUTERP

First results (cont'd)

- *Bring together national initiatives to attract early-stage radiation protection researchers on a European level*
  - Finalized, information for early-stage will be made available via website
- *Development of a European passport for CPD in RP*
  - Not started yet
  - Connection to other E&T areas
  - Connection with ECVET?

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Conclusion

- ENETRAP projects:
  - Progress according to plan
  - Useful results
  - Keep strong connection to EUTERP, your input is important!
- This EUTERP Workshop: presentation of intermediate results
- Disseminate results to national RP communities

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Thank you for your attention

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