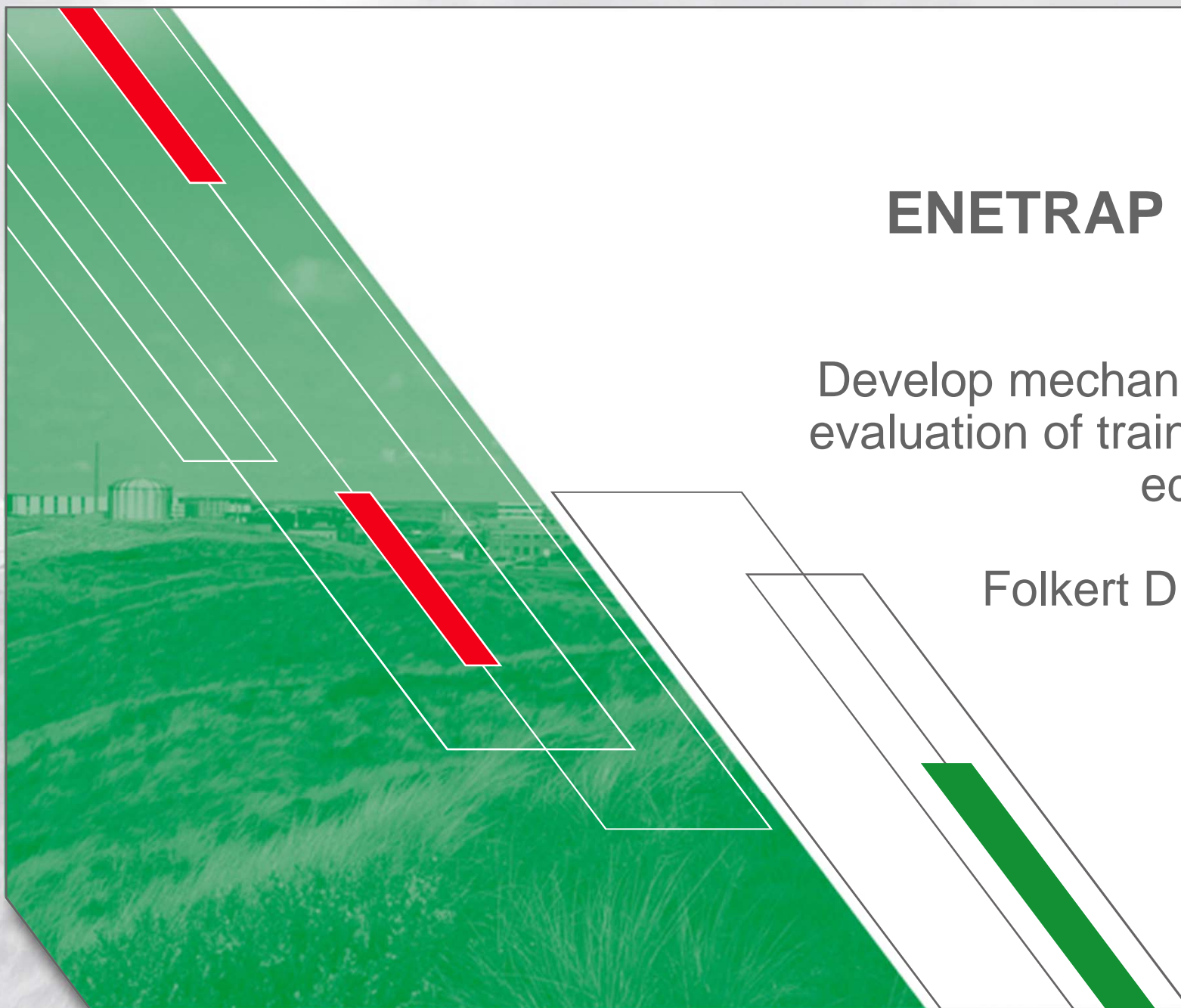




ENETRAP II WP5

Develop mechanisms for
evaluation of training and
education

Folkert Draaisma



Contents



- Definition of RPE and RPO
- WP5 in ENETRAP 2
- Objective and deliverables
- Work programme
- Partners



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RPE and RPO



Radiation Protection Expert (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**

→ occupational and public exposures

Radiation Protection Officer (RPO)

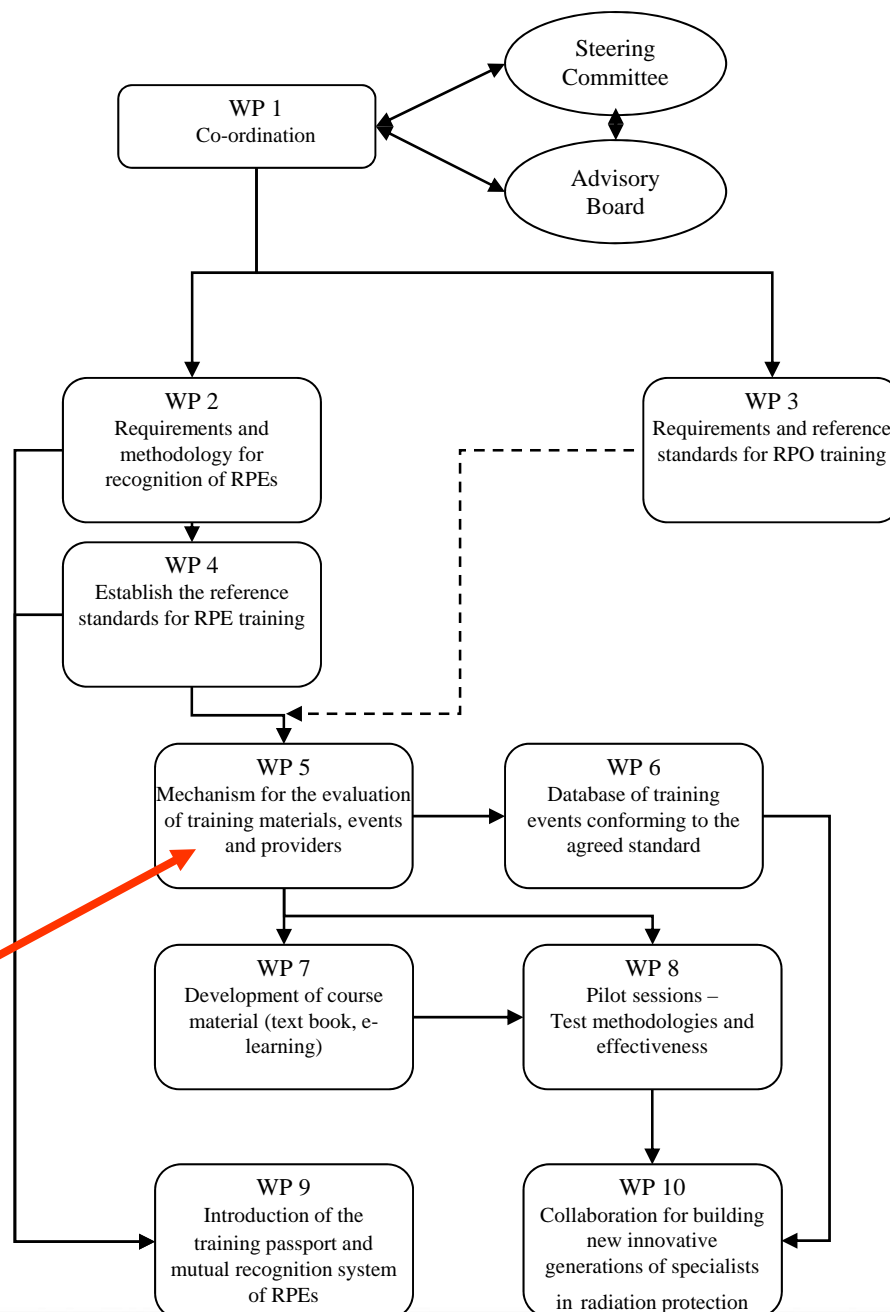
an individual technically competent in radiation protection matters relevant for a given type of practice who is designated by the undertaking to **oversee the implementation of radioaction protection arrangements** of the undertaken

(Recommendation 2nd EUTERP workshop, 2008)



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WP5



WP5 Objective



To develop a mechanisms for the comparison, through a transparent and objective methodology, of

1. Training material
2. Training events
3. Training providers

Which can be used by the national authorities to evaluate their national RP training programme with for compliance with the European RP Training Scheme (ERPTS)

Deliverables

1. Protocol for the comparison of training material
2. Protocol for the comparison of training events
3. Protocol for the comparison of training providers
4. Application of the mechanism to some examples



Working programme



1. Organisation of a kick off meeting and subsequent meetings
2. Defining a detailed working programme for WP5 and subsequent division of tasks
3. Identification of elements that are essential for the comparison of training materials
4. Identification of elements that are essential for the comparison of training courses, incl. exercises, on the job training, work experience, examinations, etc
5. Defining the range of detail for course elements that is sufficient for compliance with the ERPTS
6. Identification of elements that are essential for the comparison and evaluation of training providers
7. Setting up and apply a quality assurance protocol for the comparison of training materials, courses and providers on the basis of the above-mentioned elements
8. Reporting to the Steering Committee



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Identification of elements that are essential for the comparison of training materials



List of subjects

- IAEA syllabus
- EG Basic Syllabus
- European masters degree in RP (ENETRAP)
- Existing national tables of subjects
- ERPTS

Subdivision of subject

- same level as ERPTS



Identification of elements that are essential for the comparison of training courses



Types of training

- Theoretical training courses
- Practical exercises
- E-learning
- On the job training
- Work experience
- Examinations

Comparison elements

- Learning objectives
- Duration
 - Theoretical
 - Practical
 - Class hours vs. Study hours
- Level



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Identification of elements that are essential for the comparison and evaluation of training providers



Quality assurance

- Programme
- Level of teachers
- Evaluation
- Examination regulations
- Demands from stakeholders

- E.g. ISO 17024 or only different subjects

Evaluators

- National regulators for national quality assurance
- EUTERP for European quality assurance



Setting up and apply a quality assurance protocol



Items needed

- ERPTS
- Comparison protocol training material
- Comparison protocol training events
- Comparison protocol training providers

Tested on

- National recognition systems
- EMRP
- National courses



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Grades at which subjects are covered in training material



<u>grade</u>	<u>covered</u>	<u>goal</u>
0	not covered	-
1	global, quantitative	familiar with the subject
2	important subjects covered, quantitative	to be able to work with the subject
3	Detailed, quantitative	very familiar with the subject and able to work with it



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Radiation Protection training scheme



General physical and chemical subjects

- Composition of matter
- Ionisation, excitation
- Nuclide Chart

Radioactivity

- Proton - neutron ratio
- Radioactive decay, half-life
- Decay formula and λ -constant
- Mother - daughter relation
- Specific activity
- α -, β -, γ -decay, electron capture
- X-rays, Auger electrons
- Decay schemes
- Particle- and energy fluence and density



Comparison of training material



level of competence

book A

book B

3 (RPE small
institutes)

2 (RPE large
institutes)

3

3

3

3

0

0

1

1

1

0

1

1

1

2

2

2

2

2

2

3

1

1

1

2

2

2

1

2

3

3

3

3



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2nd approach - relatively



- Rating the level of conformity with reference schemes
- Makes the system ECVET 'ready'
- Beside 'knowledge' add 'competence'



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WP 5 partners



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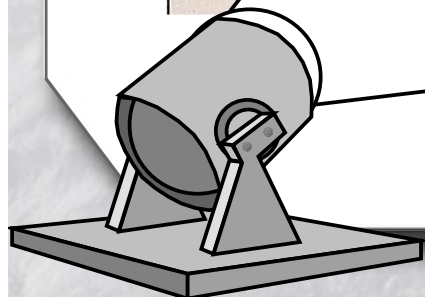
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***Thank you
for your
attention!***




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